

# THE CERBIOS PLAYBOOK



~ GAIN KNOWLEDGE. BECOME A PACK LEADER. UNLEASH THE DOG. ~



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## <=== AV Check ===>

### ===> AV Check Enabled <===



Cerbios.ini



Cerbios Tool



AVCheck = **True**

AV Check:



Your XBox console will not boot if there is no video cable connected to the AV port and the LED on your front panel will start to flash orange/amber to signal you that there is no cable connected.  
> Default Value <

### ===> AV Check Disabled <===



Cerbios.ini



Cerbios Tool



AVCheck = **False**

AV Check:



Your XBox console will boot even when there is no video cable connected to the AV port.

## <=== Load Config From Harddrive ===>

### ===> Load Config From Harddrive Enabled <===



Cerbios.ini



Cerbios Tool



This setting is not available in the .ini

Load Config From Harddrive:



Cerbios will search for the Cerbios.ini file at the root of your C partition ( C:\cerbios.ini ).  
These settings will take priority over any settings configured within the bios.  
If the cerbios.ini is missing, cerbios will use the hardcoded bios values.  
> Default value <

### ===> Load Config From Harddrive Disabled <===



Cerbios.ini



Cerbios Tool



This setting is not available in the .ini

Load Config From Harddrive:





Cerbios will disable loading the Cerbios.ini from the HDD and use the hardcoded settings in Bios.  
Any cerbios.ini file will be entirely ignored.



## <=== Drive Setup ===>

===> Drive Setup HDD & DVD <===				⋮
Cerbios.ini	✓	Cerbios Tool	✓	
DriveSetup = 0		<div>Drive Setup: HDD &amp; DVD ▼</div>		
Will check if the dvd drive is attached on startup, will fail to boot if it is missing.				
===> Drive Setup HDD & No DVD (Legacy Mode) <===				⋮
Cerbios.ini	✓	Cerbios Tool	✓	
DriveSetup = 1		<div>Drive Setup: HDD &amp; No DVD (Legacy Mode) ▼</div>		
Console will work with or without dvd drive, when used dvd drive functions as normal. > Default Value <				
===> Drive Setup HDD & No DVD (Modern Mode) <===				⋮
Cerbios.ini	✓	Cerbios Tool	✓	
DriveSetup = 2		<div>Drive Setup: HDD &amp; No DVD (Modern Mode) ▼</div>		
Complete Removal of DVD Code, Drive cannot be used even if plugged in.				
===> Drive Setup Dual HDD <===				⋮
Cerbios.ini	✓	Cerbios Tool	✓	
DriveSetup = 3		<div>Drive Setup: Dual HDD ▼</div>		
A second harddrive occupies the DVD drives IDE connector.				
<p>By the time of writing this, this feature only works with 2 dashboards. One is LithiumX-DualHDD dashboard which is a spcial version of the known LithiumX dashboard made by <a href="#">Ryzee119</a> The other one is the UiX-Lite dashboard made by <a href="#">Team UiX</a> That being said, we hopefully will see a XBMC4Gamers/XBMC-Emustation version in the future which will also support this Dual-HDD feature.</p>				


## <=== Debug ===>

===> Debug Enabled <===				⋮
Cerbios.ini	✓	Cerbios Tool	✓	
Debug = <b>True</b>		<div>Debug: </div>		
Loads XDK Launcher/XBDM if it exists.				
Leave this setting set to FALSE except for you know 100% what you do!				
===> Debug Disabled <===				⋮
Cerbios.ini	✓	Cerbios Tool	✓	
Debug = <b>False</b>		<div>Debug: </div>		
> Default Value <				

## <=== Force 480p ===>

===> Force 480p Enabled <===				⋮
Cerbios.ini	✓	Cerbios Tool	✓	
Force480p = True		<div>Force 480p: </div>		
Forces AV Modes That Would Normally Be Rendered At 480i to 480p. Requires 480p Set In MS Dash And Component Cables				
===> Force 480p Disabled <===				⋮
Cerbios.ini	✓	Cerbios Tool	✓	
Force480p = False		<div>Force 480p: </div>		
> Default Value <				

## <=== Force VGA ===>

===> Force VGA Enabled <===				⋮
Cerbios.ini	✓	Cerbios Tool	✓	
ForceVGA = True		<div>Force VGA: </div>		
Forces VGA modes for Component or Custom VGA Cables using „Mode 2+3“. This enables Force480p by default & sets the console to NTSC. For VGA Displays Only!				

===> Force VGA Disabled <===				⋮
Cerbios.ini	✓	Cerbios Tool	✓	
ForceVGA = <b>False</b>		<div>Force VGA:</div> <div><input type="checkbox"/></div>		
> Default Value <				

## <=== Boot Animation / Intro Video ===>

===> Boot Animation Default <===				⋮
Cerbios.ini	✓	Cerbios Tool		✓
BootAnimPath = C:\BootAnims\Xbox\bootanim.xbe		<div>Boot Anim Path:</div> <div>C:\BootAnims\XBOX\bootanim.xbe</div>		
> Default Value <				

===> Boot Animation Custom <===				⋮
Cerbios.ini	✓	Cerbios Tool		✓
BootAnimPath = C:\BootAnims\XMV Player\bootanim.xbe		<div>Boot Anim Path:</div> <div>C:\BootAnims\XMV Player\bootanim.xbe</div>		
Go to the path shown above and replace the bootanim.xmv in that folder with your own file named bootanim.xmv				

## <=== IGR ===>

### ===> IGR Master Port <===



Cerbios.ini



Cerbios Tool



This setting is not available in the .ini

IGR Master Port:

All



All

1

2

3

4

Dictates which controller ports can be used for keybinds.  
You can either select all, which allows all controllers/ports to perform IGR actions (see options below) or you select just one of the ports.

### ===> IGR Dash <===



Cerbios.ini



Cerbios Tool



This setting is not available in the .ini

IGR Dash:

67CD

This will resets back to the dashboard, If an ISO is mounted then it will keep mounted.

### ===> IGR Game <===



Cerbios.ini



Cerbios Tool



This setting is not available in the .ini

IGR Game:

467C

This resets the current loaded game.

### ===> IGR Full <===



Cerbios.ini



Cerbios Tool



This setting is not available in the .ini

IGR Full:

467D

This will reset the Xbox.

===> IGR Shutdown <===			⋮
Cerbios.ini	✗	Cerbios Tool	✓
This setting is not available in the .ini		<div>IGR Shutdown:</div> <div>678D</div>	
This will shutdown the Xbox.			
===> IGR Cycle <===			⋮
Cerbios.ini	✗	Cerbios Tool	✓
This setting is not available in the .ini		<div>IGR Cycle:</div> <div>4678</div>	
This will powercycle the Xbox.			
===> IGR DIY Keybinds <===			⋮
Controller Button		Assigned Number / Letter	
A		0	
B		1	
X		2	
Y		3	
Black		4	
White		5	
Left Trigger		6	
Right Trigger		7	
D-Pad Up		8	
D-Pad Down		9	
D-Pad Left		A	
D-Pad Right		B	
Start		C	
Back		D	
Left Thumbstick		E	
Right Thumbstick		F	
Use this to ceate your very own button combos.			
> These settings are available in the Cerbios Tool only <			



## <=== LED Ring Color ===>

### ===> LED Solid Green <===



Cerbios.ini



Cerbios Tool



FrontLed = **GGGG**

Front LED:

GGGG



The LED is solid green.  
> Default Value <

### ===> LED Solid Orange <===



Cerbios.ini



Cerbios Tool



FrontLed = **AAAA**

Front LED:

AAAA



The LED is solid orange.

### ===> LED Solid Red <===



Cerbios.ini



Cerbios Tool



FrontLed = **RRRR**

Front LED:

RRRR



The LED is solid red.

====> LED Solid Off <====

Cerbios.ini	✓	Cerbios Tool	✓
FrontLed = 0000		Front LED: 0000	

The LED is off.

====> LED Blinking <====

Cerbios.ini	✓	Cerbios Tool	✓
FrontLed = GARO		Front LED: GARO	

This one is known as rainbow-colors pattern.  
If you fancy to have something different and you like blinking lights, you can give this one a try.  
You can mix the colors how ever you like so take the above one just as an example.

## <=== Fan Speed ===>

### ===> Fan Speed Auto <===



Cerbios.ini



Cerbios Tool



FanSpeed = 0

Fan Speed:

Auto



Fan Speed 0 = Default (Auto)  
> Default Value <

It's recommended to up this to at least 50+ if using an aftermarket fan!

### ===> Fan Speed Manual <===



Cerbios.ini



Cerbios Tool



FanSpeed = 10  
FanSpeed = 20  
FanSpeed = 30  
FanSpeed = 40  
FanSpeed = 50  
FanSpeed = 60  
FanSpeed = 70  
FanSpeed = 80  
FanSpeed = 90  
FanSpeed = 100

Fan Speed:

Auto



Auto

10

20

30

40

50

60

70

80

90

100

10-100 = Manual Control  
Supports increments of 2's in the ini.

It's recommended to up this to at least 50+ if using an aftermarket fan!

## <=== Rtc Enable ===>

### ===> RTC Enable - Enabled <===



Cerbios.ini



Cerbios Tool



RtcEnable = **True**

RTC Enable:



Enables Automatic Time Sync With Optional RTC Hardware Connected to SMBus.

Real time clock addon for Xbox: <https://github.com/Andr-Zero/X-RTC>

### ===> RTC Enable - Disabled <===



Cerbios.ini



Cerbios Tool



RtcEnable = **False**

RTC Enable:



> Default value <

## <=== Block Dash Update ===>

### ===> Block Dash Update Enabled <===



Cerbios.ini



Cerbios Tool



BlockDashUpdate = **True**

Block Dashupdate:



Blocks Games From Updating The Original Xbox Dashboard.  
Useful option is basicly made for softmods.  
So if you have a hardmodded Xbox, let this option turned off.

### ===> Block Dash Update Disabled <===



Cerbios.ini



Cerbios Tool



BlockDashUpdate = **False**

Block Dashupdate:



> Default Value <

## <=== UDMA Mode Master ===>

### ===> UDMA 2 Master <===



Cerbios.ini



Cerbios Tool



UdmaModeMaster = 2

UDMA Mode Master:

UDMA 2 (Default / Stock)



Set Master Drive UDMA mode 2 on cold-boot.

UDMA 2 (Mode2) = 33,3MB/s (UDMA33).

> Default Value <

### ===> UDMA 3 Master <===



Cerbios.ini



Cerbios Tool



UdmaModeMaster = 3

UDMA Mode Master:

UDMA 3 (Ultra DMA 80-Conductor)



UDMA 3 (Mode3) = 44,4MB/s (UDMA44).

### ===> UDMA 4 Master <===



Cerbios.ini



Cerbios Tool



UdmaModeMaster = 4

UDMA Mode Master:

UDMA 4 (Ultra DMA 80-Conductor)



UDMA 4 (Mode4) = 66,7MB/s (UDMA66)

### ===> UDMA 5 Master <===



Cerbios.ini



Cerbios Tool



UdmaModeMaster = 5

UDMA Mode Master:

UDMA 5 (Ultra DMA 80-Conductor)



UDMA 5 (Mode5) = 100,0MB/s (UDMA100)



===> UDMA 6 Master <===				⋮
Cerbios.ini	✓	Cerbios Tool		✓
UdmaModeMaster = 6		<div>UDMA Mode Master: UDMA 6 (Experimental) ▼</div>		
UDMA 6 (Mode6) = 133,3MB/s (UDMA133) > EXPERIMENTAL <				
===> UDMA Auto StarTech Master <===				⋮
Cerbios.ini	✓	Cerbios Tool		✓
UdmaModeMaster = 0		<div>UDMA Mode Master: Auto (Startech Adapter) ▼</div>		
> Max UDMA mode is Mode 5 if set to Auto 0 <				
===> UDMA Auto Generic Master <===				⋮
Cerbios.ini	✓	Cerbios Tool		✓
UdmaModeMaster = 1		<div>UDMA Mode Master: Auto (Generic Adapter) ▼</div>		
> Max UDMA mode is Mode 4 if set to Auto 1 <				

## <=== UDMA Mode Slave ===>

===> UDMA 2 Slave <===				⋮
Cerbios.ini	✓	Cerbios Tool	✓	
UdmaModeSlave = 2		UDMA Mode Slave: UDMA 2 (Default / Stock) ▼		
Set Slave Drive UDMA mode on cold-boot (if enabled by DriveSetup = 3). UDMA 2 (Mode2) = 33,3MB/s (UDMA33). > Default value <				
===> UDMA 3 Slave <===				⋮
Cerbios.ini	✓	Cerbios Tool	✓	
UdmaModeSlave = 3		UDMA Mode Slave: UDMA 3 (Ultra DMA 80-Conductor) ▼		
UDMA 3 (Mode3) = 44,4MB/s (UDMA44).				
===> UDMA 4 Slave <===				⋮
Cerbios.ini	✓	Cerbios Tool	✓	
UdmaModeSlave = 4		UDMA Mode Slave: UDMA 4 (Ultra DMA 80-Conductor) ▼		
UDMA 4 (Mode4) = 66,7MB/s (UDMA66)				
===> UDMA 5 Slave <===				⋮
Cerbios.ini	✓	Cerbios Tool	✓	
UdmaModeSlave = 5		UDMA Mode Slave: UDMA 5 (Ultra DMA 80-Conductor) ▼		
UDMA 5 (Mode5) = 100,0MB/s (UDMA100)				

===> UDMA 6 Slave <===				⋮
Cerbios.ini	✓	Cerbios Tool		✓
UdmaModeSlave = 6		<div>UDMA Mode Slave:</div> <div>UDMA 6 (Experimental) ▼</div>		
UDMA 6 (Mode6) = 133,3MB/s (UDMA133) > EXPERIMENTAL <				

===> UDMA Auto StarTech Slave <===				⋮
Cerbios.ini	✓	Cerbios Tool		✓
UdmaModeSlave = 0		<div>UDMA Mode Slave:</div> <div>Auto (Startech Adapter) ▼</div>		
> Max UDMA mode is Mode 5 if set to Auto 0 <				

===> UDMA Auto Generic Slave <===				⋮
Cerbios.ini	✓	Cerbios Tool		✓
UdmaModeSlave = 1		<div>UDMA Mode Slave:</div> <div>Auto (Generic Adapter) ▼</div>		
> Max UDMA mode is Mode 4 if set to Auto 1 <				

## <=== CD Boot Paths (Modern)===>

===> Cd Path 1 <===				⋮
Cerbios.ini	✓	Cerbios Tool	✓	
CdPath1 = D:\Evolutionx\evoxdash.xbe		<div>Cd Path 1:</div> <div>D:\Evolutionx\evoxdash.xbe</div>		
===> Cd Path 2 <===				⋮
Cerbios.ini	✓	Cerbios Tool	✓	
CdPath2 = D:\Avalaunch\avalaunch.xbe		<div>Cd Path 2:</div> <div>D:\Avalaunch\avalaunch.xbe</div>		
===> Cd Path 3 <===				⋮
Cerbios.ini	✓	Cerbios Tool	✓	
CdPath3 = D:\UnleashX\unleashx.xbe		<div>Cd Path 3:</div> <div>D:\UnleashX\unleashx.xbe</div>		

### ! IMPORTANT !

CD Paths always falls back to: D:\default.xbe  
The values shown above are the default values.  
The „Modern“ values are different from the „Legacy“ values.

If you are on a cerbios prior to V2.3.0 beta, then you can't use modern paths.

For example:  
You can't use: CdPath1 = \Device\CdRom0\  
You HAVE to use: CdPath1 = D:\

## <=== CD Boot Paths (Legacy) ===>

===> Cd Path 1 <===				⋮
Cerbios.ini	✓	Cerbios Tool	✓	
CdPath1 = \Device\CdRom0\Evolutionx\evoxdash.xbe		<div>Cd Path 1:</div> <div>\Device\CdRom0\Evolutionx\evoxdash.xbe</div>		
===> Cd Path 2 <===				⋮
Cerbios.ini	✓	Cerbios Tool	✓	
CdPath2 = \Device\CdRom0\Avalaunch\avalaunch.xbe		<div>Cd Path 2:</div> <div>\Device\CdRom0\Avalaunch\avalaunch.xbe</div>		
===> Cd Path 3 <===				⋮
Cerbios.ini	✓	Cerbios Tool	✓	
CdPath3 = \Device\CdRom0\UnleashX\unleashx.xbe		<div>Cd Path 3:</div> <div>\Device\CdRom0\UnleashX\unleashx.xbe</div>		

### ! IMPORTANT !

CD paths always falls back to: \Device\CdRom0\default.xbe  
The values shown above are the default values.  
The „Legacy“ values are different from the „Modern“ values.

If you are on a Cerbios prior to V2.3.0 beta, then you can't use modern paths.

For example:  
You can't use: CdPath1 = D:\  
You HAVE to use: CdPath1 = \Device\CdRom0\



## <=== HDD Boot Paths (Modern) ===>

### ===> Dash Path 1 <===



Cerbios.ini



Cerbios Tool



DashPath1 = C:\evoxdash.xbe

Dash Path 1:

C:\evoxdash.xbe

### ===> Dash Path 2 <===



Cerbios.ini



Cerbios Tool



DashPath2 = C:\avalaunch.xbe

Dash Path 2:

C:\avalaunch.xbe

### ===> Dash Path 3 <===



Cerbios.ini



Cerbios Tool



DashPath3 = C:\nexgen.xbe

Dash Path 3:

C:\nexgen.xbe

## ! IMPORTANT !

Dash Paths always falls back to: C:\xboxdash.xbe  
The values shown above are the default values.  
The „Modern“ values are different from the „Legacy“ values.

If you are on a cerbios prior to V2.3.0 beta, then you can't use modern paths.

For example:

You can't use: DashPath1 = \Device\Harddisk0\Partition2\  
You HAVE to use: DashPath1 = C:\

## <=== HDD Boot Paths (Legacy) ===>

===> Dash Path 1 <===				⋮	
Cerbios.ini		✓	Cerbios Tool		✓
DashPath1 = \Device\Harddisk0\Partition2\evoxdash.xbe			<div>Dash Path 1: \\Device\\Harddisk0\\Partition2\\evoxdash.xbe</div>		

===> Dash Path 2 <===				⋮	
Cerbios.ini		✓	Cerbios Tool		✓
DashPath2 = \Device\Harddisk0\Partition2\avalaunch.xbe			<div>Dash Path 2: \\Device\\Harddisk0\\Partition2\\avalaunch.xbe</div>		

===> Dash Path 3 <===				⋮	
Cerbios.ini		✓	Cerbios Tool		✓
DashPath3 = \Device\Harddisk0\Partition2\nexgen.xbe			<div>Dash Path 3: \\Device\\Harddisk0\\Partition2\\nexgen.xbe</div>		

### ! IMPORTANT !

Dash Paths always falls back to: \Device\Harddisk0\Partition2\xboxdash.xbe  
 The values shown above are the default values.  
 The „Legacy“ values are different from the „Modern“ values.

If you are on a cerbios prior to V2.3.0 beta, then you can't use modern paths.

For example:  
 You can't use: DashPath1 = C:\  
 You HAVE to use: \Device\Harddisk0\Partition2\

## <=== XBox Drive & Partition Assignment ===>

===> HDD 0 <===				☰
Harddrive	Partition	Partition Letter	Description	
Harddisk0	Partition0	-	Config Area	
Harddisk0	Partition2	C:\	System	
Harddisk0	Partition1	E:\	Data (Dash, Apps ect.)	
Harddisk0	Partition6	F:\	Data (Games, Emus ect.)	
Harddisk0	Partition7	G:\	Data (Games, Emus ect.)	
Harddisk0	Partition8	Q:\	-	
Harddisk0	Partition3	X:\	Game/Apps Cache	
Harddisk0	Partition4	Y:\	Game/Apps Cache	
Harddisk0	Partition5	Z:\	Game/Apps Cache	
The Partitions X:\, Y:\ and Z:\ are cache partitions. You should NEVER touch those. The Q:\ partition is also a partition you SHOULDN'T touch in case there is any. The „Partition 0“ is not accesable by the user and you shouldn't care about it.				

===> HDD 1 <===			☰
Harddrive	Harddrive Partition	Harddrive Partition Letter	
Harddisk1	-	-	
This is only of interest if you have a DUAL-HDD setup with the optical drive removed!			

===> MU/MC/USB Stick <===	☰
In case you have 8 of them and they are all connectet at the same time, they will be mountet as follows: I:\ , J:\ , K:\ , L:\ , M:\ , N:\ , O:\ and P:\ . But a more real world scenario is, that you have 1 MC/MU/USB connectet to your first controller and then it's mountet either as I:\ or J:\ depending on in which slot you have it connectet to. Another option is you have a USB stick connectet to the controller port 2 then it's usualy mountet as K:\ or M:\ if you has connectet it to controller port 3.	

===> DVD <===	☰
CdRom0	D:\

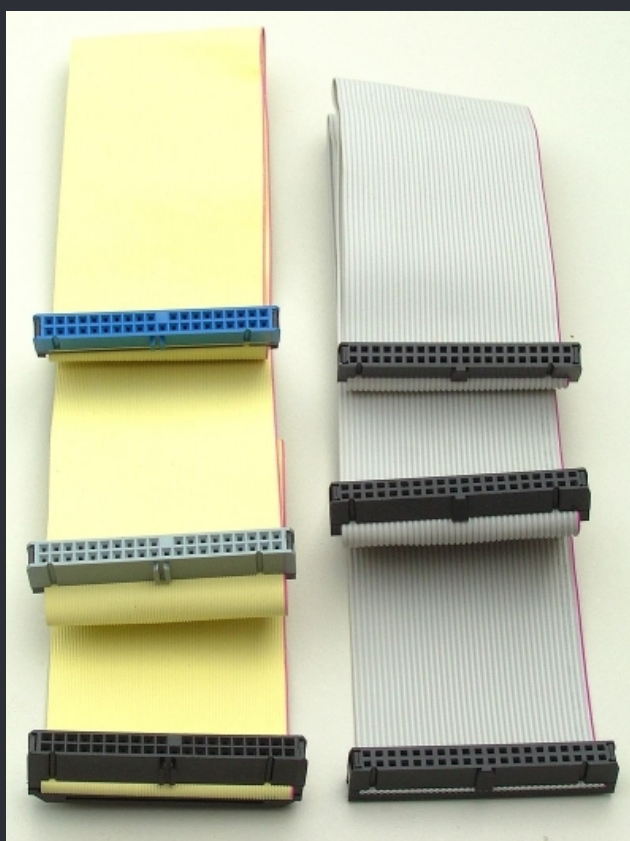
## <=== Cerbios HDD Cluster Size ===>

Cluster Size	HDD Size	☰
• 16 KB	• Up to 256 GB	
• 32 KB	• 256 GB up to 512 GB	
• 64 KB	• 512 GB up to 1024 GB (1 TB)	
• 128 KB	• 1024 GB (1 TB) up to 2048 GB (2 TB)	
• 256 KB	• 2048 GB (2 TB) up to 4096 GB (4 TB)	
• 512 KB	• 4096 GB (4 TB) up to 8192 GB (8 TB)	
• 1024 KB	• 8192 GB (8 TB) up to 16384 GB (16 TB)	
Please use FatXplorer 3.0 to format HDD's above 2 TB. You can find it here: <a href="https://fatxplorer.eaton-works.com/">https://fatxplorer.eaton-works.com/</a>		

## <=== UDMA Modes Explained ===>

UDMA	Transfer Speed	Description	☰
Mode 2	33.3 MB/s	UDMA33	
Mode 3	44.4 MB/s	UDMA44	
Mode 4	66.7 MB/s	UDMA66	
Mode 5	100.0 MB/s	UDMA100	
Mode 6	133.3 MB/s	UDMA133	

If you plan on using a UDMA mode above „Mode 2“, you will need an 80 conductor IDE cable like the on the left shown in the image below.



80 pin conductor cable on the left and a 40 one to the right.

And don't forget to check out the IDE to SATA Adapter compatibility thread here:  
<https://www.xbox-scene.info/forums/topic/340-ide-to-sata-adapter-compatibility-thread/>

## <=== How to setup a HDD with FatXplorer ===>

### ===> Setup a HDD <===



Before you can setup a new HDD on your PC with FatXplorer you will need couple of things.

- You will need ofc FatXplorer which you can get here : <https://fatxplorer.eaton-works.com>
- A copy of untouched 5960 MS Dash files which you can find [here](#).
- Next is a copy of XBE Shortcut Maker 2.0 which you can get [here](#).
- Finally you need a copy of your Favorit dashboard you like to use. Let me list just a couple of them which you could install: [XBMC4Gamers](#), [UIX-Lite](#), [LithiumX](#), [XBMC-Emustation](#), [UnleashX](#), [XBMC4XBox](#).

When you have everything, install FatXplorer and the needed drives which comes with it.  
You usually will need to reboot your PC after that so, do it.

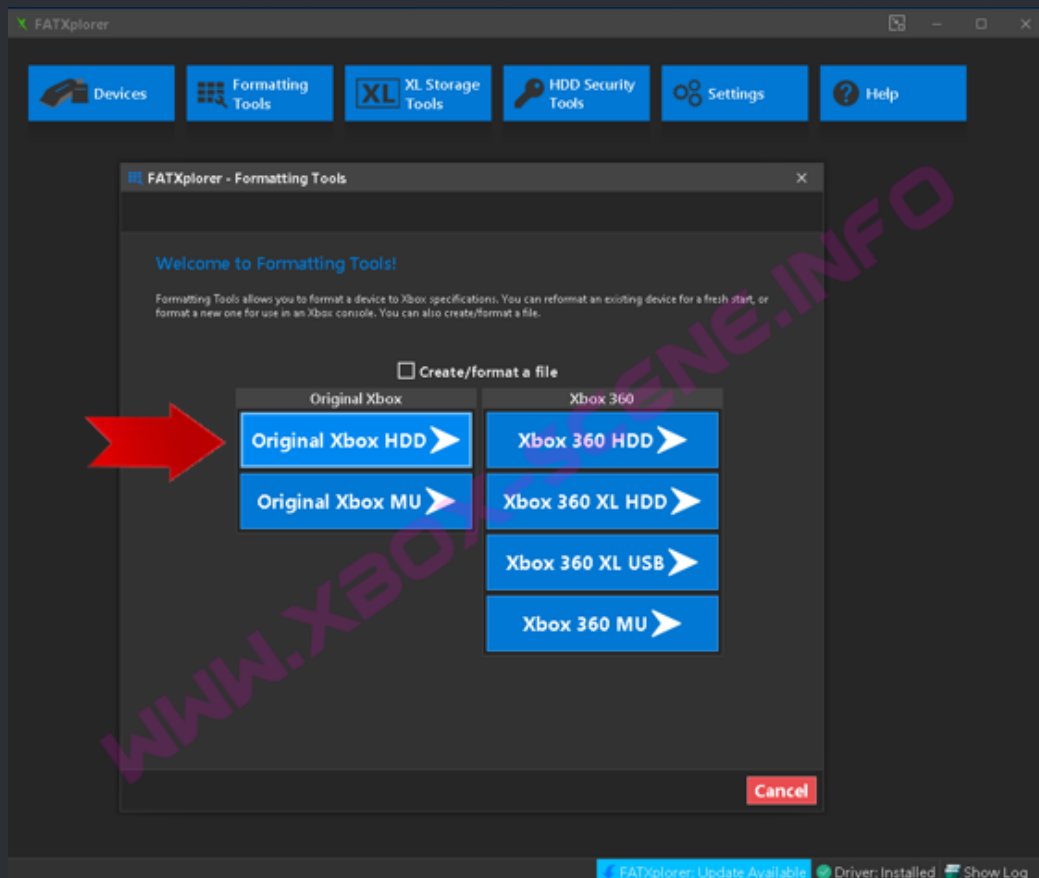
Back in Windows connect the HDD you like to setup to your PC to though either USB or SATA.  
If Windows gives you message about formating the HDD (because it's brand new) you can ignore that and just close that window.

Now it's time to launch FatXplorer. You will then be greetet by the a windows like you see it below.

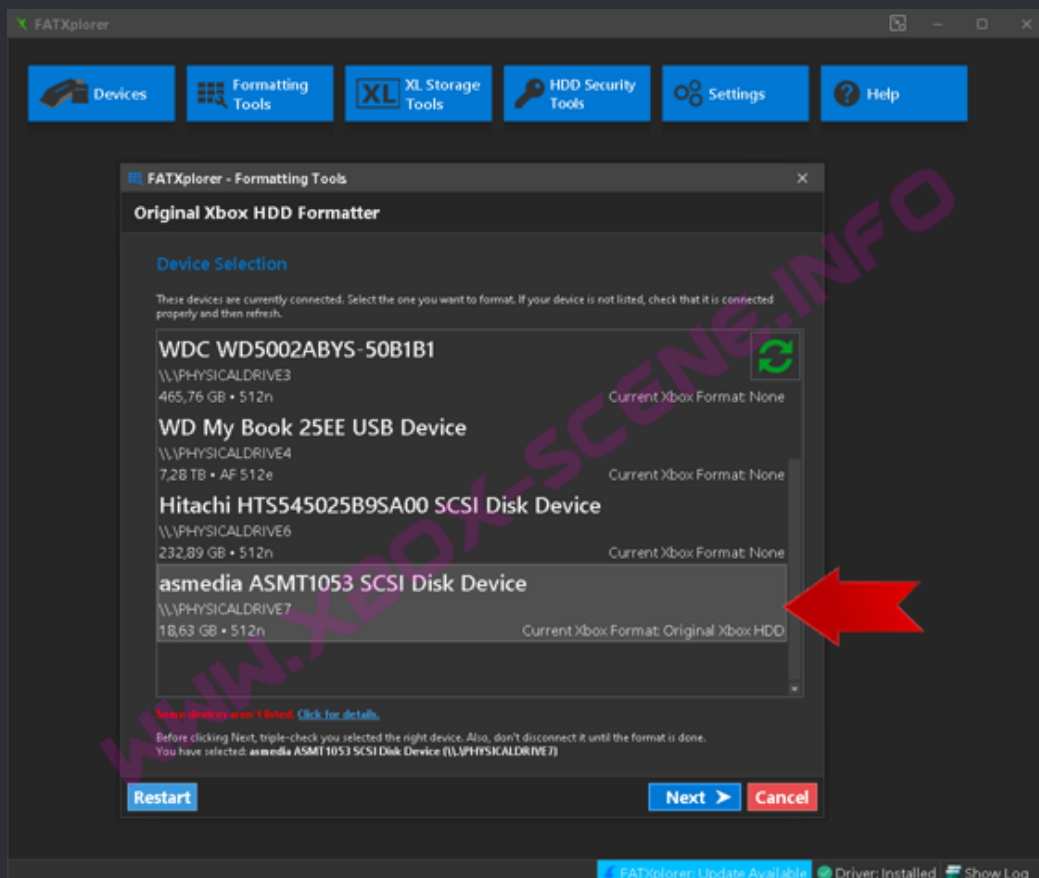
In that window you click on „Formatting Tools“.



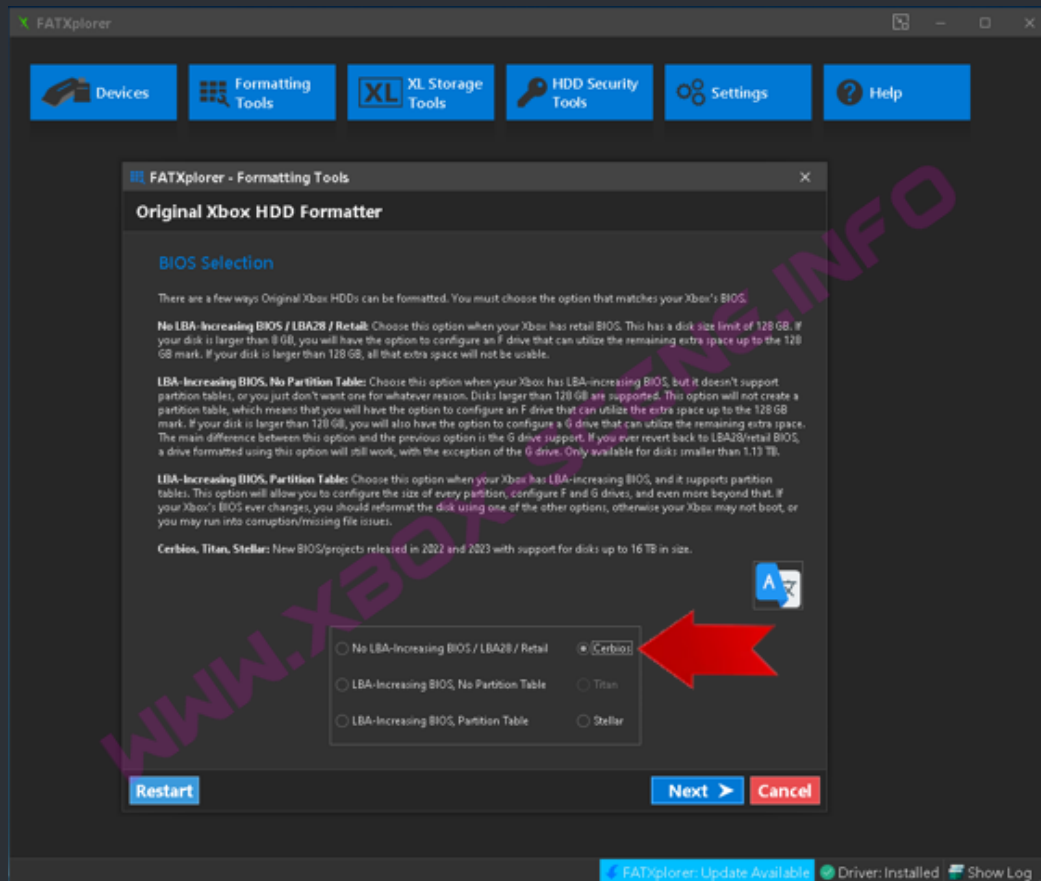
A new box will appear in which you select „Original Xbox HDD“.



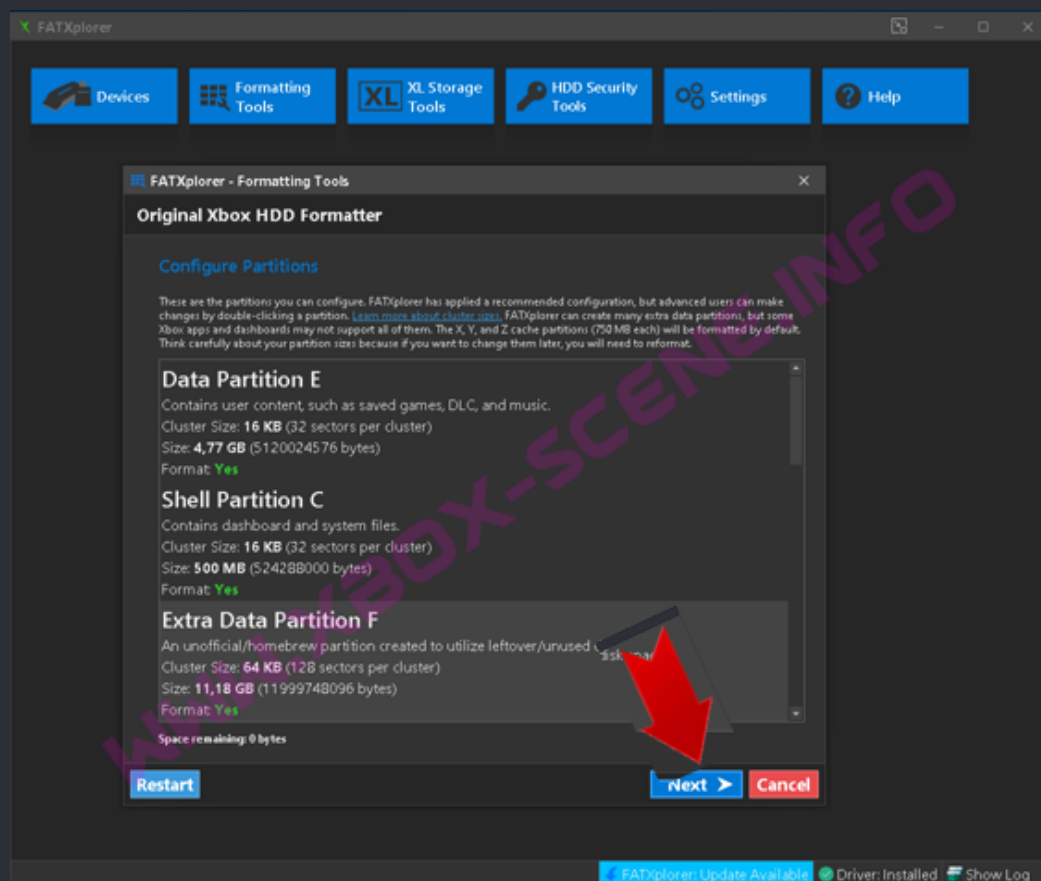
You now will get a list of all HDD's which are connectet to your PC. You now highlight the HDD you like to format and then you click on „Next“.



In the new window you have to select the layout of the HDD. So just select „Cerbios“ and then click „Next“.

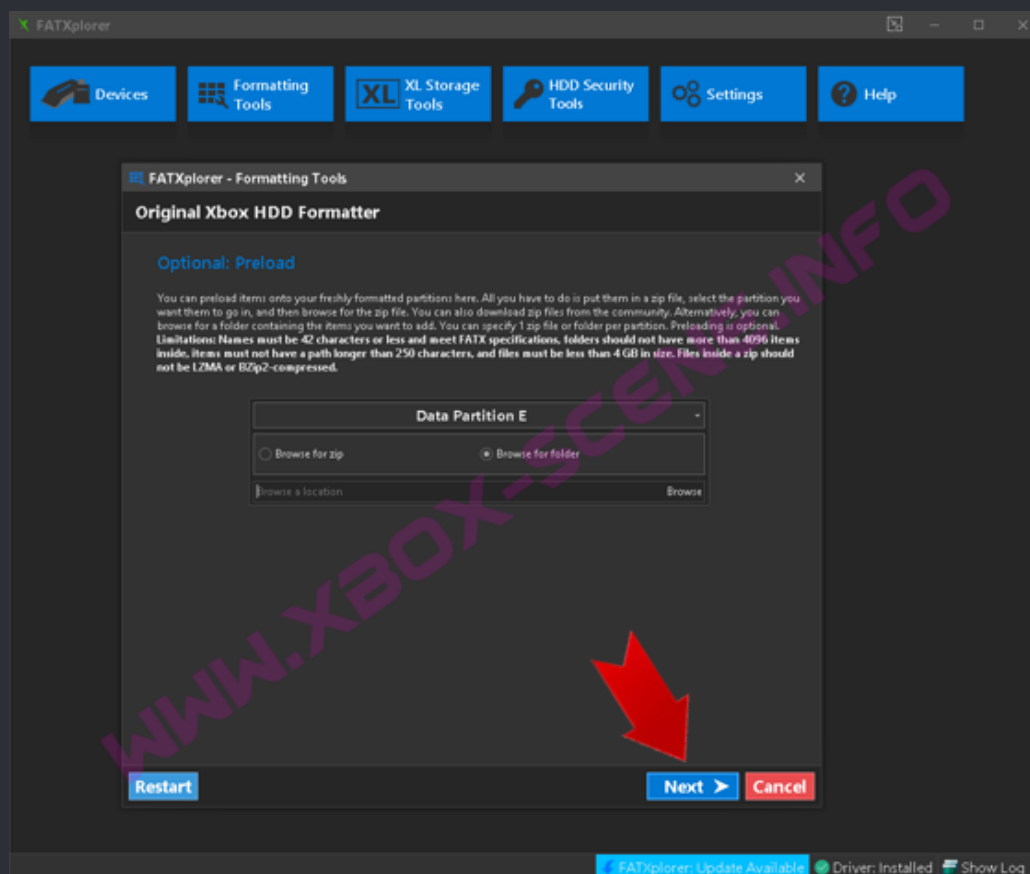


After you have pressed next, you will be presented with an overview about the partitions. Simply click on „Next“ to proceed to the next window.

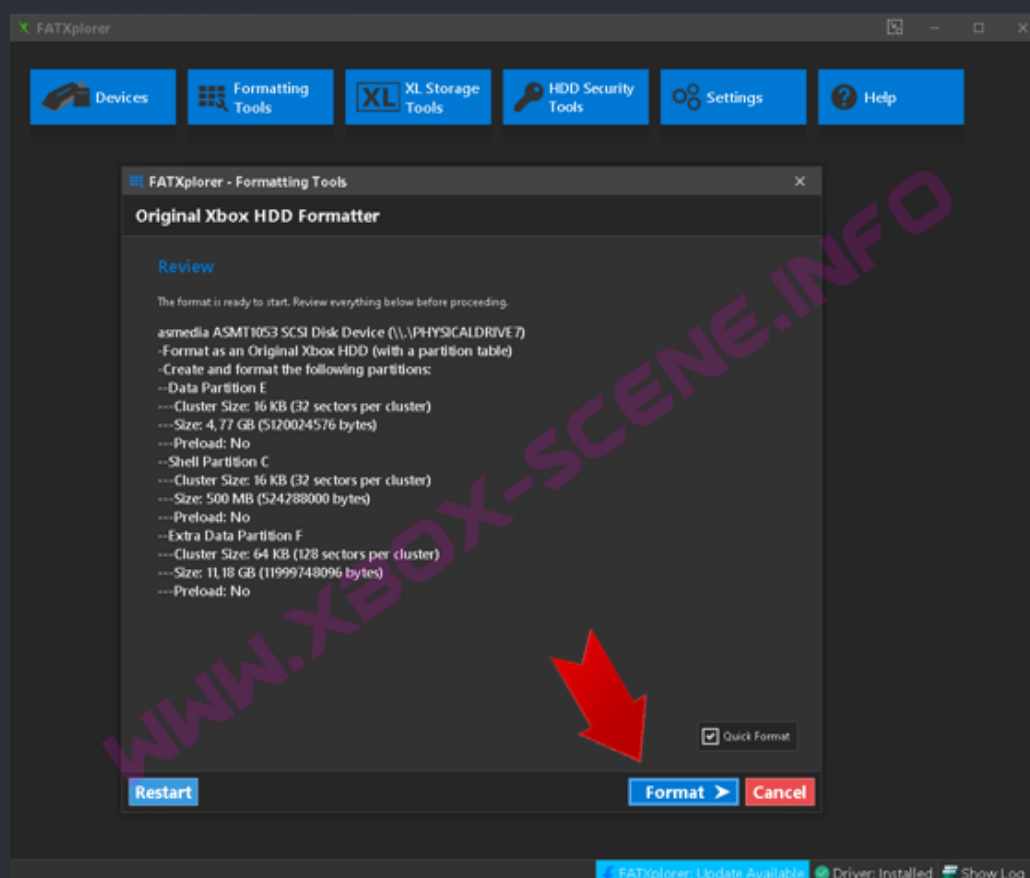




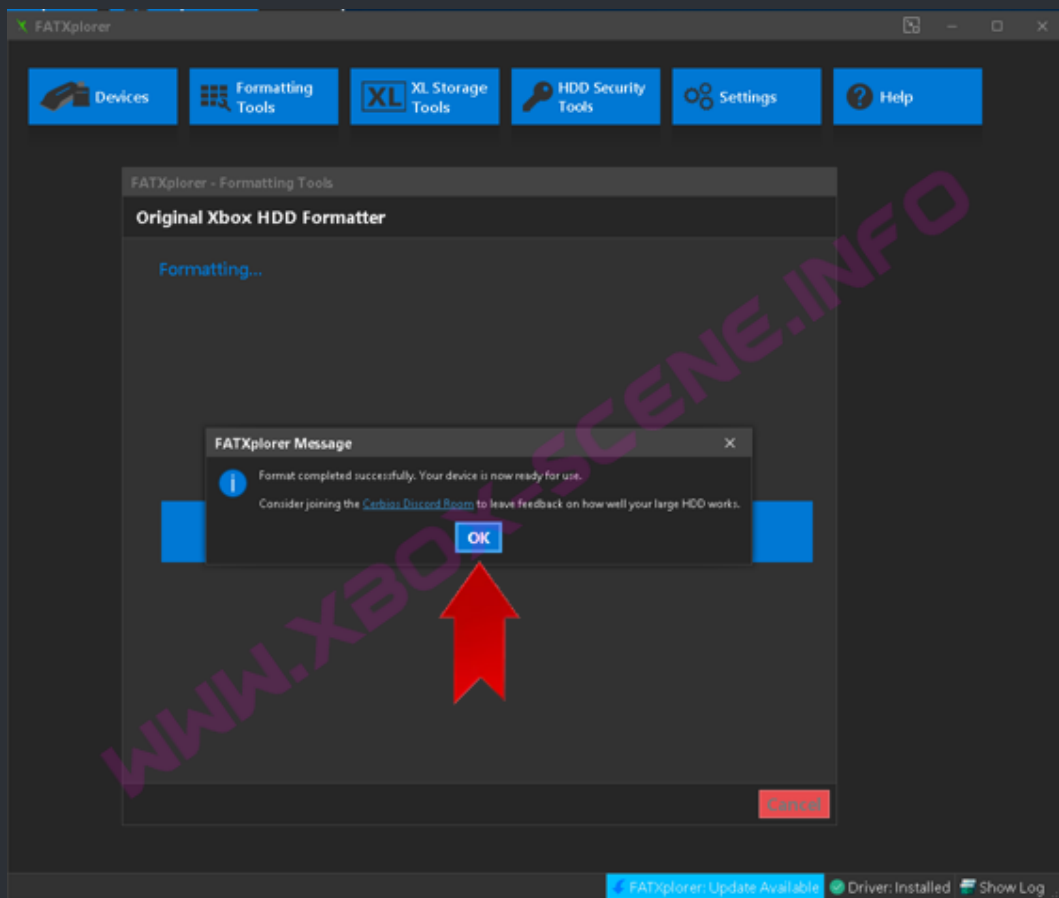
Now you have the option to select a prepared zip file but for simplicity and for the sake of this tutorial, just click on „Next“.



This is the, more or less, last windows which shows you quick recap. If you are fine with everything, press „Format“.



A couple of seconds later FatXplorer will tell you that everything is done.  
You know have a xfat formatet HDD.  
Hit the „OK“ button and move to the next step.



[Go to the next step](#)

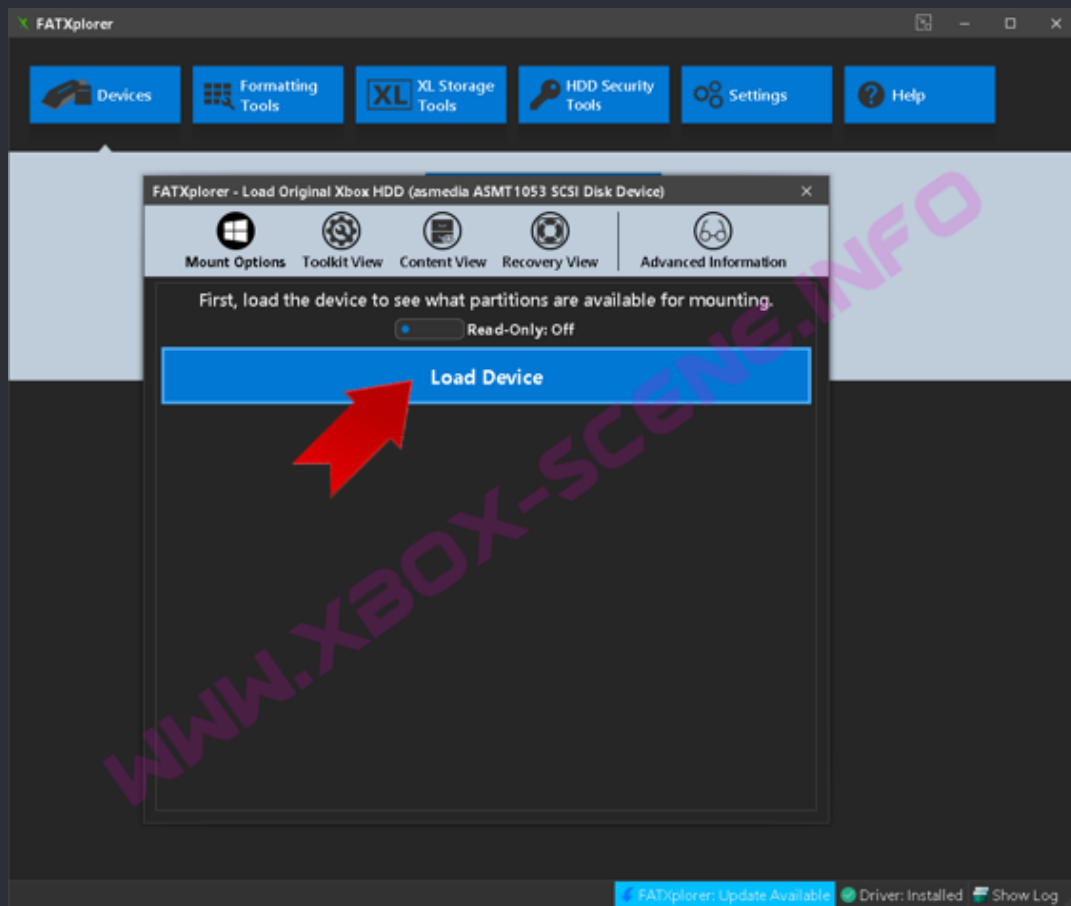
After you have clicked on „OK“ before you will find yourself now back in the main windows of FatXplorer.  
In here you click on „Devices“.



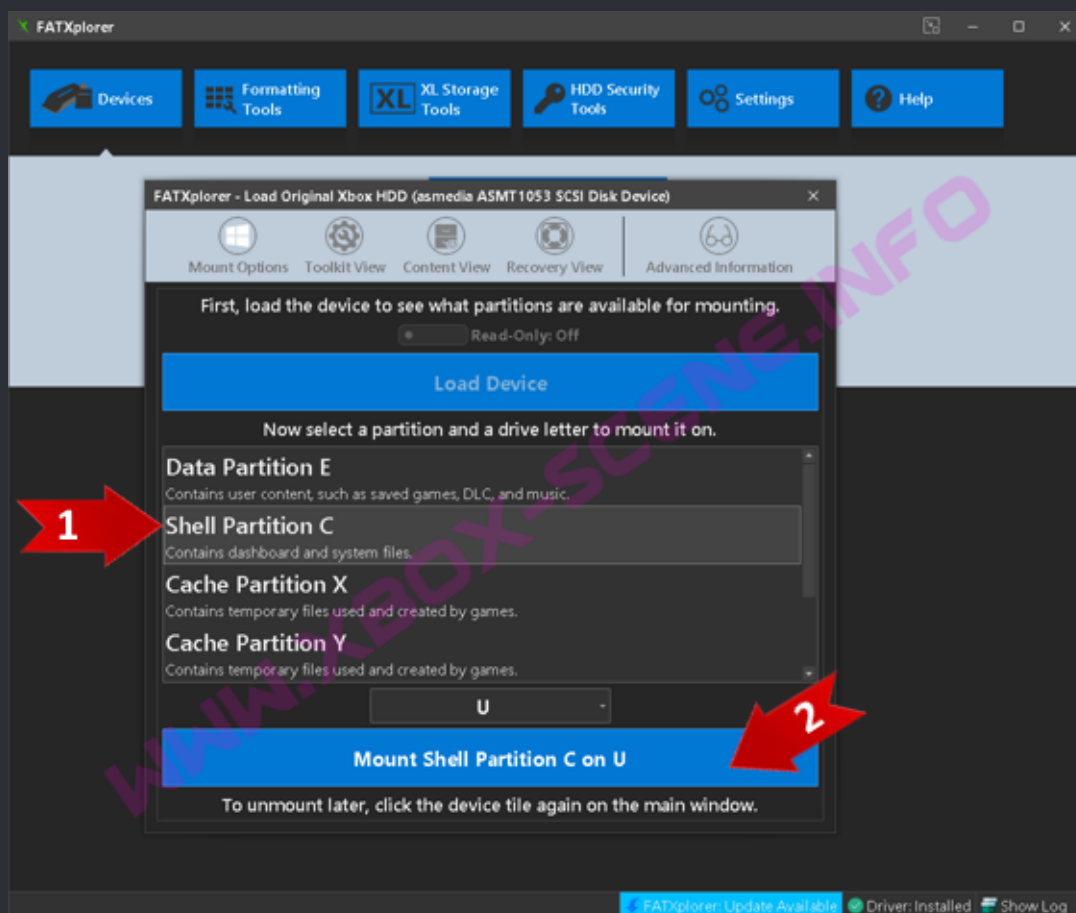
FatXplorer will now show you the HDD you have formatet before so, click on it.



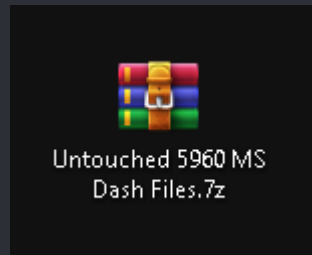
In the next window click on „Load Device“ as you see below.



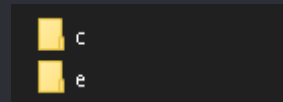
FatXplorer now shows you the partitions of HDD. Highlight the C partition (1) and then click on Mount (2).



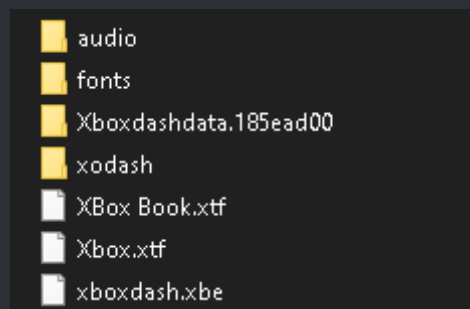
The moment you click on „Mount“, your windows explorer will open up and shows you the still empty drive. Now it's time to unpack the dashboard files you have downloaded before.



When you have unpacked them, you see 2 folders.



Open the C folder in which you then see the files for the C partition

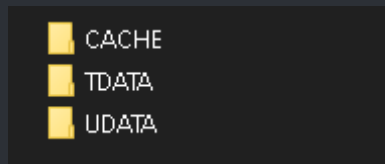


Copy all of the files to your C partition.

When that's done, close both of the explorer windows and unmount the C partition - for now.



Now you repeat with clicking on „Device“ then „HDD“ but this time mount the „E partition“. And you maybe already guessed it, you now have to copy all the folder of the e folder to this „E partition“.

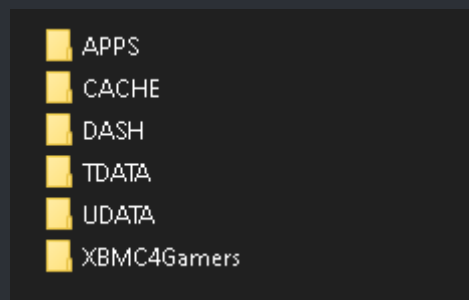


It then should look like in the image above. But this time let the partition mount.

Now it's time for you to decide which „main dashboard“ you want on your xbox. For example we are going to use XBMC4Gamers (X4G) which most ppl use now days. If you like a different dashboard, it's basically the same, just path for it will be different but more on that in a moment.

So you have downloaded the latest XBMC4Gamers (X4G) dashboard and you have unpacked it. So take your X4G folder and copy it right in the root directory of the E-Partition. It then should be E:\XBMC4Gamers\

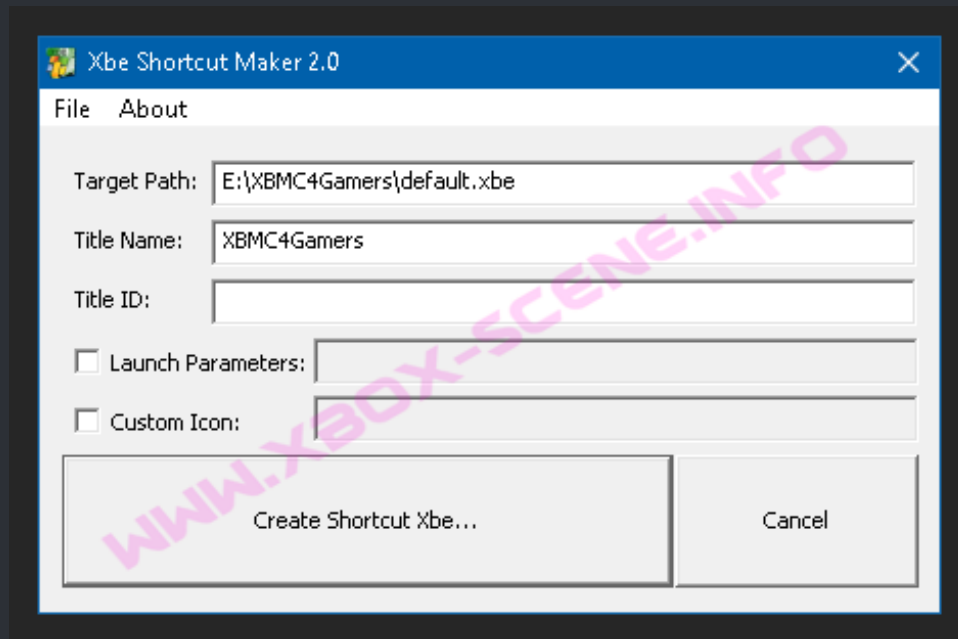
And since you still have E open, create an empty folder named „Apps“ and one named „Dash“. If you like, you can place the apps you like now in the „Apps“ folder and, if you like a second dash like UnleashX for example, you can place the UnleashX folder in dash. It should then look like on the image below.



You can now close your explorer windows and unmount the E partition.

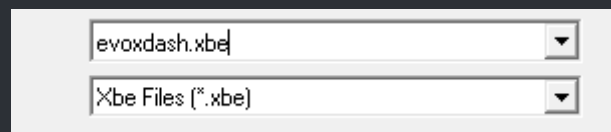
Yet it's time to create our dashboard shortcut (evoxdash.xbe) for the C-Partition which our bios expects. Yes you could use dashloader but why?

So now it's time to unpack the Xbe Shortcut Maker 2.0 file and launch it.  
Below you see a image showing you what you have to enter for XBMC4Gamers.



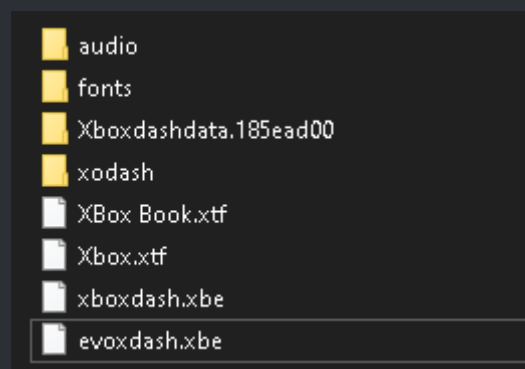
Traget Path is **E:\XBMC4Gamers\default.xbe**  
The Titel Name is **XBMC4Gamers**.

And that's already it. Press the „Create Shortcut“ button and safe the file as „evoxdash.xbe“.



Last but not least, this „evoxdash.xbe“ needs to go to the root of your C-Partition.  
You should still know how you can pull that of right?

Your C-Partition should like this at the end.



Congratulations, you have setup your HDD which is now ready to be installed in your Xbox.

**One last thing though.**

**In case you install UnleashX, LithiumX, UiX-Lite, the procedure is the same you just need to change the path of the file the evoxdash.xbe is linked to.**

**As example: UnleashX would be:**

**„E:\Dash\UnleashX\default.xbe“**

**Or, in rare cases**

**„E:\Dash\UnleashX\unleashx.xbe“**

**So make sure your .xbe is named right.**



## <=== Create a 512 KB Bios ===>

### ===> Batch <===



Create a new text file and name it something like: **Make 512kb bios.bat**  
Then open the file using your favorite editor and copy & paste the code from the box below into that batch file and save it.

#### BATCH CODE:

```
@echo off
copy /b "%~1"+"%~1" "%~n1.512.bin"
```

It then should look like this:

```
Create 512kb Bios v2.bat
1  @echo off
2  copy /b "%~1"+"%~1" "%~n1.512.bin"
3  
```

Now you can test your batch. Grab a 256kb copy of Cerbios and drag and drop it onto the batch file.  
Like magic you get a new file which is 512 KB in size.

## <=== Create a 1024 KB Bios ===>

### ===> 1024 KB Batch <===



Create a new text file and name it something like: **Make 1024kb bios.bat**

Then open the file using your favorite editor and copy & paste the red code from the box below into that batch file and save it.

#### BATCH CODE:

```
@echo off
copy /b "%~1"+"%~1"+"%~1"+"%~1" "%~n1.1024kb.bin"
```

It then should look like this:

```
Create 1mb Bios v2.bat
1  @echo off
2  copy /b "%~1"+"%~1"+"%~1"+"%~1" "%~n1.1024kb.bin"
3  
```

Now you can test your batch. Grab a 256kb copy of Cerbios and drag and drop it onto the batch file. Like magic you get a new file which is 1024 KB in size.

# <=== Create a 1024 KB Multi Bios for Xecuter 2 Chips ===>

## ===> x2 Multi Bios Batch <===



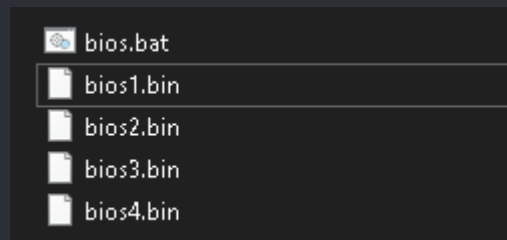
This one needs a little more work but it's not too hard so no worries.

First of, create a folder, let's say on C:\ and name the folder „Bios“ ( C:\Bios\ ).

Now copy the bios files you like to combine into that Bios folder. For example, we combine 4 x 256kb bioses into one „single“ 1024kb bios. Which bioses you use is on you. The ones I use here are just as an example!

When you have copied over the bios files, you have to change the name of each bios in the order you like to have them on your chip.

1. **XblastOS.bin** = bios1.bin
2. **Cerbios.bin** = bios2.bin
3. **CerbiosDebug.bin** = bios3.bin
4. **EvoXm8plus.bin** = bios4.bin



Now it's time to create a new text file in the very same folder your bioses are in.

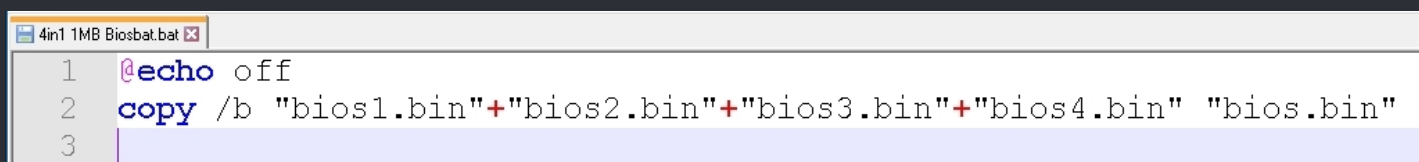
Name the file something like: **4in1bios.bat**.

Then open the file using your favorite text editor and copy & paste the red code from the box below into that batch file and save it.

### BATCH CODE:

```
@echo off
copy /b "bios1.bin"+"bios2.bin"+"bios3.bin"+"bios4.bin" "bios.bin"
```

It then should look like this:



When that's done save the batch and close your editor. You're now ready to make your own 4 in 1 1024kb bios. For that just double click on the batch and wait 1 sec.. The batch will now combine the bios files into one single 1024kb (1MB) bios.bin file which you then can flash to your modchip.

Take note that you also can combine a 512kb and 2 x 256kb bios into a 1024kb bios or even 2 x 512kb. The way is the same. The batch then only misses the last one or two last entry/s then.

You can also go the lazy route and use the Xecuter Bios Manager V2.3 which you can find here:  
<https://www.xbox-scene.info/files/file/296-x2-bios-manager-v23/>

# <=== How To Create a BFM Version ===>

## ===> For Phoenix Bios Loader (CD/DVD) <===



Creating a BFM bios for a CD/DVD is pretty simple and I try to explain it as simple and basic as possible.  
But first allow me tell you for what this is used for so you can decide if you need one at all.  
At the end of the „wall of text“ below, you should be able to create your very own boot disc.

So BFM stands for Boot From Media. Those special bios files (In a CD/DVD config) are used from a couple of installer disc you may already know like the Cerbios Disc, OGXBox Installer 2021, HeXEn/TruHeXEn or even the later Slayer's Disc make use of a BFM bios.

The reason for the use of those is, that you can gain full access to the Xbox HDD even, the bios which is on that Xbox, does not support certain things like an G partition.

Let me give you a real life example for that.

Some people have set up there new HDD with FatXplorer with an F & G partition but, they missed that they have an very old EvoX bios on there Modchip/TSOP and wonder why they don't see the G partition in there Dashboard even they think, that they have made everything right.

To be fair, they have have done everything right but they missed out that little point of the bios.  
So they use and installer disc and wonder why they see there G partition and then they do a post like:  
„I can't see G partition in my dash but I see it with installer xy WELP!“.

I guess you see where I'm going with this....

Those BFM bioses „bypass“ or better replace the bios of the Xbox on the fly in the RAM and offer more options - as long as they are configured in the right way. An F only BFM bios takes you basicly no where right?

BFM bioses are on a „boot disc“ are also useful for advanced users in case of softmodding since they will give you the option to access a shadow C partiton for example. That beeing said you should be EXTRA carefull when messing with a softmodded Xbox. You can easley render your Xbox useless and then you need at least a Modchip to get it back in a working state if you fuck up big time. And yes, that CAN happend so be aware.

So you now know what this „version“ of an BFM bios is used for and you can decide if it's useful for you or not.

If you like to make your very own boot disc / installer now or just like to tinker a bit, you have to obtain a copy of the Phoenix Bios Loader, which you can find here: [Phoenix Bios Loader Download \(MEGA\)](#), first.

When that's done, unpack the Pheonix Bios Loader.7z file and enter the folder.

In there you see 3 files: boot.cfg, default.xbe & a file which says place your bios.bin in this folder.

Lets start and open the boot.cfg. This file conatins some options you can edit. That goes from the LED color (LEDSequence), bios name (Romfile) to some other options but you mainly only need those two.

The lines with the „#“ sign explains you what each of the option is used for.

So lets have a look at the first entry which says „Romfile bios.bin“

„Romfile“ is the name of the „option“ and can not be changed - „bios.bin“ on the other hand is the name of the bios which can be changed to anything as long as it matches the real bios file name which is in that same folder. So if you would name your bios „Stinky.poo“ and you write the same name in the boot.cfg, PBL would load that bios just fine and it would work without a problem.

Now take a look at the line which says „LEDSequence ogoo“.

Here it's basically the same as above. „LEDSequence“ is the name of the option and „ogoo“ is the variable which you can change if you like. Your Xbox will then indicate you that it has loaded the BFM bios if changed.

Usually orange (OOOO) or red (RRRR) is what's used by most installers out there.

Each of these letters indicate a different stage but usually they are all set to the same but if you fancy change it to what ever you like.

When you have made your settings in the boot.cfg, save it and exit out of your editor.

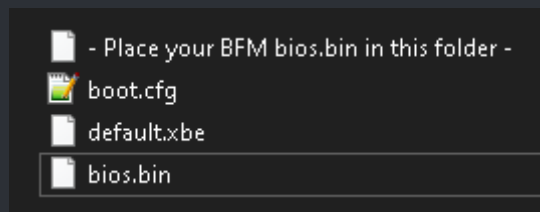
Now, back in the folder, we still have the Phoenix Bios Loader (PBL) file named „default.xbe“.

This is what gets loaded when your disc boots up. Your Xbox will search if there is a disc in the drive and if there is one, it will search for a file called „default.xbe“ on that disc. When your Xbox finds one, it will then load that default.xbe which in our case is the PBL which then searches for his config to then load the BFM bios we are now going to create.

I hope you have the latest [Cerbios](#) bios on hand as well as the latest [CerbiosTool](#) from Team Resurgent. If not click on the links which will take you to the download. You should have at least the Cerbios Bios in version 2.4.2 and version 2.0.1 of the CerbiosTool.

And yes, you could do it with older version as well but why would you?

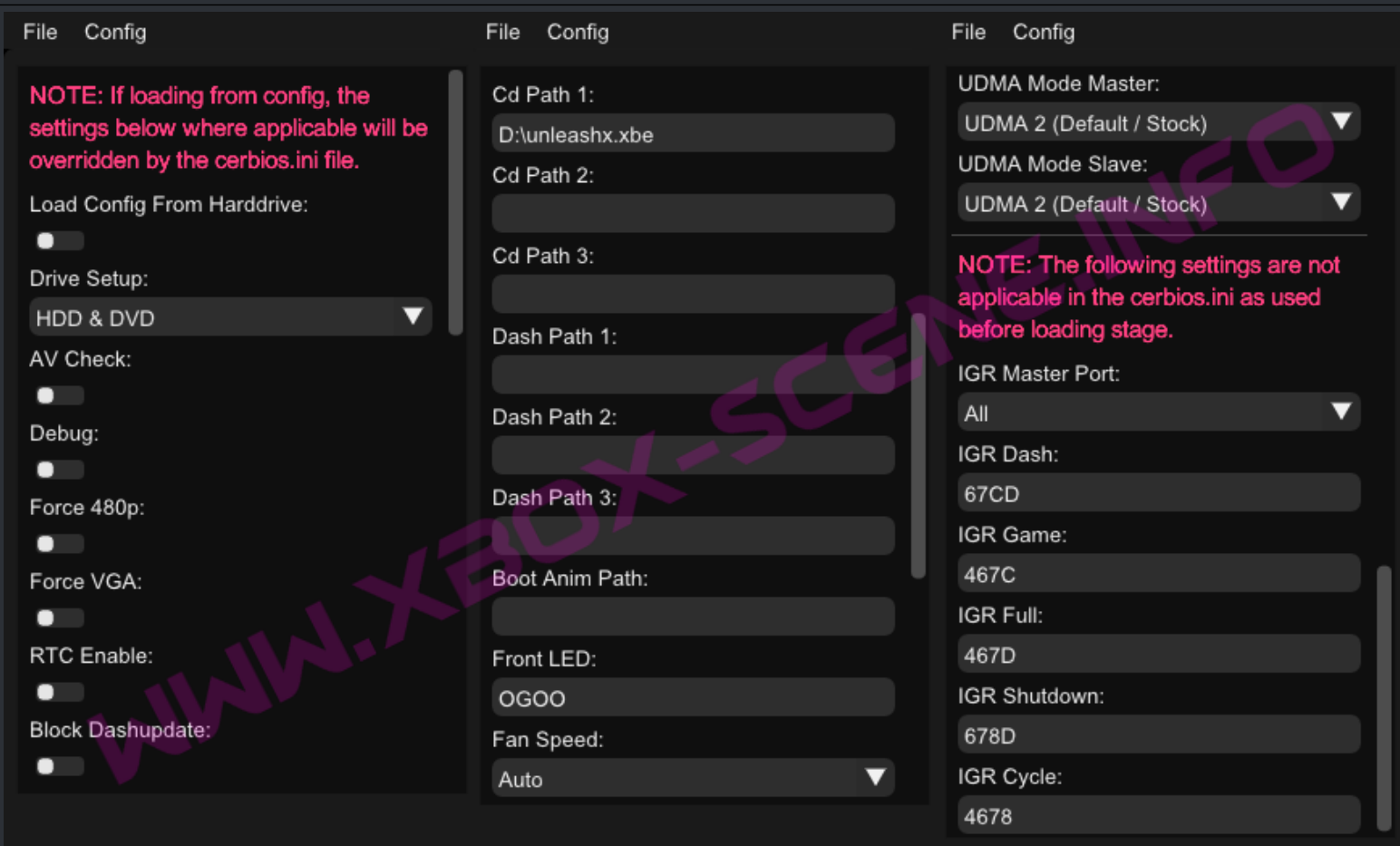
Now unpack both and place a copy of the Cerbios bios in your working directory where the PBL files are in. Then rename the file to „bios.bin“ as written in the boot.cfg file. Let me write it again, the names have to match.



This is what your folder should look like now. If you like, you can now delete the place your bios file thingy cuz you ain't need it any longer.

Now open the CerbiosTool and load the bios.bin from your working folder.

Then take a look at the screenshot on the next page below.



As you can see in the picture, the „Dash Path 1-3“ has been removed, „Load Config From Harddrive“ has been disabled (We need to hardcode our values) and „Drive Setup“ has been set to „HDD & DVD“.

Then there is one new entry under „Cd Path 1“ called „D:\unleashX.xbe“.

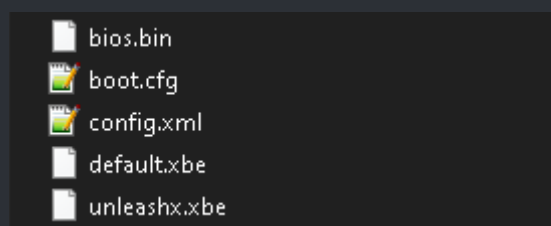
For the sake of this „tutorial“ we use a copy of the UnleashX dashboard which we like to boot with our BFM bios. And just in case you wonder, yes, you can also use EvolutionX or what ever xbe you like to boot.

Point here is, only the UnleashX dash or EvoX dash makes sense in case you like to go for a live apps boot disc or a custom recovery disc or you maybe even aim to create your own installer. And remember to not use „default.xbe“ as name cuz that name is already taken by the PBL and you would bootloop till the end of time and, at least in this case here, PBL is our first stage of loading.

You could also use just load and unleashx live dash of the disc and offer the PBL option as a second stage like some installers do but that would go to deep for this basic „tutorial“.

But if you like to dive in deeper, take a look at a boot disc like the Cerbios Disc and how the scripts are written and setup there. But be aware that there is also some hex edit involved to get the one or other thing working

So now make a copy of the unleashx.xbe and place it in your working folder along with the unleashx config.xml file. It then should look like this:



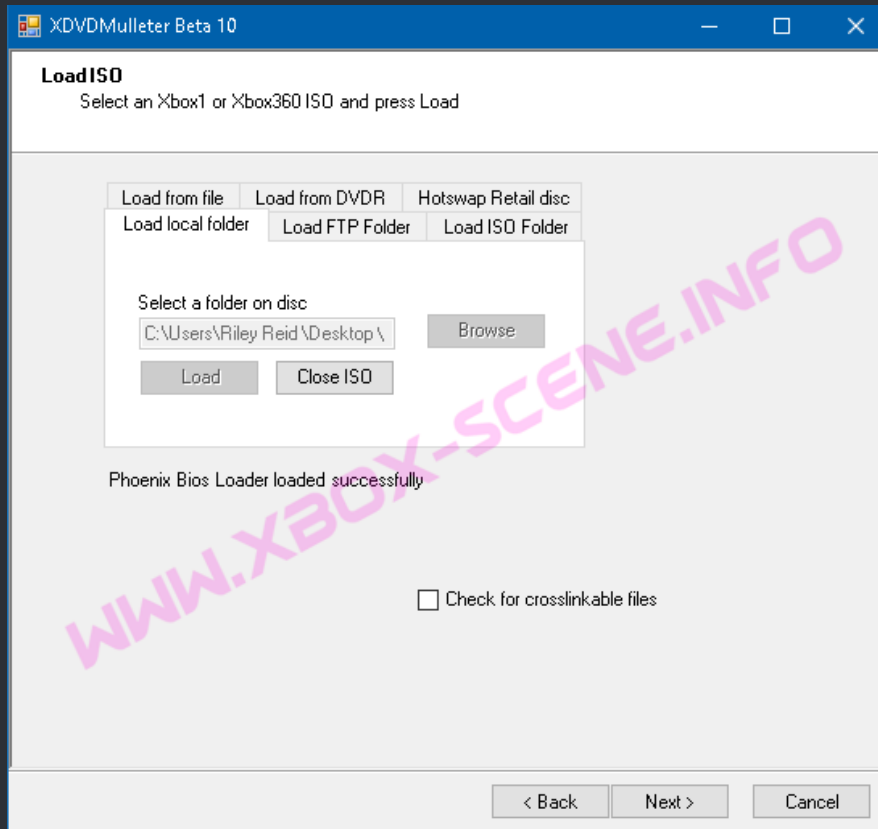
You have now a base setup for a boot disc which you could turn what ever you like.

You can create a xISO now out of this folder using XDVDMulleter or Qwix and test your xISO in XEMU.

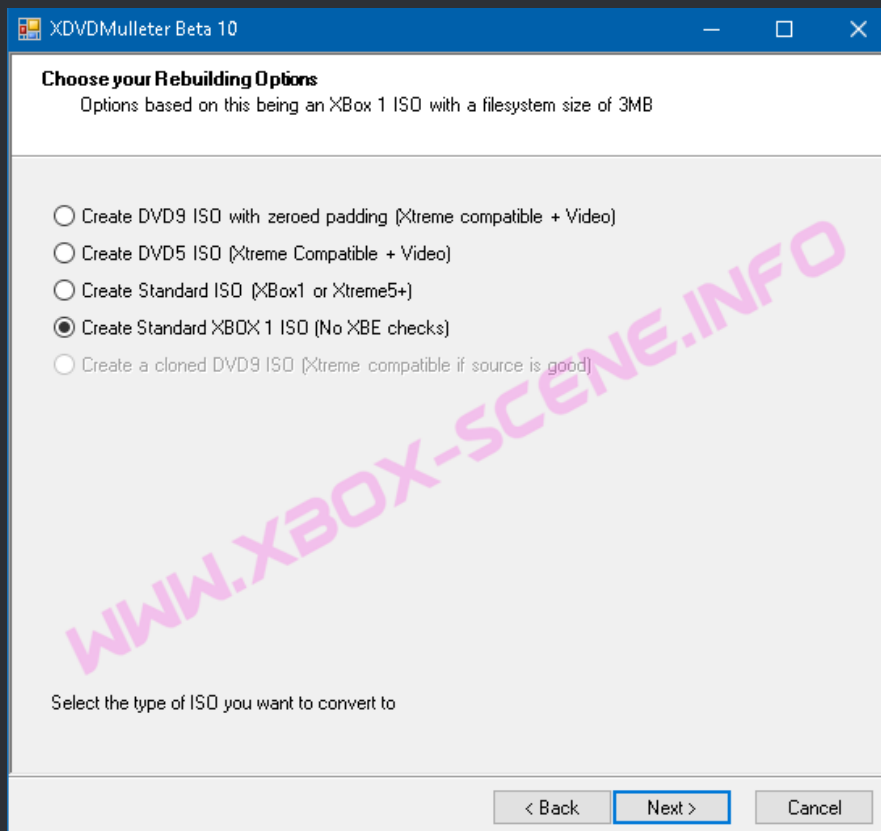
So let us do that...

First of, get a copy of [XDVDMulleter](#) and unpack it.

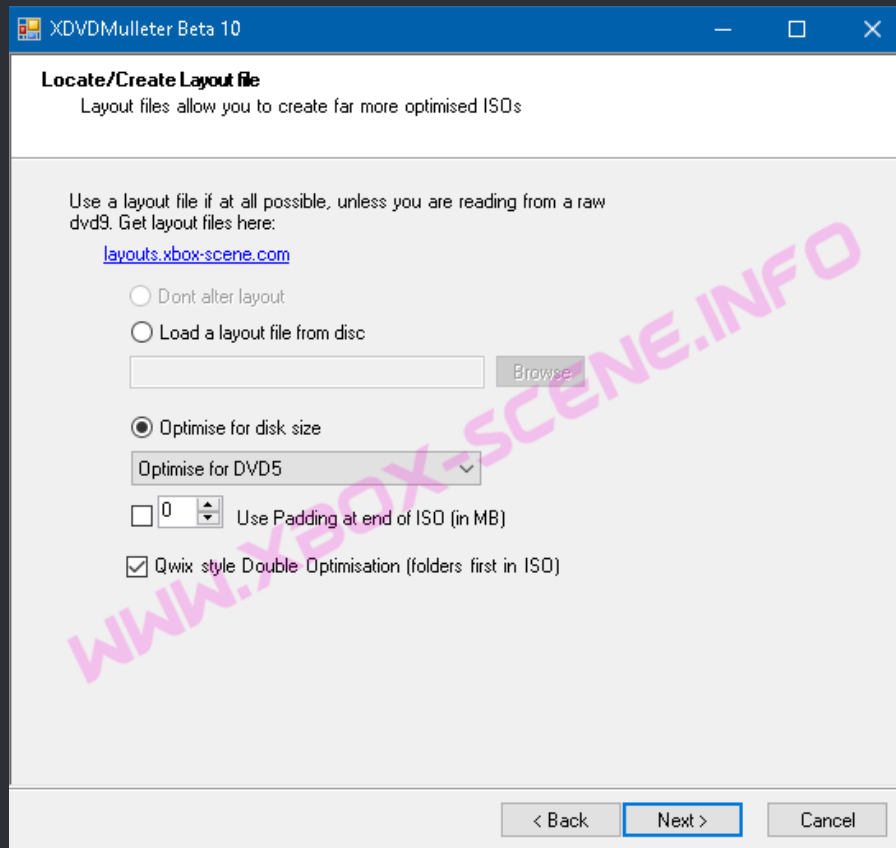
When thats done, launch it and select your working folder like you see in the screen below and press Next.



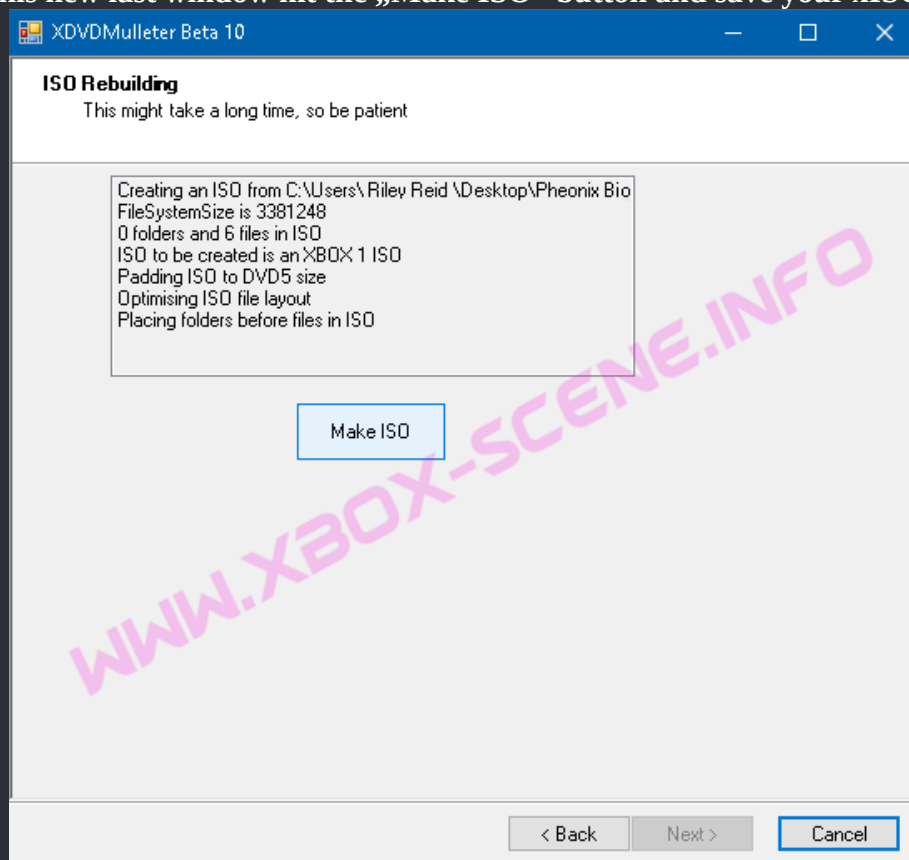
Now select „Create Standard XBOX 1 ISO (No XBE checks)“ and then hit the Next button.



In the next window you can choose if you like a to create a DVD 5, which I suggest to do if you plan to burn it to a real DVD or, you choose „small as possible“ which is fine for XEMU.  
So make your pick and then hit the Next button again.



In this new last window hit the „Make ISO“ button and save your xISO file.



When XDVDMulter has finished the job, close the app and test your xISO in [XEMU](#).



Date: 9/6/2024 1:18:35 PM

C: 272.59 MB free

E: 4,584.81 MB free

F: 32,358.72 MB free

Tray: Empty

Nickname:



● Launch DVD

● Games

● Applications

● System

● File Explorer

CPU: 0.00 C

M/B: 0.00 C

IP: 10.0.2.15 DHCP

Users: 0

If you have done everything right, you will be greeted with a clean fresh UnleashX dashboard, like you can see it in the screenshot above, which has booted right off the disc.

You can also add the UnleashX skins folder to the working folder and point to the skin in the UnleashX config.xml before compiling an xISO. You can also add apps and such to make your very own boot disc like you know it from others, it's all up to you from this point. You just have to add everything to the UnleashX config.xml so that the dash searches on the disc and not on a HDD partition for things.

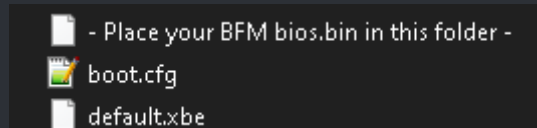
Creating a BFM bios for HDD, lets call it „PBL-App-Mode“ is pretty simple and can be very useful. For example, you could configure it to provide a Debug Dash or to get the benefits of Cerbios CCI for games where the file names are too long for unpacked ISOs (aka HDD rdy games).

I will try to explain it as simple and basic as possible.

First of you have to obtain a copy of the Phoenix Bios Loader, which you can find here:

[Phoenix Bios Loader Download \(MEGA\)](#).

When you have finished the download, unpack the Phoenix Bios Loader.7z file and enter the folder. In there you see 3 files: boot.cfg, default.xbe & a file which says place your bios.bin in this folder.



Let's start and open the boot.cfg. This file contains some options you can edit. That goes from the LED color (LEDSequence), bios name (Romfile) and the Debug setting (Debug). There are some others but you mainly don't need those. The lines with the „#“ sign explain you what each of the option is used for.

Now have a look at the first entry which says „Romfile bios.bin“

„Romfile“ is the name of the „option“ and can not be changed - „bios.bin“ on the other hand is the name of the bios which can be changed to anything as long as it matches the real bios file name which is in that same folder. So if you would name your bios „Stinky.poo“ and you write the same name in the boot.cfg, PBL would load that bios just fine and it would work without a problem.

Next is the line that says „LEDSequence ogoo“.

Here it's basically the same as above. „LEDSequence“ is the name of the option and „ogoo“ is the variable which you can change if you like that your Xbox indicates you that it has loaded the BFM bios.

Usually orange (OOOO) or red (RRRR) is what's used but you can also leave it as is.

Anyway, each of these letters indicates a different stage but usually they are all just set to the same but if you fancy change it to whatever you like.

Lastly, as I said above, you can use the PBL-App-Mode to launch a Debug-Dash.

That's where the next option Debug (Debug true) comes into play.

If you wish to set up a Debug-Dash, just enable that option by removing the „#“ sign from that line.

But keep in mind that you will need the Debug-Dash files for it to work!

And no, I will not provide you a download link for those. Just one hint, stay away from the Easy XDK Installer 1.4.1 and above. The new coder has no clue what he does and with the new version 1.4.2 it got even worse eg. missing files, wrong file names, bad coding, bad config work and so on.

So consider yourself warned! But let's move on.

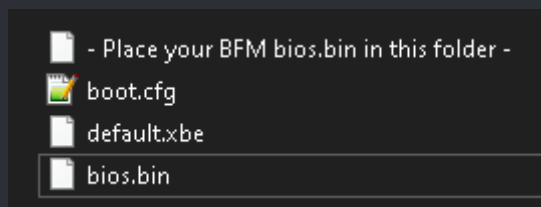
When you have made your settings in the boot.cfg, save it and exit out of your editor.

Now, back in your working folder, we still have the Phoenix Bios Loader (PBL) file named „default.xbe“.

This is what gets loaded when you launch PBL (default.xbe) as an app from your Apps-Menu. PBL will then search for his boot.cfg file and then loads the BFM bios we are now going to create.

I hope that you have the latest [Cerbios](#) bios on hand as well as the latest [CerbiosTool](#) from Team Resurgent.  
If not click on the (blue) links above which will take you to the download.  
You should have at least the Cerbios Bios in version 2.4.2 and version 2.0.1 of the CerbiosTool.  
And yes, you could do it with older version as well but why would you?

Now unpack both and place a copy of the Cerbios bios in your working directory where the PBL files are in.  
Then rename the bios file to „bios.bin“ as written in the boot.cfg file.  
Let me write it again, the names have to match.



This is what your folder should look like now. If you like, you can now delete the „place your bios file thingy“ cuz you ain't need it any longer.

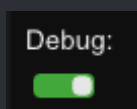
Next step is to launch the CerbiosTool and load the bios.bin from your working folder.

If you have read the „How To Create A BFM Bios for CD/DVD“ from above, this is one here is slightly different and depends on what you like to do. You have basically 2 options here.

1. Set it up to load a dashboard with the option to launch CCI games.
2. Set it up to launch a Debug-Dashboard.

For this, we choose to set up the PBL and the BFM bios to load your already installed dashboard to make use of CCI games. That's, what I think, for the majority of users the default use case.

But for 2, 3 ppl. who want to go Debug let me say this.  
You can follow this „tutorial“ to end cuz there are only 2 differences.  
You enable the Debug mode in the CerbiosTool



And you point the „Dash Path 1“ to load the Debug-Dash (xshell.xbe) instead of UnleashX, XBMC4Gamers or whatever your main dashboard is.

Anyway, let's start and set up the bios for the „PBL-App-Mode“ which then simply reloads your dashboard with the benefits of Cerbios.

So move on to the next page and take a look at the image there.

**NOTE: If loading from config, the settings below where applicable will be overridden by the cerbios.ini file.**

Load Config From Harddrive:



Drive Setup:

HDD & DVD ▼

AV Check:



Debug:



Force 480p:



Force VGA:



RTC Enable:



Block Dashupdate:



Cd Path 1:

Cd Path 2:

Cd Path 3:

Dash Path 1:

E:\Dash\UnleashX\default.xbe

Dash Path 2:

Dash Path 3:

Boot Anim Path:

Front LED:

AAAA

Fan Speed:

Auto ▼

UDMA Mode Master:

UDMA 2 (Default / Stock) ▼

UDMA Mode Slave:

UDMA 2 (Default / Stock) ▼

**NOTE: The following settings are not applicable in the cerbios.ini as used before loading stage.**

IGR Master Port:

All ▼

IGR Dash:

67CD

IGR Game:

467C

IGR Full:

467D

IGR Shutdown:

678D

IGR Cycle:

4678

As you can see above, the setting aren't that different from the one in the CD/DVD BFM bios section. However, this time we point the PBL or better the BFM bios PBL uses to load your already existing dashboard. So first you have to find out (if you not already know) where your dashboard is.

What you can also see in the image above is, that I have set the „Dash Path 1“ to where my dashboard is so change that one to the one you wants to be loaded.

Below you see the mostly used paths but you have to be 100% sure where your dashboard is. Trial and error isn't an option here so DON'T just guess!

- C:\evoxdash.xbe
- D:\evoxdash.xbe
- E:\XBMC4Gamers\default.xbe
- E:\Dashboard\default.xbe
- E:\Dash\default.xbe
- E:\Dash\UnleashX\default.xbe
- E:\Dash\UnleashX\unleashx.xbe
- E:\Dashboards\UnleashX\default.xbe

The „Cd Pathes“ are all empty cuz the bios falls back to D:\default.xbe anyway so there's no need to point it to anything.

We have also disabled all other option but let us have a quick rundown on these options:

Option	Status	Reason
AV Check	Off	No need for it.
Debug	Off	We want only CCI support for gaming so retail mode is the way.
Force 480p	Off	You can enable it if you have the setup for it.
Force VGA	Off	You can enable it if you have the setup for it.
RTC Enable	Off	If you have a RTC you can enable it but it's not really needed.
Block Dashupdate	Off	This one only useful if you are on a softmod. And if you are on you should may enable this option.
Fan Speed	Auto	I don't care that much about if the fan get a bit noisy to I just leave it set to auto.
Front LED	Set to: AAAA	Shows me that the BFM bios has loaded. If you're on a softmod which already uses AAAA you may change that to RRRR so you can see if everything is fine.

Now that this is out of the way and you have made your settings matching your xbox config/setup, go and save your bios.bin file and close the CarbiosTool.

What is left to do? Not really much other than FTP'ing your folder to the XBox apps folder and then testing your creation. When you have done everything right, PBL will load the BFM Bios which then loads your already existing dashboard. You can now take advantage of games in CCI format or load your xISO games or do what ever you want.

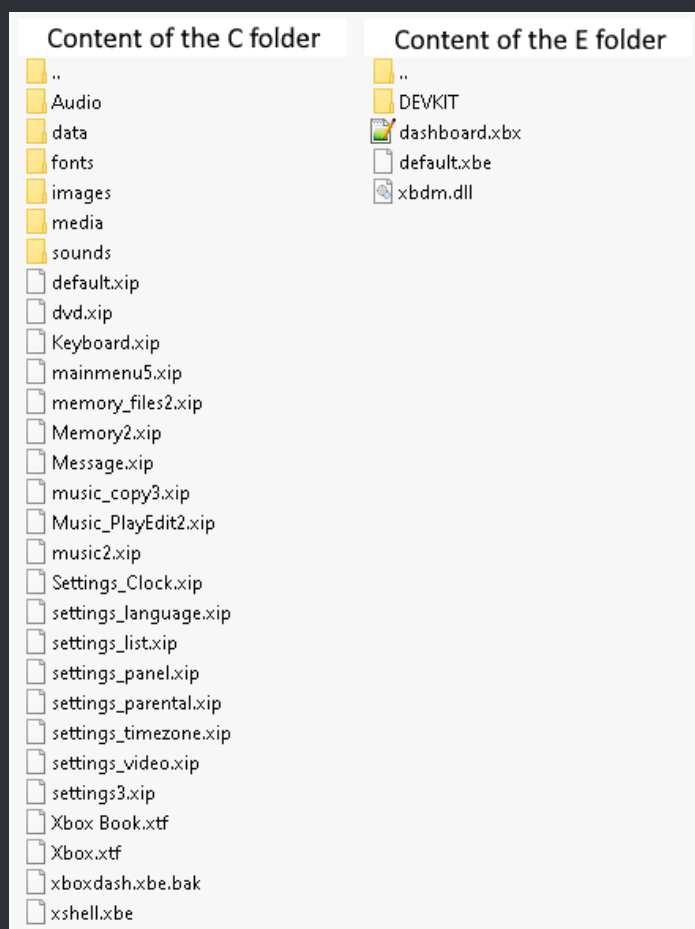
# <=== Setup a Debug Dashboard ===>

## ===> App Mode with PBL <===



Before we begin, you need to have some files on hand. For obvious reasons, you need to have the [Debug-Dash](#) files. And you will also need the [CerbiosTool](#), a copy of the [Phoenix Bios Loader](#) (PBL) and ofc a copy of the [Cerbios bios](#). You can find download links for everything below in the FAQ (Just click on the blue text (links) to get there). One important thing you have to know before we start is, this is only for Xbox versions 1.0, 1.1, 1.2, 1.3 and 1.4.

When you have everything downloaded begin and unpack the files. The Clean Debug 5948.zip contains two folders, C and E. These folders contains the files you see on the image below.

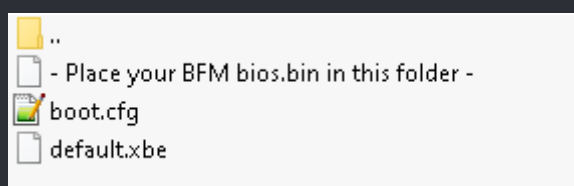


As you can see in the image above, the C folder contains one file called **xboxdash.xbe.bak**. This file is the original debug dash xboxdash.xbe which you don't need for this debug-dash app mode!

That file is only of interest IF you would turn your xbox into a full debug kit which loads the debug dash on boot. But, again, we only cover the app mode here so simply forget this file for now.

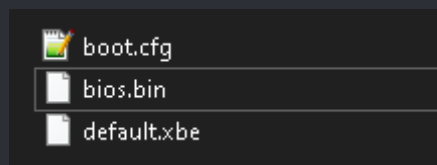
The xshell.xbe is the file we will point the Cerbios BFM bios to. But lets not get a head of our selfs.

Now you unpack the Pheonix Bios Loader.7z file. This folder contains 3 files which you can see on the image below. You should remember these from the [Phoenix Bios Loader \(HDD\)](#) section. If not, go and read everything there before you proceed here because I will repeat my self here to much.





Now place a copy of the Cerbios bios which have downloaded inside the Phoenix Bios Loader folder and rename it to bios.bin. It then should look like you see it on the image below.



And since we are in that folder open the „boot.cfg“ file with your favorite text editor. In the boot.cfg file find the line which says: „#Debug true“ and change it to „Debug true“ by removing the „#“ sign. Then save it and exit out of your editor.

Yet it's time to make the Debug BFM bios which loads the Debug-Dash for the App-Mode. For that open your CerbiosTool and load the bios.bin file from the Phoenix Bios Loader folder. The image below shows you how you have to configure the bios.

A screenshot of the CerbiosTool configuration interface. The interface is divided into several sections. On the left, there are toggle switches for 'Load Config From Harddrive', 'AV Check', 'Debug' (which is turned on), 'Force 480p', 'Force VGA', 'RTC Enable', and 'Block Dashupdate'. Below these are input fields for 'Cd Path 1' and 'Cd Path 2'. The middle section contains input fields for 'Cd Path 3', 'Dash Path 1' (set to 'C:\xshell.xbe'), 'Dash Path 2', 'Dash Path 3', 'Boot Anim Path', 'Front LED' (set to 'RRRR'), 'Fan Speed' (set to 'Auto'), 'UDMA Mode Master' (set to 'UDMA 2 (Default / Stock)'), and 'UDMA Mode Slave' (set to 'UDMA 2 (Default / Stock)'). On the right, there are dropdown menus for 'IGR Master Port' (set to 'All'), 'IGR Dash' (set to '67CD'), 'IGR Game' (set to '467C'), 'IGR Full' (set to '467D'), 'IGR Shutdown' (set to '678D'), and 'IGR Cycle' (set to '4678'). A large watermark 'WWW.XBOX-SCENE.INFO' is overlaid diagonally across the center. In the bottom right corner, there is a green text box that says 'Settings for the App Mode Debug Dash'.

Note here, that you ofc can change your UDMA settings if you have a higher UDMA Mode already on your Modchip or TSOP. The „Front LED“ is set to red only so we know the bios has loaded fine. The „Debug“ option has been enabled and the „Dash Path 1“ has been set to load the Debug-Dash which in this case here is „C:\xshell.xbe“ .

When you have made all the settings, save the bios and close the CerbiosTool.

Now it's time to FTP all the files to your Xbox. For that power up your Xbox and wait for it to finish the boot. When your Xbox is ready, launch your favorite FTP program on the PC and connect to your Xbox.

First of, FTP the content from the „\Clean Debug 5948\C\“ folder to the root folder of your C partition on your Xbox.

When that's done FTP the content of the „\Clean Debug 5948\E\“ folder to the root of your Xbox's E partition.

Finally FTP the Phoenix Bios Loader folder to your apps folder which is usually „E:\Apps\“ .

When you have FTP'ed over all files close the FTP connection and reboot your Xbox.

Back in your Xbox dashboard navigate to your apps folder and search for the Phoenix Bios Loader.

Now, when you launch Phoenix Bios Loader, your Xbox will load up the debug BFM bios which then loads the Debug-Dash in App-Mode which enables you to play debug games.

Speaking of which, place your debug game/app in „E:\DEVKIT\SAMPLES\GameFolder“.

That's it.



# <=== How to flash the Cerbios Bios ===>

## ===> Flash the Cerbios bios with XBlastOS <===



Here is how you flash your Cerbios bios to your TSOP or Modchip with XBlastOS without the use of any installer disc and such.

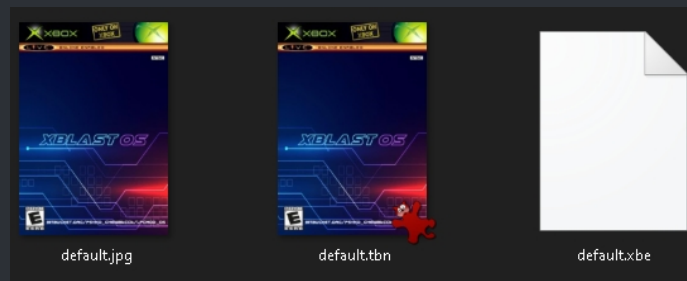
XBlastOS is the way to go app to flash your bios with ONE (1) exception.

In case you want to flash a SHARP TSOP, you have to use GentooX to do so. For that check out the section below:

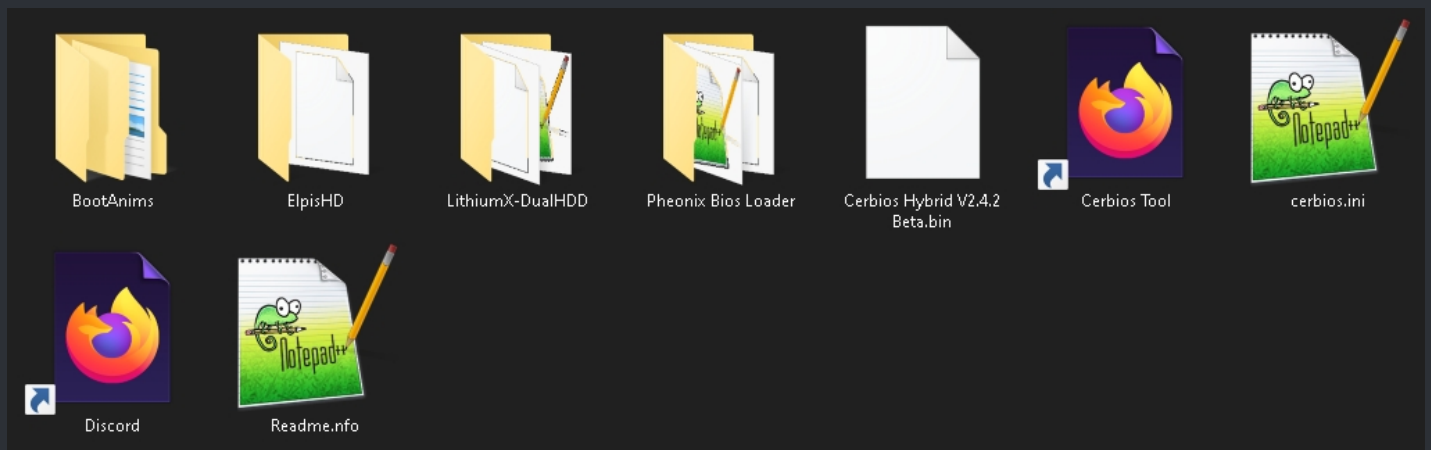
„Flash the Cerbios bios with GentooX“  
if you want to flash a SHARP TSOP.

Alright, let us begin. First of, you need a copy of the [cerbios](#) bios and you need the [XBlastOS](#) App.  
When you have downloaded the files, unpack them.

You should now have one folder with XBlastOS in it and another folder which has the Cerbios Bios among some other things in it.



XBlastOS Folder



Cerbios Bios Folder

Now create a folder on your desktop called „bios“. When that's done, copy the „Cerbios Hybrid V2.4.2 Beta.bin“

into that folder and do the same with the „BootAnims“ folder and with the cerbios.ini.

What I like to do now is, to rename the bios file to bios.bin.

Now it's time to boot up your Xbox and connect to it from your PC via FTP and FTP over your „bios“ folder, your „BootAnims“ folder and the „cerbios.ini“ to the root of your C partition.

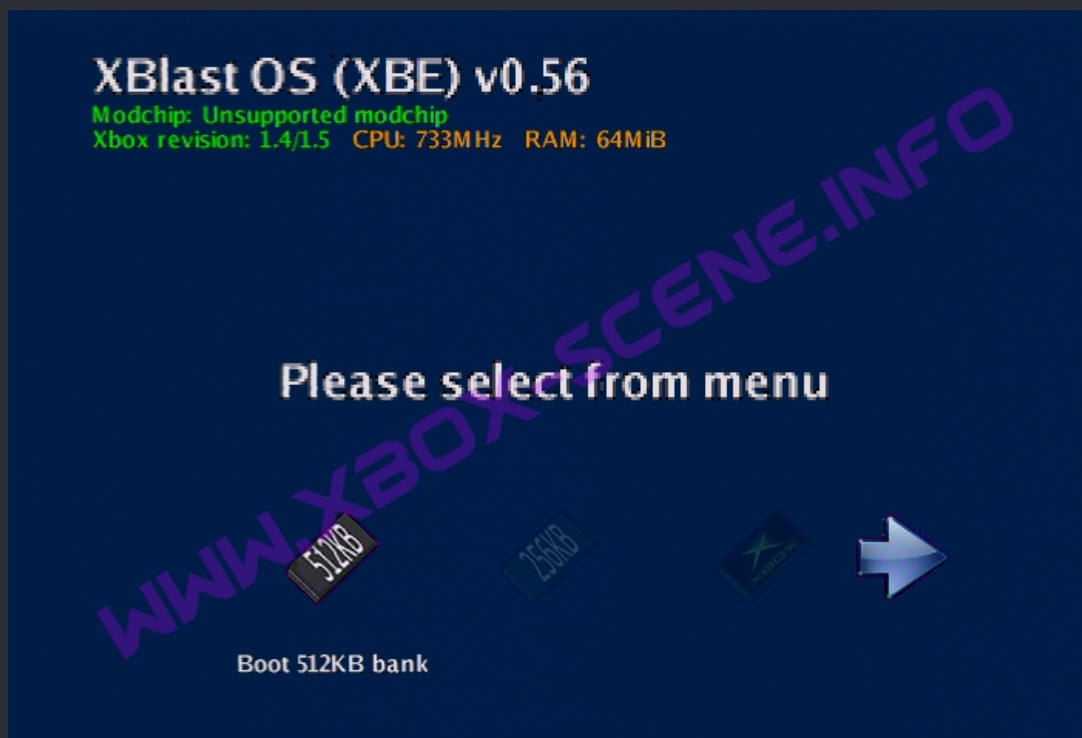
- C:\bios\bios.bin
- C:\cerbios.ini
- C:\BootAnims

Then FTP the XBlastOS folder to your apps folder which is usually E:\Apps\

- C:\Apps\XBlastOS\default.xbe

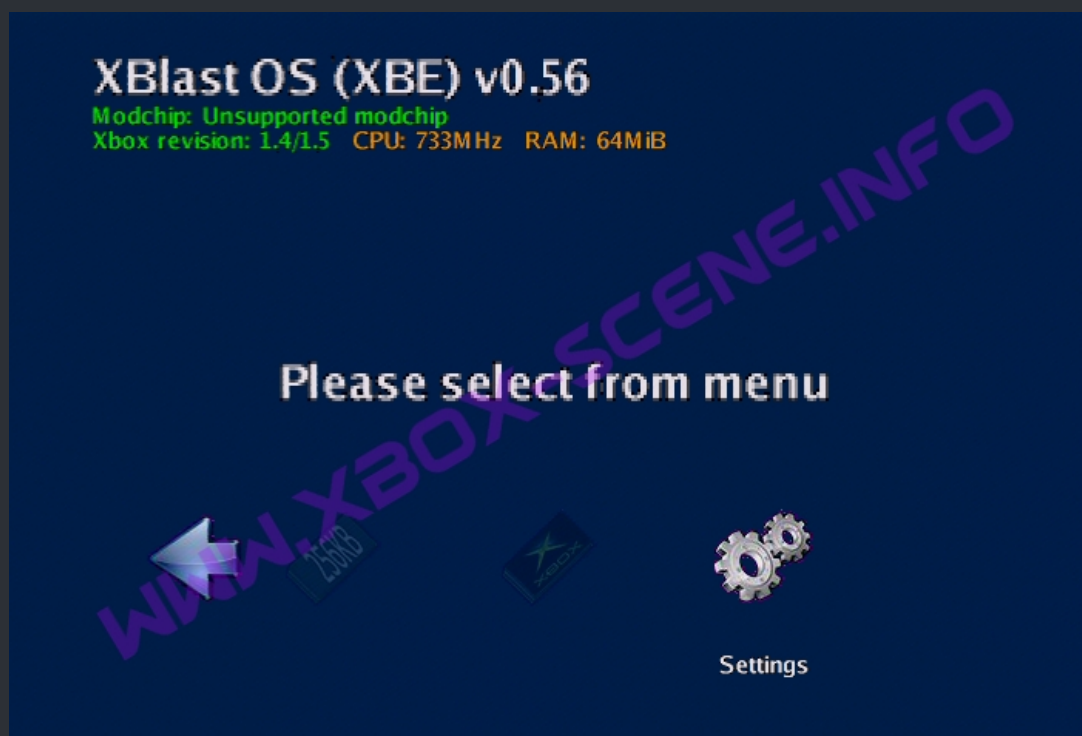
When you have FTP'ed all the files and folders to your XBox, disconnect from your XBox and reboot her.  
When your XBox is back in the dashboard, navigate to your Apps menu and launch XBlastOS.

After a moment you will be greeted by this:



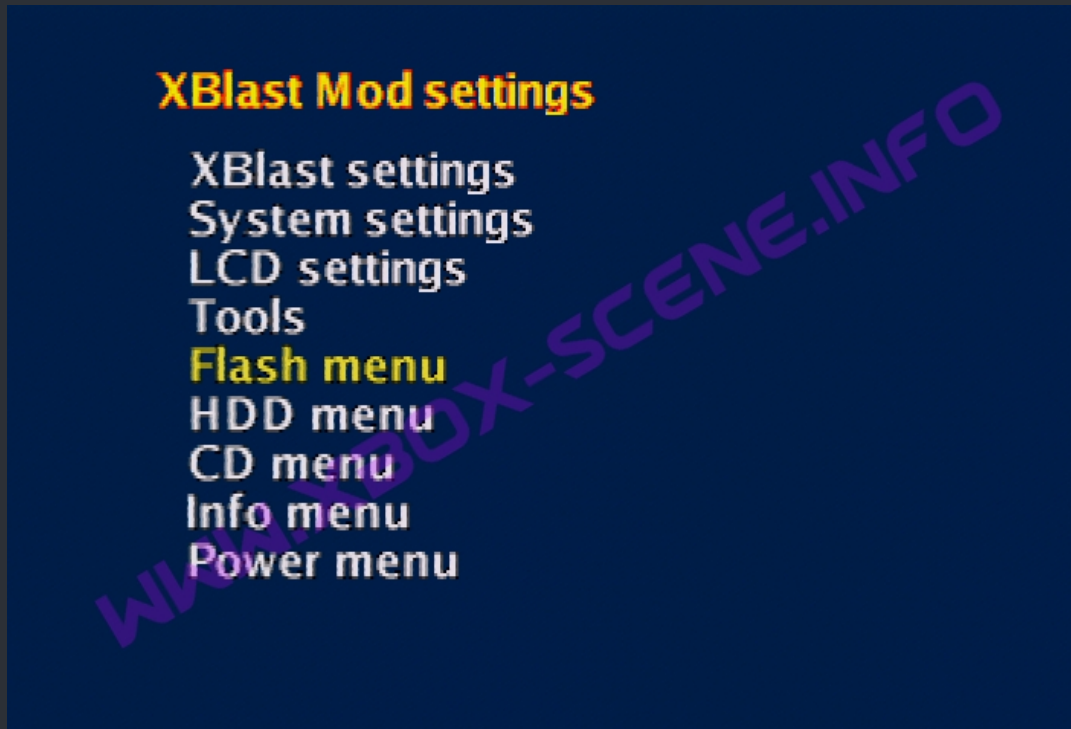
That is the XBlastOS „Home Screen“.

Now it's time to grab your controller and navigate to the right till you see the „Setting“ icon and when you're on it, press the A button on your controller to enter the next submenu of XBlastOS.



In this new submenu you have a lot of options, but we are only interested in the option highlighted in the image below called „Flash menu“.

So highlight that menu and then press the A button on your controller again to enter that submenu.

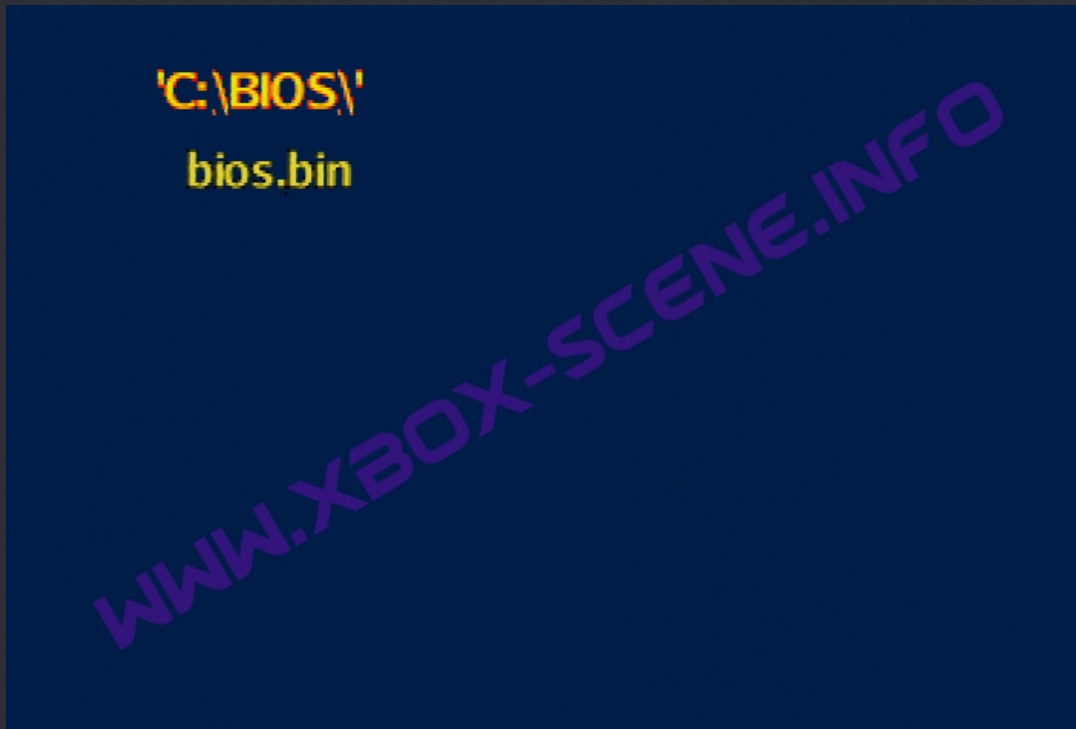


You will then see some options in the „Flash menu“.

We are interested in the „HDD Flash“ option which you also highlight like you see it in the image and then you press your A button again.



Here in the final bios selection section you see the bios.bin file which you previously has FTP'ed over.



So highlight it and press a last time the A button on your controller.



Finally you're getting the screen where you can flash the bios. Follow the on screen instructions and wait a moment till XBlastOS has flashed your bios. When that's done, your XBox will perform a reboot and you will be greeted by the default Cerbios boot animation.



Here is how you flash your Cerbios bios to your TSOP or Modchip with GentooX without the use of any installer disc and such.

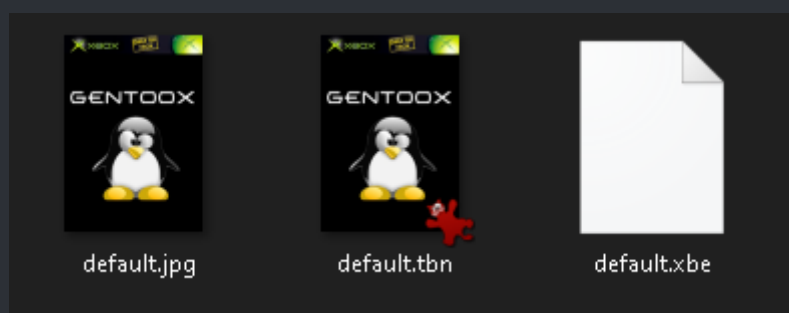
GentooX is usually been used to flash SHARP TSOP's but works for other as well.

The Downside here is, that GentooX doesn't resize the bios by itself. That means that you have to resize your bios by yourself in order to flash it to a 1024kb (1MB) SHARP TSOP. You can check out [here](#) how you do that.

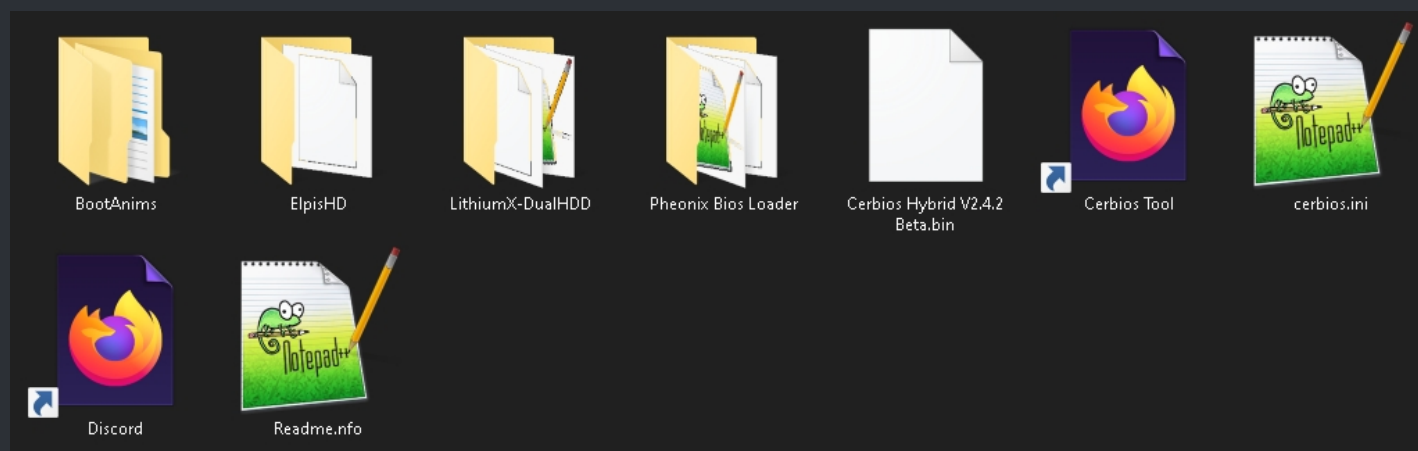
So first of, you need a copy of the [cerbios](#) bios and you need the [GentooX App](#).

When you have downloaded the files, unpack them to your desktop.

You should now have one folder with GentooX in it and another folder which has the Cerbios Bios among some other things in it.



GentooX Folder



Cerbios Bios Folder

Now create a folder on your desktop called „bios“. When that's done, copy the „Cerbios Hybrid V2.4.2 Beta.bin“

into that folder and do the same with the „BootAnims“ folder and with the cerbios.ini.

What I like to do now is, to rename the bios file to bios.bin.

Now it's time to boot up your Xbox and connect to it from your PC via FTP and FTP over your „bios“ folder, your „BootAnims“ folder and the „cerbios.ini“ to the root of your C partition.

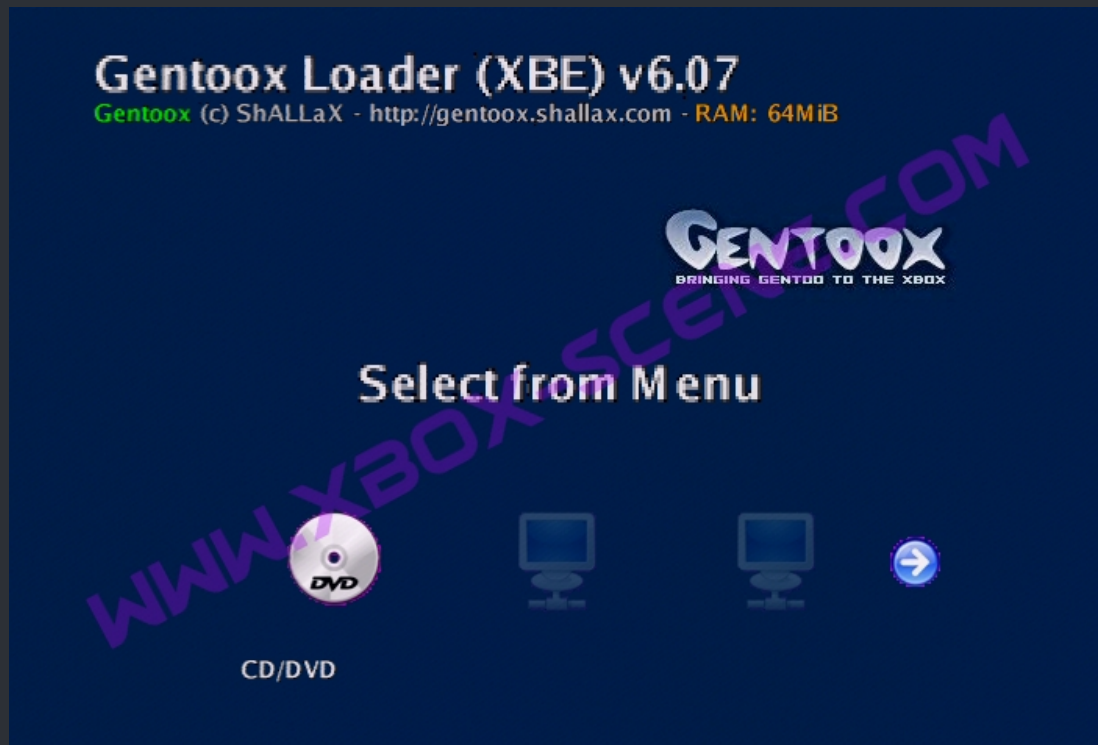
- C:\bios\bios.bin
- C:\cerbios.ini
- C:\BootAnims

Then FTP the GentooX folder to your apps folder which is usually E:\Apps\

- C:\Apps\GentooX\default.xbe

When you have FTP'ed all the files and folders to your XBox, disconnect from your XBox and reboot her. When your XBox is back in the dashboard, navigate to your Apps menu and launch GentooX.

After a moment you will be greeted by this:



Here you have to be quick because GentooX has timer build in which automaticly tries to boot disc. So press your D-Pad to the very right side till you see the „Advanced“ icon and then press the A button on your controller.



In this new submenu you have a lot of options, but we are only interested in the option highlighted in the image below called „Flash menu“.

So highlight that menu and then press the A button on your controller again to enter that submenu.



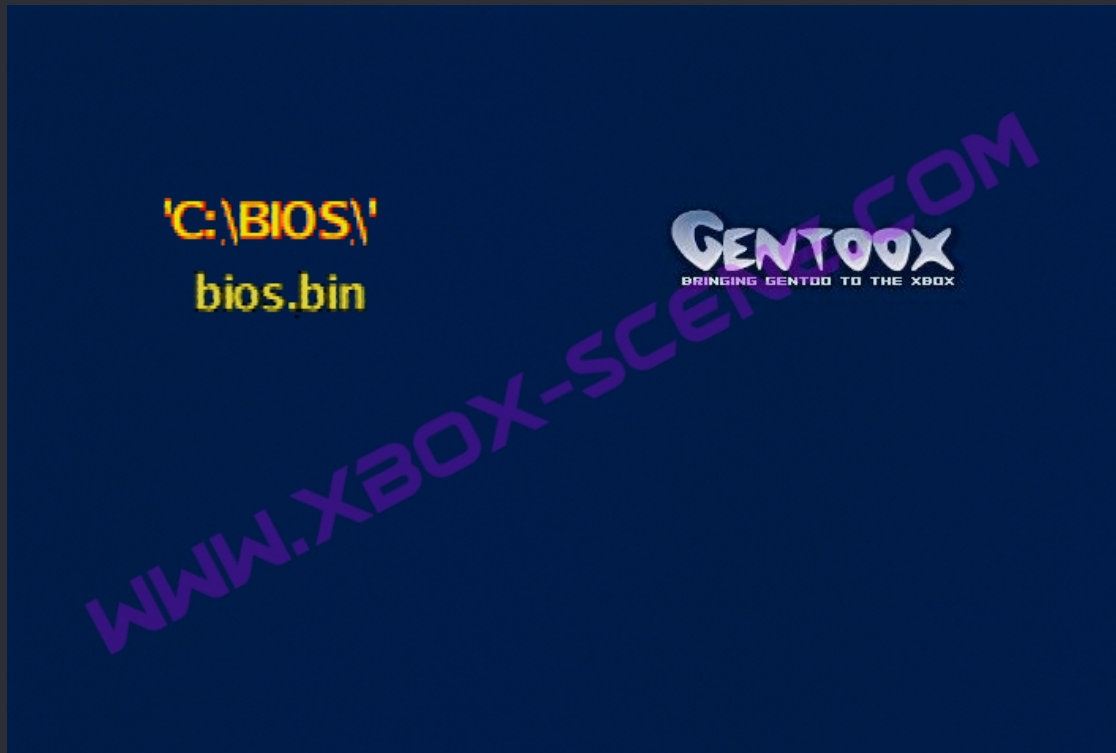
You will then see some options in the „Flash menu“.

We are interested in the „HDD Flash“ option which you also highlight like you see it in the image below and then you press your A button again.





Here in the final bios selection menu you see the bios.bin file which you previously has FTP'ed over.

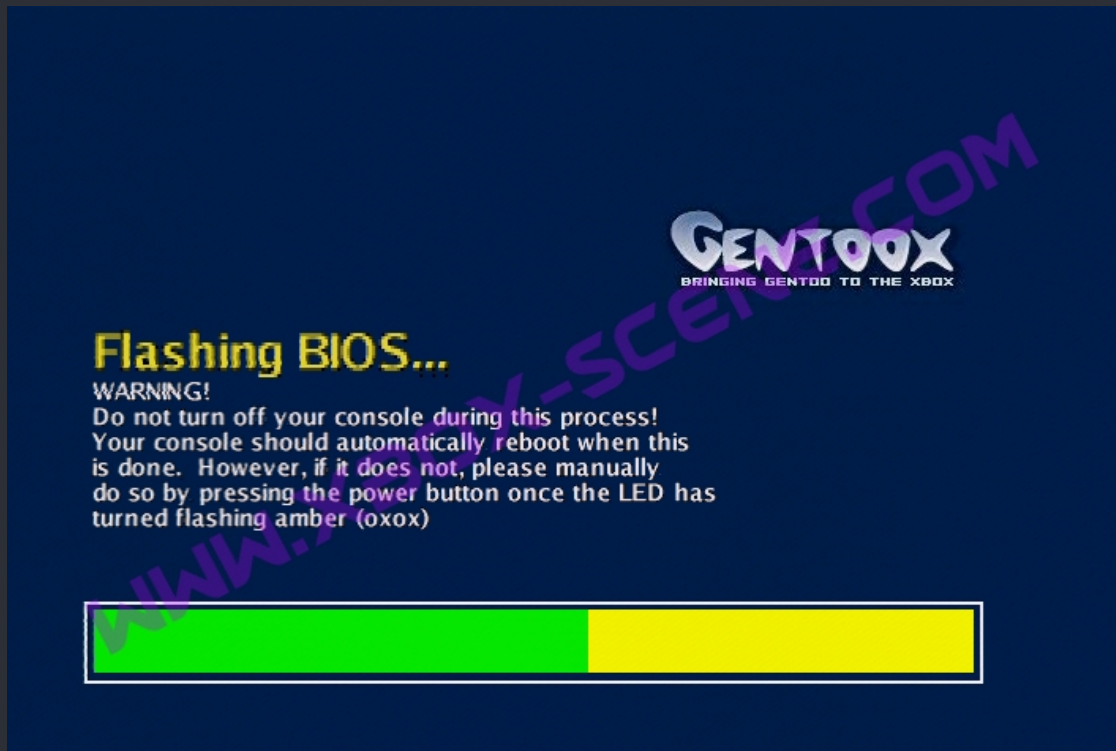


### NOW IT'S TIME FOR A WORD OF WARNING

GentooX is different from XBlastOS even XBlastOS is based on GentooX. In XBlastOS you get a final screen which tells you to press a button combo.

GentooX will **NOT(!)** do that.

GentooX will flash the bios in the very same moment you press A on your controller. So when you decide here to press A on your controller, GentooX will start to erase your old bios from your TSOP or Modchips and then GentooX will flash the new bios no matter what!



When GentooX has finished the flash and verified the bios, your Xbox will perform a reboot and you will be greeted by the default Cerbios boot animation.



## <=== How to TSOP flash without softmod ===>

### ===> ENDGAME Cerbios Flasher & UX Dash Installer <===



This will show you how you can TSOP flash your Xbox without the need to softmod first. Yes, you have read right, since ENDGAME has hit the Xbox scene, you ain't need to use any game exploit and you also don't need any game dvd for it to work.

That beeing said, you will still need a Xbox Memory Card, a compatible USB-Stick. or, a modified Xbox 360 Memory Unit.

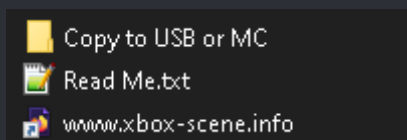
A PSP should also work but we can't verify that due to a lack of a PSP but, others has reportet it working.

First, you need to download the ENDGAME 8MB Cerbios Flasher & UX Dash Installer.

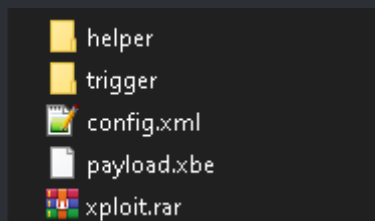
You can find the latest version of it [here](#).

You will also need a copy of FatXplorer to be able to format, mount and copy files to your MC/MU/USB-Stick on your PC. You can get FatXplorer [here](#).

When you have downloaded the latest version of the Cerbios Flasher & UX Dash Installer, unpack it and enter the folder. In there you will find couple of files and a folder.



Now enter the „Copy to USB or MC“ folder.



You now see all the all files which you need to copy to the root directory of your MC/MU/USB.

To do so, connect your MC/MU/USB to your PC, start FatXplorer and copy everything over.

When that's done, connect your MC/MU/USB to your Xbox and power her up.

After your XBox has startet highlight the „MEMORY“ tab and press A on your controller.



After that you will find you self in the selection screen for the HDD and Memorycard like you see in the image below. Depening on which the slot on your controller or, in case of a USB-Stick, you have connectet your drive, select it and press A on your cotroller again.

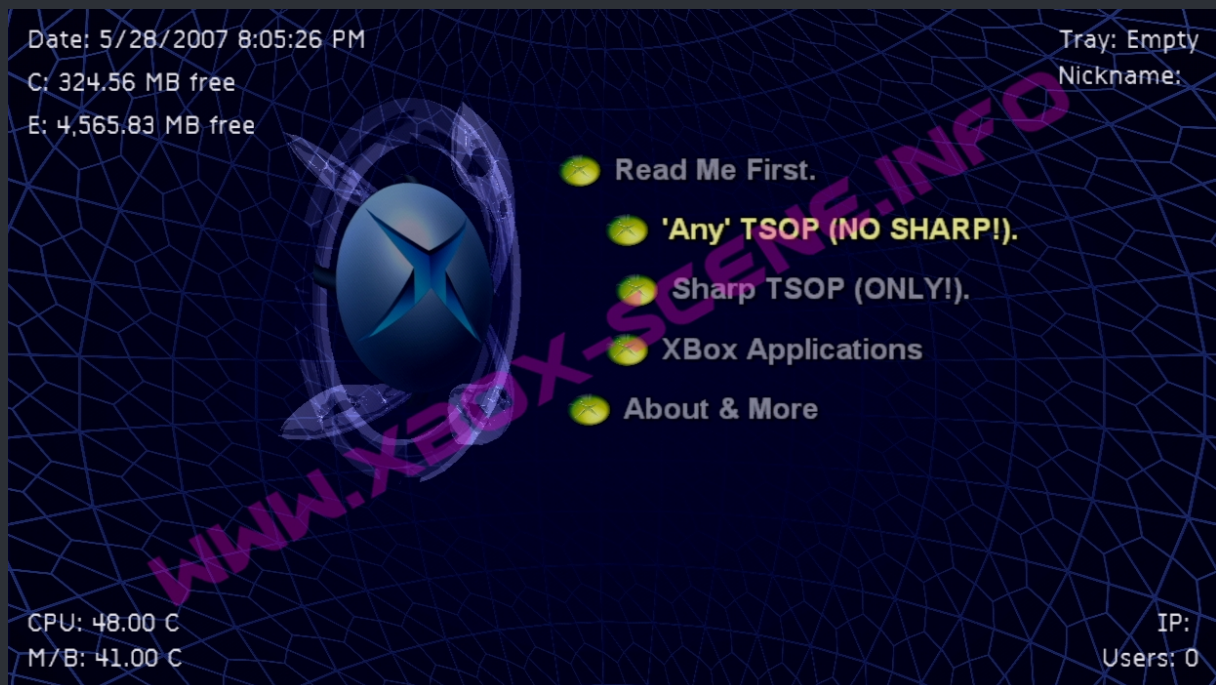


In the image above you see that the USB-Stick is connectet to the 2th controller port and shows up as controller 2

After you have pressed A on your controller, your Xbox will load the ENDGAME exploit and you will see a „frozen“ screen like on the image below.



A short moment later you will find yourself in a pretty stock looking UnleashX Dashboard which offers you a couple of options.



Make your pick depending on the TSOP you want to flash.  
IF you have a 1 MB SHARP TSOP, you need to select that option, for all others, incl. The WINBOND TSOP, you select the „Any TSOP (NO SHARP!)“ option.  
The SHARP will be flashed with GentooX and any other TSOP will be flashed with XBlast.



After you have selectet the right option for you, UnleashX will start to copy over all needed files and then it will launch either GentooX or XBlast.

How you use these tools is explained [here](#) for GentooX and [here](#) for XBlast.

After the bios has been flashed to your TSOP and your XBox has rebootet, you will find yourself in a default UnleashX dashboard which is only ment to be the first landing point since you probably go to change the stock HDD anyway.

So there's really nothing you need to have on this drive at all.



If you like to unlock the HDD or make some changes to the XBox settings (Like switching PAL to NTSC), you can do that with the XBlast app which is already on your HDD and which can be found in the apps menu of UnleashX.

# <=== Cerbios Softmod ===>

## ===> OGXBox Cerbios Softmod Installer <===



Let us start here with a **SERIOUS WARNING**. This softmod does not have any protection.

You ain't have a „shadow c“ partition, no recovery dash nor nkpatcher.

That means if you think you can outsmart us when we say:

**„DO NOT MESS WITH YOUR C PARTITION“**

and you go and rename stuff or you think you don't need a file and delete or move it

**YOU'RE FUCKED!**

The only rescue then, in 98% of the cases, is a Modchip.

And don't count on that you're in the 2% range cuz you're most likely will be not!

And since we have seen countless ppl. unlocking there softmodded HDD without having without a reason to do so and without having a eeprom backup on there PC rendering there Xbox „useless“ (You WILL(!) need a modchip to fix that, we have to say: Don't be like them! Never unlock your softmodded HDD without you've been told to do so by a pro and also always have a eeprom backup on your PC (!) to be on the safe side! A backup of it on your Xbox, is useless! It's like you have a key for your home but it's inside the house and you are in front of the closed door.

If you want a more safe softmod stop reading right here and go and install Rocky5's Softmodding Tool.

And let us say you something else clear, in case you think „Fine, I install Rocky5's Cerbios Softmod“.

Well, guess what, the same warning written above applies to Rocky5's Cerbios softmod.

Finally, let us point one last thing out.

If you don't plan to use a HDD which is bigger than 2TB or you don't want make use of CCI's (Cerbios Compressed Images), you be better of with Rocky5's Softmodding Tool.

All the above being said, let us begin.

First you need to download the latest version of the OGXBox Cerbios Softmod [here](#).

Which version you choose does not matter for this „tutorial“.

If your MC/MU/USB-Stick is big enough, take the X4G version which needs 256MB.

But again, it comes down to personal taste and what you want/need.

Now that you have downloaded the file unpack it.

You will then have a couple of files and folders like you see in the image below.



Before you begin to copy over any files, you need to know your Xbox's kernel version. To get that info the safe way, boot up your Xbox and highlight the „SETTINGS“ tab and press A.



In the settings menu scroll down to „System Info“ and press A again.

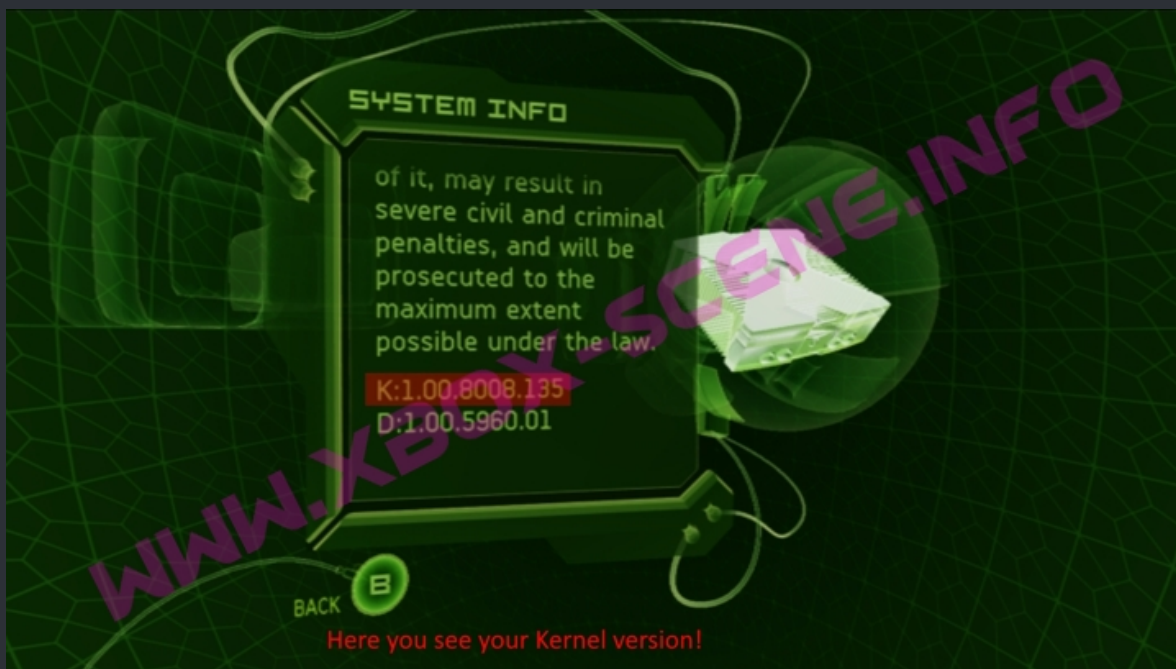


Yet you see a wall of text which scrolls automatically. Wait for it till it reaches the end.

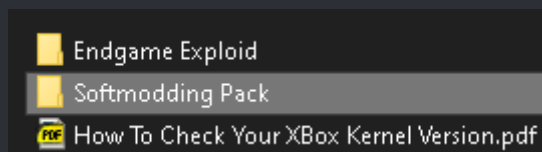
In the image below you see what you want to know.

„K:“ is what you're after. (K = Kernel and D = Dashboard).

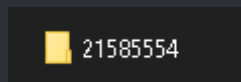
As said before, write down the kernel version or make a picture of it with your cellphone.



Back on the PC you enter the „Softmodding Pack“ folder.



In there is a folder called „21585554“.



That folder needs to be copied to your MC/MU/USB-Stick.

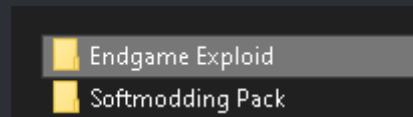
When you have done that, go to your Xbox, connect your MC/MU/USB-Stick to it and then copy the „gamesave“ over to your Xbox HDD using the Savegame Manager.

It will take a moment since there are a lot of files in it and the connection is very slow so, be patient!

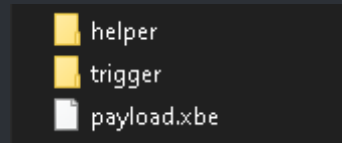
When your Xbox has copied over the savegame exit out of the savegame manager and shut down your xbox.



Back on your PC you connect your MC/MU/USB-Stick again and this time, you enter the „Endgame Exploid“ folder.



In the „Endgame Exploid“ folder you then see 2 folders and 1 file like you see it on the image below.



That file and the two folders needs to be copied to the root of your MC/MU/USB-Stick.

When that's done, go back to your XBox and connect your MC/MU/USB-Stick to it and then power on your console. When your XBox has bootet up, highlight the „MEMORY“ tab again and press A.





After that you will find you self in the selection screen for the HDD and Memorycard like you see in the image below. Depending on to which the slot on your controller or, in case of a USB-Stick, you have connectet your drive, select it and press A on your cotroller again.



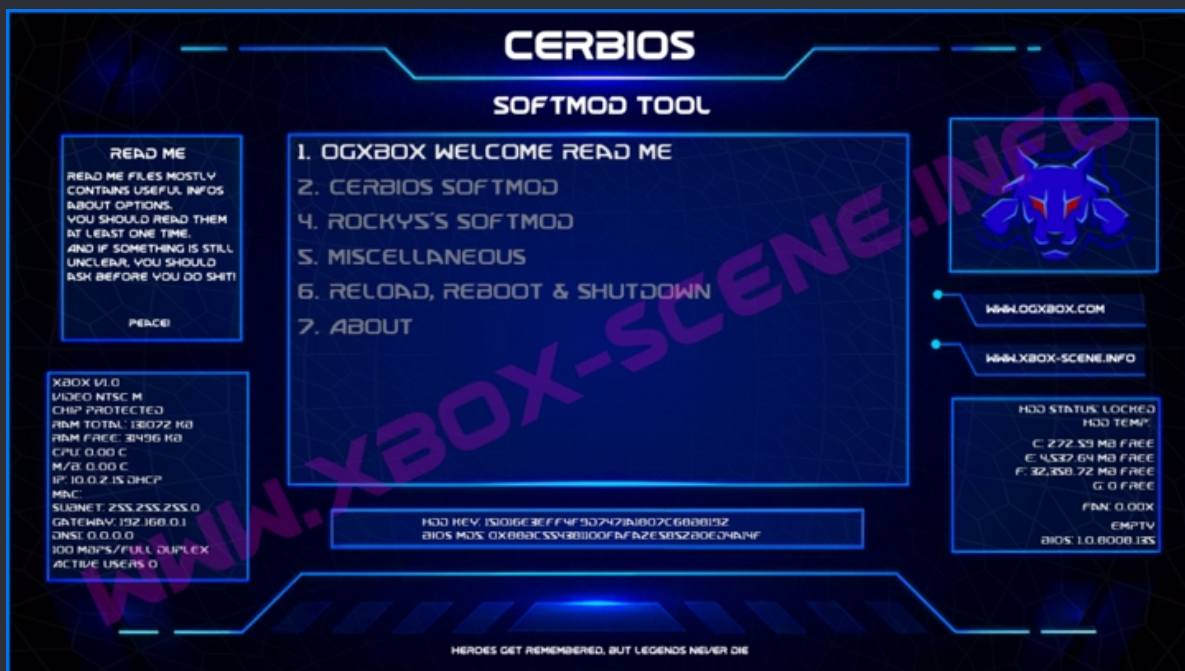
In the image above you see that the USB-Stick is connectet to the 2th controller port and shows up as controller 2

After you have pressed A on your controller, your XBox will load the ENDGAME exploid and you will see a „frozen“ screen like on the image below.



Yes, it's „kinda frozen“ but, let it do its thing.

A short moment later you will be greeted by the installers main menu.  
Highlight „2. Cerbios Softmod“ and press A.



Now you see the selection menu for the XBox kernels.  
Select the right kernel for your console (**NO GUESSING HERE!**) and press A.



You need to know 100% on which kernel version you're otherwise you end up with a bricked console!



Like you can see here on the image below, we use the 256MB version with XBMC4Gamers (X4G) and UnleashX (UX). The 128MB version will only show the „(UX)“ tag.



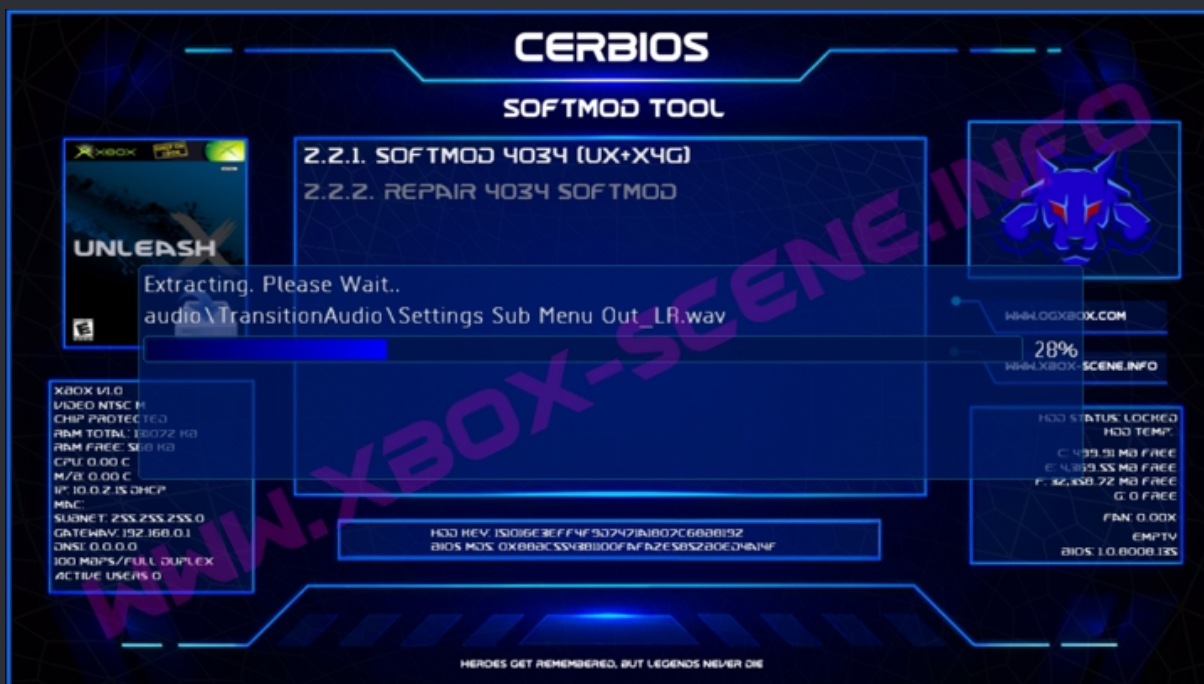
Now press A and you will see a popup box like you see it on the image below.



This is the last time you could abort the installation of the softmod.  
No further warnings or infos will be given at this moment.

So if you're sure you have done everything right, confirm by highlighting the „Yes“ button and then press A.

The installer then will begin to setup the softmod.



That can take quite some time so again, be patient and wait till you see this



As the popup box tells you, the last step is, that we use Rocky5's eeprom backup tool.

You will also get a frindly reminder to copy or ftp your backup to your PC in case you will ever need it so keep it safe!



When you have confirmed the popup box by pressing A, Rocky5's eeprom backup tool will load and create the backup.



When that is done, your Xbox will load either XBMC4Gamers or UnleashX depending on which version of this installer you have used.



# <=== Custom Cerbios Splash ===>

===> Custom Splash for Cerbios 2.3.1 by dj0wns <===



Utility to replace the 2.3.1 cerbios splash screen with a mesh generated in blender.  
Note that this removes the ability to display the "Safe Mode" text on safe mode boot.

## -=> Warning <=-

This program modifies logic flow in the cerbios bios and could result in a broken bios.

**DO NOT** flash any produced bioses to TSOP unless you have a way to recover.

I do not guarantee that this even works on anything other than my personal xbox.

I highly recommend testing in Xemu if possible.

If this bricks your xbox...

So consider this here is more for PROs and not those who think they are.

Alright, let us begin, shall we?

First of, you need a couple of things.

- An unmodified copy of Cerbios 2.3.1 – [Download](#)
- Cerbios Tool – [Download](#)
- A 2D mesh in a wavefront .obj file with special formatting ([explained below](#))
- Python 3.8 or newer - [Download](#)
- This little .py script - [Download](#)
- Blender ([optional](#)) - [Download](#)
- Inkscape ([optional](#)) - [Download](#)

## Setting up Cerbios

The script requires an unpacked cerbios file to make modifications, use the  
unpack.exe found within Cerbios Tool to do this.

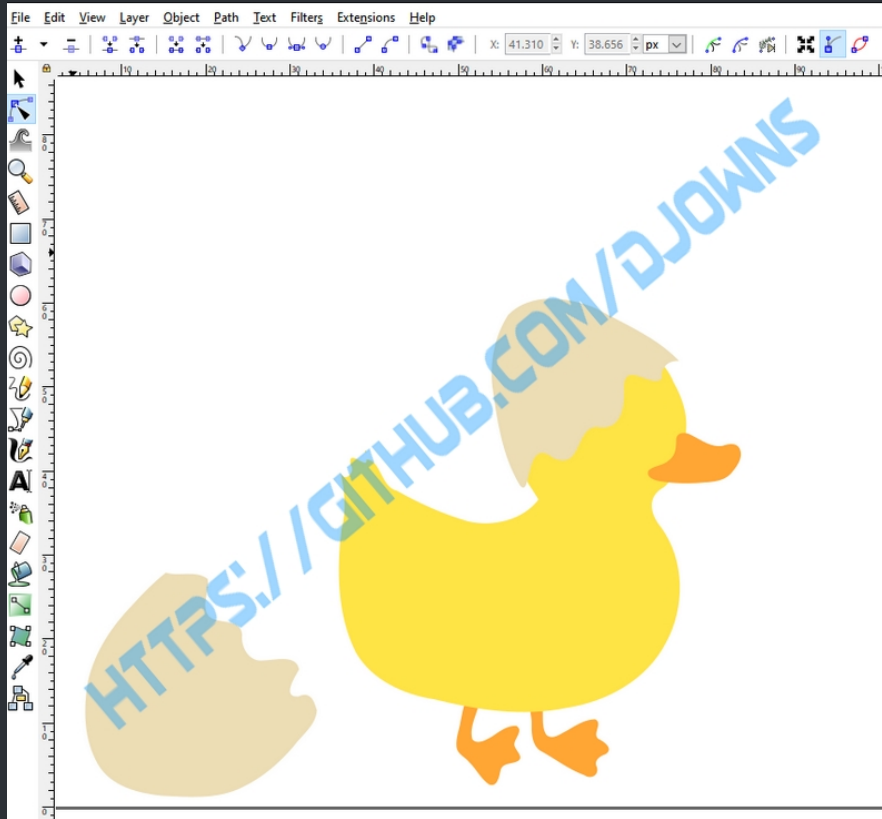
```
unpack.exe "Cerbios Hybrid V2.3.1 BETA.bin" cerbios_unpacked.bin
```

[Go to the next page](#)

# Creating a Wavefront .obj file

This obj file cannot have more than 5 colors, 948 vertices, or 1512 triangles!  
There are infinitely many methods for this, I am posting my method which was to draw my item in Inkscape, and then import the svg into blender, which will generate the mesh for you.

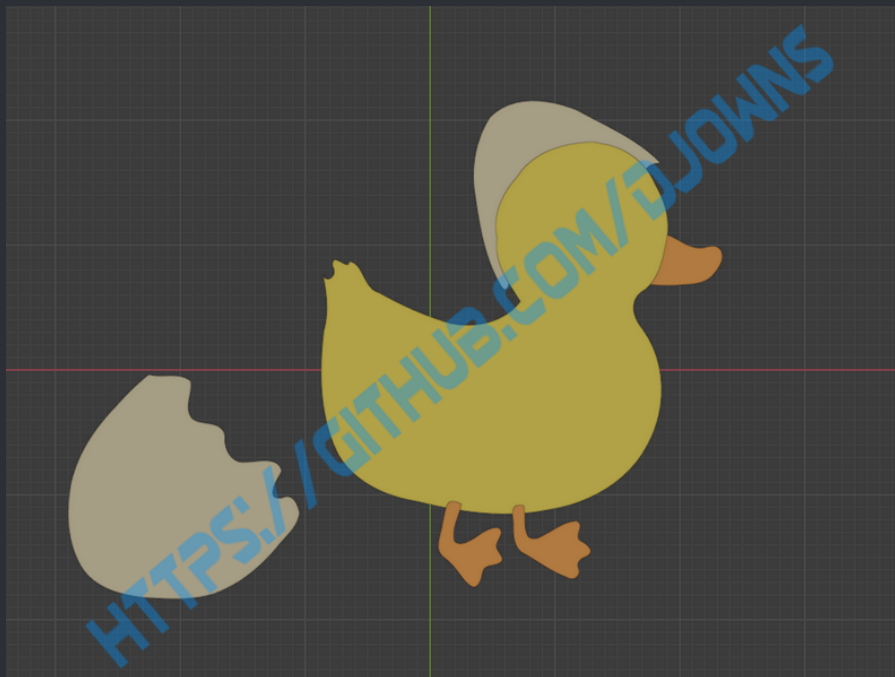
## Step 1: Draw your splash in Inkscape



Step 2: Save to an .svg

Step 3: Import svg into Blender

Step 4: Center drawing on the XZ plane



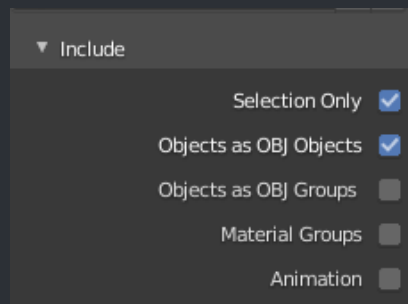
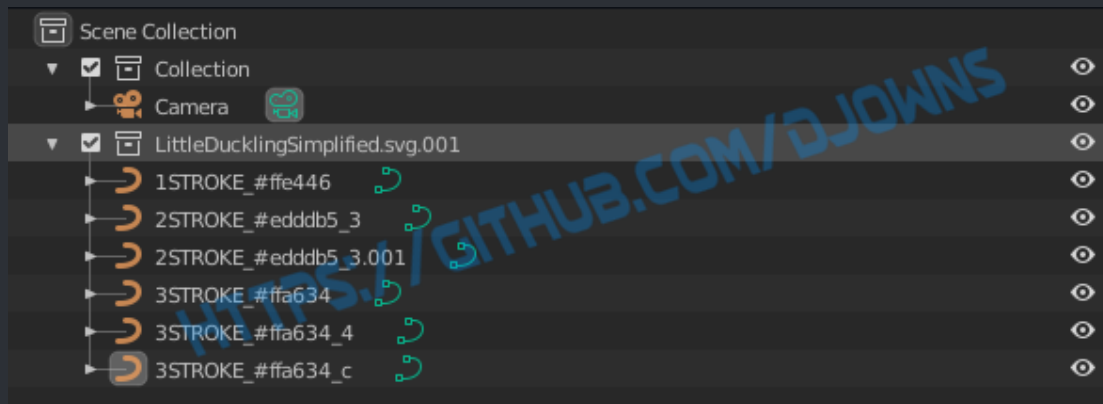
### Step 5:

Name shapes in Blender such that the shape is [name]\_[color code] and that they are in alphabetical order, in that earlier colors get drawn first and later colors drawn later.

All objects of the same color are drawn at the same time!

### Step 6:

Select your shapes and export to Wavefront with the following settings:



[Go to the next page](#)

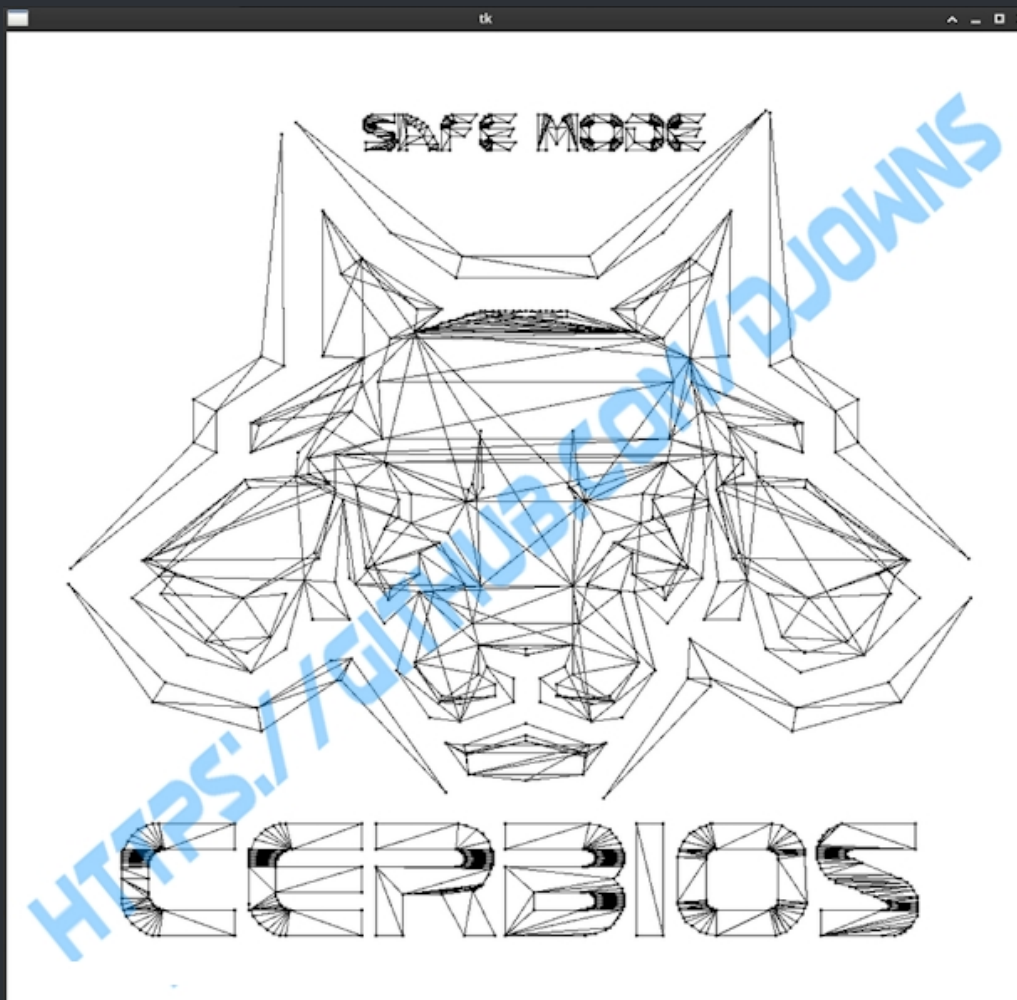


## Using the script to import the image into cerbios

Step 1:

Use visual mode to see the scale of the cerbios image

```
python modify_cerbios_splash.py -b cerbios_unpacked.bin -v
```

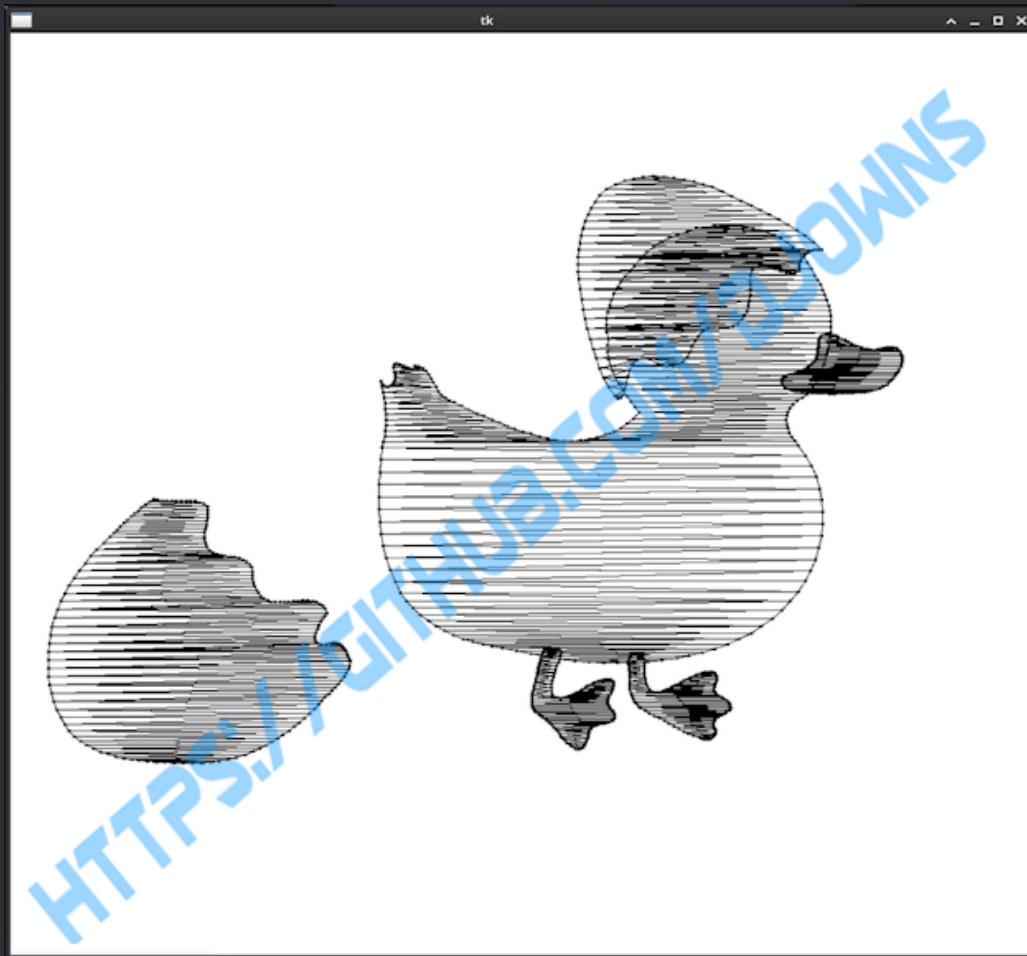


[Go to the next page](#)

## Step 2:

Use visual mode to see your .obj file

```
python modify_cerbios_splash.py -m duckbios.obj -v
```



[Go to the next page](#)

### Step 3:

Make sure you are happy with the relative size of the drawing to the original cerbios logo.  
You can add

```
-s [value]
```

to change the scale, default is 800x because it worked for my drawing. ex:

```
python modify_cerbios_splash.py -m duckbios.obj -s 1000 -v
```

### Step 4:

Now patch the drawing into the unpacked cerbios

```
python draw_cerbios.py -m duckbios.obj -o cerbios_unpacked.bin
```

Make sure to include the scale argument if you opted for a different scale!

## Repacking Cerbios

Take the modified unpacked cerbios and run it through the pack.exe utility found within Cerbios Tool.

```
pack.exe cerbios_unpacked.bin "Cerbios Hybrid V2.3.1 BETA.bin" cerbios_patched_compiled.bin
```

## Flashing Cerbios

Now you can flash the modified cerbios to your Xbox through whatever method you prefer!



# Script Arguments

usage: modify\_cerbios\_splash.py [-h] (-b | -m) [-o OUTPUT\_TO\_BIOS] [-v] [-s MESH\_SCALE] [input\_file]

Utility for viewing cerbios splash meshes

positional arguments:

input\_file           An extracted cerbios or waveform obj file

options:

-h, --help           show this help message and exit

-b, --bios           Input is Cerbios binary

-m, --mesh           Input is waveform obj file

-o OUTPUT\_TO\_BIOS, --output-to-bios OUTPUT\_TO\_BIOS  
                      Output mesh to bios file

-v, --visualize       Open a tkinter window to visualize the input mesh

-s MESH\_SCALE, --mesh-scale MESH\_SCALE

                      Scale factor for mesh, use the visual window to compare against cerbios logo for sizing

=> **This tutorial is made by dj0wns** <=

<https://github.com/dj0wns/CustomCerbiosSplash>

**Note:** We have take the images and descriptions above from dj0wns github page which is linked above.  
To point that out we’ve watermarked all of his images we used here with his git link!

★ Credits & thanks fly out to dj0wns for this work and for giving us permission to use his work here. ★

# <=== How to add a Bios to Bioschecker / EvoX / X4G ===>

## ===> BiosChecker <===



Sample Code for the Bioses.ini which is usually stored under **E:\Apps\BiosChecker\**

```
(256kb) Cerbios 2.1.0 Hybrid UDMA 2=eb8effda7e26ae6bf9d1d33614aacf0a
```

- The **green** part is the MD5 checksum of the bios file.
- The **orange** part is the name of the bios file which will be displayed.
- The **blue** part is the size of the bios which will also be displayed.

Just edit the **green**, **orange** and **blue** values with your values and then copy and past that it into your Bioses.ini.

## ===> EvoX <===



Sample Code for the evox.ini which is usually stored under **E:\Dash\EvolutionX\**

```
Rom = "Cerbios 2.4.2 Hybrid UDMA 2 (256kb)",0xeb8effda7e26ae6bf9d1d33614aacf0a
```

- The **green** part is simply the MD5 checksum of the bios file.
- The **orange** part is the name of the bios file.
- The **blue** part is the size of the bios.

Just edit the **green**, **orange** and **blue** values with your values and then copy and past that it into your evox.ini.

## ===> XBMC4Gamers <===



Sample Code for the BiosIDs.ini which is usually stored under **E:\XBMC4Gamers\system\SystemInfo\**

```
(256kb) Cerbios 2.4.2 Hybrid UDMA 2=eb8effda7e26ae6bf9d1d33614aacf0a
```

- The **green** part is the MD5 checksum of the bios file.
- The **orange** part is the name of the bios file.
- The **blue** part is the size of the bios.

Just edit the **green**, **orange** and **blue** values with your values and then copy and past that it into your evox.ini.

To get the MD5 sum of the bios you can use a tool like [WinMD5](#) which is freeware and need no installation.

# <=== Cerbios.ini ===>

## ===> Cerbios Config v2.4.2 (Modern) <===



```
; Cerbios Config 2.3.0 & above (Modern)

; Check For AV Pack
AVCheck = True

; LED Ring Color, G = Green, R = Red, A = Amber, O = Off
FrontLed = GGGG

; Fan Speed 0 = Default, 10-100 = Manual Control, Supports increments of 2's
FanSpeed = 0

; Drive Setup
; 0 = HDD & DVD, 1 = HDD & No DVD (Legacy Mode), 2 = HDD & No DVD (Modern Mode), 3 = Dual HDD
DriveSetup = 1

; Set Master Drive UDMA mode 0-6 on cold-boot
UdmaMode = 2
UdmaModeMaster = 2

; Set Slave Drive UDMA mode 0-6 on cold-boot (if enabled by DriveSetup = 3)
UdmaModeSlave = 2

; Enables Automatic Time Sync With Optional RTC Hardware Connected to SMBus
RtcEnable = False

; Forces AV Modes That Would Normally Be Rendered At 480i to 480p. Requires 480p Set In MS Dash And Component Cables
Force480p = False

; Forces VGA Modes For Component Cables Or Custom VGA Cables Using Mode(2+3) for VGA Displays Only, This Enables Force480p By Default &
Sets Console To NTSC.
ForceVGA = False

; Load XDK Launcher/XBDM if it exists (Debug Bios Only)
Debug = False

; Blocks Games From Updating The Original Xbox Dashboard, Useful for softmods.
BlockDashUpdate = False

; CD Paths (always falls back to D:\default.xbe)
CdPath1 = D:\Evolutionx\evoxdash.xbe
CdPath2 = D:\Avalaunch\avalaunch.xbe
CdPath3 = D:\UnleashX\unleashx.xbe

; Dash Paths (always falls back to C:\xboxdash.xbe)
DashPath1 = C:\evoxdash.xbe
DashPath2 = C:\avalaunch.xbe
DashPath3 = C:\nexgen.xbe

; Boot Animation Path (always falls back to C:\BootAnims\Xbox\bootanim.xbe)
BootAnimPath = C:\BootAnims\Xbox\bootanim.xbe
```

If needed, create a new txt file on your desktop and name it „cerbios.ini“ and copy the text from above to it. This config will become outdated at some point. Take it as pure example and a quick overview to get use to it!

## ===> Cerbios Config v2.2.1 (Legacy) <===



; Cerbios Config 2.2.1 max (Legacy)

; Check for AV Pack  
AVCheck = true

; LED Ring Color, G = Green, R = Red, A = Amber, O = Off  
FrontLed = GGGG

; Fan Speed 0 = Default, 10-100 = Manual Control, Supports increments of 2's  
FanSpeed = 0

; Drive Setup  
; 0 = HDD & DVD, 1 = HDD & No DVD (Legacy Mode), 2 = HDD & No DVD (Modern Mode), 3 = Dual HDD  
DriveSetup = 1

; Load XDK Launcher/XBDM if it exists (Debug)  
Debug = false

; IGR Master Port, 0 to 4, 0 = All Ports  
IGRMasterPort = 0

; A = 0, B = 1, X = 2, Y = 3, BLACK = 4, WHITE = 5, LEFT\_TRIGGER = 6, RIGHT\_TRIGGER = 7  
; DPAD\_UP = 8, DPAD\_DOWN = 9, DPAD\_LEFT = A, DPAD\_RIGHT = B, START = C, BACK = D, LEFT\_THUMB = E, RIGHT\_THUMB = F

; IGR Dash Combo, Resets back to dashboard, If ISO is mounted then keep it mounted as D:  
IGRDash = 67CD

; IGR Game Combo, Resets the current loaded game  
IGRGame = 467C

; IGR Full Combo, Full system reset  
IGRFull = 467D

; IGS Shutdown Combo, Full system shutdown  
IGRShutdown = 678D

; CD paths (always falls back to \Device\CdRom0\default.xbe)  
CdPath1 = \Device\CdRom0\Evolutionx\evoxdash.xbe  
CdPath2 = \Device\CdRom0\Avalaunch\avalaunch.xbe  
CdPath3 = \Device\CdRom0\UnleashX\unleashx.xbe

; Dash paths (always falls back to \Device\Harddisk0\Partition2\xboxdash.xbe)  
DashPath1 = \Device\Harddisk0\Partition2\evoxdash.xbe  
DashPath2 = \Device\Harddisk0\Partition2\avalaunch.xbe  
DashPath3 = \Device\Harddisk0\Partition2\nexgen.xbe

; Boot Animation path (always falls back to \Device\Harddisk0\Partition2\BootAnims\Xbox\bootanim.xbe)  
BootAnimPath = \Device\Harddisk0\Partition2\BootAnims\Xbox\BootAnim.xbe

**This config is the legacy (EOL) cerbios.ini and you CAN'T use it for any version above 2.2.1. cuz there are major differences to the new modern cerbios.ini from above.**

**It's here so you can compare em with the new one as well as to teach you so you can help others if needed.**



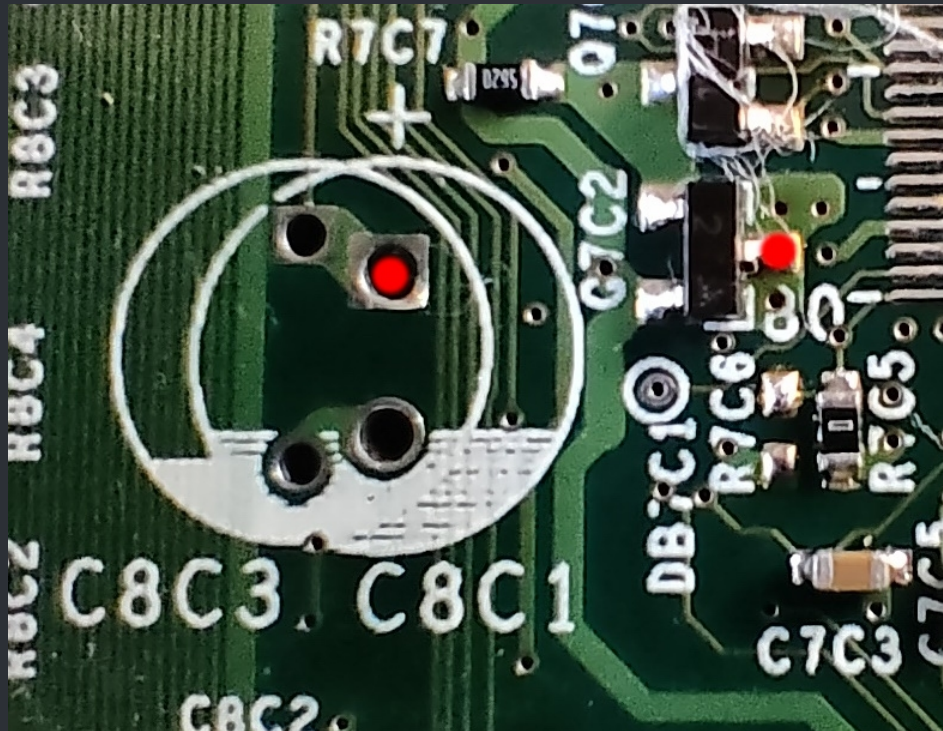




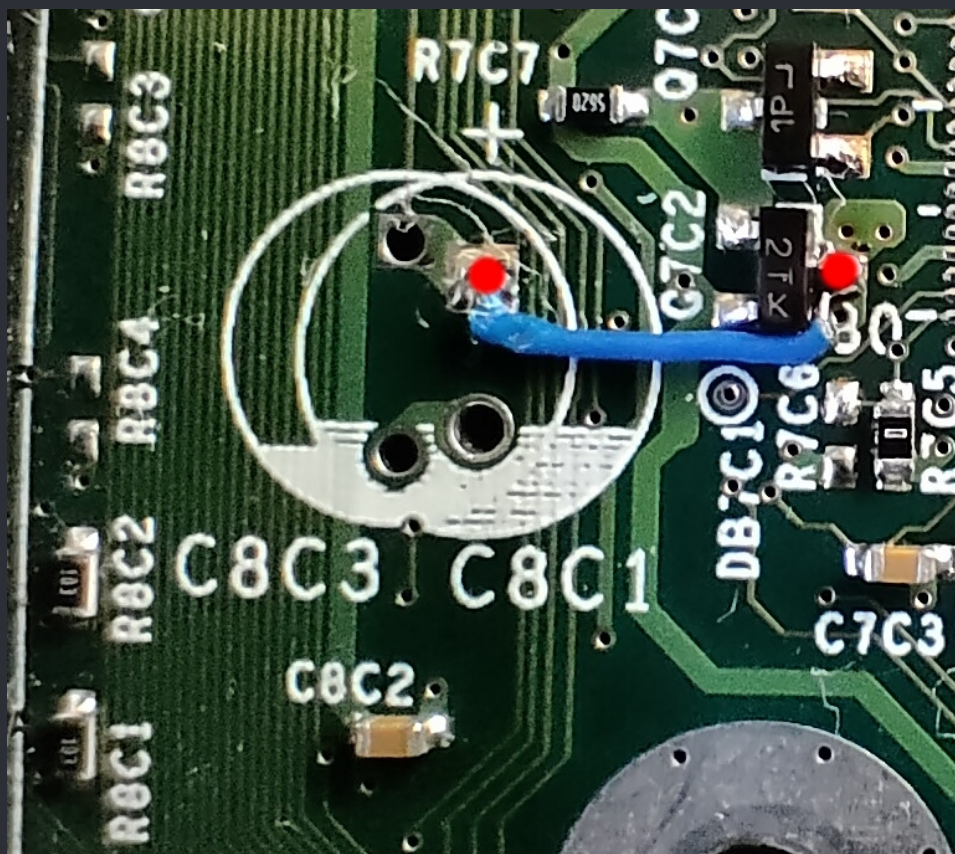
## <=== Xbox 1.6 Clock Cap Removal ===>

===> Top Side <===

Remove the clock cap

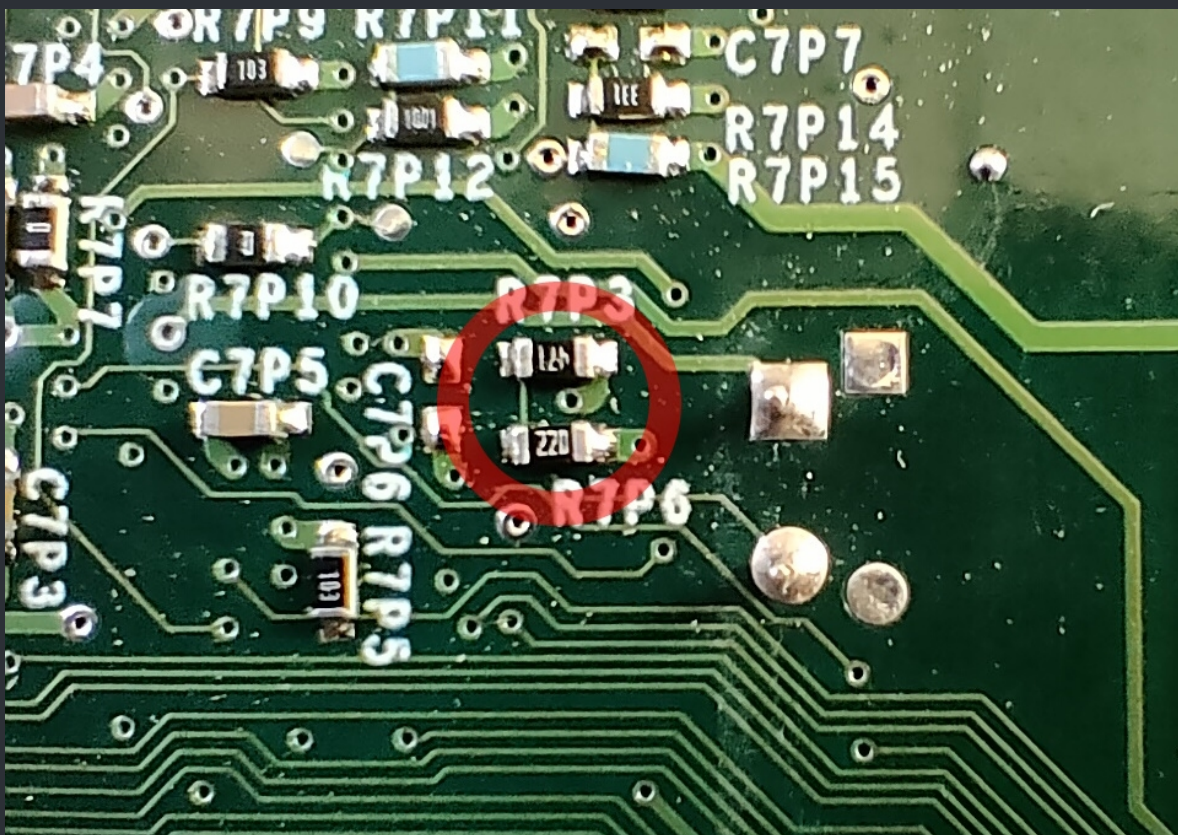


Then solder from clock cap + to 3.3v standby

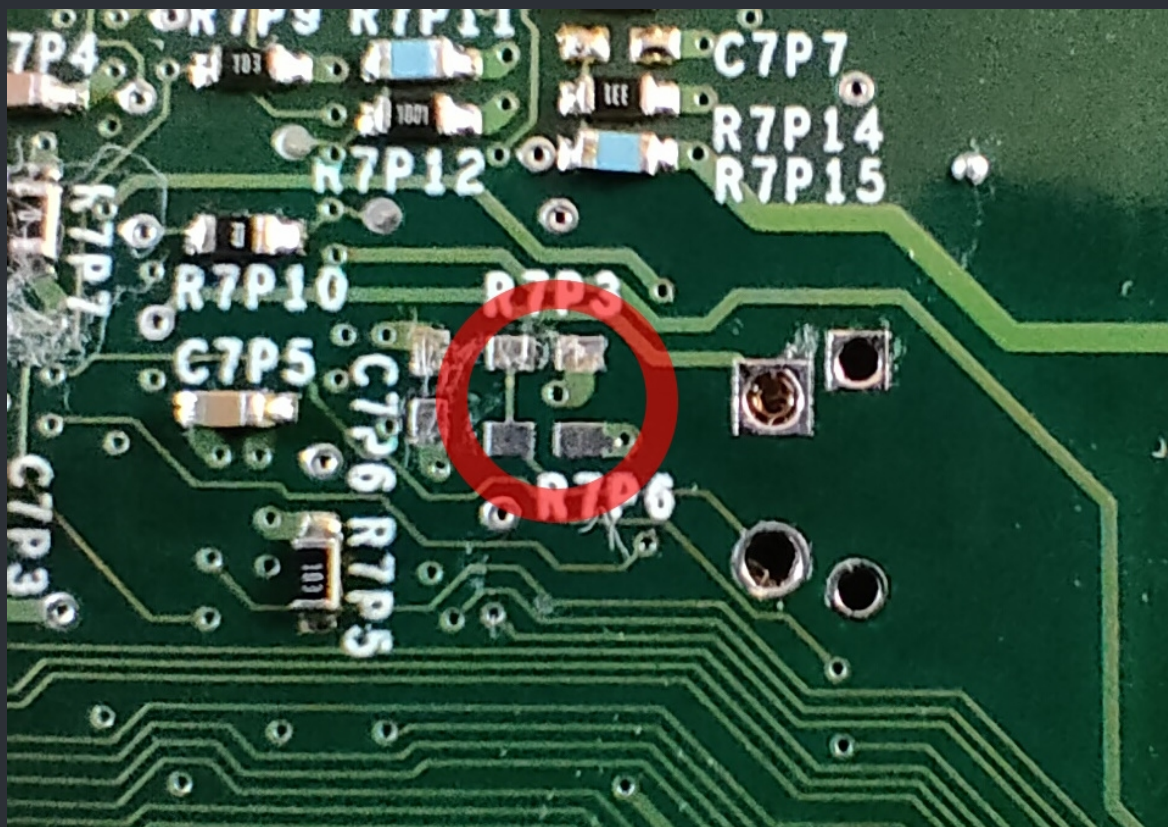




Remove R7P3 and R7P6



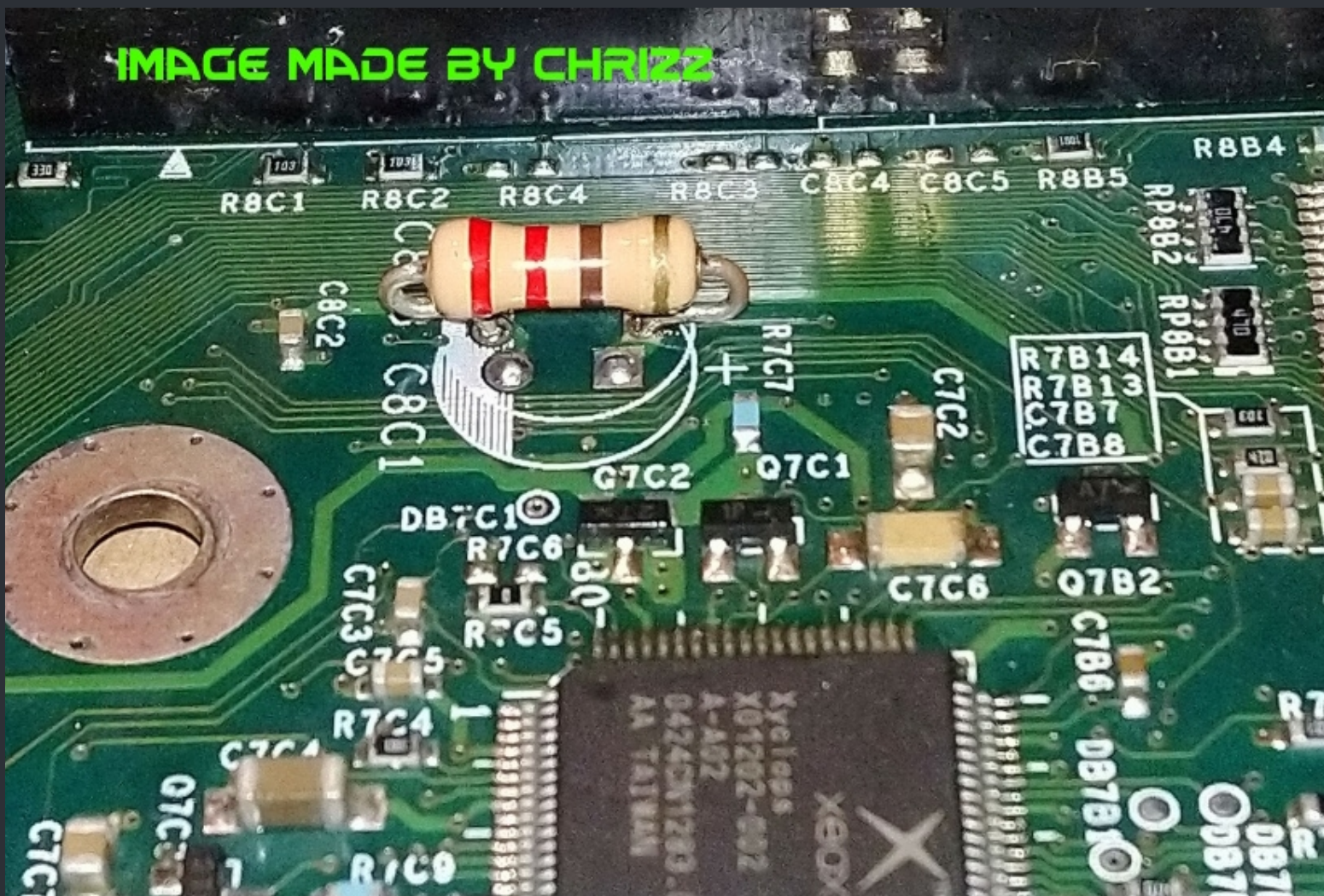
It then should look like that. Pls take note that the CC has also been removed.





As an alt option to the above method, you can remove the clock cap and solder a 220Ωr in place.

IMAGE MADE BY CHRIZZ

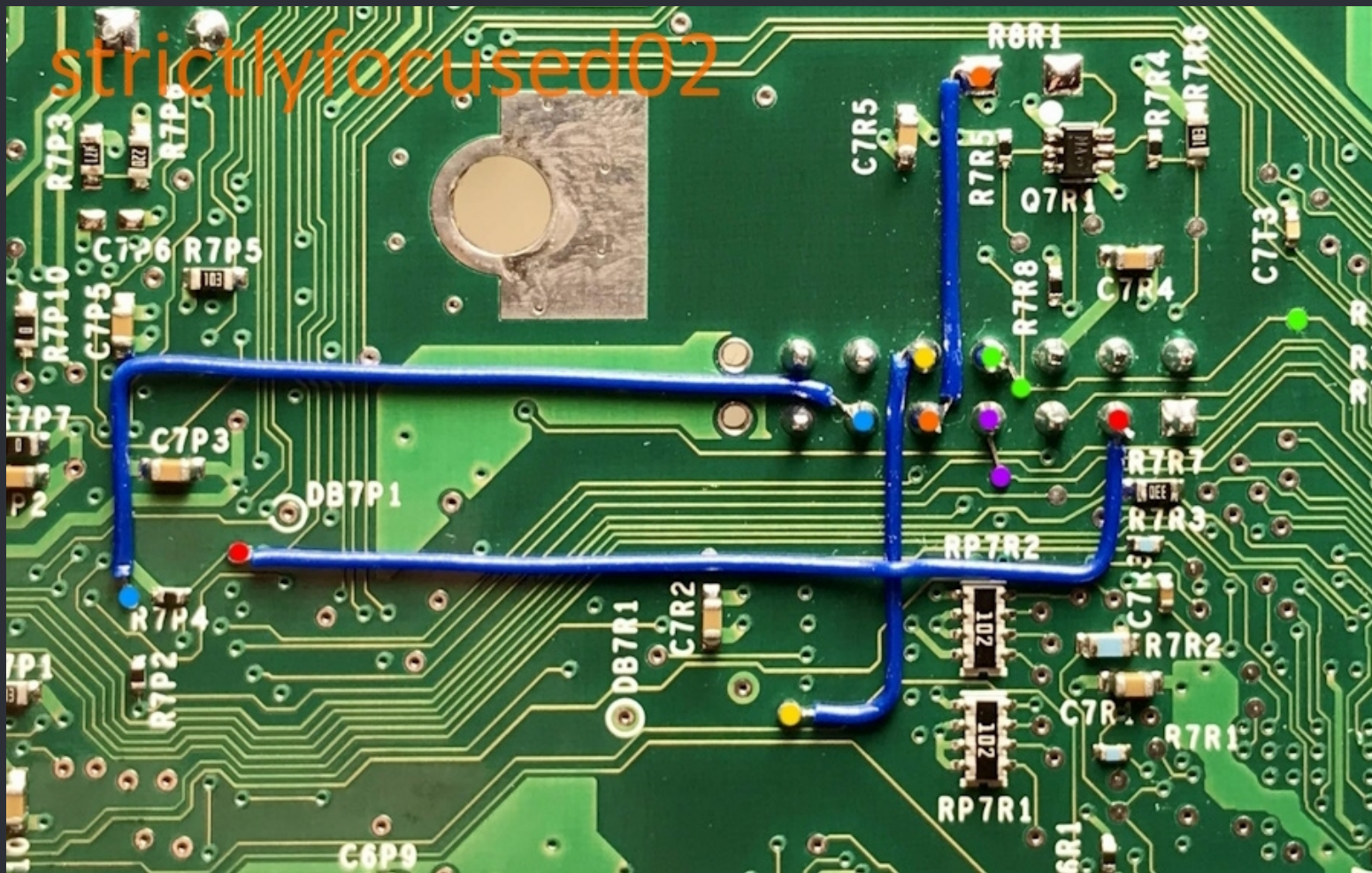


★ Credits fly out to ChriZz for this image. ★



## <=== XBox 1.6 LPC Rebuild ===>

===> XBox 1.6 Wired LPC Rebuild <===



Please pay attention to the **GREEN** marked spots.

Depending on your soldering skill you can pick one of the spots.

Usually you pick the far right one which is a test pad to which you can solder very easy.

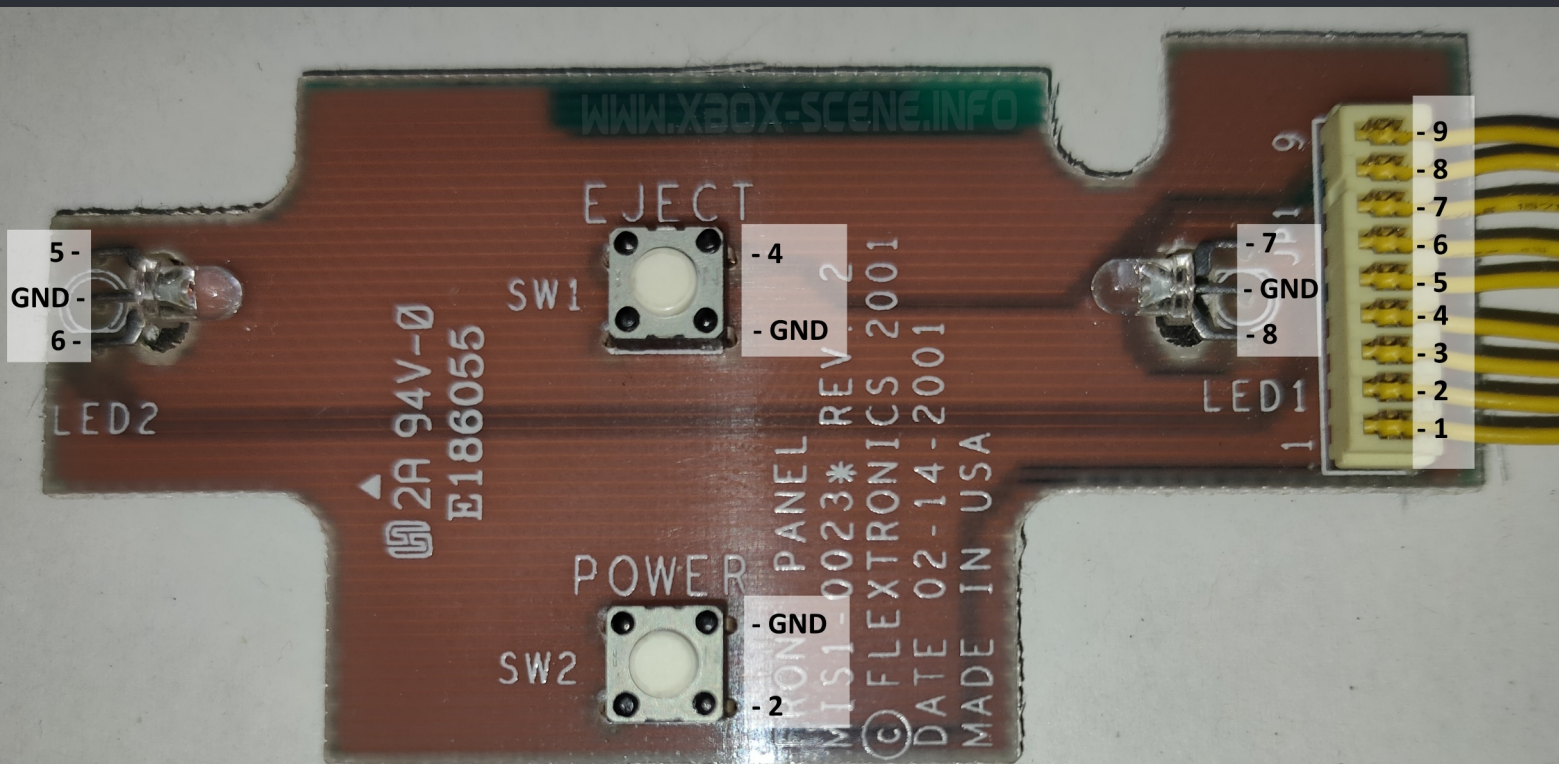
But if your skill is above usual, you can keep the wire super short and solder it right to the via under the LPC pin/via.

★ Credits fly out to [strictlyfocused02](#) for this clean rebuild and the image above. ★



# <=== XBox Front Panel Pinout ===>

## ===> Front Panel PCB & Connector <===



NC	9	3	10	Empty
LED1 Red (Right)	7	1E	8	LED1 Green (Right)
LED2 Green (Left)	5	1E	6	LED2 Red (Left)
GND	3	1E	4	SW1 Eject
GND	1	1E	2	SW2 Power

<=== XBox TSOP Types ===>

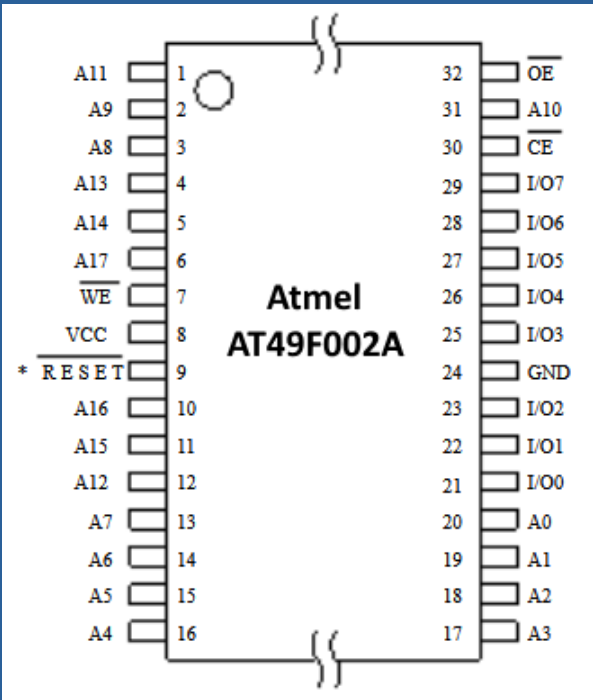
===> Atmel AT49F002A <===



The Atmel AT49F002A is an 2 Mbit (256Kb x8), 5V, 32 pin TSOP. Used in the XBox versions 1.2, 1.3 and 1.4. It's a very rare TSOP chip.

Manufacturer Code	Device Code	Flash ID
1F	07	1F07

Atmel AT49F002A TSOP 32 Pinout



ALLDATASHEET.COM

The Atmel AT49F002A is flashable with:

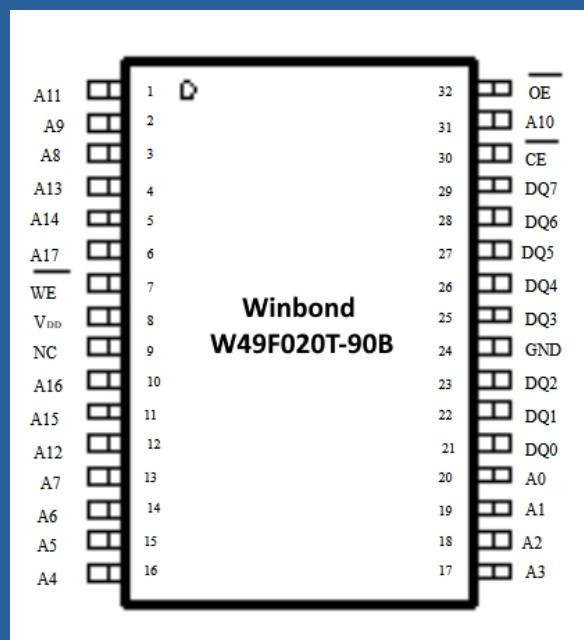
XBlast	GentooX	ResctooX	EvolutionX	Raincoat
Yes ✓	Yes ✓	Yes ✓	Yes ✓	Yes ✓



The Winbond W49F020T-90B is an 2 Mbit (256Kb x8), 5V, 32 pin TSOP.  
Used in the XBox versions 1.2, 1.3 and 1.4.

Manufacturer Code	Device Code	Flash ID
DA	8C	DA8C

#### Winbond W49F020T-90B TSOP 32 Pinout



ALLDATASHEET.COM

The Winbond W49F020T-90B is flashable with:

XBlast	GentooX	ResctooX	EvolutionX	Raincoat
Yes ✓	Yes ✓	Yes ✓	No ✗	Yes ✓

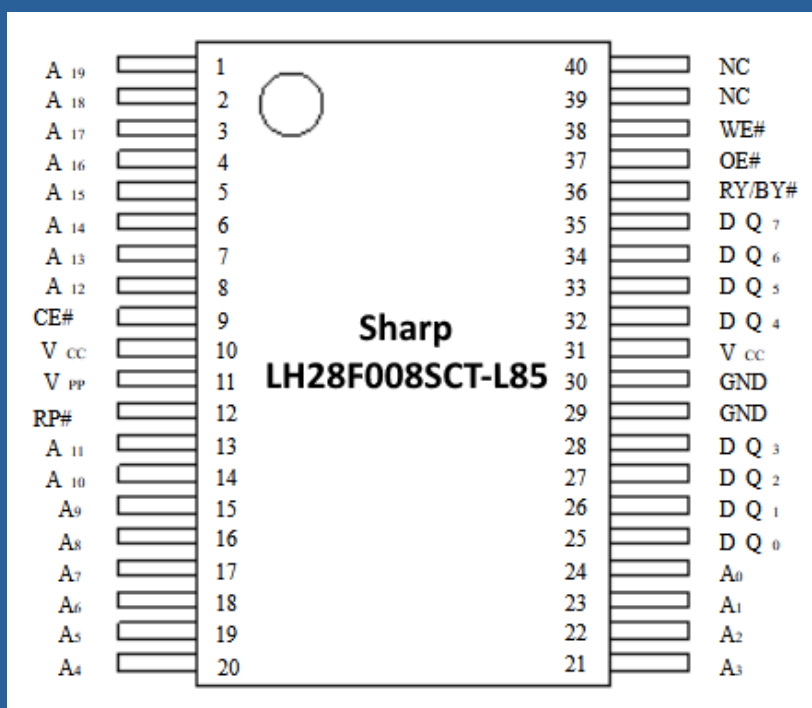




The Sharp LH28F008SCT-L85 is an 8 Mbit (1024Kb x8), 5V, 40 pin TSOP.  
Used in the XBox versions 1.0 and 1.1.

Manufacturer Code	Device Code	Flash ID
89	A6	89A6

### Sharp LH28F008SCT-L85 TSOP 40 Pinout



[ALLDATASHEET.COM](http://alldatasheet.com)

The Sharp LH28F008SCT-L85 is flashable with:

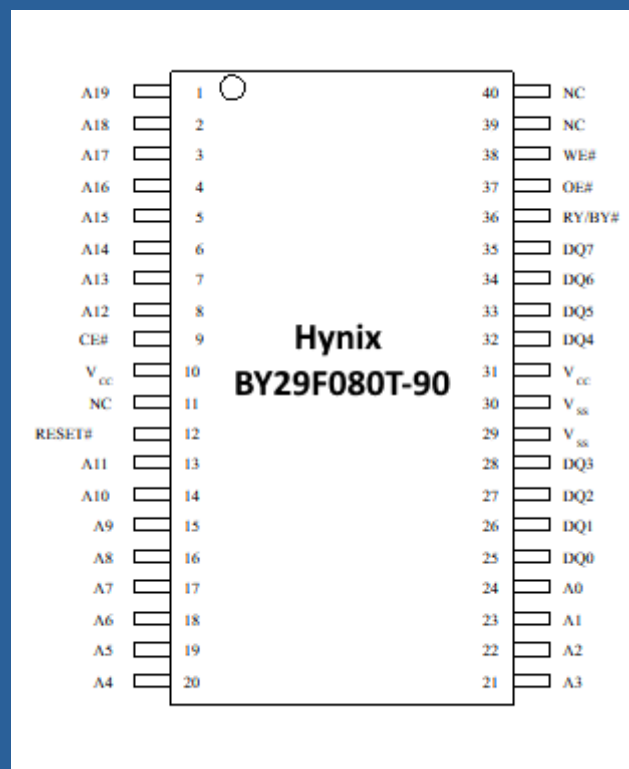
XBlast	GentooX	ResctooX	EvolutionX	Raincoat
No ✖	Yes ✔	No ✖	No ✖	Yes ✔



The Hynix BY29F080T-90 is an 8 Mbit (1024Kb x8), 5V, 40 pin TSOP .  
XBox versions v1.0 & v1.1. Same chip as the Hyundai HY29F080T-90 below.

Manufacturer Code	Device Code	Flash ID
AD	D5	ADD5

### Hynix BY29F080T-90 TSOP 40 Pinout



ALLDATASHEET.COM

The Hynix BY29F080T-90 is flashable with:

XBlast	GentooX	ResctooX	EvolutionX	Raincoat
Yes ✓	Yes ✓	Yes ✓	Yes ✓	Yes ✓

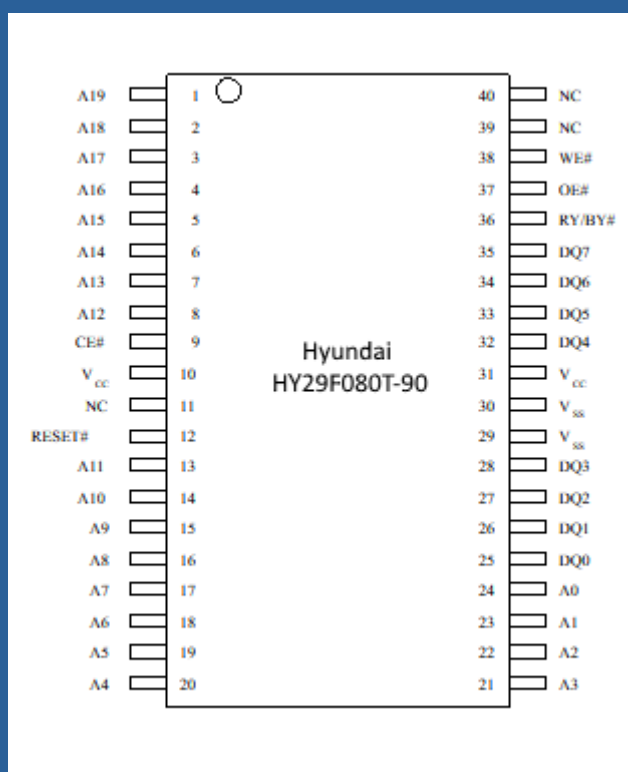
## ===> Hyundai HY29F080T-90 <===



The HY29F080T-90 is an 8 Mbit (1024kb x8), 5V, 40 pin TSOP .  
XBox versions v1.0 & v1.1. Same chip as the Hynix BY29F080T-90 above.

Manufacturer Code	Device Code	Flash ID
AD	D5	ADD5

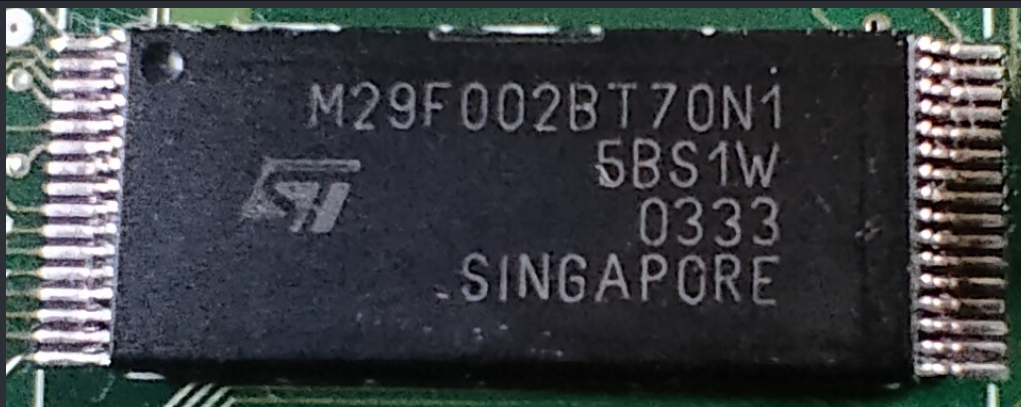
### Hyundai HY29F080T-90 TSOP Pinout



[ALLDATASHEET.COM](http://alldatasheet.com)

The Hynix BY29F080T-90 is flashable with:

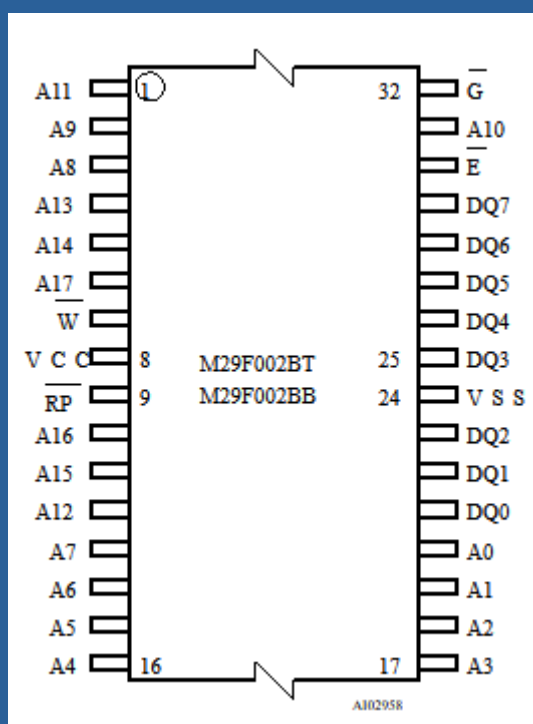
XBlast	GentooX	ResctooX	EvolutionX	Raincoat
Yes ✓	Yes ✓	Yes ✓	Yes ✓	Yes ✓



The ST-M29F002BT-70N1 is an 2 Mbit (256Kb x8) Boot Block, 5V, 32 pin TSOP.  
Used in the XBox versions 1.2, 1.3 and 1.4.

Manufacturer Code	Device Code	Flash ID
20	B0	20B0

#### ST-M29F002BT-70N1 TSOP Pinout



ALLDATASHEET.COM

The ST-M29F002BT-70N1 is flashable with:

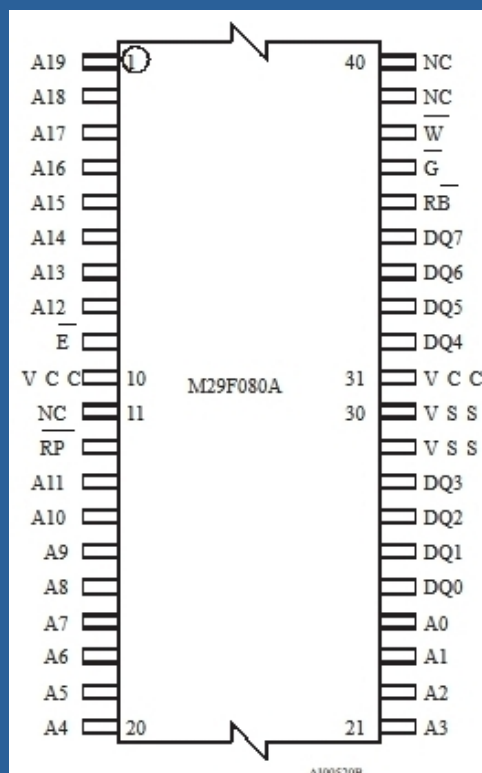
XBlast	GentooX	ResctooX	EvolutionX	Raincoat
Yes ✓	Yes ✓	Yes ✓	Yes ✓	Yes ✓



The ST-M29F080A is an 8 Mbit (1024kb x8), 5V, 40 pin TSOP.  
Used in the Xbox versions 1.0 & 1.1.

Manufacturer Code	Device Code	Flash ID
20	F1	20f1

#### ST-M29F080A TSOP Pinout



[ALLDATASHEET.COM](http://alldatasheet.com)

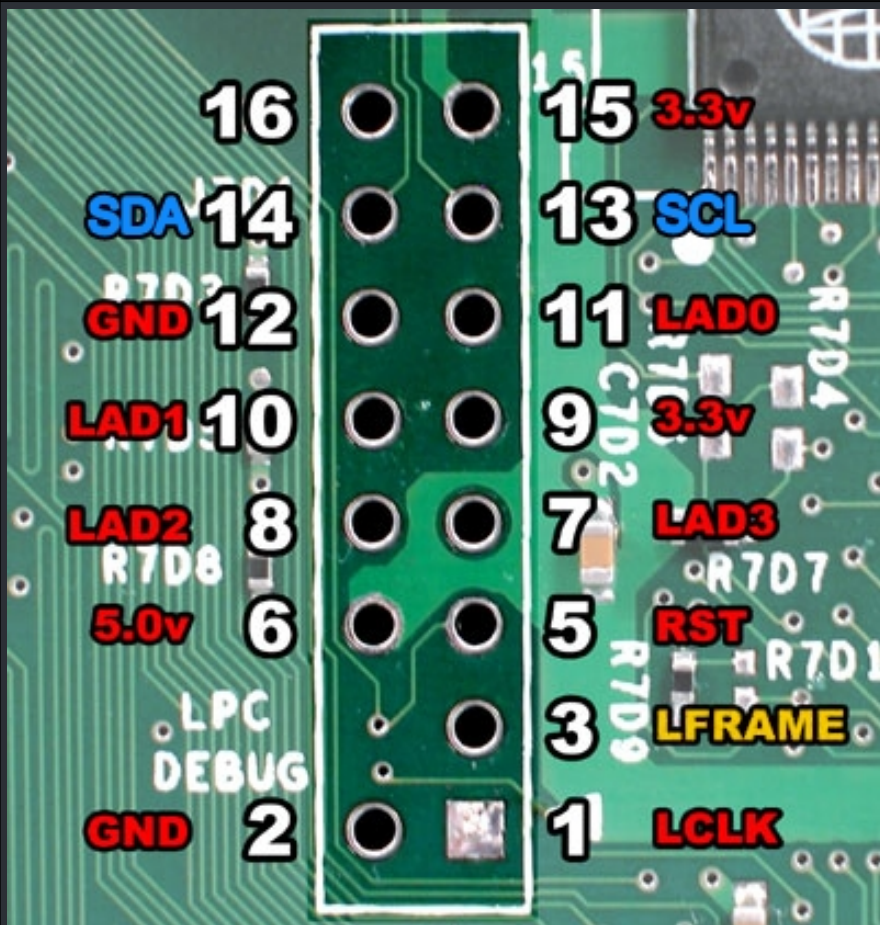
The ST-M29F002BT-70N1 is flashable with:

XBlast	GentooX	ResctooX	EvolutionX	Raincoat
Yes ✓	Yes ✓	Yes ✓	Yes ✓	Yes ✓



# <=== LPC Pinouts ===>

## ===> XBox LPC Vias <===



### Low Pin Count interface.

This interface allows several devices to operate in a pin constrained environment.

On the Xbox it is used as a debug and boot device port by Microsoft and as a method to introduce a hacked BIOS allowing unsigned code to execute by hackers. This interface is present on all Xbox models. On revision 1.0, 1.1, and 1.2 Xboxes it is fully functional. On revision 1.3, 1.4 Xboxes the #lframe signal is disconnected and must be tapped off the MCPx chip or emulated on a CLPD. On Rev 1.6 Xboxes it is all but removed and must be re-constructed.

**Lframe** caused of much debate, the #Lframe signal is used by all mod-chips. In newer revision Xboxes (rev 1.3 and above) this signal has been deliberately disabled by MS. Third generation mod-chips combated this by adding a CPLD (type of programmable logic device) to emulate the signal for the BIOS chip. For older mod-chips and cheapmods you need to pull the #Lframe signal from the [MCPx](#). It is not an easy mod, and is only recommended for TRUE professionals.

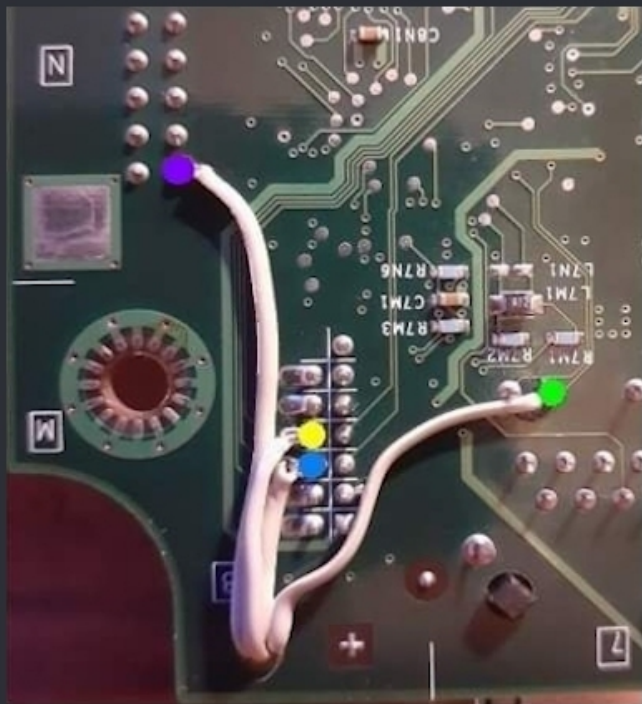
Pin / Via	Name	Voltage
1	LCLK	0.2v / 1.5v
2	Ground	0.0v
3	LFrame	3.3v
4 *	3.3v	3.3v
5	Reset	3.3v
6	VCC5	5.0v
7	Lad3	3.3v
8	Lad2	3.3v
9	VCC3	3.3v
10	Lad1	3.3v
11	Lad0	3.3v
12	Ground	0.0v
13	SCL	3.3v
14	SDA	3.3v
15	3.3v	3.3v
16	Unused	3.3v

\* Pin 4 is on the Xbox 1.6 only!



# <=== XBox Status Indicator LED's ===>

## ===> HDD / LAN / DVD LED's <===



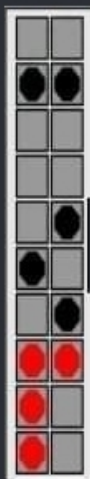
### TOPSIDE POWER CONNECTORS

V1.0  
V1.1



FRONT

V1.2  
V1.4



FRONT

V1.6



### 4 PIN MOLEX CONNECTOR



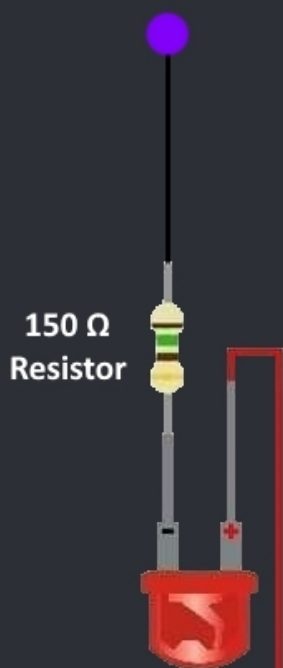
● +5V DC

● -GROUND

GND

+5V

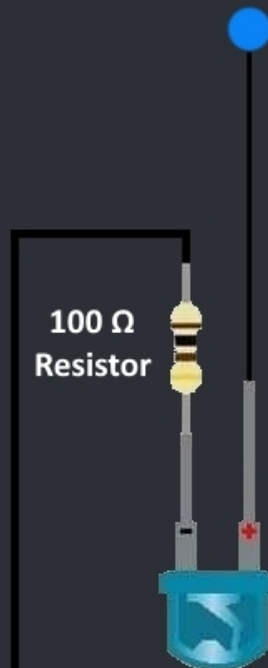
### HDD ACTIVITY



### LAN ACTIVITY



### DVD READY



### DVD ACTIVITY

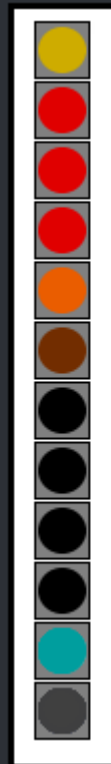


★ Credits to: The XBox Modders Market

Special Thanks to John S. Allen and Garry Owen ★

# <=== XBox PSU's ===>

===> XBox v1.0 / v1.1 PSU <===

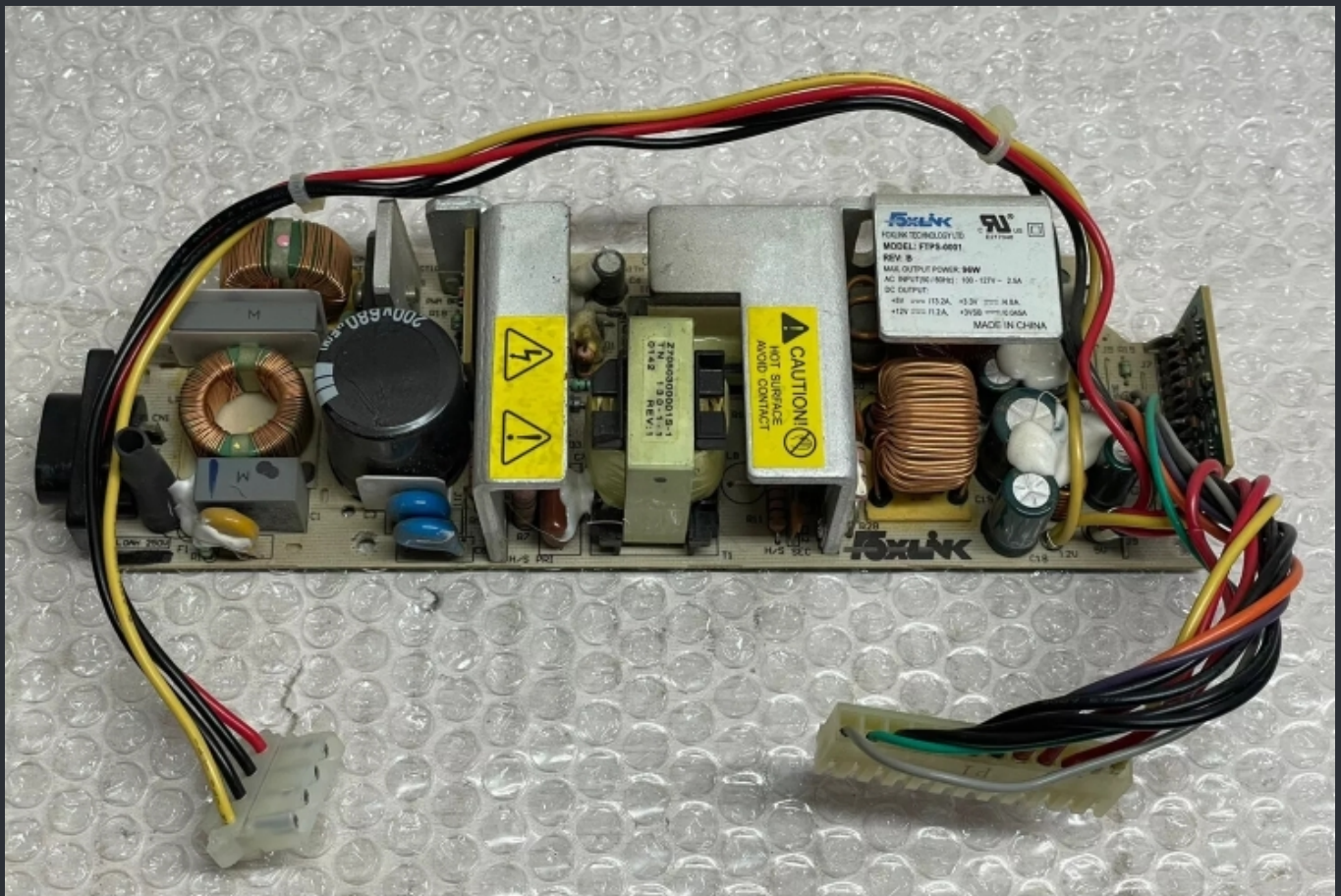


## XBOX V1.0-V1.1 FOXLINK

WWW.XBOX-SCENE.INFO

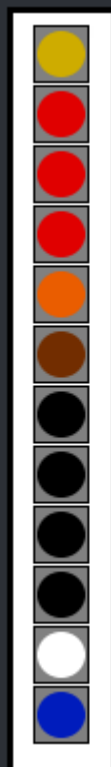
		STB	ON
	YELLOW	0.0V	12.0V
	RED	0.0V	5.0V
	ORANGE	0.0V	3.3V
	BROWN	3.3V	3.3V
	BLACK	GND	GND
	TEAL	0.0V	3.3V
	GREY	0.0V	3.3V

POWER OK - « DON'T USE AS  
POWER ON - « CURRENT SOURCES



The white stuff on the PSU is not a problem. It's glue which stops parts from vibrating.



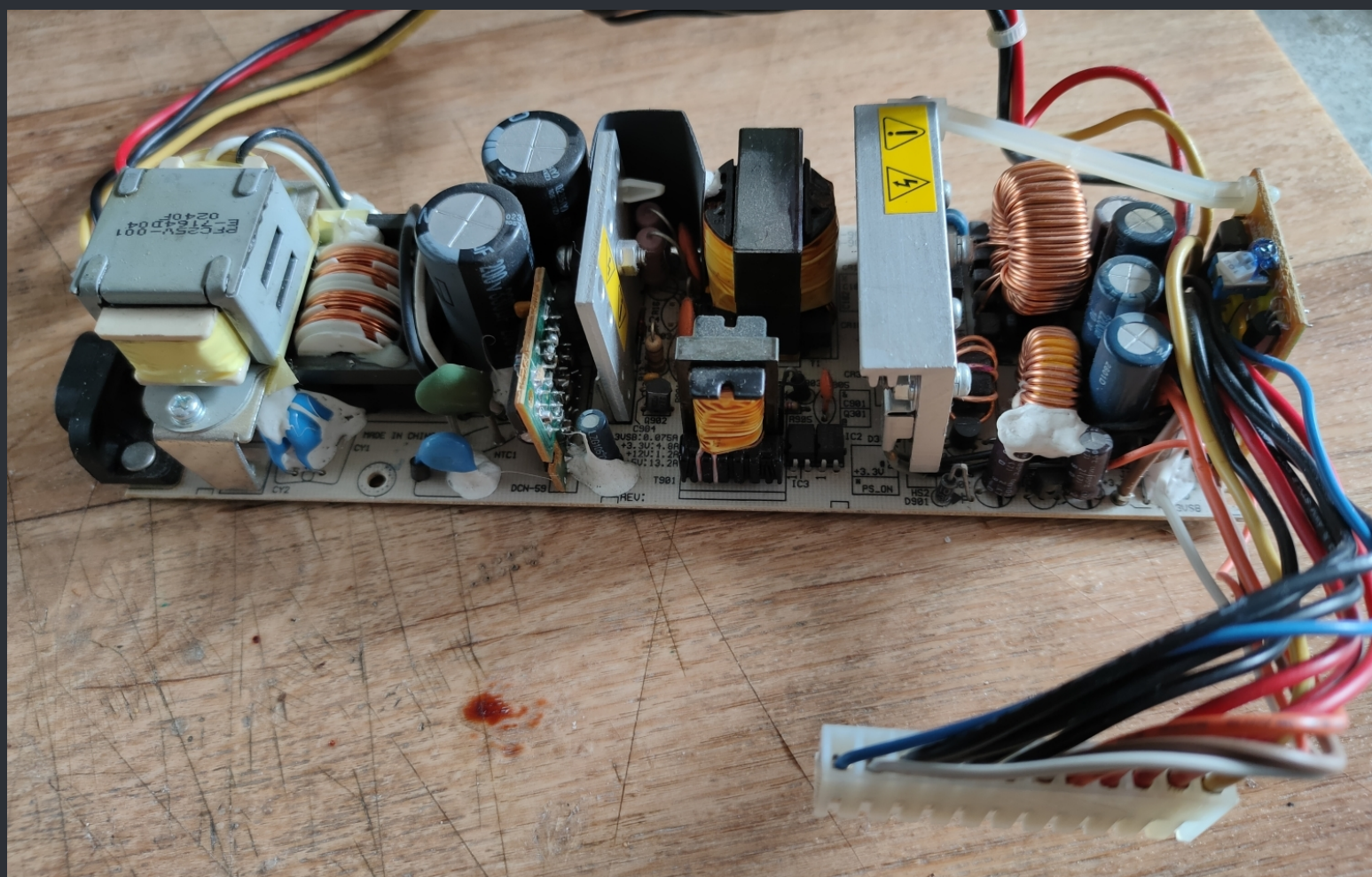


## XBOX V1.0-V1.1 DELTA

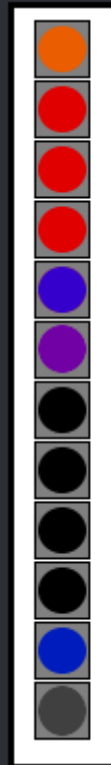
WWW.XBOX-SCENE.INFO

		STB	ON
Yellow	YELLOW	0.0V	12.0V
Red	RED	0.0V	5.0V
Orange	ORANGE	0.0V	3.3V
Brown	BROWN	3.3V	3.3V
Black	BLACK	GND	GND
White	WHITE	0.0V	3.3V
Blue	BLUE	0.0V	3.3V

POWER OK - Blue « DON'T USE AS  
POWER ON - White « CURRENT SOURCES



The white stuff on the PSU is not a problem. It's glue which stops parts from vibrating.

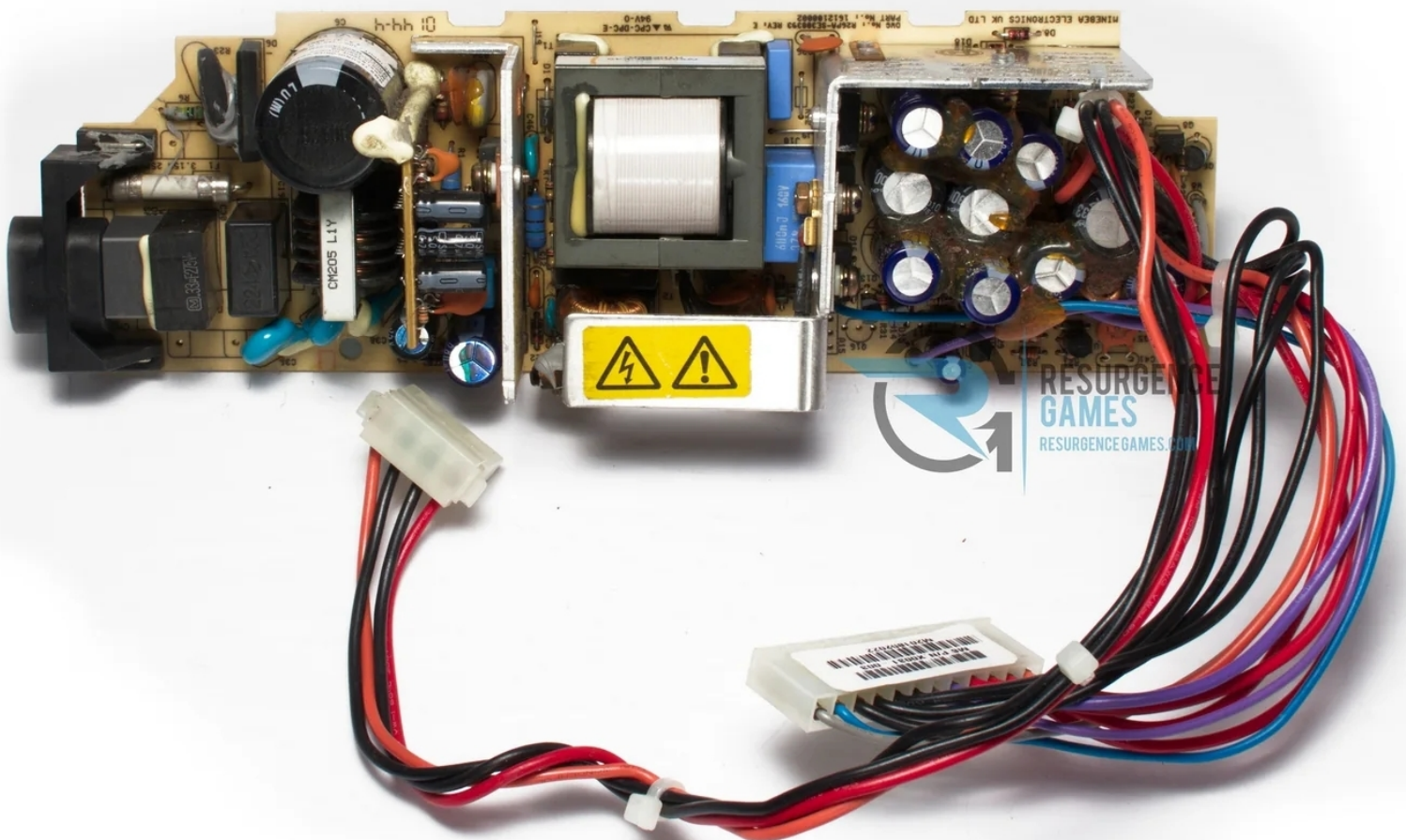


## XBOX V1.0-V1.1 MINEBA

WWW.XBOX-SCENE.INFO

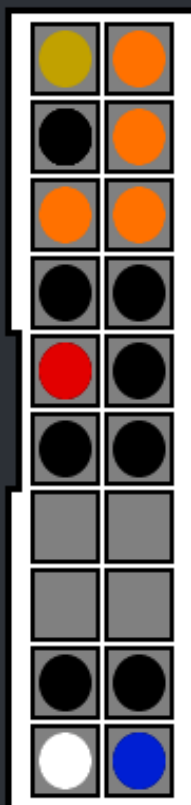
		STB	ON
	ORANGE	0.0V	12.0V
	RED	0.0V	5.0V
	PURPLE D	0.0V	3.3V
	PURPLE L	3.3V	3.3V
	BLACK	GND	GND
	BLUE	0.0V	3.3V
	GREY	0.0V	3.3V

POWER OK -  « DON'T USE AS  
POWER ON -  « CURRENT SOURCES



The „honey“ looking stuff on the PSU is not a problem. It's glue which stops parts from vibrating.



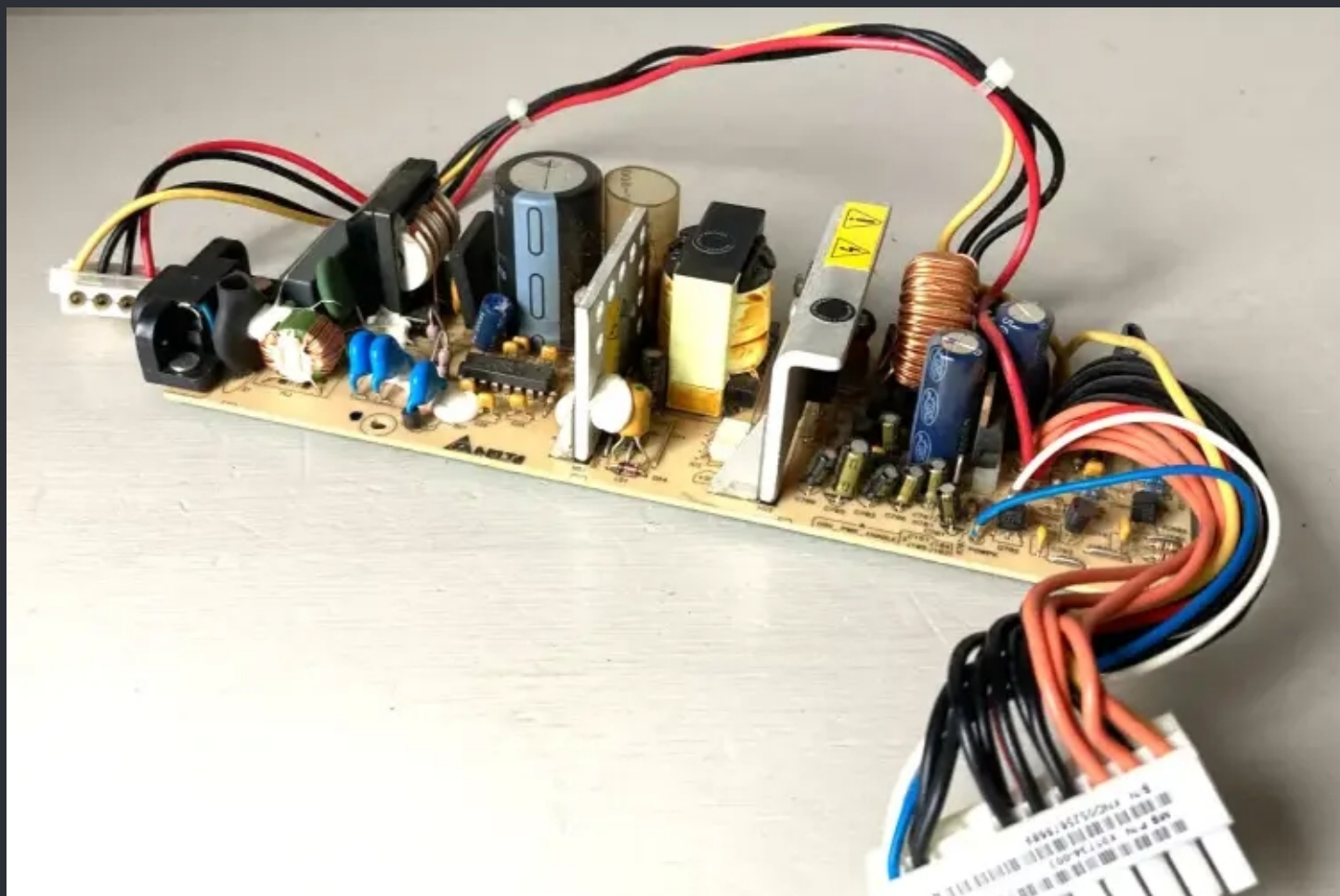


## XBOX V1.6 DELTA

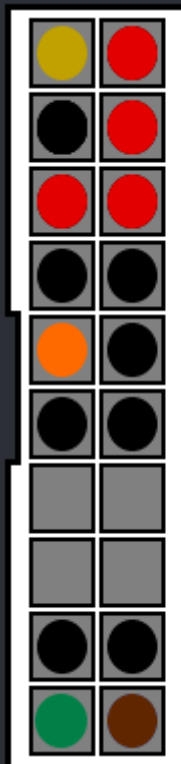
WWW.XBOX-SCENE.INFO

		STB	ON
	YELLOW	0.0V	12.0V
	ORANGE	5.0V	5.0V
	BLACK	GND	GND
	RED	0.0V	5.0V
	WHITE	0.0V	3.3V
	BLUE	3.3V	3.3V

POWER OK - << DON'T USE AS  
POWER ON - << CURRENT SOURCES



The white stuff on the PSU is not a problem. It's glue which stops parts from vibrating.

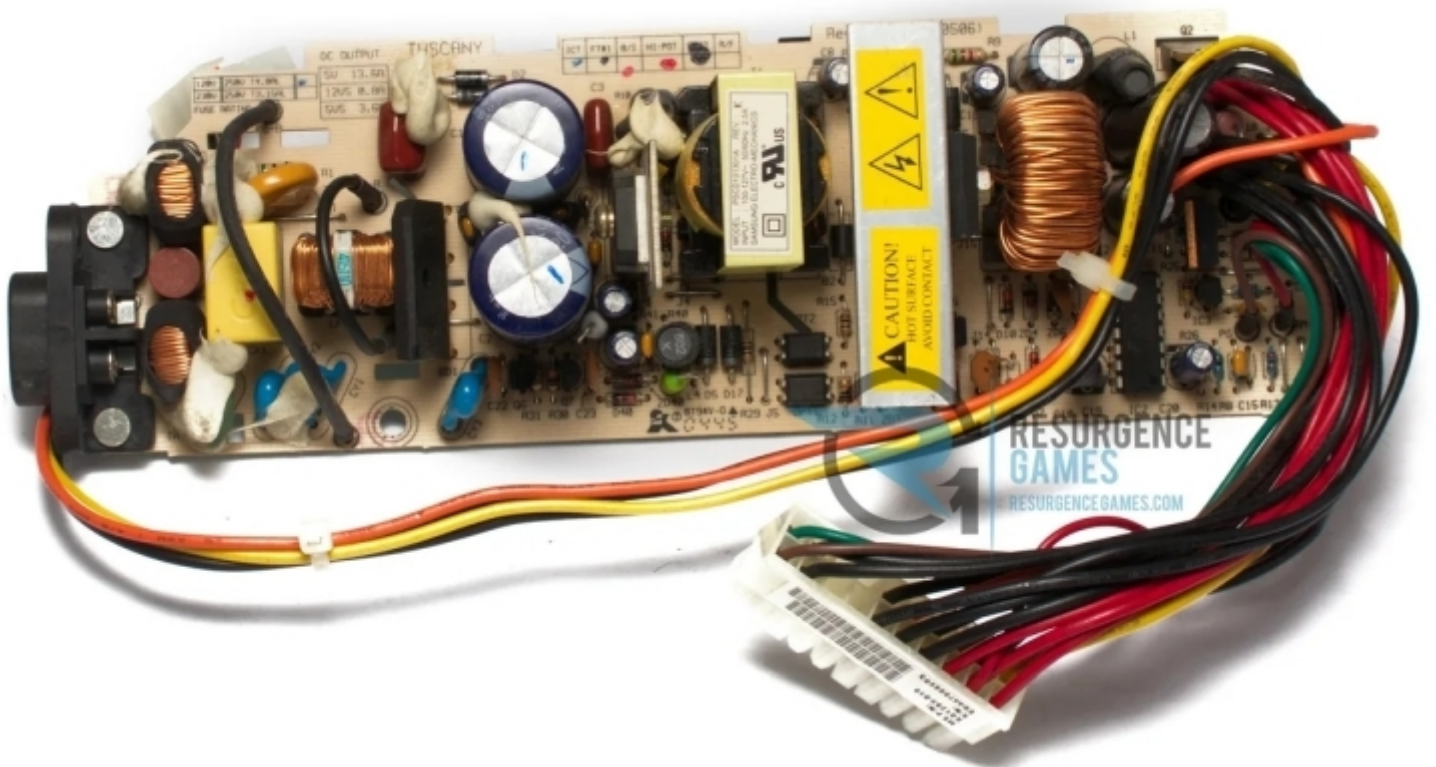


## XBOX 1.6 SAMSUNG

WWW.XBOX-SCENE.INFO

		STB	ON
	YELLOW	0.0V	12.0V
	RED	5.0V	5.0V
	BLACK	GND	GND
	ORANGE	0.0V	5.0V
	GREEN	0.0V	3.3V
	BROWN	3.3V	3.3V

POWER OK - « DON'T USE AS  
 POWER ON - « CURRENT SOURCES



The white stuff on the PSU is not a problem. It's glue which stops parts from vibrating.





## XBOX V1.2-1.4 FOXLINK

WWW.XBOX-SCENE.INFO

		STB	ON
Yellow	YELLOW	0.0V	12.0V
Red	RED	0.0V	5.0V
Black	BLACK	GND	GND
Purple	PURPLE	3.3V	3.3V
Orange	ORANGE	0.0V	3.3V
Green	GREEN	0.0V	3.3V
Grey	GREY	0.0V	3.3V

POWER OK - ● << DON'T USE AS  
POWER ON - ● << CURRENT SOURCES



The white stuff on the PSU is not a problem. It's glue which stops parts from vibrating.

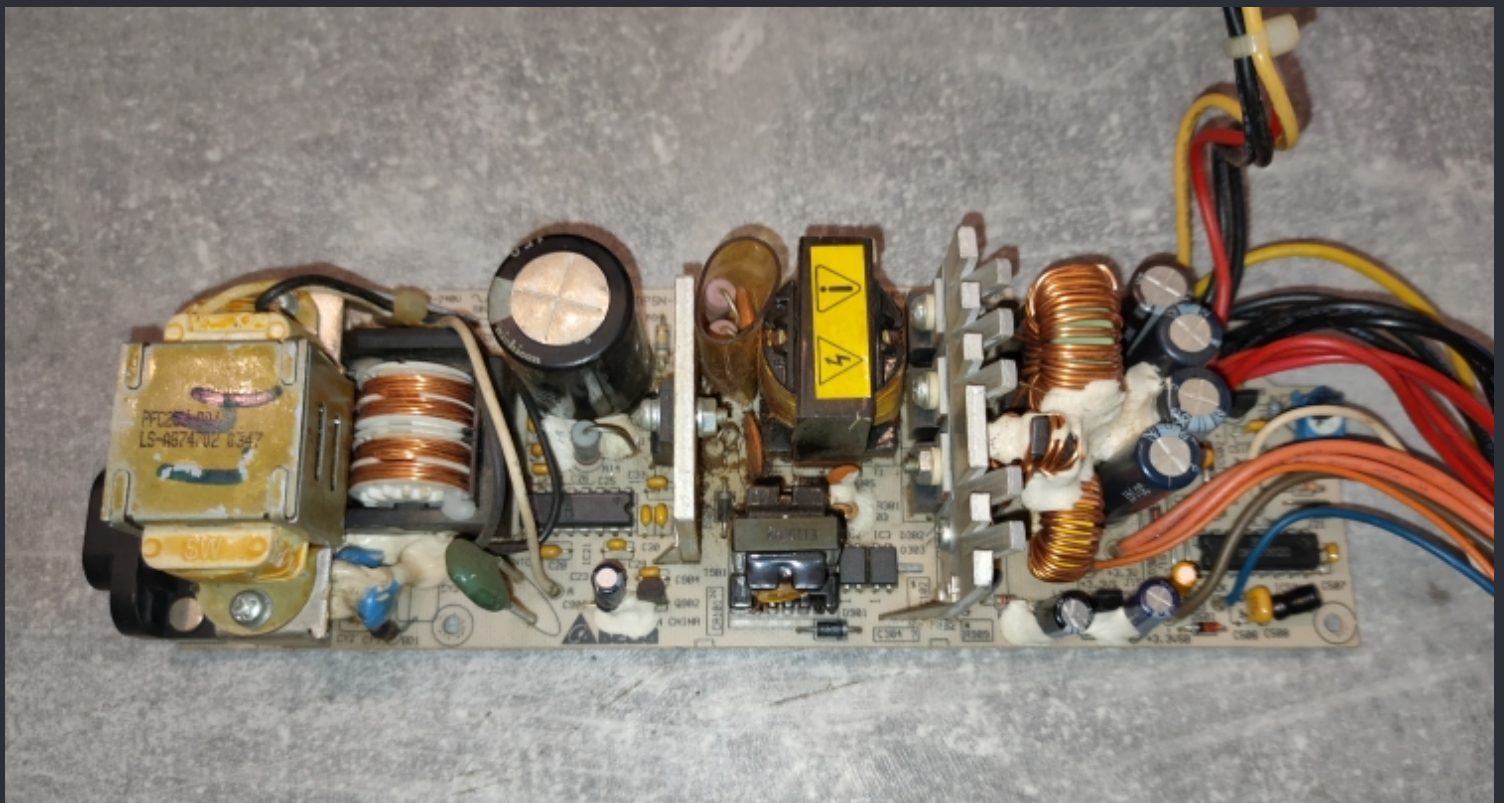


## XBOX V1.2-1.4 DELTA

WWW.XBOX-SCENE.INFO

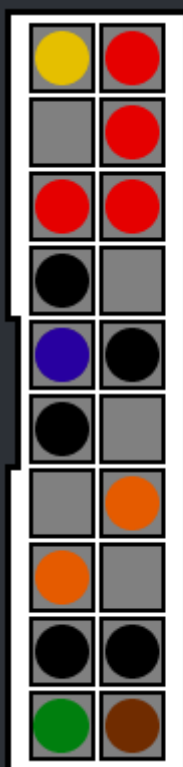
		STB	ON
	YELLOW	0.0V	12.0V
	RED	0.0V	5.0V
	BLACK	GND	GND
	GREY	3.3V	3.3V
	ORANGE	0.0V	3.3V
	WHITE	0.0V	3.3V
	BLUE	0.0V	3.3V

POWER OK - « DON'T USE AS  
POWER ON - « CURRENT SOURCES



The white stuff on the PSU is not a problem. It's glue which stops parts from vibrating.



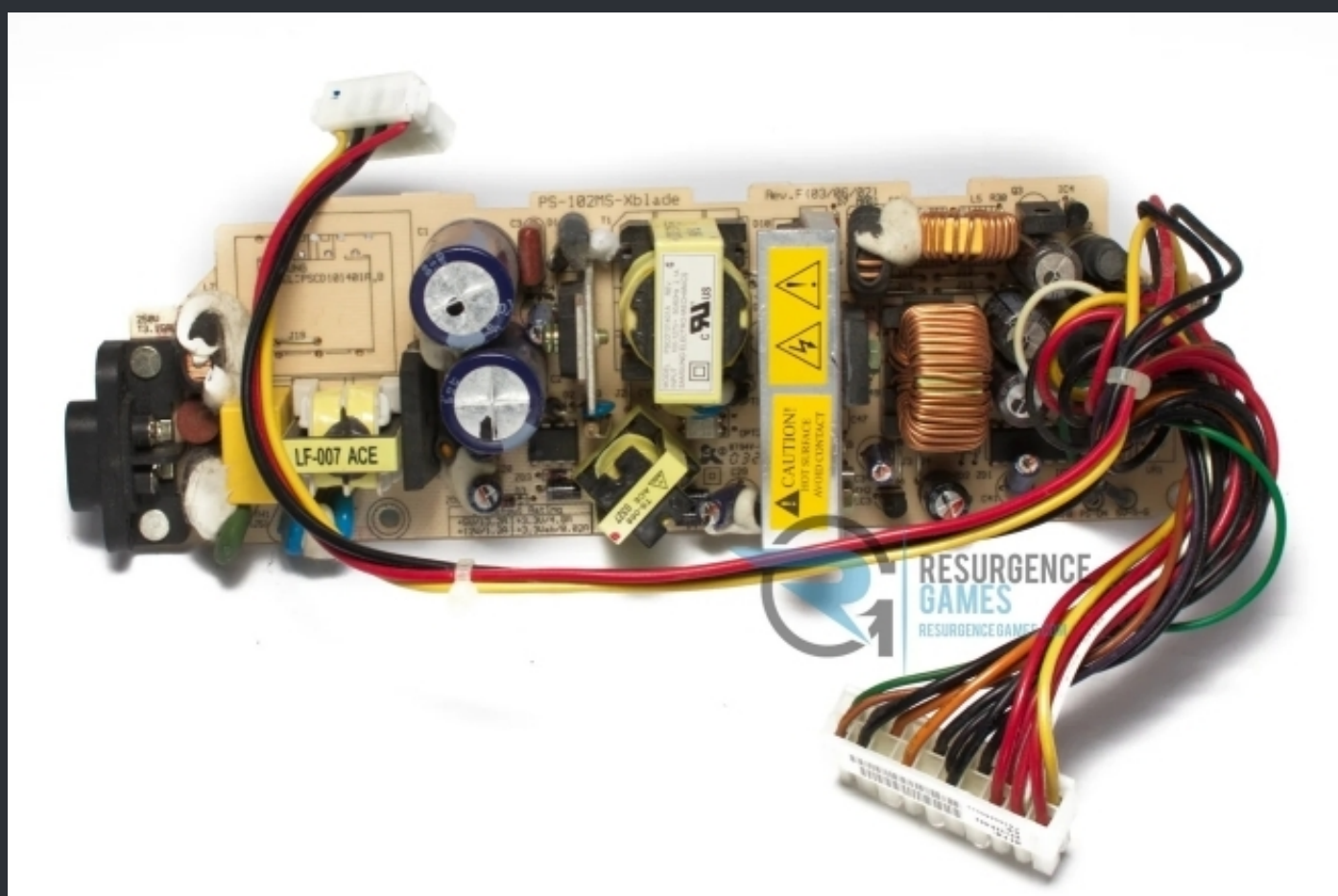


## XBOX V1.2-1.4 SAMSUNG

WWW.XBOX-SCENE.INFO

		STB	ON
	YELLOW	0.0V	12.0V
	RED	0.0V	5.0V
	BLACK	GND	GND
	PURPLE	3.3V	3.3V
	ORANGE	0.0V	3.3V
	GREEN	0.0V	3.3V
	BROWN	0.0V	3.3V

POWER OK - << DON'T USE AS  
 POWER ON - << CURRENT SOURCES

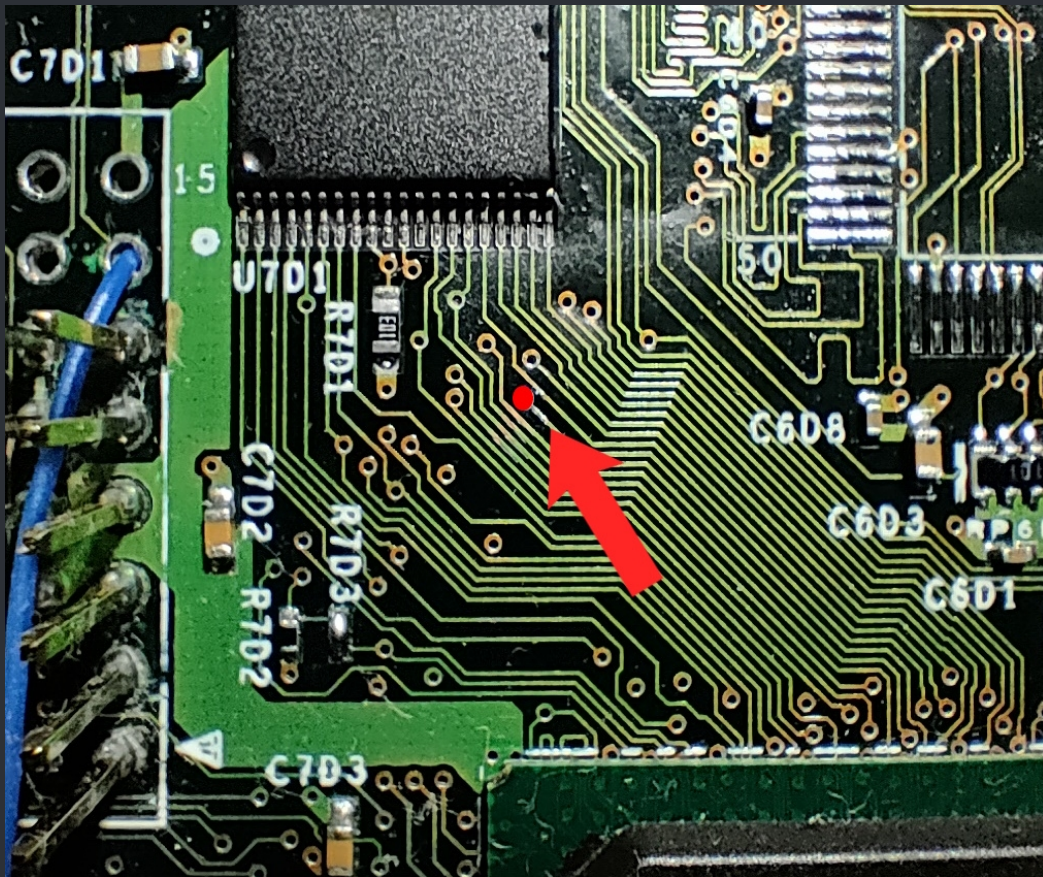


The white stuff on the PSU is not a problem. It's glue which stops parts from vibrating.

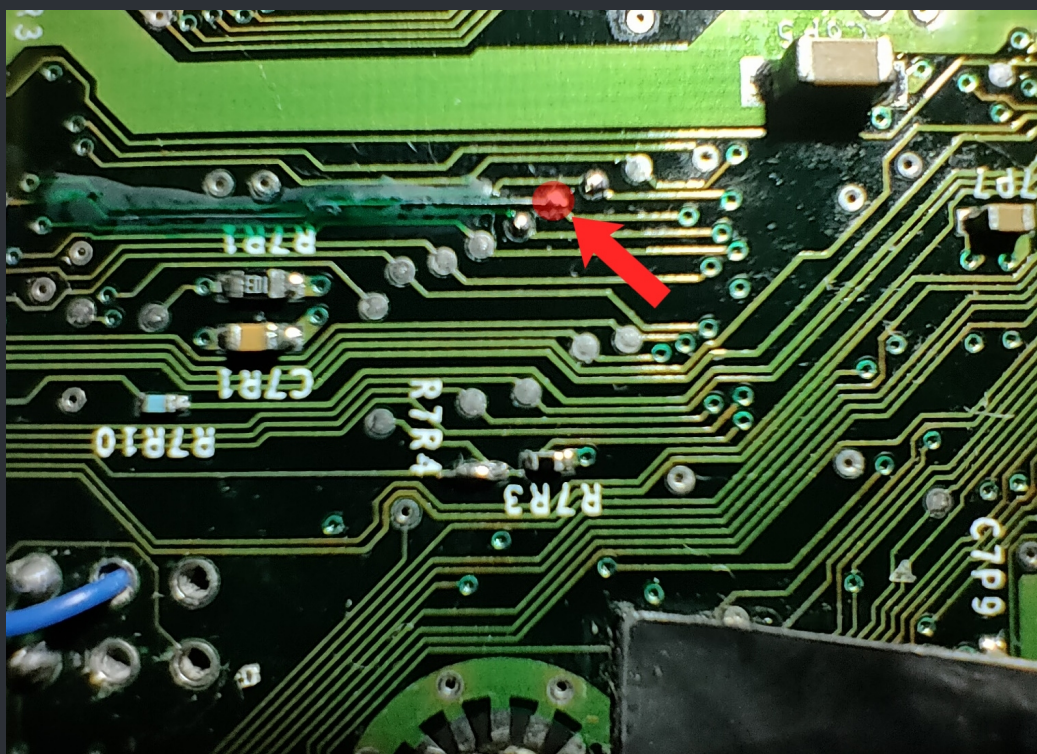


## <=== DO Solder Points ===>

===> DO on a v1.0 / v1.1 <===

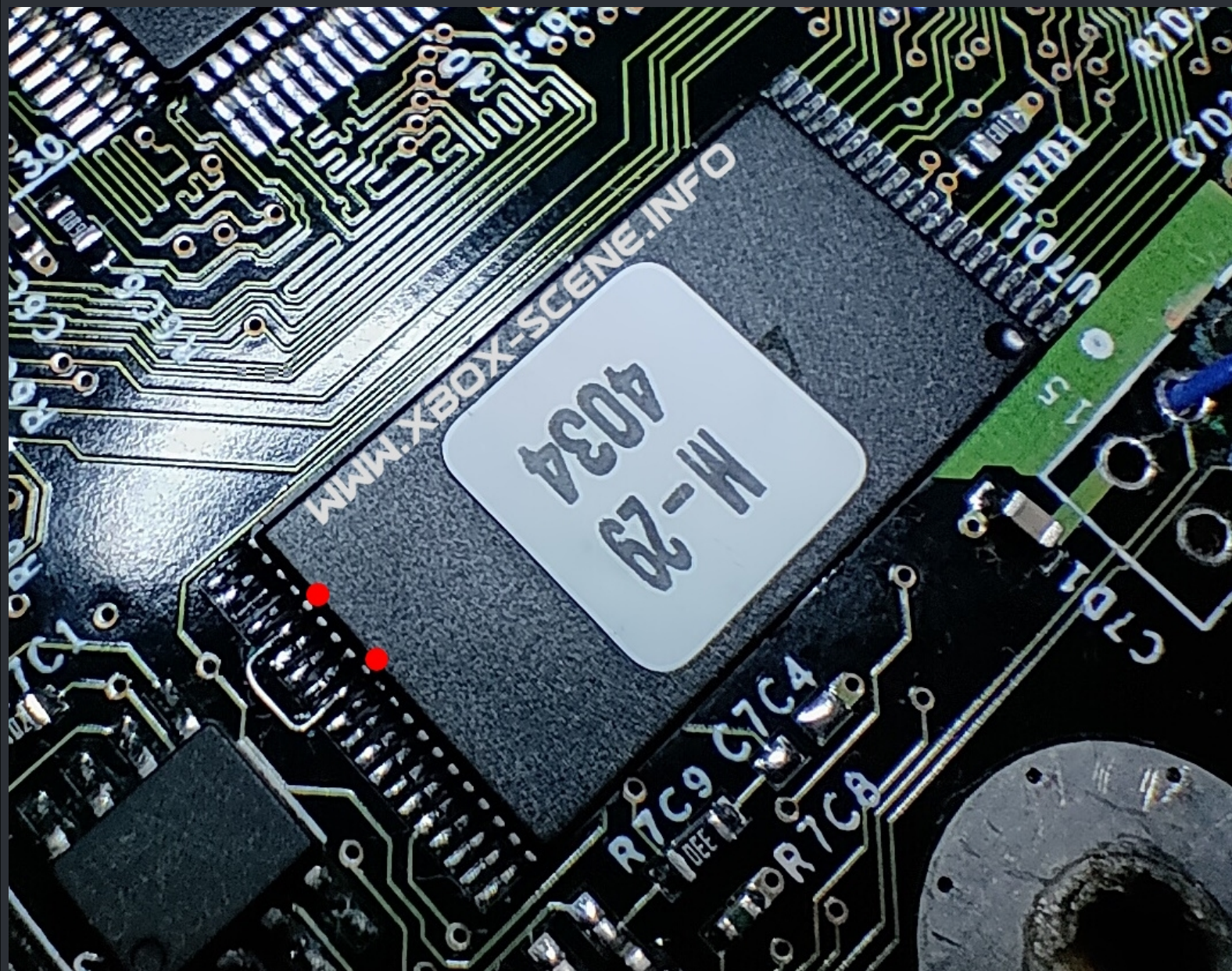


ALT point on the bottom





In case you like to go nuts with D0 on a 1024kb TSOP.

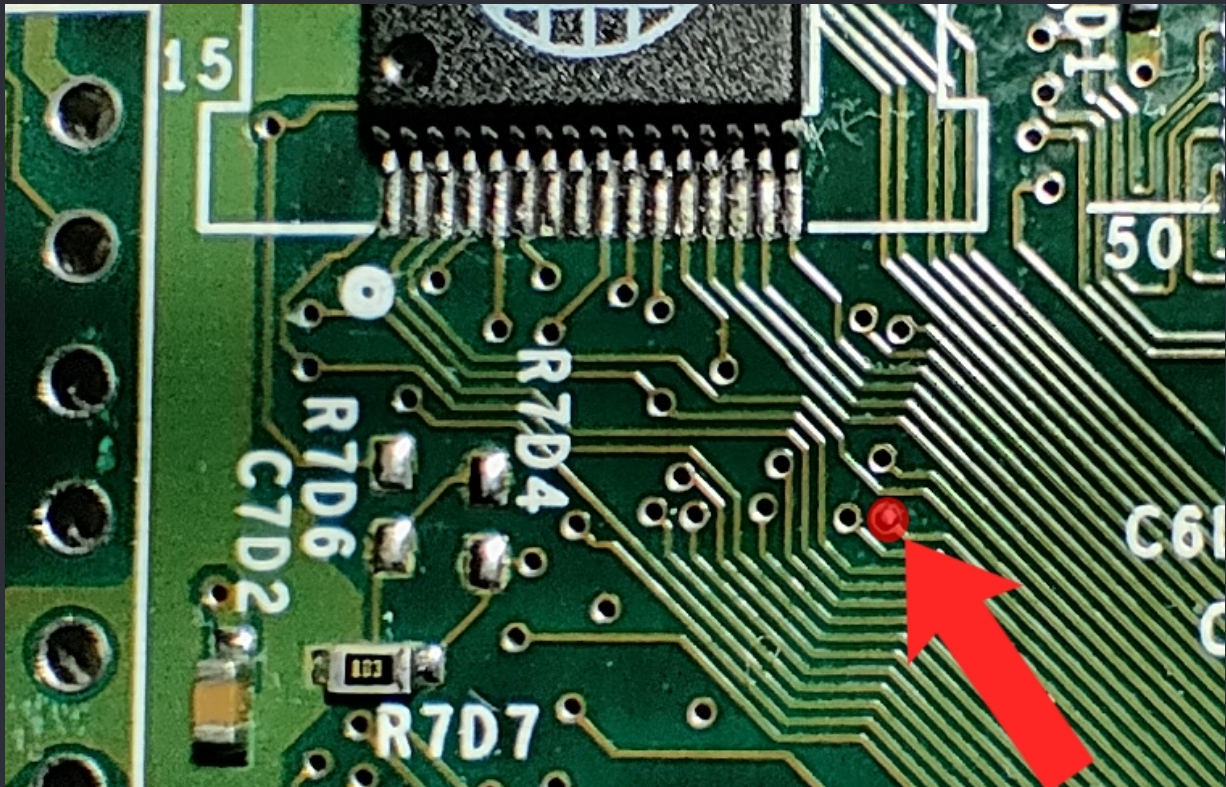


For professionals ONLY!

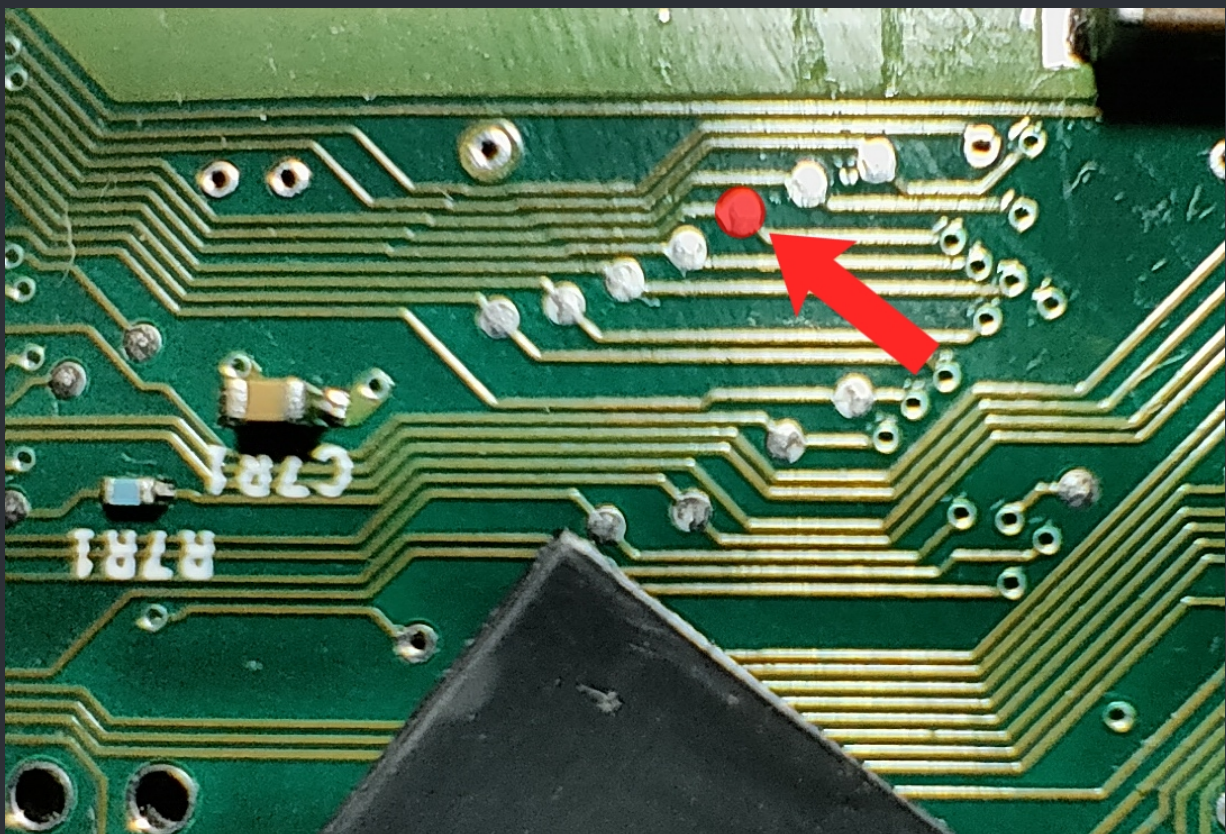
Take note here that, if you do this, you are not be able to boot the TSOP anymore.  
So if there isn't a „good“ reason for you to do this, just don't.



Top Side



ALT point on the bottom





In case you like to go nuts with D0 on a 256kb TSOP.



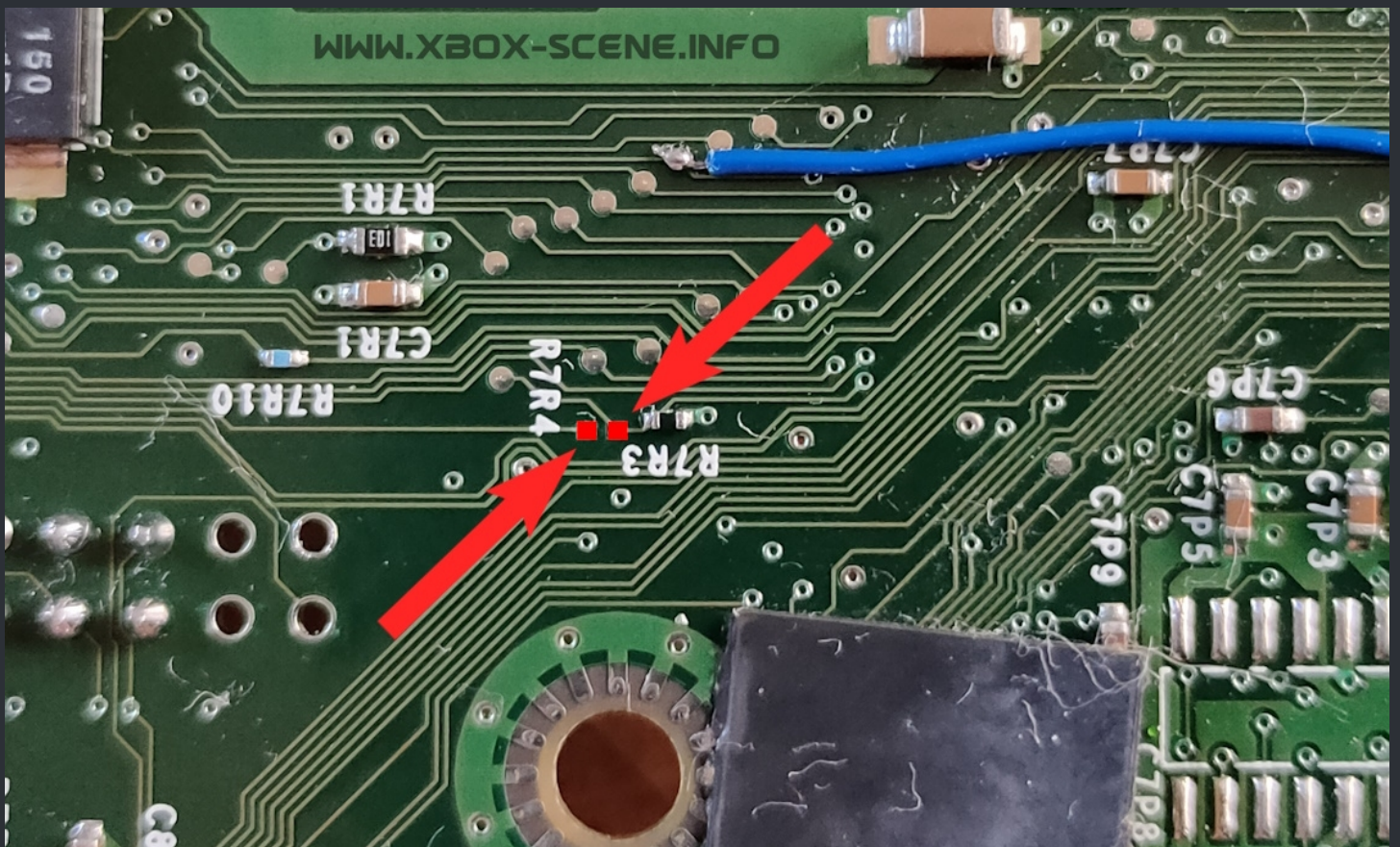
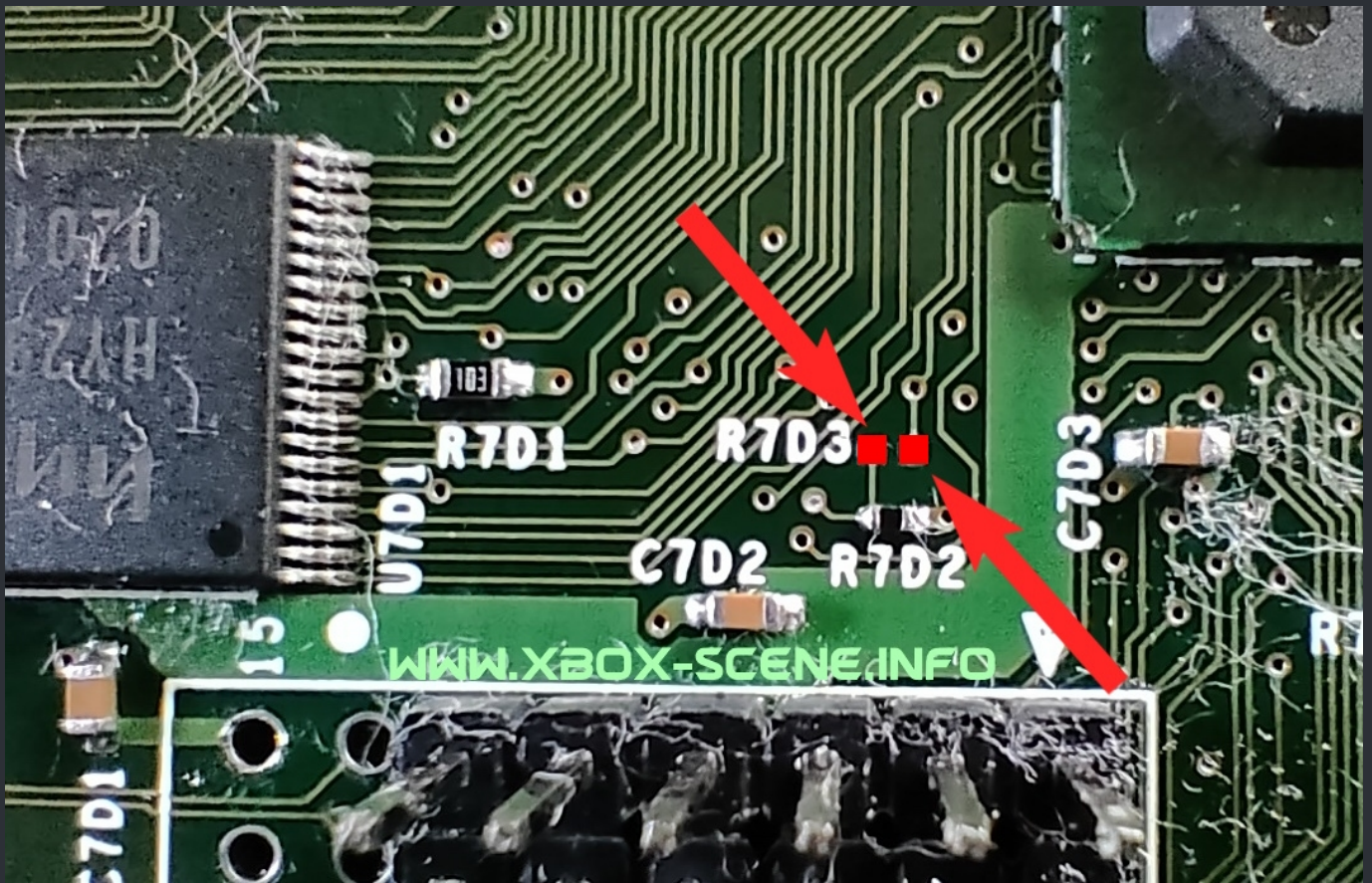
For professionals ONLY!

Take note here that, if you do this, you are not be able to boot the TSOP anymore.  
So if there isn't a „good“ reason for you to do this, just don't.

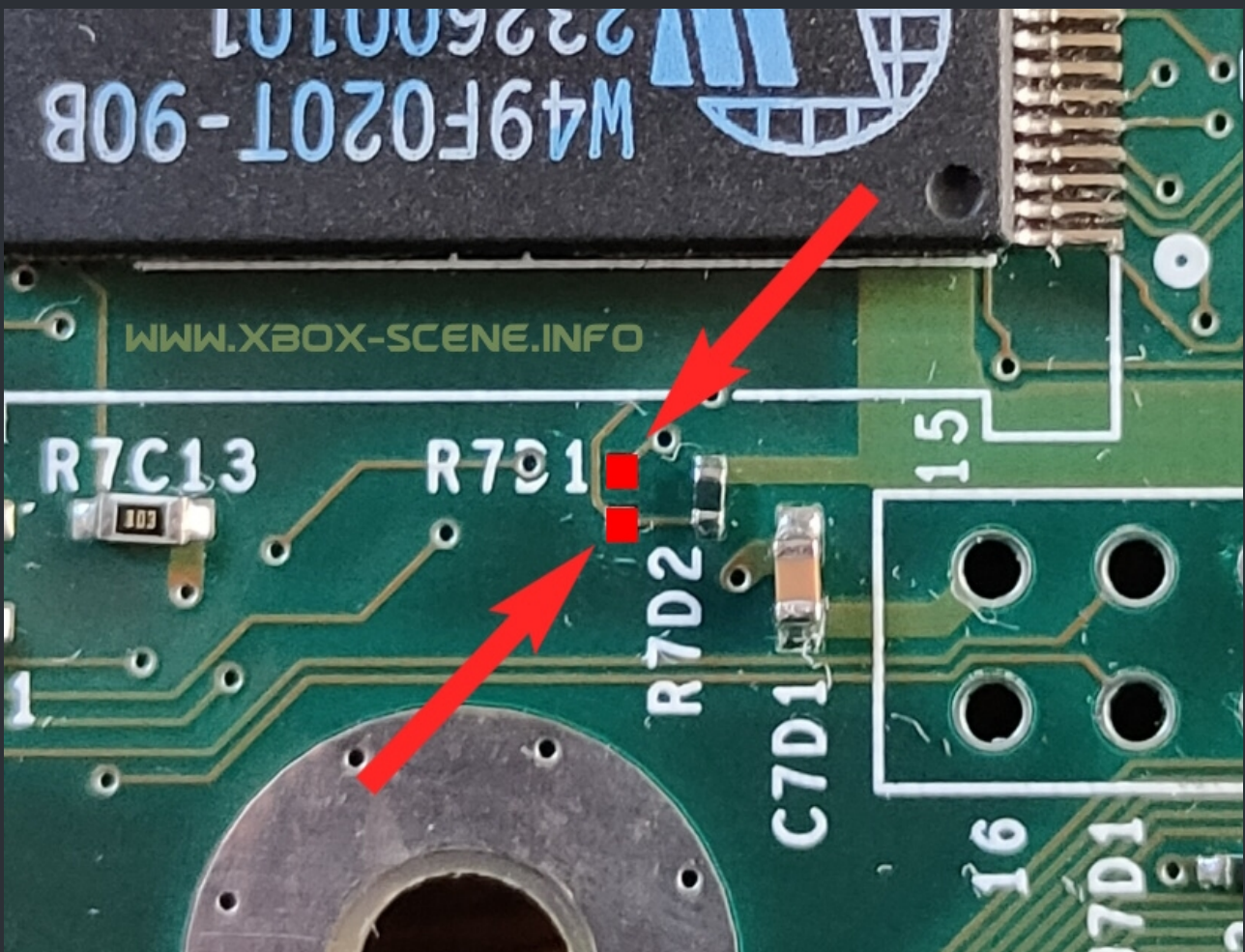
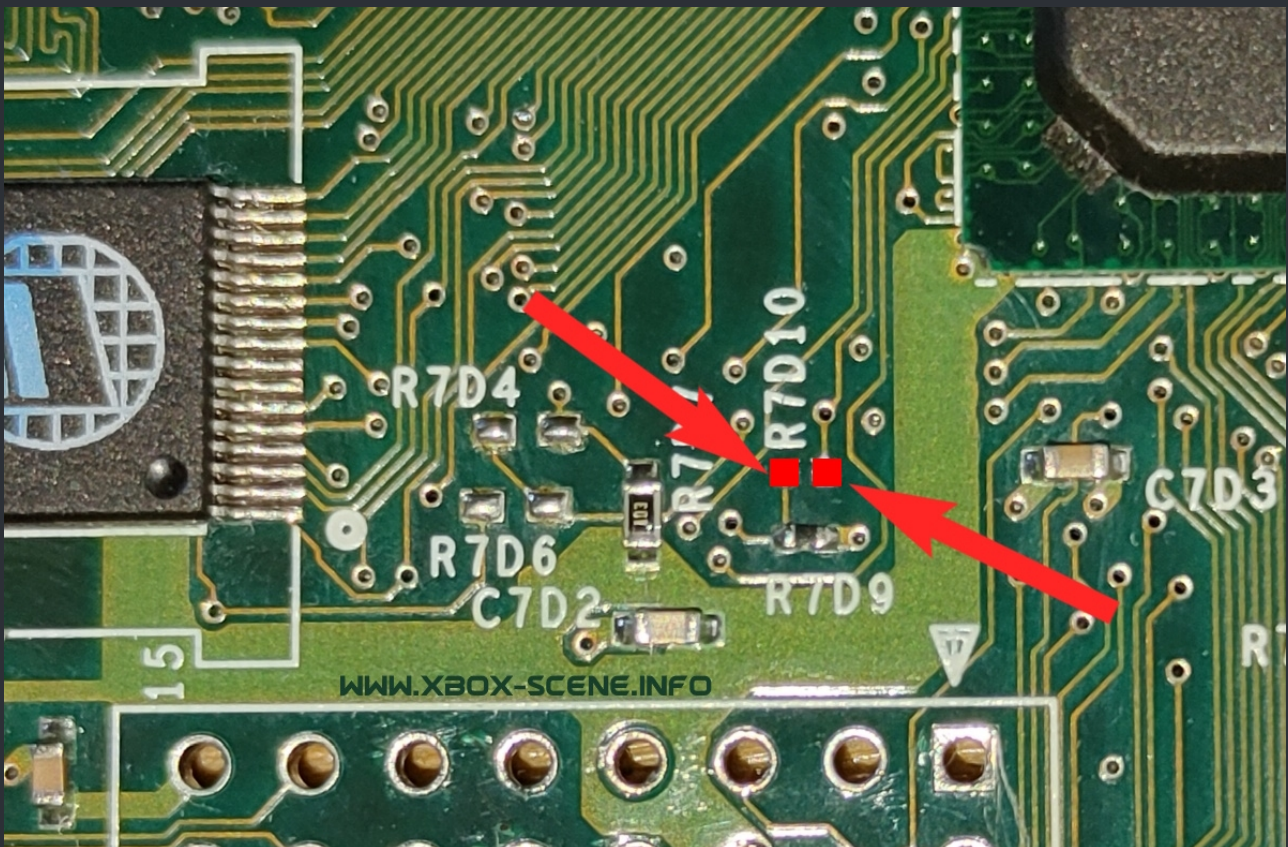


# <=== TSOP Flash Enable Solder Points ===>

===> TSOP Solder Points v1.0 / v1.1 <===



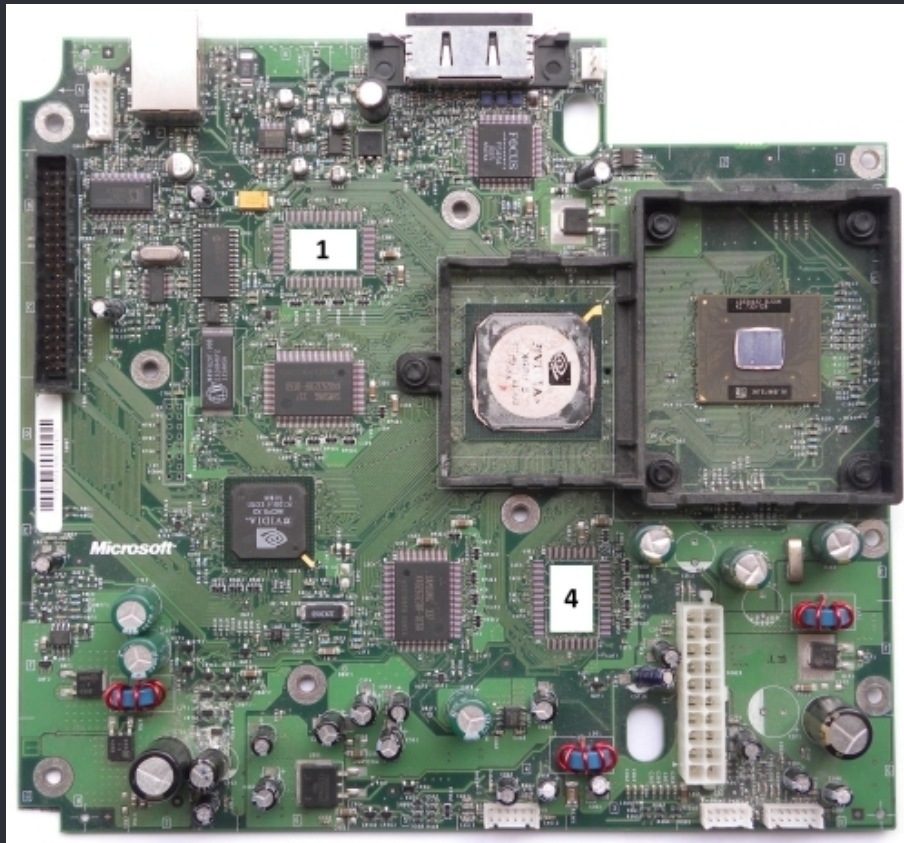




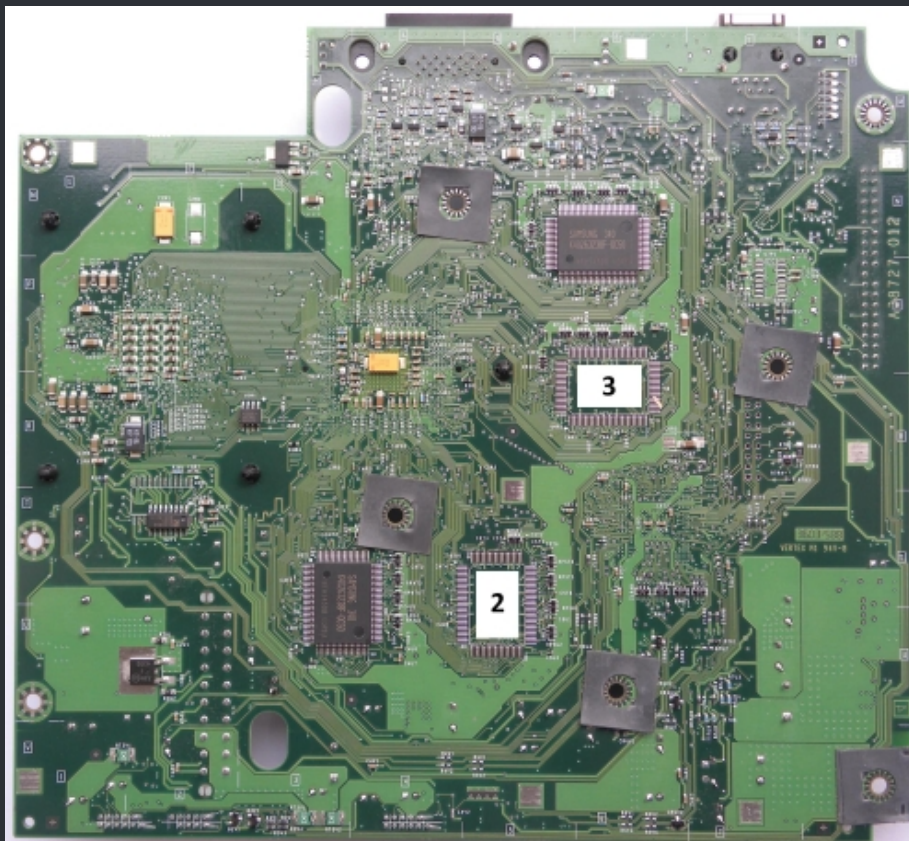


## <=== XBox Extra Ram Chip Positions ===>

### ===> Extra Ram Chips Top <===



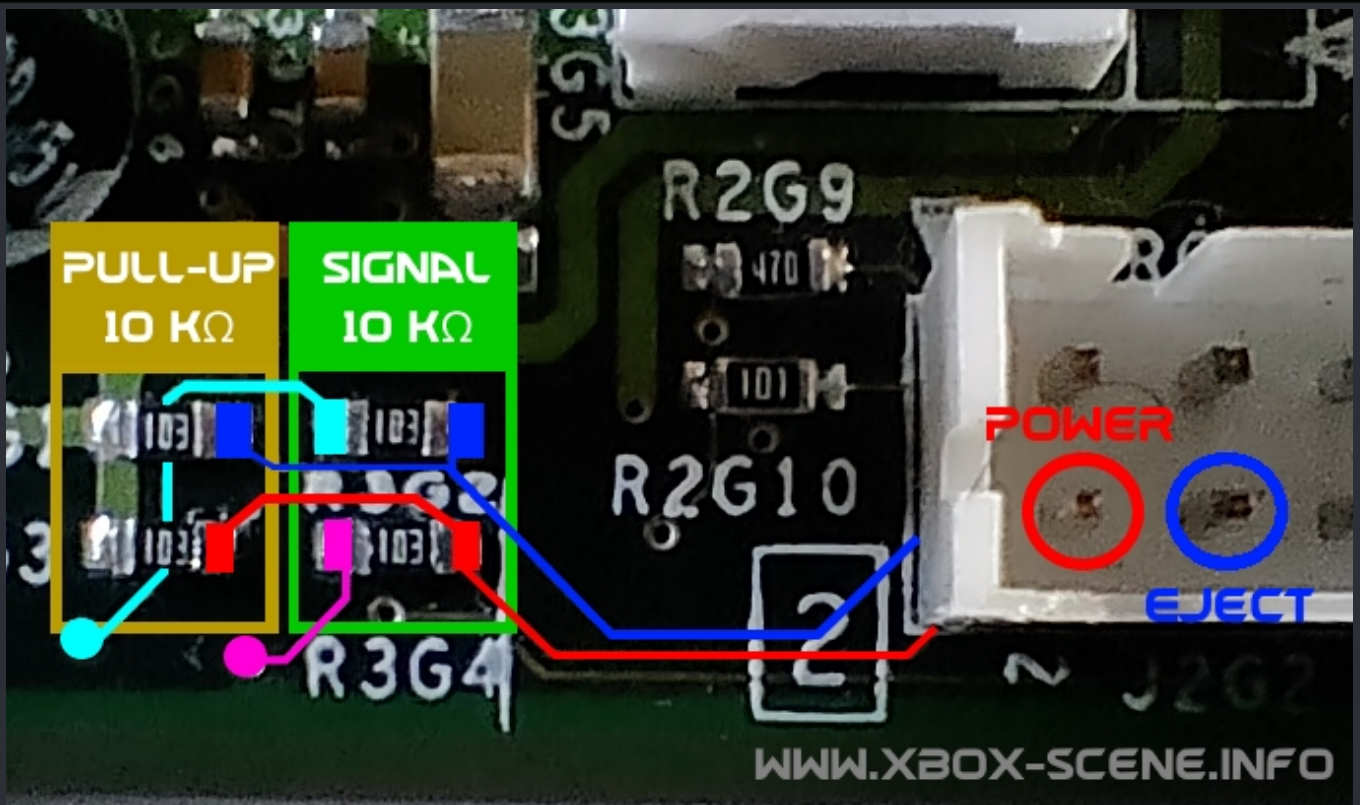
### ===> Extra Ram Chips Bottom <===





## <=== P/E Continuity Trace Check ===>

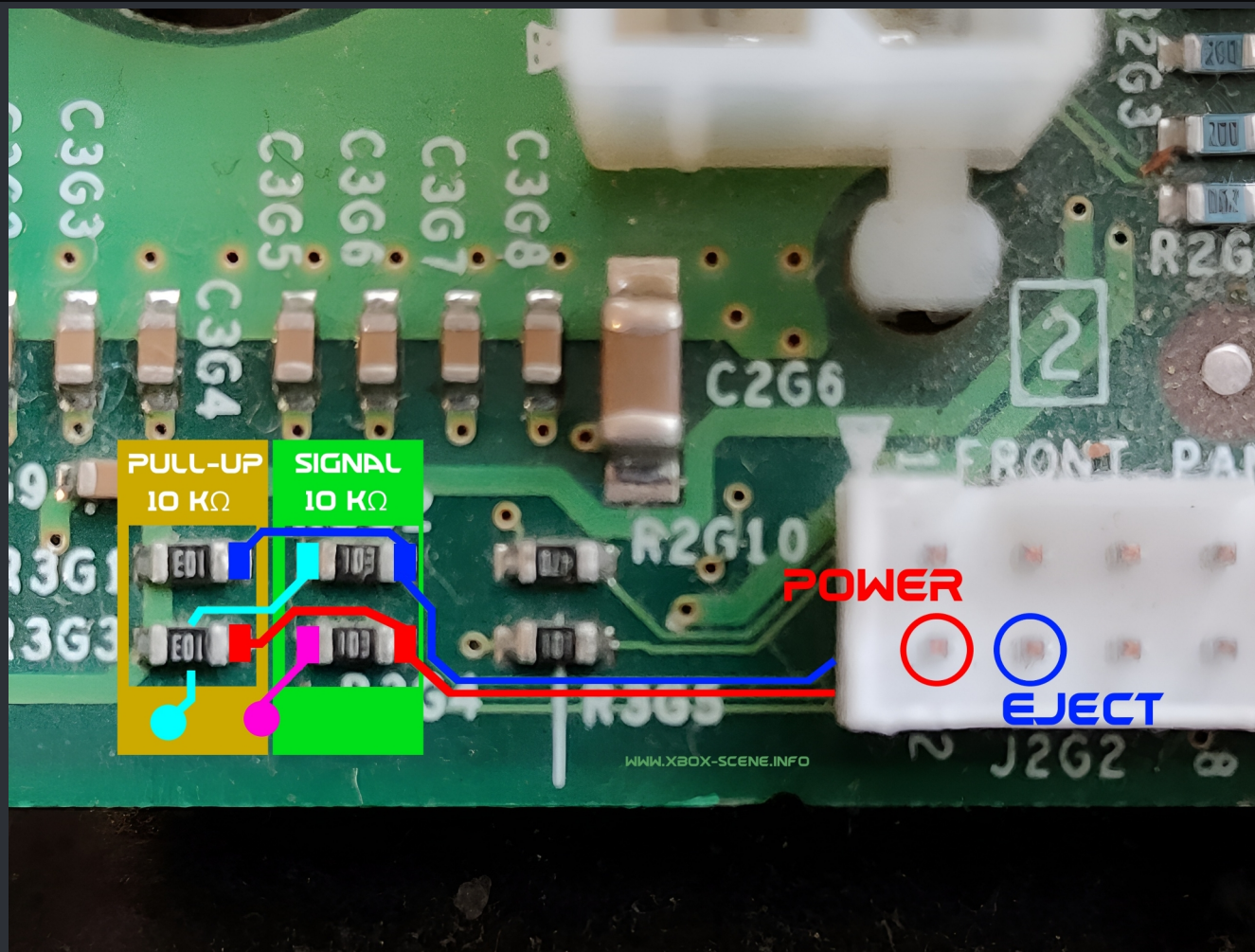
===> Front Panel Connector v1.0-v1.1 <===



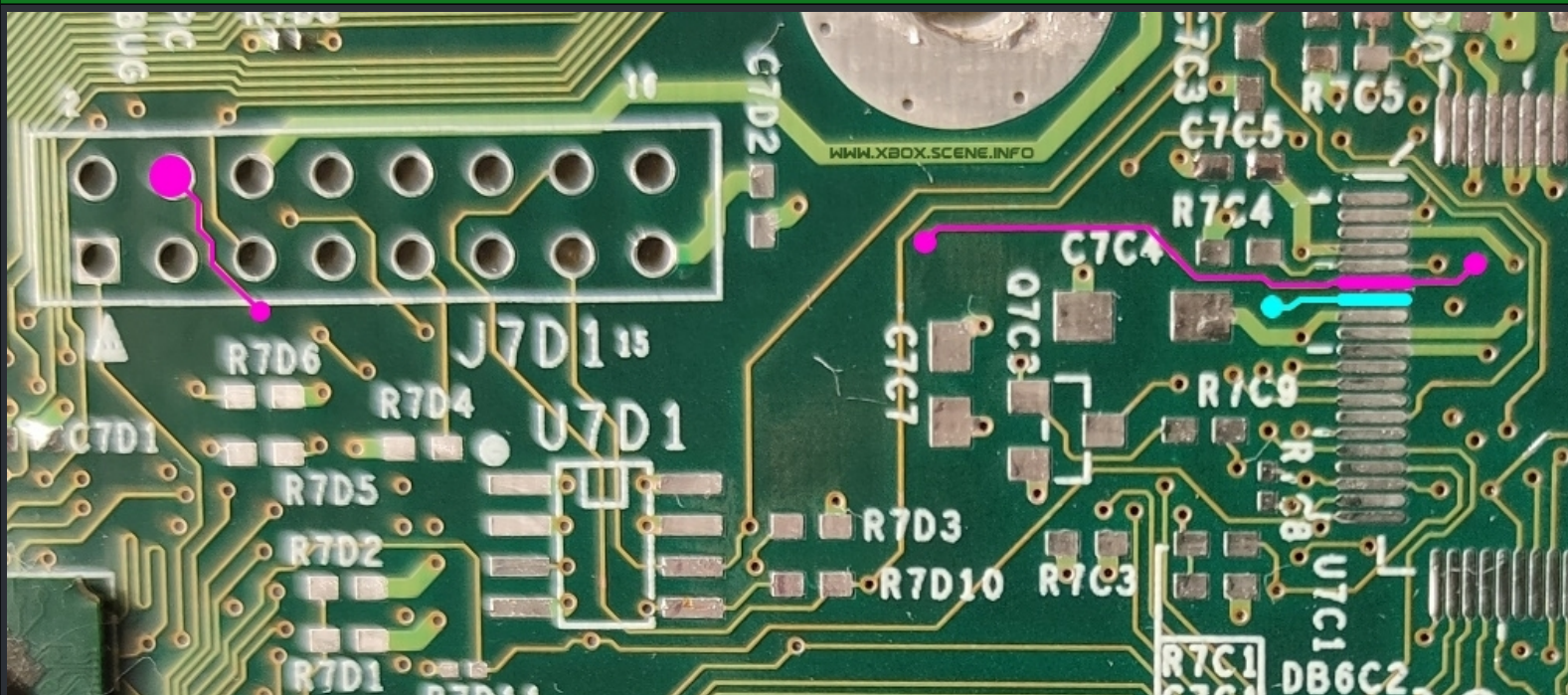
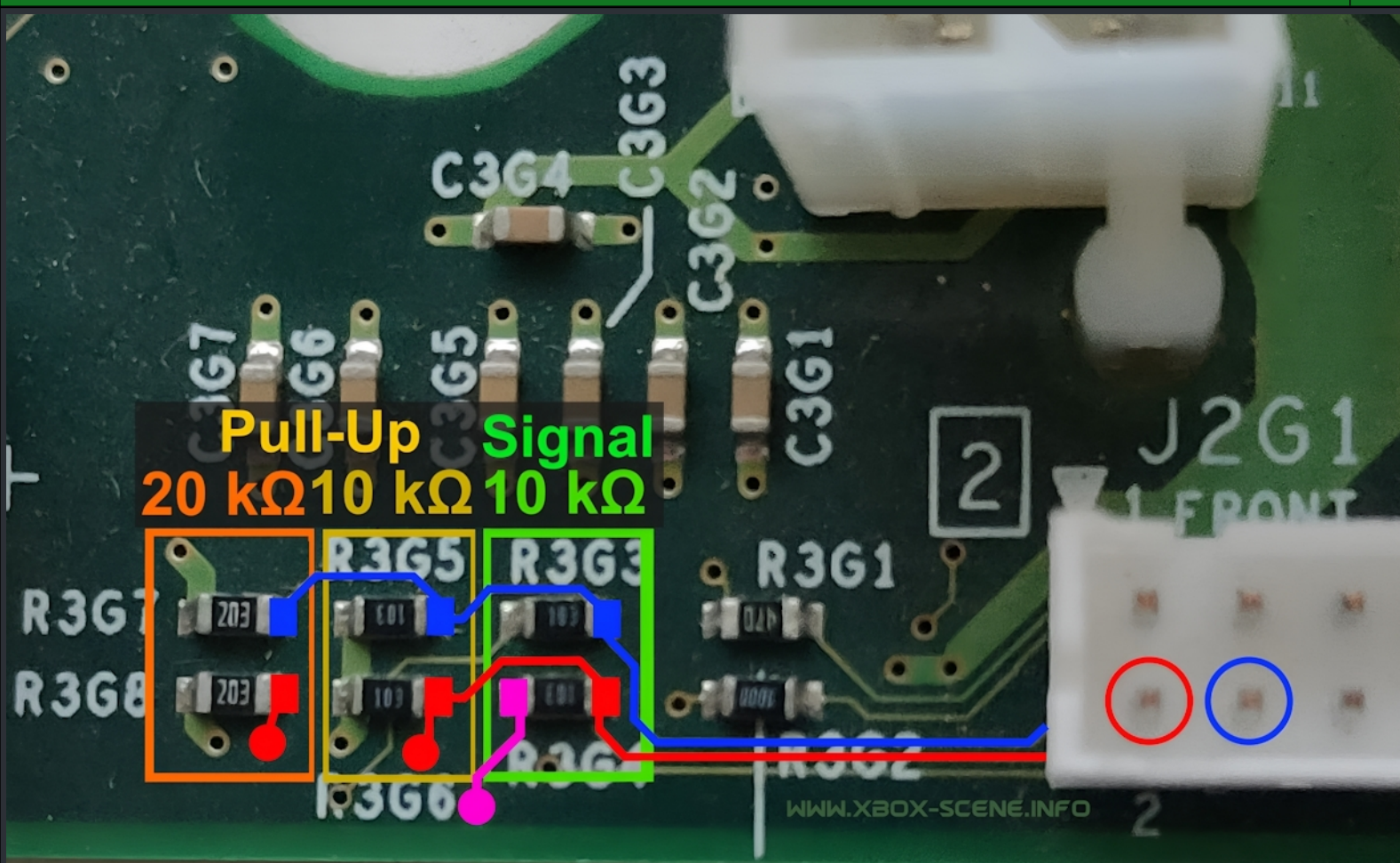
===> PIC Chip Close To The TSOP v1.0-v1.1<===







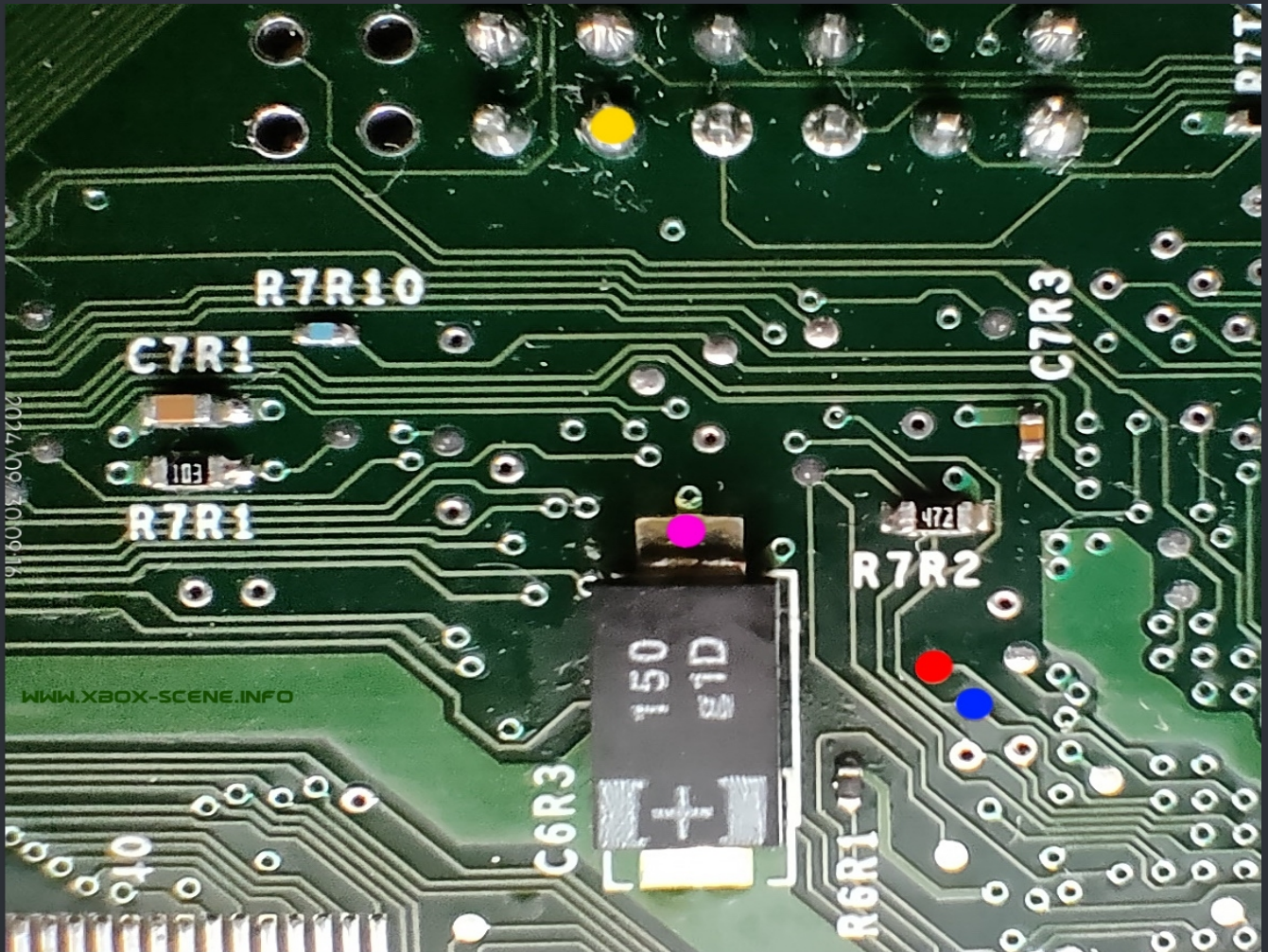






# <=== TSOP Split ===>

===> 1024kb TSOP into 2 x 512kb / 4 x 256kb <===



## 2 WAY TSOP SPLIT

1ST SPDT SWITCH



●	3.3V
●	A18
●	GROUND
●	A19

## 4 WAY TSOP SPLIT

2ND SPDT SWITCH

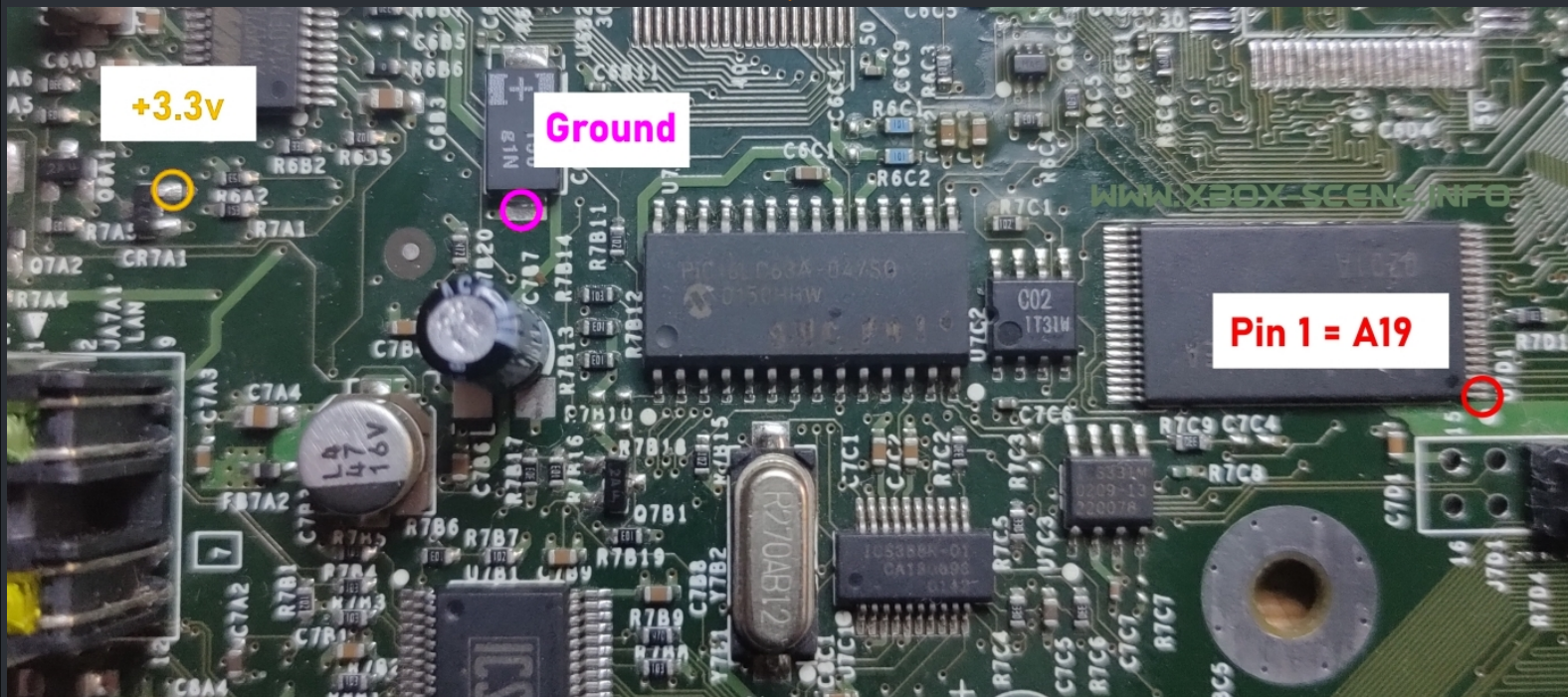
[ OPTIONAL ]



BANK 1	GROUND A18 & A19
BANK 2	GROUND A18 / 3.3V A19
BANK 3	3.3V A18 / GROUND A19
BANK 4	3.3V A18 & A19



==> 1024kb TSOP into 2 x 512kb Top Side <==



## 2 WAY TSOP SPLIT

1ST SPDT SWITCH

MOTHERBOARD TOP SIDE

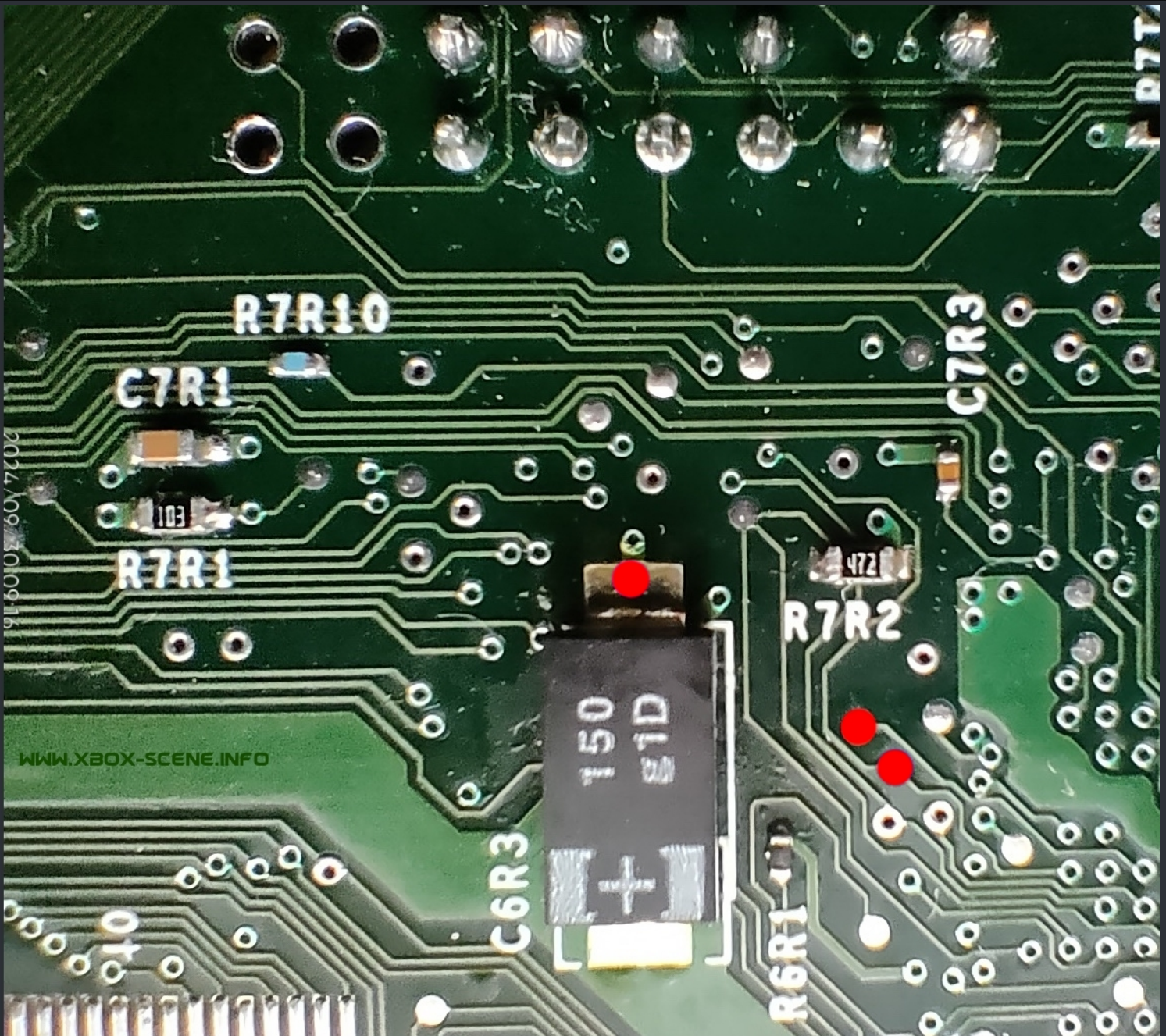


●	3.3V
●	A19
●	GROUND



## <=== TSOP Recovery ===>

===> XBox v1.0-v1.1 – 3 Wire Trick <===

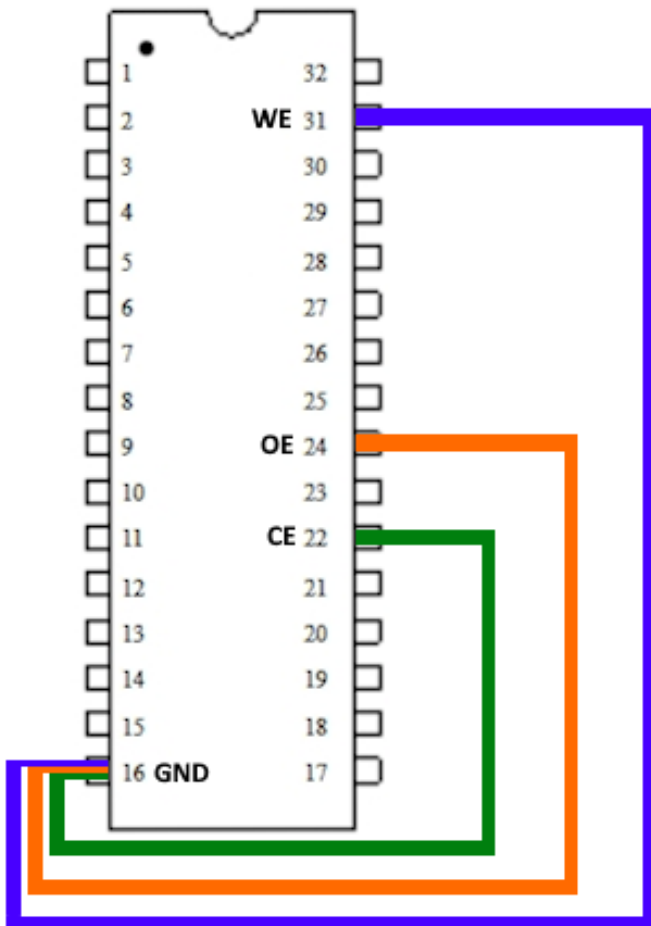


- Step 1 : Solder a wire to each of the ● marked spots.
- Step 2 : Twist the ends of all the wires together.
- Step 3 : Power up your Xbox. Your Xbox SHOULD boots normally.
- Step 4 : Untwist the wires and flash a new bios.

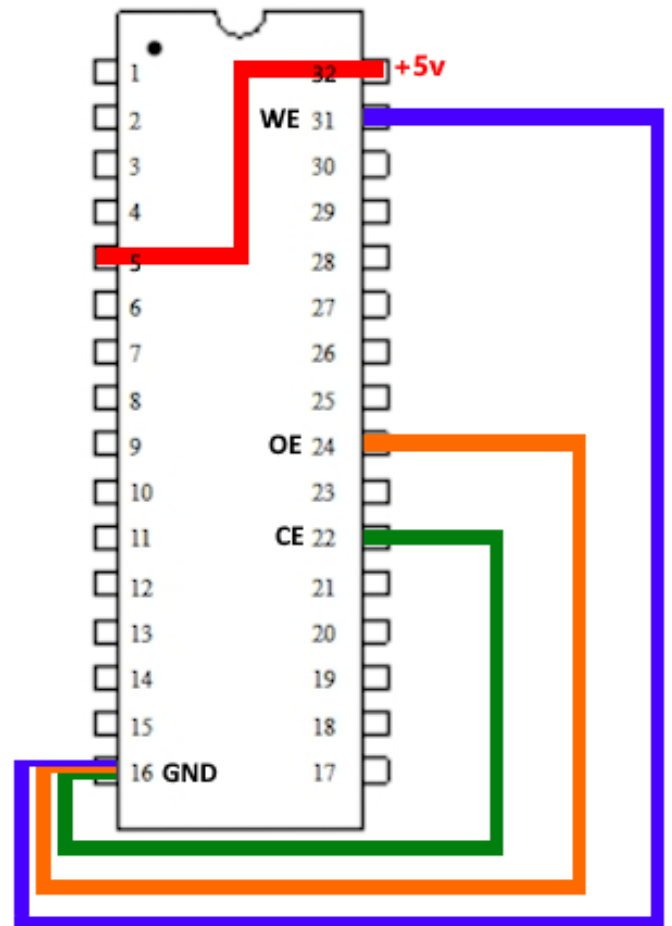
Use an EPROM (27C2001 / 27C020 or bigger) or flashrom (29F020 or bigger).

Connect the EPROM pins **22**, **24** and **31** of the EPROM to pin **16** of the EPROM (Which is ground).  
You might have to connect pin **31** of the EPROM to pin **32** of the EPROM (Which is **+5v**) IF you are using a flashrom.

EPROM - PDIP



Flashrom - PDIP

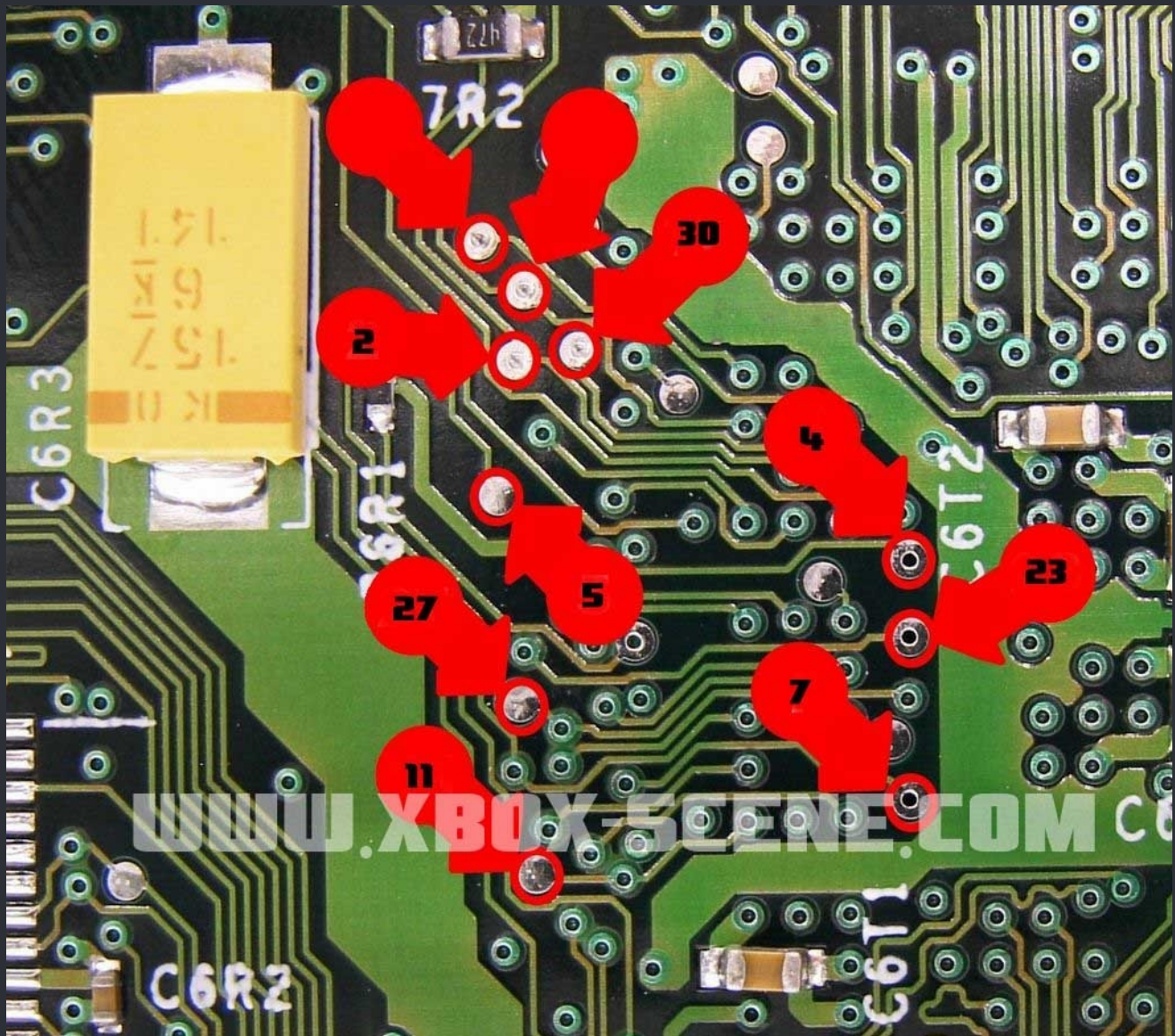


A EvoX m7 TSOP Recovery bios can be found [here](#) or [here](#).  
Needless to say to not flash this to the TSOP itself!

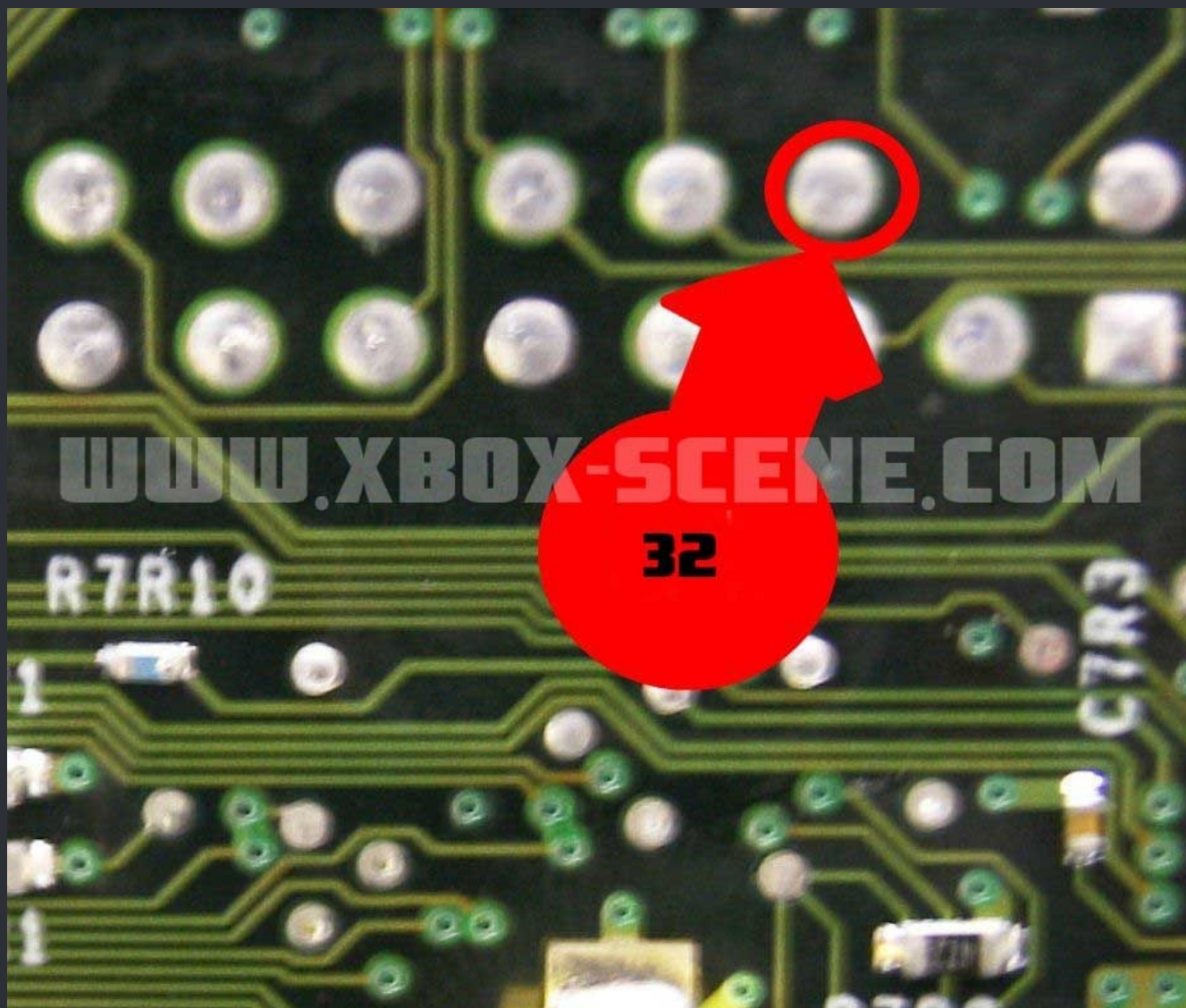


===> EPROM TSOP Recovery for XBox v1.0 / v1.1 <===

The two unused points are only two additional Address-Lines for the Chip (with which you can access everything beyond 256 kByte) ... so they are NOT needed.







# ===>EPRom TSOP Recovery for XBox v1.2 / v1.3 <===

## DISCLAIMER

D-Blood SHALL NOT BE LIABLE UNDER ANY CIRCUMSTANCES OR UNDER ANY LEGAL THEORY FOR ANY DIRECT, INDIRECT, PUNITIVE, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES THAT MAY BE SUFFERED BY YOU OR ANY OTHER OR AS A RESULT OF THE INFORMATION, REGARDLESS OF HOW SUCH DAMAGES MAY ARISE.

This in general means that if you fu.. up its your problem and not mine :). Ahh and dont forget the read the small labels under the XBox for even more information on why you shouldnt open your XBox.

E Link32 This point replaces the old Link32 that was located beside R7R1 on the v1.0 and v1.1

Link these two points to enable TSOP flashing. These two points replaces the old location that was found on the bottom of the v1.0 and v1.1! Remember to enable the two points on the top too if you are going to flash the TSOP!

Here is the information all you lazy people out there have been waiting for :)  
Enjoy the nice pic (took me about 30 shots to make it this good ;)).

E	=	Chip Enable / Also known as Link32
W	=	Write Enable / Enable TSOP flashing
A*	=	Adress Inputs
D*	=	Data Inputs/Outputs
GND	=	Ground
+5V	=	Power +5V

Data sheet used <http://www.st.com/stonline/books/pdf/docs/6610.pdf>  
TSOP on XBox used to probe the points ST M29F002BT70N1 ( 2 MBIT Single Supply Flash Memory) on a motherboard produced 2003-02-18 (Limited Edition Green Seethrough).

I will let the information speak for itself, if there are any questions or corrections please send me a e-mail @ dblood@start.no

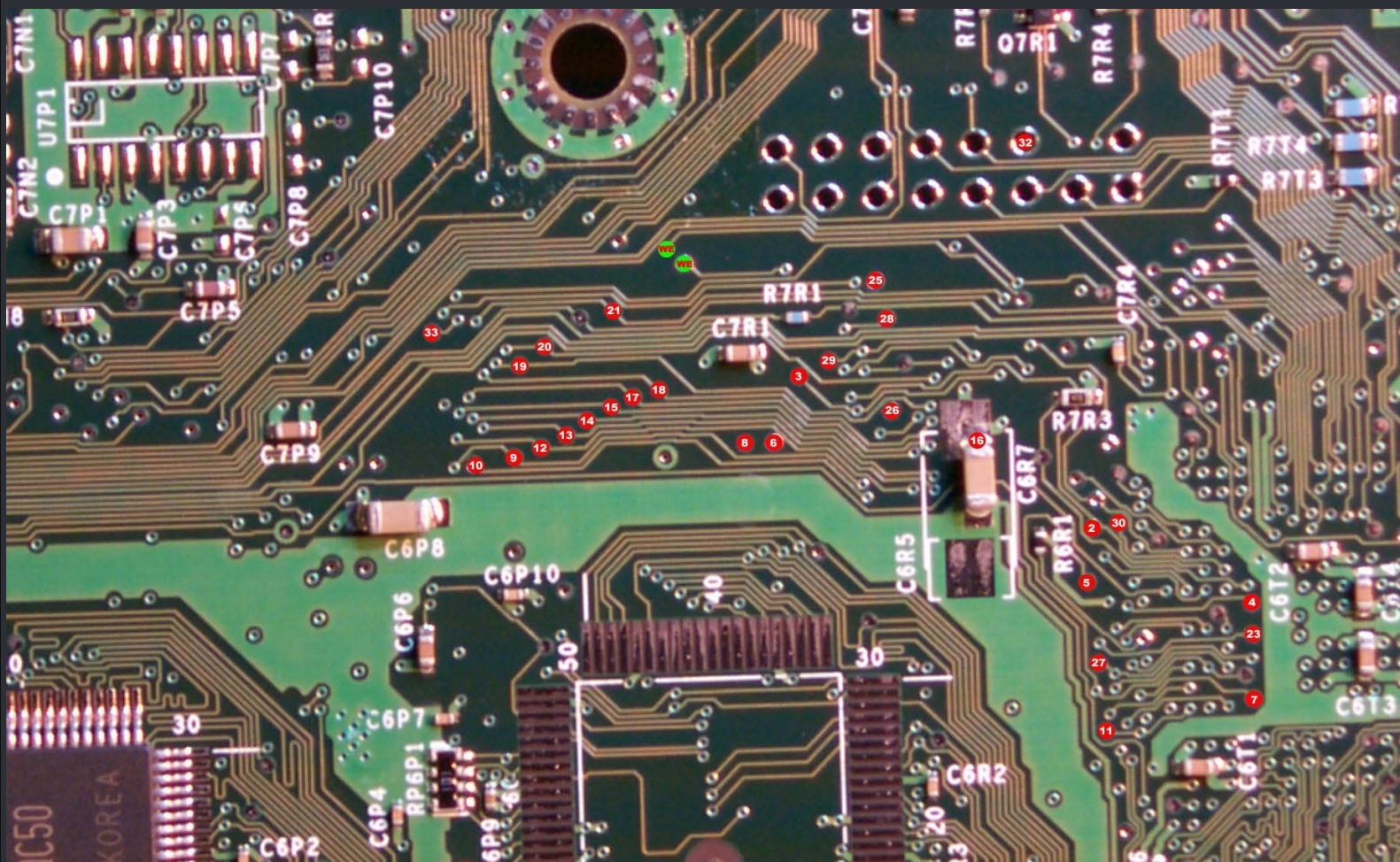
Greets go to:  
The Joker, Blazed and Lys for beeing the cool people they are and for giving me a good reason to start coding again.  
And to my best friends Dopy, Zyanide of int21h and ^4pLaY^

Click on the image to get a bigger image on Imgur if needed (Or simply zoom in)



===>EPRom TSOP Recovery for XBox v1.4 <===

WE is the location you jump on the bottom of the board along with the other point on top that is standard on all motherboards. These are the write enable for reflashing the TSOP.  
Pad 33 is also known as link to 32 in previous pinouts.



Click on the image to get a bigger image on Imgur if needed (Or simply zoom in)

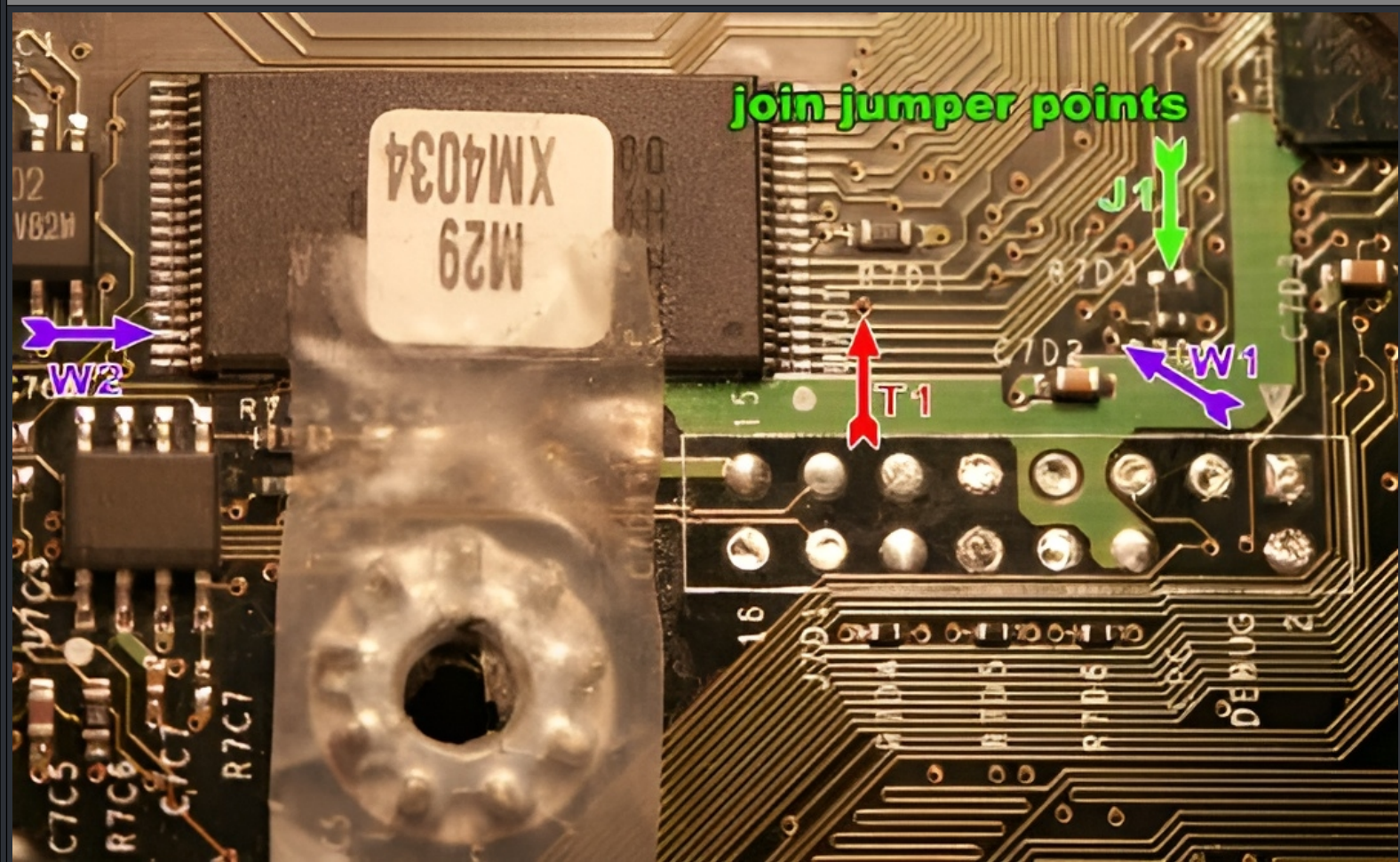
★ Credits fly out to D-Blood, [www.Xbox-Scene.com](http://www.Xbox-Scene.com) ★





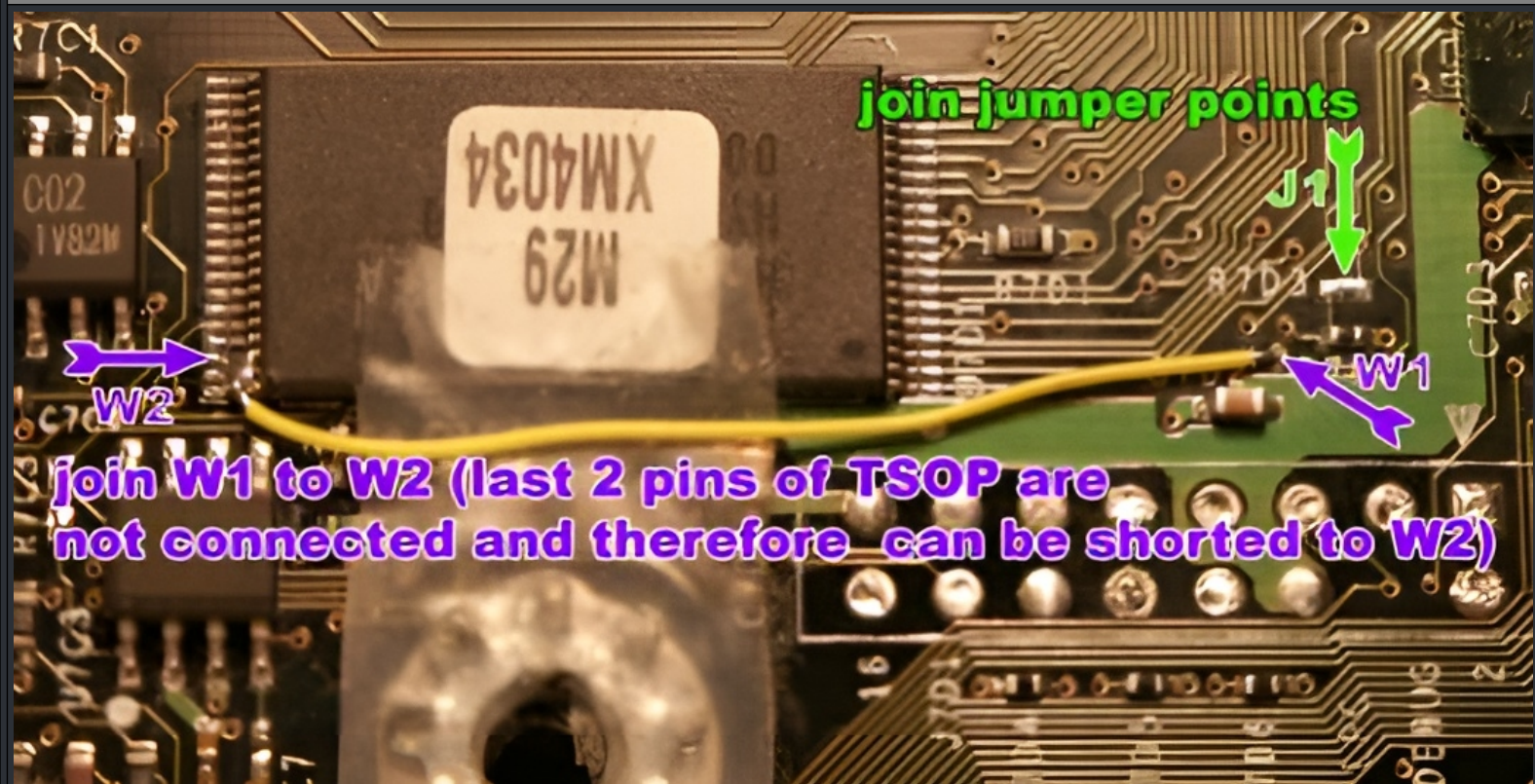
First of, get the EvoX MatriX TSOP Flash Bios from [here](#) or [here](#).  
The dip switch settings can be [found here](#).

### Step 1

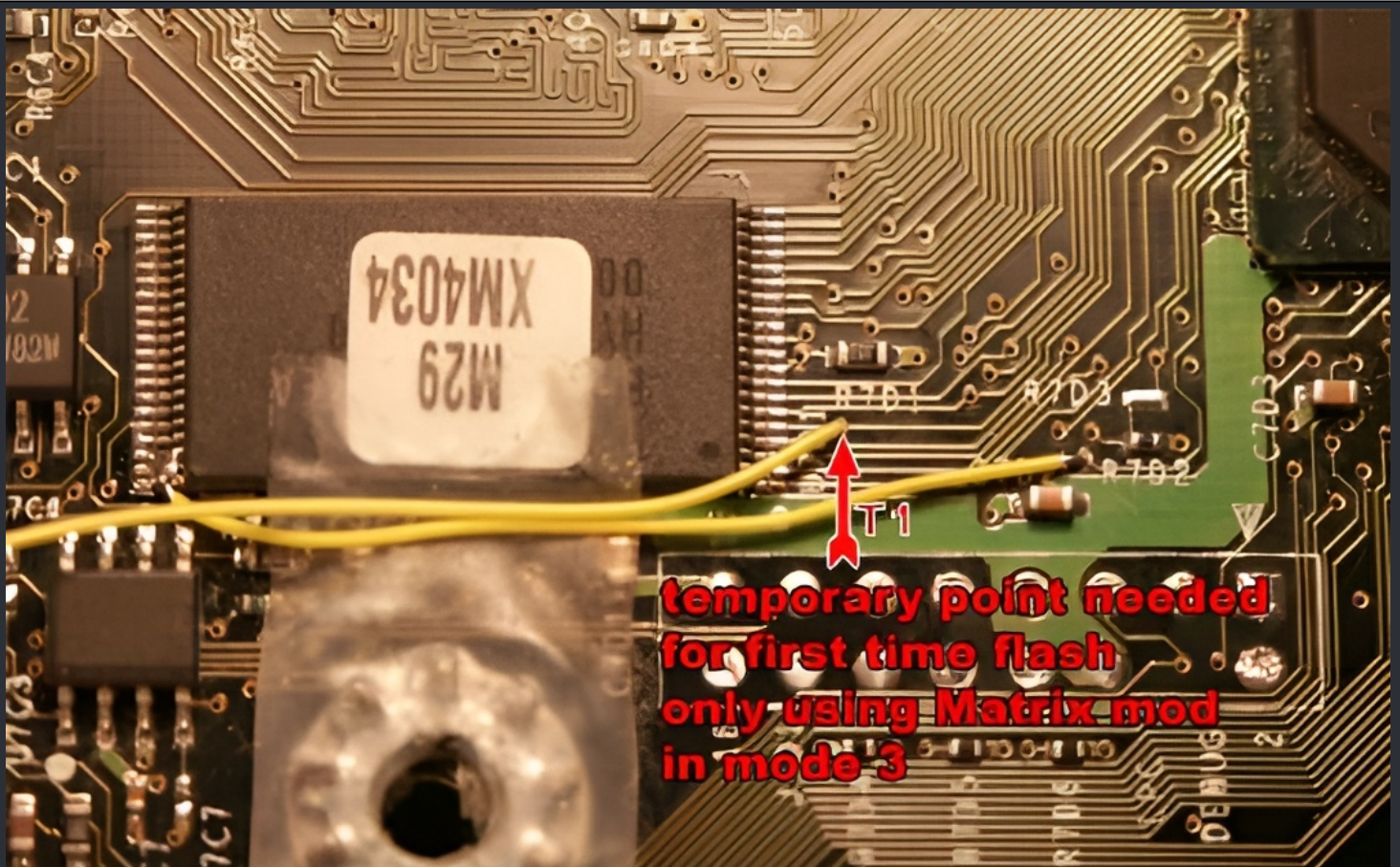




## Step 2



## Step 3





## Step 4

Flash the Matrix with the **EvoX MatriX TSOP Flash Bios** which we have provided.

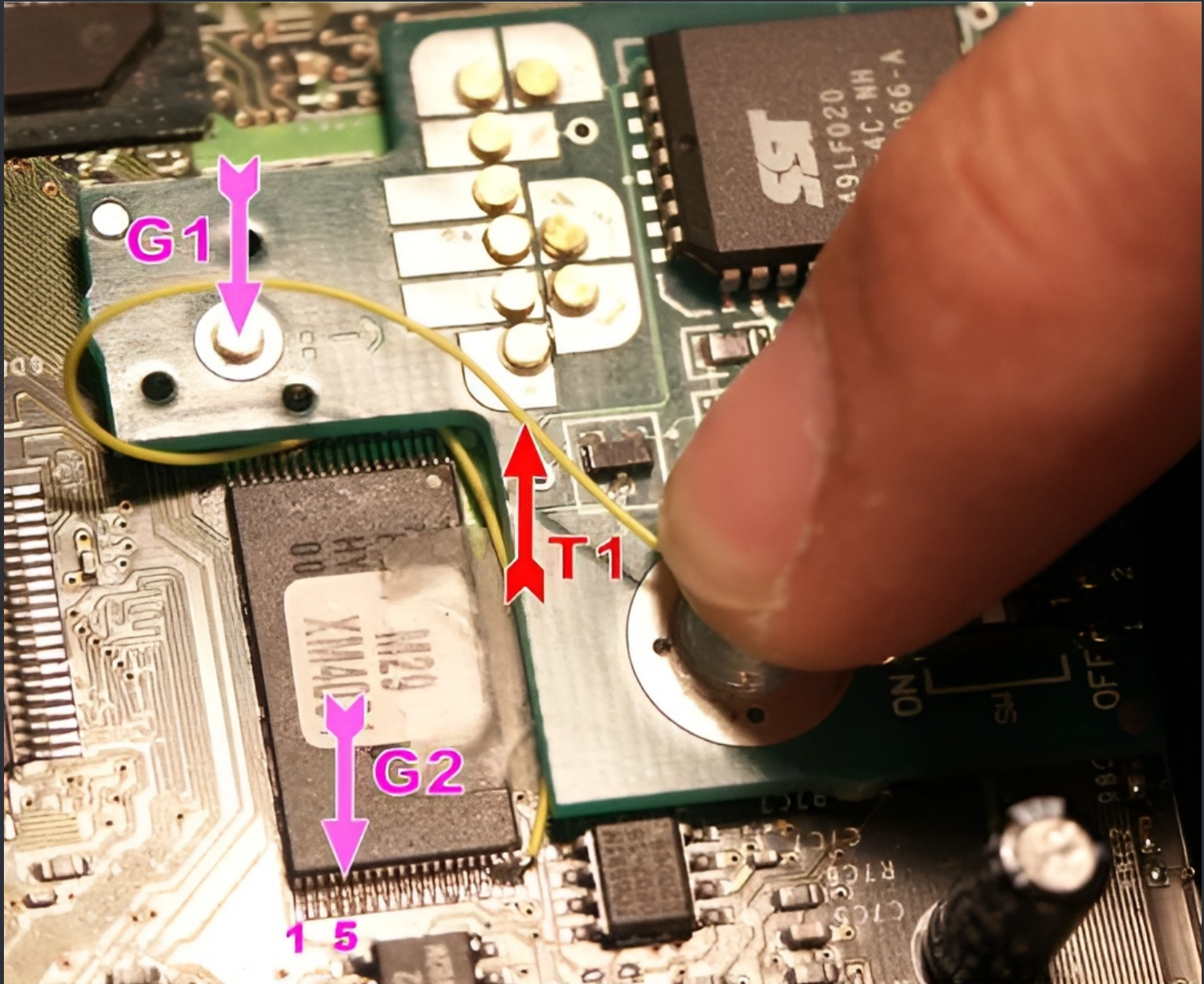
Re-Install the MatriX (See Note), and set **MODE 3**.

Connect IDE + DVD-Rom cable.

Power up the Xbox while grounding the **T1** lead.

Remove the T1 lead quickly once the console has booted, the MatriX LED should light up red.

Flash the TSOP from the dash.



**MODE 1** (Tester) will not function due to **J1** jumper.

To check alignment use multimeter to measure for shorts between **G1** – **G2**.

If you don't have a Chameleon or a Xblast-Lite modchip, you can try to manually make it work using a basic modchip like a DuoX2, Xecuter 2.x or aladdin XT. Benny recommends to use a modchip with at least 2 banks to still be able to flash over this BIOS once you're done (Or you have a couple of single bank chips on hand). To make it work, you'll have to manually operate D0 and A15 wires. Make them long enough to reach a ground spot.

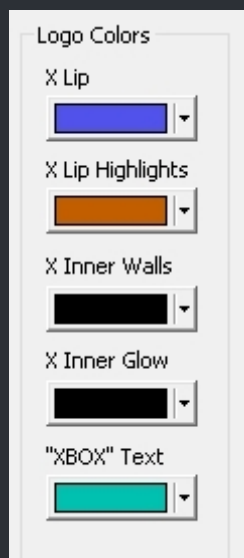
### Here's the procedure

1. Insert your booting disc in the DVD drive(Cerbios Disc, TruHeXen 2024, OGXBox Installer 2021...)
2. Tie both D0 and A15 to ground
3. Boot the Xbox with tsop\_m7
4. Remove D0 from ground (leave it hanging without touching anything) once the front LED starts flashing
5. Remove A15 from ground once you see the Xbox logo on your TV.
6. Flash your TSOP using your favorite tool.

### Some important infos

- As tsop\_d6, you can only boot from a Xbox disc in your DVD drive. If no disc is in the DVD drive, the Xbox will just sit at the booting Xbox Logo.\*
- There is no boot animation. I chose a really weird color combination for the Xbox logo so you know you're booting the right thing.\*
- There is a chance this BIOS will not boot if you have previously flashed a hacked BIOS on your TSOP. From personal experience, M8+ and X2 5035 are problematic across all revisions. IND-BIOS 5004 works on my 1.2 and 1.4 but not on my 1.0(probably an RC4 key issue).
- There is no LBA48 support. This BIOS is not meant to be used as your everyday BIOS anyway.
- Pre-insert your disc in your DVD drive. This BIOS resets on Eject.

### \* Used Bios Colors



Download for the tsop\_m2.bin: [Here](#) or [here](#).

★ Credits fly out to bennydiamond in the first place and Xphazer & weinerschnitzel cuz of their help ★



## <=== XBox Manufacture Dates ===>

Start Date	End Date	Revision	Location (Factory)	⋮
01/2001	07/2002	1.0	Hungary (03), Mexico (02)	
08/18/2002	01/25/2003	1.1	China (05), Mexico (02)	
12/01/2002	03/15/2004	1.2	China (05)	
03/02/2003	07/26/2003	1.3	China (05)	
07/20/2003	04/10/2004	1.4	China (05)	
03/14/2004	09/06/2004	1.6	China (05), Taiwan (06)	
09/13/2004	08/2005	1.6b	China (05), Taiwan (06)	

You can find the date on the bottom of your XBox on the label shown in the image below.



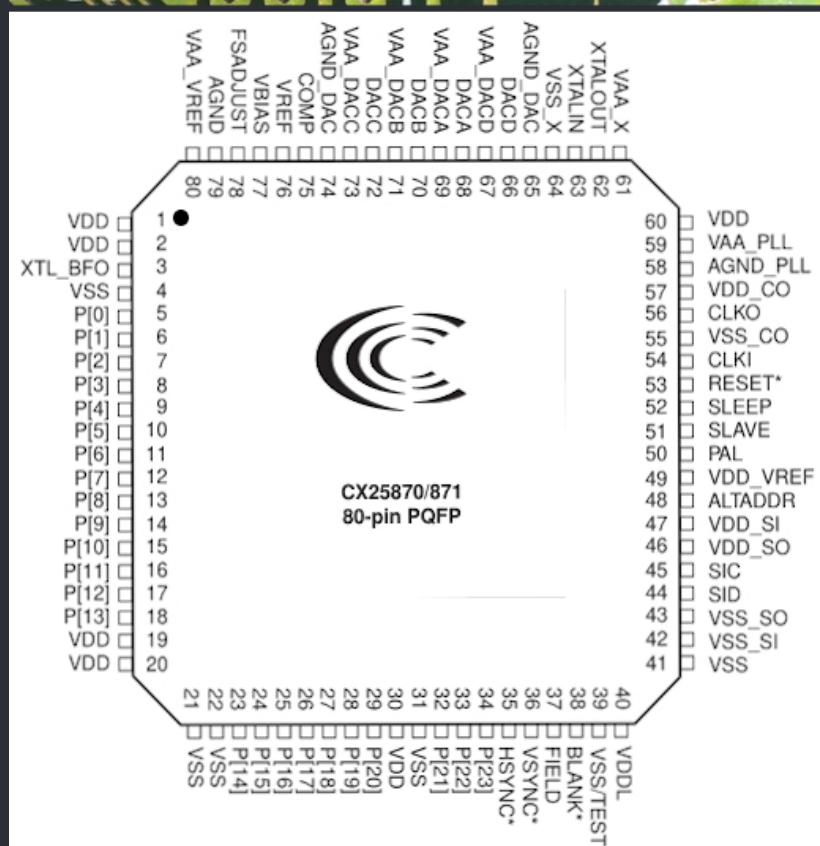
Take these dates with a grain of salt.  
It's always possible that someone has swapped out the case if the XBox was ever opened before  
or someone has replaced the label with a repro sticker.

## <=== XBox Kernel (Bios) ===>

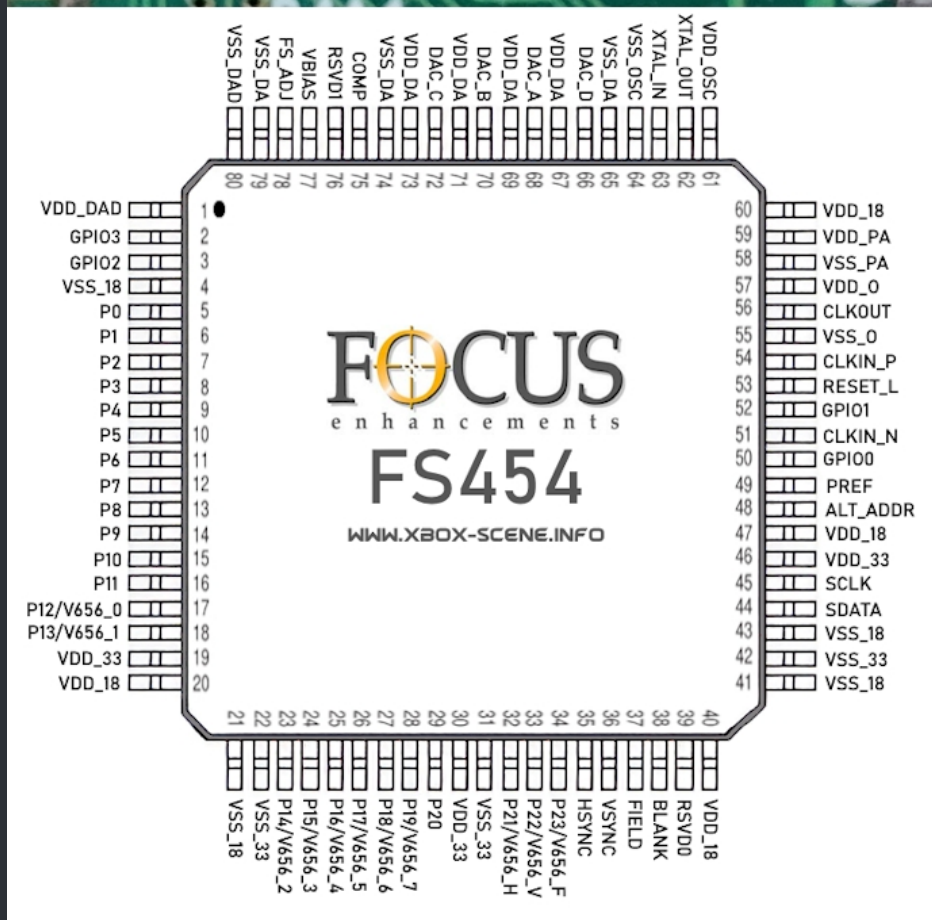
====> <===				⋮
XBox Version	Kernel Version	Size	Video Encoder	
XBox v1.0	3944   4034   4036   4132   4627	1024kb	Conexant CX25871	
XBox v1.1	4817   4972	1024kb	Conexant CX25871	
XBox v1.2	5101   5530	256kb	Conexant CX25871	
XBox v1.3	5101   5530	256kb	Conexant CX25871	
XBox v1.4	5530   5713	256kb	Focus FS454	
XBox v1.6	5838	256kb	Xcalibur	
XBox v1.6 b	5838	256kb	Xcalibur	

# <=== XBox Video Encoder ===>

===> Conexant <===



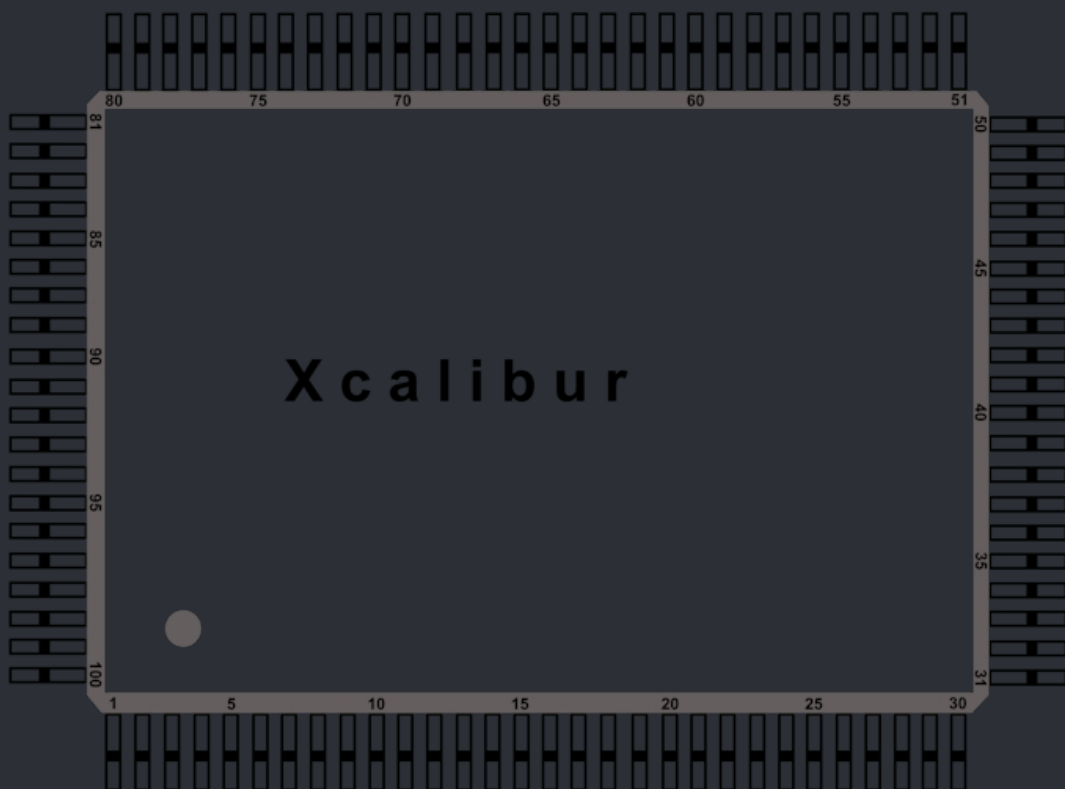
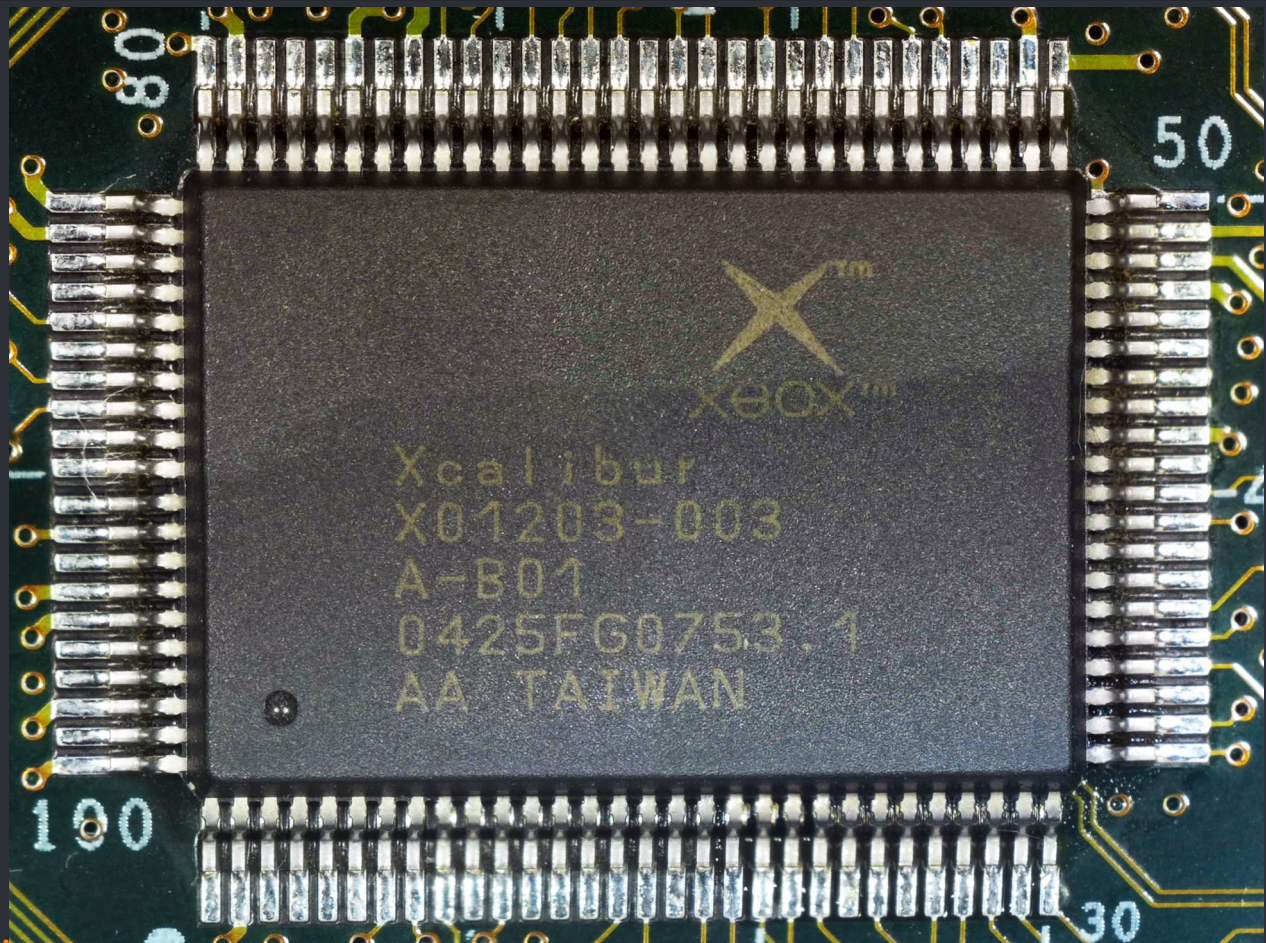
The Conexant video encoder is used in the xbox versions 1.0, 1.1, 1.2 and 1.3  
Data Sheet Download: [Mega](#)



The Focus video encoder is used in the xbox version 1.4

Data Sheet Download: [Mega](#)





The Xcalibur video encoder is used in the xbox version 1.6

# <=== Read/Write an XBox EEPROM ===>

## ===> Raspberry PI & PiProm <===



### How it works

PiProm allows your Raspberry Pi to interface with I2C based xbox EEPROM chips. You can either connect your Raspberry Pi directly to your xbox motherboard, or connect it to an I2C based EEPROM chip that has been removed from an xbox motherboard or other device. Once your pi is connected, PiProm can easily read, write, or erase the contents of the chip. It's great for recovering lost hard drive keys for your xbox, or fixing broken motherboards. PiProm is also compatible with all versions of the Raspberry Pi!

### Getting Started

The first step in getting PiProm running is to enable the I2C interface on your Raspberry Pi. Adafruit has a very nice [tutorial](#) on how to do this.

Once you have the I2C interface up and running on your Raspberry Pi it's time to get it connected to your xbox console. For xbox versions 1.0 - 1.4 it will require 3 wires to be soldered to the LPC port on your xbox motherboard, for version 1.6 it will require a few more connections that are a bit tricky.

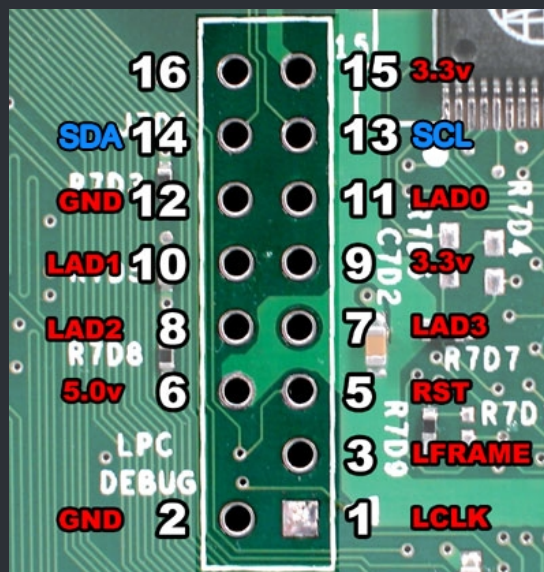
You will need to connect the two I2C pins on your Raspberry Pi to the I2C pins on your xbox/I2C chip, as well as a ground wire between the two. The ground wire is very important! It acts as a reference line for the Pi to tell when a GPIO is high or low. If your Pi doesn't have the same ground reference as your xbox your results may be sporadic.

The wiring chart below outlines the connections you need to make to connect your Pi to an xbox console.

The numbers refer to the RAW pin numbers on the Pi, and the LPC pins on an xbox motherboard.

Note that the pins are the same on all versions of the Raspberry Pi.

Pin	Pi	XBox v1.0 – v1.4
SDA	3	14
SCL	5	13
GND	6	2



If you are connecting the Raspberry Pi to an I2C EEPROM chip that is not connected to an xbox motherboard you will need to look up the datasheet for the chip to figure out the pinout.  
You may also need to power the chip using the Pi's 3.3 or 5v lines.

To test connectivity between the Pi and the EEPROM chip you can use `i2cdetect` to scan all I2C slave addresses and see what comes up. If you haven't already, install the i2c tools using the following commands:

```
sudo apt-get install python-smbus
sudo apt-get install i2c-tools
```

Once the tools are installed you will need to power up your xbox console or EEPROM chip, yes, the console needs to physically be turned on. Don't worry, as long as you're not doing anything on your console at the same time that PiPROM is reading/writing to the xbox EEPROM it won't harm anything.

If your xbox console frags at boot, or throws a system error, you will only have ~3 minutes to work before it will auto power off. This will be plenty of time for PiPROM to read/write the EEPROM chip.

From a command line on the Pi run `sudo i2cdetect -y 1` and you should see something similar to the following (output taken from my Pi connected to an xbox console):

```
pi@xb-chip ~/Projects/PiPROM $ sudo i2cdetect -y 1
      0  1  2  3  4  5  6  7  8  9  a  b  c  d  e  f
00:          -- -- -- -- -- -- 08 -- -- -- -- -- --
10: 10 -- -- -- -- -- -- -- -- -- -- -- -- -- --
20: -- -- -- -- -- -- -- -- -- -- -- -- -- --
30: -- -- -- -- -- -- -- -- -- -- -- -- -- --
40: -- -- -- -- -- 45 -- -- -- -- -- -- 4c -- --
50: -- -- -- -- 54 -- -- -- -- -- -- -- -- -- --
60: -- -- -- -- -- -- -- -- -- -- -- -- -- --
70: -- -- -- -- -- -- -- -- -- -- -- -- -- --
                                     https://github.com/grimdoomer/PiPROM
```

The EEPROM on the xbox console is located at address 0x54, but PiPROM already knows this!  
If your Pi is connected to your xbox console and you don't see output from `i2cdetect` that looks like the image above then something is wrong.

Check your wires, and make sure you have a ground wire between your Pi and xbox console.

If your Pi is connected directly to an I2C EEPROM chip you should only see one address listed in the output from `i2cdetect`. This is the I2C address you will later plug into PiPROM to override the default I2C address of the xbox EEPROM.

Next it's time to get PiPROM on to your Raspberry Pi.

We will start by creating a directory for PiPROM and its dependencies.

From a command line run the following commands which will create a folder called PiPROM and move you into it.

```
mkdir PiPROM
cd ./PiPROM
```



Next we will setup bcm2835, a C library for the broadcom processor the Raspberry Pi uses.  
It is what PiPROM is built on and you will need to it compile PiPROM.  
Run the following commands to download and install bcm2835 v1.42.  
If you run into trouble please refer to the [bcm2835 website](#).

```
wget http://www.airspayce.com/mikem/bcm2835/bcm2835-1.42.tar.gz
tar zxvf bcm2835-1.42.tar.gz
cd bcm2835-1.42
./configure
make
sudo make check
sudo make install
```

Next we are going to download the latest source for PiPROM and compile it.  
Run the following commands which will move you back into the PiPROM folder  
and download the latest source code for it.

I added my own line into this. Use mine until the original OP fixes/merges my changes.

```
cd ..
git clone https://github.com/risk510/PiPROM.git
cd ./PiPROM
```

(Dont follow this unless OP merges my changes)

```
cd ..
git clone https://github.com/grimdoomer/PiPROM.git
cd ./PiPROM
```

Finally we will compile PiPROM for your version of Raspberry Pi.  
From a command line run one of the following commands to compile PiPROM  
for your version of the Raspberry Pi.

Pi Version	COMMAND
v1	make p1
V1 B+	make p1b
v2	make p2
v3	make p3

If everything went smoothly you should see no compiler errors in the output.  
To check run the ls command, and there should be a file called "PiPROM.a" in  
the current folder. If PiPROM.a exists then you successfully compiled PiPROM,  
if it doesn't then I guess I messed up somewhere...  
You can send me an email and I can try to see where things went wrong for you.

Now you are ready to starting reading and writing EEPROMs!

Below you can find the syntax for PiPROM.

Remeber your PiPROM file is currently called PiPROM.a!

You will need to run PiPROM using sudo in order for it to be able to access the I2C interface.

If your Pi is connected to an xbox console and you want to read, write, or erase the EEPROM, you can use one of the following commands:

Read xbox eeprom to eeprom.bin:

```
sudo PiPROM -r ./eeprom.bin
```

Write eeprom.bin to the xbox:

```
sudo PiPROM -w ./eeprom.bin
```

Erase the eeprom:

```
sudo PiPROM -e
```

If your Pi is connected directly to an EEPROM not attached to an xbox motherboard you will need the I2C address you found using i2cdetect earlier.

Read eeprom at I2C address 0x50 to eeprom.bin:

```
sudo PiPROM -r -a 0x50 ./eeprom.bin
```

Write eeprom.bin to eeprom at I2C address 0x48:

```
sudo PiPROM -w -a 0x48 ./eeprom.bin
```

Erase eeprom at I2C address 0x54:

```
sudo PiPROM -e -a 0x54
```

**Note:** You may need to replace "PiPROM" with "./PiPROM.a" on the command line if you get an error saying "PiPROM command not found".

PiPROM command line syntax:

PiPROM v1.0 by Grimdoomer

Usage: PiPROM -r/w/e <options> <filename>

-r Read the EEPROM chip contents to <filename>.

-w Write the contents of <filename> to the EEPROM chip.

-e Erases the EEPROM filling it with 00s.

filename EEPROM file to read from/write to.

Optional:

-a <address> I2C address of the EEPROM chip.

If you receive any errors during the reading or writing process check your wiring. Make sure your SDA, SCL, and GND wires have a strong connection between the Pi and the Xbox/EEPROM chip.

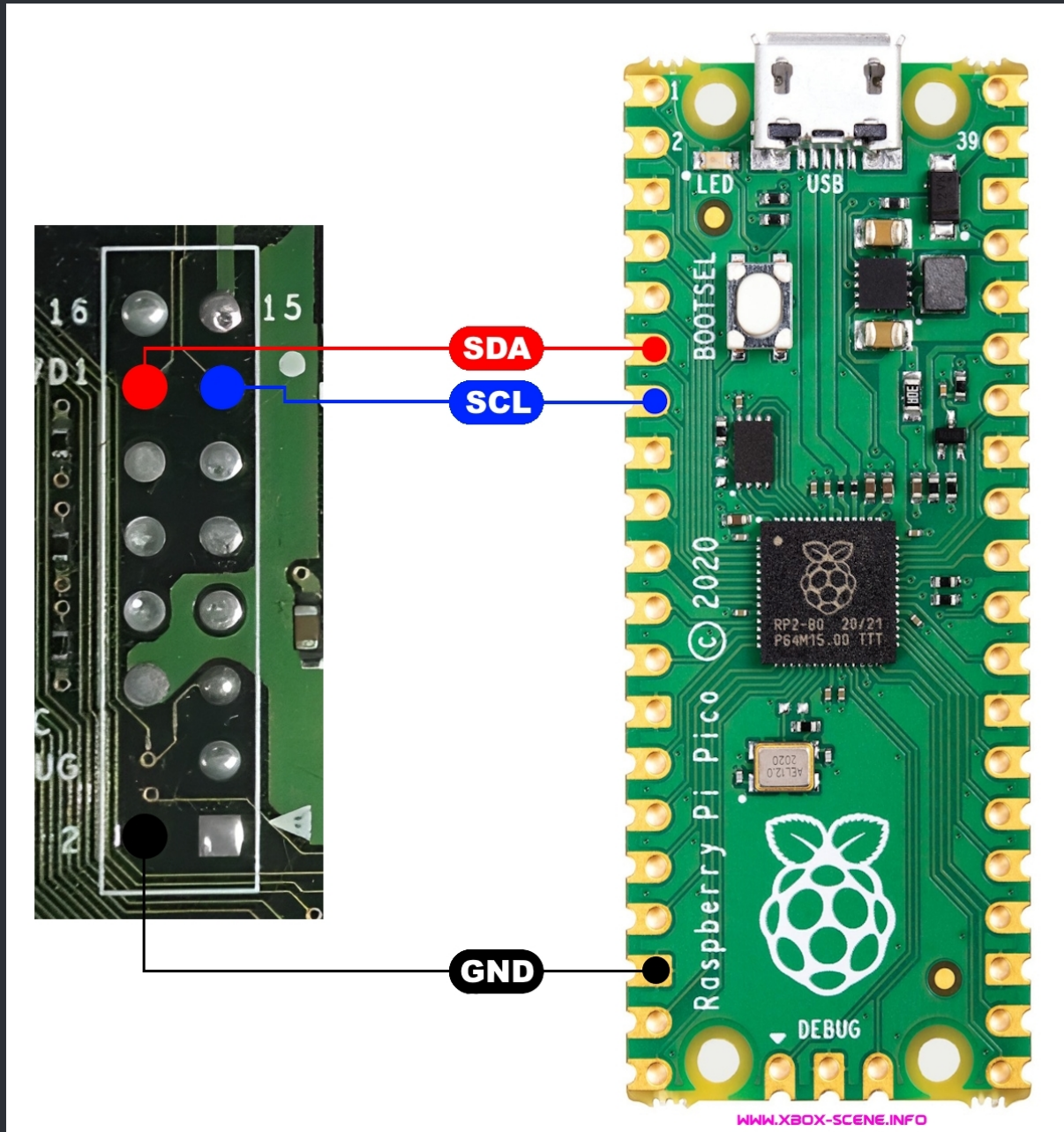
★ Credits for this fly out to : Grimdoomer (Link to his github page: [Click](#)) ★

## ===> Raspberry Pi Pico EEPROM Reader <===



Raspberry Pi Pico Pin/Via 6 -> XBox LPC SDA Pin/Via 14  
Raspberry Pi Pico Pin/Via 7 -> XBox LPC SCL Pin/Via 13  
Raspberry Pi Pico Pin/Via 18\* -> XBox LPC GND Pin/Via 2

\* Or any other GND/Ground Pin/Via on the Raspberry Pi Pico.

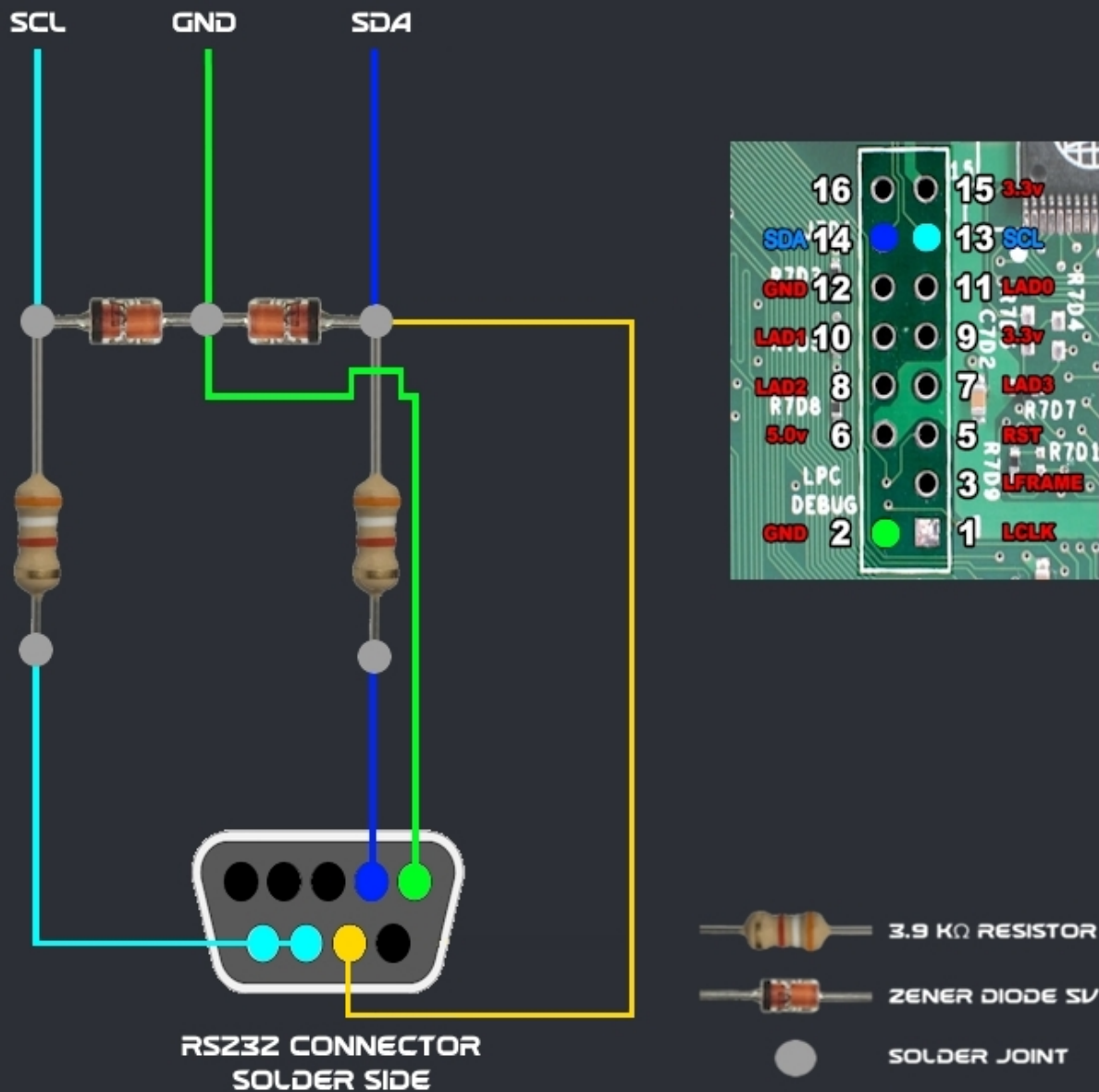


Make sure the Xbox is powered on before dumping otherwise it won't work.

Download pre-compiled .uf2 file for the Raspberry Pi Pico [HERE](#) or [HERE](#).

★ Credits for this fly out to : master801 ★



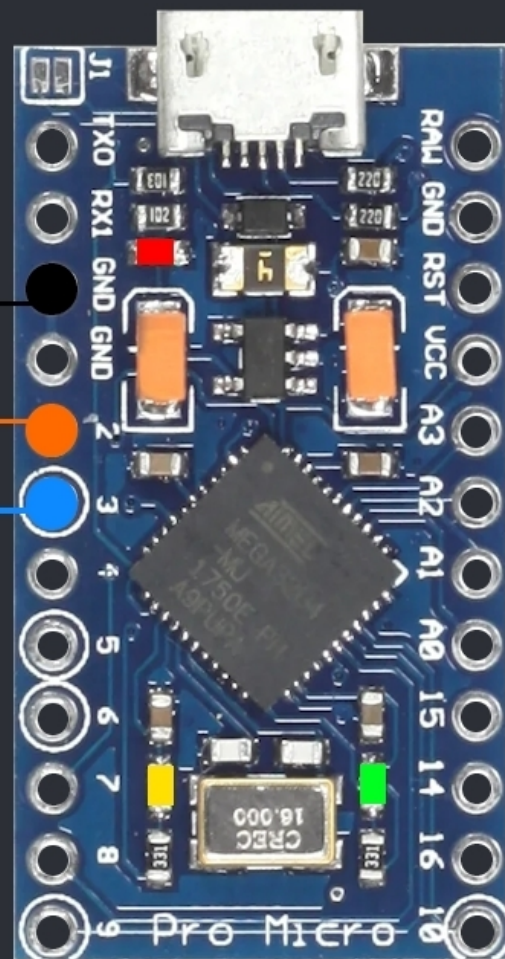
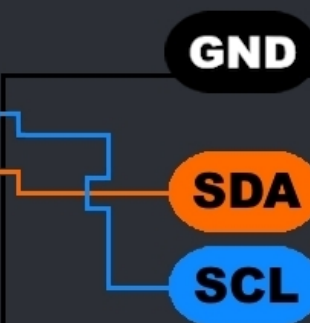
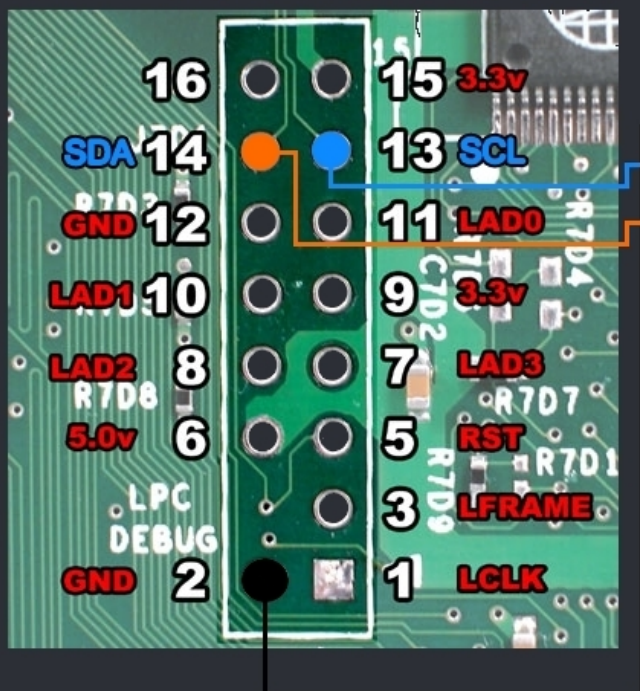


At the end, it could look like the one I build shown above.

You will need PonyProg2000 on your PC to read the EEProm.  
You can download it here: [www.lancos.com/ppwin95.html](http://www.lancos.com/ppwin95.html)

ArduinoProm. An Arduino based Original Xbox EEPROM reader and writer.  
It can be used to recover a HDD key etc..

## Wiring



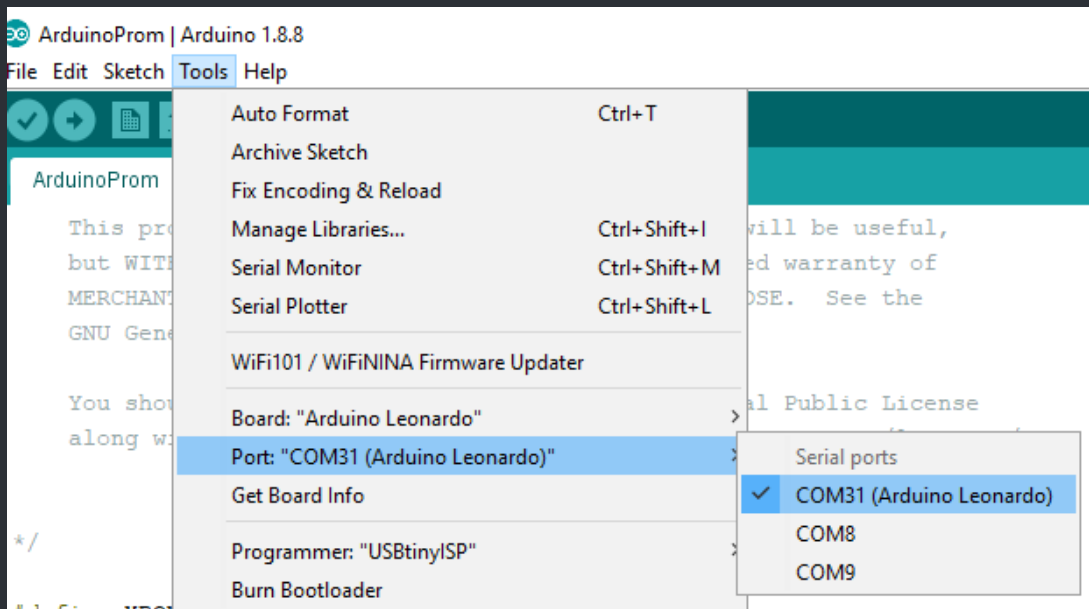
WWW.XBOX-SCENE.INFO

## Arduino Setup

The firmware has been written around the Arduino Pro Micro Leonardo (5V/16Mhz).

However I would expect it to work on any Arduino with a built in USB bootloader/Virtual Comport support, and obviously I2C support.

1. Open `ArduinoProm.ino` in [Arduino IDE](#).
2. Connect your Arduino to your PC and setup the IDE. An example below



3. Hit the program button then confirm it compiles and programs successfully.

## Python Script

ArduinoProm accepts a few very basic commands over a virtual comport interface.

```
0x00 triggers an EEPROM read.  
0x01 triggers an EEPROM write.  
0x02 will erase the Xbox eeprom.  
0x03 will return 0x00 if the eeprom is detected. (-1 otherwise)
```

To facilitate these commands in a more user friendly way you can use a small python app `ArduinoProm.py`.

To run the Python program you need to install [Python 3.7](#). Once installed and setup do

```
pip install pyserial  
pip install wxPython
```



**ArduinoProm.py** usage is as follows

(Determine your comport number by plugging in the Arduino to your PC after programming it)

```
//Read the EEPROM on COM1 and save to file to eeprom.bin  
python ArduinoProm.py COM1 READ eeprom.bin
```

```
//Write eeprom.bin to the EEPROM on COM1.  
python ArduinoProm.py COM1 WRITE eeprom.bin
```

```
//Write all 0's to the EEPROM effectively erasing it.  
python ArduinoProm.py COM1 ERASE
```

### Example outputs

```
C:\Python\Python37\ArduinoProm>python ArduinoProm.py COM31 WRITE eeprom.bin  
Opening EEPROM eeprom.bin  
WARNING: This will rewrite the EEPROM  
Press Enter to Write EEPROM...  
Writing EEPROM file via COM31  
Write sucessful  
Verifying...  
Verification Successful
```

```
C:\Python\Python37\ArduinoProm>python ArduinoProm.py COM31 READ eeprom.bin  
Reading EEPROM via COM31  
Saving EEPROM file to eeprom.bin  
Xbox Serial Number: b'115526133005'
```

```
C:\Python\Python37\ArduinoProm>python ArduinoProm.py COM31 ERASE  
WARNING: This will erase the EEPROM  
Press Enter to Erase EEPROM...  
Erase successful.
```

[github.com/Ryzee119/ArduinoProm](https://github.com/Ryzee119/ArduinoProm)

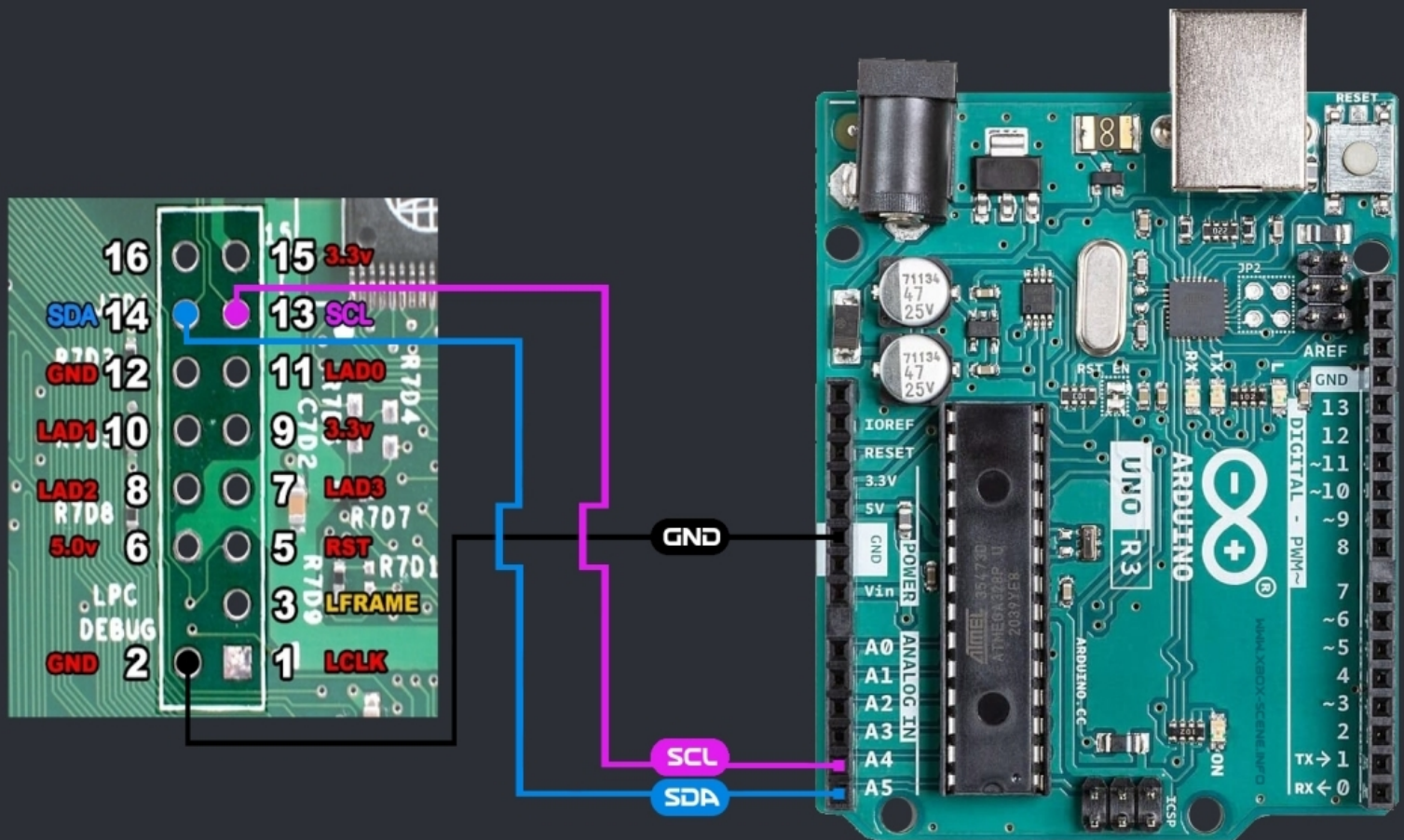
★ Credits for this fly out to : Ryzee119 ( Link to his github page: [Click](#) ) ★

DuinoBoX is an Xbox EEPROM Reader for helping Original Xbox owners recover the EEPROM from their console. It makes use of the Arduino and its SPI and Serial communication capabilities.

The Arduino sketch extracts the data from the Xbox's 256 byte EEPROM and either stores the data in the Arduino's EEPROM, or transmits the data to a computer via the Arduino's serial connection over USB.

### Features

**Remote EEPROM Extraction:** Arduino will store the Xbox's EEPROM onto it's own internal EEPROM if it's not connected to a computer via the USB port.



### How To Use

#### Preparing the Arduino board

Open the included Arduino sketch `duinobox-sketch.ino` located in the `duinobox-sketch` directory with the [Arduino IDE](#), then upload it onto the Arduino Uno board.

### Using Remote EEPROM Extraction

When the Arduino is not connected to a computer, it will try to detect and read the Xbox's EEPROM. If successful the Arduino will store the EEPROM data on the Arduino's internal EEPROM storage. When the Arduino is connected to a computer and the Arduino cannot detect the Xbox's EEPROM, it will retrieve the saved EEPROM data and send it to the computer.

If a computer and the Xbox's EEPROM are connected, the Arduino will read the EEPROM and directly send the data to the computer.

### Getting the DuinoBoX EEPROM Reader Program

Binary release can be found [here](#) or on the the github [releases page](#).

★ Credits for this fly out to : ExtraordinaryBen ( Link to his github page: [Click](#) ) ★



## **ESP32 / ESP01 / WeMos D1 mini**

**OG Xbox EEPROM Utility to dump, change and edit your eeprom based on an ESP32/ESP8266.**  
It is expandable to do some SMC related stuff too, like LED control of your console or even  
reboot/shutdown remotely.

### **XWiFi**

**XEU is combined with XWiFi, XWiFi is a XERC2 like option that let you turn on and off your console, ejecting the DVD drive and drive LED's in the console's off state. You can configure a standby led in the red/green value you wan't (PWM). XWiFi requires a pin compatible ESP chip and soldering is needed. For installation you could use any XERC2 installation diagram.**

**This is ONLY over WiFi. So no remote control!**

### **XEU Features**

- **Dumping and flashing EEPROM over WiFi**
- **Decrypting HDD Key**
- **Change HDD Key**
- **OTA Flashing (ArduinoOTA & HTTP File Upload)**
- **Inbuild Flashmode(Failsafe when flashing the wrong SPIFFS).**

### **XEU + XWiFi features**

**All above plus:**

- **Turn console on/off over WiFi**
- **Eject DVD drive**
- **Adjustable PWM LED control (Standby Light)**
- **and more.**

## How to use it?

Using a precompiled binary:

[Here](#) or [here](#), you can download an AIO pack with all different binaries for different boards and some other nice stuff.

XEU with and without XWiFi from 1M to 4M binaries.

When using a precompiled binary check the pinout how to wire it up to your Xbox.

When you power the ESP from your console, connect VCC to 3.3V on the Xbox Motherboard.

Use the esptool with following command (Linux):

```
esptool.py -p /dev/YOUR_SERIAL_IF -b 115200 write_flash 0 xeu.esp01.1M.bin
```

Or the Nodemcu Flasher (Windows) which comes in the AIO pack.

## Compile it yourself?

- Open with the Arduino IDE with installed ESP32 or ESP8266 support, including some libraries. (WiFiManager, ArduinoJson)
- Compile and flash it to your ESP32 or ESP8266 board.
- Upload the SPIFFS using "Tools -> ESP8266 Sketch Data Upload" or on the ESP32 with "Tools -> ESP32 Sketch Data Upload".
- Connect some wires to the Xbox Mainboard. DO NOT CONNECT +5V TO +3.3V!
- WeMos D1 mini(SDA Pin D2, SCL Pin D1, GND, 3.3V), ESP01(SDA Pin 2, SCL Pin 0, GND, 3.3V), ESP32 (SDA Pin 21, SCL Pin 22, GND, 3.3V)
- Turn console on and reset your ESP.
- Search for a new WiFi network and connect to 192.168.4.1.
- Configure your WiFi credentials from your Home WiFi.
- Reconnect to your main home network and open <http://xeu.local/>. (Bonjour installation on Windows required!)

## ESP-01 support - Gerbes in the AIO

For the guys that need that thing more often, can order an adapter board for the ESP-01.

## XWiFi custom board for ESP-12F - Gerbes in the AIO

This is a custom board featuring a ESP-12F board, you need 3x 10k 0603 resistors and a 100nF 0603 cap. It's a 9 wire installation (Power Button, Eject Button, Power on, LED Red, LED Green, SDA, SCL, Power and Ground).

Make sure you mount it at the top side on your motherboard! (WiFi failure, SMBus interference)

## Bugs?

Currently with the newest WiFiManager none on the ESP8266 based boards. On the ESP32 it doesn't always connect to your local WiFi!

## Wiring Schematic?

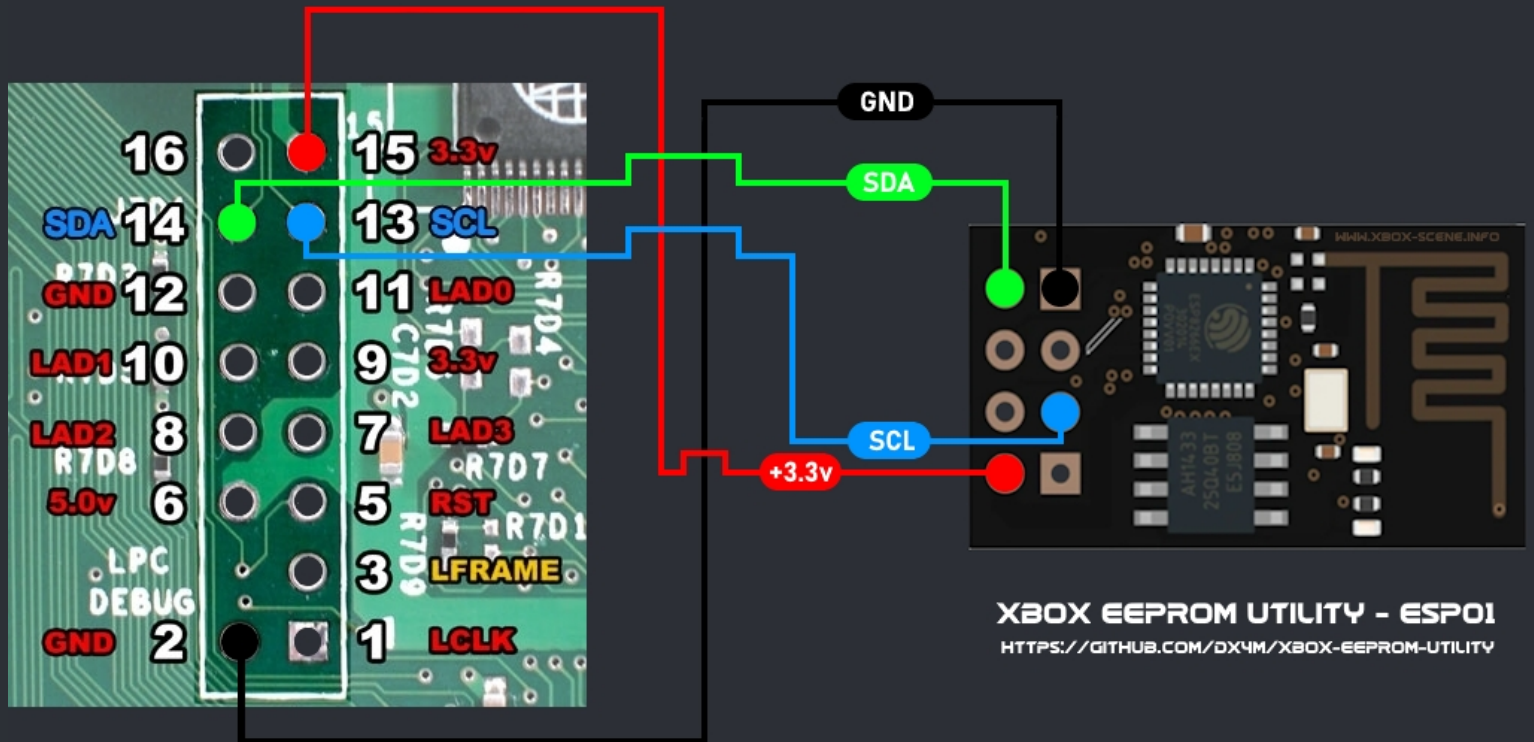
[WeMos D1 mini](#) | [ESP01](#) | [ESP32](#)

## +3.3v

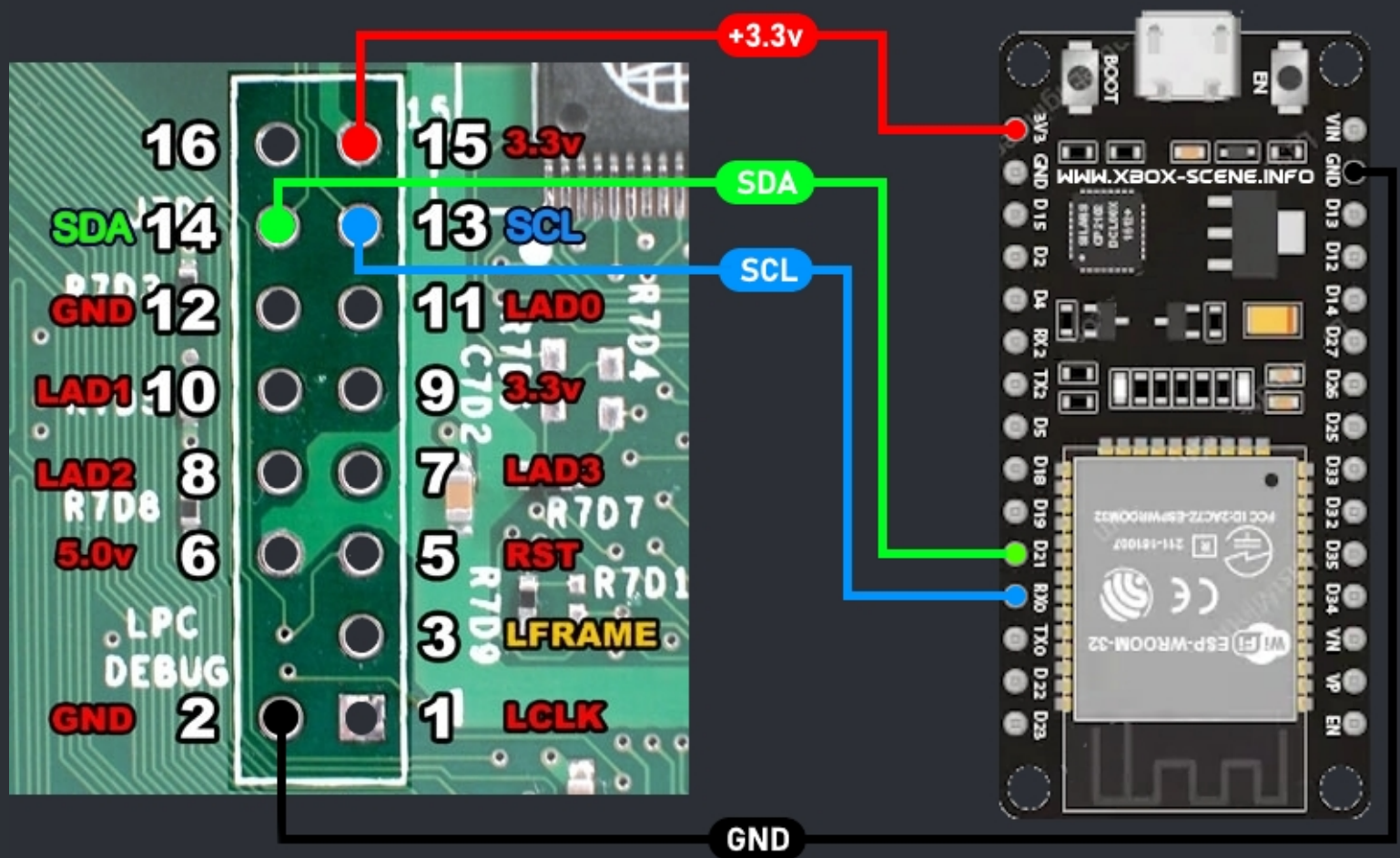




## Wiring Schematic - ESP01



## Wiring Schematic - ESP32

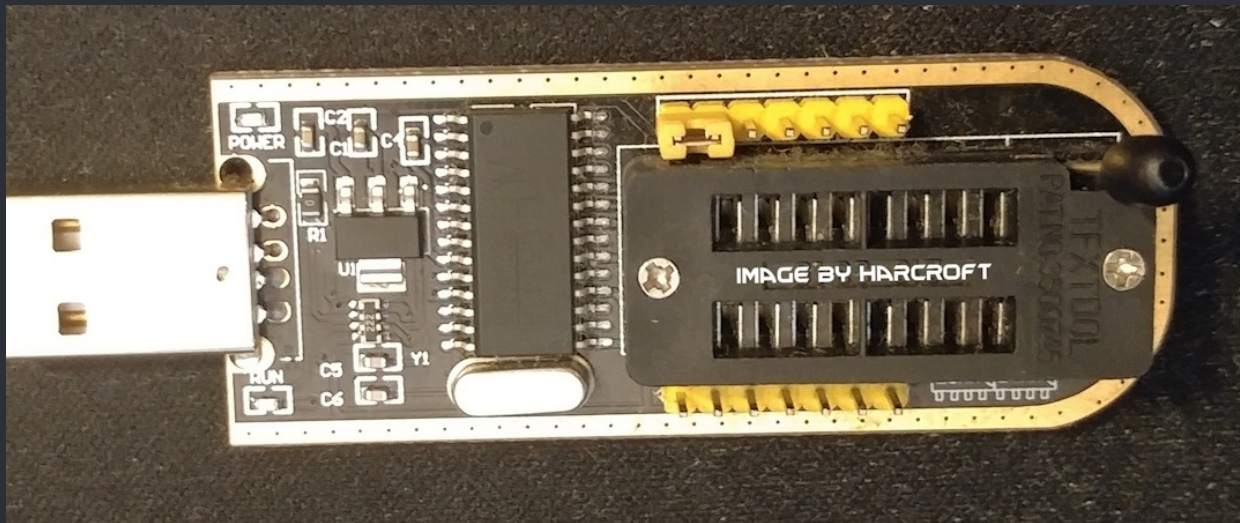


**XBOX EEPROM UTILITY - ESP32**

[HTTPS://GITHUB.COM/DX4M/XBOX-EEPROM-UTILITY](https://github.com/dx4m/xbox-EEPROM-utility)

★ Credits fly out to : dx4m ( [Github](#) ) ★

This is a cheap CH341a programmer.



Make sure the jumper is in that exact location (depending on your model).

Flip the lever up the right up. You will be using the right 8 slots on the ZIF socket. These programmers can be purchased cheaply on [amazon.com](http://amazon.com), [ebay.com](http://ebay.com) or other places.

Make sure you buy one with a clip and pre-assembled adapter board.

You may also want some dupont jumpers if you are attempting this on an Xbox with components that are too close to the eeprom for a clip to fit.

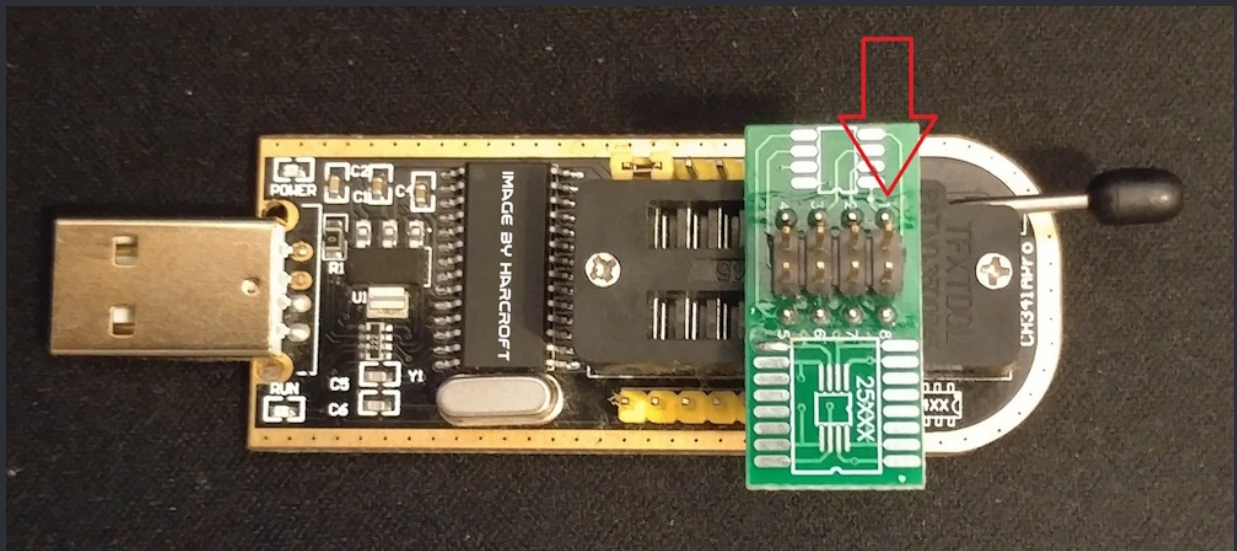
### Standard warning

If you break it, it's your fault.

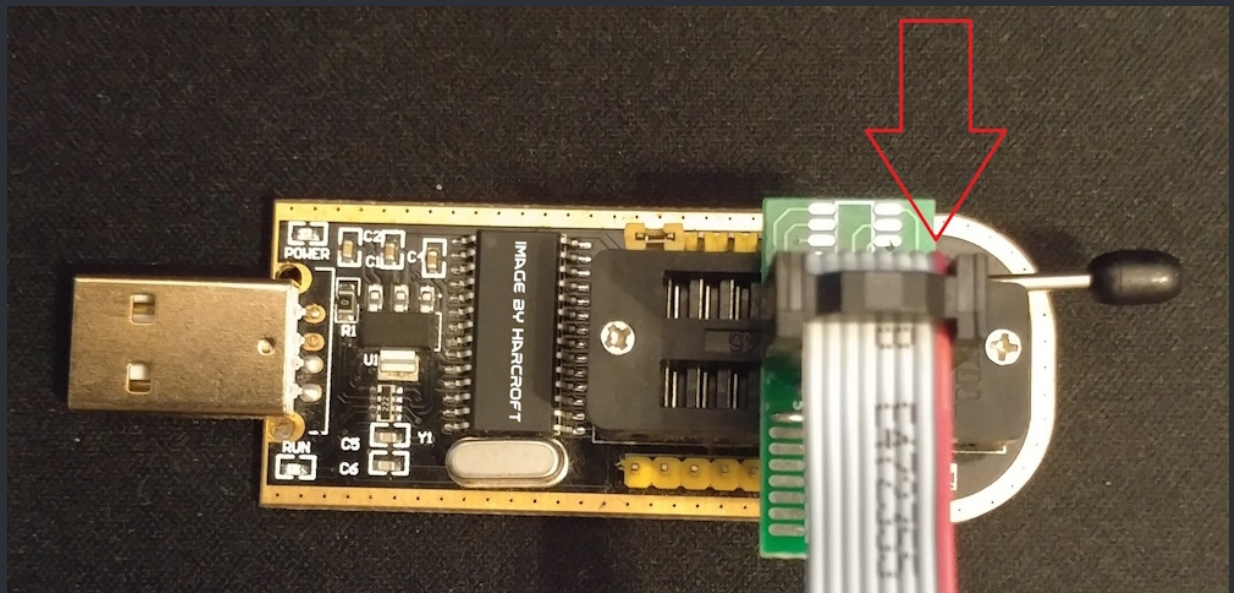
Anything you do inside your Xbox can damage it and render it unusable.

If you can't accept that, find another way to dump your eeprom.



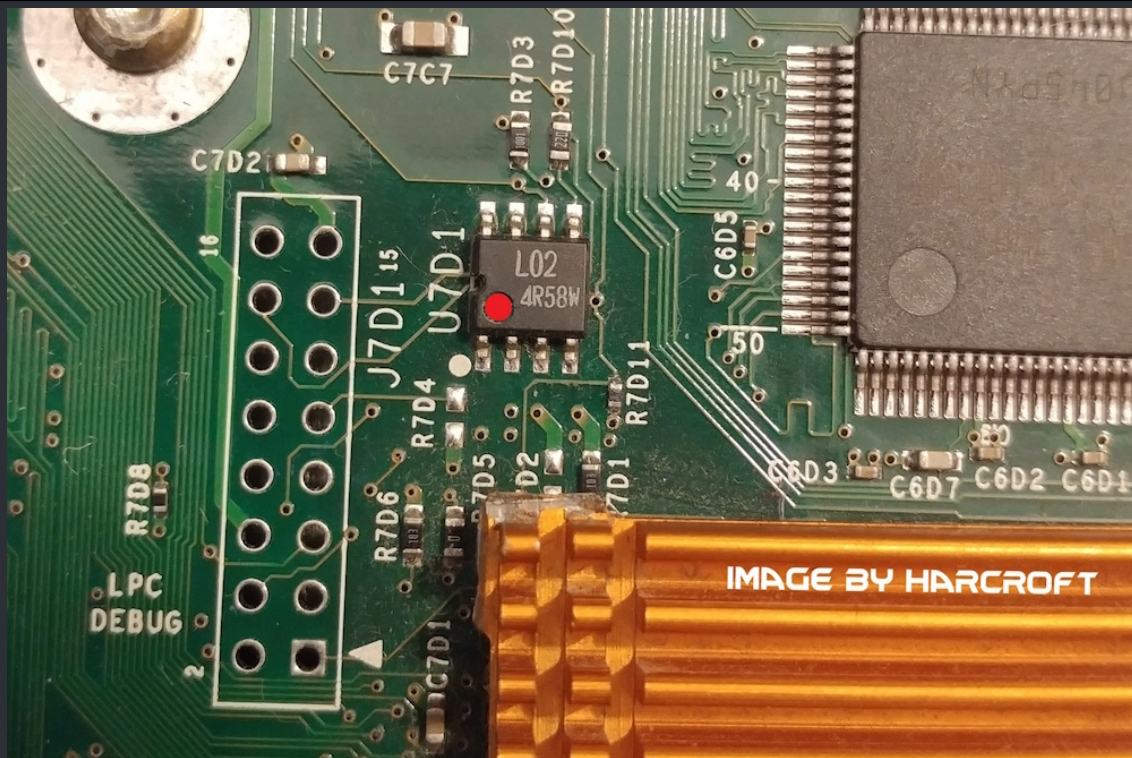


Slide your adapter board into the rightmost eight slots and fold the lever down to lock it in place. Make sure pin 1 matches pin 1 on the programmer slot for pin 1, see arrow above.

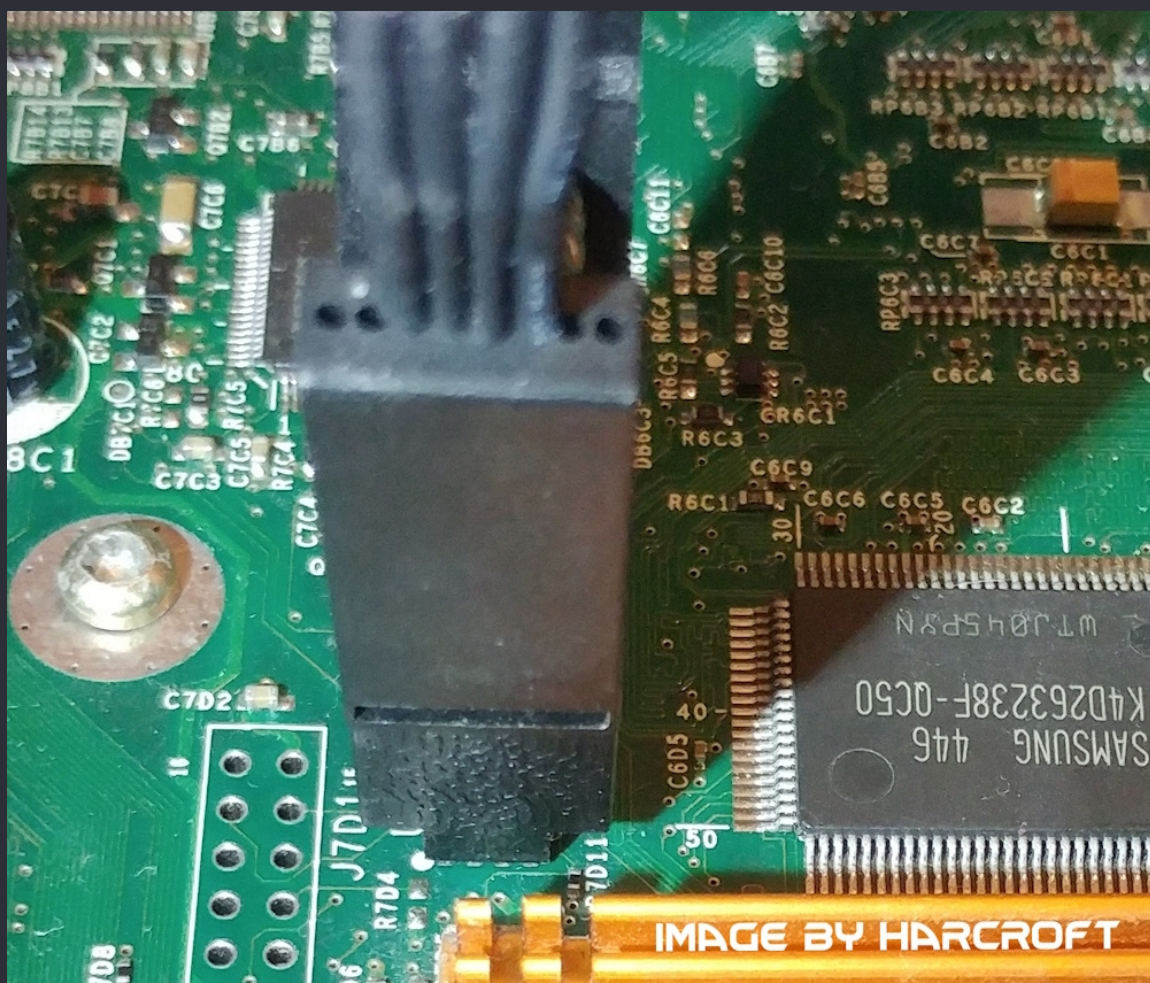


Once the adapter board is seated firmly and the lever is down locking it in place, connect the 8 pin connector from clip to the adapter board. make sure the red line is on the same side as pin 1, this is critical so you do not connect the clip to the chip backwards.



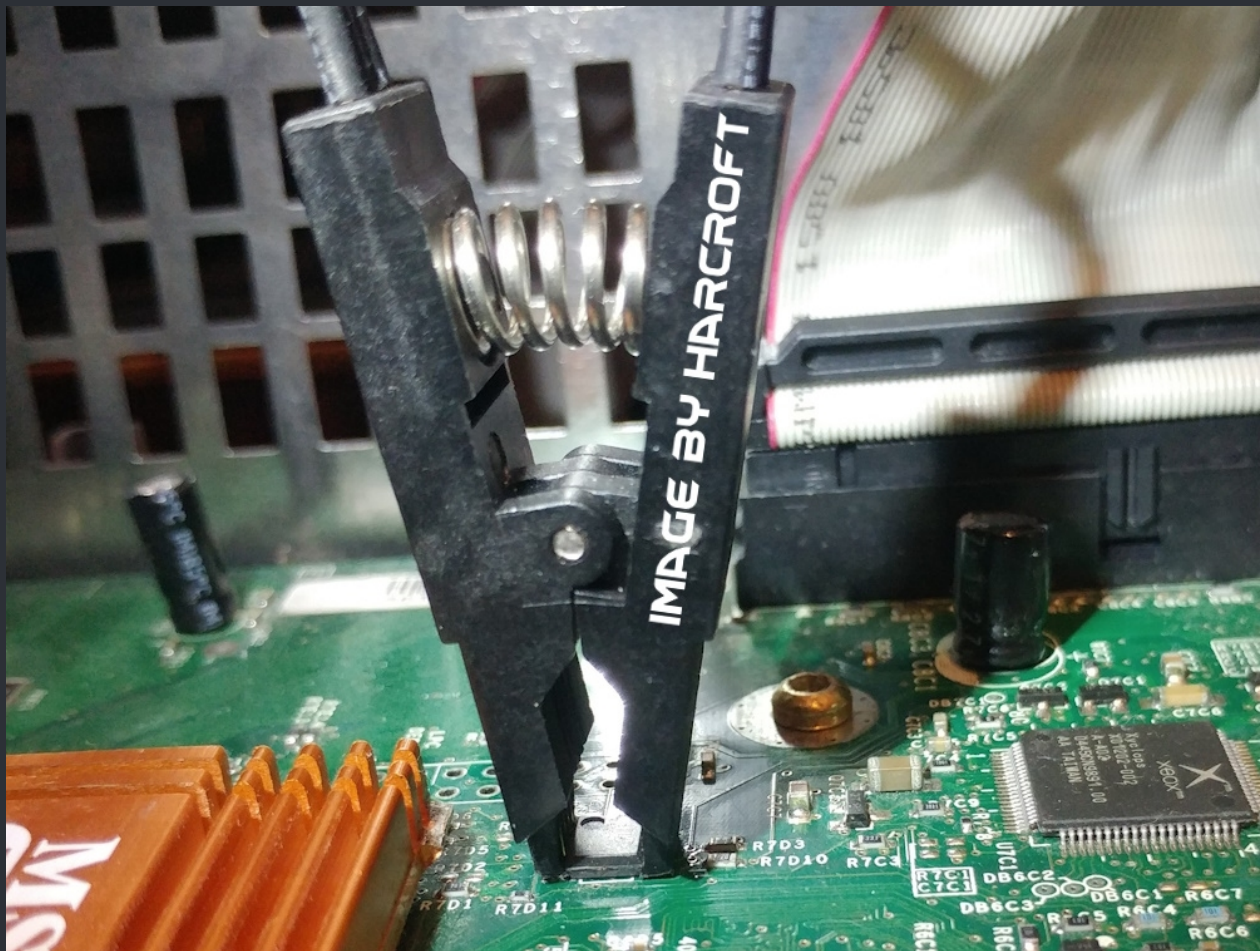


This is a 1.6 Xbox. The small 8 pin chip with the marking L02 next to the lettering U7D1 is the eeprom chip. The little dot in the bottom left corner is pin 1. I have marked it with a red dot to make it stand out. Your Xbox should be off and unplugged before attempting to dump the eeprom with this method. Ignore the copper coloured heatsink on the bottom, you wouldn't normally see that inside an Xbox. If you are attempting this on something other than a 1.6 Xbox, skip down 3 images.



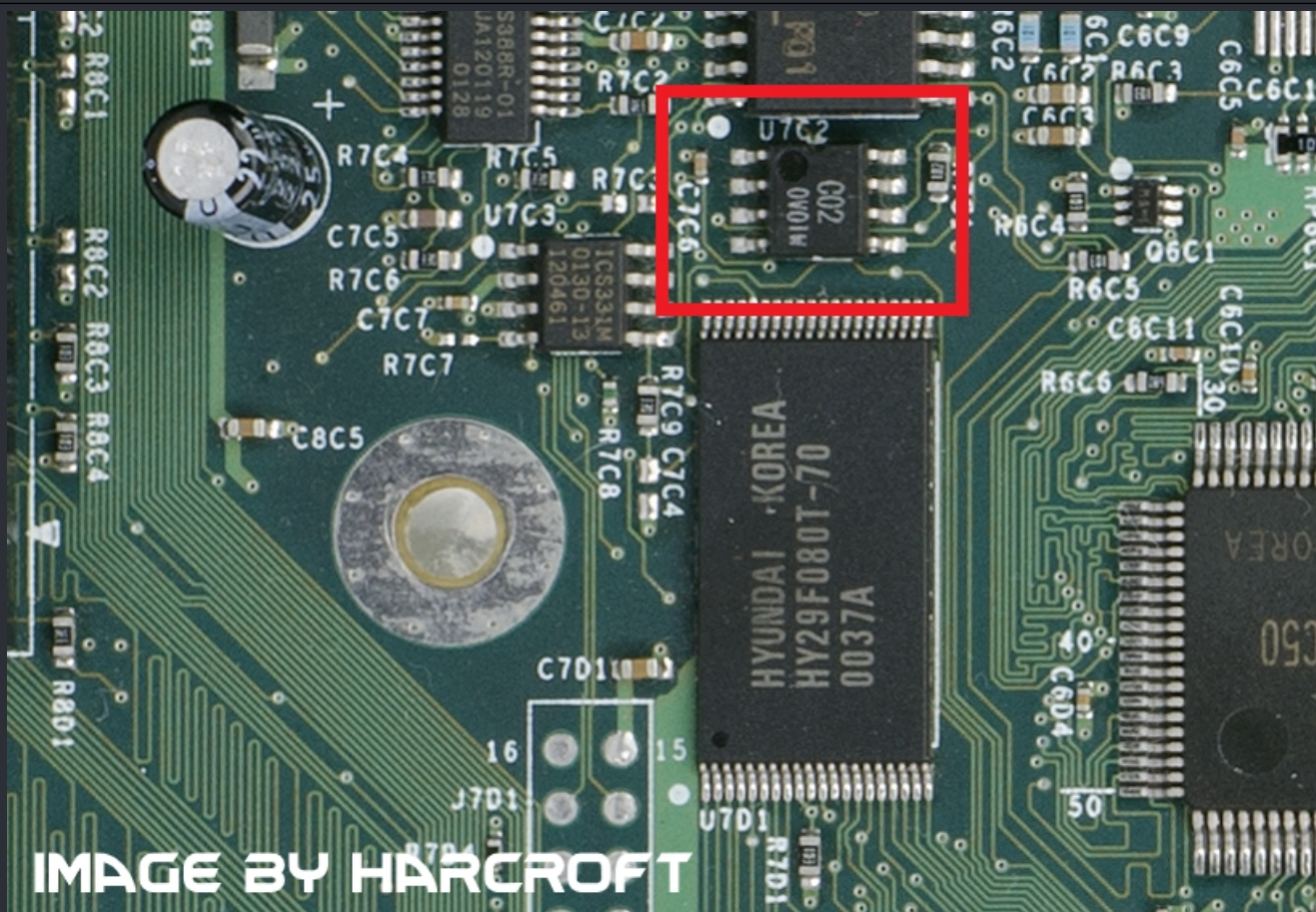


Connect the clip as shown here (In the image above). Be very gentle and take your time. The clip should be able to hold itself in place without assistance. Make sure to orient the clip with the red wire on the side of pin 1.



Another angle showing the plastic from the clip gripping the sides of the eeprom chip.

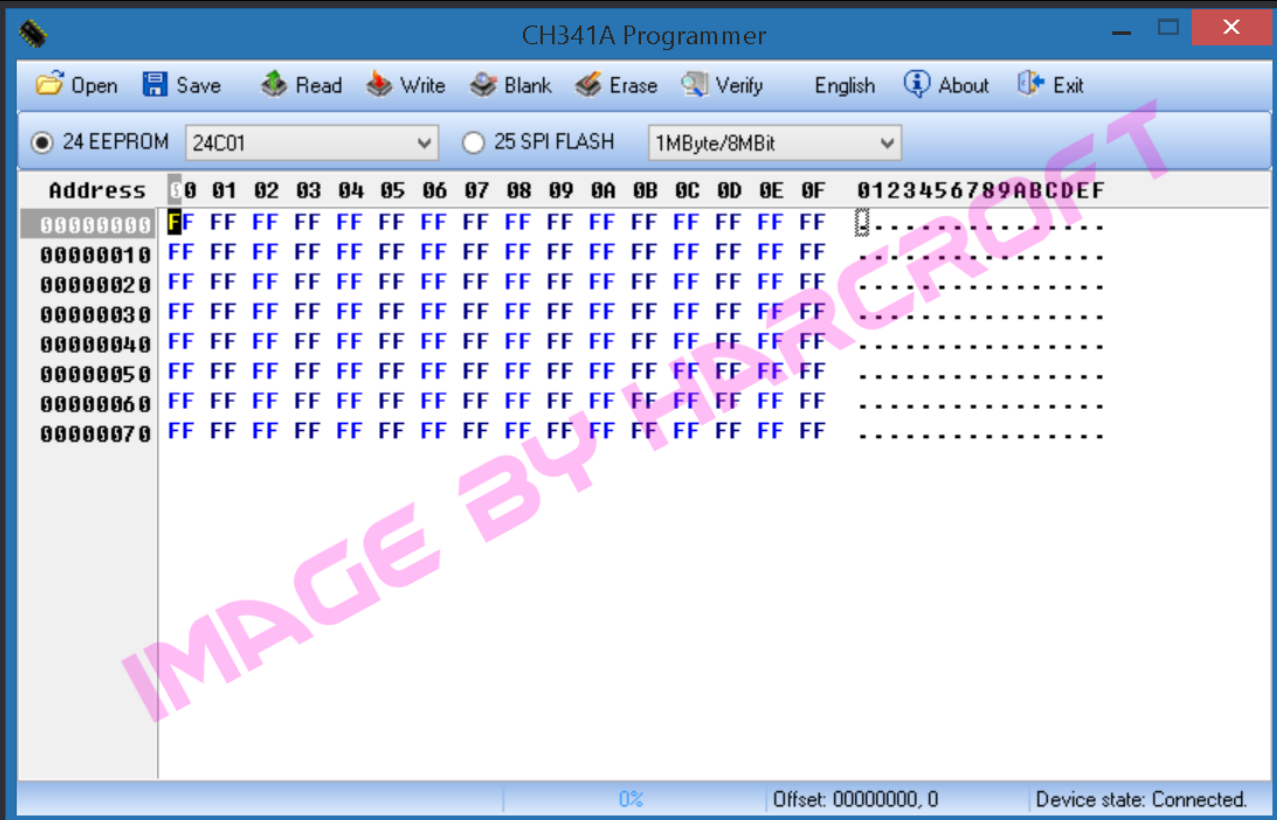




This is a 1.0 Xbox. There are surface mount components too close to the eeprom. You likely will not be able to get a clip around this chip to dump it. Use long dupont jumpers from the adapter board instead. You may be able to hold or tape the jumpers in place, if not soldering may be required.

- Adapter pin 4 to LPC pin 2 for ground
- Adapter pin 5 to LPC pin 14 for SDA
- Adapter pin 6 to LPC pin 13 for SCL
- Adapter pin 8 to LPC pin 15 for 3.3V

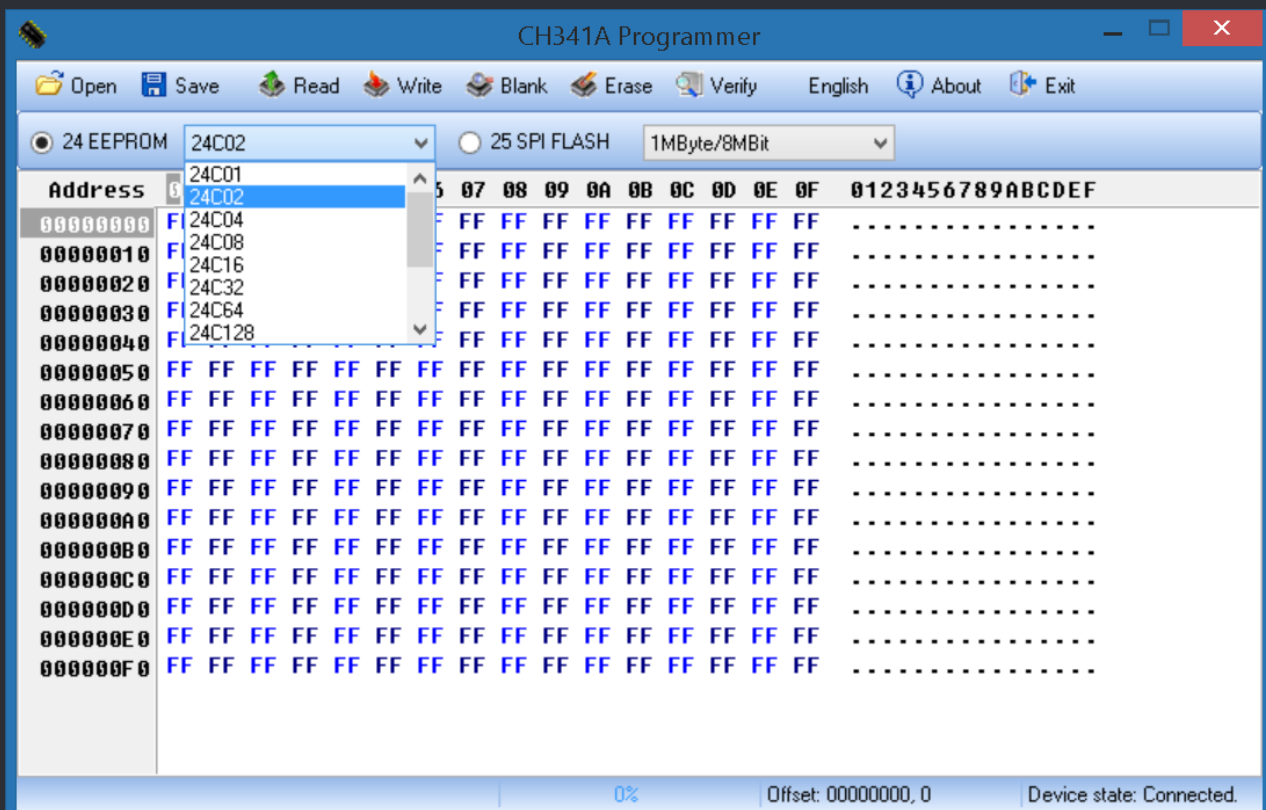
I could not find clean high resolution images of other Xbox motherboard revisions so you may want to do some research before trying to connect to your motherboard.



Download the CH341A v1 . 31 free package [here](#) or [here](#).

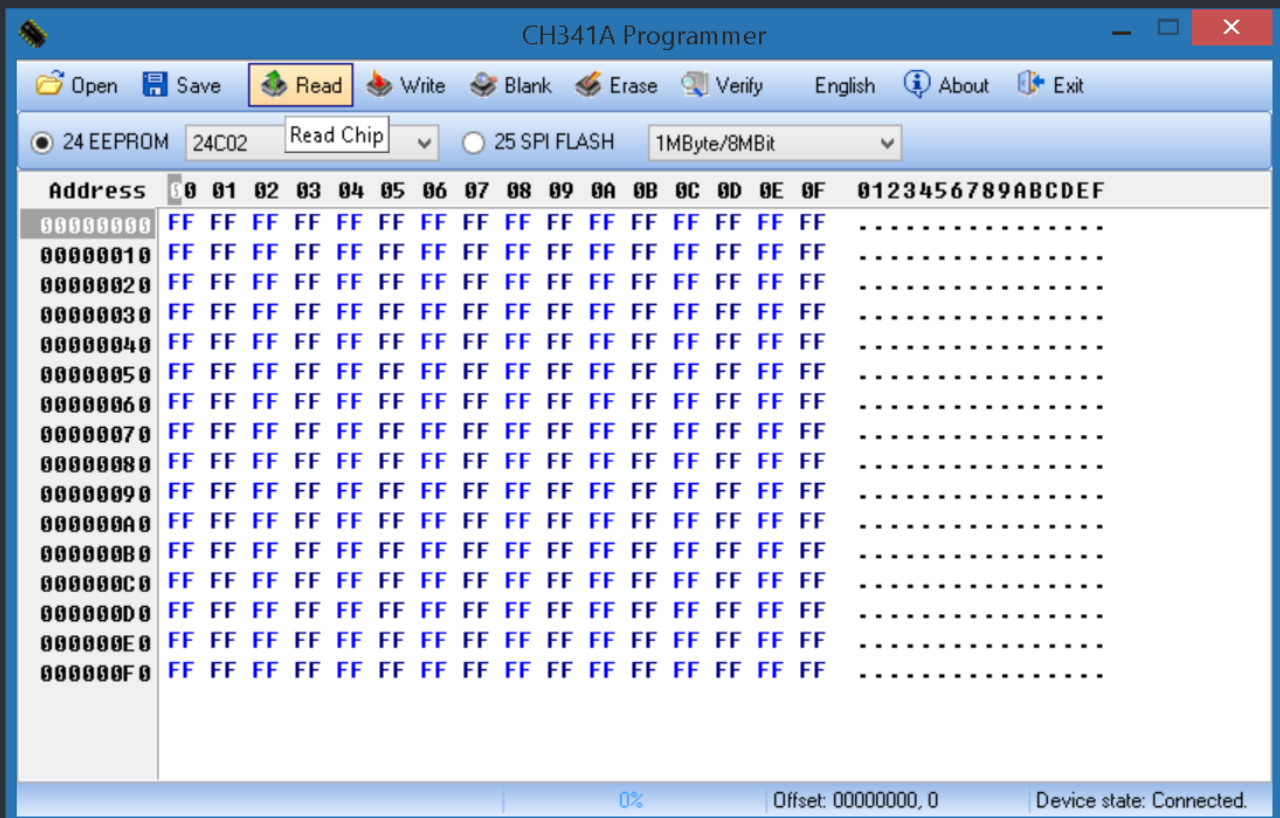
Install the provided driver, or connect your device and manually install the driver by selecting the .inf file.

Launch the CH341AFree executable from the CH341A v1 . 31 free folder.  
With your programmer connected, the program will say Device state: Connected.  
If it does not, reinstall the driver or connect the device to a different USB port.



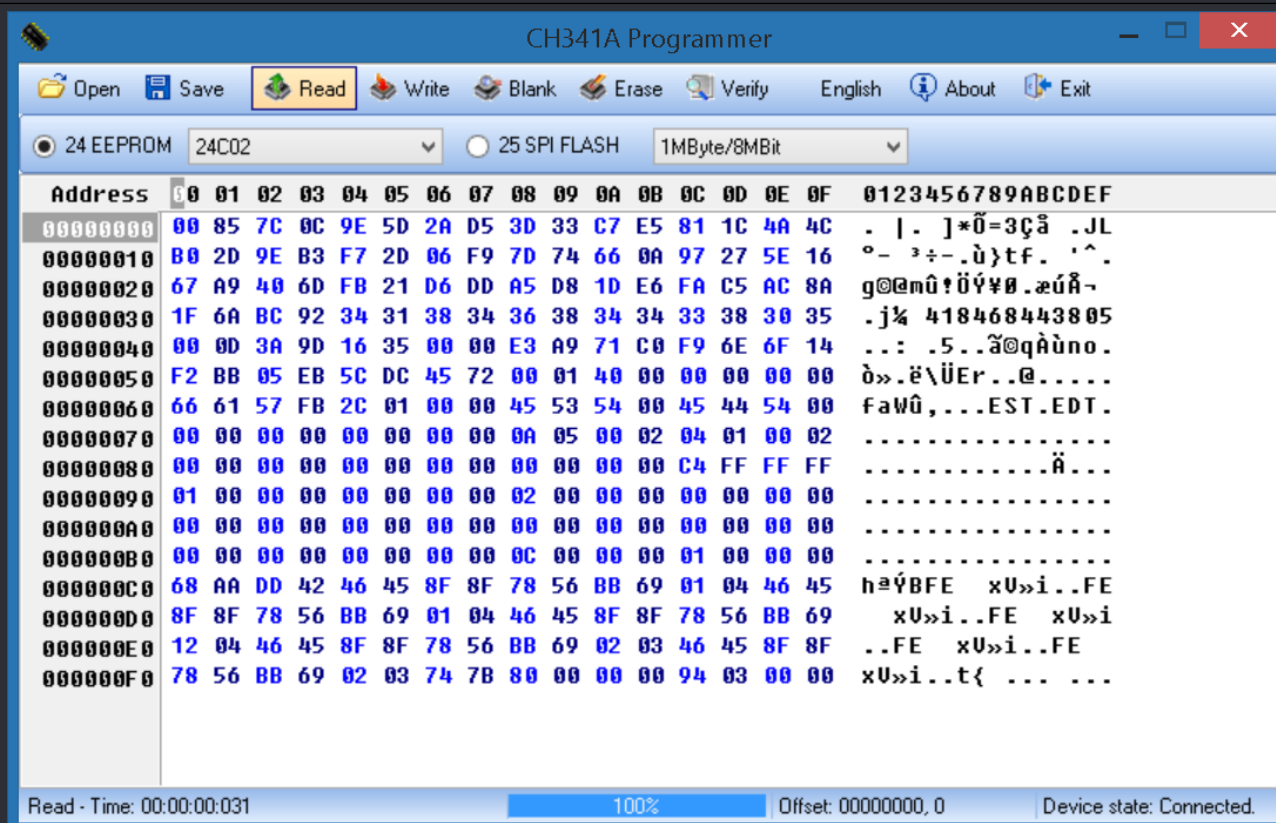
With the programmer connected to USB, the adapter board and clip connected, and the clip connected firmly, and in the right direction you are ready to dump your eeprom. The programmer 3.3v power line is connected to more than just your eeprom on your Xbox motherboard so there will be a fairly high power draw. Do not leave your programmer connected to the Xbox motherboard for more than a few minutes. Otherwise the voltage regulator on your programmer could overheat. If the Device state indicator on the bottom right of the window switches to red and says NotConnect, you may have the clip or another part connected backwards. Your programmer will also heat up very quickly and could be damaged. Make sure you connect pin 1 on the 24xx side of the programmer to pin 1 of your eeprom!

If the Device state indicator stays Connected in black text select the 24 EEPROM radio button. Open the drop down menu and select 24C02.



Click Read. If your clip is connected properly, the data window should populate in less than a second.





A valid eeprom dump should look something like this.

Once you have successfully dumped your eeprom, click the verify button to make sure your dump matches the contents of the chip.

Once you have verified your eeprom dump click the save button and back it up to multiple locations.

Gently remove the clip from your Xbox eeprom.

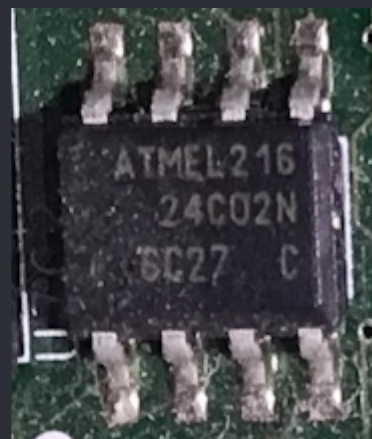
Load a secondary copy of your eeprom into LiveInfo or another application to verify it is a valid dump.

Use your eeprom dump for profit?

★ Credits for this fly out to : Harcroft ( Link to his tutorial: [Click](#) ) ★

## <=== Xbox EEPROM Chips ===>

### ===> The Various EEPROM Chips <===



24C02

Catalyst / CSI 24WC02

Atmel 24C02

[Datasheet Download](#)

[Datasheet Download](#)

### ===> EEPROM Pinout <===

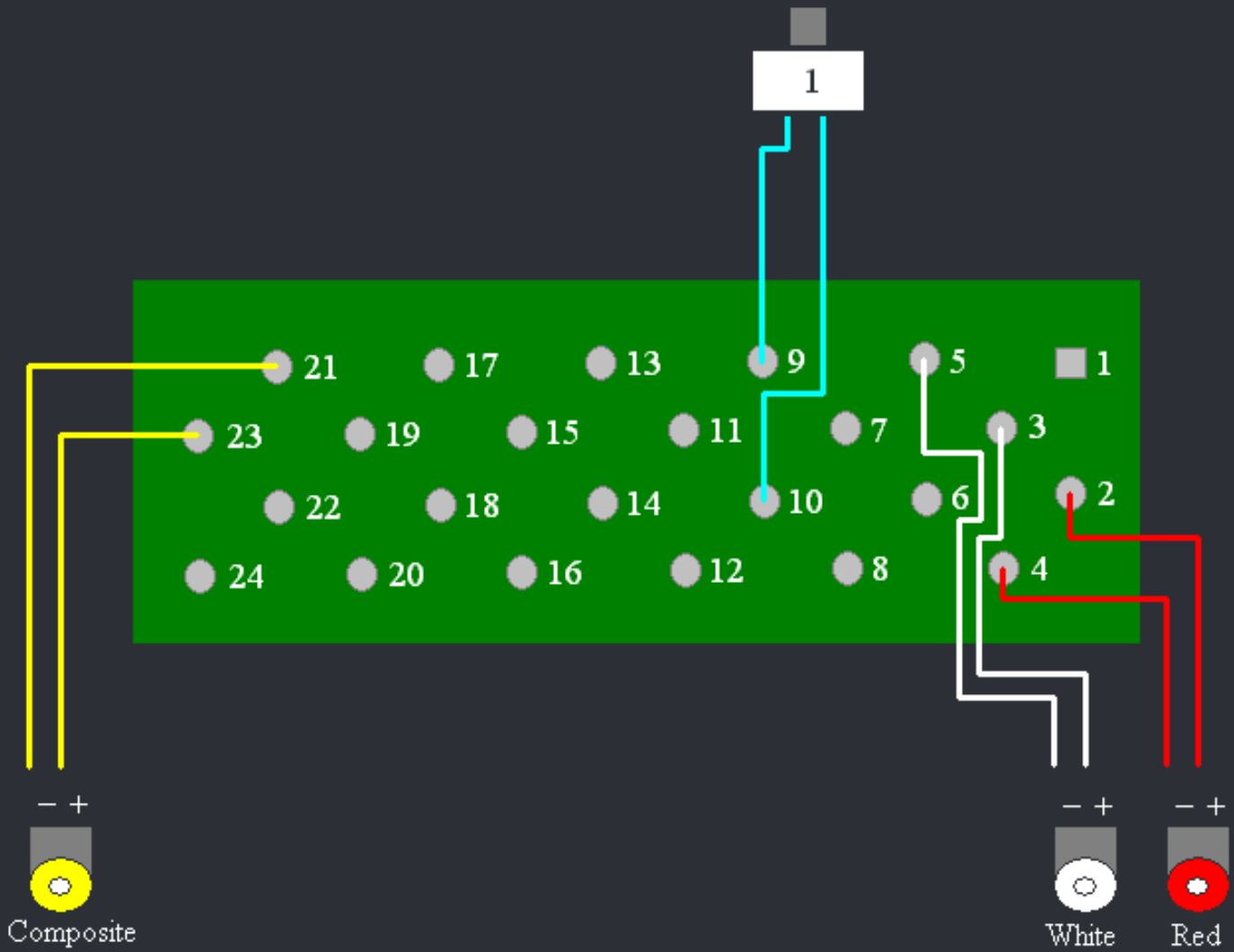


24C02 / 24WC02 256b SOIC8

Check out the XboxDevWiki if you like to know more about how the EEPROM works.  
<https://xboxdevwiki.net/EEPROM>

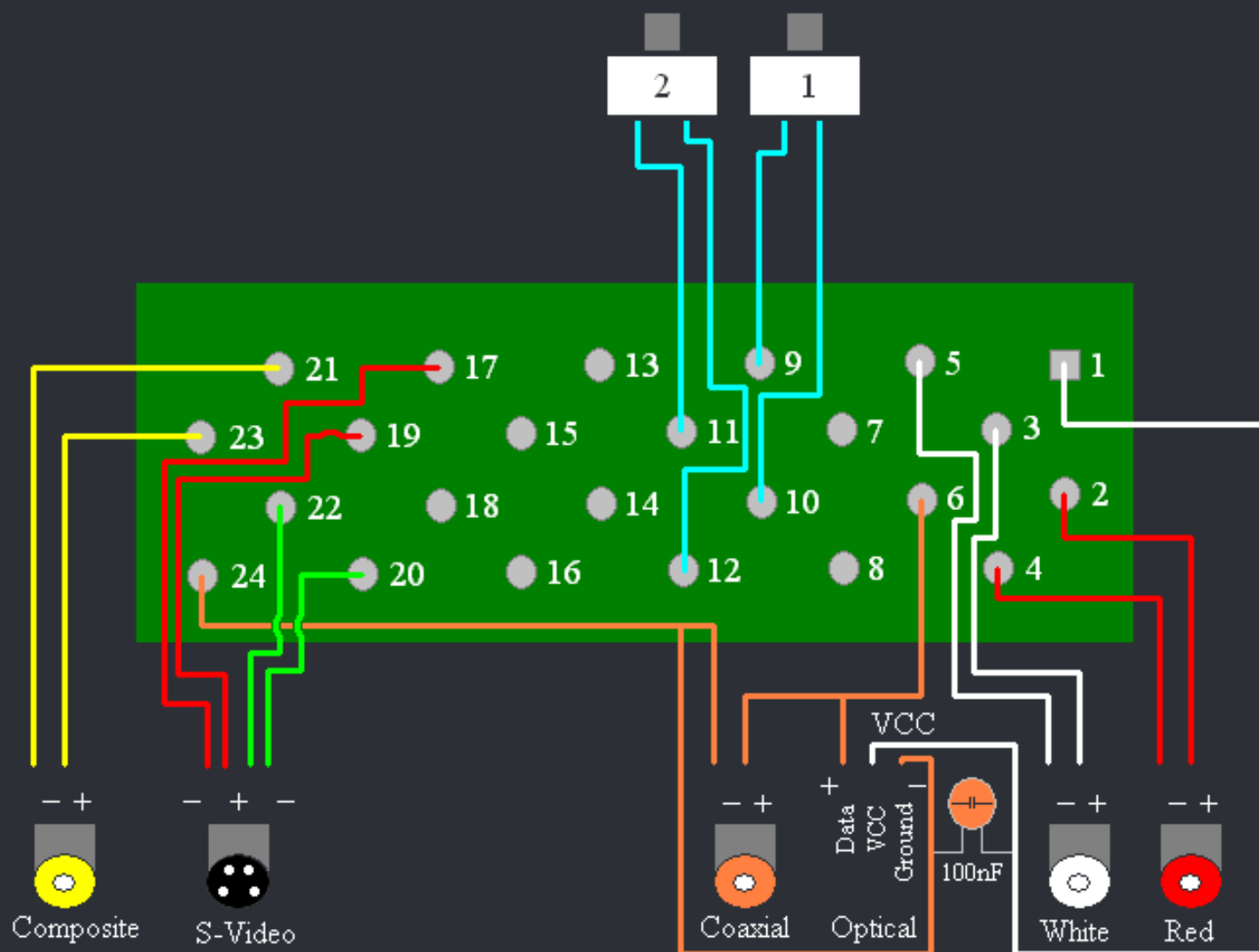
# <=== XB0x A/V ===>

===> Standard A/V <===

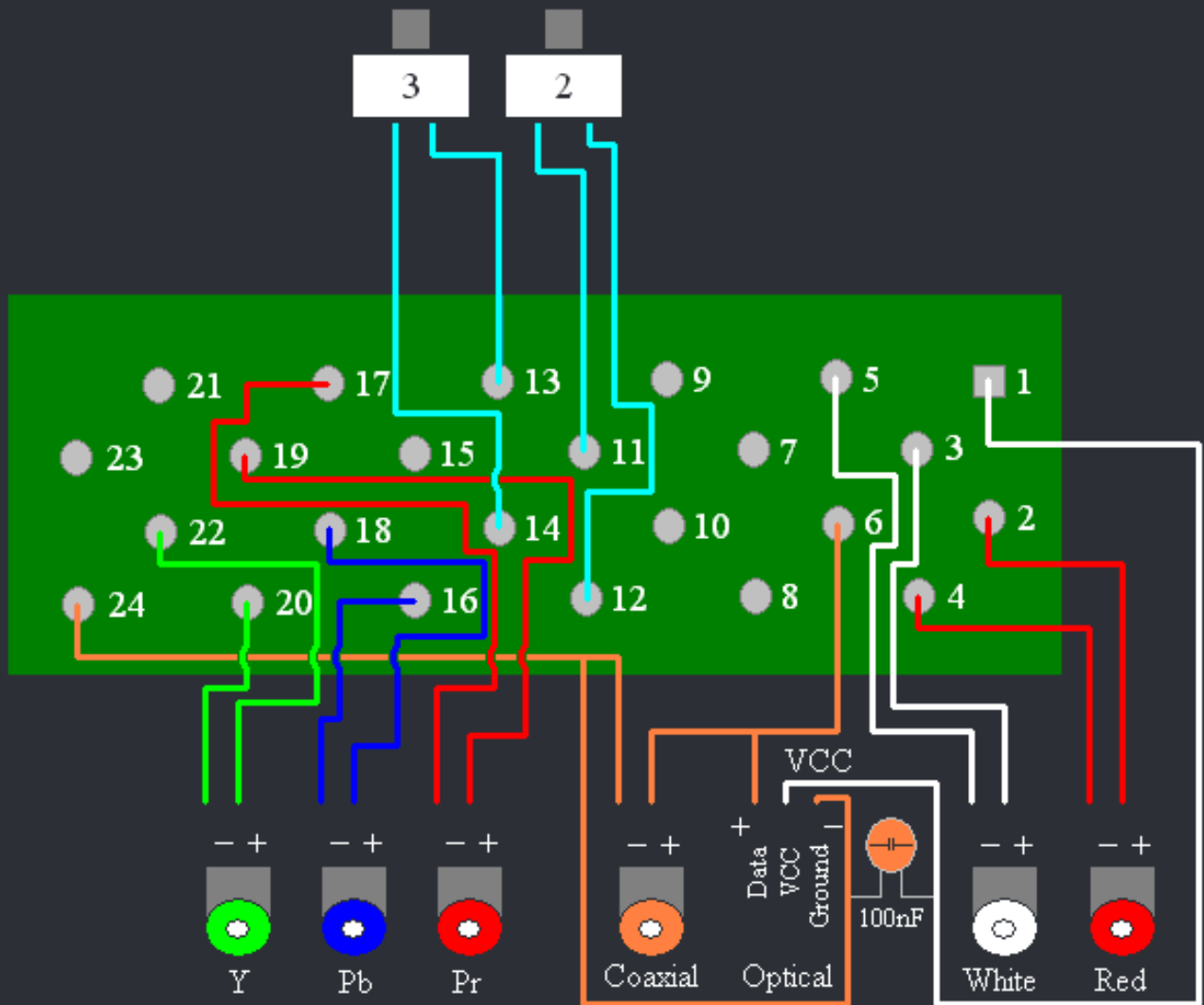


[Jump to the notes](#)

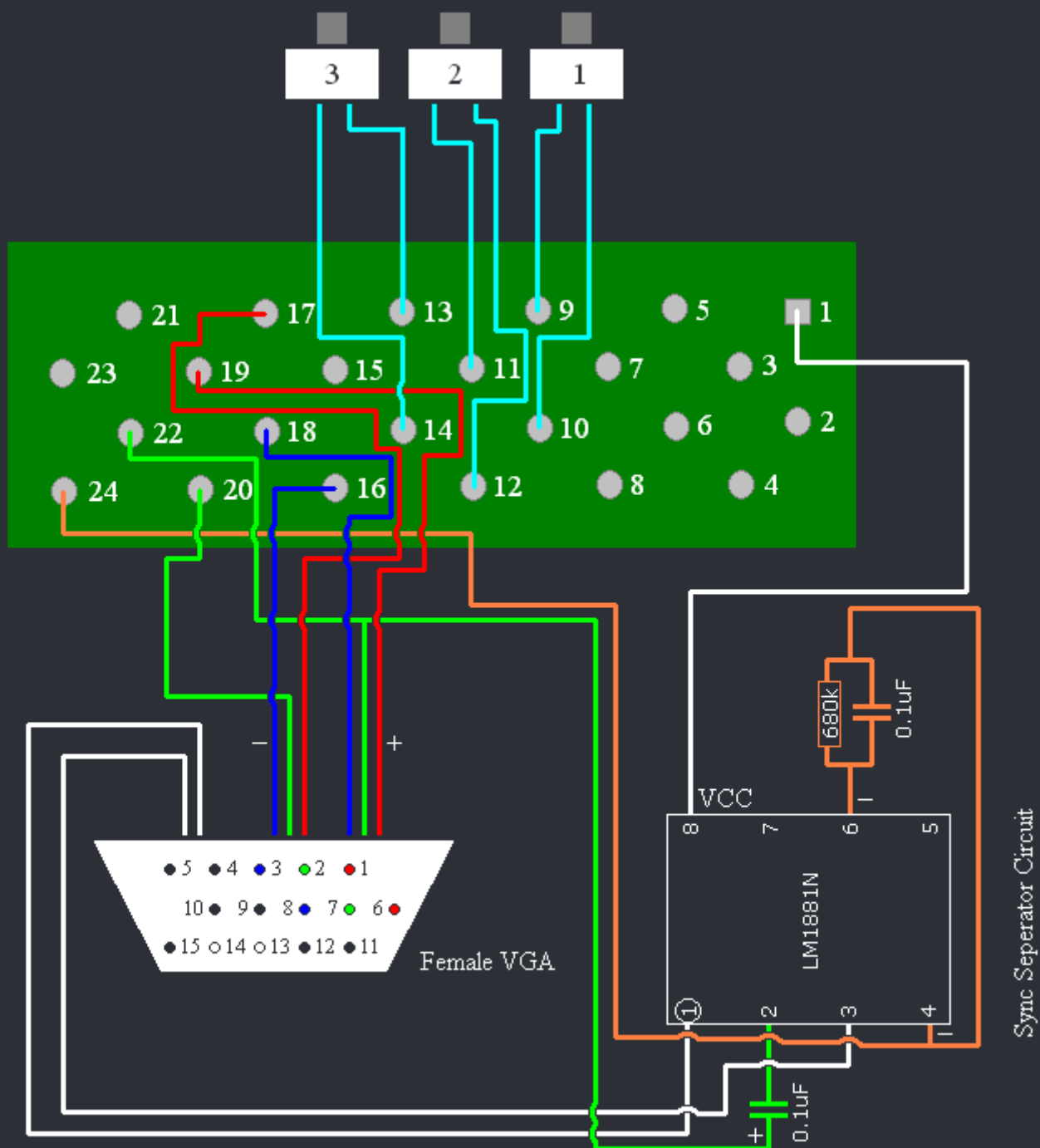




[Jump to the notes](#)



[Jump to the notes](#)



[Jump to the notes](#)



## ===> A/V Mode Notes <===



Mode	Switch 1	Switch 2	Switch 3
Standard A/V Mode			
Advanced A/V Mode			
HDTV AV Mode			
VGA Mode			
RGB Scart @ 15KHz			

### Video Notes

The Component Video only works when using High Def A/V Mode.  
The S-Video works when using Advanced A/V Mode and Standard A/V Mode.  
The Composite works in both Standard A/V Mode and Advanced A/V Mode.  
The Composite Video doesn't work when using High Def A/V Mode.

### Audio Notes

The Red/White works in all modes.  
The Coaxial Audio works when using High Def A/V Mode and Advanced A/V Mode.  
The Coaxial Audio doesn't work when using Standard A/V Mode.

### VGA Note

You must have a VGA bios installed to use the VGA output.  
You must turn the Xbox on in High Def A/V Mode with a normal TV (or HDTV) hooked up, turn on Progressive Scan Mode (480p) in the MS Dashboard, turn the Xbox off, enable VGA Mode with your VGA Monitor hooked up and then turn on your Xbox.

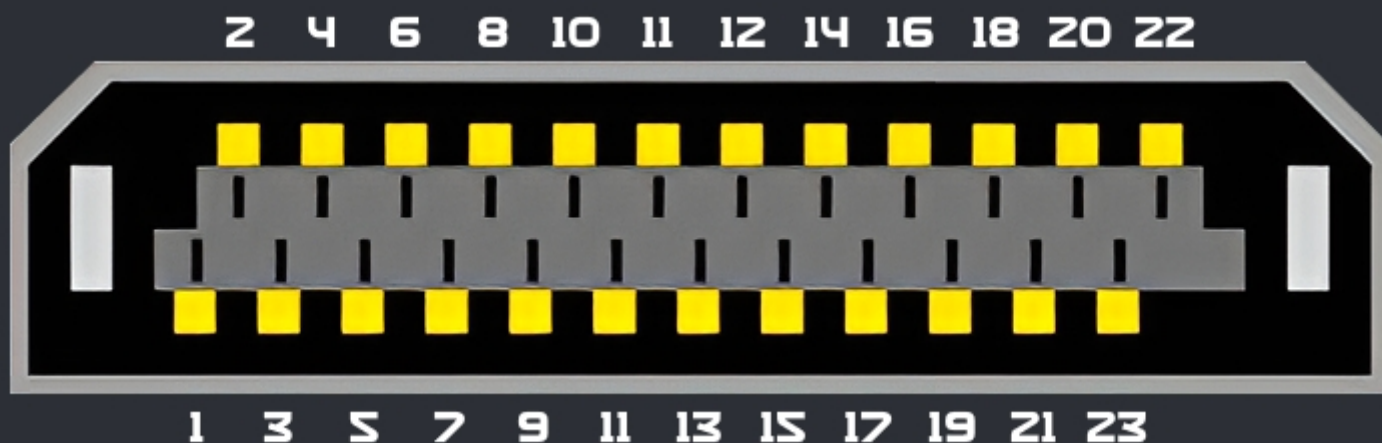
### Optical Note

Only Toslink Optical Transmitters TOTX173, TOTX176 and TOTX178a will work for the Xbox.

★ Credits for the „All A/V Packs + VGA Guide“ fly out to JaredC01 ★

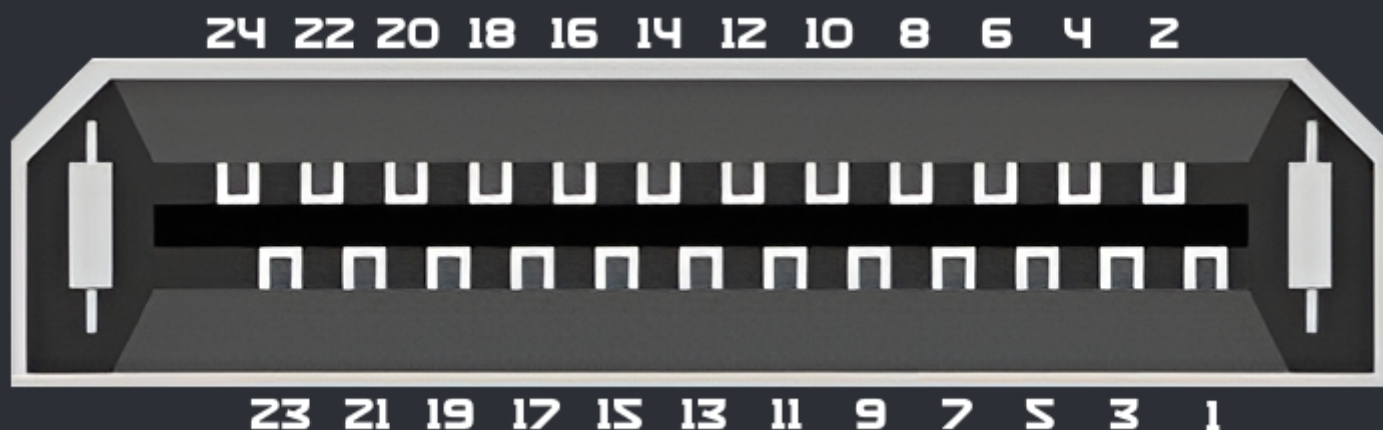
# <=== XBox A/V Pinout ===>

## ===> XBox A/V Plug – Front View <===



Pin	Function	
1	DC Out (5v)	
2	Audio Out - Right	●
3	Audio Out - Left	●
4	Audio Ground - Right	○
5	Audio Ground - Left	○
6	Audio Out - Digital	○
7	N/C	-
8	SCART - Blanking	
9	Mode 1	
10	Ground	○
11	Mode 2	
12	Ground	○
13	Mode 3	
14	Ground	○
15	SCART - Status	
16	Blue / Pb - Ground	○
17	Red / Pr / Chroma (C) - Ground	○
18	Blue / Pb – Signal Out	●
19	Red / Pr / Chroma (C) – Signal Out	●
20	Green / Y / Luma (Y) - Ground	○
21	Composite (CVBS) – Ground	○
22	Green / Y / Luma (Y) – Signal Out	●
23	Composite (CVBS) – Signal Out	●
24	DC Return	○

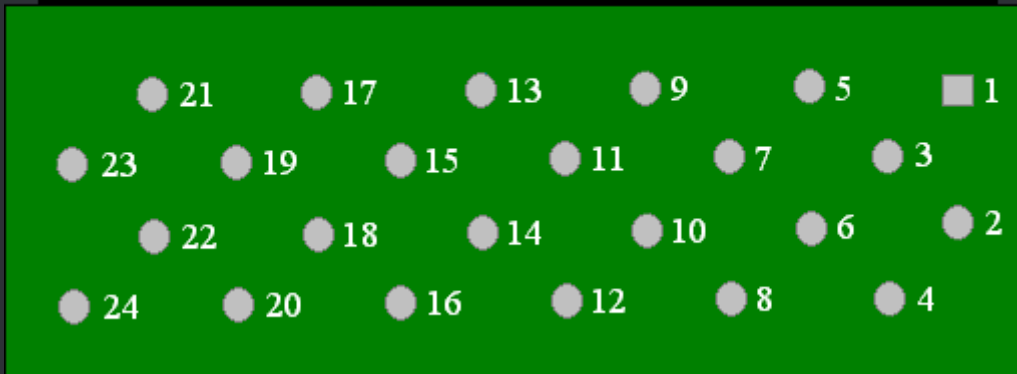
# ===> XBox A/V Plug – Back View <===



Pin	Function	
1	DC Out (5v)	
2	Audio Out - Right	
3	Audio Out - Left	
4	Audio Ground - Right	
5	Audio Ground - Left	
6	Audio Out - Digital	
7	N/C	-
8	SCART - Blanking	
9	Mode 1	
10	Ground	
11	Mode 2	
12	Ground	
13	Mode 3	
14	Ground	
15	SCART - Status	
16	Blue / Pb - Ground	
17	Red / Pr / Chroma (C) - Ground	
18	Blue / Pb – Signal Out	
19	Red / Pr / Chroma (C) – Signal Out	
20	Green / Y / Luma (Y) - Ground	
21	Composite (CVBS) – Ground	
22	Green / Y / Luma (Y) – Signal Out	
23	Composite (CVBS) – Signal Out	
24	DC Return	



# ==> XBox A/V Mainboard Underside <==



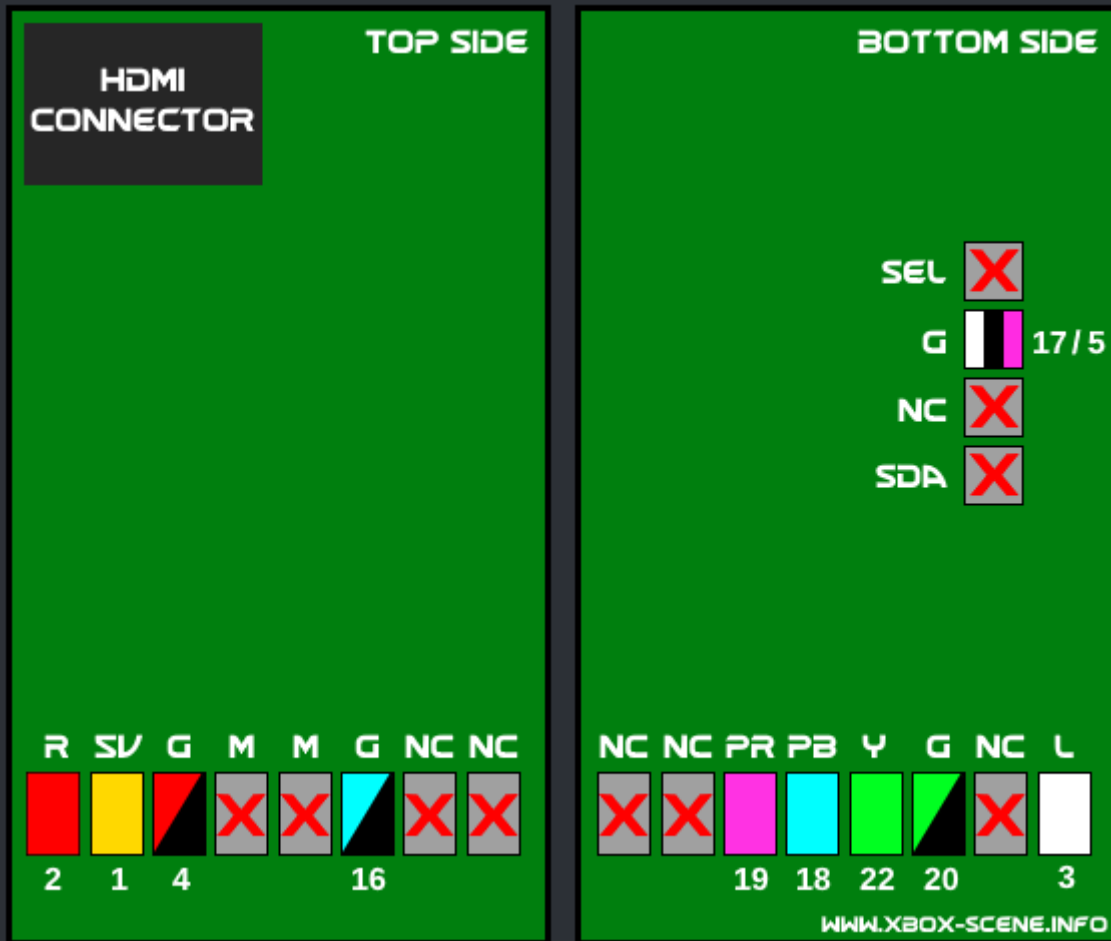
Pin	Function	
1	DC Out (5v)	
2	Audio Out - Right	
3	Audio Out - Left	
4	Audio Ground - Right	
5	Audio Ground - Left	
6	Audio Out - Digital	
7	N/C	-
8	SCART - Blanking	
9	Mode 1	
10	Ground	
11	Mode 2	
12	Ground	
13	Mode 3	
14	Ground	
15	SCART - Status	
16	Blue / Pb - Ground	
17	Red / Pr / Chroma (C) - Ground	
18	Blue / Pb – Signal Out	
19	Red / Pr / Chroma (C) – Signal Out	
20	Green / Y / Luma (Y) - Ground	
21	Composite (CVBS) – Ground	
22	Green / Y / Luma (Y) – Signal Out	
23	Composite (CVBS) – Signal Out	
24	DC Return	

# <=== Wii HDMI to XBox HDMI ===>

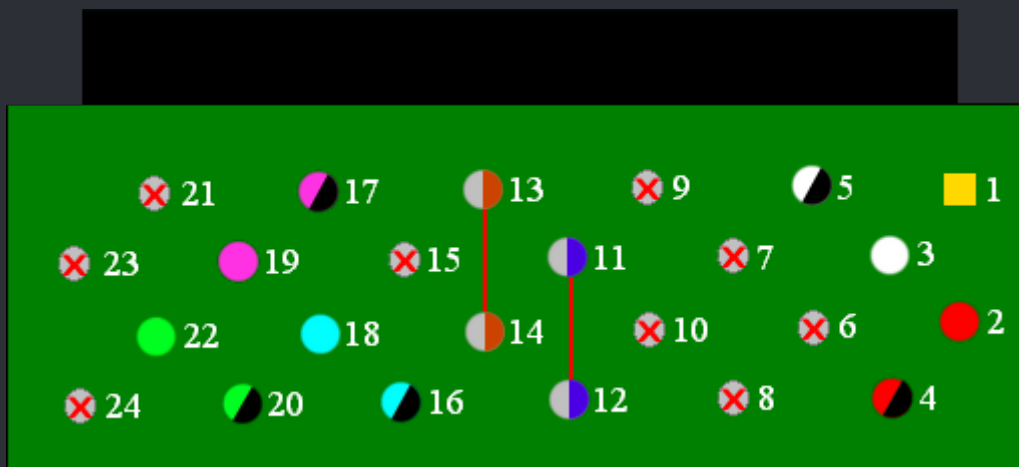
===>  <===



## Wii Adapter



## XBox A/V Port Mainboard Bottom



Take note that both the XBox and the Wii HDMI Adapter both have only one huge ground (GND). So it would be enough to solder just 1 ground wire BUT it's always better to solder a couple to avoid problems! You could also use both of the M pads as extra GND by bridging them with the near by GND pads (4 / 16) and use them then for pin 5 (Audio Left GND) and pin 17 (Red / Pr GND).

# XBox A/V Cable Plug (Solder Side)



Pin	Color Code	Function
1		DC Out (5v)
2		Audio Out - Right
3		Audio Out - Left
4		Audio Ground - Right
5		Audio Ground - Left
6		Audio Out - Digital
7		N/C
8		SCART - Blanking
9		Mode 1
10		Ground
11		Mode 2
12		Ground
13		Mode 3
14		Ground
15		SCART - Status
16		Blue / Pb - Ground
17		Red / Pr / Chroma (C) - Ground
18		Blue / Pb – Signal Out
19		Red / Pr / Chroma (C) – Signal Out
20		Green / Y / Luma (Y) - Ground
21		Composite (CVBS) – Ground
22		Green / Y / Luma (Y) – Signal Out
23		Composite (CVBS) – Signal Out
24		DC Return

★ Credits fly out to RetroProFrank ★



**But all of them are quite cheap to do so why not give them a try right?**

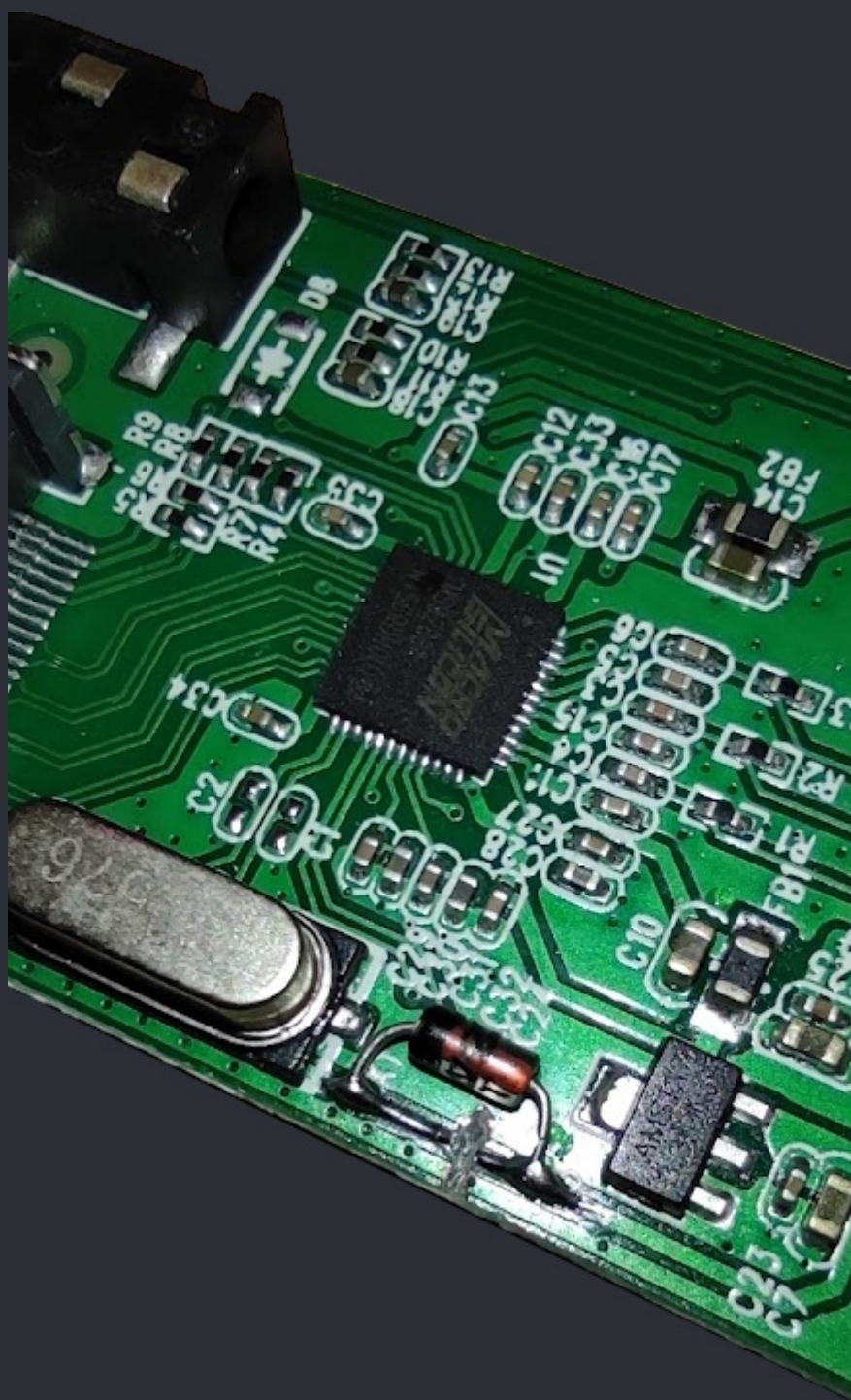
## Cap Removing (Favorit Mod!)

**Lets start with the „easyest“ solution. Simply remove the caps from: C1 and C2 (See image blow). That has fixed the jailbar problem for some people.**



Separate the circuit (In combination with C1 & C2 removal)

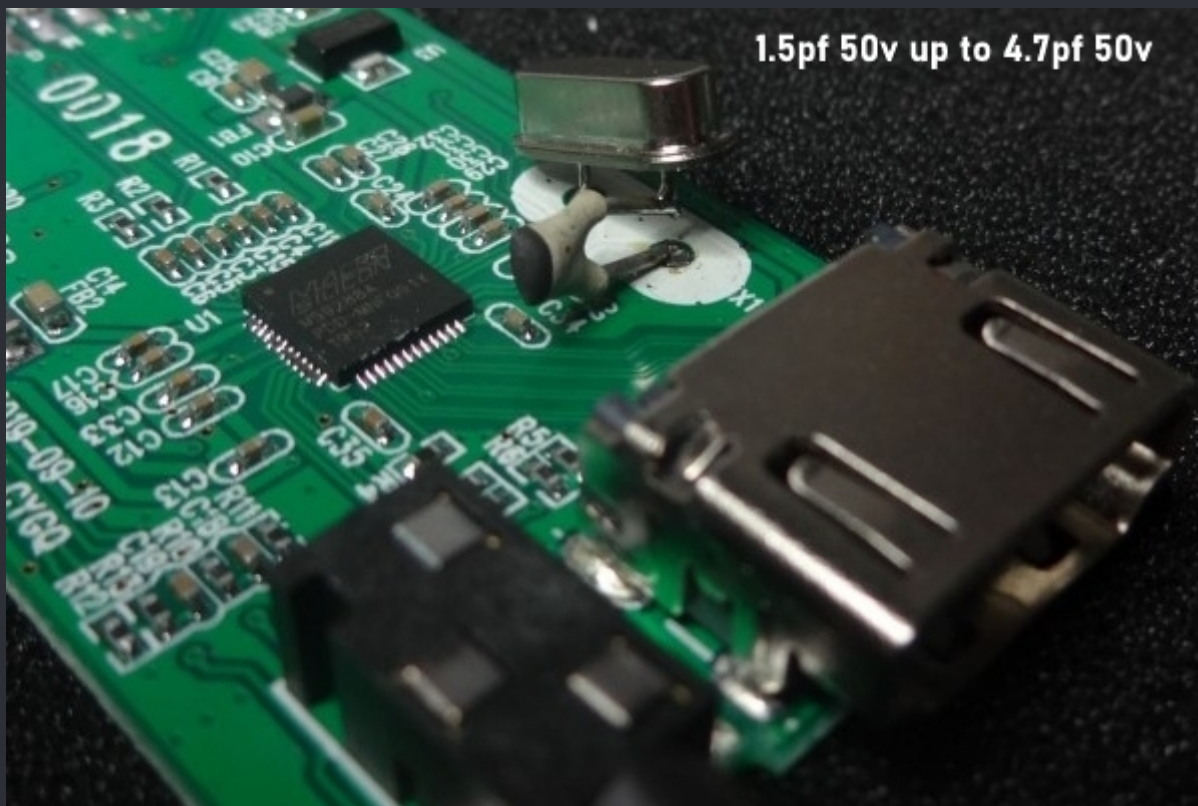
Cut the trace and add a diode as shown in the image below.



## Crystal Cap Mod

You can try to add a cap on the Crystal to shift the frequency to get rid of jailbars.

The ranges for the cap are shown in the image.



## Cap Mod

Add a 220uF 10v/16v Low ESR capacitor between VCC (+5v) and GND



~ No Image Available ~

★ Credits fly out to : ManCloud & Conker09. ★



## <=== MS9288A Specs ===>

===> IC used on the Wii HDMI Adapters <===



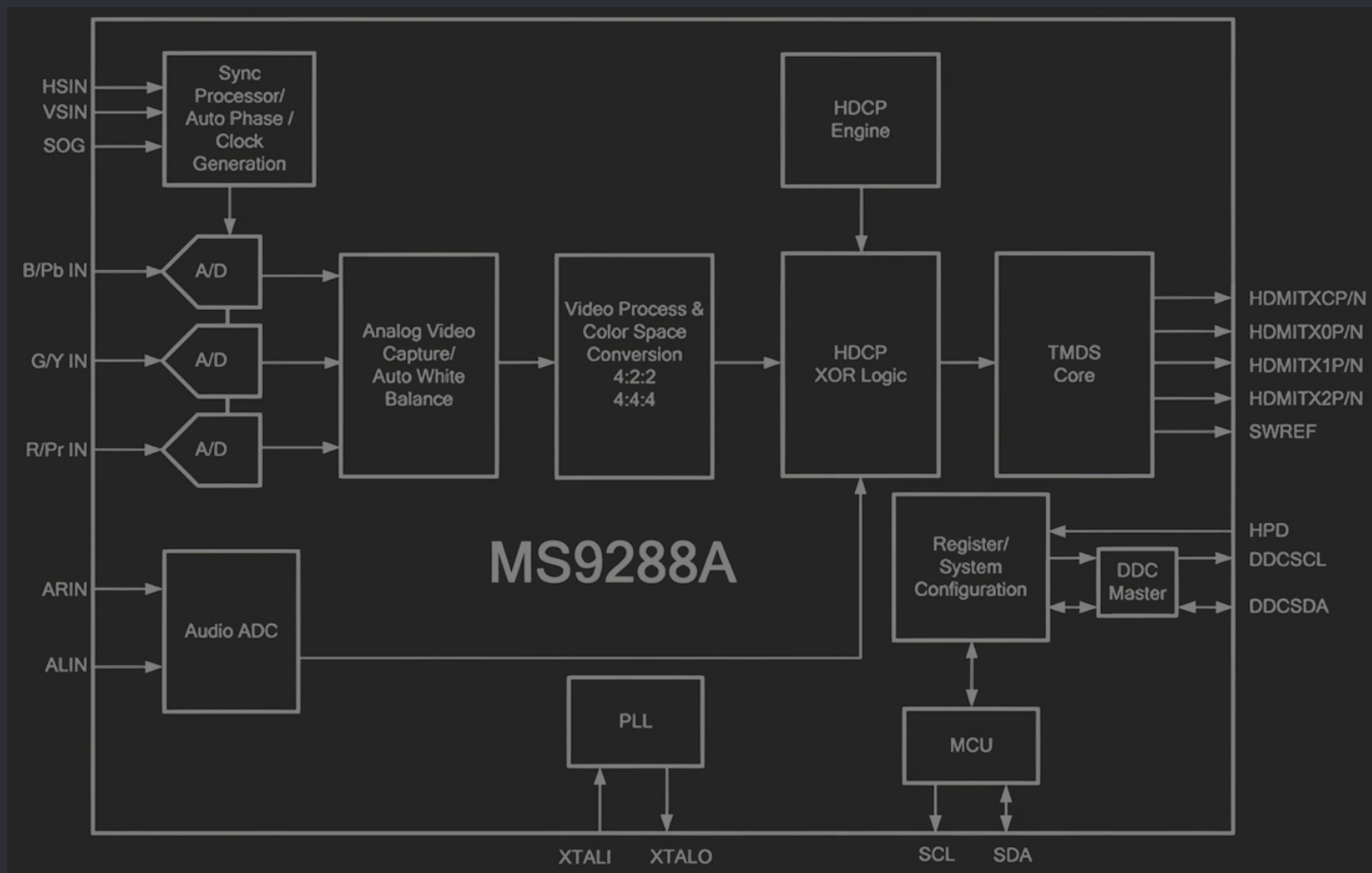
MS9288A is a low-cost, low-power, high performance device, which consists of HDMI Transmitter, three 10-bit video Analog-to-Digital Converters and audio encoder, which can convert VGA or YPbPr signals to HDMI, maximum conversion rate of 165MHz. MS9288A support L/R audio input. MS9288A with embedded MCU and ROM code.

### Features

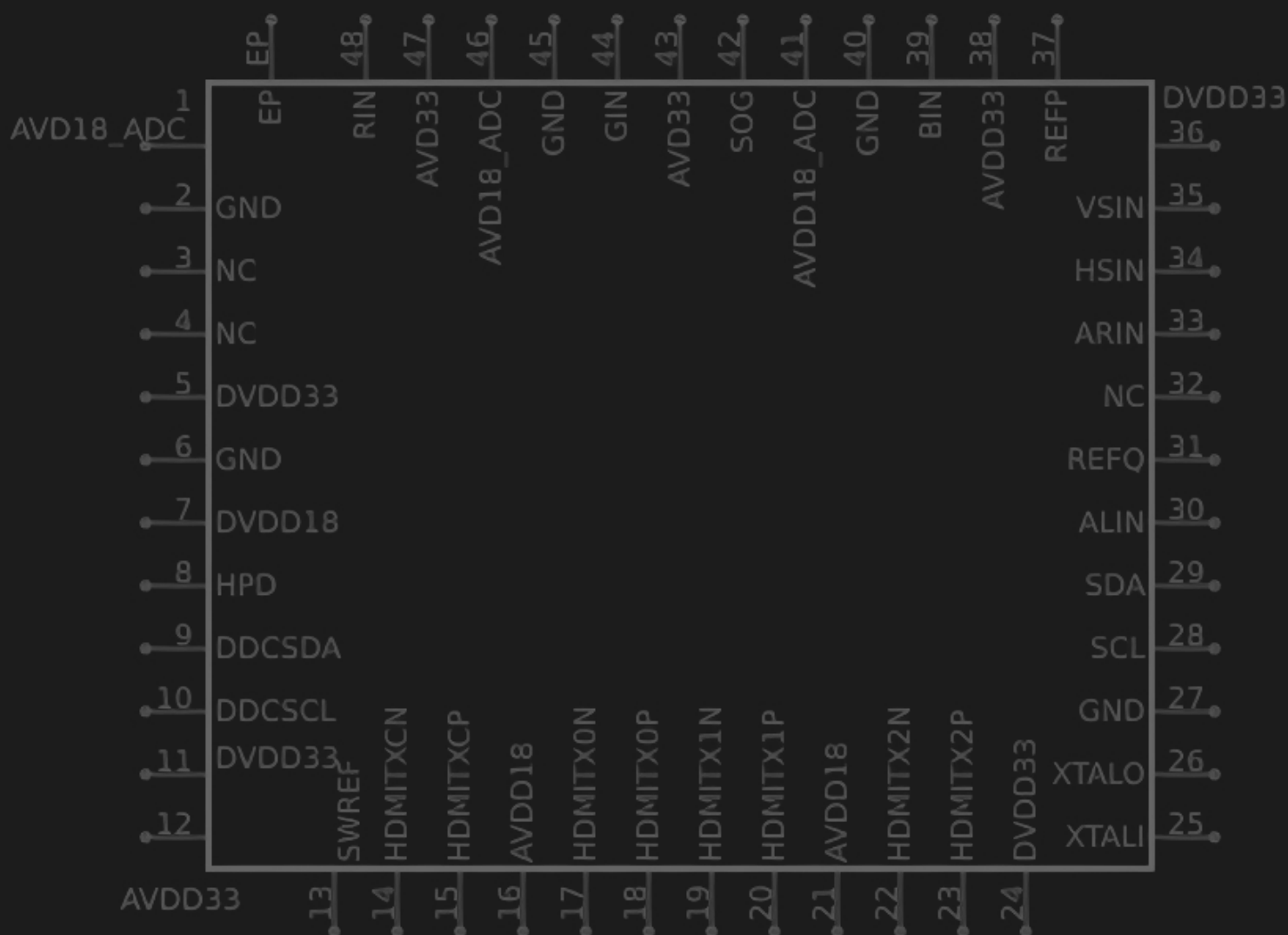
Triple 10-bit ADC	Support Hot Plug
Maximum analog sampling rate up to 165MHz	Support HDCP via external EEPROM
Support analog input range:0.45~1.1(P-P)	Black/White level expansion
Auto offset/phase adjustment	Color transition improvement
Support Sync-on-Green(SOG)	Dynamic peaking
VGA/YPbPr auto detection	Brightness, Saturation, Contrast, HUE adjustment
Double channel 24-bit ADC	Support I2C slave Interface
Sample rate is 48KHz	I2C master interface for DDC control
Support HDMI 1.3 and DVI1.0	Support external crystal at 24.576MHz
Integrated HDMI 1.3 TMDS core running at 165MHz	QFN48 (6mm×6mm)
Support 24-bit color depth and Resolutions up to 1080P@60Hz	3.3V and 1.8V power supply



## Function Block Diagram

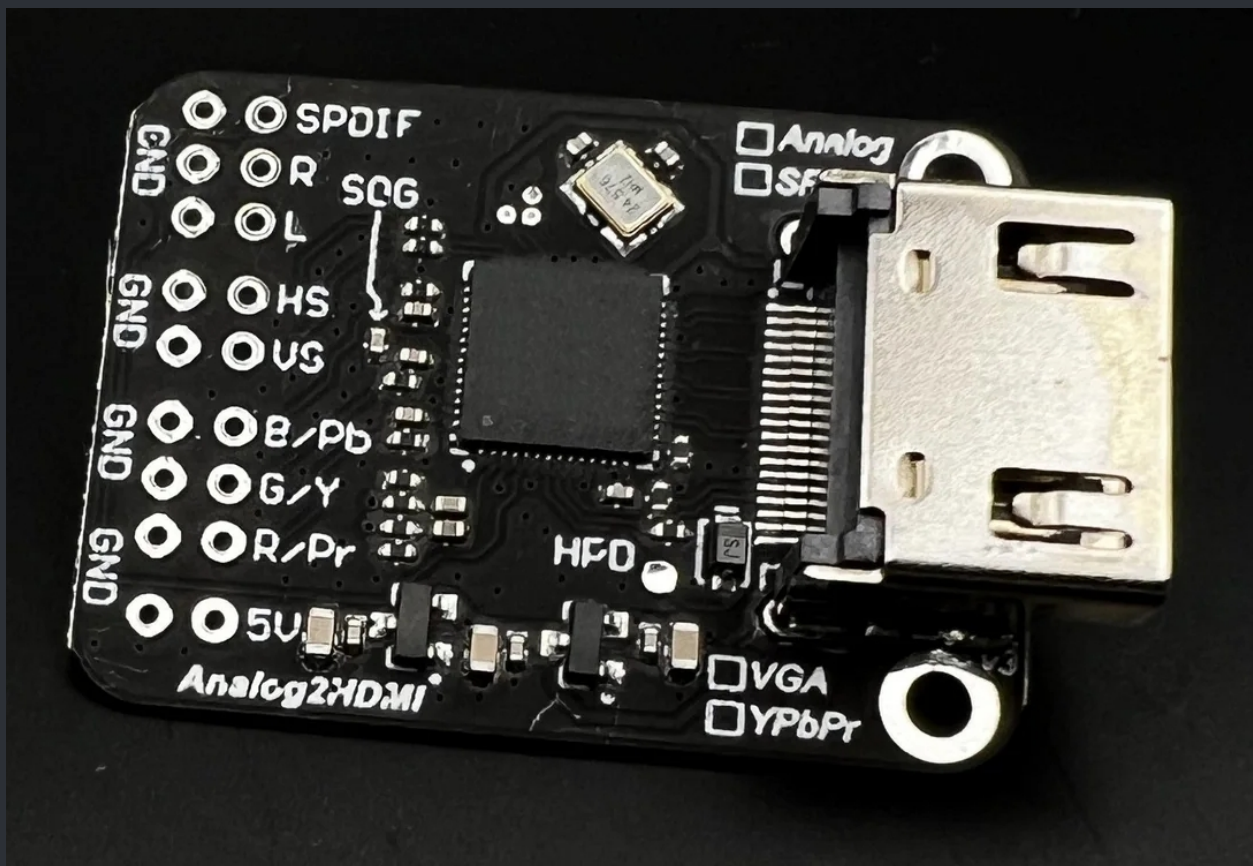


## Pinout



## <=== ElectronAnalog / Analog2HDMI ===>

===> Electron-Shephard <===



Size	25.15mm x 34.15mm
Supply Voltage	5V
Video Input:	RGBHS or YPbPr
Audio Input	Analog or SPDIF Audio
Video Output	HDMI
Latency	Less than 1ms

Store Page: [Click](#)

# <=== Tepache XBoxHD ===>

## ===> Stellar Elimination Guide <===




This guide will show you how you can restore full standalone functionality to the Stellar HD+.

Before you begin, ensure that you have the following items listed below.

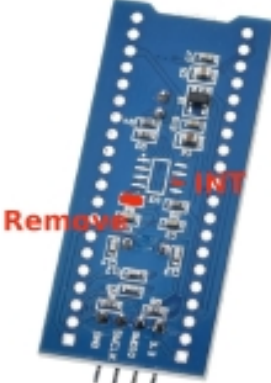
DevBoard STM32F030C8T6
SH 1.0 6pin Cable
ST-Link Programmer
Files: <a href="#">Link 1</a> / <a href="#">Link 2</a>

### Stellar Elimination Guide


STM32F030C8T6



**NEMESIS**  
edit by Modzvilleusa



INT is untested  
I did my testing without  
int hooked up and haven't  
noticed any issues



SH1.0 6pin Cable

Not all boards have these test pads, If  
Test pads are missing you'll need to use  
the connector.

### Installation Steps

Flash the DevBoard with the HD+ firmware (which is provided above) using the ST-Link Programmer.

Wire it up to the HD+.

Enjoy the restored functionality of your Stellar HD+.

On the next page you can see how it can looks like.





# XboxHDMI/XboxHD+ Firmware Recovery

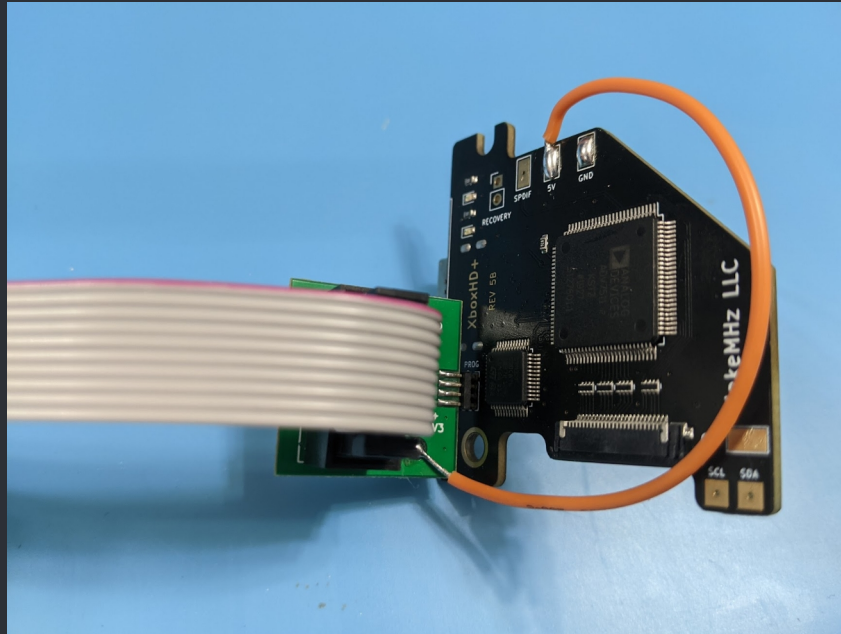
## Step 1

Start by downloading the STM32 Programming software.

<https://www.st.com/en/development-tools/stm32cubeprog.html#get-software>

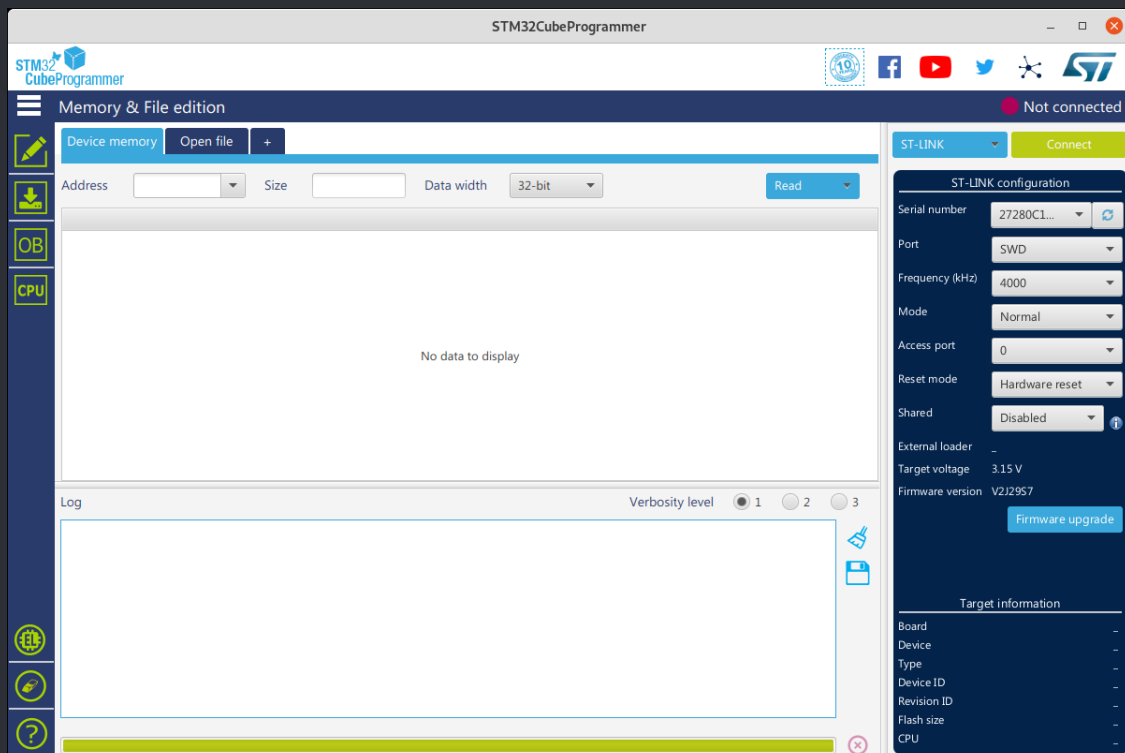
## Step 2

Connect a wire between the 5v point on the recovery adapter and the 5v pad on the XboxHDMI/XboxHD+ board.



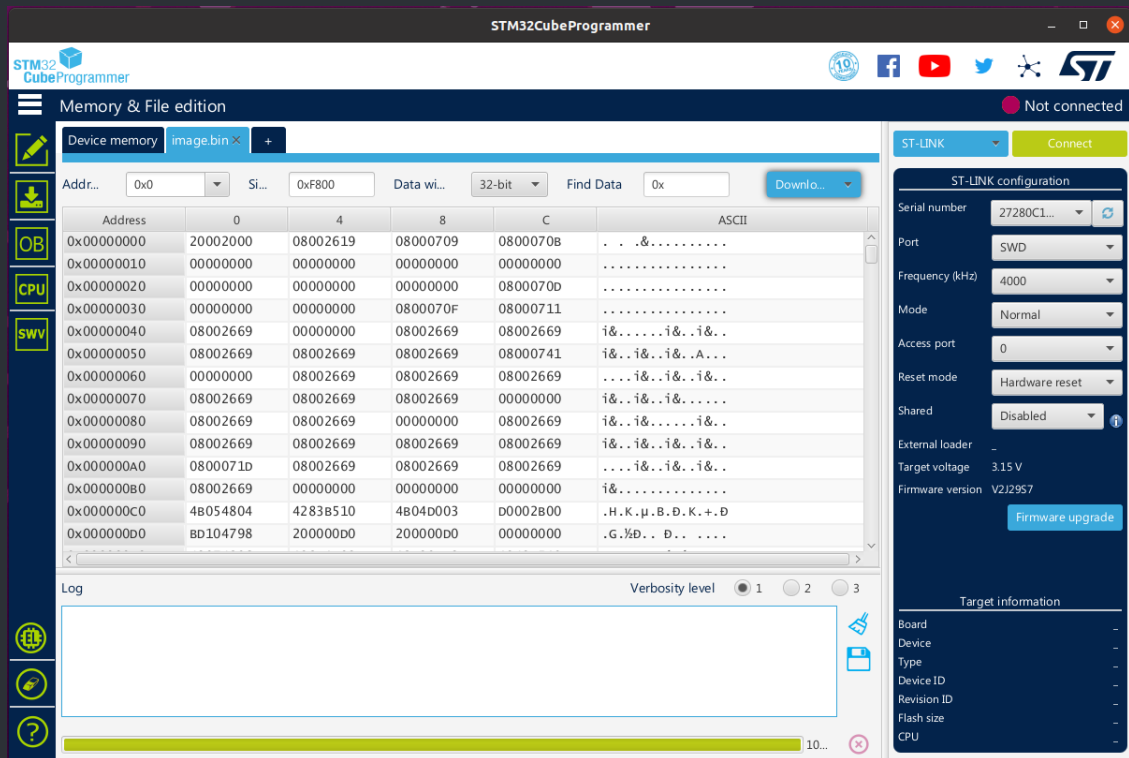
## Step 3

Open STM32 CubeProgrammer and connect the ST-LINK to your computer. You should see the ST-LINK detected on the right side of the program.



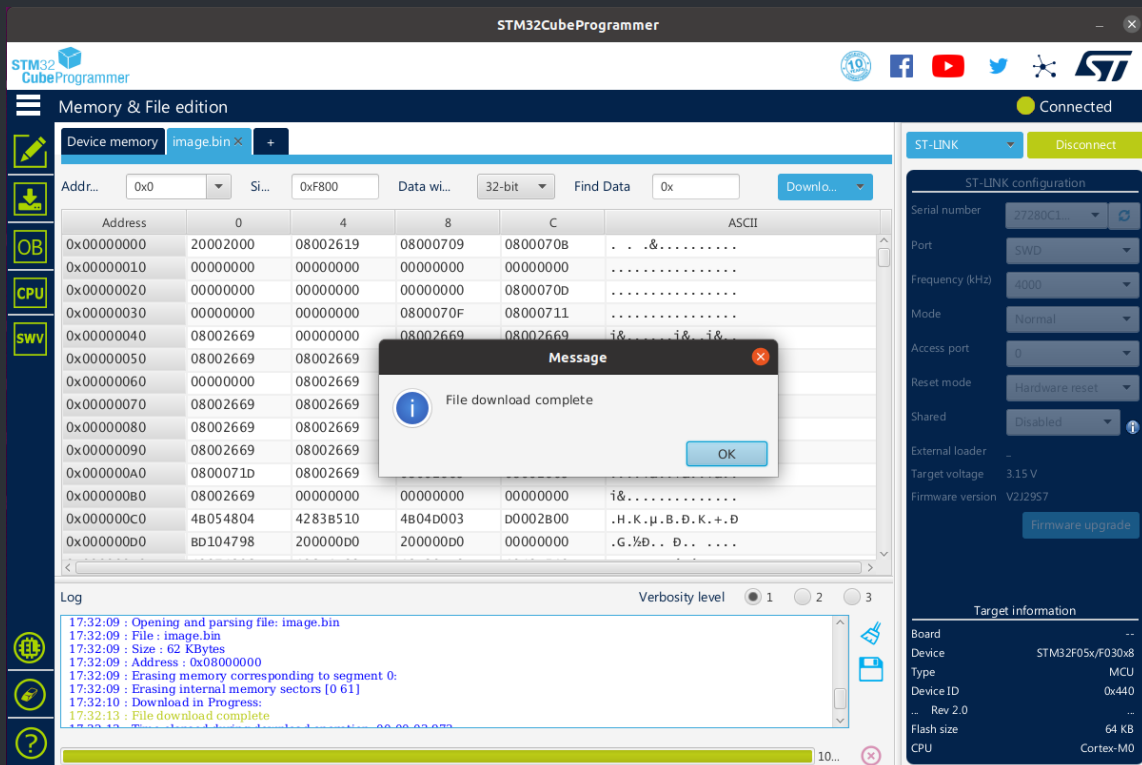
## Step 4

Click on 'Open' and choose the .bin file you want to flash.

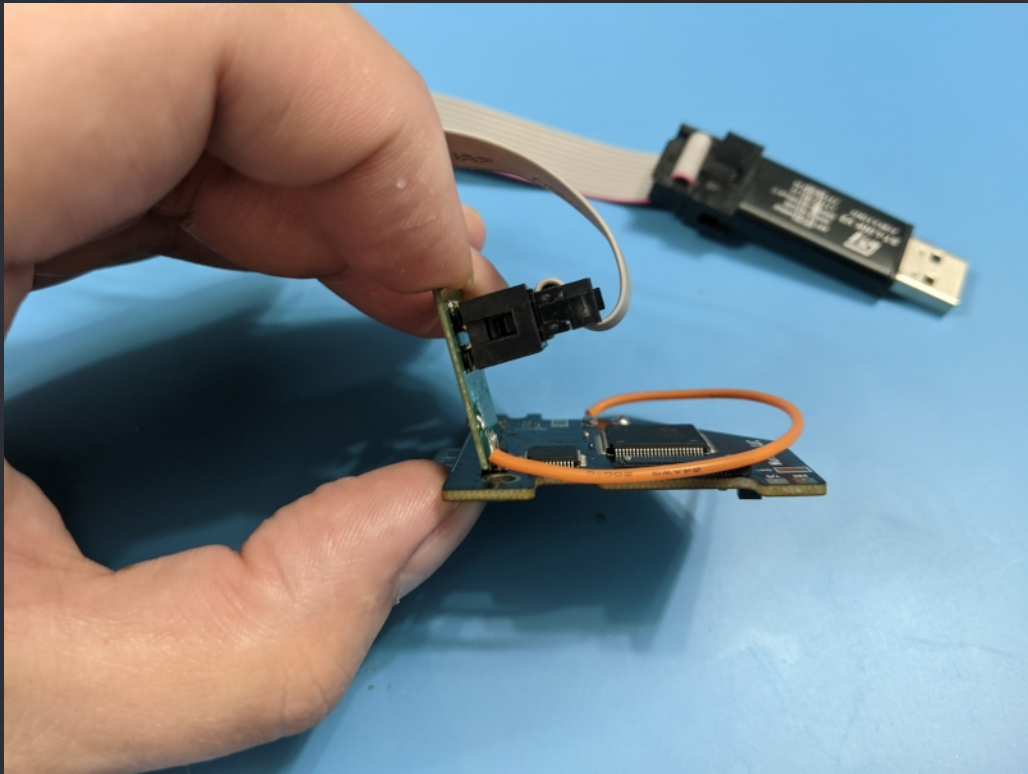


## Step 5

Click on 'Download' and this will program the board. You will need to hold the adapter in and at a slight angle while doing this.







### Step 6

Click the drop-down arrow next to Download and click Verify from the drop-down. (If the programmer lost connection in between programming and now then the software may complain that the connect was lost, but that's perfectly fine).  
Again, hold the connector at a slight angle.

STM32CubeProgrammer

Memory & File edition

Device memory image.bin x +

Addr... 0x0 Si... 0xF800 Data wi... 32-bit Find Data 0x

Address	0	4	8	C	ASCII
0x00000000	20002000	08002619	08000709	08000708	. . .&.....
0x00000010	00000000	00000000	00000000	00000000	.....
0x00000020	00000000	00000000	00000000	0800070D	.....
0x00000030	00000000	00000000	0800070F	08000711	.....
0x00000040	08002669	00000000	08002669	08002669	i&.....i&..i&..
0x00000050	08002669	08002669	08002669	08000741	i&..i&..i&..A...
0x00000060	00000000	08002669	08002669	08002669	...i&..i&..i&..
0x00000070	08002669	08002669	08002669	00000000	i&..i&..i&.....
0x00000080	08002669	08002669	00000000	08002669	i&..i&.....i&..
0x00000090	08002669	08002669	08002669	08002669	i&..i&..i&..i&..
0x000000A0	0800071D	08002669	08002669	08002669	...i&..i&..i&..
0x000000B0	08002669	00000000	00000000	00000000	i&.....
0x000000C0	4B054804	4283B510	4B04D003	D0002B00	.H.K.µ.B.Ð.K.+Ð
0x000000D0	BD104798	200000D0	200000D0	00000000	.G.½Ð.. Ð.. ..

Download... (dropdown arrow) → Verify (dropdown arrow)

Read  
Save As ...  
Verify  
Address 0x08000000

ST-LINK configuration

number 27280C1...  
Access port SWD  
Frequency (kHz) 4000  
Normal  
Reset mode Hardware reset  
Shared Disabled  
External loader  
Target voltage 3.15 V  
Firmware version V2J29S7  
Firmware upgrade

Target information

Board  
Device STM32F05x/F030x8  
Type MCU  
Device ID 0x440  
... Rev 2.0  
Flash size 64 KB  
CPU Cortex-M0

Log

Verbosity level 1 2 3

17:32:32 : Opening and parsing file: image.bin  
17:32:32 : File : image.bin  
17:32:32 : Size : 62 KBytes  
17:32:32 : Address : 0x08000000  
17:32:32 : Erasing memory corresponding to segment 0:  
17:32:32 : Erasing internal memory sectors [0 61]  
17:32:34 : Download in Progress:  
17:32:36 : File download complete

10...



## Step 7 All done!

STM32CubeProgrammer

Memory & File edition

Device memory image.bin

Addr... 0x0 Si... 0xF800 Data wi... 32-bit Find Data 0x Download...

Address	0	4	8	C	ASCII
0x00000000	20002000	08002619	08000709	08000708	. . . & . . . . .
0x00000010	00000000	00000000	00000000	00000000	. . . . .
0x00000020	00000000	00000000	00000000	0800070d	. . . . .
0x00000030	00000000	00000000	0800070f	08000711	. . . . .
0x00000040	08002669	00000000	08002669	08002669	i & . . . . .
0x00000050	08002669	08002669			
0x00000060	00000000	08002669			
0x00000070	08002669	08002669			
0x00000080	08002669	08002669			
0x00000090	08002669	08002669			
0x000000A0	0800071d	08002669			
0x000000B0	08002669	00000000	00000000	00000000	i & . . . . .
0x000000C0	4B054804	4283B510	4B04D003	D0002B00	. H . K . μ . B . D . K . + . D
0x000000D0	BD104798	200000D0	200000D0	00000000	. G . % D . . D . . . . .

Message

Verification successfully done, no data mismatch found

OK

Log

Verbosity level 1 2 3

17:33:27 : Size : 62 KBytes  
17:33:27 : Address : 0x08000000  
17:33:27 : Erasing memory corresponding to segment 0:  
17:33:27 : Erasing internal memory sectors [0 61]  
17:33:29 : Download in Progress:  
17:33:31 : File download complete  
17:33:31 : Time elapsed during download operation: 00:00:03.971  
17:33:48 : Read progress:

ST-LINK configuration

Serial number 27280CL...  
Port SWD  
Frequency (kHz) 4000  
Mode Normal  
Access port 0  
Reset mode Hardware reset  
Shared Disabled  
External loader -  
Target voltage 3.15 V  
Firmware version V2J2957  
Firmware upgrade

Target information

Board --  
Device STM32F05x/F030x8  
Type MCU  
Device ID 0x440  
Rev 2.0  
Flash size 64 KB  
CPU Cortex-M0

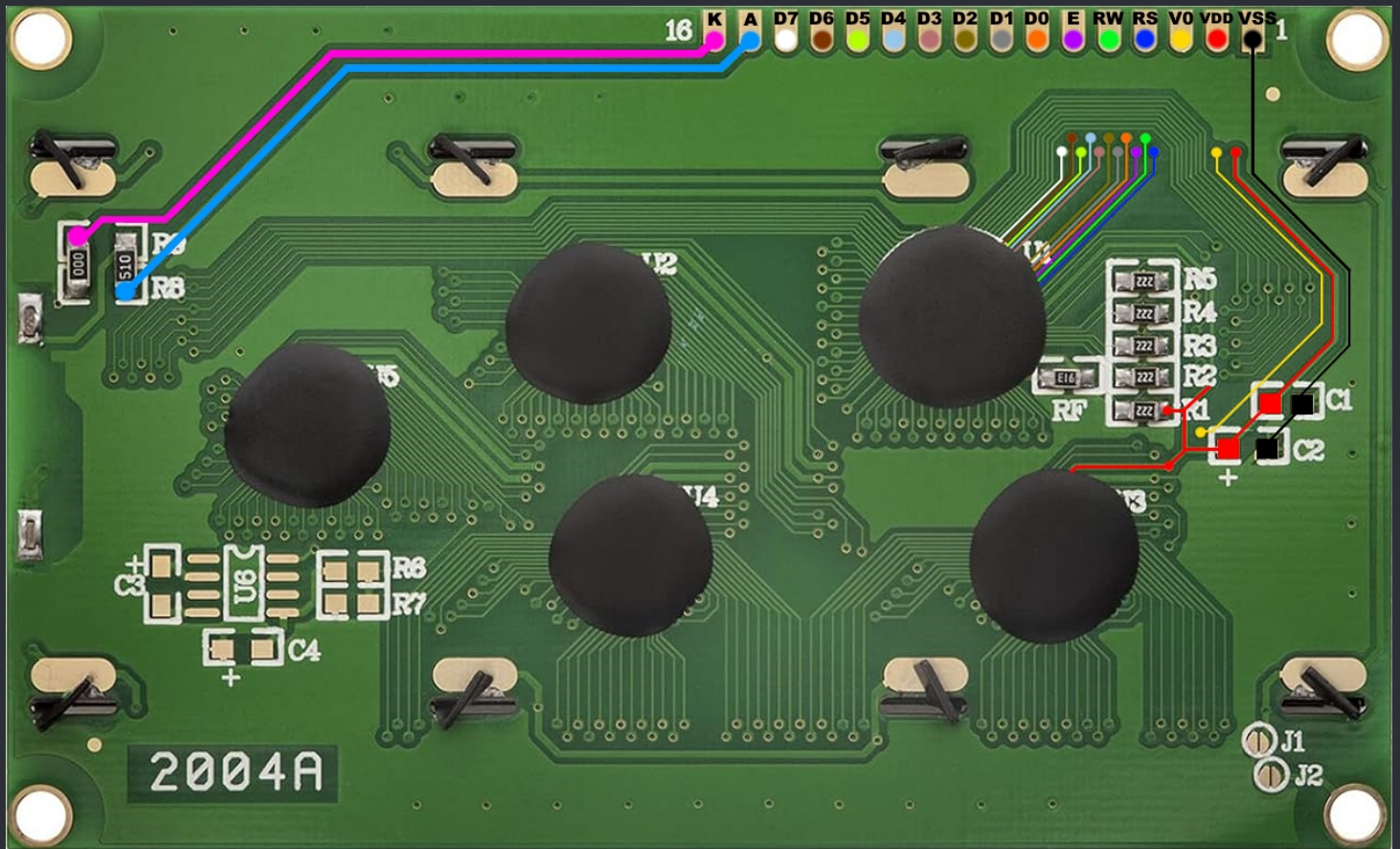
★ Credits fly out to : NeMesiS, EqUiNoX & ModzvilleUSA. ★

<=== Display ===>

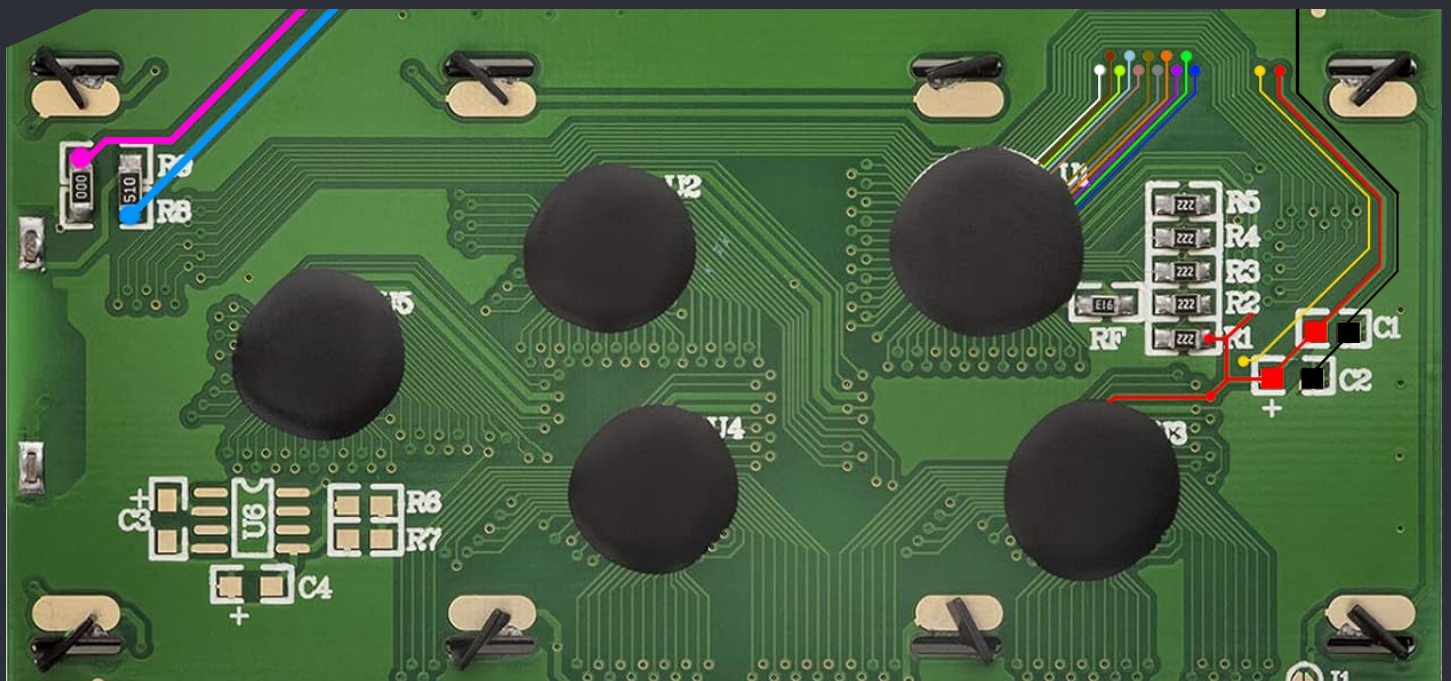
===> HD44780 2004 <===



~ Work In Progress ~

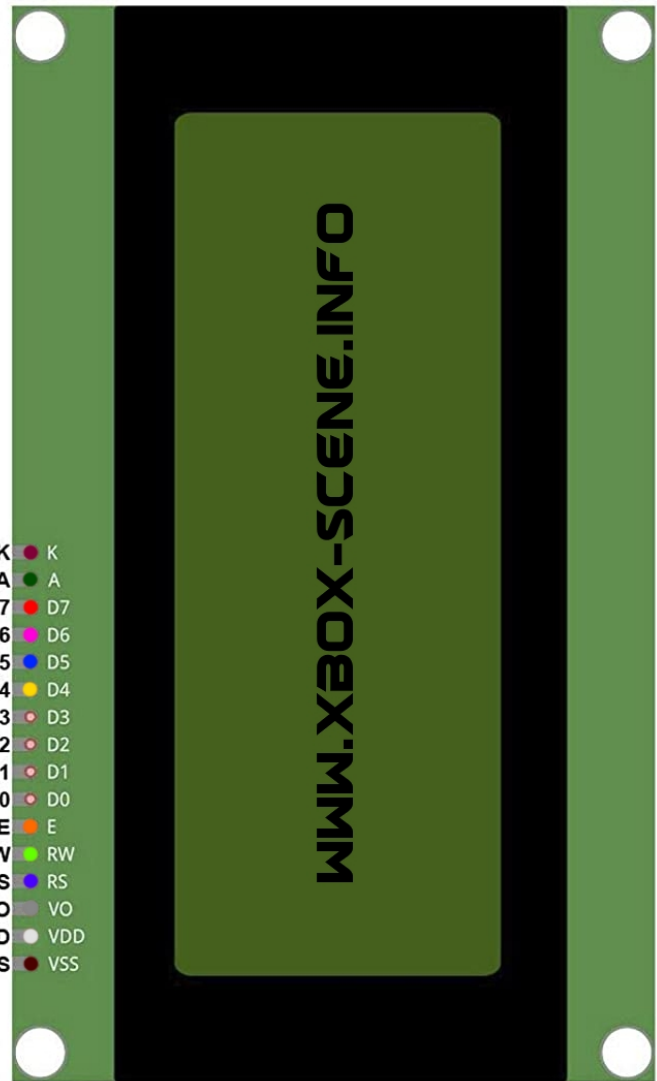


You can cut it down to this without the need of „trace repair / trace re-routing“



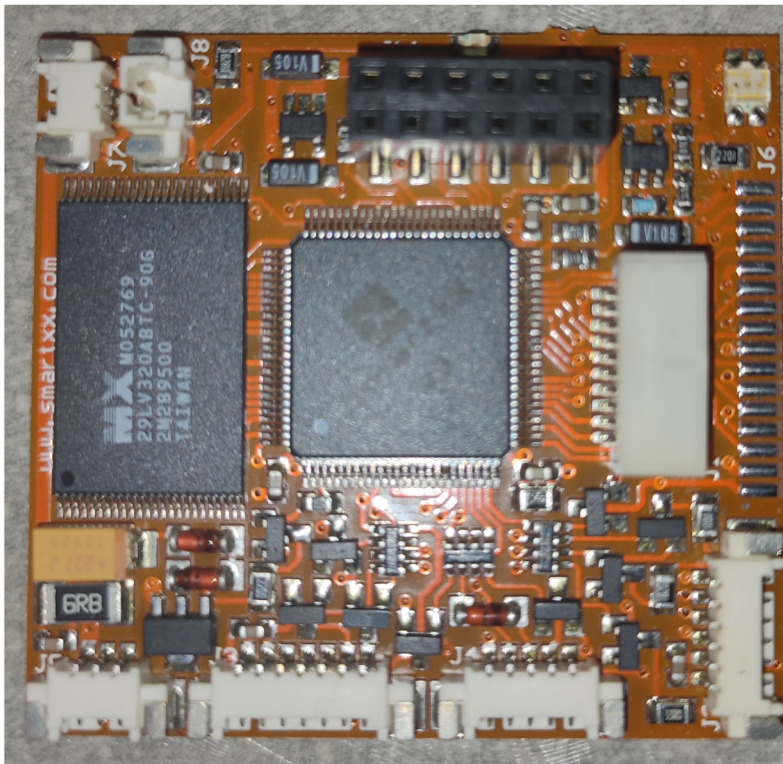


Backlight cathode (-) - K ● K  
 Backlight anode (+) - A ● A  
 Data Input/Output Pin 7 - D7 ● D7  
 Data Input/Output Pin 6 - D6 ● D6  
 Data Input/Output Pin 5 - D5 ● D5  
 Data Input/Output Pin 4 - D4 ● D4  
 Data Input/Output Pin 3 - D3 ● D3  
 Data Input/Output Pin 2 - D2 ● D2  
 Data Input/Output Pin 1 - D1 ● D1  
 Data Input/Output Pin 0 - D0 ● D0  
 Enable - E ● E  
 Read/Write - RW ● RW  
 Register Select - RS ● RS  
 LCD Contrast Pin - VO ● VO  
 Power Supply - VDD ● VDD  
 Ground - VSS ● VSS





# ==> SmartXX v3 - LCD PINOUT <==



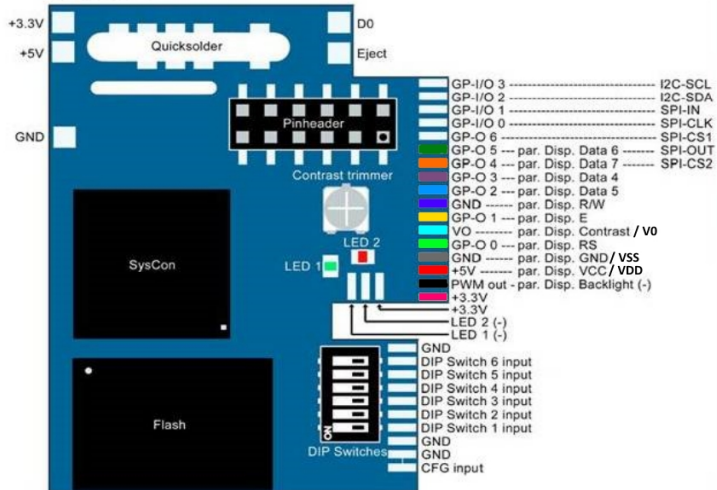
GND (VSS)  
5v (VDD)  
VO / Contrast  
RS  
RW  
E  
D0  
D1  
D2  
D3  
D4  
D5  
D6  
D7  
A (3.3v (5v?))  
K

Backlight cathode (-) - K  
Backlight anode (+) - A  
Data Input/Output Pin 7 - D7  
Data Input/Output Pin 6 - D6  
Data Input/Output Pin 5 - D5  
Data Input/Output Pin 4 - D4  
Data Input/Output Pin 3 - D3  
Data Input/Output Pin 2 - D2  
Data Input/Output Pin 1 - D1  
Data Input/Output Pin 0 - D0  
Enable - E  
Read/Write - RW  
Register Select - RS  
LCD Contrast Pin - VO  
Power Supply - VDD  
Ground - VSS





# SmartXX v1.0 (SmartXX v2.0)



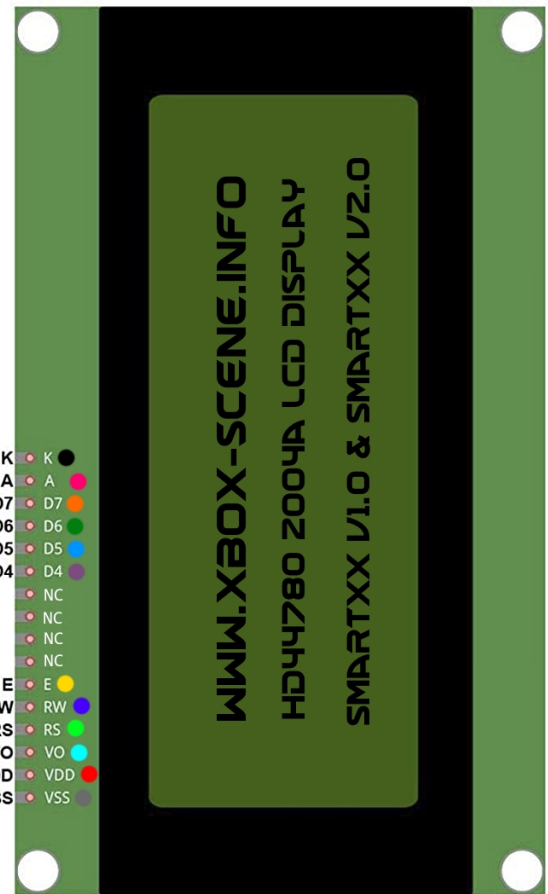
## Contrast trimmer



Set to

1655 - 2250 Ohm

- Backlight cathode (-) - K
- Backlight anode (+) - A
- Data Input/Output Pin 7 - D7
- Data Input/Output Pin 6 - D6
- Data Input/Output Pin 5 - D5
- Data Input/Output Pin 4 - D4
- Enable - E
- Read/Write - RW
- Register Select - RS
- LCD Contrast Pin - VO
- Power Supply - VDD
- Ground - VSS



# Xecuter 3 CFAH2004KTMI LCD Wiring Schematic

(Purple X3 and X3 CE) This LCD fits above ports 3+4 so they can stay



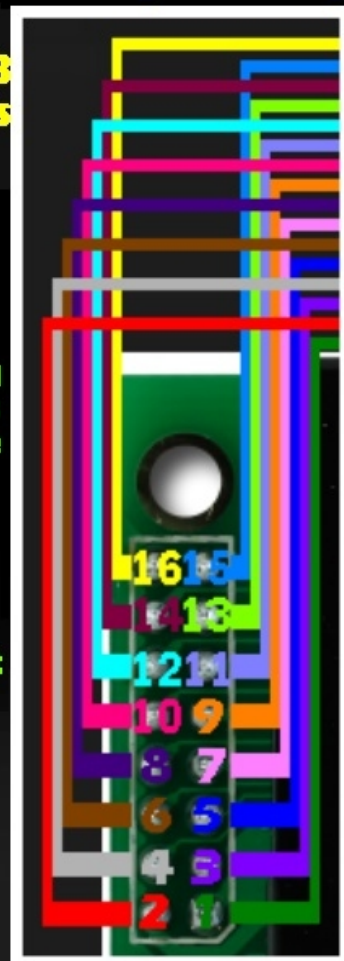
Any HD44780 LCD will work with the X3 Using the same pin#'s as shown here

## Xecuter 3 Bios Settings:

Press Power + Eject  
Select "LCD Settings"  
Enable LCD Output=Enabled  
You can adjust brightness  
You can adjust LCD Message

## XBMC Settings:

Settings/System/LCD/  
Enable LCD/VFD = ON  
Modchip = Xecuter3  
Adjust Backlight, Contrast  
and playback settings



<<Can be soldered to either side, although left is closest>>





# <=== Xbox Clock Cap Removal v1.0 – v1.4 ===>

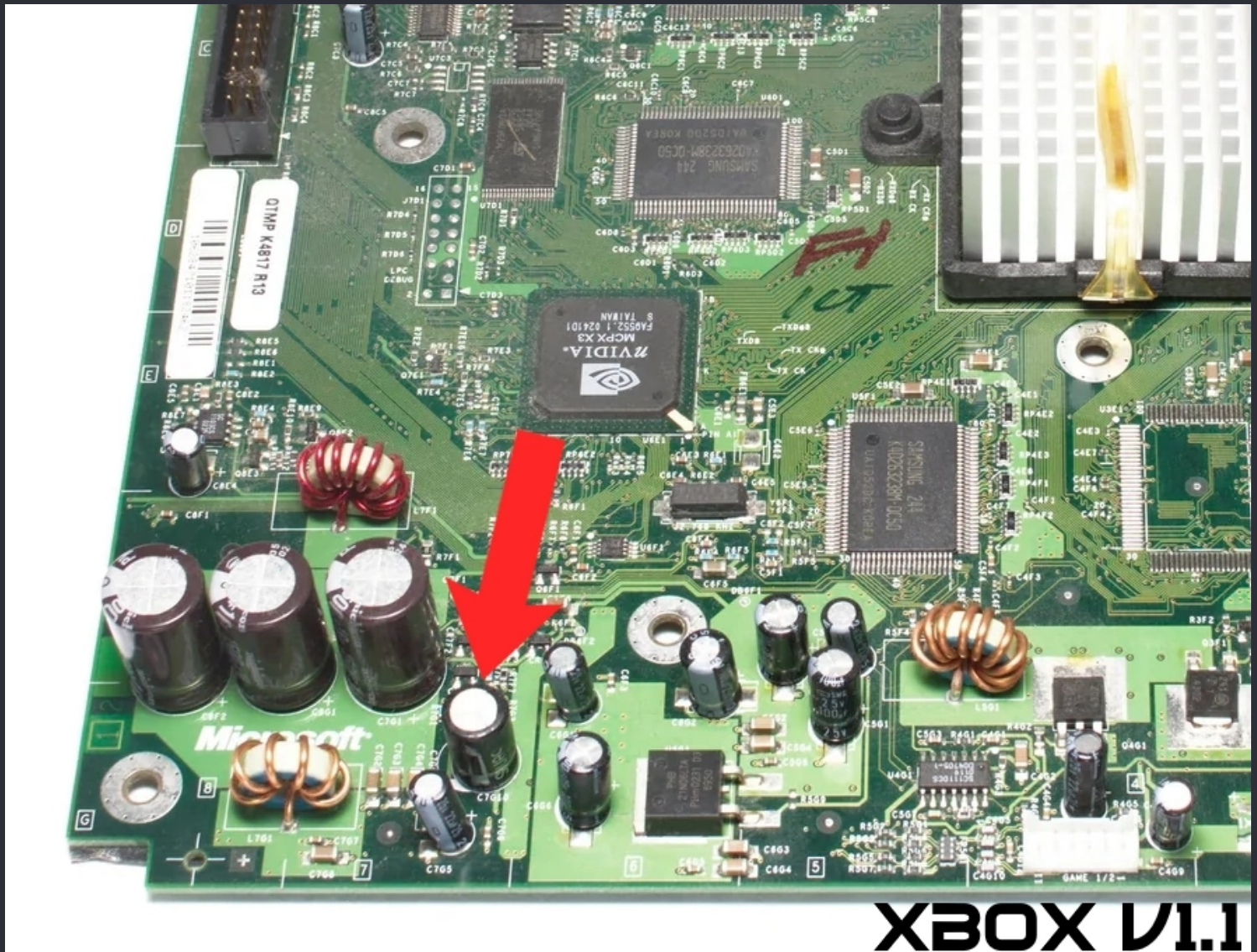
===> Clock Cap - Xbox v1.0 <===



## XBOX V1.0

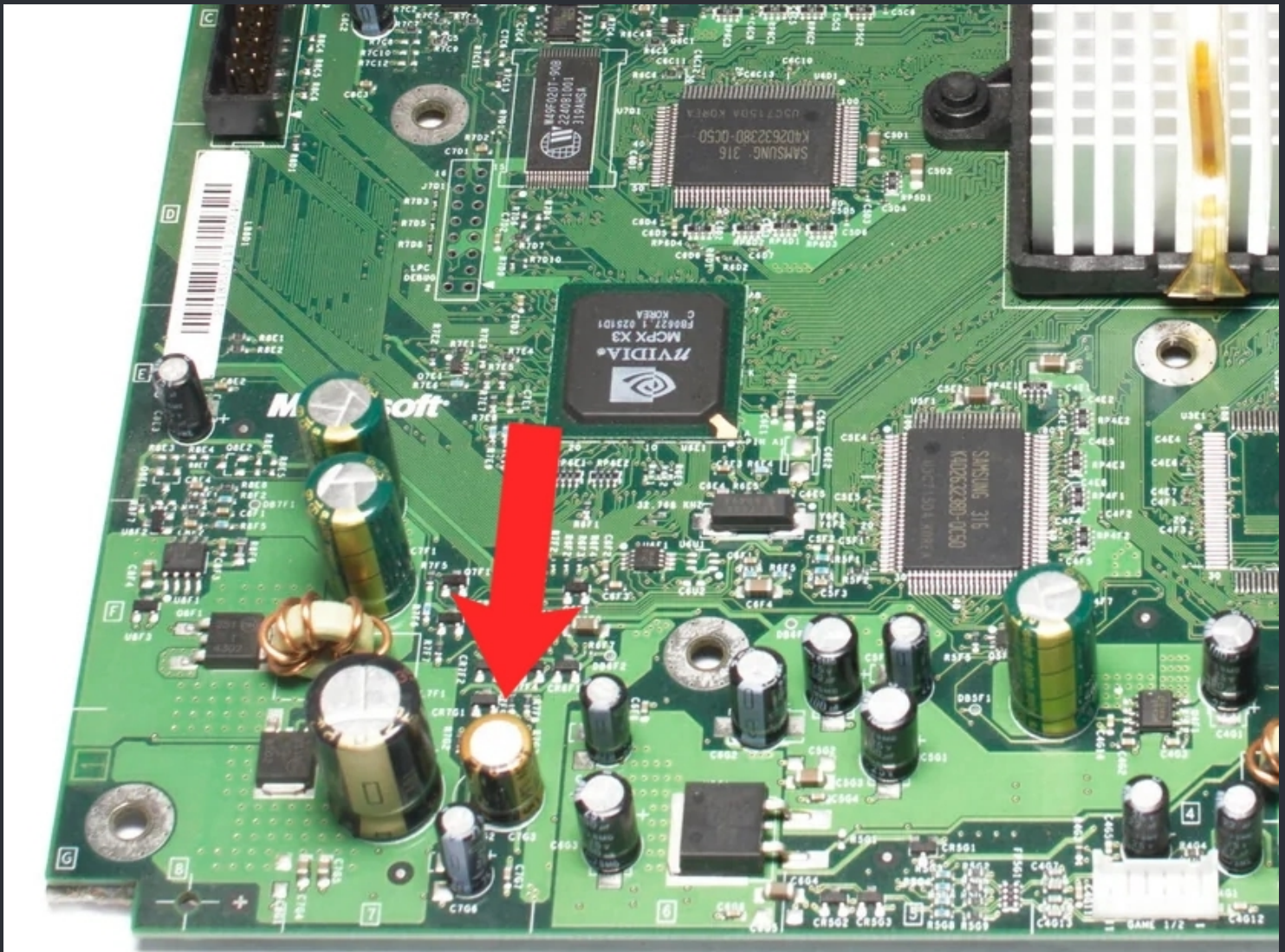
To remove the clock cap you can either desolder it (recommended) or just wiggle it till it breaks loose.  
After that clean the area widely with some vinegar and a toothbrush or a small paintbrush.  
When thats done, clean everything up with at least 70% or better 99% Isopropyl alcohol (IPA).





To remove the clock cap you can either desolder it (recommended) or just wiggle it till it breaks loose.  
 After that clean the area widely with some vinegar and a toothbrush or a small paintbrush.  
 When thats done, clean everything up with at least 70% or better 99% Isopropyl alcohol (IPA).

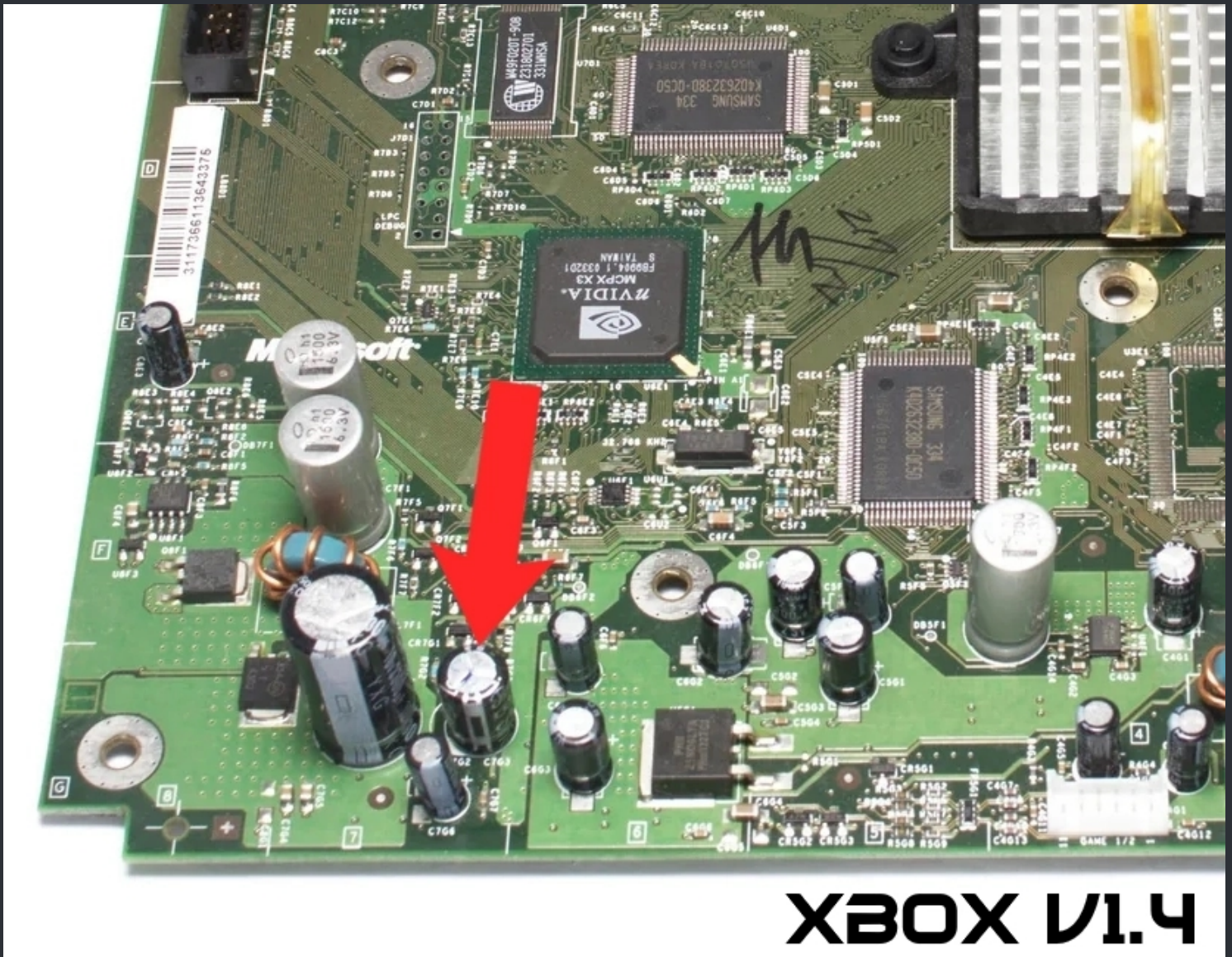




## XBOX V1.2/1.3

To remove the clock cap you can either desolder it (recommended) or just wiggle it till it breaks loose.  
After that clean the area widely with some vinegar and a toothbrush or a small paintbrush.  
When thats done, clean everything up with at least 70% or better 99% Isopropyl alcohol (IPA).



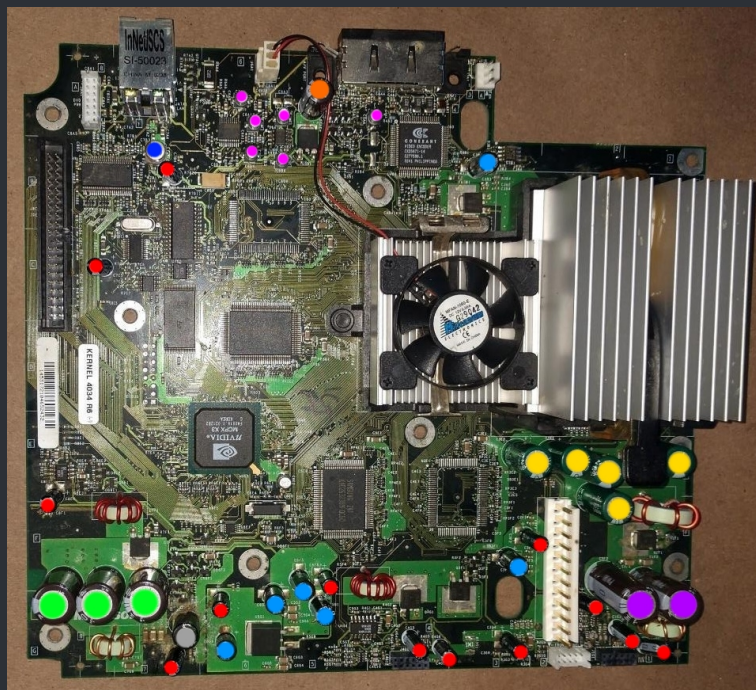


To remove the clock cap you can either desolder it (recommended) or just wiggle it till it breaks loose.  
 After that clean the area widely with some vinegar and a toothbrush or a small paintbrush.  
 When thats done, clean everything up with at least 70% or better 99% Isopropyl alcohol (IPA).

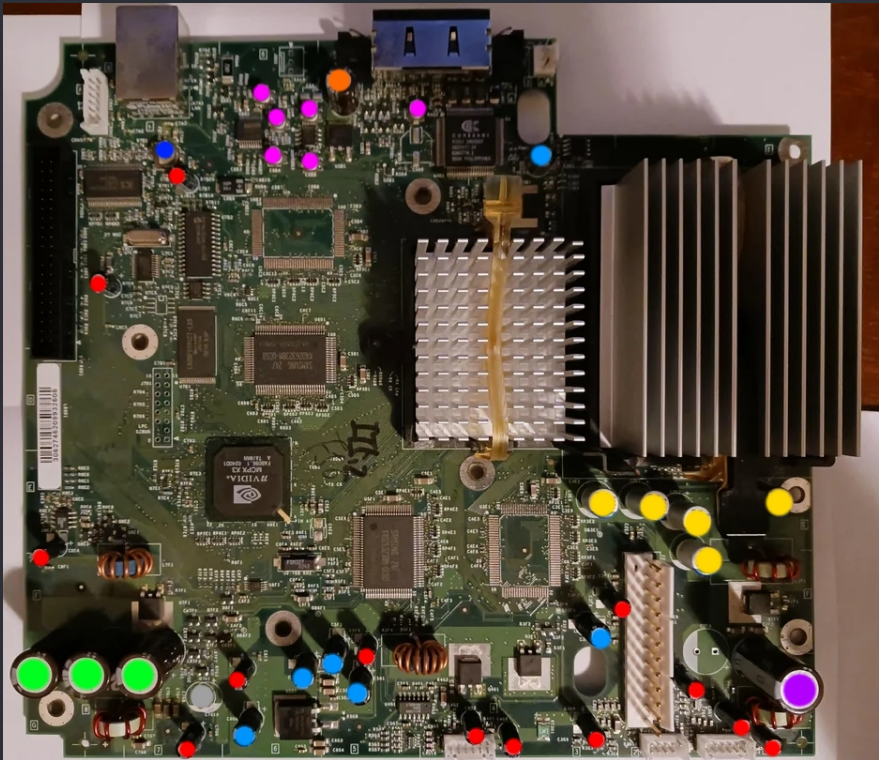


# <=== XBox Mainboard Capacitors ===>

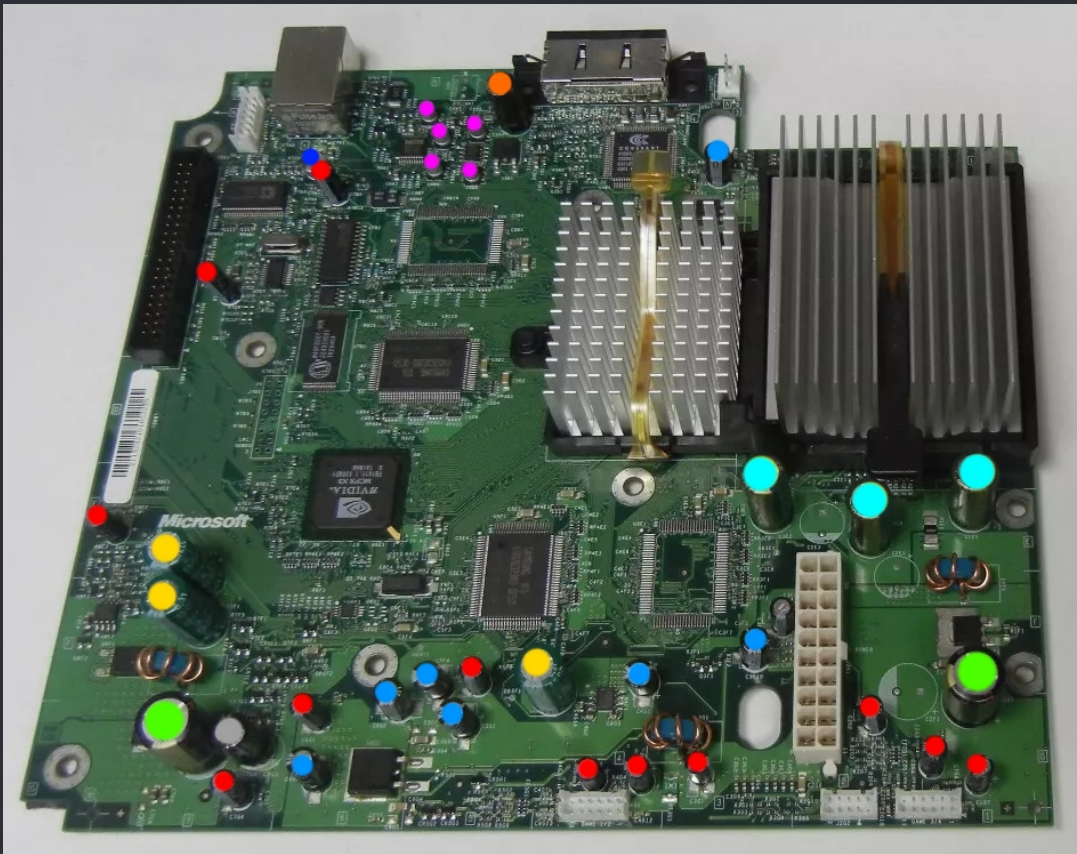
===> XBox v1.0 Caps <===								☰
Qty	Value	Voltage	Type	Dimension	Replacements	Shop Link	Location	
2	3300uF	10v	THT	12.5x25mm		DigiKey   Mouser	C1G1, C2F3	
5	1500uF	6.3v	THT	10x20mm		DigiKey   Mouser	C1E1, C2E1, C2E2, C2E5, C3E2	
6	100uF	25v	THT	6x11mm		DigiKey   Mouser	C3B3, C3F6, C5F5, C5G1, C6G2, C6G6	
1	680uF	10v	THT	8x15mm		DigiKey   Mouser	C5A3	
7	10uF	16v	SMD	4x5.4mm		DigiKey   Mouser	C6A4, C6B4, C6B6, C6E2, C6A11, C6A12, C5A4	
1	47uF	16v	SMD	6.3x5.4mm		DigiKey   Mouser	C7B3	
1	1F	2.5v	THT	-	Should not be re-added	DigiKey   Mouser	C7G9	
13	22uF	25v	THT	5x11mm		DigiKey   Mouser	C7G5, C8E4, C7B7, C7G5, C6G1, C5F5, C4G3, C3G4, C4G6, C3F2, C2G2, C1G3, C1G5,	
3	1500uF	16v	THT	12x20mm		DigiKey   Mouser	C8G1, C8F2, C7G1	



===> XBox v1.1 Caps <===								☰
Qty	Value	Voltage	Type	Dimension	Replacements	Shop Link	Location	
2	3300uF	10v	THT	12.5x25mm		DigiKey   Mouser	C1G1	
5	1500uF	6.3v	THT	10x20mm		DigiKey   Mouser	C1E1, C2E1, C2E2, C2E5, C3E2	
6	100uF	25v	THT	6x11mm		DigiKey   Mouser	C3B3, C3F6, C5F5, C5G1, C6G2, C6G6	
1	680uF	10v	THT	8x15mm		DigiKey   Mouser	C5A3	
7	10uF	16v	SMD	4x5.4mm		DigiKey   Mouser	C6A4, C6B4, C6B6, C6E2, C6A11, C6A12, C5A4	
1	47uF	16v	SMD	6.3x5.4mm		DigiKey   Mouser	C7B3	
1	1F	2.5v	THT	-	Should not be re-added	DigiKey   Mouser	C7G9	
13	22uF	25v	THT	5x11mm		DigiKey   Mouser	C7G5, C8E4, C7B7, C7G5, C6G1, C5F5, C4G3, C3G4, C4G6, C3F2, C2G2, C1G3, C1G5,	
3	1500uF	16v	THT	12x20mm		DigiKey   Mouser	C8G1, C8F2, C7G1	

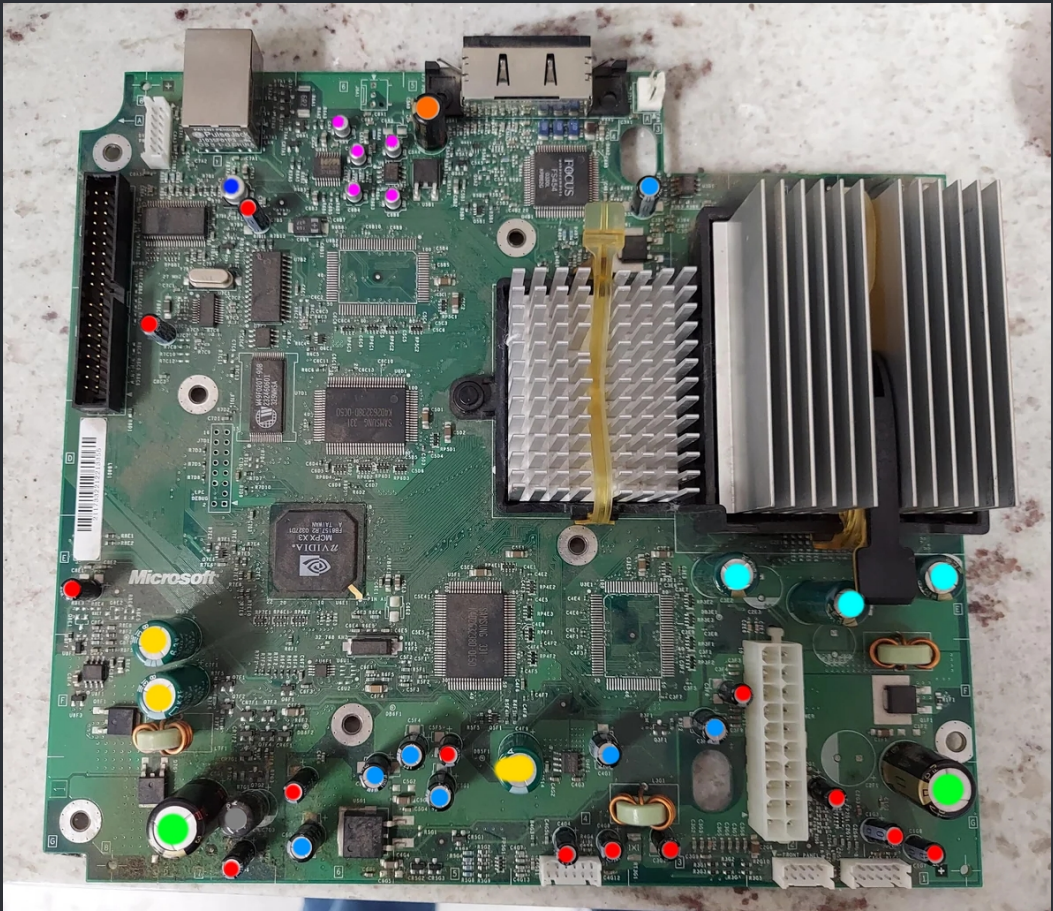


==> XBox v1.2 / v1.3 Caps <==								☰
Qty	Value	Voltage	Type	Dimension	Replacements	Shop Link	Location	
2	3300uF	10v	THT	12.5x25mm		DigiKey   Mouser	C1G1, C7G1	
3	3300uF	6.3v	THT	10x25mm		DigiKey   Mouser	C1E1, C2E4, C3E2	
7	100uF	25v	THT	6x11mm		DigiKey   Mouser	C3B4, C3F10, C4G1, C5F4, C5G1, C6G2, C6G3	
1	680uF	16v	THT	8x15mm		DigiKey   Mouser	C5A4	
5	10uF	16v	SMD	4x5.4mm		DigiKey   Mouser	C6A10, C6A11, C6A4, C6B4, C6B6	
1	47uF	16v	SMD	6.3x5.4mm		DigiKey   Mouser	C7B2	
1	1F	2.5v	THT	-	Should not be re-added	DigiKey   Mouser	C7G2	
13	22uF	25v	THT	5x11mm		DigiKey   Mouser	C1G2, C1G3, C1F6, C3F6, C3G1, C4G4, C4G7, C5F5, C6G1, C7B5, C7G6, C8C2, C8E3	
3	1500uF	6.3v	THT	10x20mm		DigiKey   Mouser	C4F9, C7E2, C7F1	

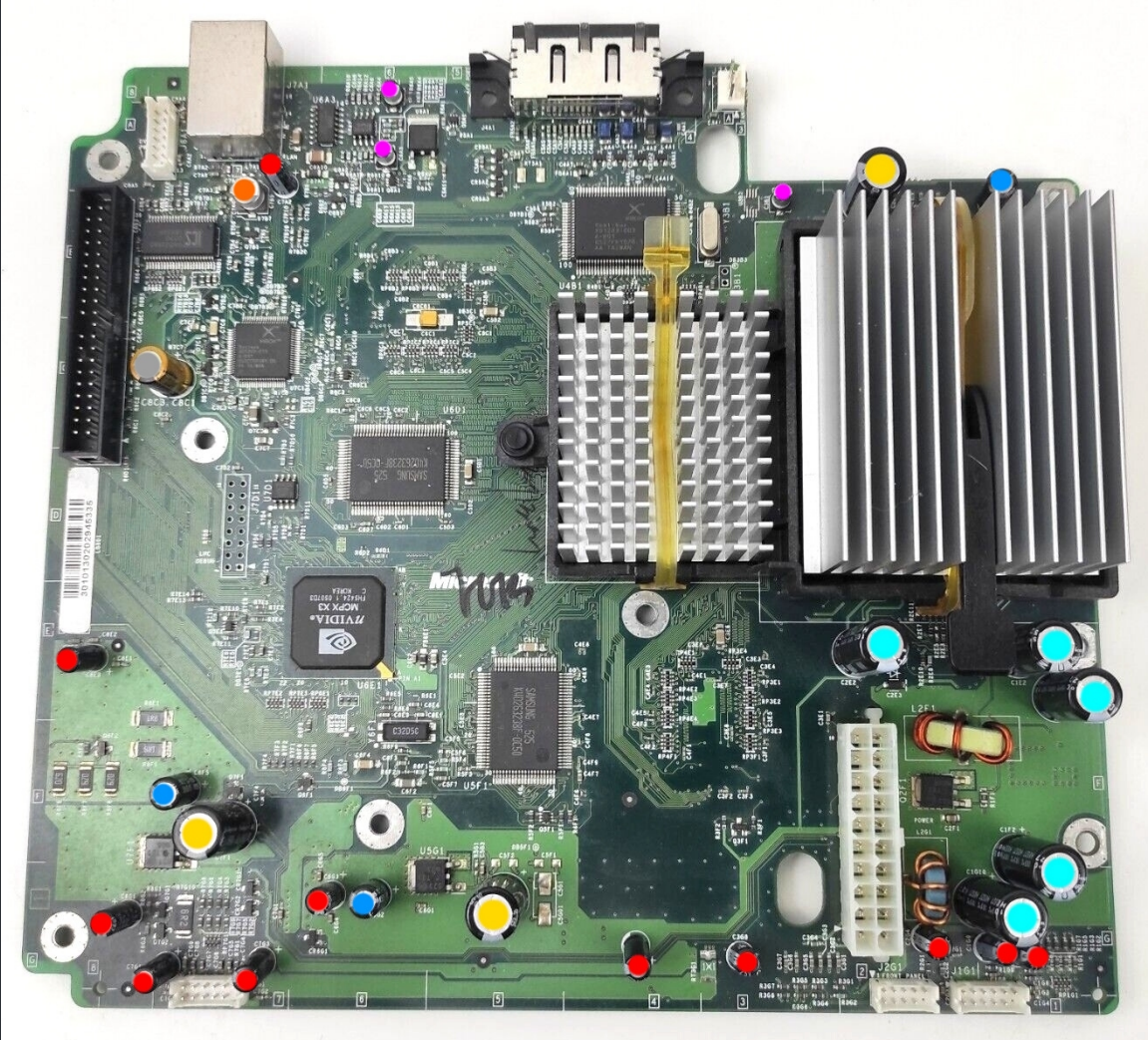




===> XBox v1.4 Caps <===							☰
Qty	Value	Voltage	Type	Dimension	Replacements	Shop Link	Location
2	3300uF	10v	THT	12.5x25mm		DigiKey   Mouser	C1G1, C7G1
3	3300uF	6.3v	THT	10x25mm		DigiKey   Mouser	C1E1, C2E4, C3E2
7	100uF	25v	THT	6x11mm		DigiKey   Mouser	C3B4, C3F10, C4G1, C5F4, C5G1, C6G2, C6G3
1	680uF	16v	THT	8x15mm		DigiKey   Mouser	C5A4
5	10uF	16v	SMD	4x5.4mm		DigiKey   Mouser	C6A10, C6A11, C6A4, C6B4, C6B6
1	47uF	16v	SMD	6.3x5.4mm		DigiKey   Mouser	C7B2
1	1F	2.5v	THT	-	Should not be re-added	DigiKey   Mouser	C7G2
13	22uF	25v	THT	5x11mm		DigiKey   Mouser	C1G2, C1G3, C1F6, C3F6, C3G1, C4G4, C4G7, C5F5, C6G1, C7B5, C7G6, C8C2, C8E3
3	1500uF	6.3v	THT	10x20mm		DigiKey   Mouser	C4F9, C7E2, C7F1



==> XBox v1.6 Caps <==								⋮
Qty	Value	Voltage	Type	Dimension	Replacements	Shop Link	Location	
5	3300uF	6.3v	THT	10x25mm		DigiKey   Mouser	C1E1, C1E2, C1F2, C1G10, C2E2	
3	1500uF	6.3v	THT	10x20mm		DigiKey   Mouser	C2B2, C5G2, C7F1	
3	100uF	25v	THT	6x11mm		DigiKey   Mouser	C1B1, C6G2, C8F5	
1	1F	2.5v	THT	-	See 1.6 Clock Cap Removal	DigiKey   Mouser	C8C1	
11	22uF	25v	THT	5x11mm		DigiKey   Mouser	C1G7, C1G9, C2G4, C3G8, C3G8, C4G5, C6G3, C7G3, C7A2, C7G11, C8E3, C8G1	
3	10uF	16v	SMD	4x5.4mm		DigiKey   Mouser	C3B1, C6A1, C6A3	
1	47uF	16v	SMD	6.3x5.4mm		DigiKey   Mouser	C7B5	





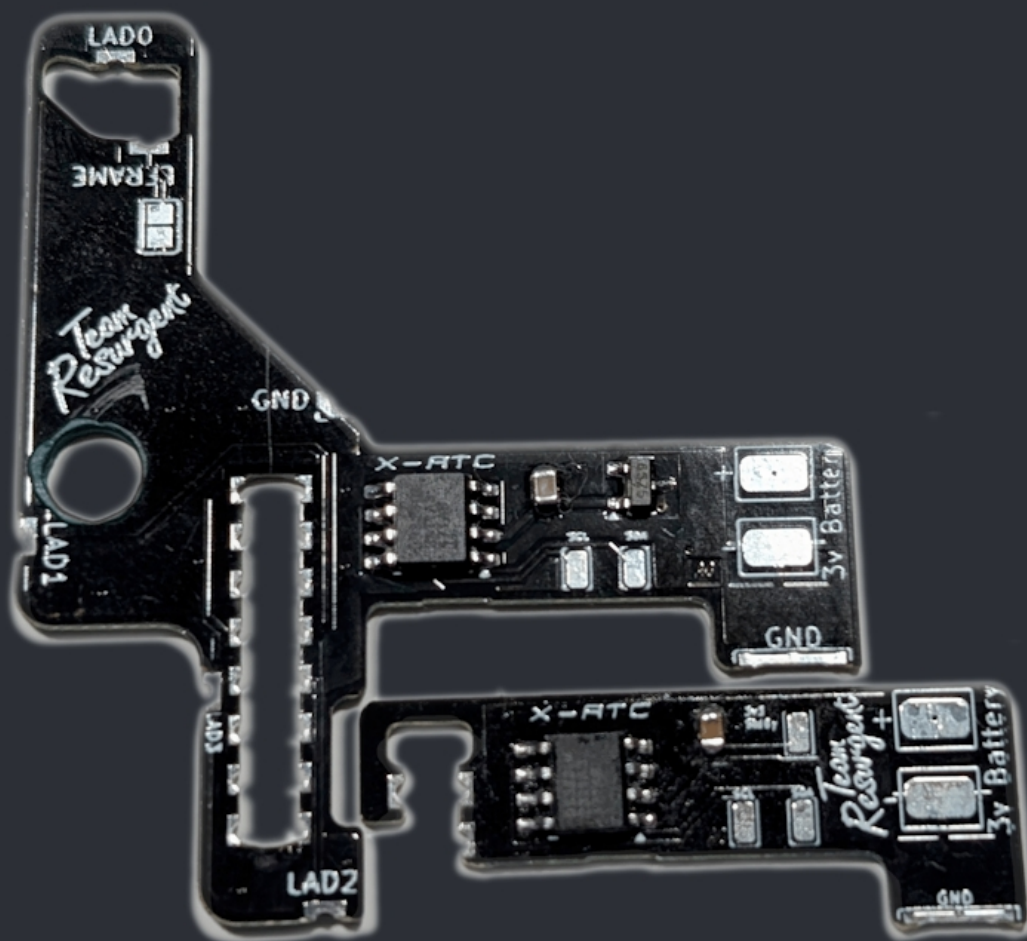
## <=== XBox Real Time Clock ===>

===> X-RTC by Andr0 <===



Before we start you need to know that you need Cerbios in at least version 2.4.0 to make use of this mod!

Now let us clear up the question, what is the X-RTC mod?



The X-RTC mod is a supplemental Real Time Clock for the original XBox developed by Andr0.

The Original XBox doesn't keep time when unplugged for an extended period of time (~3 hours). While some homebrew apps have NTP functionality built in, not everyone plugs the console into their home network every time they play.

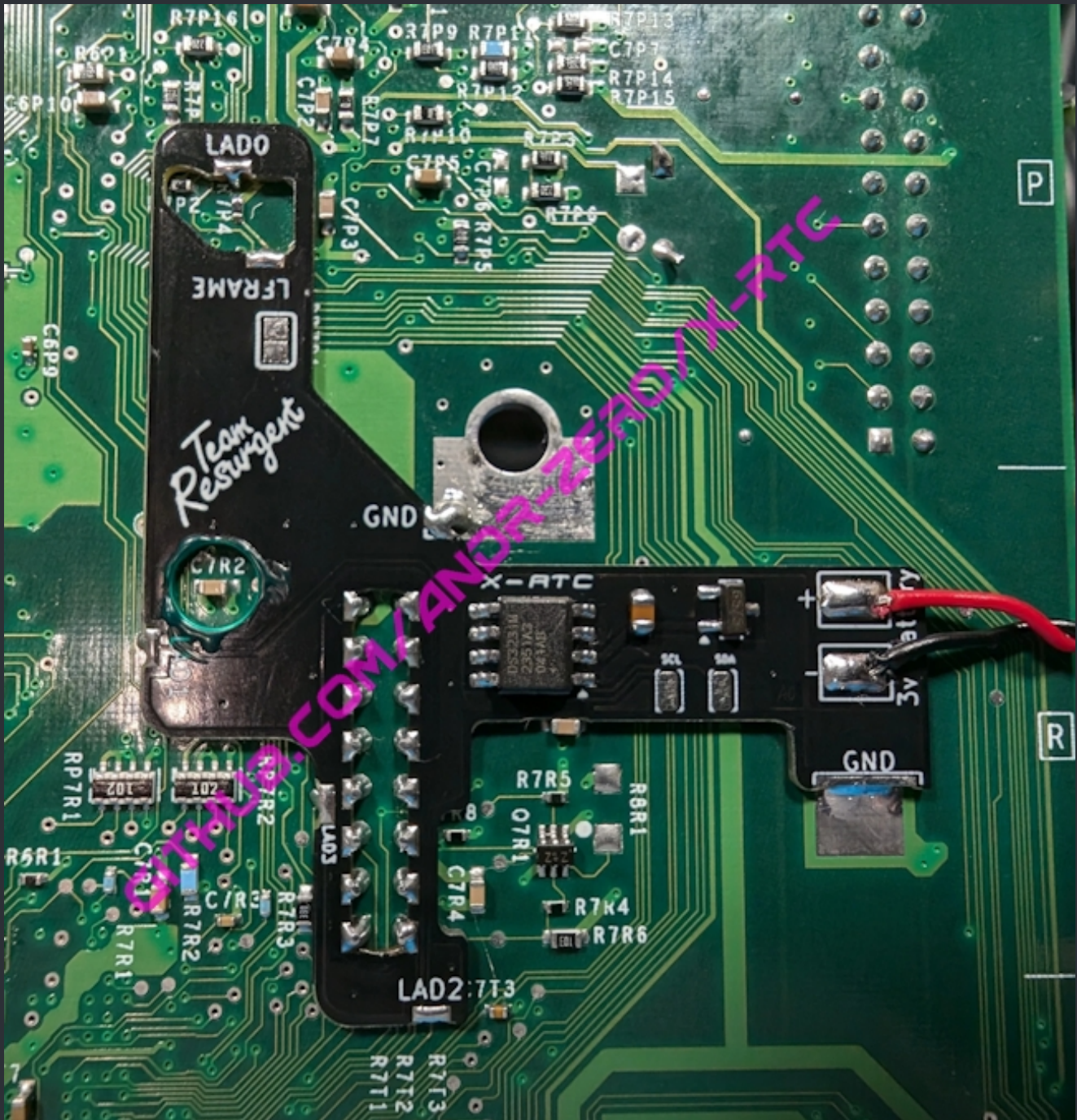
It's also designed the way that the battery is only be used when AC power is removed from the console.

A CR2032 in theory should last 6-10 years when constantly being used. Should work with any modchip and TSOPed consoles. Till now it's untested with BFM BIOSes!

SDA\SDL from the console are also brought to a set of solder pads for ease of installation of any other mod that may require them.



Here are 2 images of an actual install...

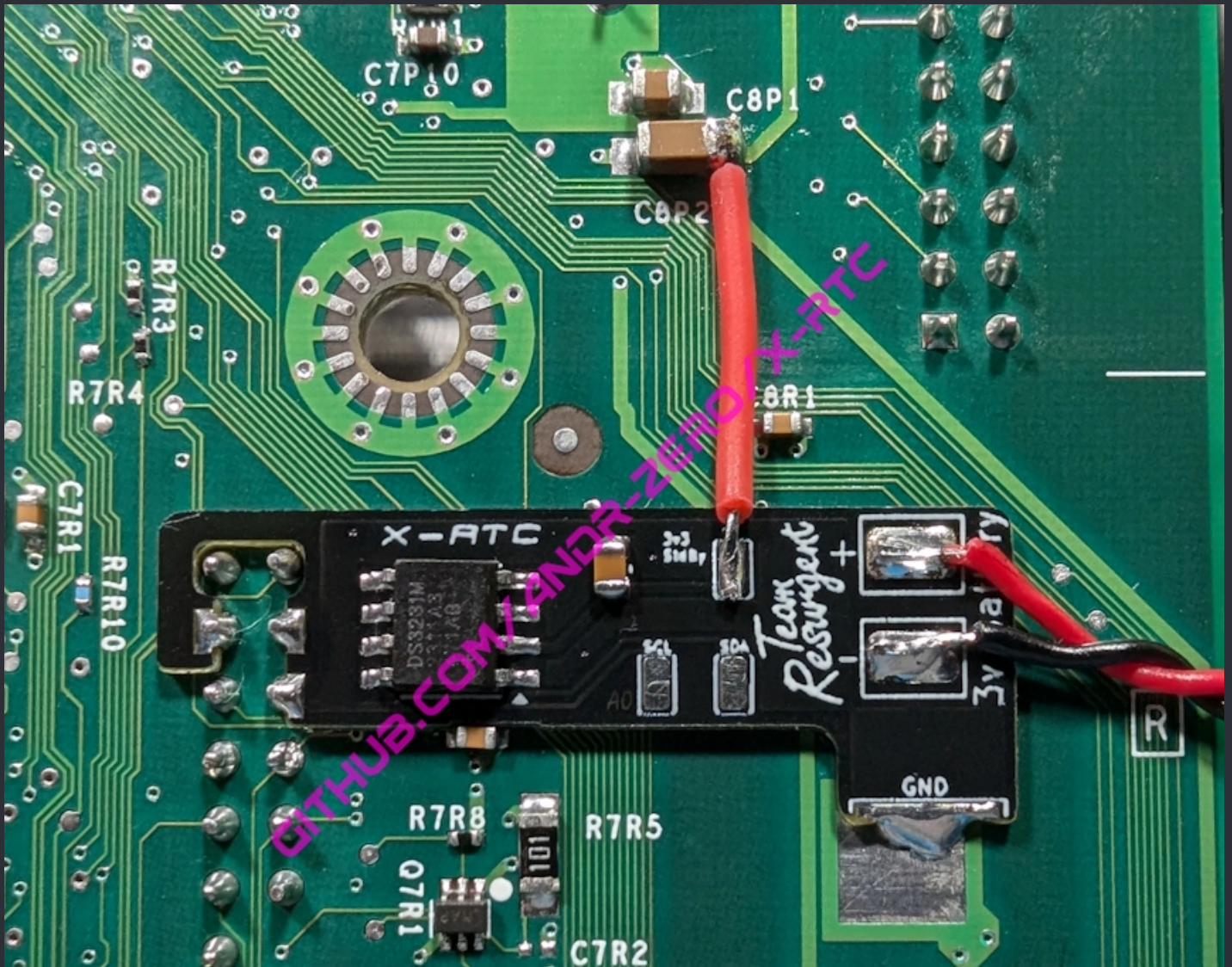


The PCB is soldered to the bottom side of an Xbox v1.6 motherboard.

### How To Install – Xbox v1.6

On the bottom of the Xbox motherboard. Remove any existing LPC rebuild QSB or wires that maybe installed. If a pinheader is already installed, remove solder from the bottom of the pinheader. No need to remove the pinheader, just enough for the X-RTC QSB can sit flush against the board. Solder the various LAD points first, then the ground connections around the QSB, solder the QSB to the LPC port and pinheader last. Make sure the solder is connecting to the QSB, pinheader, and the main board. All the edge points on the QSB need to contact the board. Since the 1.6 consoles have it's standby voltage on the LPC, no need to run a wire like the early revisions. Last step is wiring a 3v battery to the Positive and Negative solder pads on the QSB. Your install should look like in the image above.





The PCB is soldered to the bottom side of an Xbox v1.0 motherboard.

#### How To Install – Xbox v1.0 – v1.4

On the bottom of the Xbox motherboard. If you have a pinheader already installed, remove excessive solder from the pins outlined in purple and any that would interfere with the installation of the X-RTC QSB. Install the QSB onto the LPC port as shown above, make sure the QSB is sitting flush against the board. While keeping the QSB aligned, solder the QSB to the LPC port and the ground point outlined in black. Run a short wire from the console's 3.3v standby outlined in red to the 3v3 StdBy pad on the QSB. Lastly wire a 3v battery to the Positive and Negative solder pads on the QSB. Your install should look like in the image above.

You're now fancy to get one for yourself? Check out Andr0's github page:

<https://github.com/Andr-Zero/X-RTC>

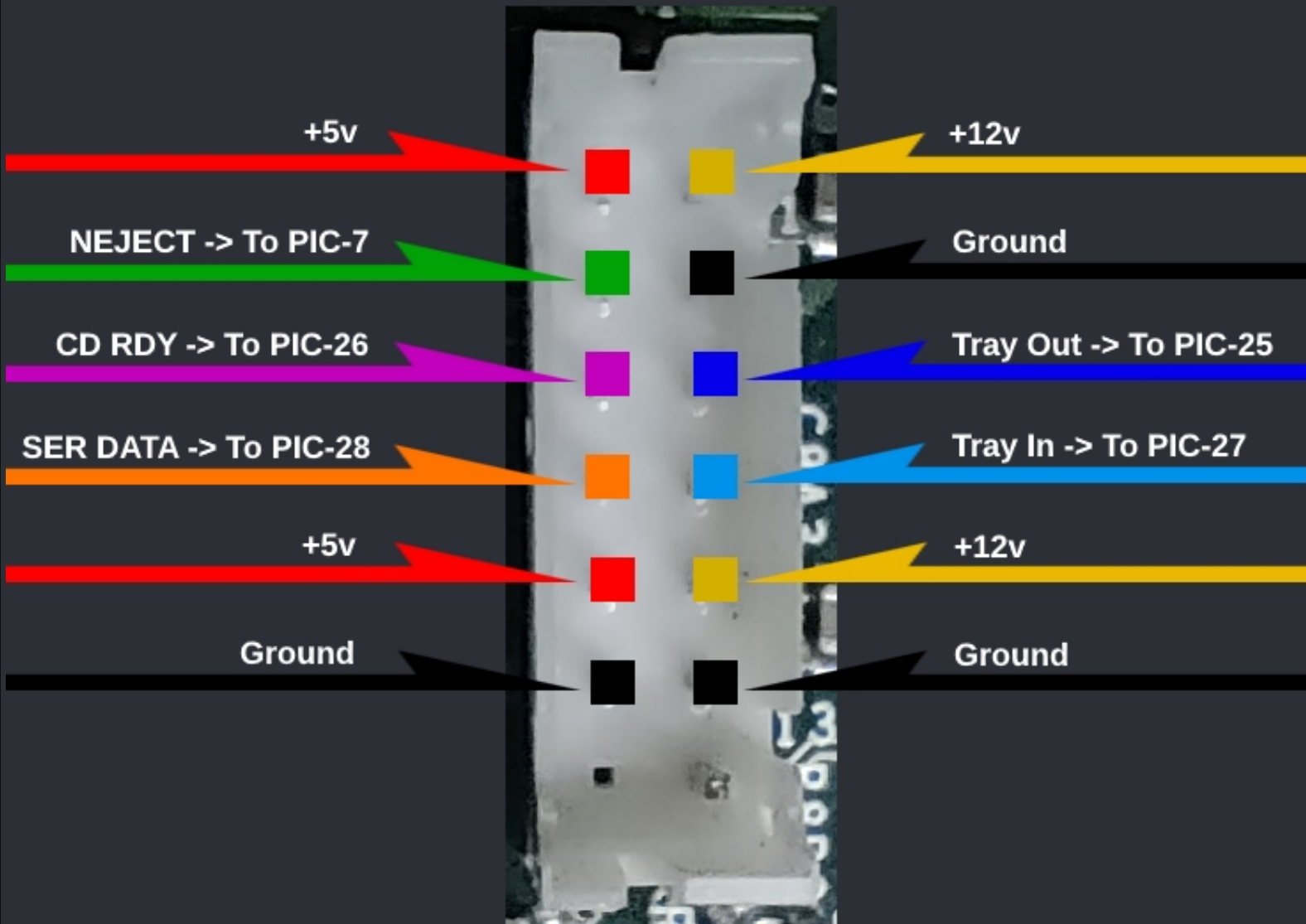
★ Credits fly out to Andr0 for this awesome mod. ★

# <=== XBox DVD Drive ===>

===> Blank Media Compatibility <===									☰
Media Type	Thomson Pre-2003	Thomson 2003+	Philips VAD6011/21	Philips VAD6035/21	Samsung Ver. A	Samsung Ver. B	Samsung Ver. F	Hitachi GDR-8050L	
CD-R	✗	✓	✓	✓	?	✓	✗	✗ **	
CD-RW	✓	✓	✓	✓	?	✓	✓	✓	
DVD-R	✓	✓	✓	✓	✓	✓	✓	✓	
DVD-RW	✓	✓	✓	✓	?	✓	✓	✓	
DVD+R	✓	✓	✓	✓	✓	✗ *	✓	✓	
DVD+RW	✓	✓	✓	✓	?	✗ *	✓	✓	
✓	Works with most media.								
✓	Works with some media.								
✗	Doesn't work with most media.								
?	Two verified tests.								
*	Media can be read if bitset to DVD-ROM.								
**	Can be modified to read CD-R media.								

It's highly recommended to use quality disc's such as Verbertim which in most cases work.





By connecting +5v ■, CD RDY ■ and Tray In ■ together you can make yourself a simple DVD drive remove thingy.  
And if on hand, add a 150  $\Omega$ r in between +5v and CD RDY/ Tray In. To get ~3.3v

Backside view of the DVD drive cable connector.



Here you will learn how you can play your game backups on an unmodded stock XBox.

**! THIS ONLY WORKS ON STOCK XBOXES !**

Here is how you can do it and what you need for it.

First of you need either a XBox Memory Card, a XBox compatible USB Stick or a modded XBox360 MU.

Then you need the ENDGAME Cerbios BFM DVD Launcher which you can get [here](#).

So download the file, unpack it and copy all files to the root dir of your XBox MC/USB-Stick/XBox360 MU.

When you have copied over the files, go to your XBox, connect your XBox MC/USB-Stick/XBox360 MU to your XBox and go to the save game manager screen in the MS Dashboard.



In there select your XBox MC/USB-Stick/XBox360 MU. A moment after that you will see this (Image below)





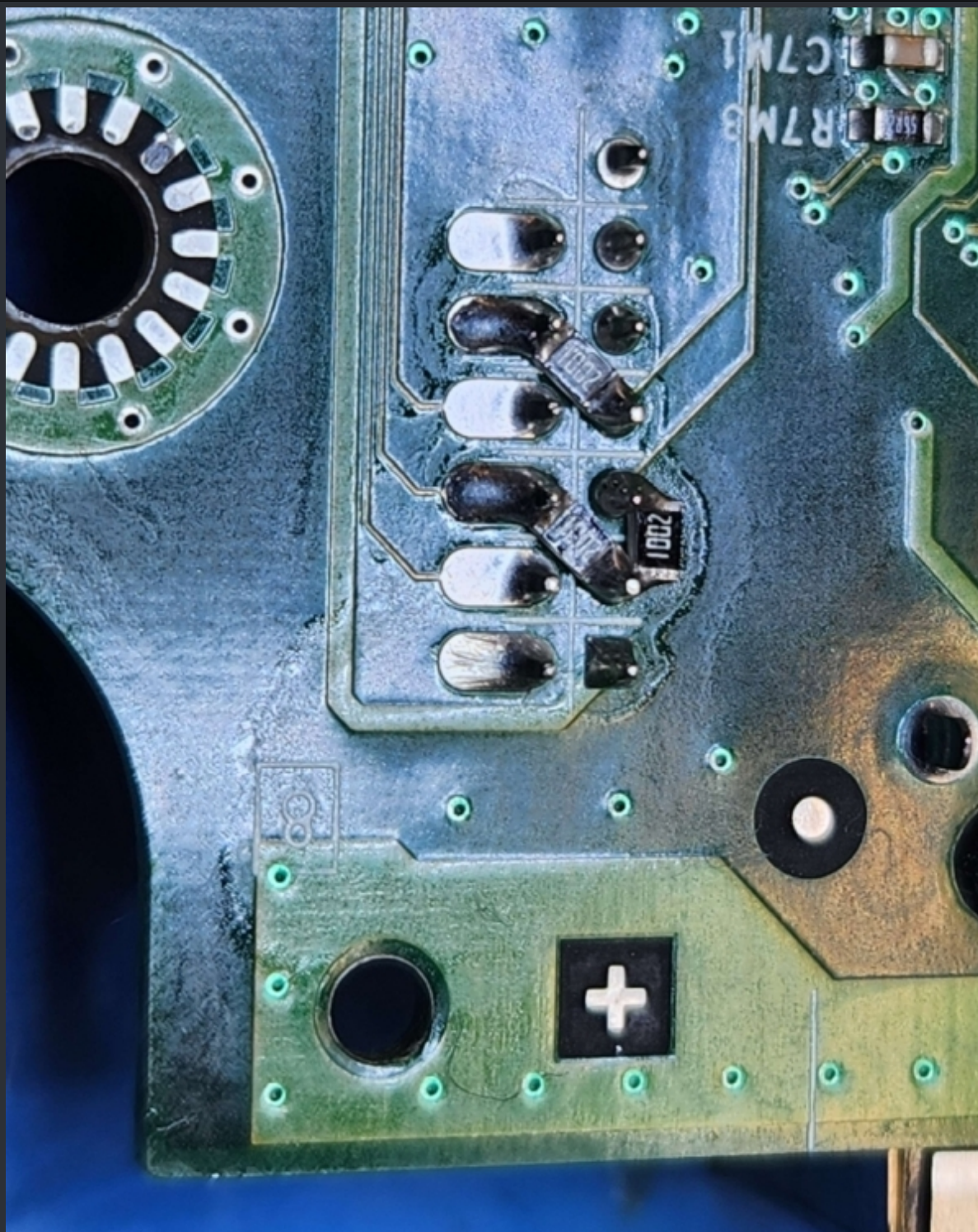
The screen will freeze for a moment. But thats fine, just wait a moment and let its do its thing.  
When the ENDGAME exploit has loaded it will launch a Cerbios BFM Bios right away.  
After that the DVD will open and a message will appear on your screen asking you to insert  
a disc and press a button when done.

And thats already it.

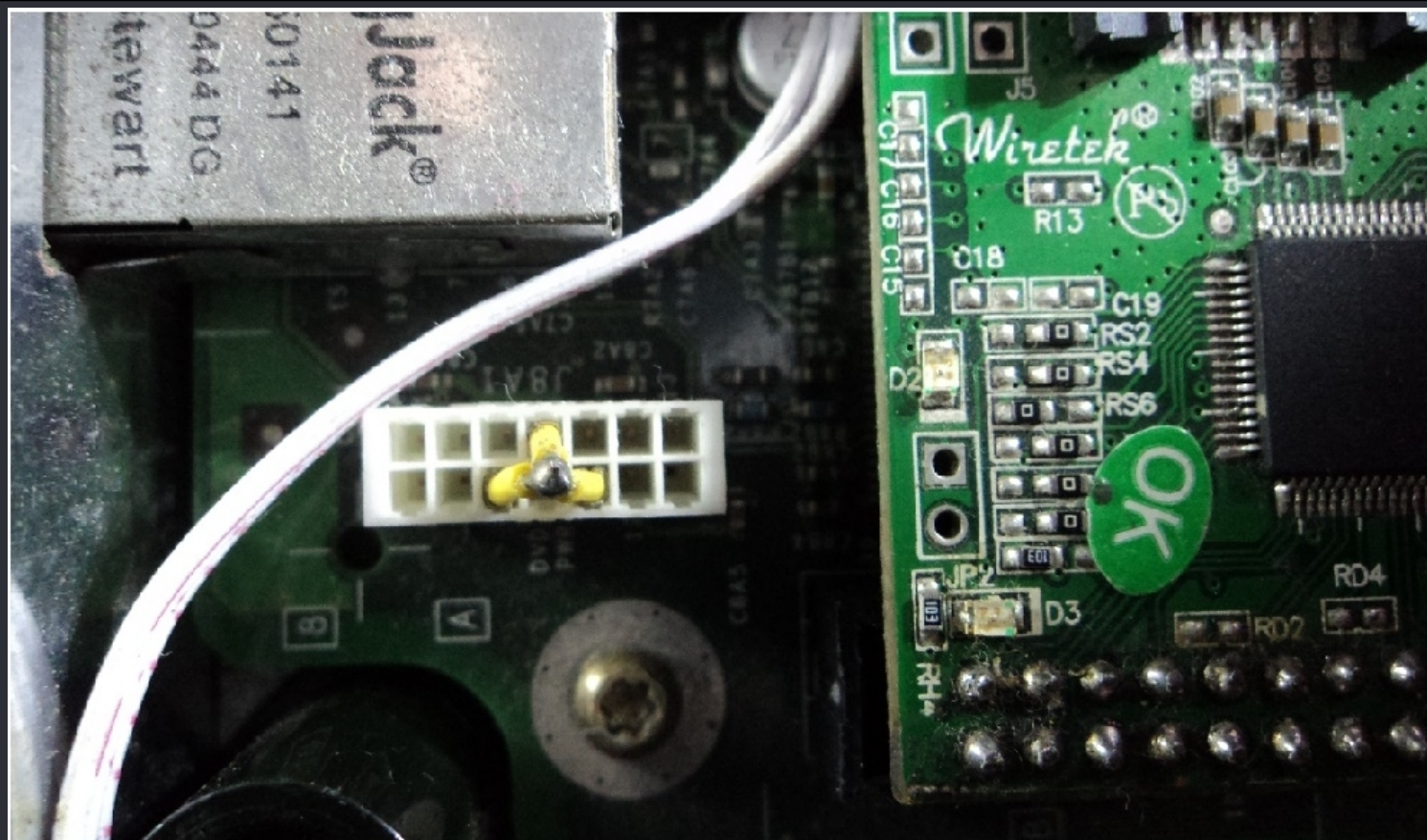
Credits fly out to gaasedelen, xbox7887, shutterbug2000 & tuxuser for the ENDGAME exploit.  
To EquiNoX for coding the DVD loader.  
To Team Cerbios for the Cerbios BFM bios.  
And last but not least to Rocky5 for the repack of v1 which ended up being v2 of this nice little thing.

You have multiple options here...

Option 1



## Option 2





### Option 3



And lets be clear. This isn't for softmoded consoles.  
And the only thing it really does is that your xbox stops blinking.

You may wonder why you should do it and what you can do with it at all. So the idea behind this is, if you are on a softmod and your drive died (XBox frags) or you have a console with non working drive but badly need one for a TSOP flash, you can use almost any PC IDE drive on your Xbox without a problem to flash your TSOP which then gives you the option to use your Xbox completely without an DVD drive. One „down side“ though, the drive will only read burned disc.

So this „solution“ isn't meant to be permanent.

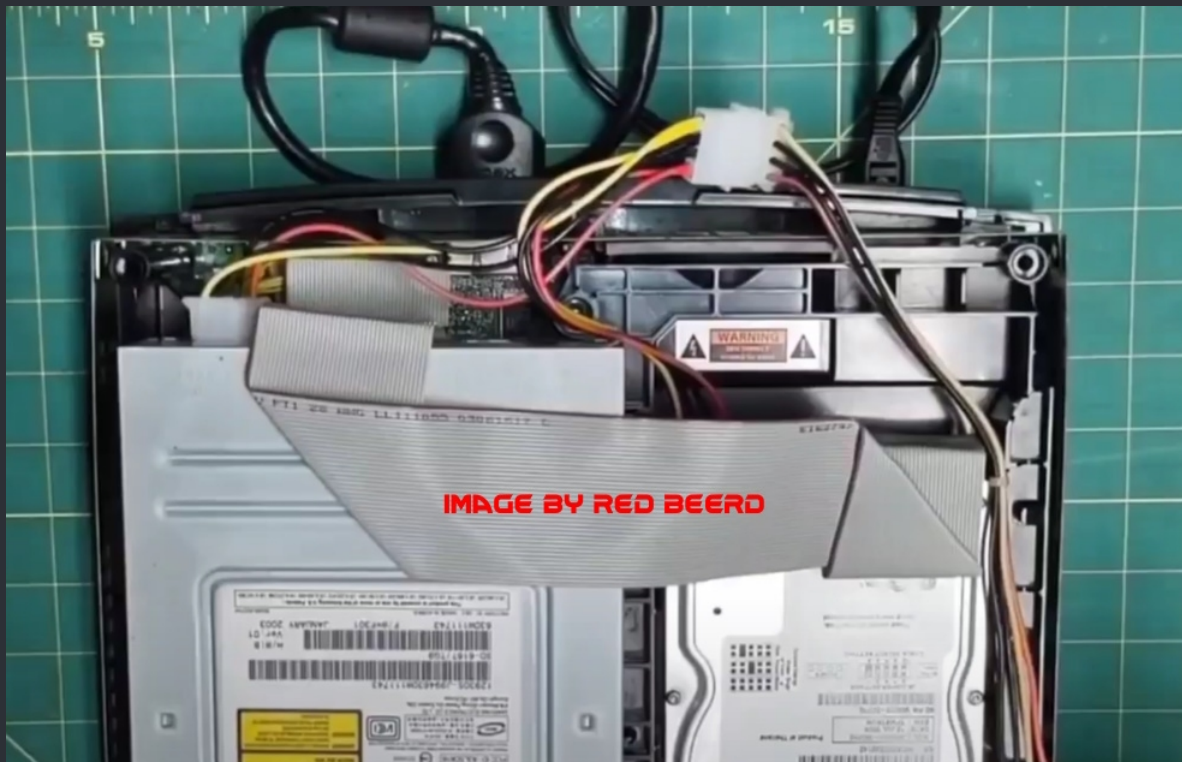
So what do you need? Not much really, a 4-Pin Molex Y-Splitter and a good, known working PC IDE drive.

And here is how you set this up.

Connect the 4-Pin Y-Splitter in between the PSU and the HDD.

Then connect the Molex cable to the PC Drive.

Remove the IDE cable from the Xbox drive and connect it also to the PC drive. If you wonder, the yellow cable, which is connectet from the xbox to the original DVD drive will stay in place. We need that to tell the Xbox that there is a drive.



So the basic setup is done now. You should now power up your Xbox and put in the disc you like to boot (Any installer disc will do) in the PC drive. When that's done, shut the Xbox down. You're now set to boot the disc. So power up your Xbox again and the disc should boot right away. You can now flash your TSOP.

One thing though, you have to repeat the boot process again after the flash to setup a new non softmod dashboard after the TSOP flash since both are different and ain't play well together.

★ Credits fly out to Red Beard fot the image. ★

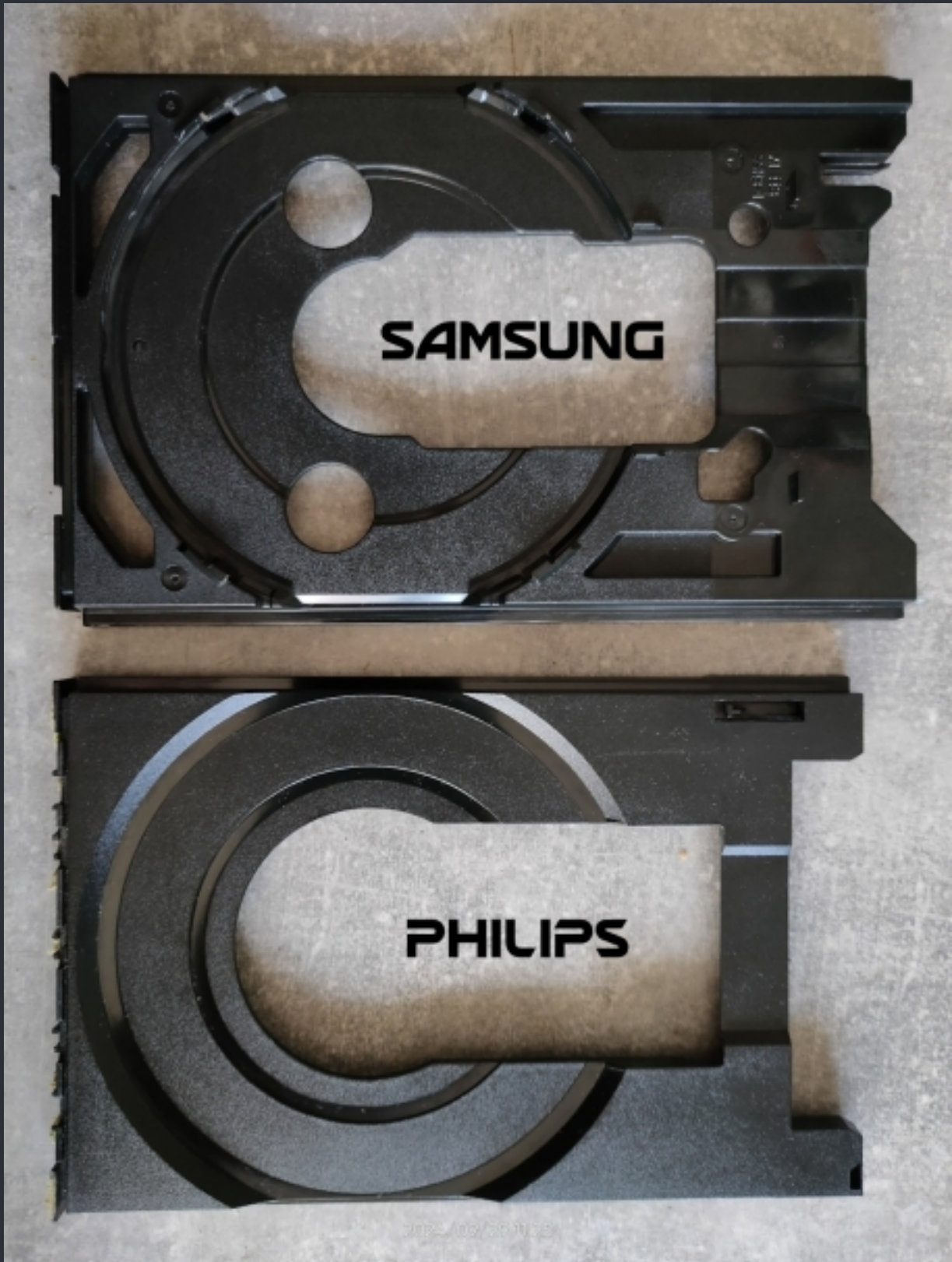


## <=== Xbox Drive Types ===>

===> Samsung / Philips <===

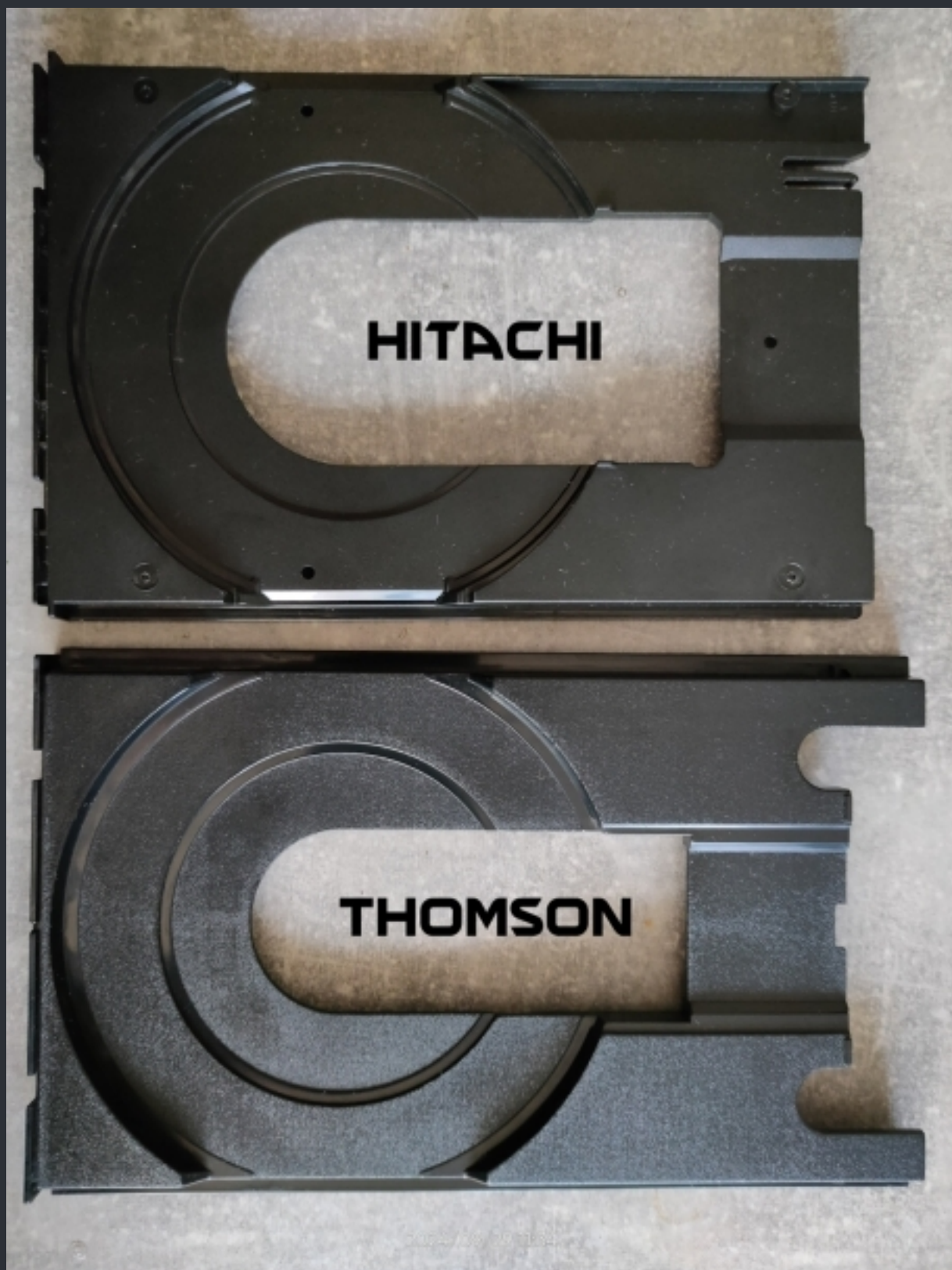


Both Samsung drives, Version A and Version B, have the same tray.



Both Philips drives, version VAD6011/21 and version VAD60135/21 have the same tray.





**Both of the Thomson drives have the same tray.**

**You can now identify the DVD drive without opening the console by looking at the disc tray.**

**At least that far, that you know which type is in the XBox.**

**If you're after a specific version, you still have to open up the XBox.**

## <=== DVD Drive Laser Adjustment ===>

### ===> INFO / WARNING <===

**BEFORE** you start to tweak the laser on any of the drives, you should recap the drive PCB first!  
This will most likely fix the reading problems without the need of tweaking the laser at all!  
And for Samsung drives you should also check the resistor arrays on the IDE port.

### ===> Thompson TGM600 DVD Drive <===



Drive Belt Size : 55mm



Take the drive out of your Xbox and disassemble it.

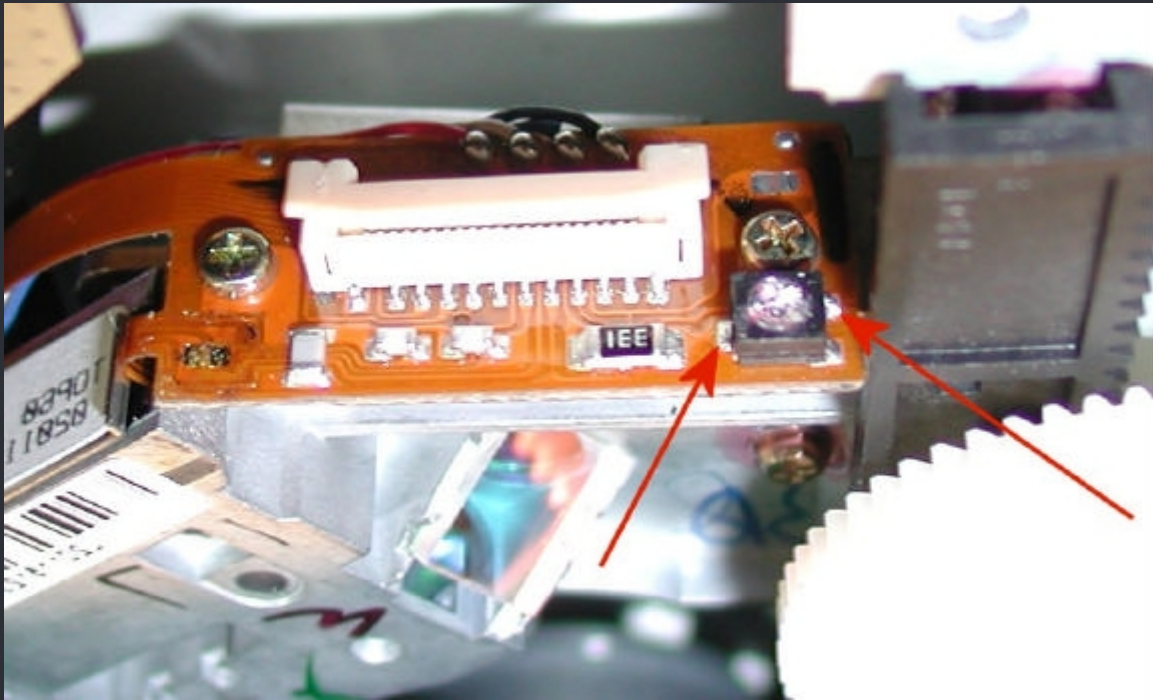


Remove the 2 screws marked in the image above as well as the 2 flex cables. When that's done, you can carefully flip over the PCB. Be aware that the small flex cable is attached to the other side with some sticky tape. You can carefully separate it.





Now, with the PCB out of the way, you have access to the pcb of the laser assembly the pot you want to measure (Step 1) and tweak (Step 2) is on it on.



Time to grab your multimeter and put it into ohms/ resistance mode.

Now measure the two spots marked in the image above.

You should get reading of ~1000 ohms (maybe a little more or less).

Write down the value so you don't forget it.

Now get yourself a small screw driver and turn the screw in the pot counterclockwise.

Be very gentle and turn it in super small steps (almost nothing)

Measure again. Lets say you had 1000 ohms, so start with 950 ohms for a first test.

So re-assemble the drive loosely and test if the 50 ohm decrease is enough.

If the drive is still not good, decrease the ohm value in 25 ohm steps until it starts to read a disc.

We would suggest that you do not go much further down than 800 ohm (750 ohm MAX!).

If you ain't get it to work with the lowest value, it's time to get a new drive.

And one last thing, the lower the value, the louder the Thomson becomes when reading.

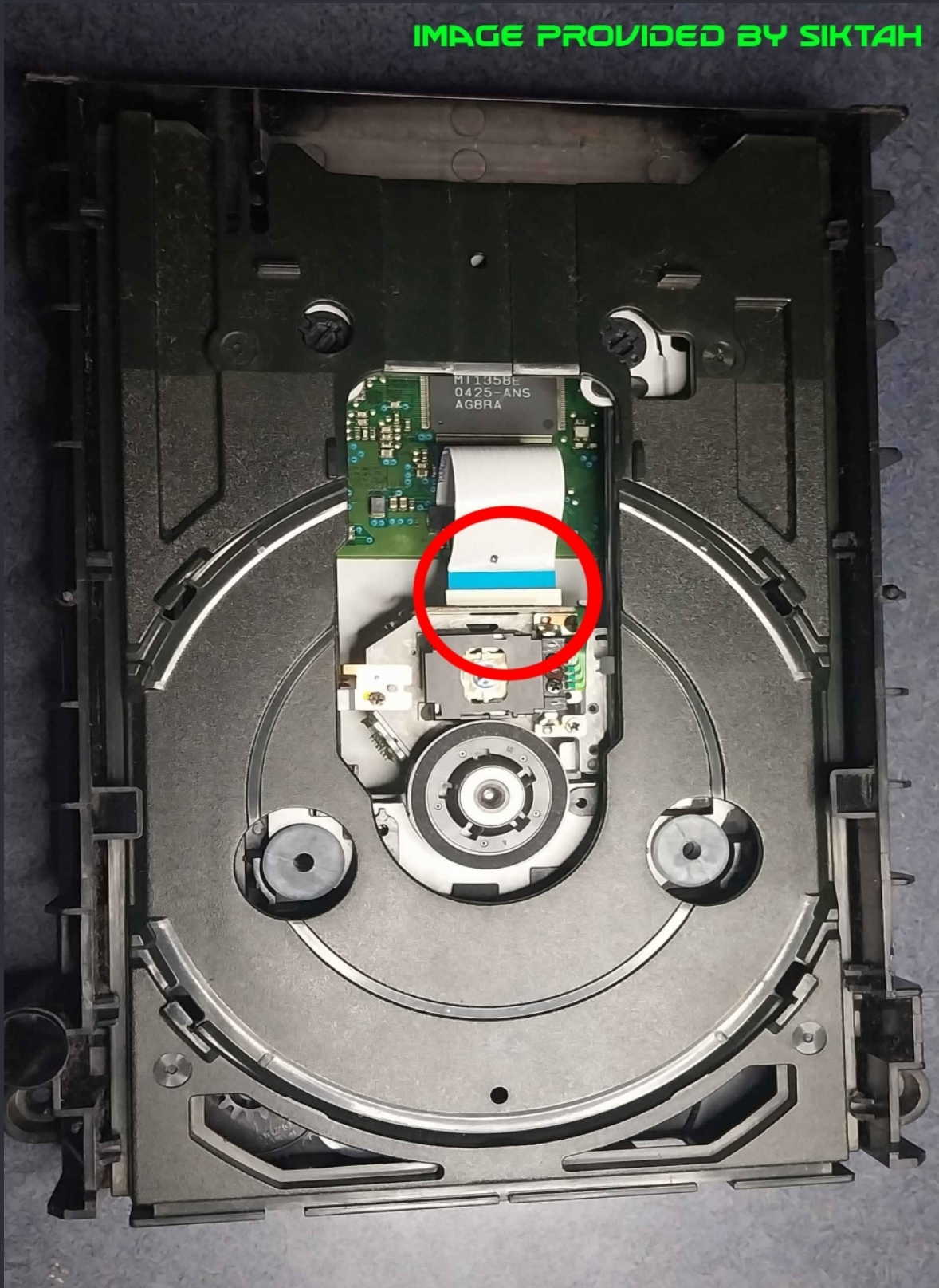


Drive Belt Size : 24mm (The ones for the XBox 360 from Amazon work very well).



Take the drive out of your Xbox and disassemble it.

IMAGE PROVIDED BY SIKTAH

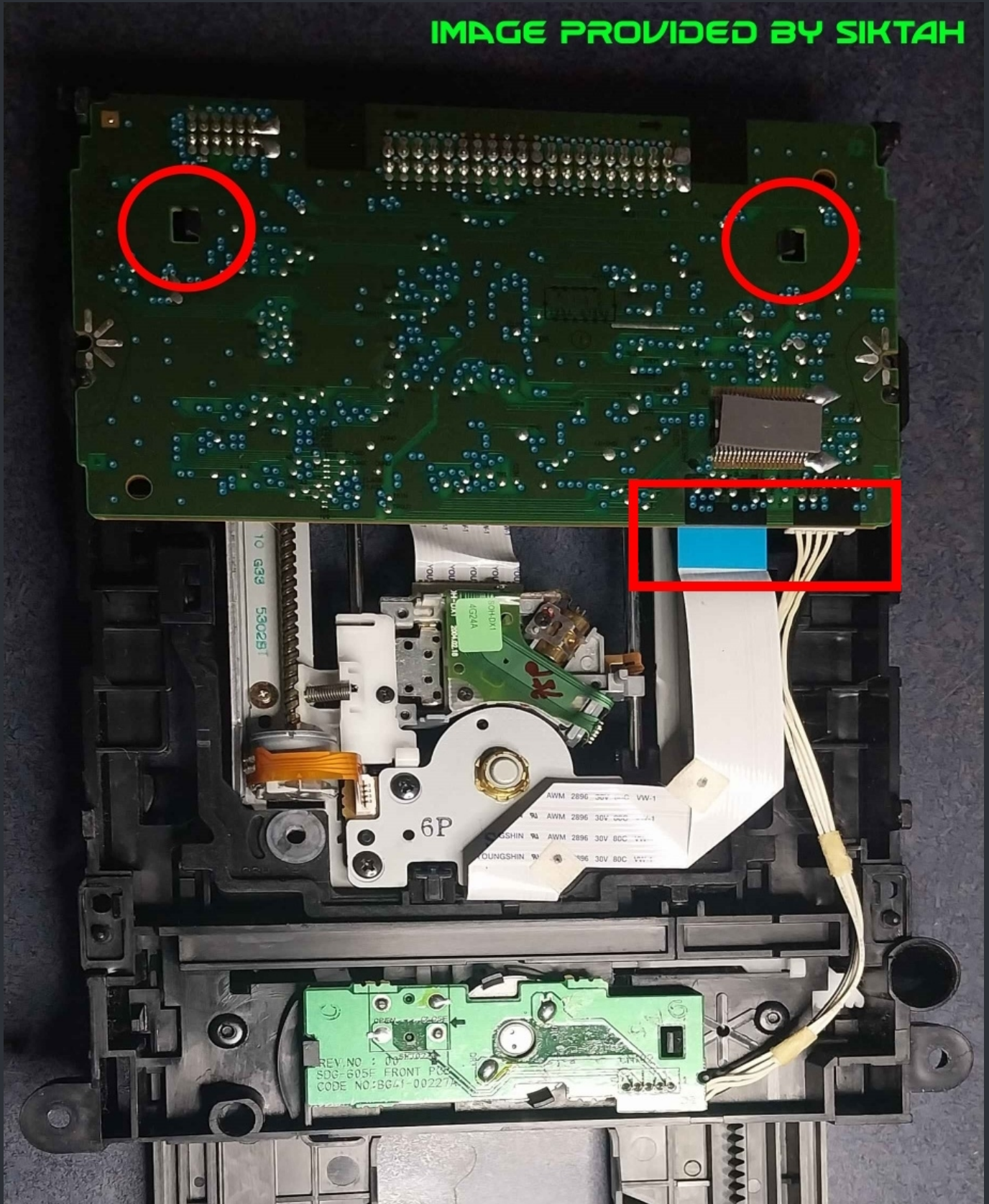


Remove the flat cable marked in the image above and then flip the drive over.



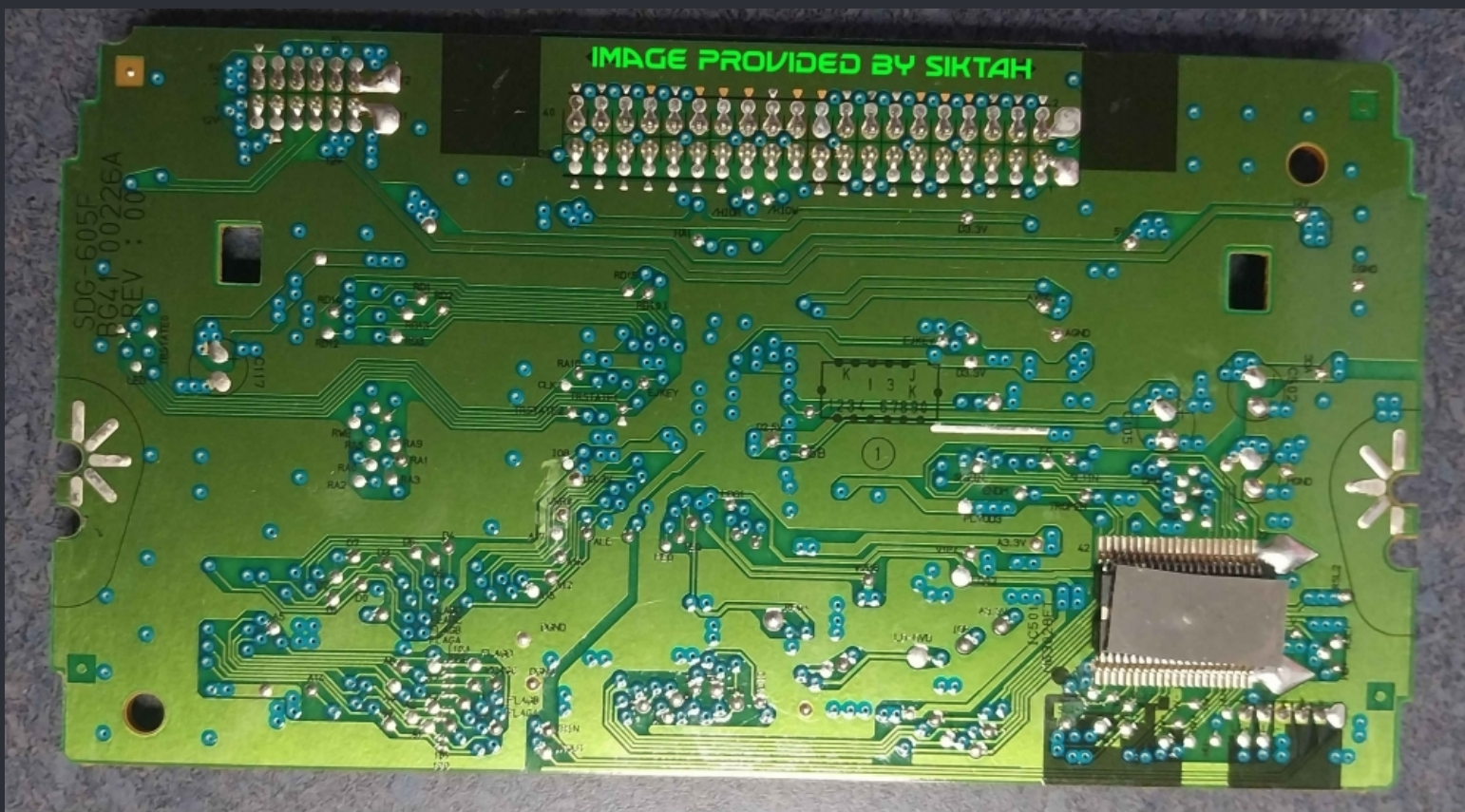
Now remove the other flex and power cable marked in the box.  
After that, gently push out the two marked tabs and lift up the PCB.

IMAGE PROVIDED BY SIKTAH



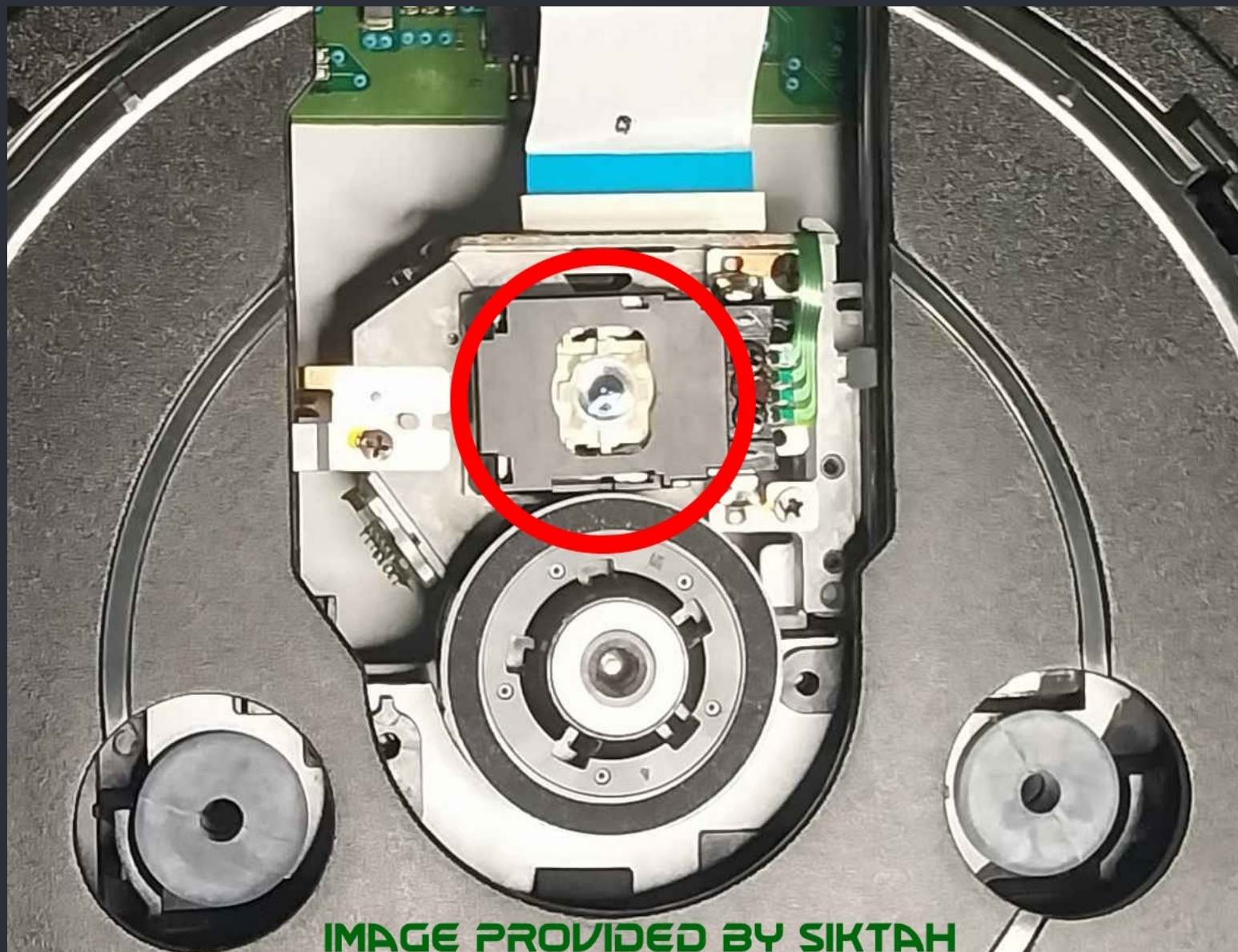


The resistor arrays close to the IDE connector are known to fail as well as all the caps. And even the caps aren't leaking, they can be gone bad and cause the drive not to read. So begin with a recap before you start to tweak the pot.





You should also clean the laser lens with some 99% Isopropyl alcohol (IPA)  
For that use a qtip with a little bit of IPA on it and clean the lens.  
After that grab another qtip and wipe gently over the lens again.  
Needless to say that you should not use any force doing this.





So if the recap and lens cleaning didn't brought the drive back, you can try to tweak the pot even the chances on a Samsung drive is pretty small.

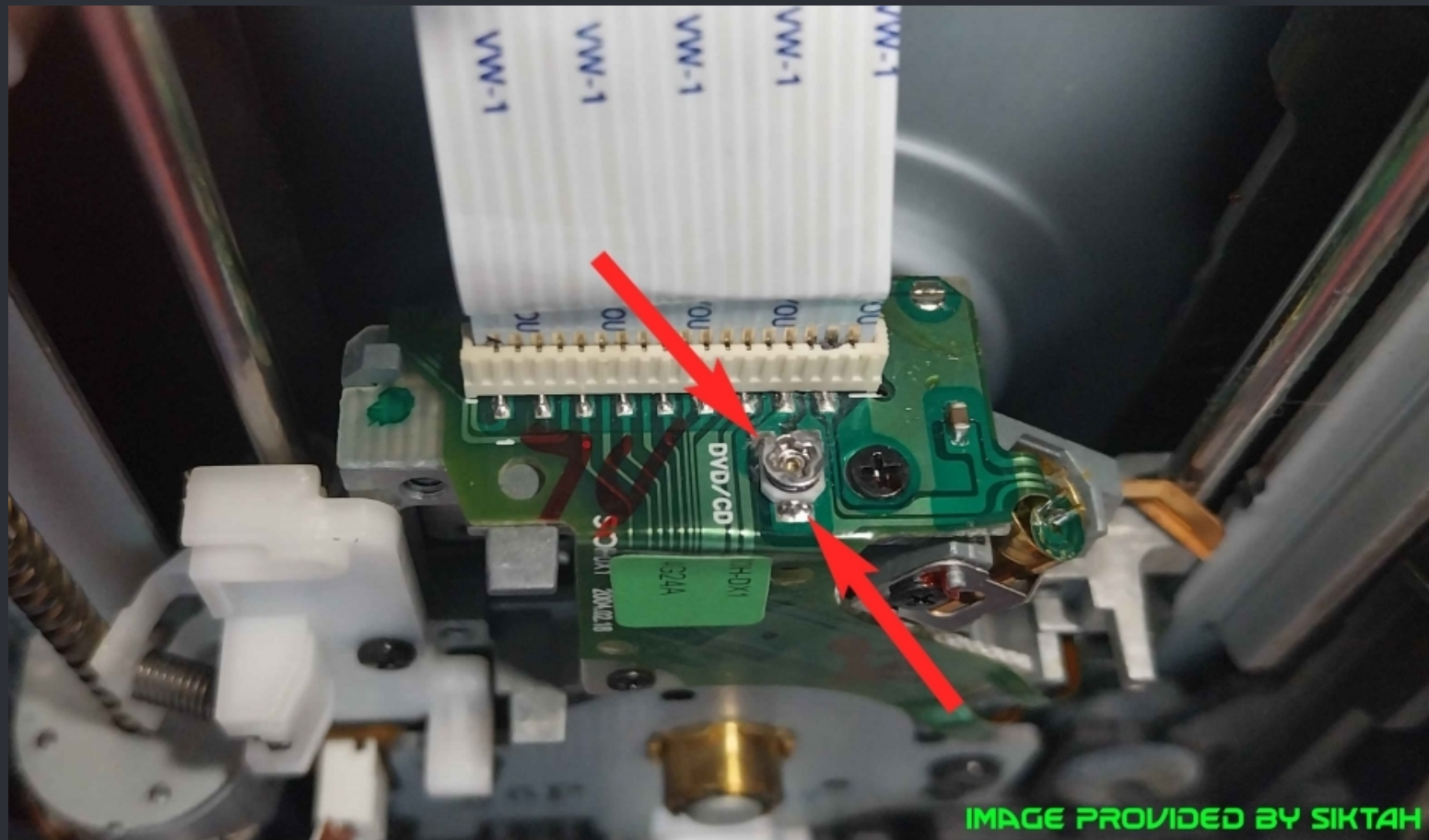


IMAGE PROVIDED BY SIKTAH

Start with measuring the resistance (Ohms) first and write them down.  
You should have something about 1.5k ohm and 2k ohm.

Now get yourself a small screw driver and turn the screw in the pot counterclockwise.  
Be very gentle and turn it in super small steps (almost nothing)  
So let's say, you have something like 1.5k ohm so begin to turn down the pot 100 ohms.

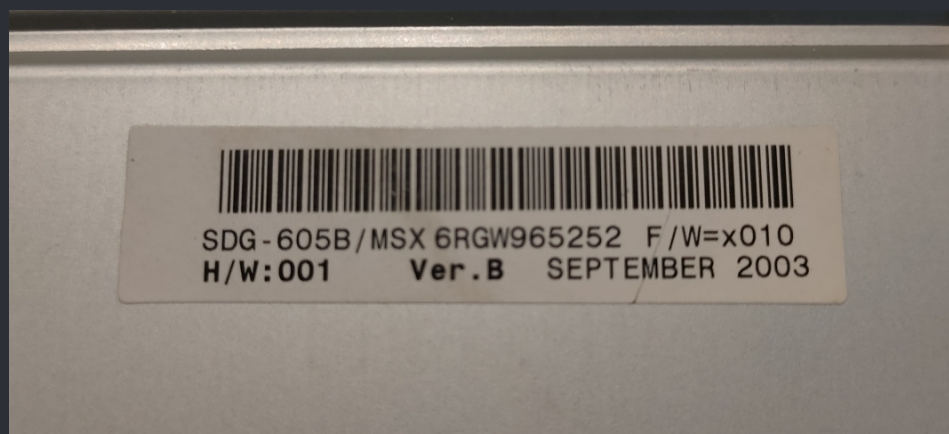
Then put the drive loosely back together to test if the drive reads discs again.  
If the drive doesn't read yet, decrease the value further in 25 ohm steps.

I personally would not go below 800 Ohm on these after a recap.  
You can try 700 though but the drive will be most likely be dead.

So again. On Samsung drives the caps and resistors are more likely to fail than the laser!  
I brought back a couple of them without even touching the pot at all.  
So you should start with a recap BEFORE tweaking the pot.

If everything has failed for you, toss the drive and get a new one.  
Maybe consider a LG 8163b or LG 8164b PC drive.

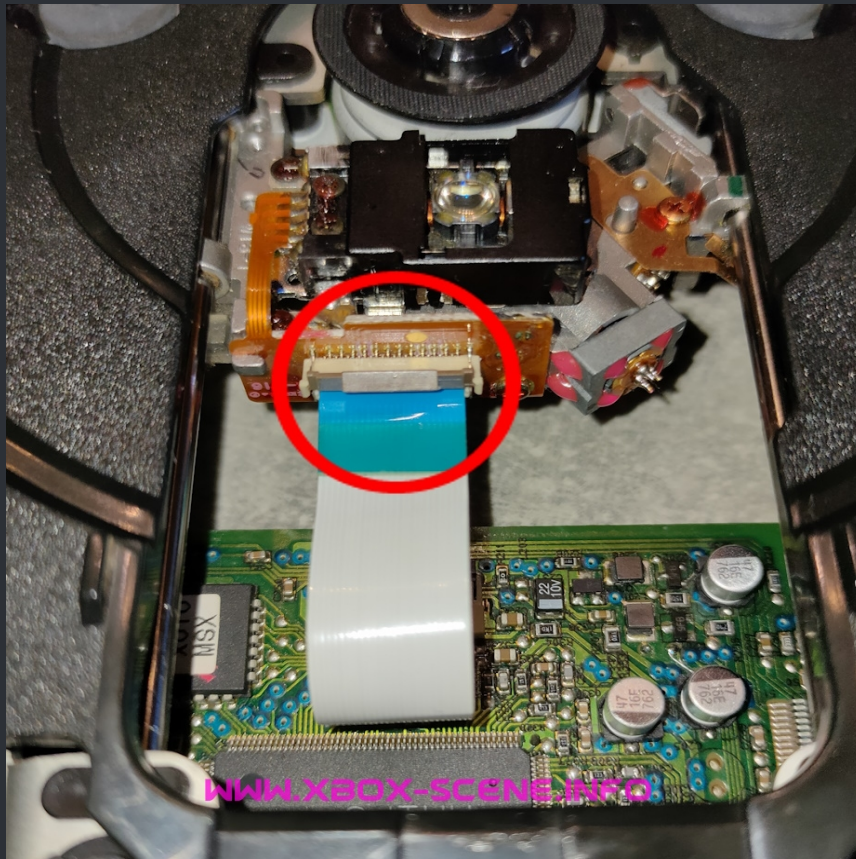
★ Credits fly out to Siktah who has provided us the images for the Samsung Version A drive. ★



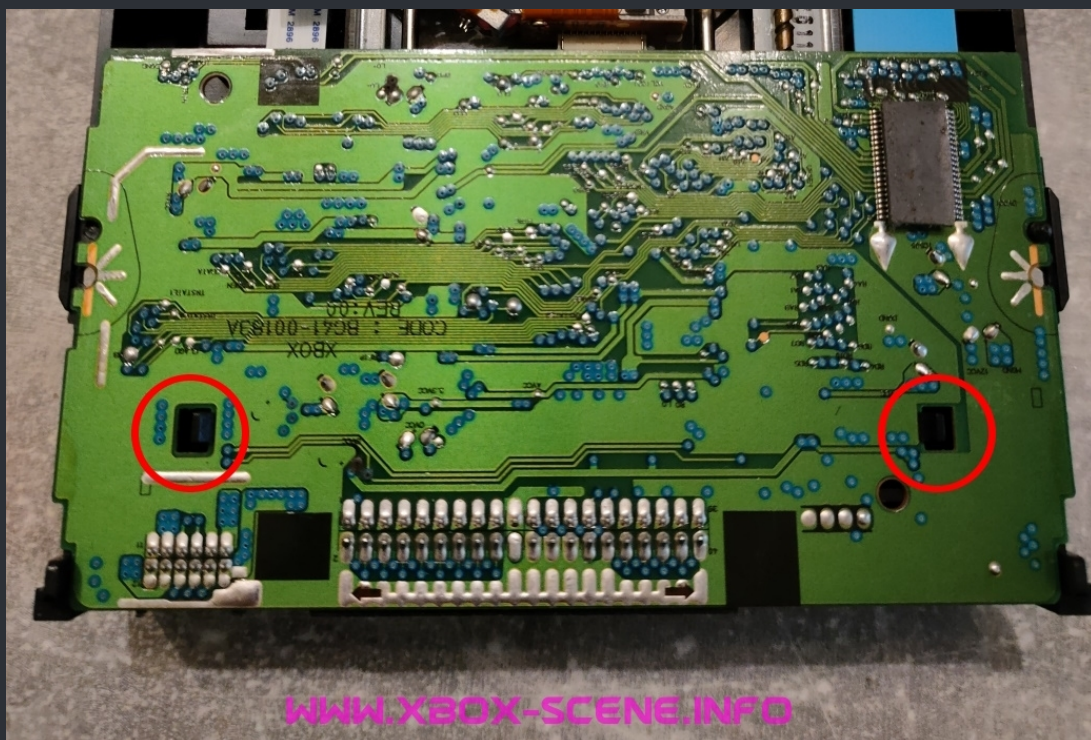
Drive Belt Size : 24mm (The ones for the XBox 360 from Amazon work very well).



Take the drive out of your XBox and disassemble it.



As first step flip the brown lever on the laser assembly and remove the flat cable.  
When thats done, flip the drive over.



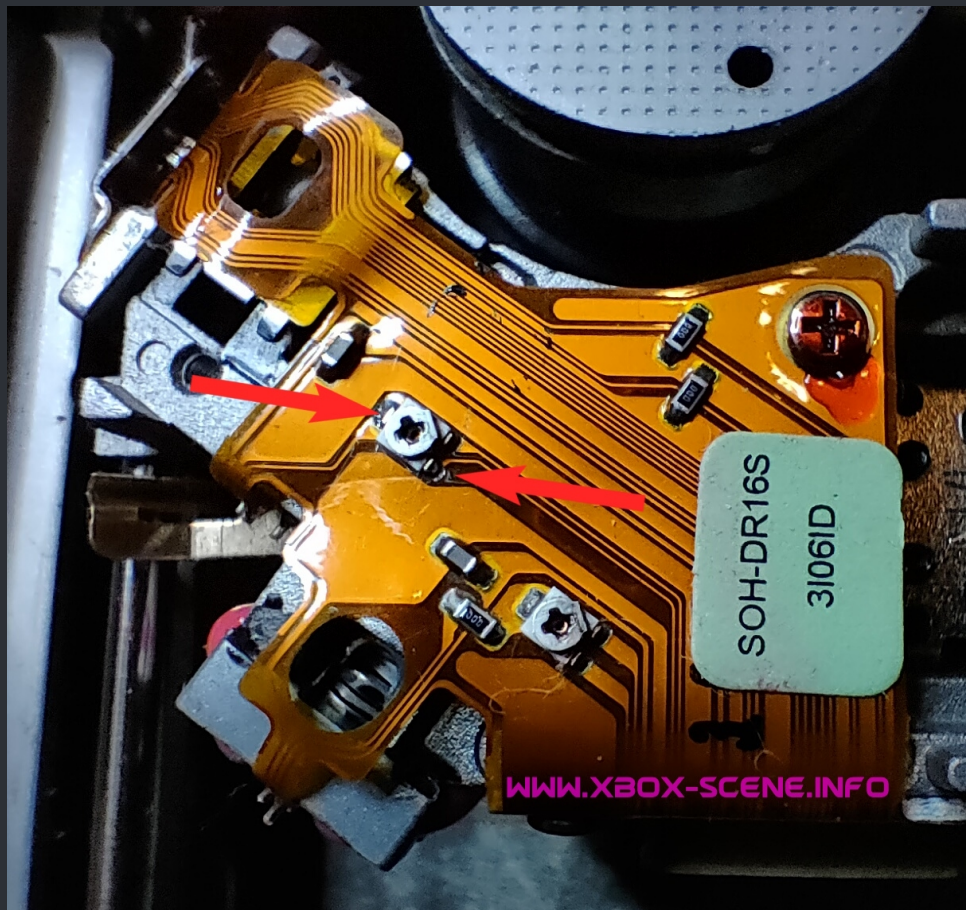
Push the two marked clips gently aside, lift the pcb carefully and flip it over.



The resistor arrays close to the IDE connector are known to fail as well as all the caps. Especially the SMD caps are leaking and even if not, they can be gone bad and cause the drive not to read. You definitely should replace these before you start to tweak the laser!



So if the recap didn't brought the drive back, you can try to tweak the pot even the chances on a Samsung drive is pretty small.



Start with measuring the resistance (Ohms) first and write them down.  
You should have something about ~2k ohm. Maybe a little more or maybe a little less.

Now get yourself a small screw driver and turn the screw in the pot counterclockwise.  
Be very gentle and turn it in super small steps (almost nothing)  
So let's say, you have 2k ohms (sometimes even less than 1.5k ohm) to begin with so start  
with going down 100 ohm.

Then put the drive loosely back together to test if the drive reads discs again.  
If the drive doesn't read yet, decrease the value further in 25 ohm steps.

The lowest value I ever came across the drive starting to read discs again was about 1k ohm.  
Others have gone down even further to 800 ohm and the drive started reading again.  
So let's say I would not recommend to go any further than that after a recap.

So again. On Samsung drives the caps and resistors are more likely to fail than the laser!  
I brought back a couple of them without even touching the pot at all.  
So you should start with a recap BEFORE tweaking the pot.

If everything has failed for you, toss the drive and get a new one.  
Maybe consider a LG 8163b or LG 8164b PC drive.





Drive Belt Size : 24mm (The ones for the XBox 360 from Amazon work very well).



## Take the drive out of your Xbox and disassemble it.

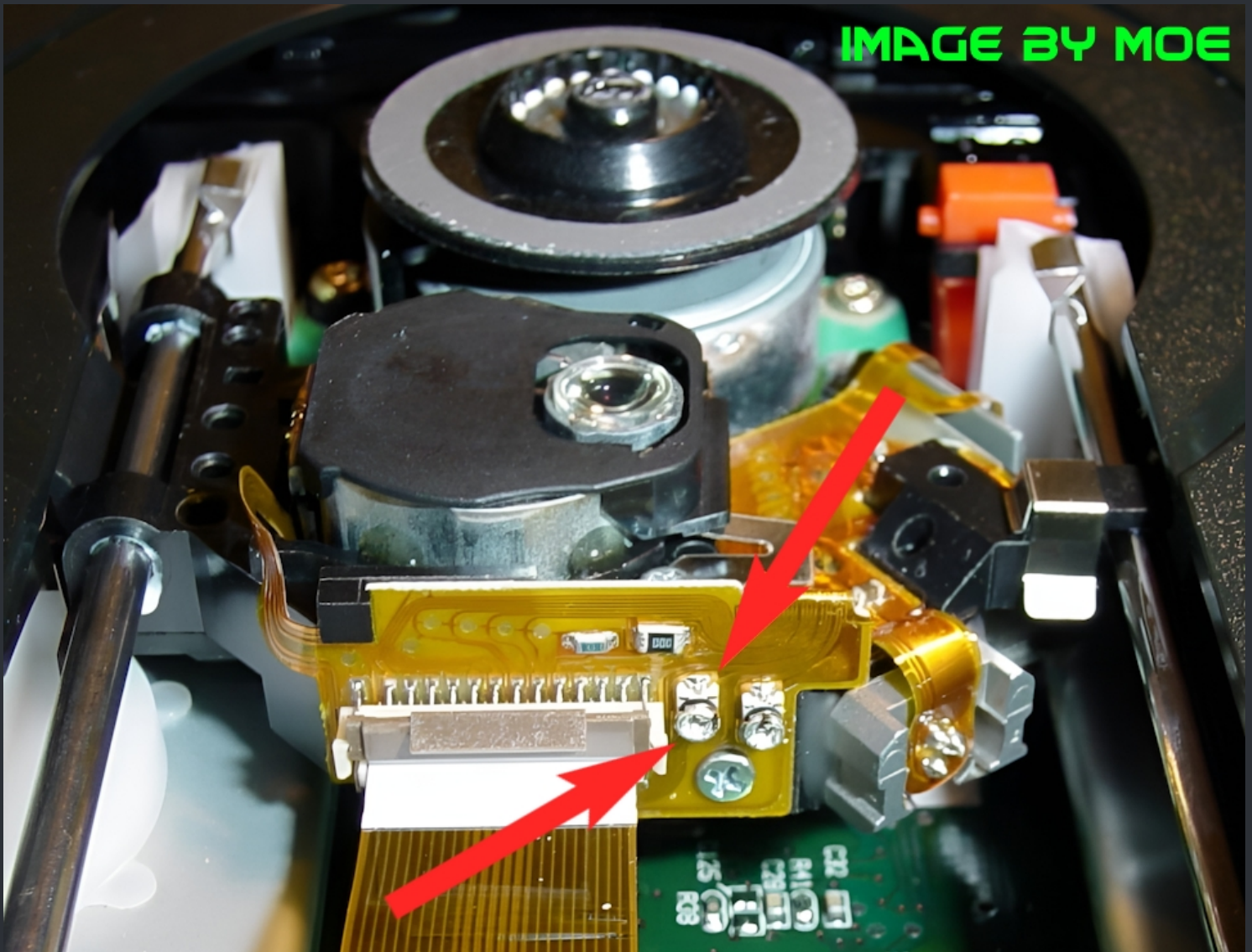
The resistor arrays close to the IDE connector are known to fail as well as all the caps. Especially the SMD caps are leaking and even if not, they can be gone bad and cause the drive not to read. You definitely should replace these before you start to tweak the laser!





So... If the recap didn't brought the drive back, you can try to tweak.

First of start with messuring the resistance (Ohms) and write them down.



Next step is to get yourself a small screw driver and then turn the screw clockwise just a little bit and decrease the value ~100 ohm.

Then put the drive loosely back together to test if the drive read discs again.  
If the drive doesn't read yet, decrease the value further in 25 ohm steps.

The max „save“ limit for both of the Philips drives is ~500 ohm.  
If you have to go below that after a recap, toss the drive and get a new one.

★ Credits fly out to SS\_Dave and MOE ★



Drive Belt Size : 24mm (The ones for the XBox 360 from Amazon work very well).



Take the drive out of your XBox and disassemble it.

The resistor arrays close to the IDE connector are known to fail as well as all the caps. Especially the SMD caps are leaking and even if not, they can be gone bad and cause the drive not to read. You definitely should replace these before you start to tweak the laser!



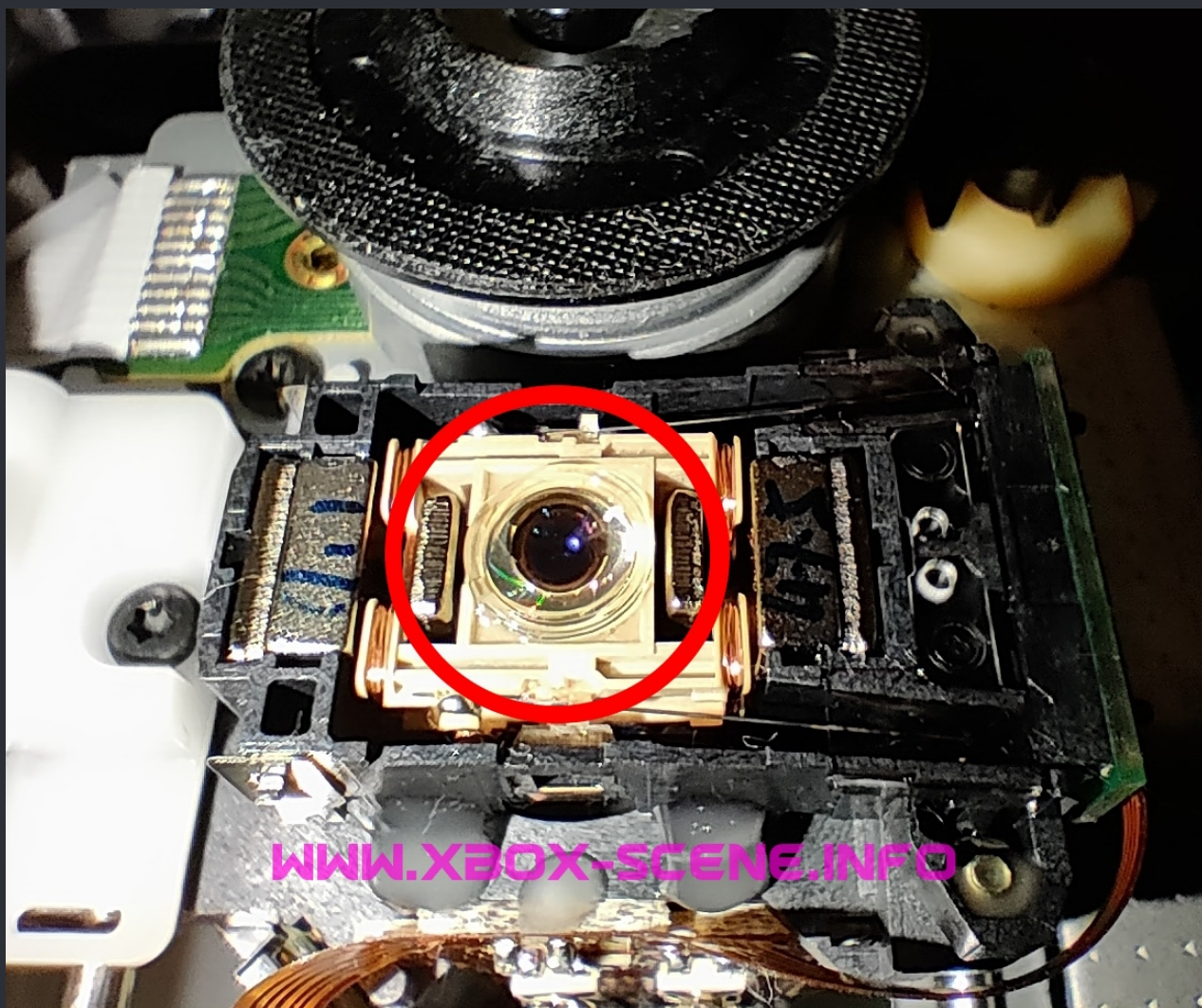




2024/10/05 10:14



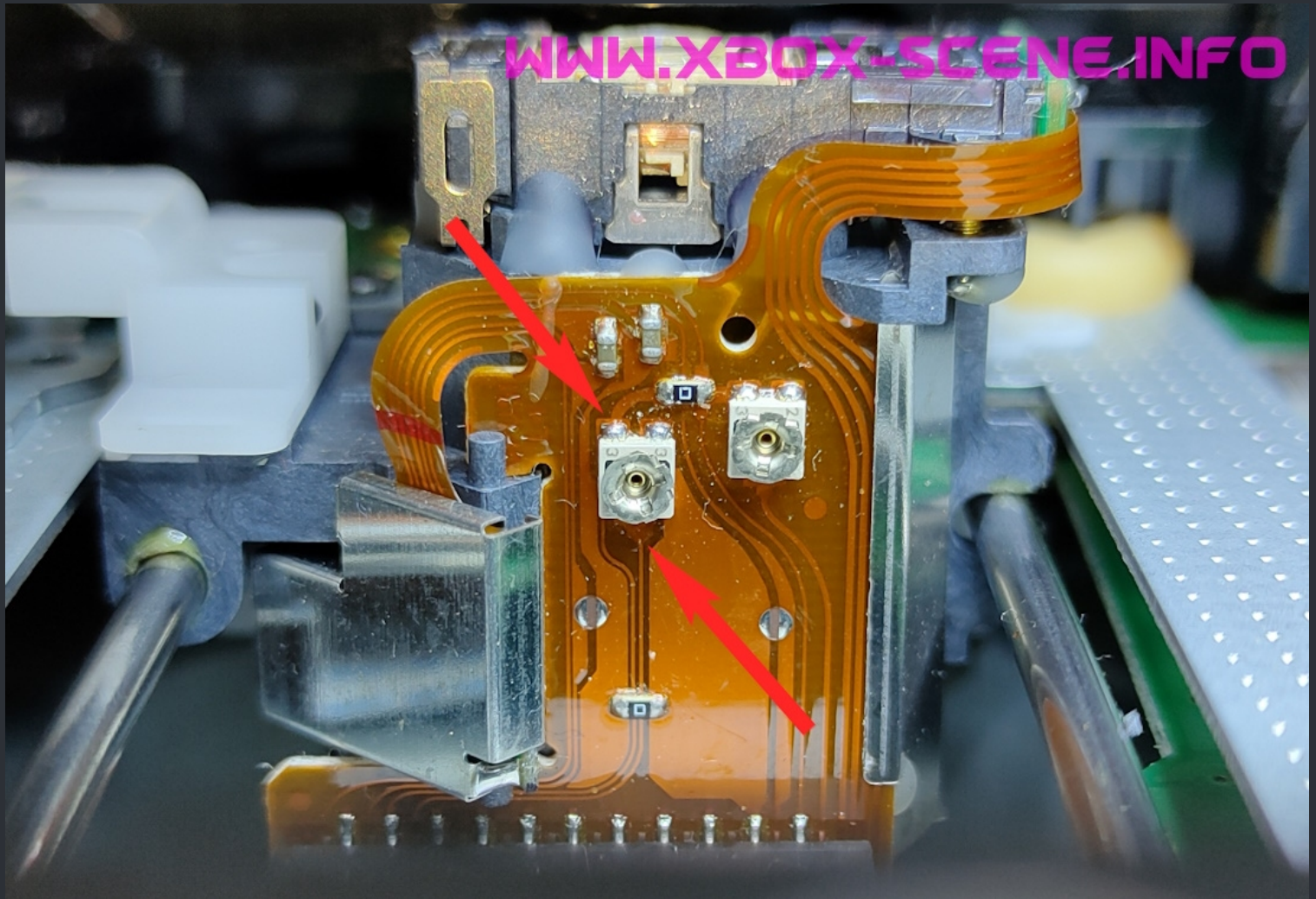
You should also clean the laser lens with some 99% Isopropyl alcohol (IPA)  
For that use a qtip with a little bit of IPA on it and clean the lens.  
After that grab another qtip and wipe gently over the lens again.  
Needless to say that you should not use any force doing this.



So if the recap and cleaning the laser lens didn't brought the drive back, you can try to tweak.



First of, start with measuring the resistance (Ohms) and write them down.



Next step is to get yourself a small screw driver and then turn the screw clockwise just a little bit and decrease the value ~100 ohm.

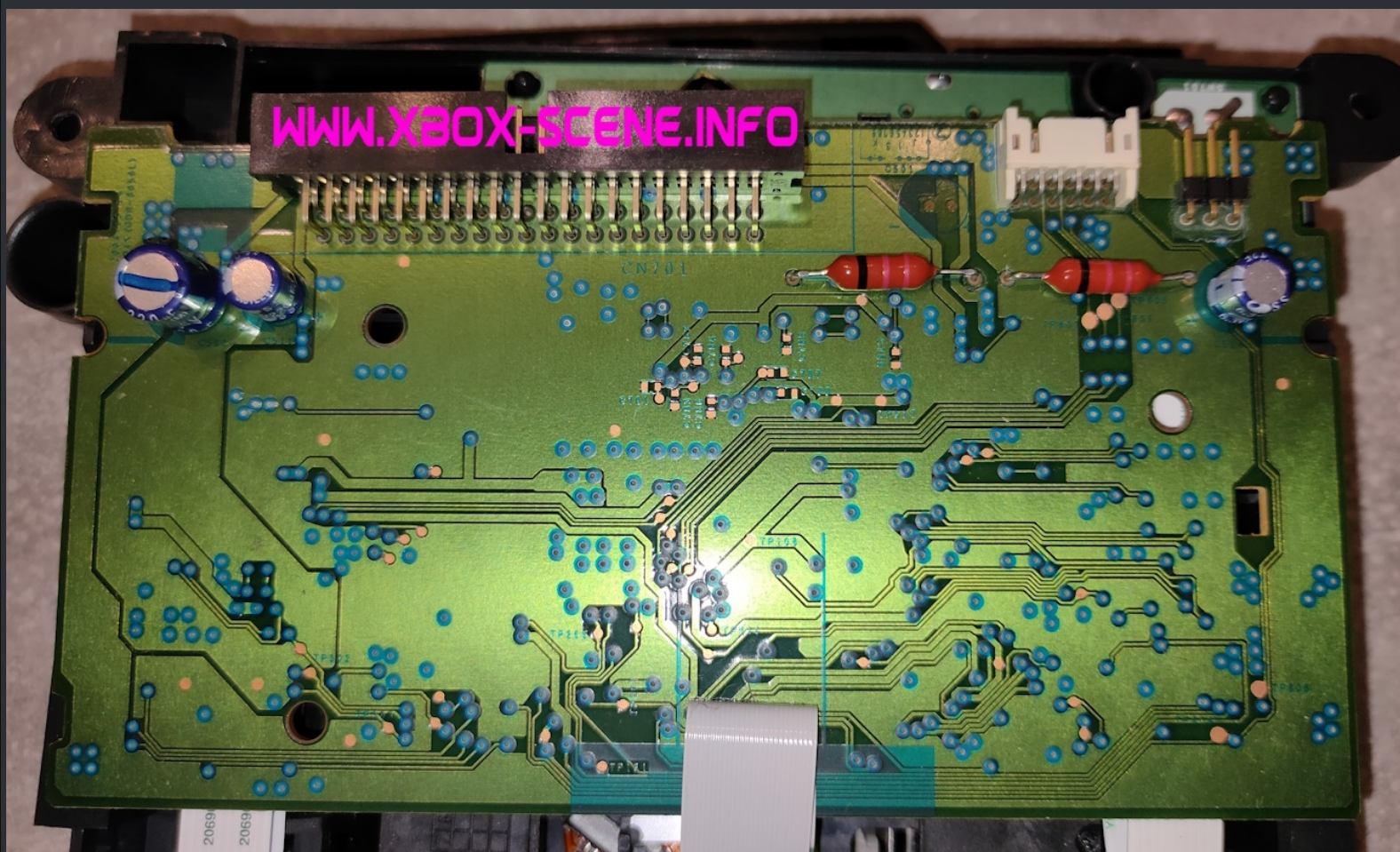
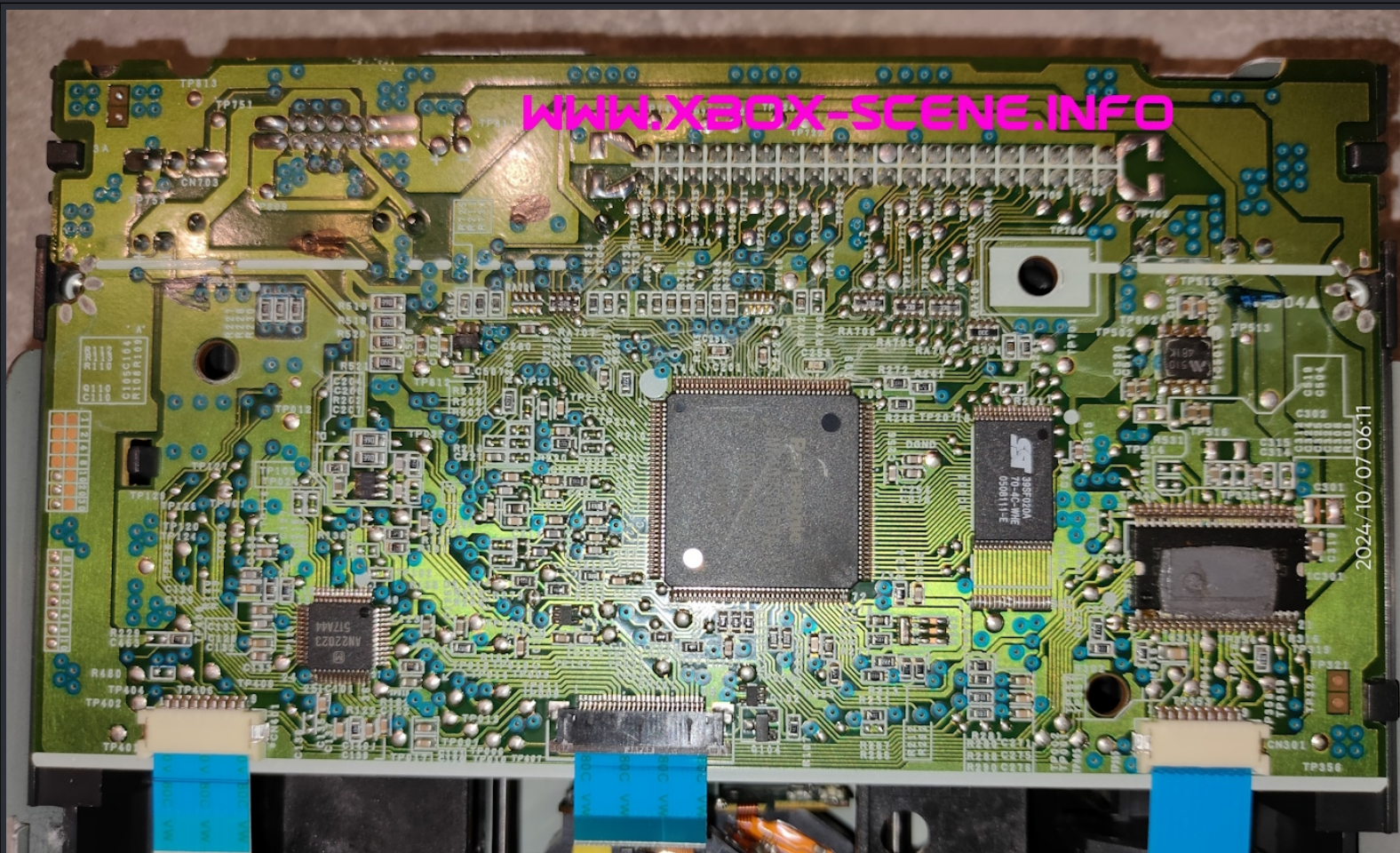
Then put the drive loosely back together to test if the drive read discs again.  
If the drive doesn't read yet, decrease the value further in 25 ohm steps.

The max „save“ limit for both of the Philips drives is ~500 ohm.  
If you have to go below that after a recap, toss the drive and get a new one.



Drive Belt Size : 24mm (The ones for the Xbox 360 from Amazon work very well).

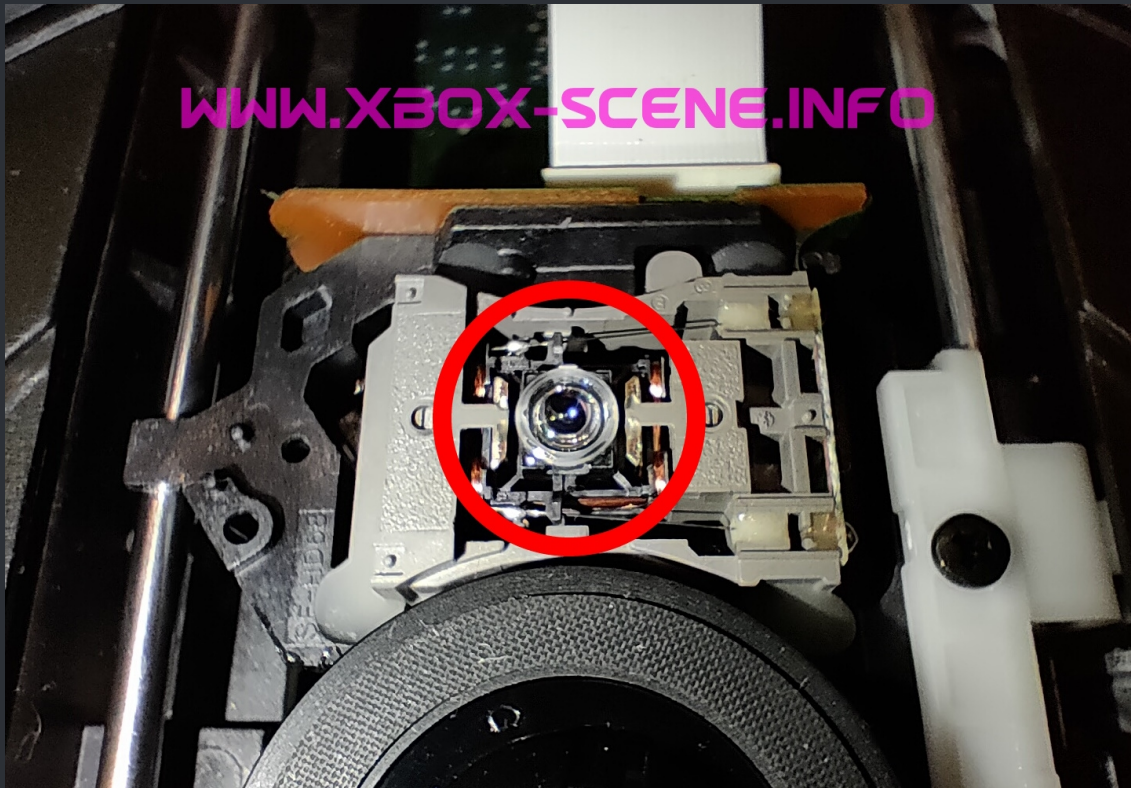






Take the drive out of your XBox and disassemble it.  
On the Hitachi it's enough to remove outer metal shell.

And BEFORE you start to tweak the pot, just clean the laser lens with some 99% IPA and check if that already fixed your issue (It sometimes does).



If that doesn't has worked out for you, it's time to tweak the pot.

First of, start with measuring the resistance (Ohms) and write them down.  
You should get something around 3.500 k Ohms and 3.900 k Ohms.



Next step is to get yourself a small screw driver and then turn the screw clockwise just a little bit and decrease the value ~100 ohms.

Then put the drive loosely back together to test if the drive read discs again.  
If the drive doesn't read yet, decrease the value further in 25 ohms steps.

Up to this time there is no „Save Limit“ reported how far down you can go.  
But one „rule“ should apply here as well and that is, the further down you get the noisier the drive will become.

So be careful tweaking the laser, check more often and listen how the drive sounds while tweaking.



First of, you need the firmware (FW) file and flasher.  
You can get both [here](#) or [here](#).



Drive Belt Size : 24mm (The ones for the XBox 360 from Amazon work very well).



## Flashing the drive

Lets start with you flashing the drive with the firmware from above using the included DOS (!) flasher.

For that you have to create a bootable DOS or FreeDOS usb boot stick on which you have to put also the firmware (8050L.dld) and the flasher (sf8163.exe).

### Usage of the flasher

SF8163 [drive:][directory]filename [drive\_No] [/f] [/c] [/p] [/o] [/i] [/l] [/s] [/m] [/r]

Filename	Name of the download file (8050L.dld).
[drive_No]	Drive location number you want to update firmware.
Drive location number is follows	0 = Primary Master 1 = Primary Slave 2 = Secondary Master 3 = Secondary Slave
If DRIVE_NO is omitted	The drive is detected automatically.
[/c]	Diable vendor ID check.
[/p]	Diable product ID check.
[/o]	Diable OEM code check.
[/i]	Interactive mode.
[/f]	Diable revision check.
[/l]	Create log file.
[/s]	For SLOT type drive.
[/m]	No messages (silent mode).
[/r]	Recover ucom from critical condition.(recovery mode).

For example, to flash an 8163B connected as the secondary slave with the 8050L FW from 8050L.dld

SF8163 8050L.dld 3 /f /c /p /o

One or more of the "disable xxx" switches may not be needed, depending on the FW already installed on the drive. If you get a message saying there is no CD/DVD drive, try the /r switch, but make sure you have specified the correct drive first and maybe use the /i switch so you get one last chance to confirm it.

It's recommended to connect the drive as Primary Master as single drive IF possible.

===> What you need beside your drive <===

4 1k Ohm Resistor 1/4 Watt, I advise 1206 SMD resistors. 3 of them are non-essential, but are good for current protection and 1 is essential for the CD Support.

Soldering Iron, solder and general supplies like wire and some hobby skills.

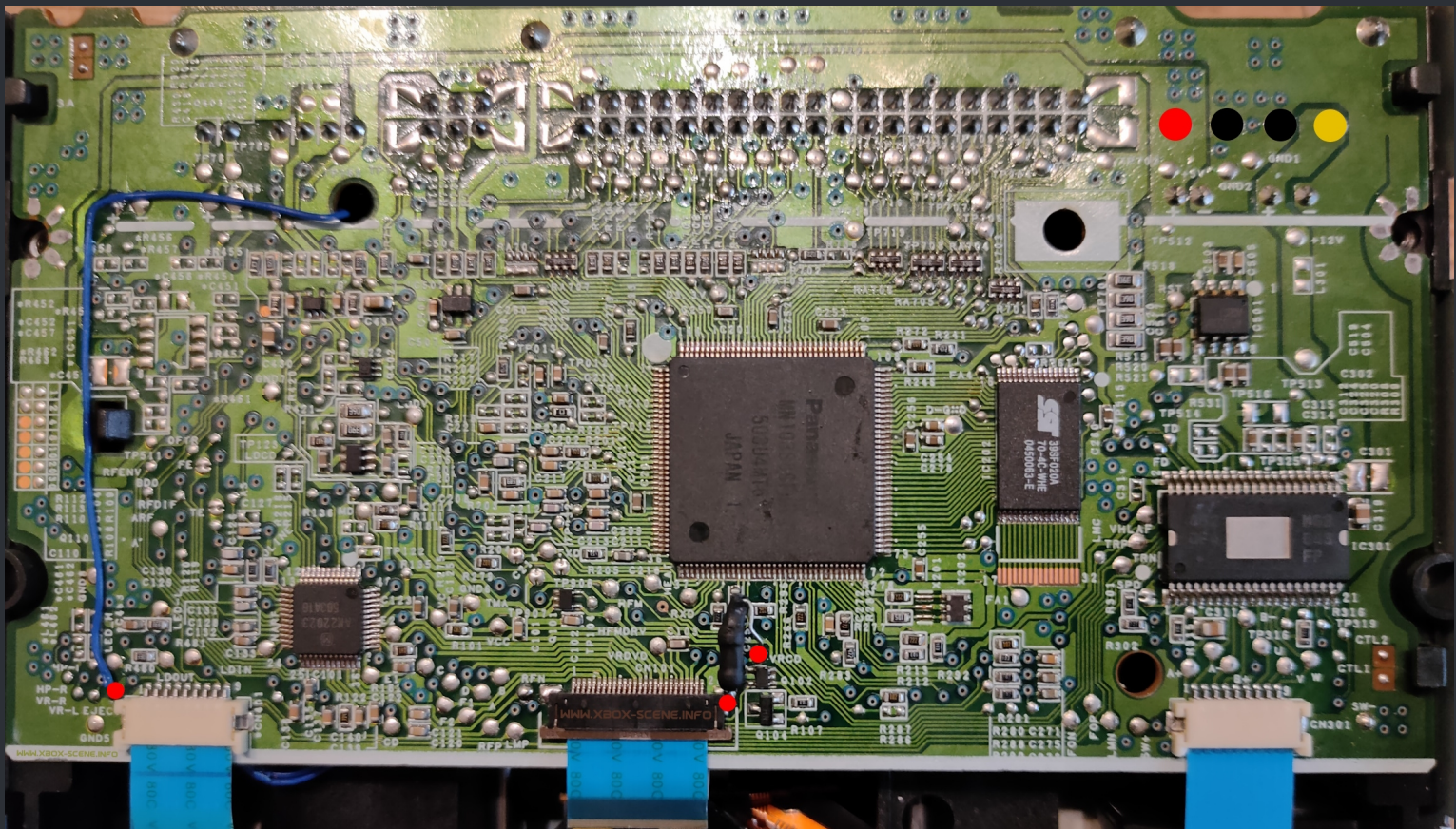
Metal saw and/or a pincer (wire cutter).

Hotglue or super glue.

Now it's time to open your drive and take out the main PCB.

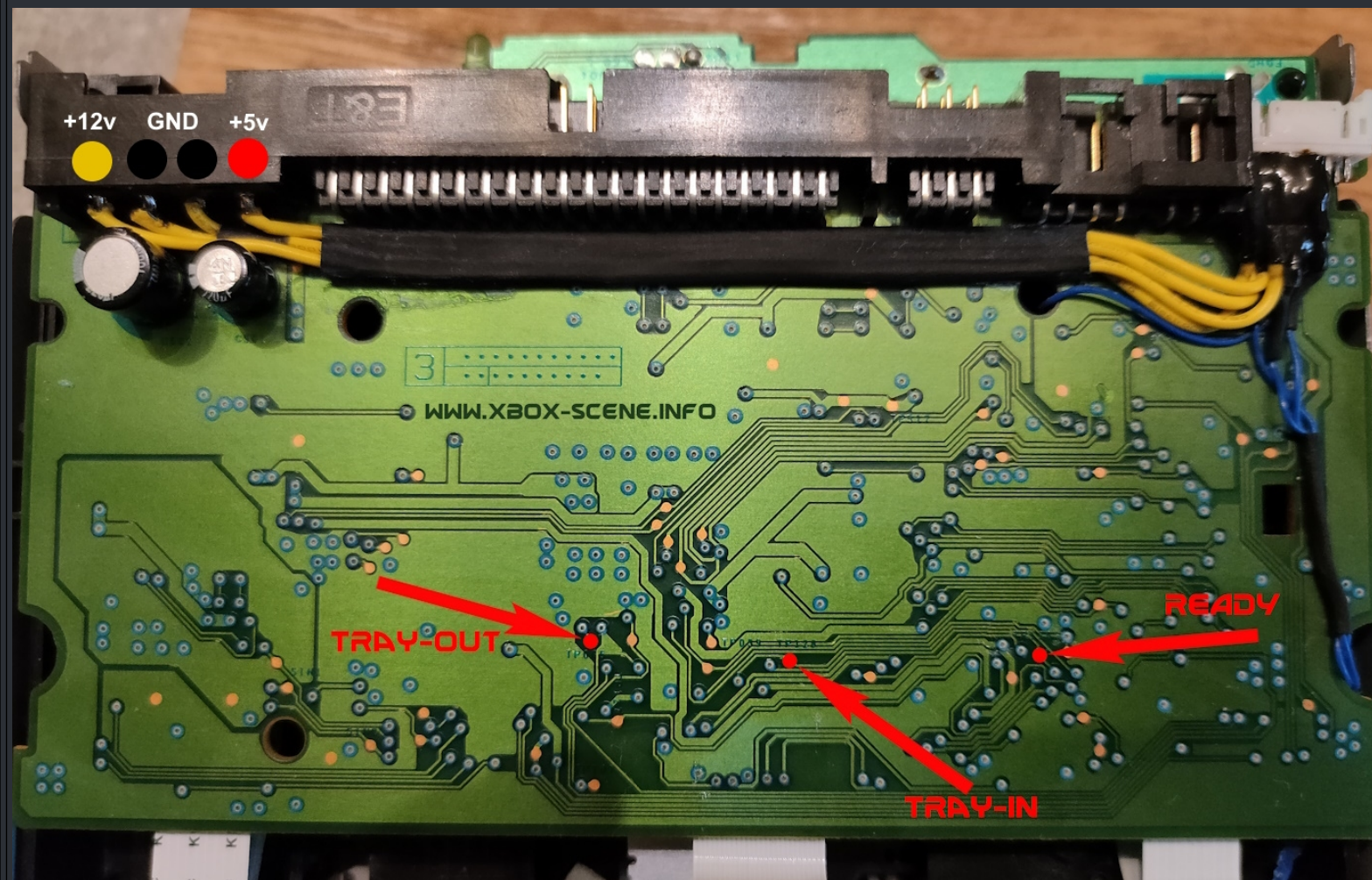
So you will be greeted by this (With the exception of all the mods ofc).

Just push the little plastic click on the left side gently and lift up the PCB.





You then see this (Again, without the already installed mods).



Now you place a resistor on each points, these are used because the original drive uses them.  
I don't think that the drive will get damaged without them but they don't hurt though.  
After that you connect the resistors to the right points.

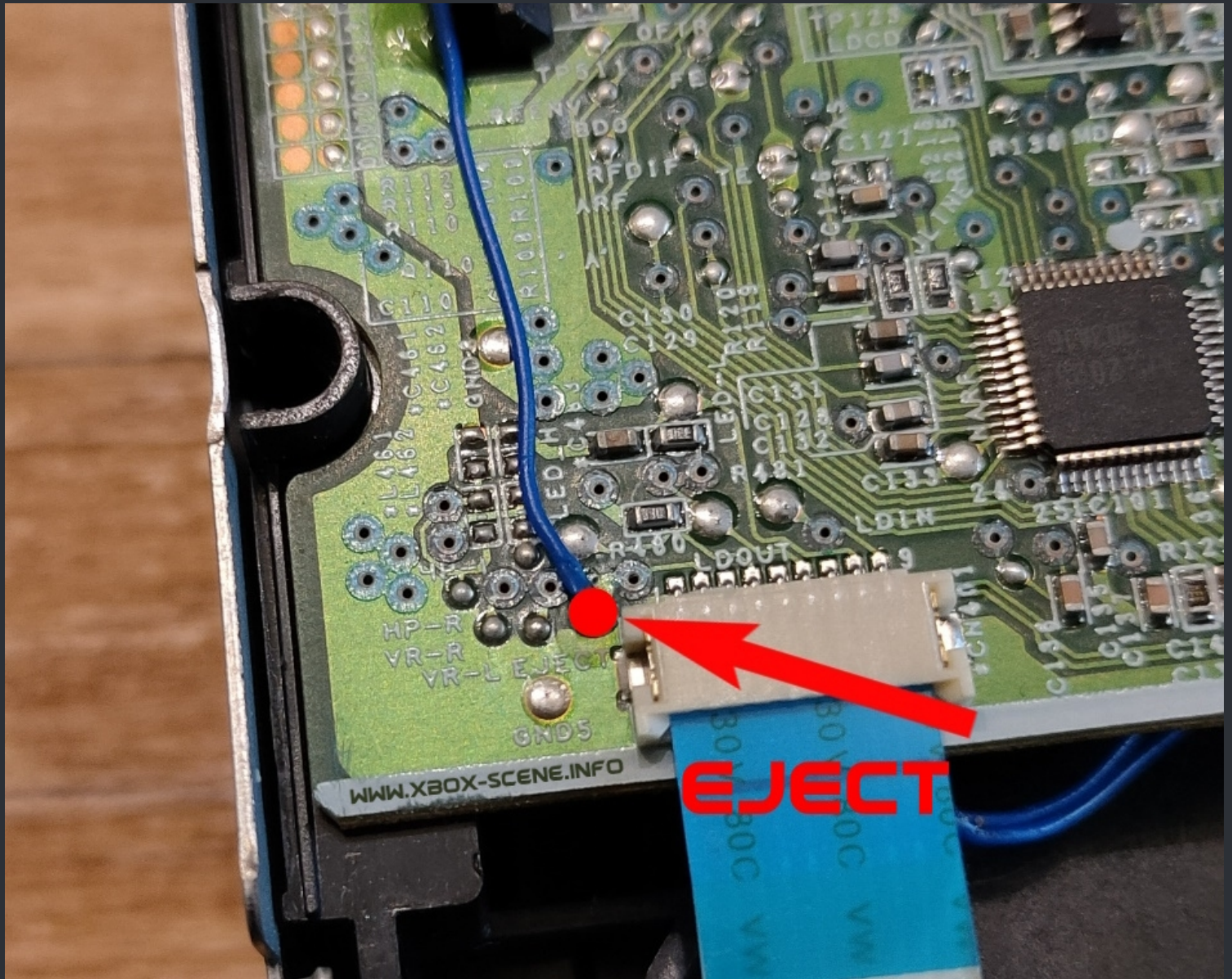
Function	Cable / Pin	Resistor
Ready	10	1k $\Omega$ r
Tray-In	4	1k $\Omega$ r
Tray-Out	3	1k $\Omega$ r

And as you can see in the upper left, the power wiring.  
It's up to you to do the same or to use an Molex Y-Splitter which then connects to the HDD power plug.

When you have soldered your resistors and cables, mark them so you know which cable is which  
and flip over the PCB for the next step.



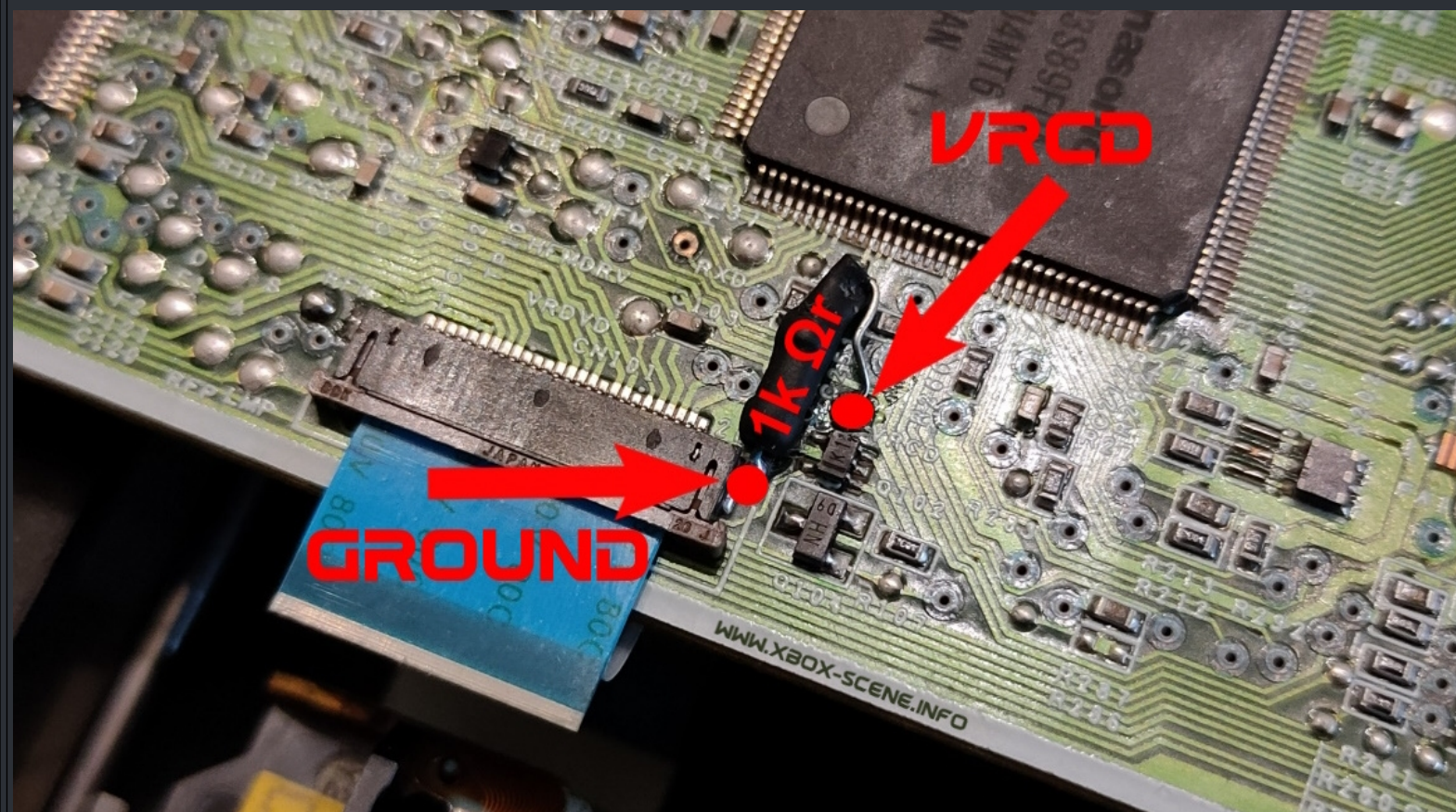
Now solder a wire to the EJECT spot which you see in the image below.



When thats done, move on to the next step.



Now grab your last 1k ohm resistor and solder him as shown in the image below.



Please take note that only the right side of the connector is a ground spot.  
The left side is just a N/C anchor point.

So thats basicly it. But take a lolok at the next page....

Last but not least, you have to wire up the cables you have soldered to yellow DVD cable. To do so, take a look and the images and table below to know which wire goes to which point on the Xbox Mainboard and cable you need this sheet.

This is the plug which goes into the original Xbox drive.



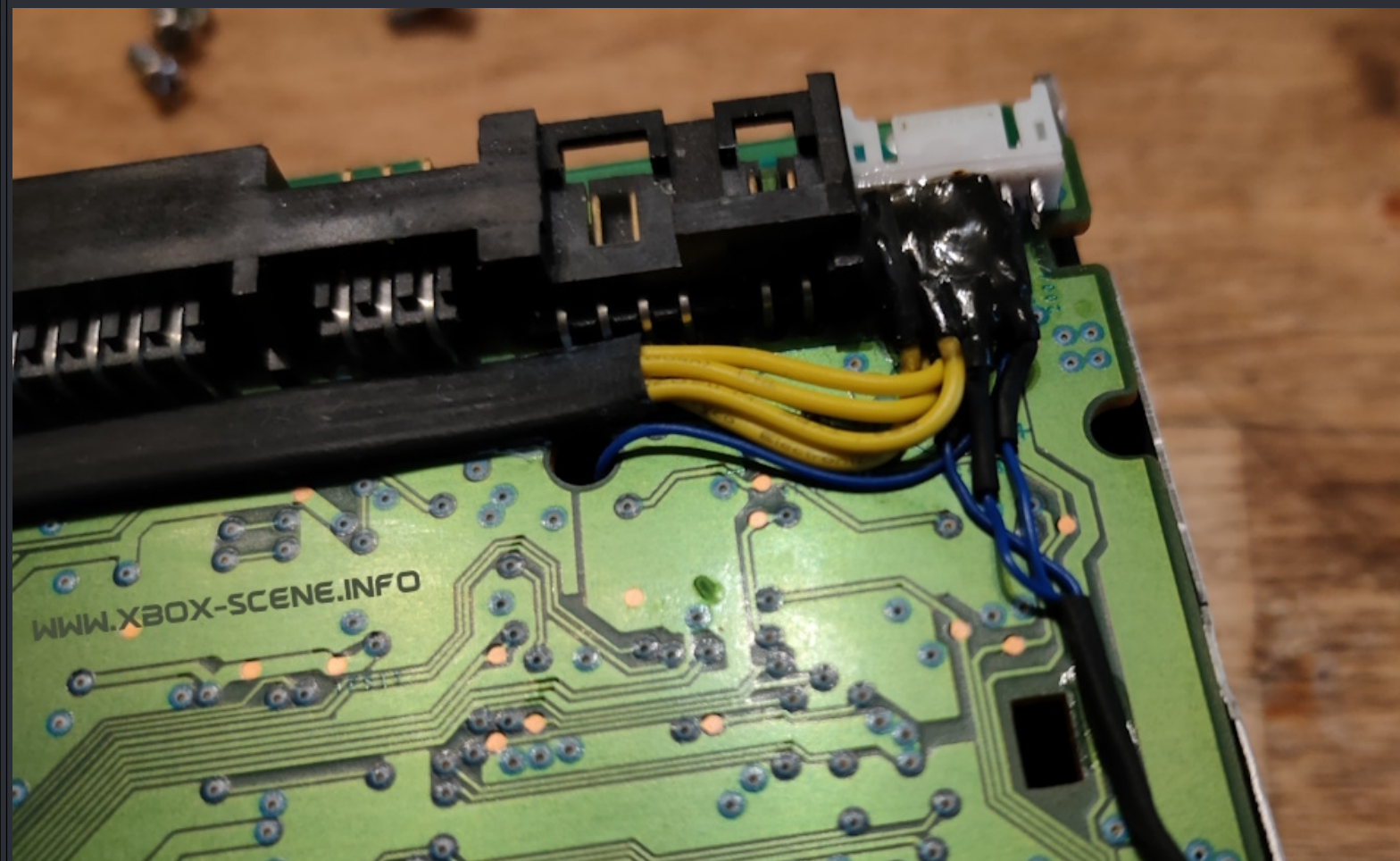
1	Ground	7	Ground
2	+12 V	8	+5 V
3	Tray In (goes to tray out solder pad)	9	Ser. Data - NOT USED
4	Tray Out (goes to tray in solder pad)	10	Ready (goes to M1 solder pad)
5	Ground	11	Eject
6	+12 V	12	+5 V

This is a back view of the connector of the original Xbox drive.



If you’re going to use a Y-Splitter, you can ignore the +5v, +12v and Ground wiring!





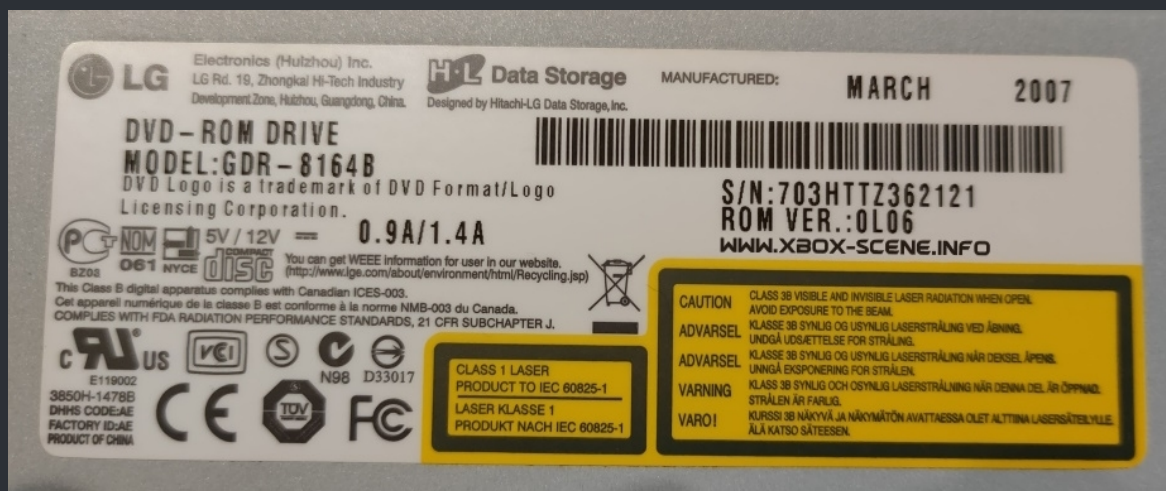
Here you see what I have done.  
I have used a spare controller connector to which I soldered the cabels to.  
Then I used some UV epoxy to secure them in place.

But you can also simply wire up your cables to the yellow DVD drive cable and use some heat shrink.

First of, you need the flasher which comes with firmware (FW) file in it.  
You can get the file [here](#) or [here](#).

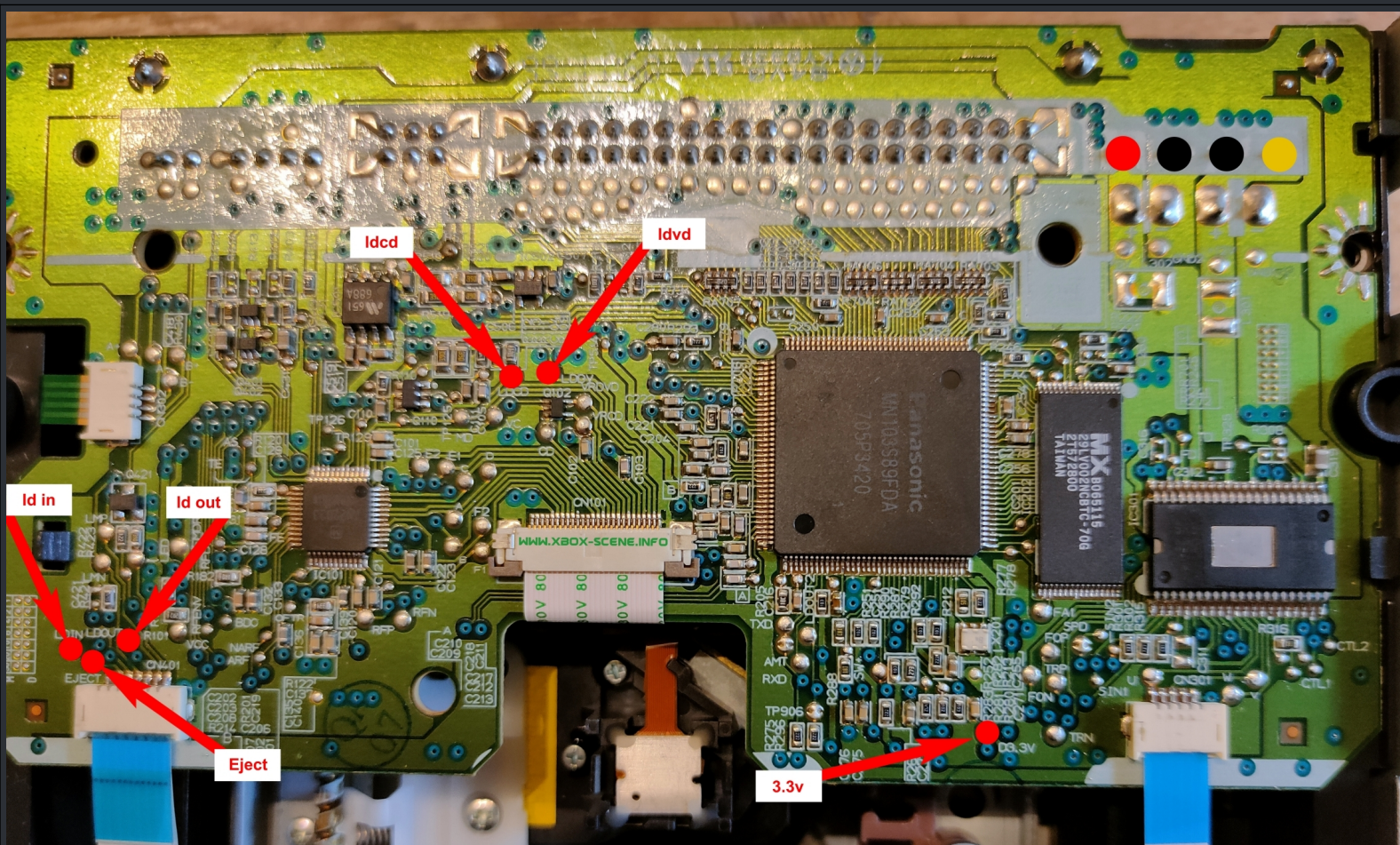
### Flashing the drive

Connect the LG-GDR-8164b to your PC.  
Extract the „XBox LG GDR-8164b DVD flasher.7z“ file and run the „xbox8164flasher.EXE“.  
Choose the appropriate drive.  
Click flashup and your done!



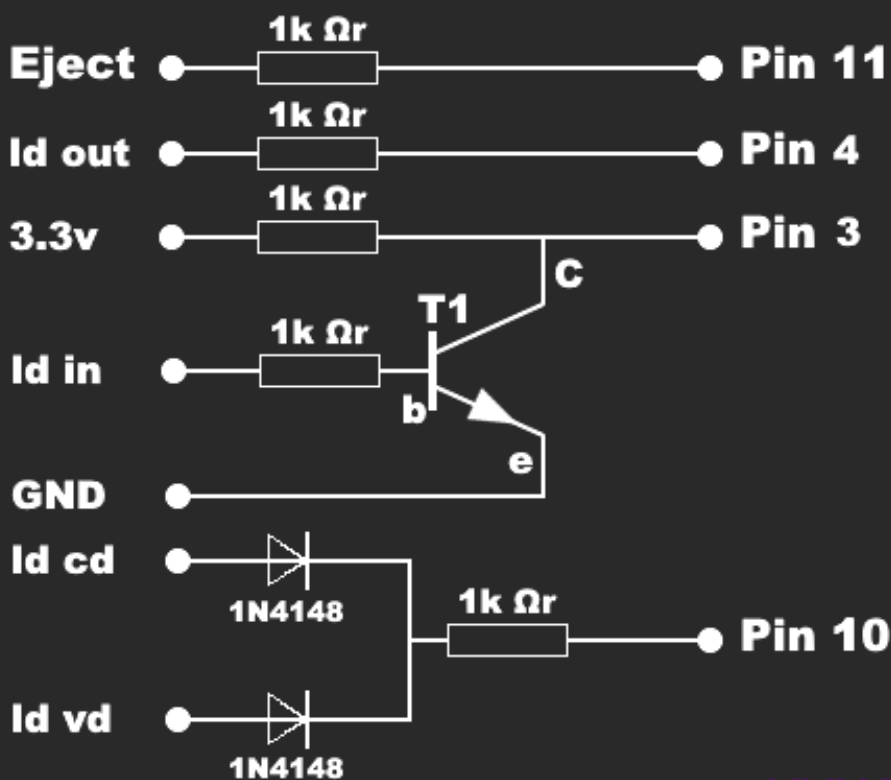
Drive Belt Size : 24mm (The ones for the XBox 360 from Amazon work very well).





## PCB side

## Plug side

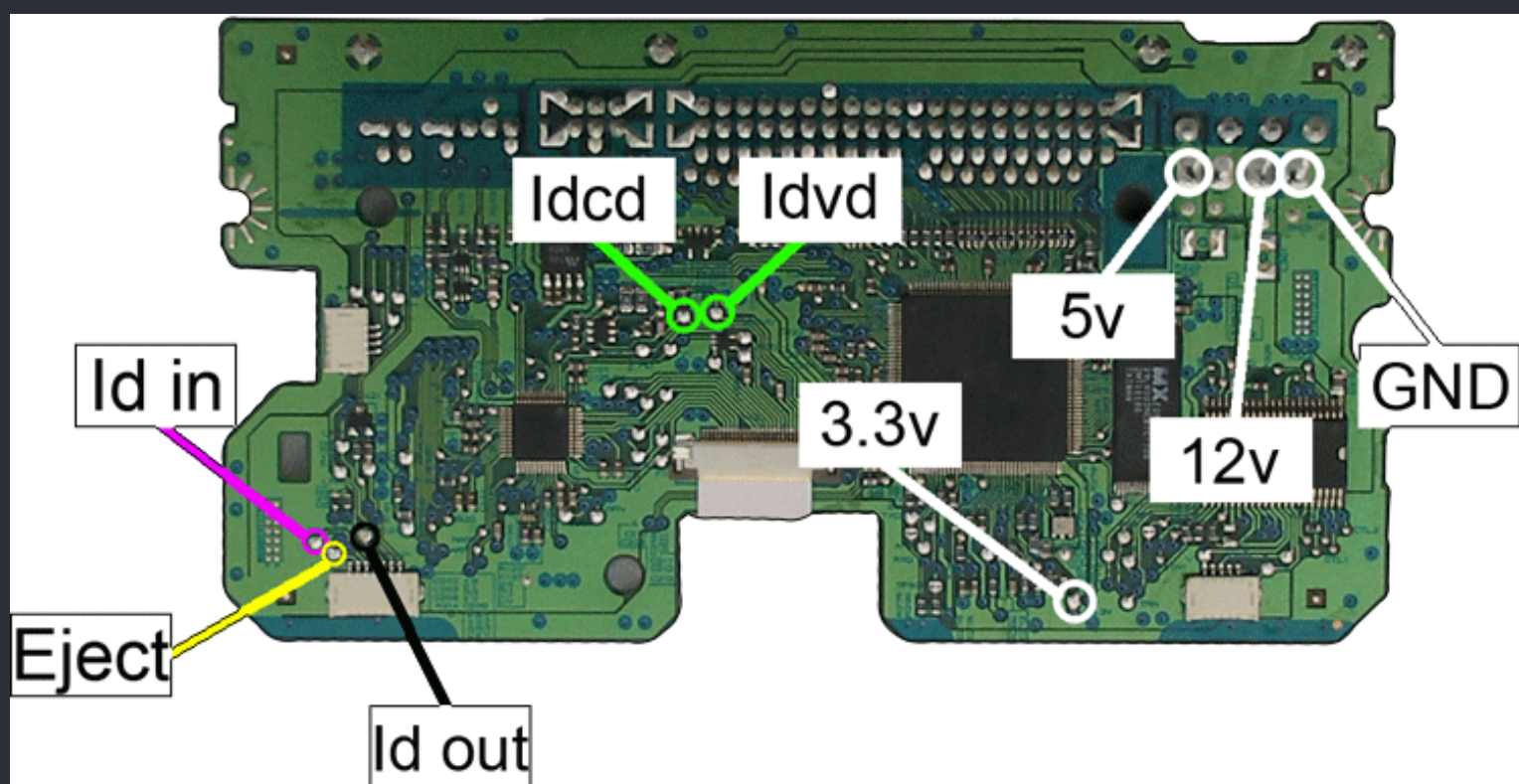
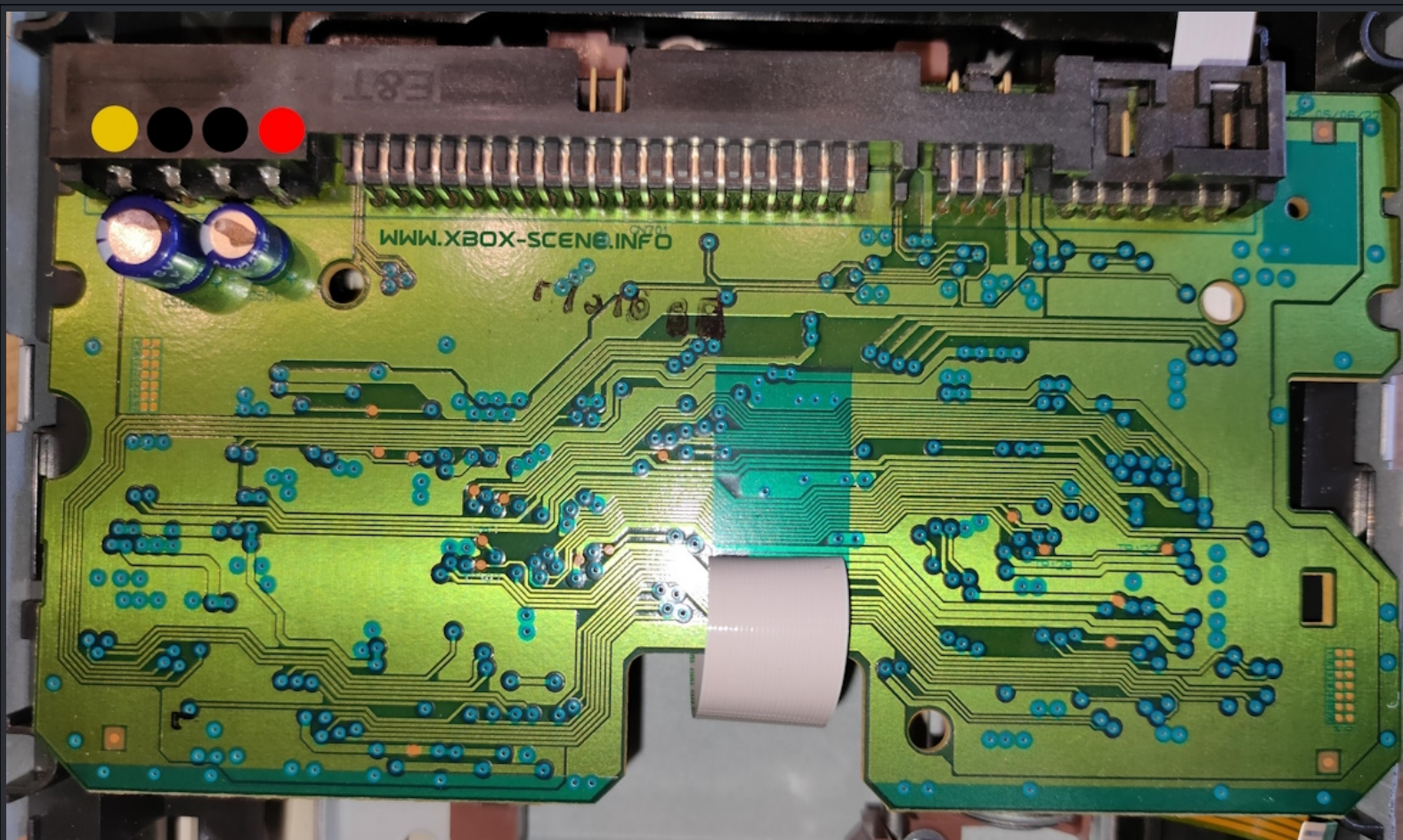


**T1**  
**BCS47**



[WWW.XBOX-SCENE.INFO](http://WWW.XBOX-SCENE.INFO)





To know which wire goes to which point on the Xbox Mainboard and cable you need this sheet.

This is the plug which goes into the original XBox drive.



1	Ground	7	Ground
2	+12 V	8	+5 V
3	Tray In (goes to tray out solder pad)	9	Ser. Data - NOT USED
4	Tray Out (goes to tray in solder pad)	10	Ready (goes to M1 solder pad)
5	Ground	11	Eject
6	+12 V	12	+5 V

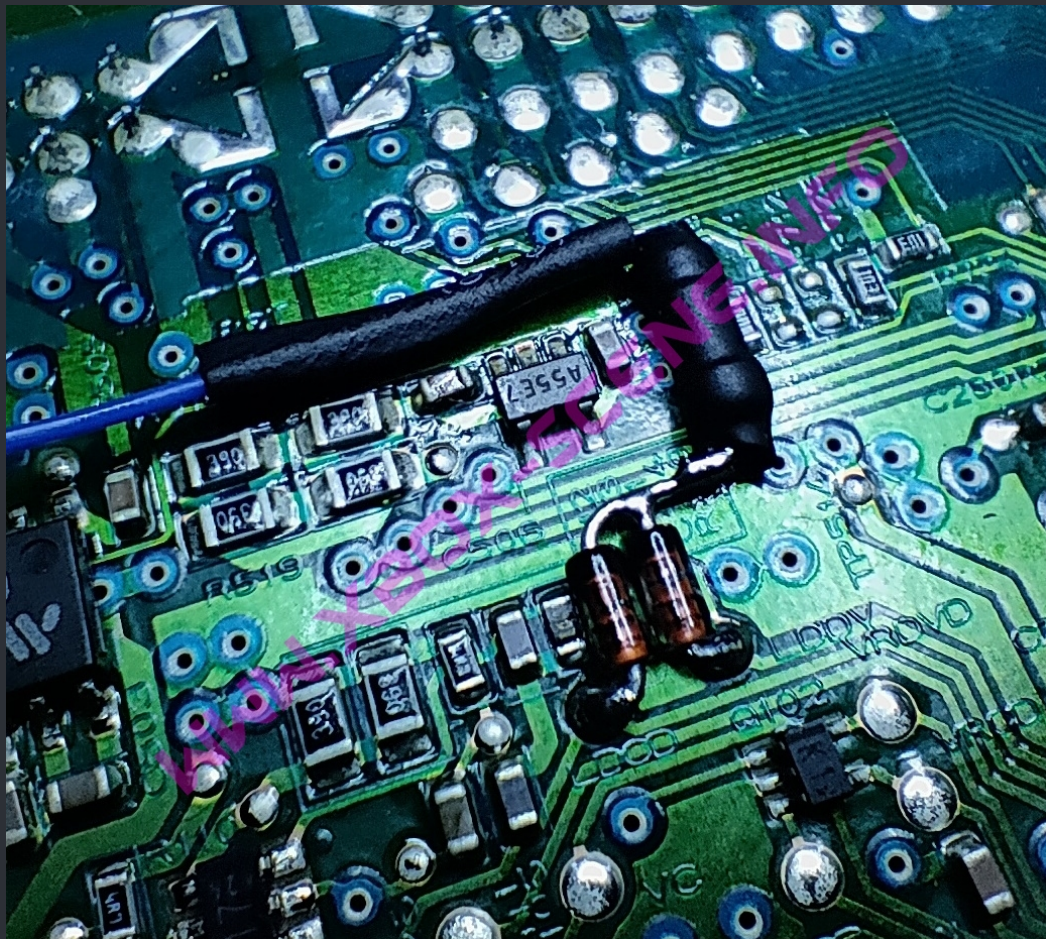
This is a back view of the connector of the original XBox drive.



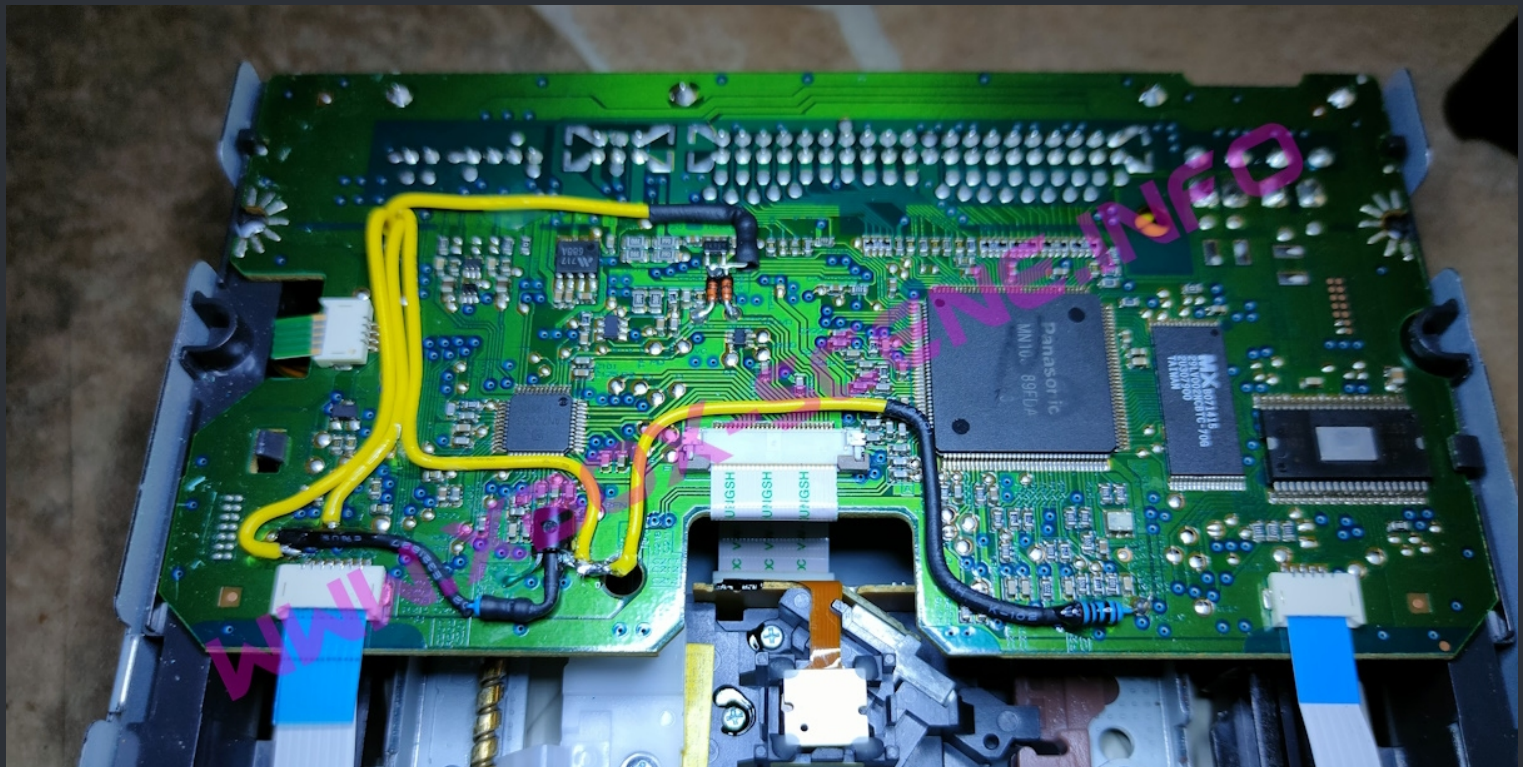
If you're going to use a Y-Splitter, you can ignore the +5v, +12v and Ground wiring!



Here are a couple of images from one of the drives I made to give you an idea.



The 2 diodes with the resistor in place.



Full overview.





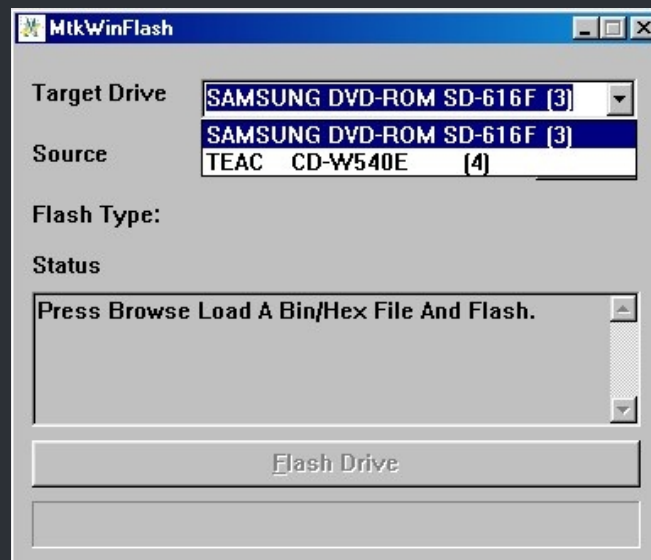
For the connectore I used an spare controller port from an old board.

Since we don't have a Samsung SD-616F / SD-616T on hand to make images let's use the magic of the iNet. Credits will be given at the end.

First of, you need the firmware file and MtkWinFlash.  
You can get both [here](#) or [here](#).

### Step 1

Alright, let's start with you flashing your drive with the firmware from above using MtkWinFlash.



Select the SD-616F / SD-616T drive and the firmware file SDG605FW.BIN.  
( The MD5 of the .bin file is : **996dbd8972cd71df6009f0fb8523292f** )

And then click the flash button.

Confirm that you want to flash your drive and then wait till the flash is done.  
After that shut down your PC to disconnect the drive from your PC.

## Step 2

Now it's time to disassemble the drive. So remove the casing and also remove the drive tray. Then remove the drive belt and both of the tiny screws.



## Step 3

Flip the drive over so that you have the PCB side facing toward you.

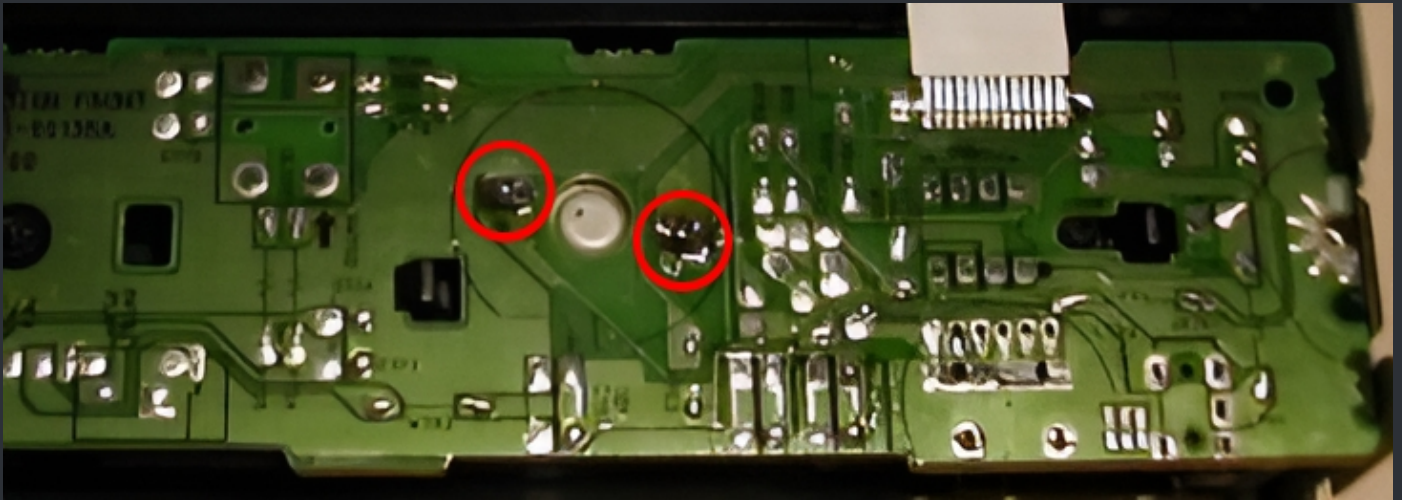


Unclip the smaller PCB by pushing the two marked clicks gently asside and lifting it up.



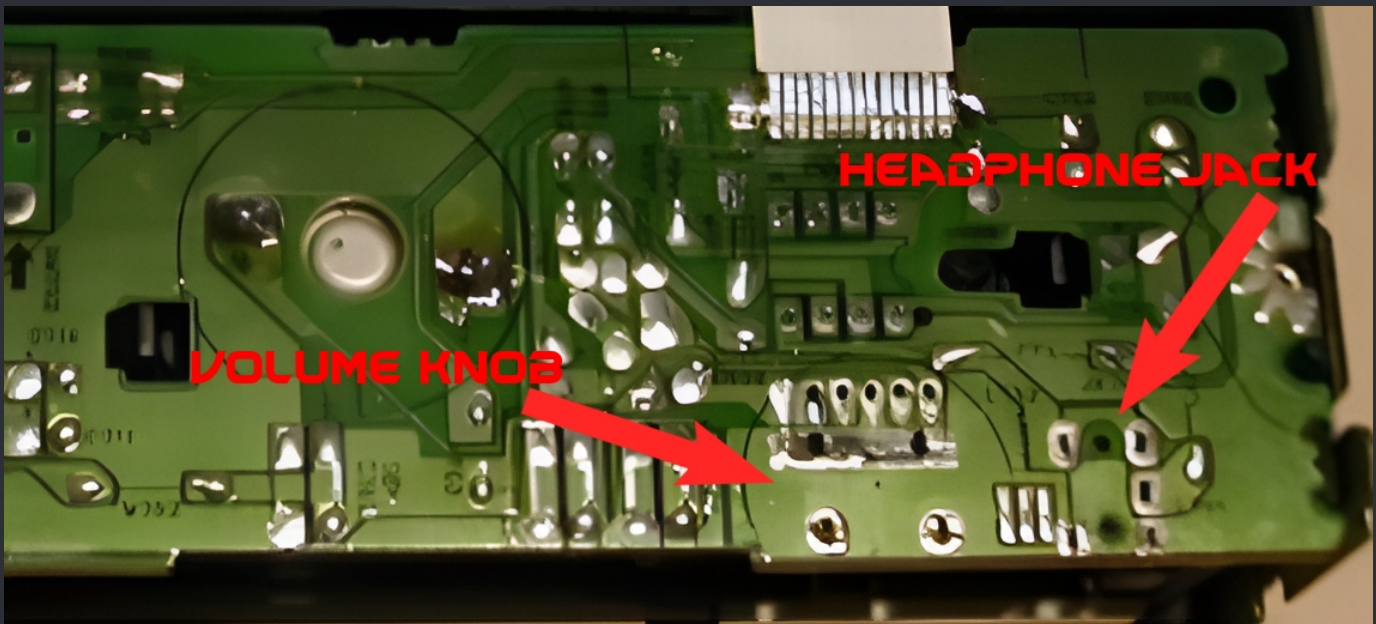
#### Step 4

Now you need to reverse the tray drive motor.  
Simply desolder the motor and turn it 180° around and solder it back in.



To make you the job easier, make a little mark on the motor so you don't forget which way it was in.

And while you're at it, also desolder the headphone jack and the volume knob.

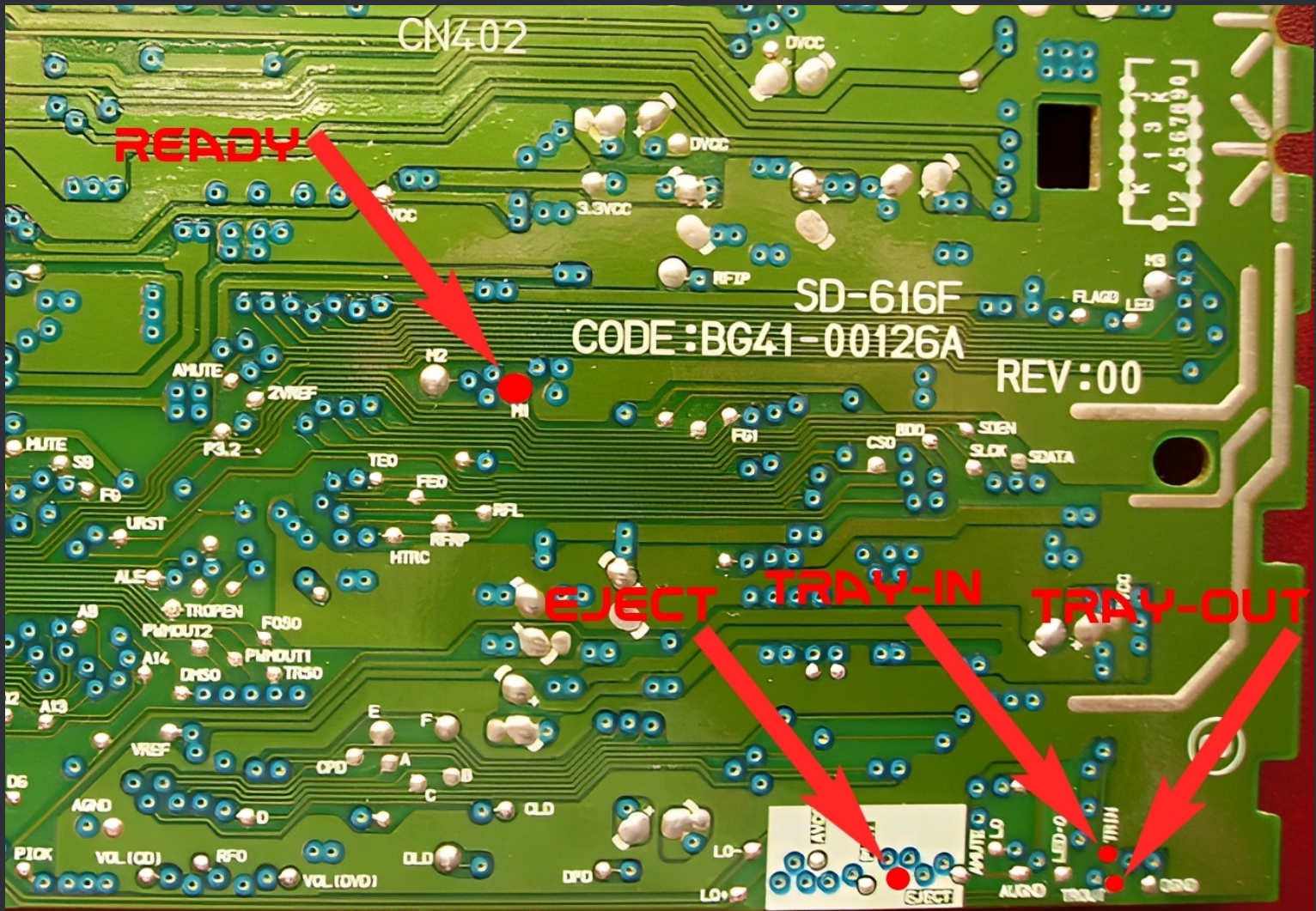


So far you're done with the small PCB and you can reassemble it. Also maybe a good idea to change the drive belt for a new one in case you have one on hand.



## Step 5

Time to move over to the main PCB. Solder a wire to each of the marked spots. These are your „Data wires“ and AWG30/AWG28 will do.

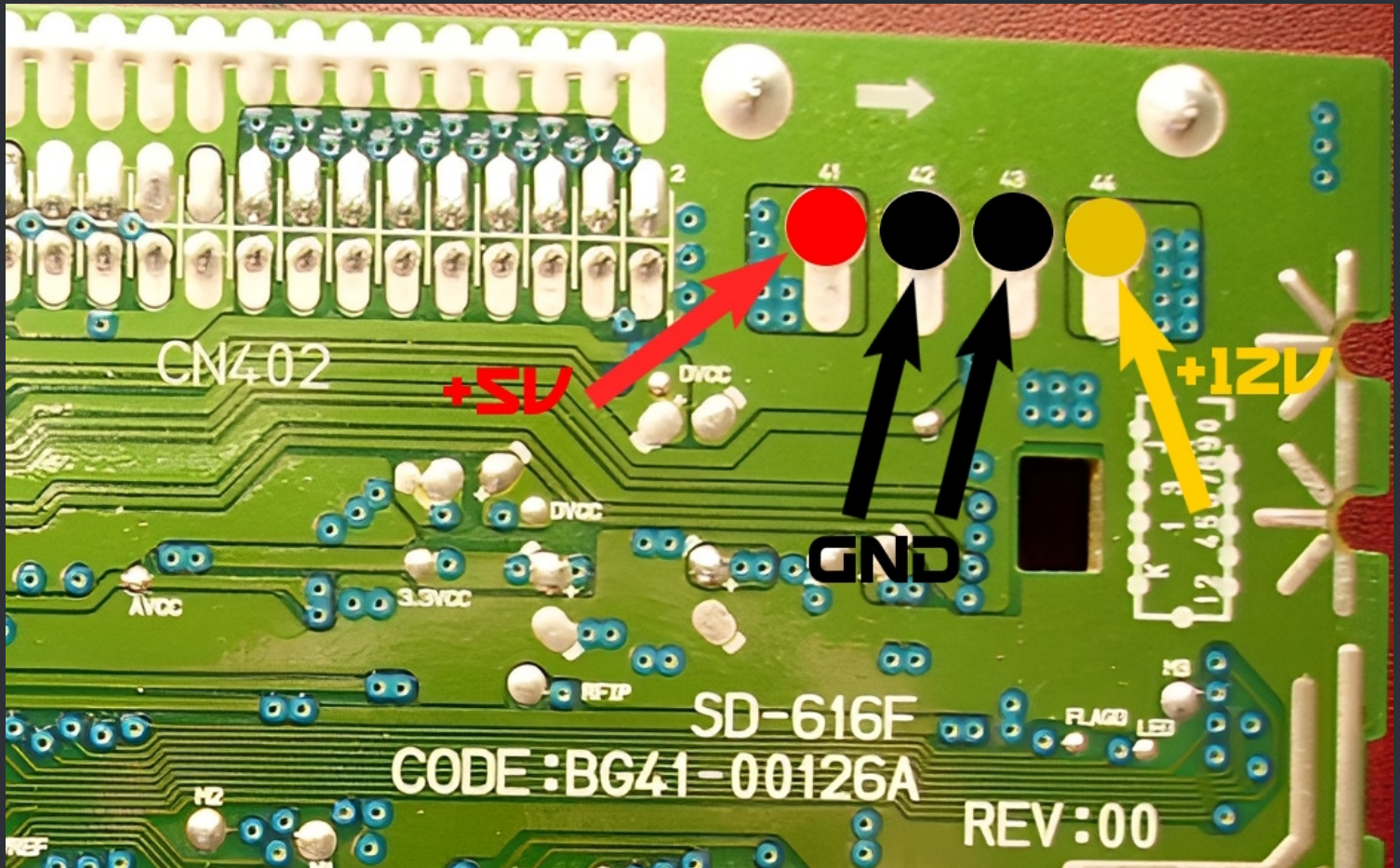


After you have soldered the wires, lead the wires out of the drive and mark each of the wires, so you know which cable is which. Then move on to step 6.



## Step 6

Now solder your power cables. Those should be at least AWG26.  
(You could also skip this and use a Molex splitter attached to the HDD power cable)



If you have decided to solder the power cables, lead them also to the outside and mark them carefully!



Step 7

Yet it's time to connect the wires you have soldered to the Xbox or better to the yellow DVD drive cable.

This is the plug the which goes into the original Xbox drive.



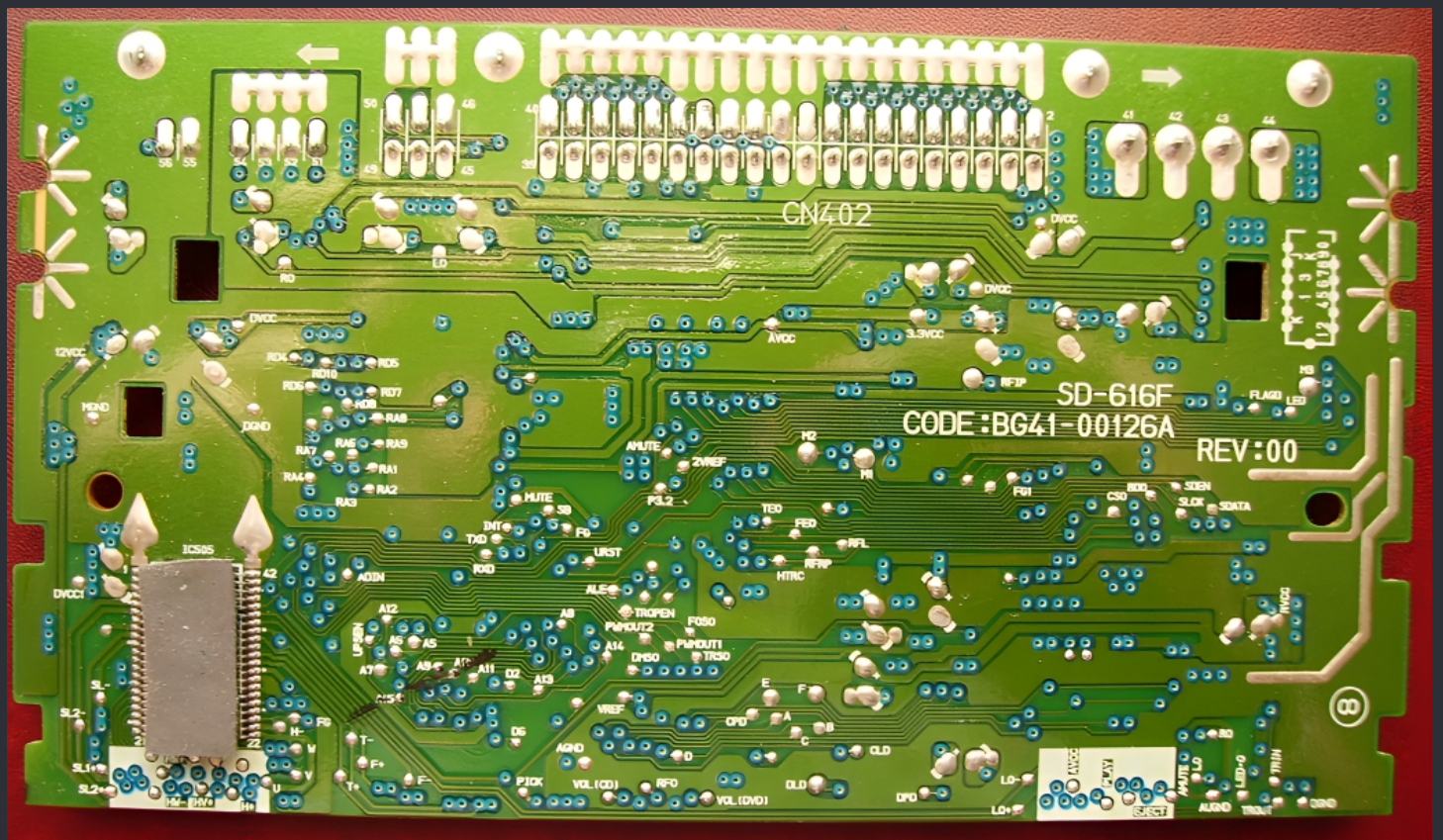
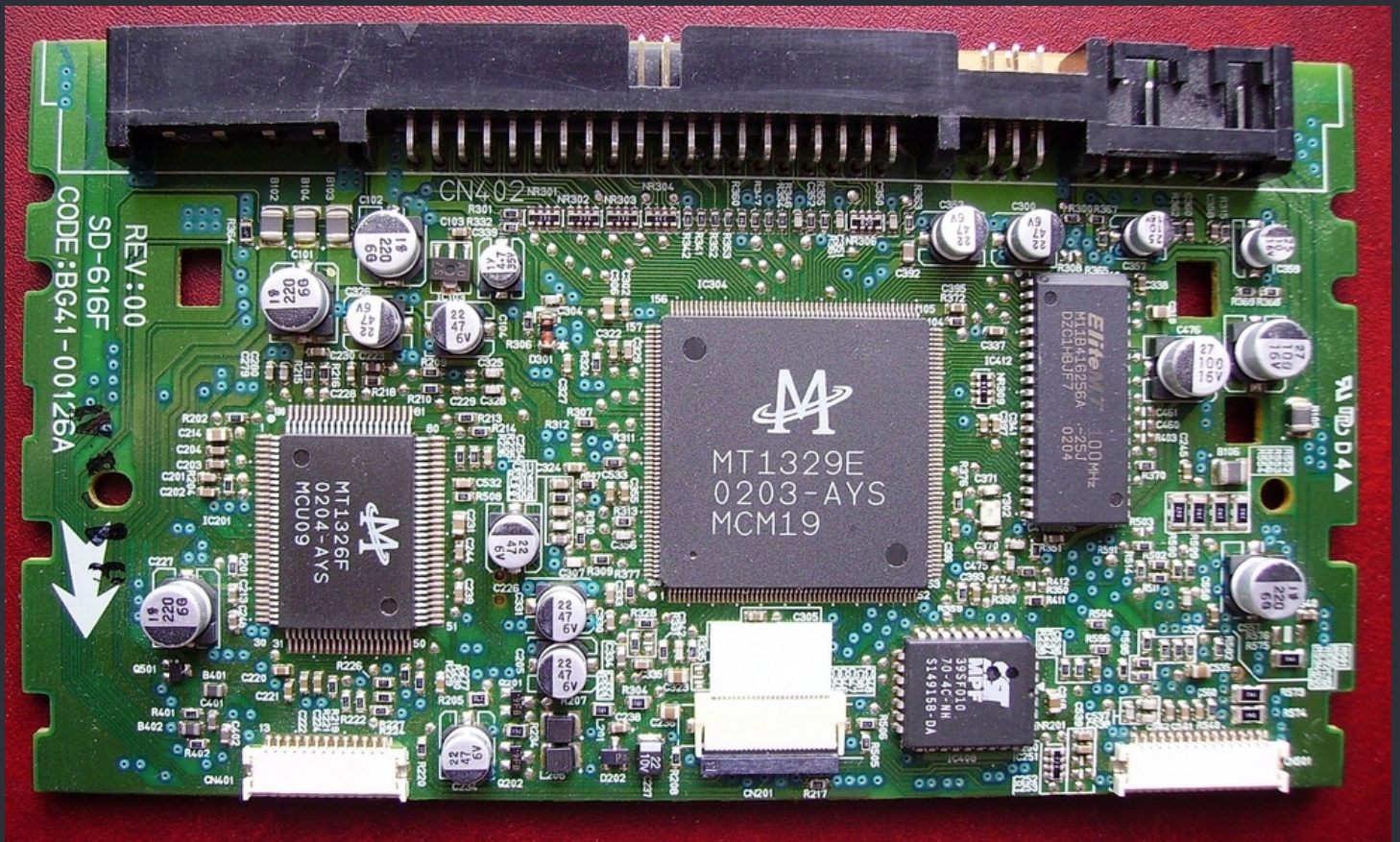
1	Ground	7	Ground
2	+12 V	8	+5 V
3	Tray In (goes to tray out solder pad)	9	Ser. Data - NOT USED
4	Tray Out (goes to tray in solder pad)	10	Ready (goes to M1 solder pad)
5	Ground	11	Eject
6	+12 V	12	+5 V

This is a back view ot the connector of the original Xbox drive.

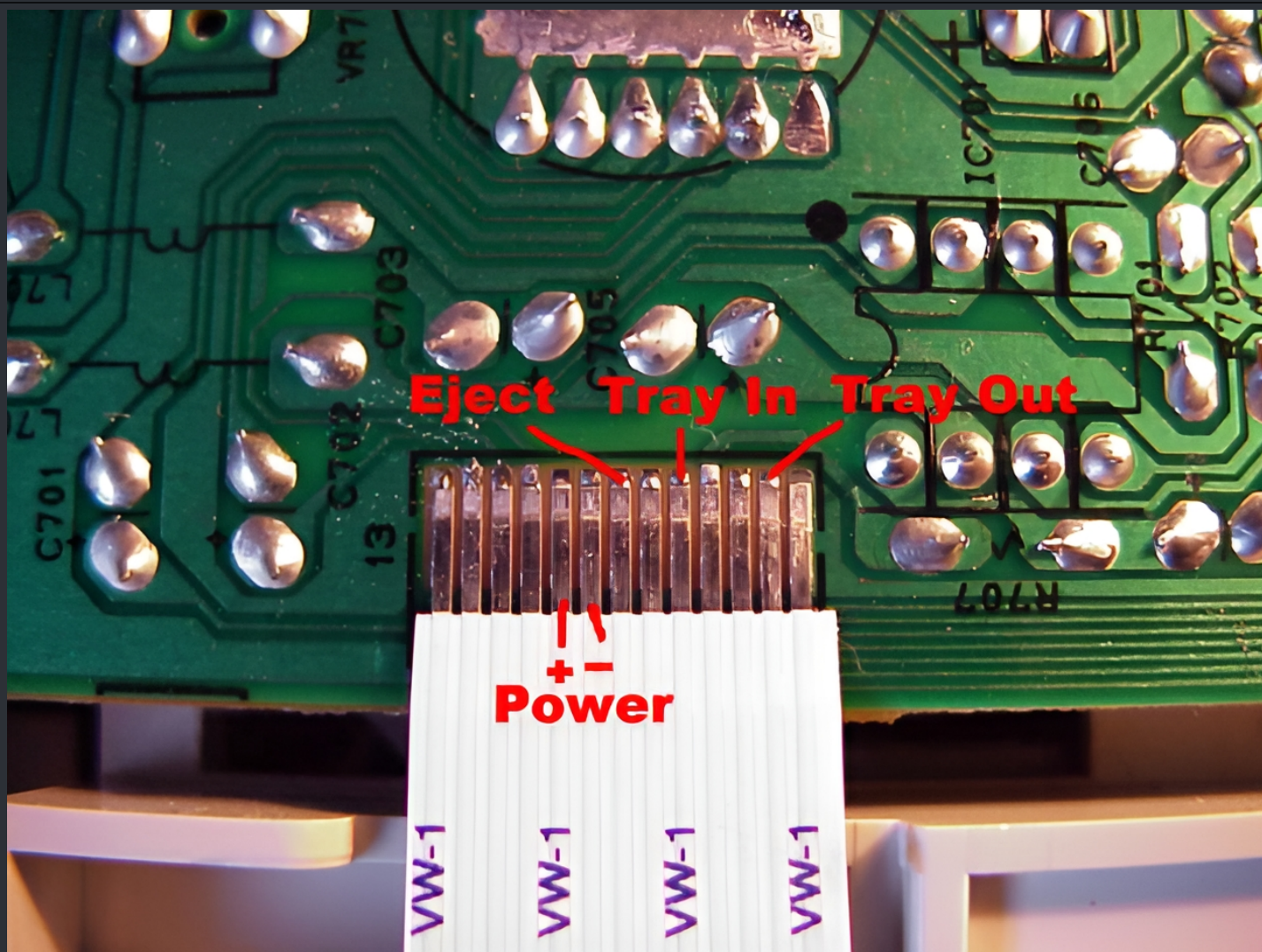




Bonus Images





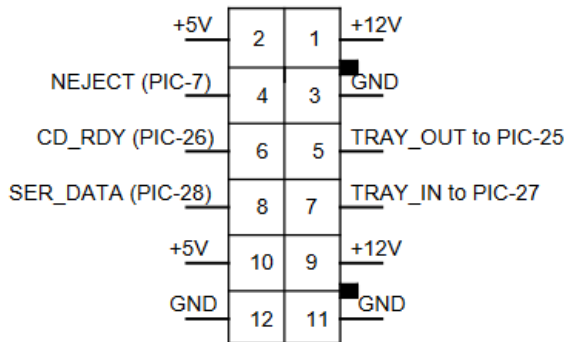


★ Credits fly out to Kash, A@ron, NIC, Tiros, eBoy2003 & the|Gamer. ★



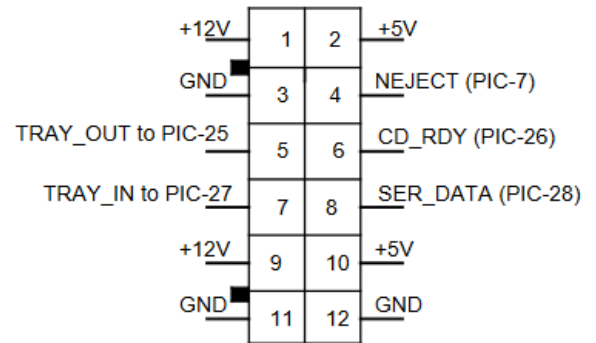


DVD Power (at MB)

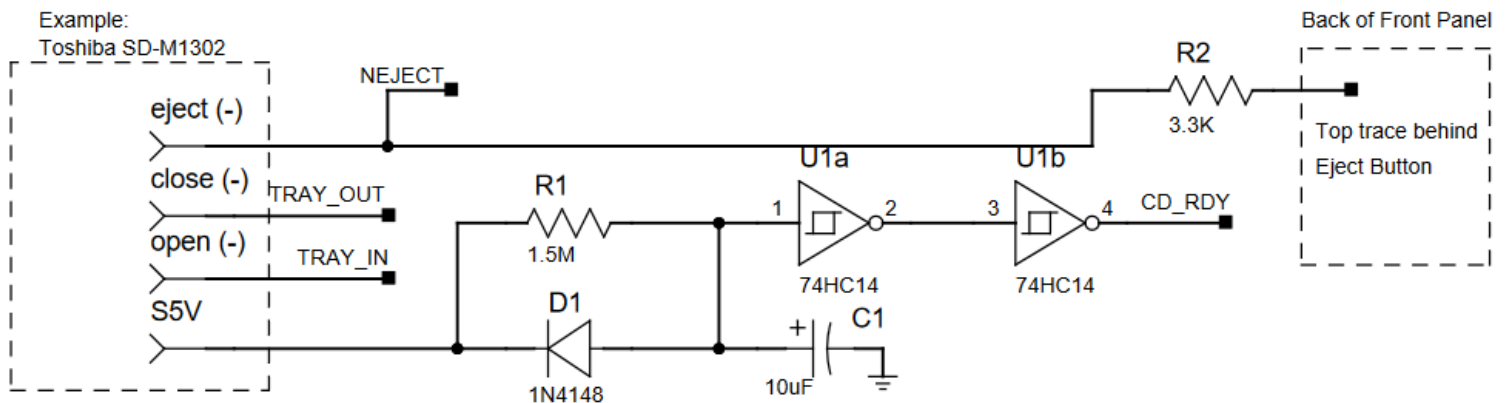


Looking down on motherboard

DVD Power (end of cable)



Looking at end of cable



## Xbox Cable Diagram for Connecting a PC-DVD

TITLE

FILE:

PAGE

1

OF

1

REVISION:

7/2/2002

DRAWN BY:

Xbox Linux Team

There isn't much more known about this drive.

If you have modded a Thoshiba and like to provide a tutorial for it here, contact the [www.xbox-scene.info](http://www.xbox-scene.info) staff.

★ Schematics by XBox Linux Team ★

# <=== XBox DVD Recapping Capacitor Lists ===>

## ===> Philips VAD6011/21 Capasitors <===



Ele THT: 100uf 25v

Qty	Hight (mm)	Width (mm)	Spacing (mm)	Replacments – Shop Link	Position
4	7.4	6.5	2.5	ECE-A1EKS101 – <a href="#">Digikey</a> / <a href="#">Mouser</a>	EC1, EC60, EC64, EC

Ele THT: 33uf 25v

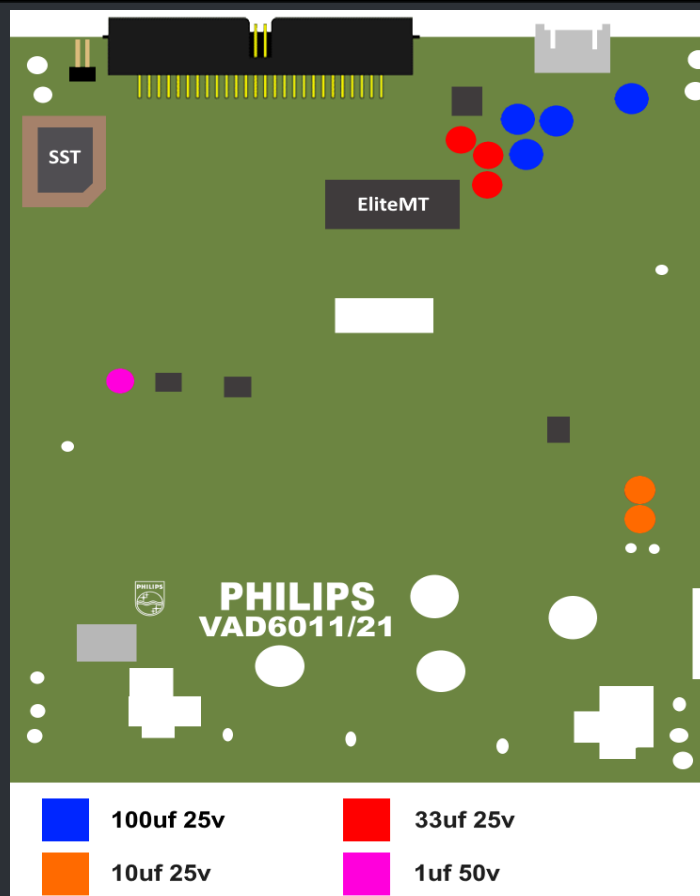
Qty	Hight (mm)	Width (mm)	Spacing (mm)	Replacments– Shop Link	Position
2	5.75	5.1	n/a	ECE-A1EKS330 – <a href="#">Digikey</a> / <a href="#">Mouser</a>	EC3, EC4

Ele THT: 10uf 25v

Qty	Hight (mm)	Width (mm)	Spacing (mm)	Replacments– Shop Link	Position
3	5.75	5.1	n/a	ECE-A1EKS100 – <a href="#">Digikey</a> / <a href="#">Mouser</a>	EC2, EC101, EC107

Ele THT: 1uf 50v

Qty	Hight (mm)	Width (mm)	Spacing (mm)	Replacments– Shop Link	Position
1	5.75	4.2	n/a	50ML1MEFC4X5 – <a href="#">Digikey</a> / <a href="#">Mouser</a>	EC12





# ===> Phillips VAD6035/21 Capasitors <===



Ele THT: 100uf 16v

Qty	Hight (mm)	Width (mm)	Spacing (mm)	Replacments– Shop Link	Position
5	n/a	n/a	n/a	EEA-GA1C101 - <a href="#">Digikey</a> / <a href="#">Mouser</a>	2128, 2149, 2150, 2153, 2089

Ele THT: 10uf 16v

Qty	Hight (mm)	Width (mm)	Spacing (mm)	Replacments– Shop Link	Position
2	n/a	n/a	n/a	ECE-A1CKS100I – <a href="#">Digikey</a> / <a href="#">Mouser</a>	2130, 2161

Ele THT: 33uf 25v

Qty	Hight (mm)	Width (mm)	Spacing (mm)	Replacments– Shop Link	Position
2	n/a	n/a	n/a	ECE-A1EKS330 – <a href="#">Digikey</a> / <a href="#">Mouser</a>	2121, 2152

Ele THT: 47uf 16v

Qty	Hight (mm)	Width (mm)	Spacing (mm)	Replacments– Shop Link	Position
1	n/a	n/a	n/a	ECE-A1CKS470 – <a href="#">Digikey</a> / <a href="#">Mouser</a>	2119



# ==> Samsung Version B Capacitors <==



## Ele THT: 100uf 16v

Qty	Hight (mm)	Width (mm)	Spacing (mm)	Replacments	Shop Link	Position
2	11.4	6.42	2.5	25ZL100MEFC8X7 EEU-FC1C101	<a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a>	

## Ele THT: 220uf 10v

Qty	Hight (mm)	Width (mm)	Spacing (mm)	Replacments	Shop Link	Position
2	11.7	5.3	2.5	UVK1A221MDD1TD UHE1A221MED UKW1A221MED UFW1A221MED	<a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a>	

## Ele THT: 47uf 6.3v

Qty	Hight (mm)	Width (mm)	Spacing (mm)	Replacments	Shop Link	Position
4	7.75	5.12	2.5	ECE-A0JKA470 EEA-GA1A470 ECE-A1AKS470	<a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a>	

## Ele THT: 4.7uf 25v

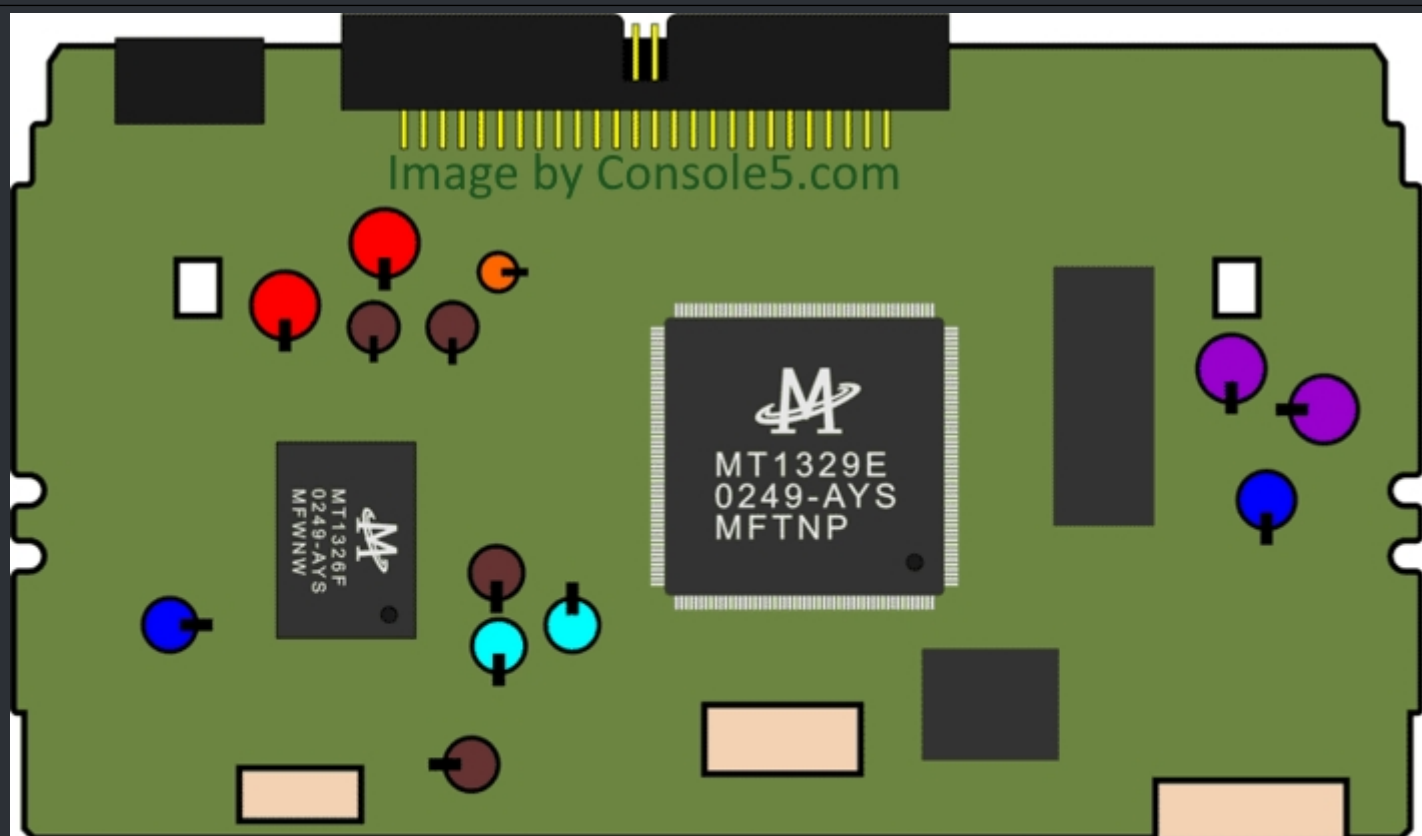
Qty	Hight (mm)	Width (mm)	Spacing (mm)	Replacments	Shop Link	Position
1	5.85	3.7	2	ECE-A1VKS4R7 ECE-A1EKS4R7 ECE-A1VKS4R7I ECE-A1EKS4R7I	<a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a>	

## SMD Ele: 220uf 6.3v

Qty	Hight (mm)	Width (mm)	Spacing (mm)	Replacments	Shop Link	Position
2	5.88	6.3	6.23-8.44	EEE-FP0J221AP 865080143009	<a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a>	

## SMD Ele: 47uf 6.3v

Qty	Hight (mm)	Width (mm)	Spacing (mm)	Replacments	Shop Link	Position
2	5.7	5	5.28-7.19	UWG0J470MCL1GB 865060142003 UWT0J470MCL1GB UWG0J470MCL1GB UWZ0J470MCL1GB	<a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a>	



- |  |                |   |           |
|--|----------------|---|-----------|
|   | 47uf 6.3v      |   | 220uf 10v |
|  | 220uf 6v - SMD |  | 100uf 16v |
|  | 47uf 6v - SMD  |  | 4.7uf 25v |



# ==> Samsung Version A Capacitors <==



## SMD Ele: 220uf 6v

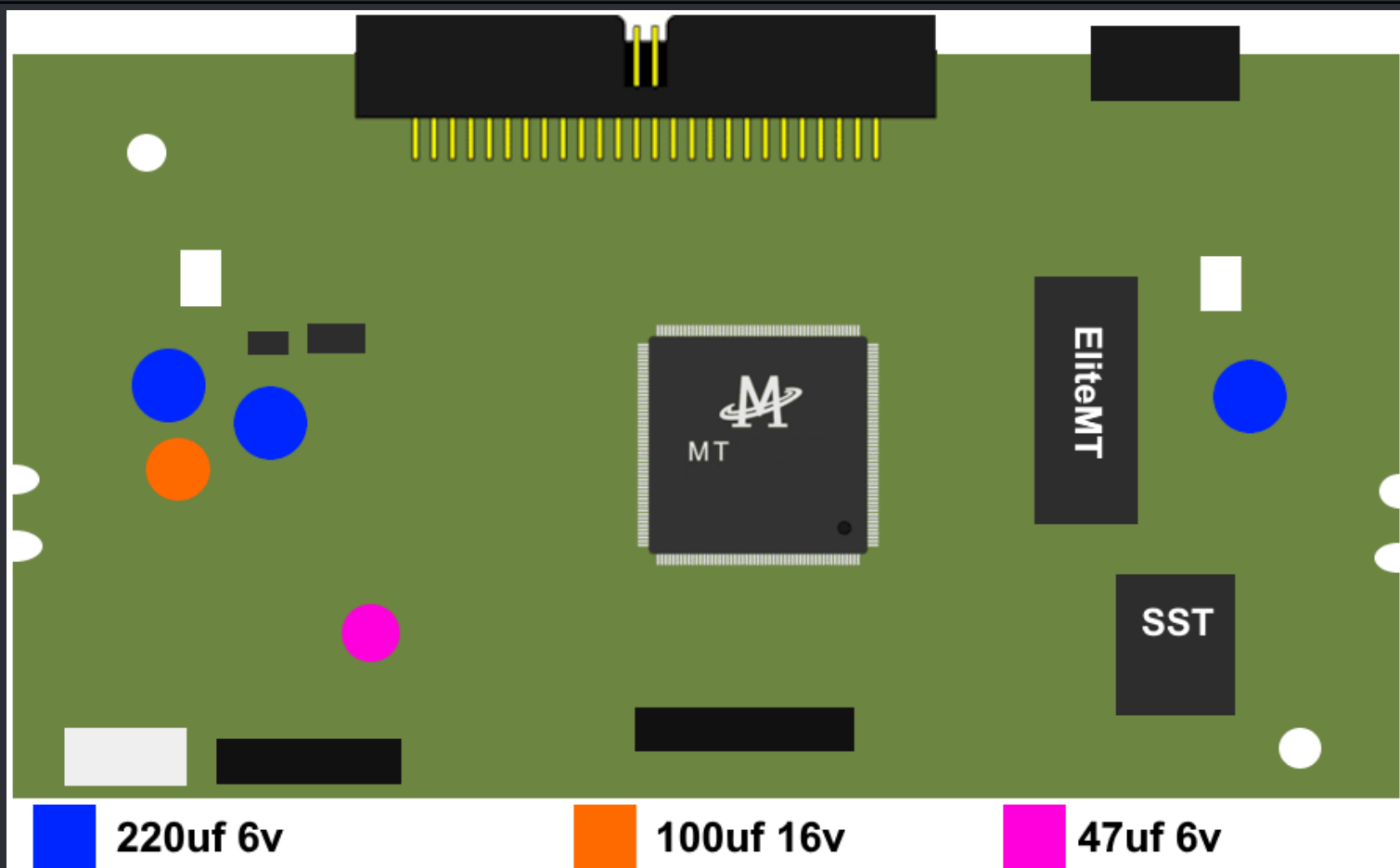
Qty	Hight (mm)	Width (mm)	Spacing (mm)	Replacments (Datasheet)	Shop Link	Position
3	6	6.3	6.55-8	<a href="#">EEE-FP0J221AP</a> <a href="#">865080143009</a>	<a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a>	C105, C117, C502, C514

## SMD Ele: 100uf 16v

Qty	Hight (mm)	Width (mm)	Lead Spacing	Replacments (Datasheet)	Shop Link	Position
1	6	6.3	6.55-8	<a href="#">EEE-FP1C101AP</a> <a href="#">EEE-FT1E101AP</a> <a href="#">EEE-FT1E101AL</a> <a href="#">AFK107M16D16T-F</a> <a href="#">EEE-FK1C101P</a>	<a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a>	C514

## SMD Ele: 47uf 6v

Qty	Hight (mm)	Width (mm)	Spacing (mm)	Replacments (Datasheet)	Shop Link	Position
1	5.36	5	5.3-7.2	<a href="#">865060142003</a> <a href="#">865080242004</a> <a href="#">EEE-FC0J470AR</a> <a href="#">EEE-FC0J470R</a>	<a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a>	C221



===> Hitachi GDR-8050L Capasitors <===

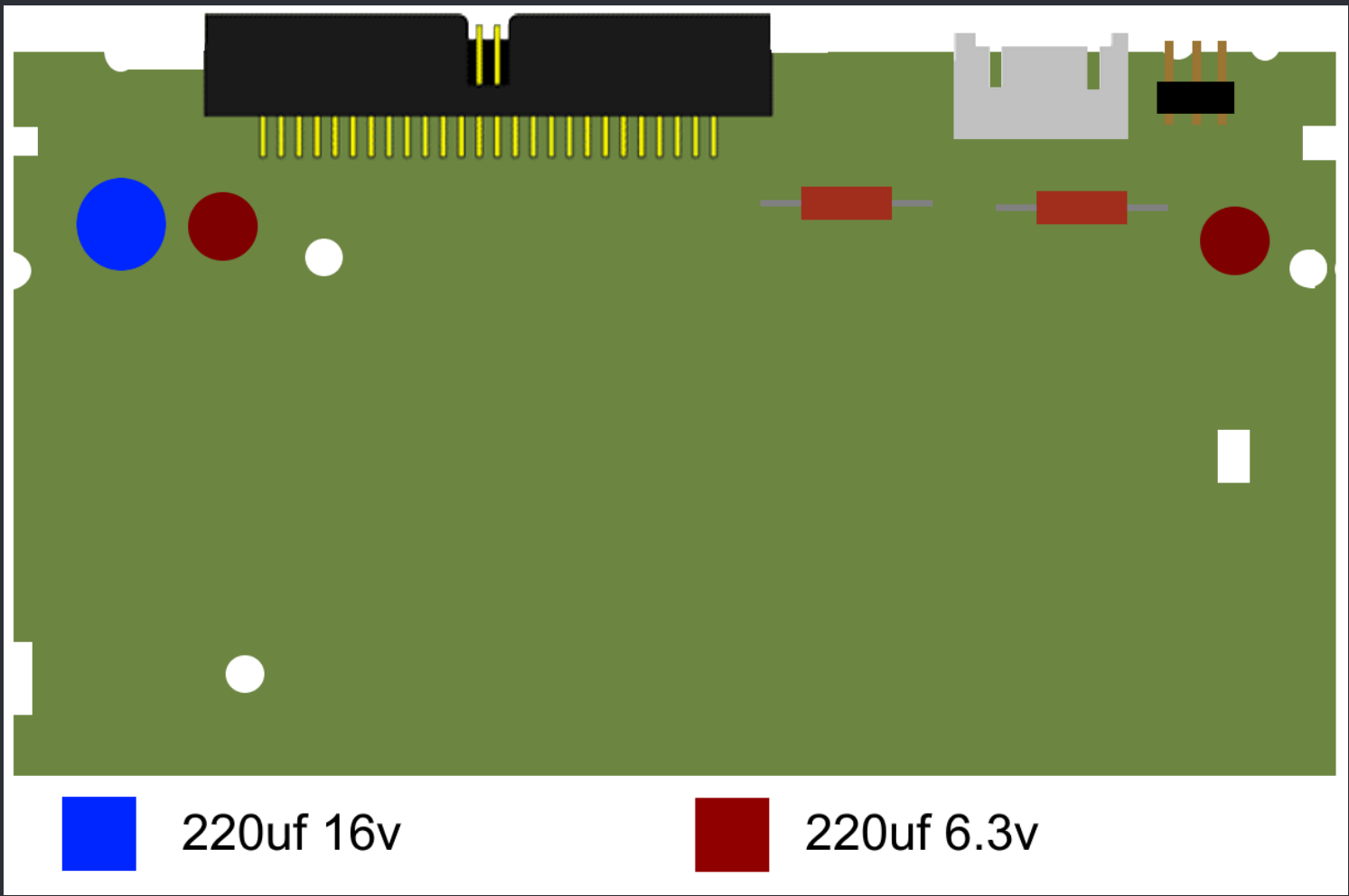


● Ele THT: 220uf 16v

Qty	Hight (mm)	Width (mm)	Spacing (mm)	Replacments (Datasheet)	Shop Link	Position
1	9.76	8.2	3.75	<a href="#">860080374009</a> <a href="#">RZW221M1CBK-0811S</a> <a href="#">EEU-FC1C221</a> <a href="#">EEU-TA1C221</a>	<a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a>	

● Ele THT: 220uf 6.3v

Qty	Hight (mm)	Width (mm)	Spacing (mm)	Replacments (Datasheet)	Shop Link	Position
2	7.55	6.5	2.9	<a href="#">ECE-A0JKA221I</a> <a href="#">ECE-A0JKA221</a>	<a href="#">Digikey</a> / <a href="#">Mouser</a> <a href="#">Digikey</a> / <a href="#">Mouser</a>	



# ===> Thomson TGM600 Capacitors <===



## Ele THT: 100uf 16v

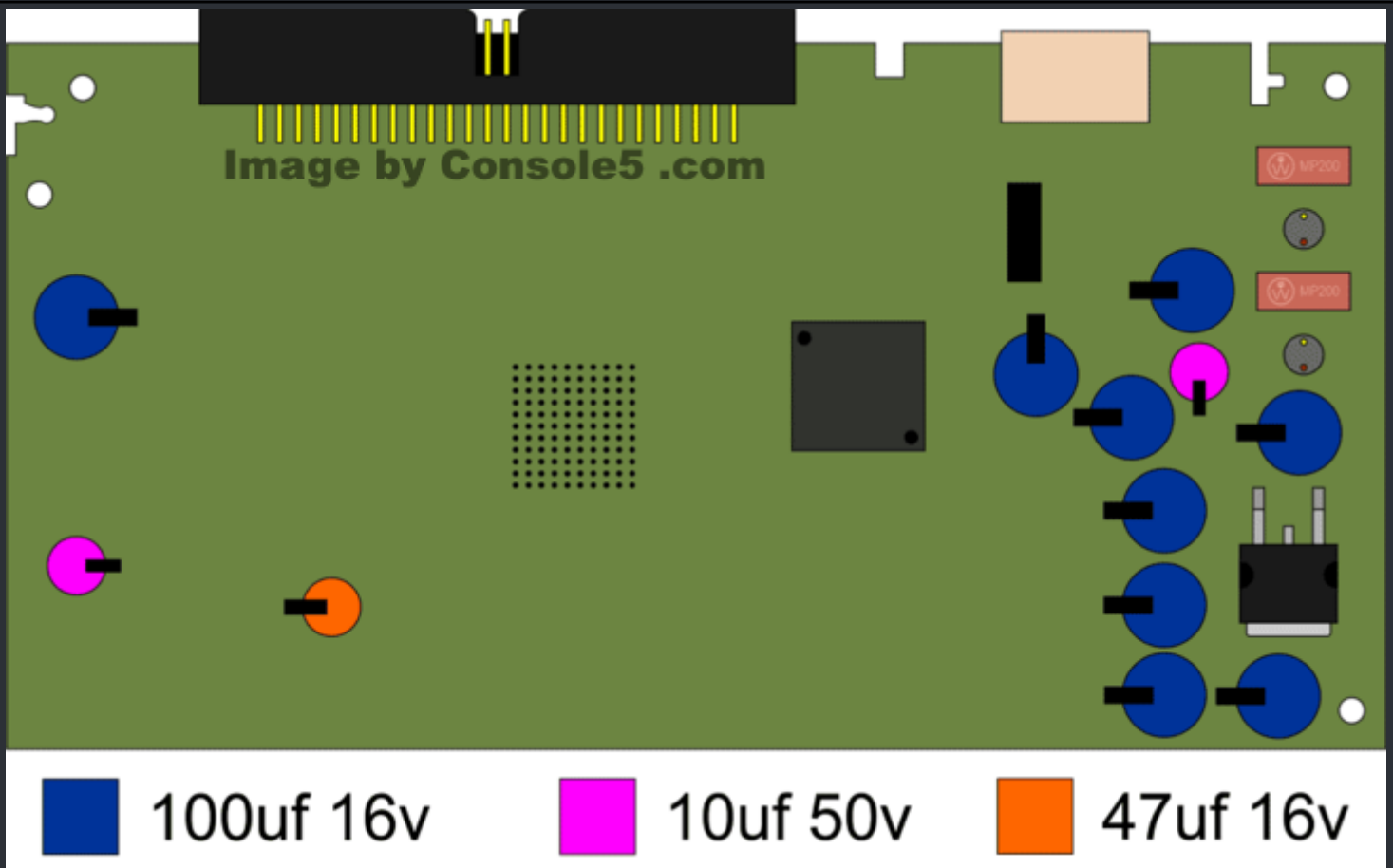
Qty	Hight (mm)	Width (mm)	Spacing (mm)	Replacments– Shop Link	Position
9	6	8	3	EEA-GA1C101 – <a href="#">Digikey</a> / <a href="#">Mouser</a>	CC109, CM306, CM411, CP503, CP505, CP507, CP509, CP513, CP515

## Ele THT: 10uf 50v

Qty	Hight (mm)	Width (mm)	Spacing (mm)	Replacments– Shop Link	Position
2	5.26	6.46	3	EEA-GA1H100 – <a href="#">Digikey</a> / <a href="#">Mouser</a>	CM410, CP511

## Poly THT: 47uf 16v

Qty	Hight (mm)	Width (mm)	Spacing (mm)	Replacments– Shop Link	Position
1	7	6.55	3	20SEP47M – <a href="#">Digikey</a> / <a href="#">Mouser</a>	CA301



★ Credits fly out to Nucken\_futz\_ & [Console5.com](#). ★



## <=== XBox WiFi ===>

### ===> MS XBox Wireless Adapter MN-740 <===



This is the original wireless adapter from microsoft.

By default this wireless adapter has only WEP encryption!

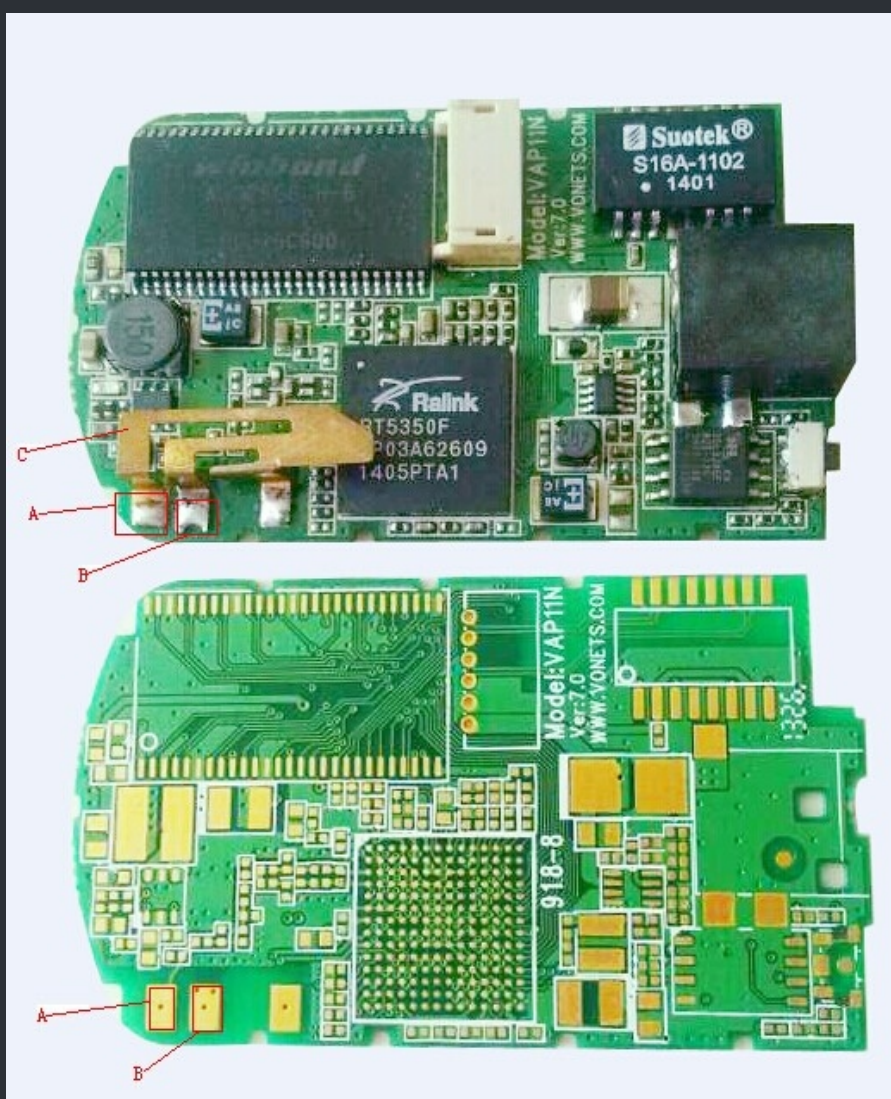
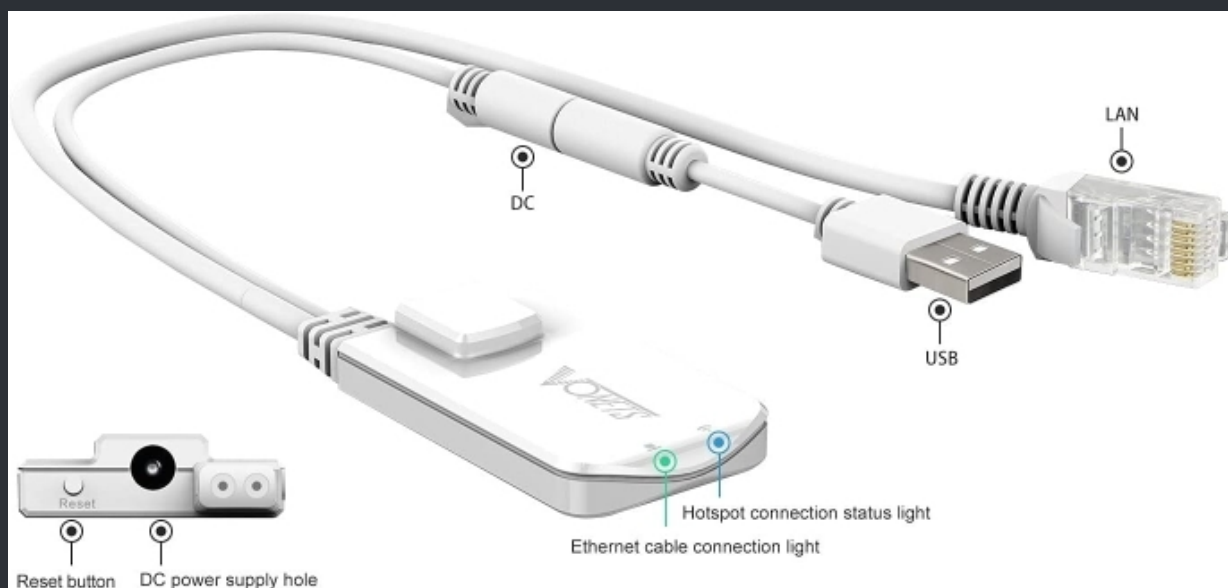
That being said, this adapter is the same as the  
**D-Link DGL-3420 Wireless 108AG Gaming Adapter**  
which you can see on the right side, just with a different firmware.



So if you like to tinker around, you can find a short write up on how you „update“ this old thing to a D\_Link 108AG [here](#) and you can download the needed files to do so [here](#). When you have „updated“ the MN-740 adapter to the D-Link DGL-3420 Wireless 108AG Gaming Adapter firmware, you will have the option to enable WPA encryption but even then, you shouldn't use this!

★ Credits fly out to juanknet for the image. ★

The Vonets VAP11N-300 is an small alternate Wlan option which works on the XBox.  
It's also pretty small so you could fit it into your XBox.





~ UPCOMING WiFi Mod ~





# <=== XBox Controller & USB Pinouts ===>

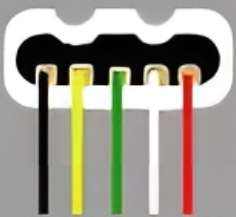
===> 🎮 <===



				
5 VDC	Ground	Data +	Data -	Timing Signals (Xbox controllers only)
				



Xbox Female



Xbox Breakaway Female



Usb Female



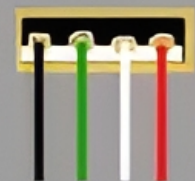
Xbox Male



Xbox Breakaway Male



Usb Male



To make adapter cables, simply wire up the pins from each plug following the color code above.

★ Credits fly out to „loser“ for his „thrown together“ work. ★

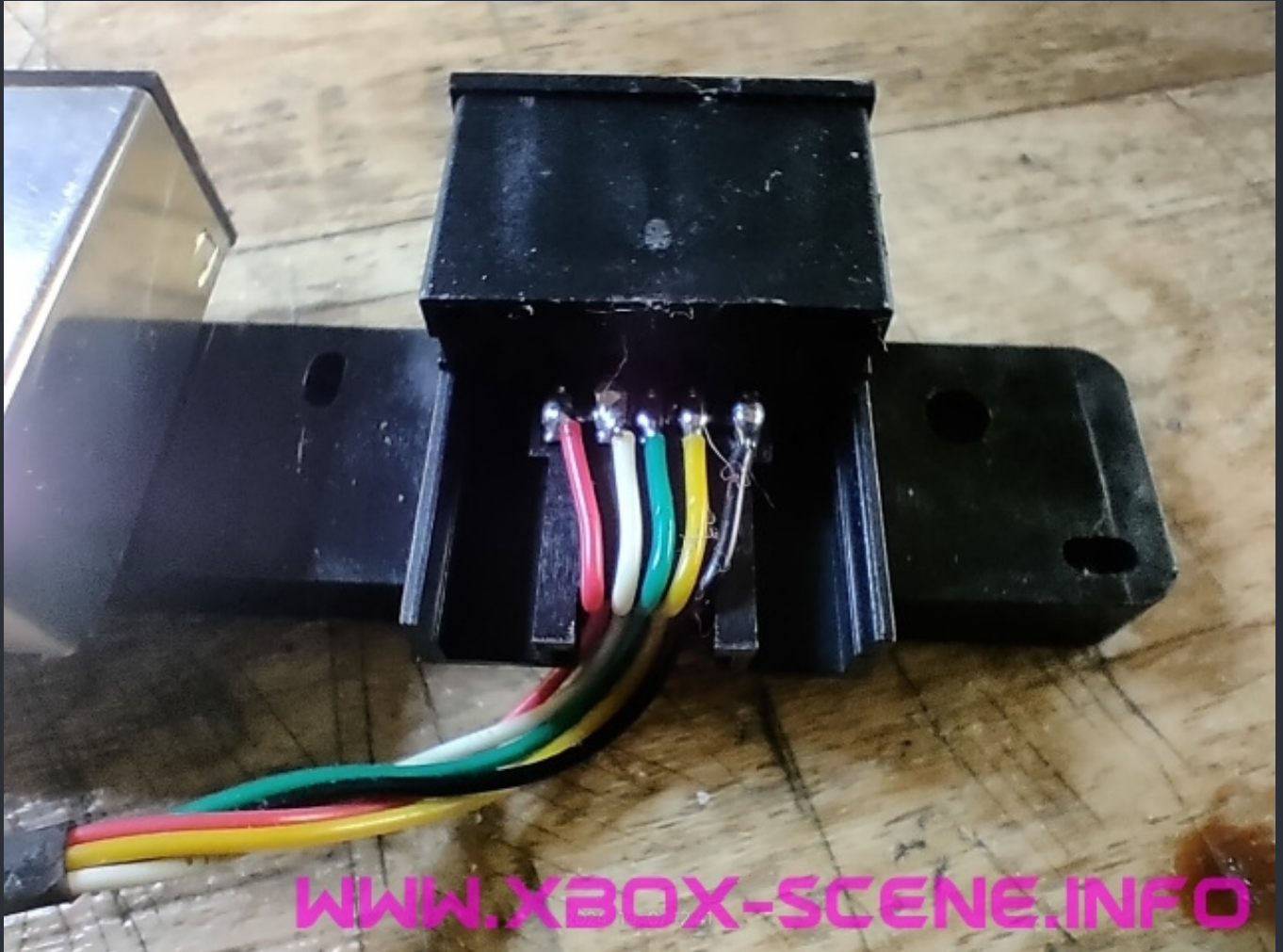
## <=== Controller Port LED's ===>

===> 💡 <===

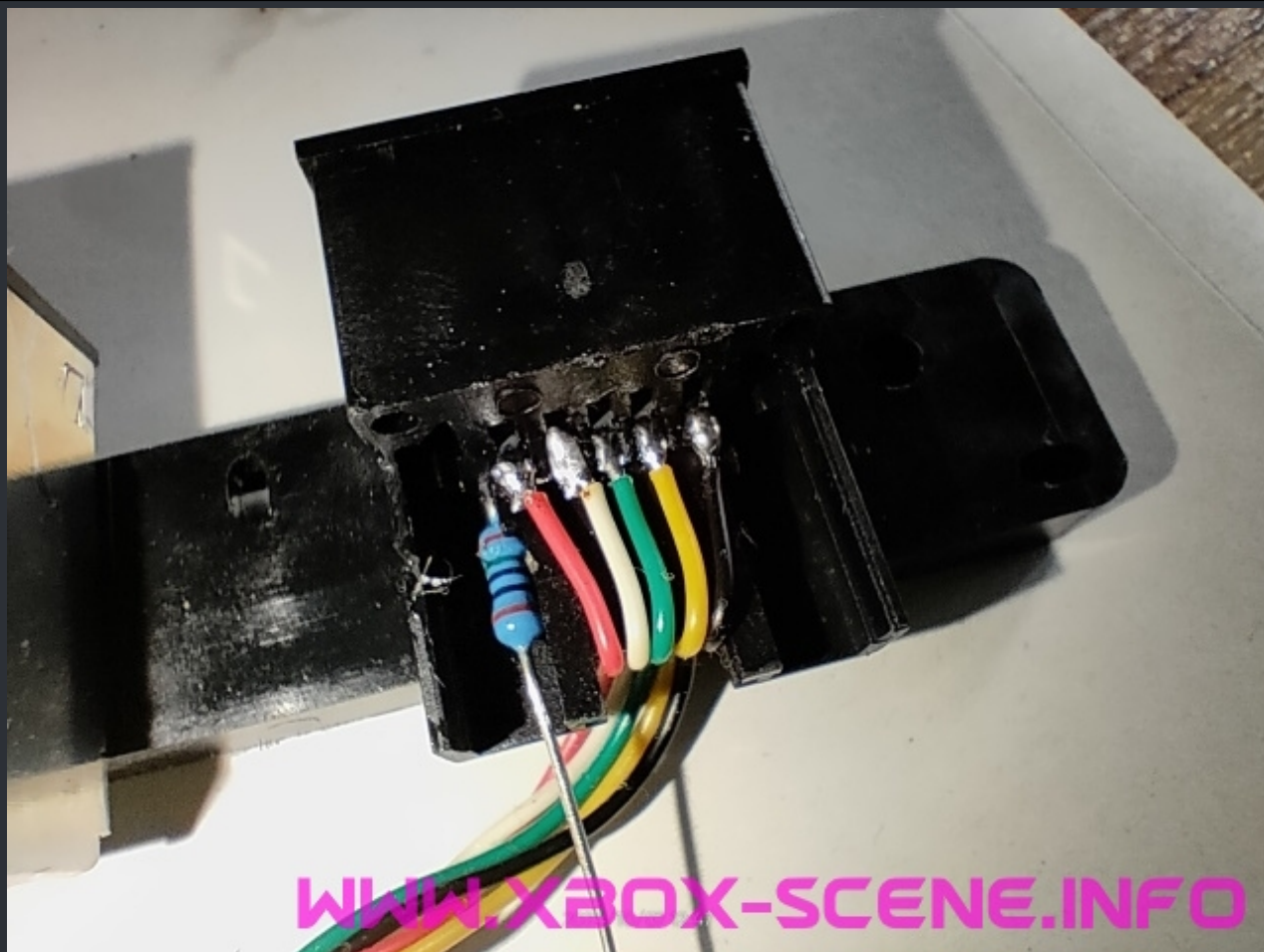


So what do you need for this mod is: 4 x 150 Ohm resistor and 4 x 3mm LED's.

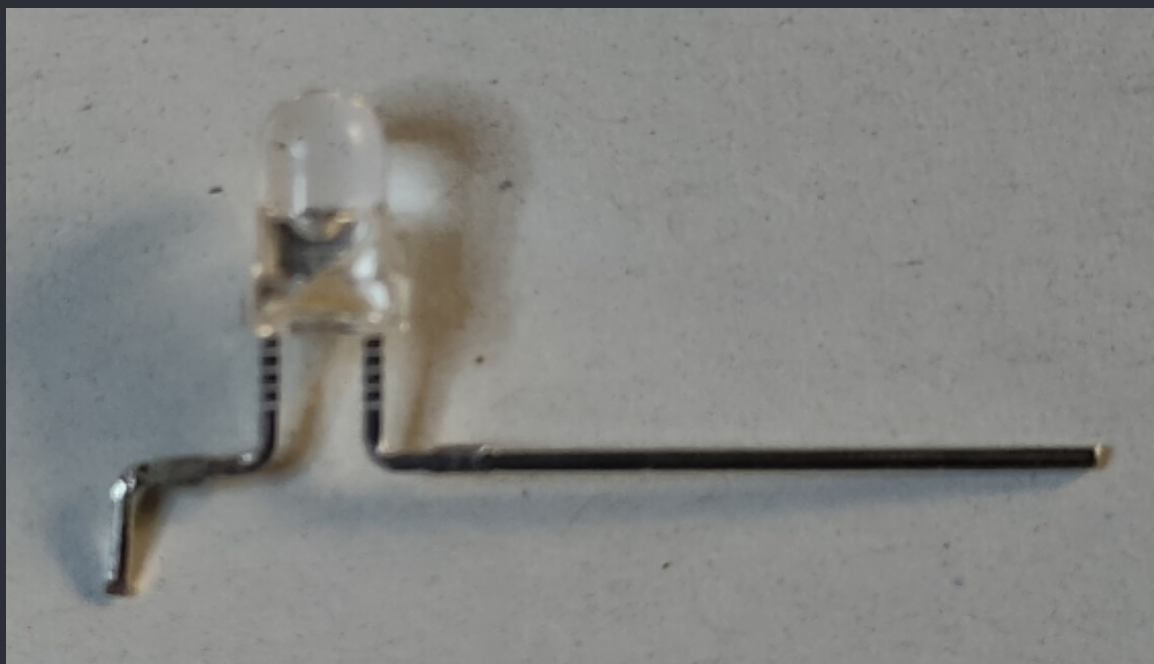
First of, remove the housing.



The red wire is your 5v and the black one is your ground (GND).



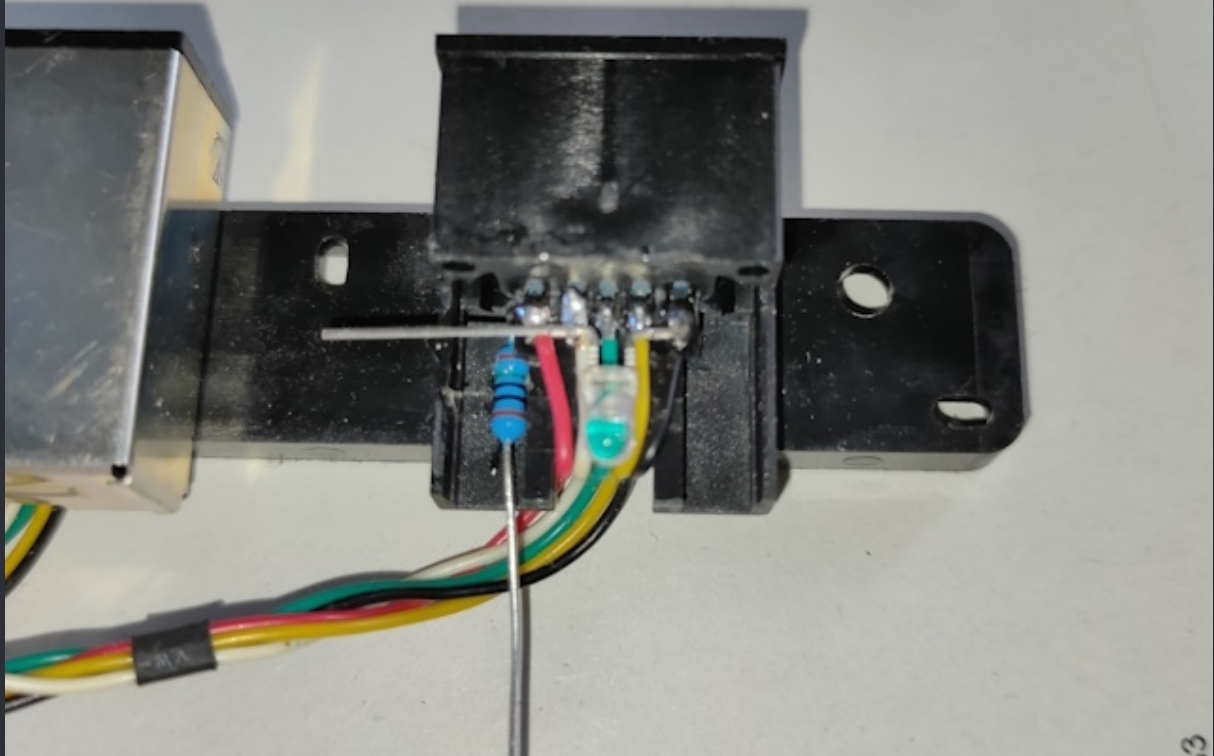
**Solder your 150 ohm resistor to either ground or like shown in the image above to 5v. Push it gently with the back of your tweezers in the corner, bent the leg over the 5v/GND solder point and solder it. When that's done, cut the leg down.**



**Now grab your LED and bent the pins like you see it in the image above. Then cut down the ground (GND) pin so far that you can solder it nicely to the black ground (GND) pad/wire.**

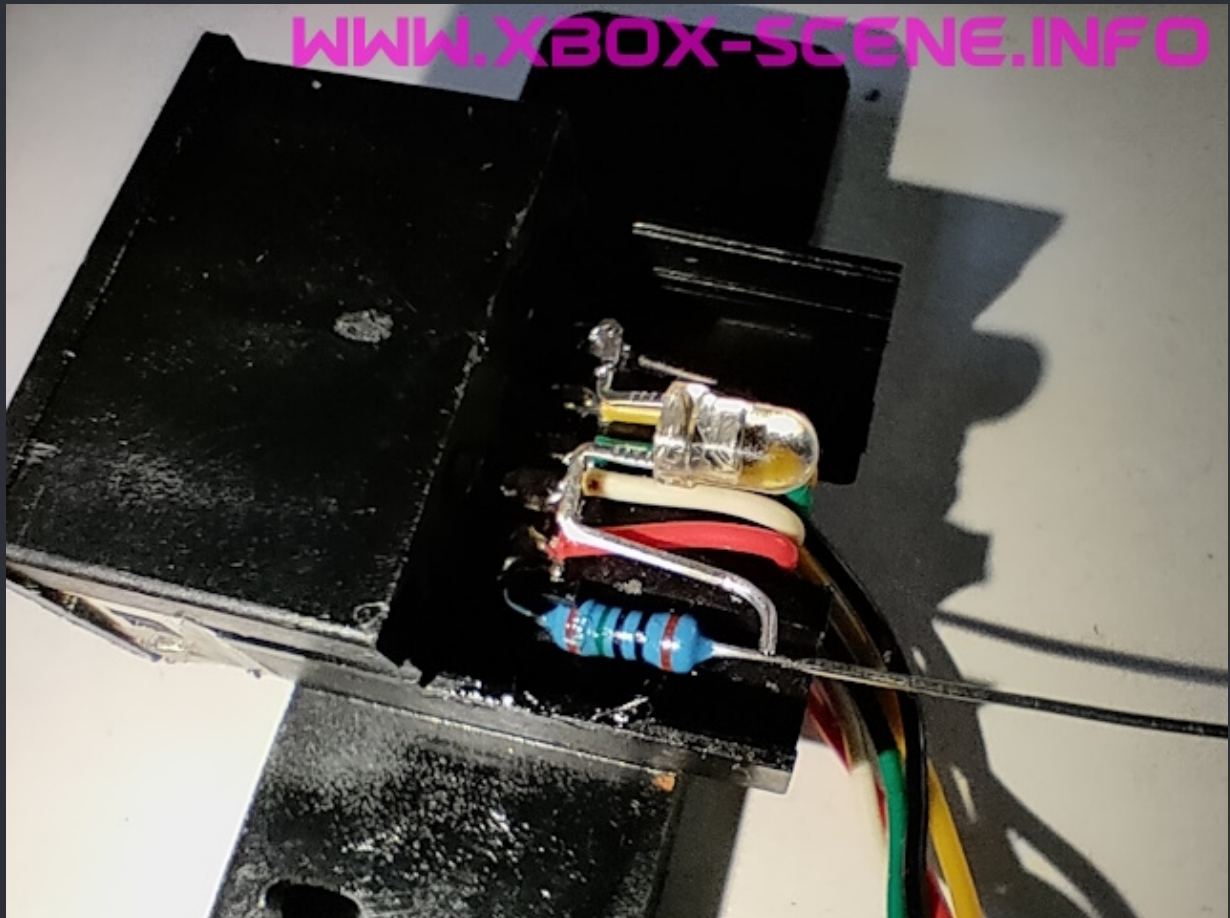


[WWW.XBOX-SCENE.INFO](http://WWW.XBOX-SCENE.INFO)



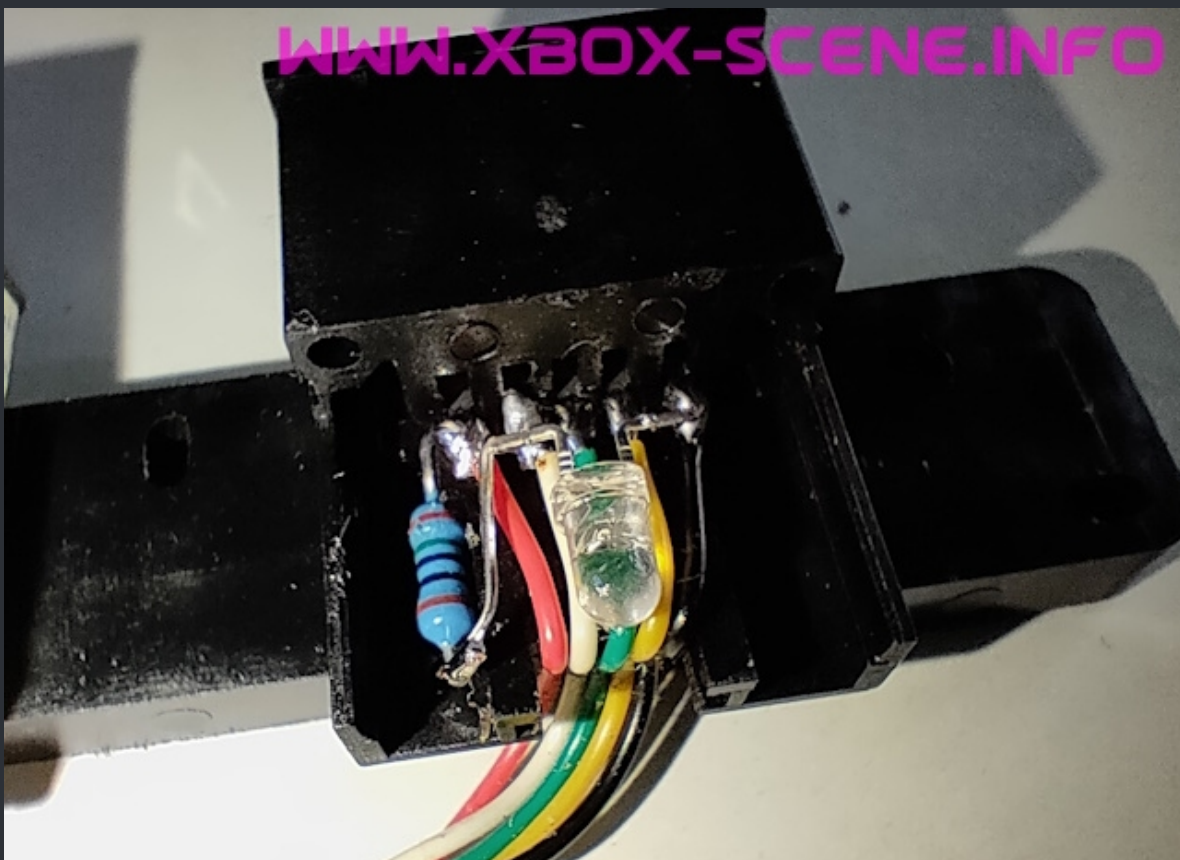
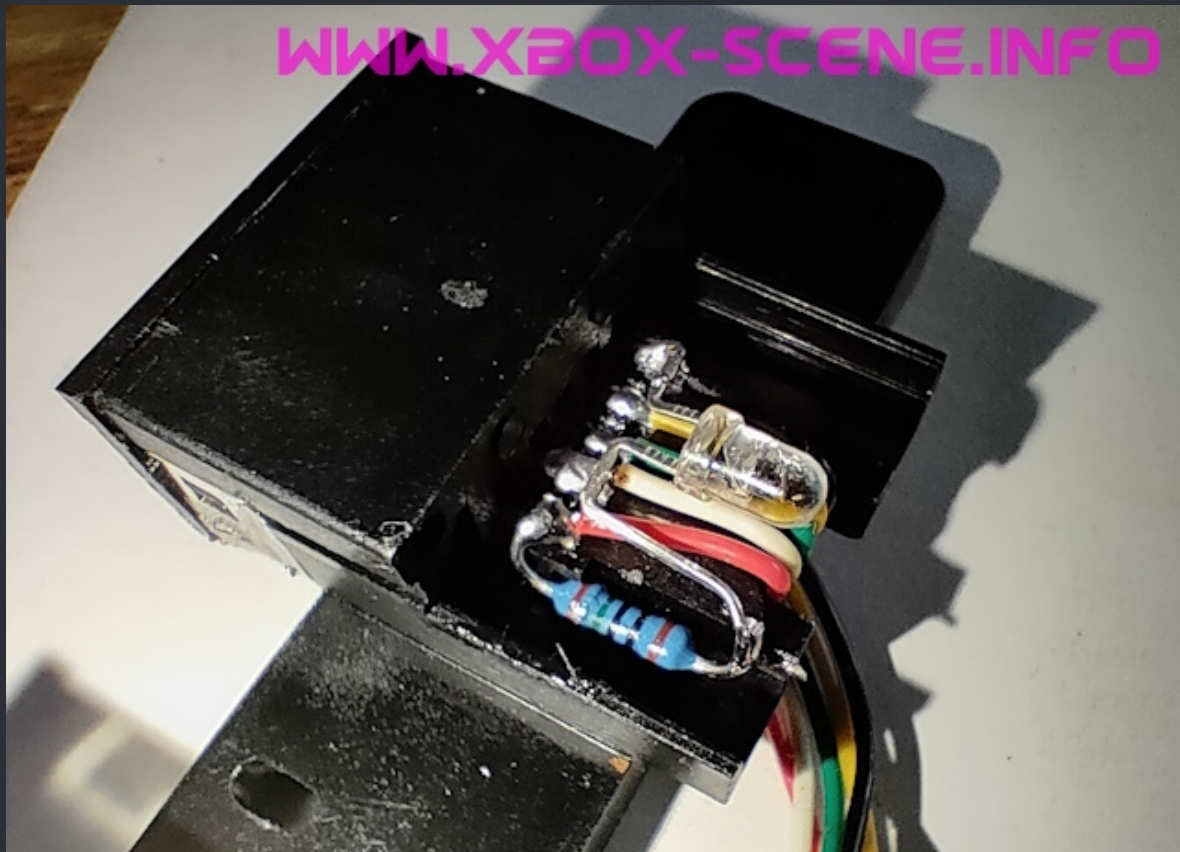
It now should looks like in the image above.

[WWW.XBOX-SCENE.INFO](http://WWW.XBOX-SCENE.INFO)



Now bent the pin of the LED like you see it in the image above.

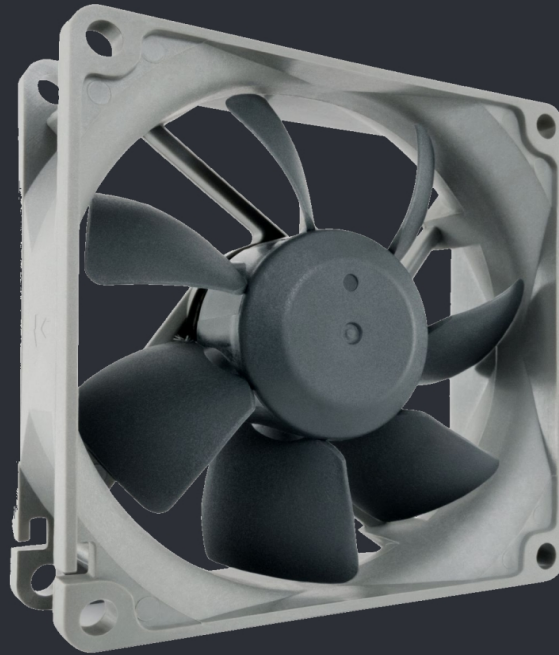
In the same step you bent the leg of the resistor upwards and solder both together.



At the end it should look like shown in the two images above.  
As final step test it and when everything works, close the housing, resolder it and repeat 3 more times.

## <=== Xbox 80mm Fan Mod ===>

### ===> Noctua Redux Fan <===



Noctua Redux NF-R8 Redux - 1800 rpm  
3 Pin - 80mm - 31.4 CFM / 53.3 m3/h - 17.1 dB(A)

### ===> Be Quiet Pure Wings 2 Fan <===



Be Quiet PURE WINGS 2 - 1900rpm  
3 Pin - 80mm - 26.3 CFM / 44.45 m3/h - 18.2 dB(A)



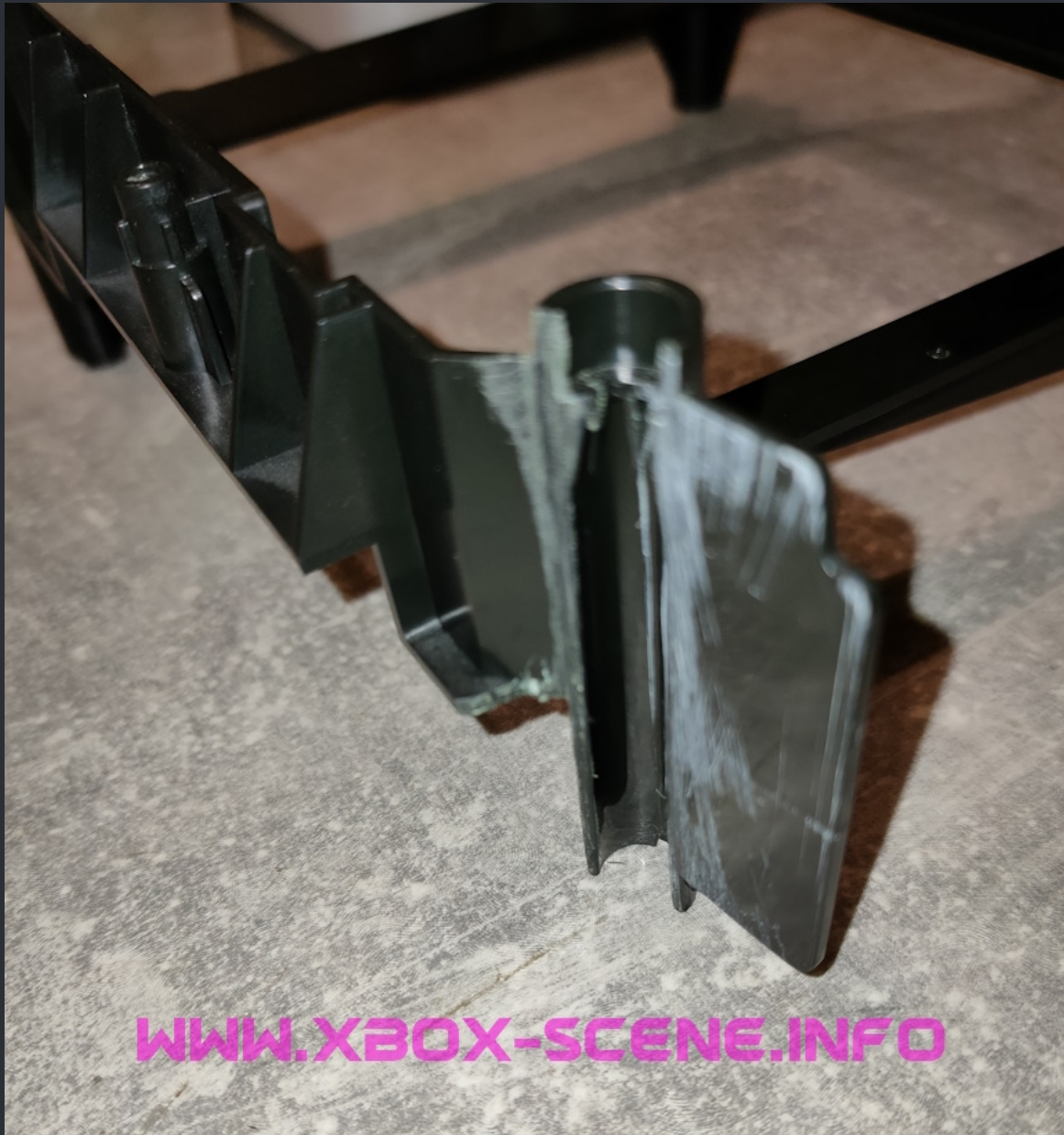
So for the shown above fans the mod you have to do is quite simple.  
Here are a couple of images from different angles how I cut for the Noctua fan.  
You can mostly cut along the cage and use it as some sort of guide.

So lets start with the DVD drive cage.



Top view from behind. You need to cut the screw hole slightly to fit the fan. It will also apply some pressure against the fan but the screw will mostly slight through no problem.  
And you can use the cage as guide as I have done it.

Here another image also from behind. You can see pretty clear how you have to cut.  
I cut first from behind along the „fin“ and then cut the out the other half.



And if you can't live with the scratches, even you will not see em, you're free to polish up the plastics to make it look genuine or stock what ever you wanna call it.



Now lets move on to the HDD cage.

Like above, you can here also use the cage as guide. Even with 2 left hands you can get this done.





And for good measure a last image from the side.



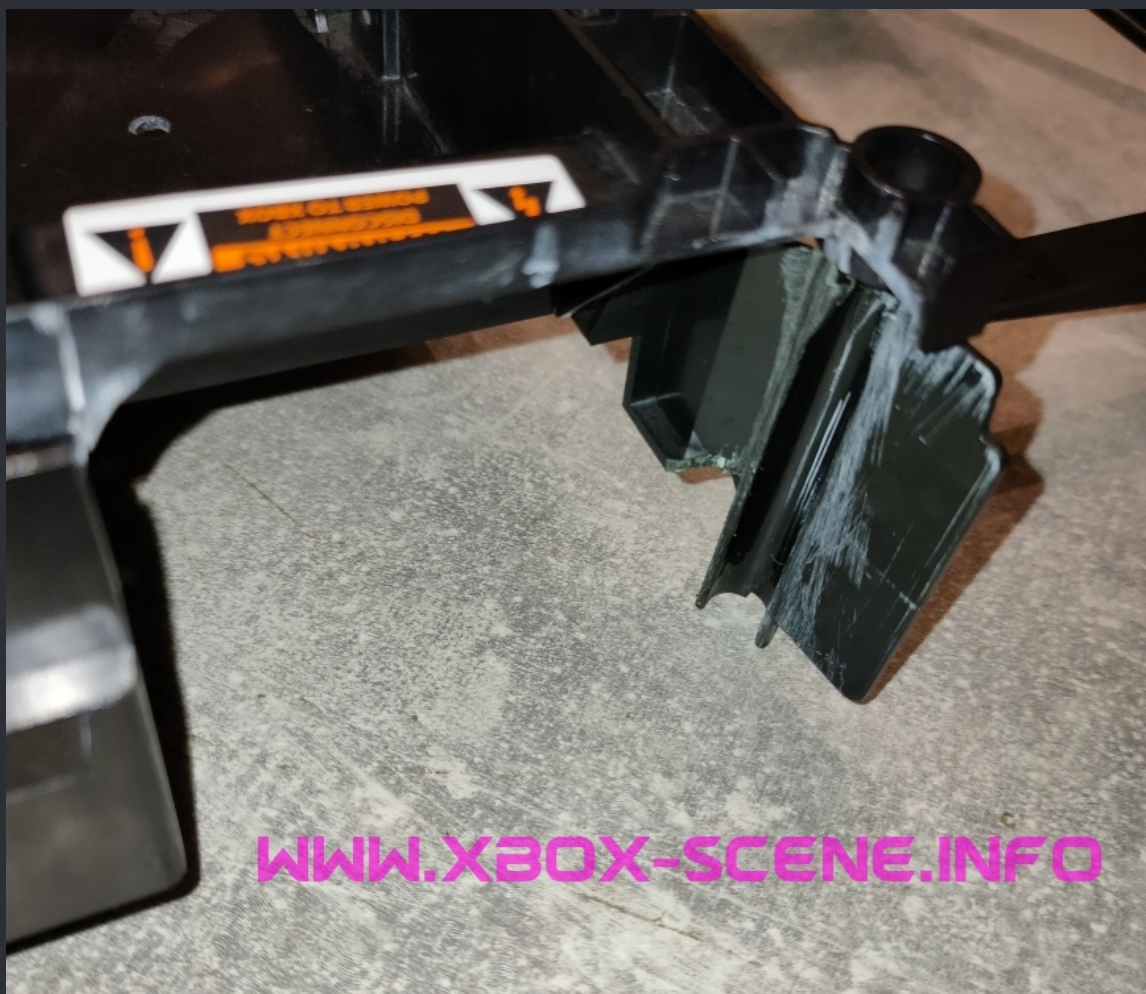
As a last step you have to remove the 2 clips from the bottom case which hold the original fan in place.



Here shown with a BeQuiet Pure Wing 2.

Which fan you choose at the end is personal taste.  
And even I show you a BeQuiet here, I prefer the Noctua cuz when evething is assembled  
everything sits pretty flush.

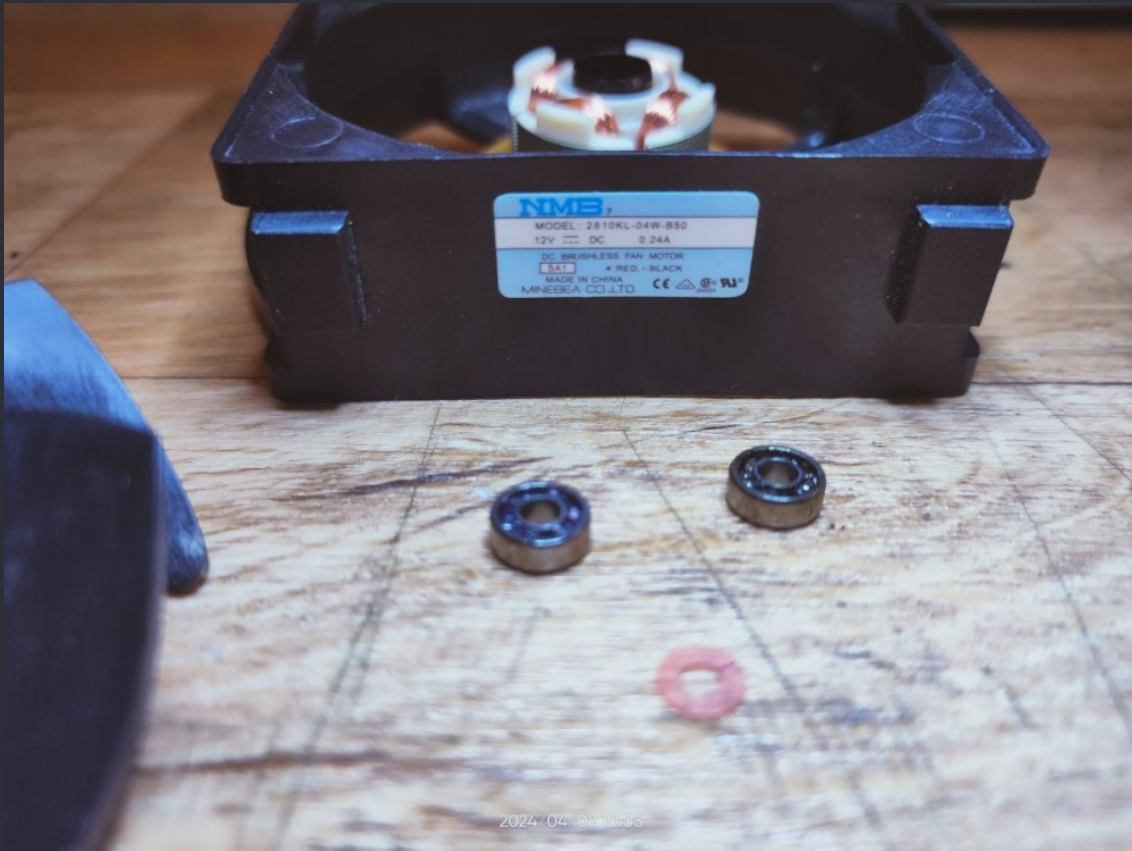
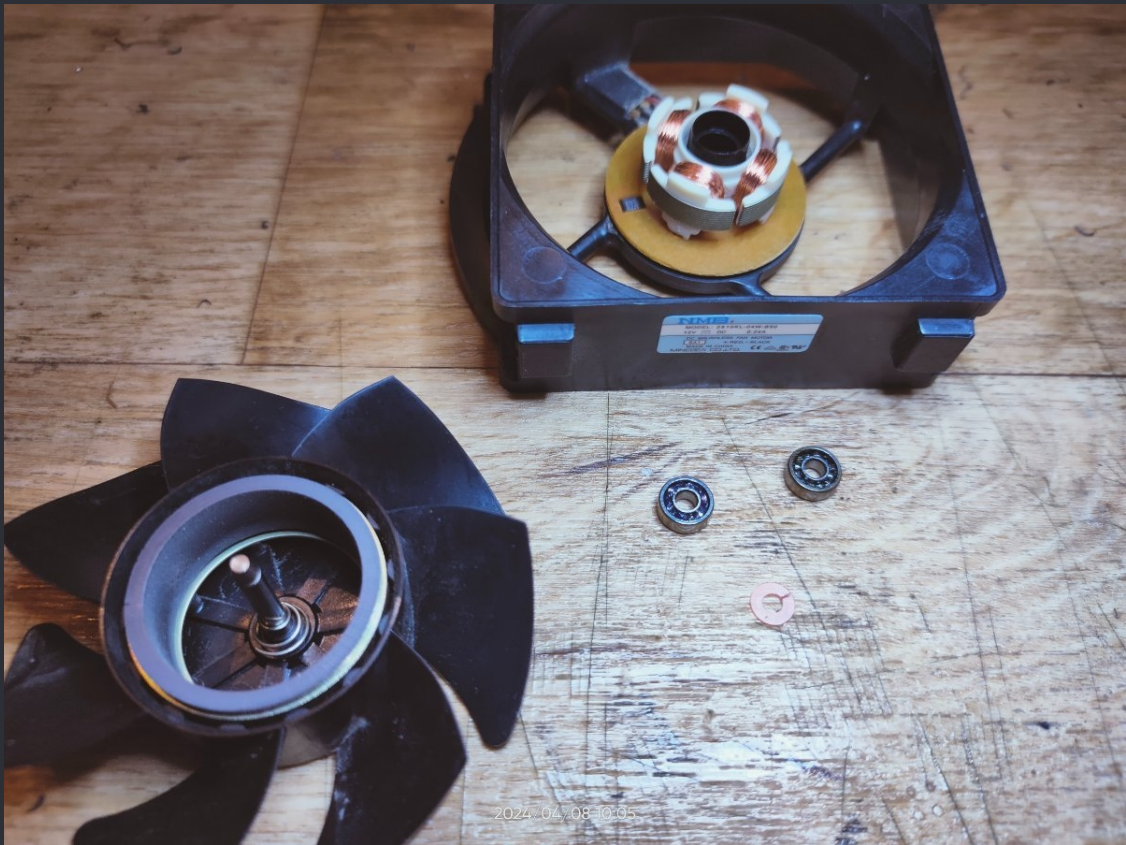






# <=== XBox Fan Service ===>

===> NMB Fan <===



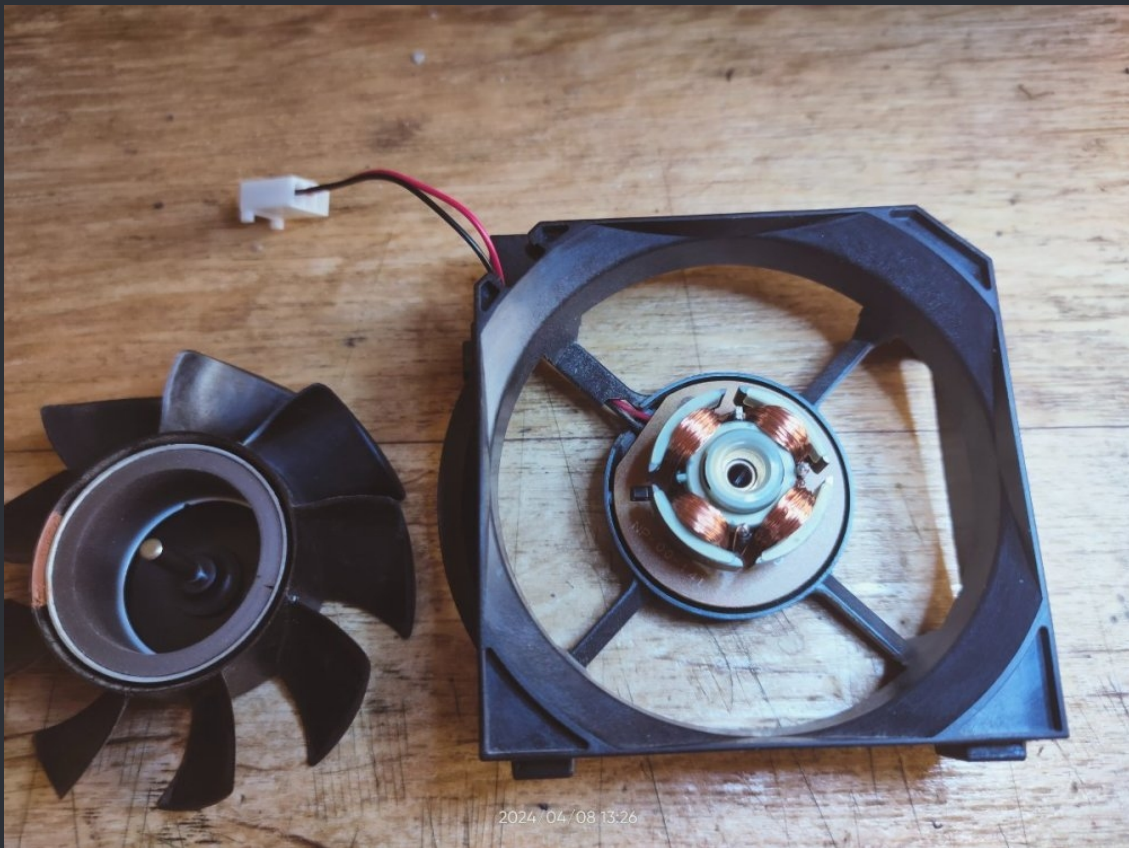
This fan is simple to open. Just remove the sticker from the back, remove the red "spring ring" (be careful removing this ring!) and done.





Pretty simple to open the Delta fan. Just push them gently from behind on the blades or use the back of your tweezers (Use 2 tweezers to apply pressure on two sides at the same time). Both will work just fine. Take care not to loose the white round "pad".





Pretty simple to open like the Delta fan. Just gently push them from behind on the blades. It needs slightly more pressure before the rotor comes off but at the end not too hard to manage. You can also use your tweezers like mentioned above by the Delta fan.





Up to this time, it's unknown if this fan can be serviced. (My guess, it's not)

# <=== Corona LED Jewel Mod ===>

===> <===



Let us start with me showing you how it will or should look like at the end.



So what will you need for this mod?

8 SMD LED`s

8 470  $\Omega$  resistors

Some wire

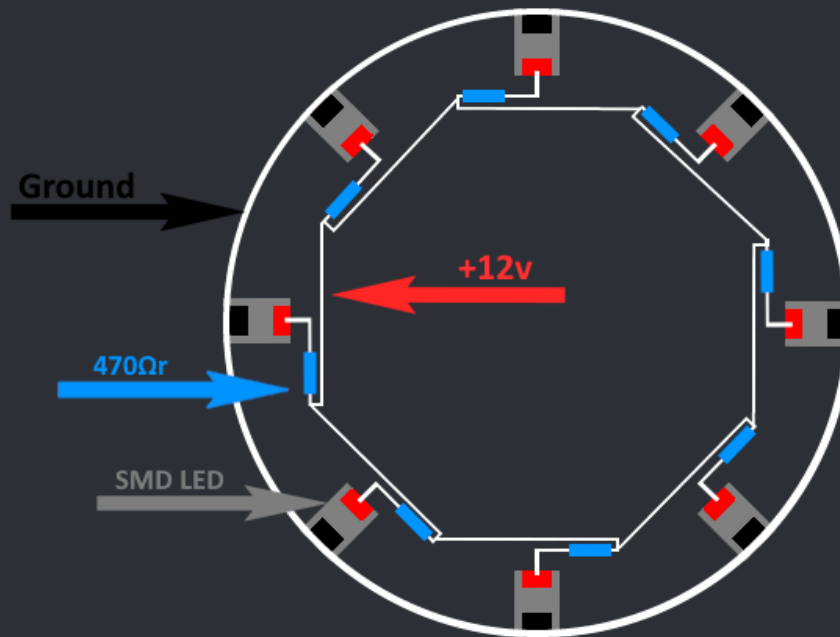
And beside that you need something to put a 60mm hole in the top case, some tape to hold the jewel in place, some glue or epoxi, some acrylic or a second jewel and a soldering iron and some spare time.

And let me say, I'm not going to cover how you get the jewel off, how to drill a hole or how to remove the green paint and re-paint the jewel.

For all these are things are enough tutorials out there already.

So let's start.

Here is a quite ugly image of what you have to do.



As I said, not the prettiest but it will give you the idea of what you have to do and how to solder.

The get the more or less right diameter and make things easier to solder, I use the top case to solder.

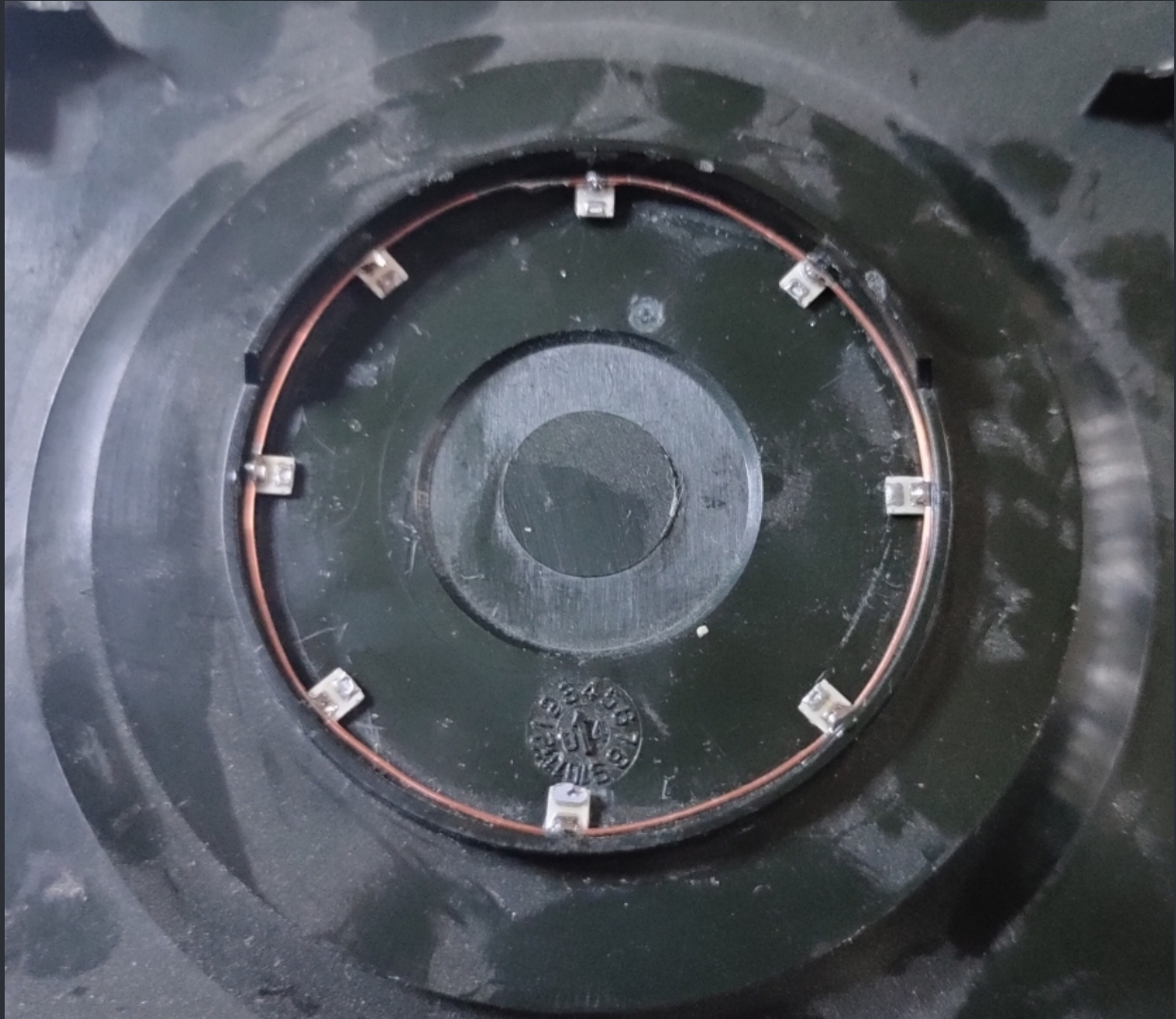


As you can see in the image above, I use some cooper wire which I bent to fit inside the inner ring of the case with both ends of it soldered together to stay in shape. Then I soldered the first LED to it near the joint of the ends of the wire.



**When you managed to solder your first LED test the LED. Killed the one or other LED my self so it's best to test each after soldering. And don't go to crazy with the heat since it's pretty easy to kill these LED's.**

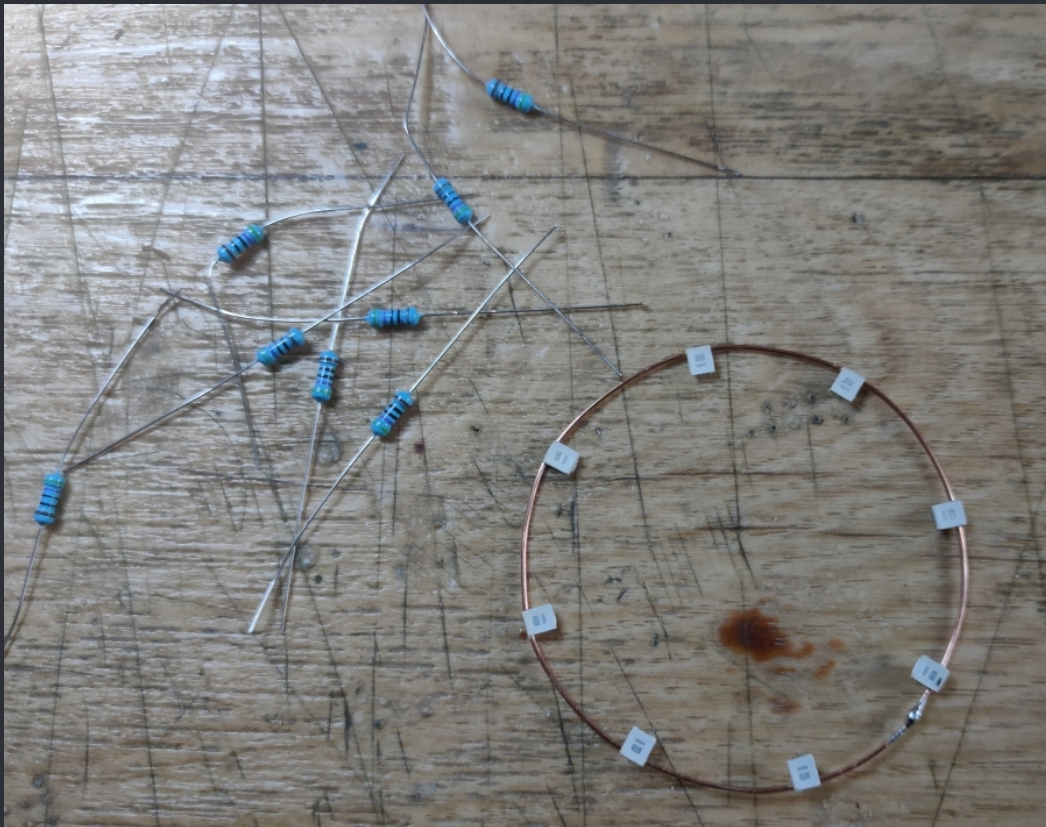
**Your second LED should then be soldered to the opposite side of the first one.  
Use the edges/angles inside the case to line the LED's up.**



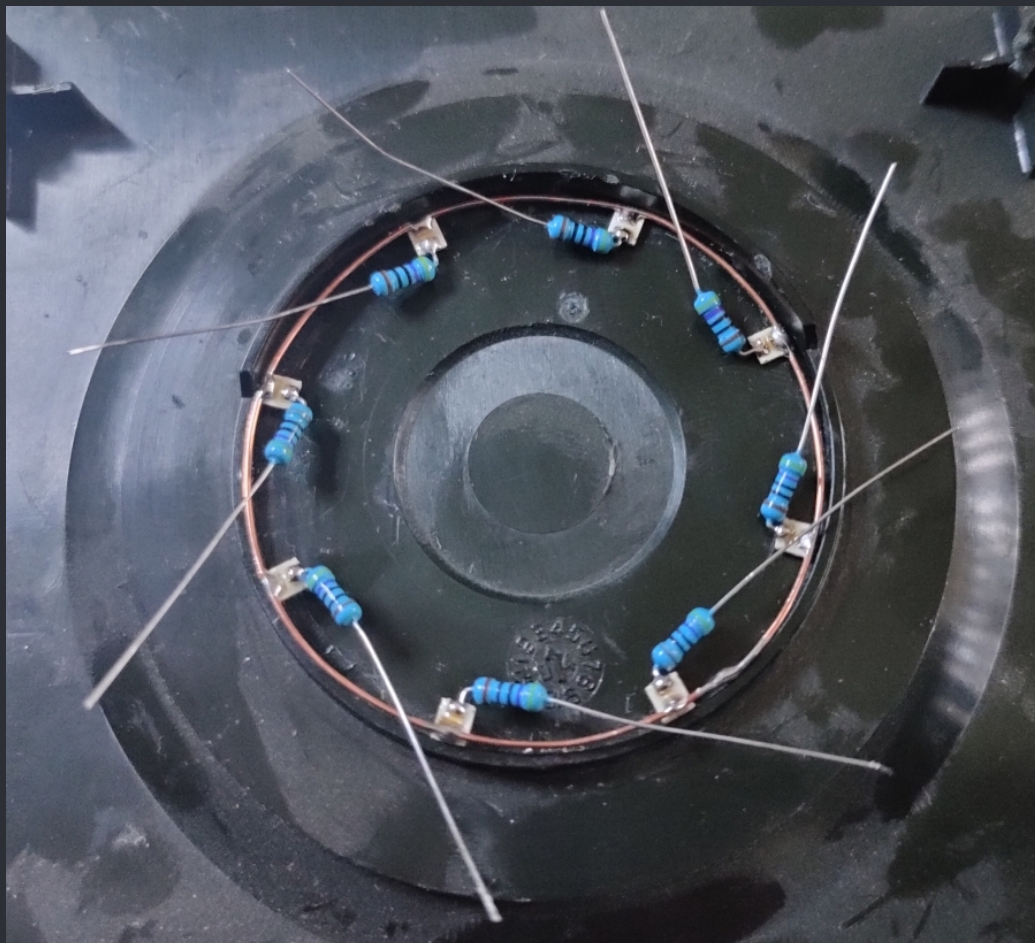
**When you have it done right, it should look like something shown in the image above.**

**Time to test that all your LED's are still alive.  
So grab your MM and do so. When all LED's are still working, move on to the next part.  
Soldering the resistors in place.**





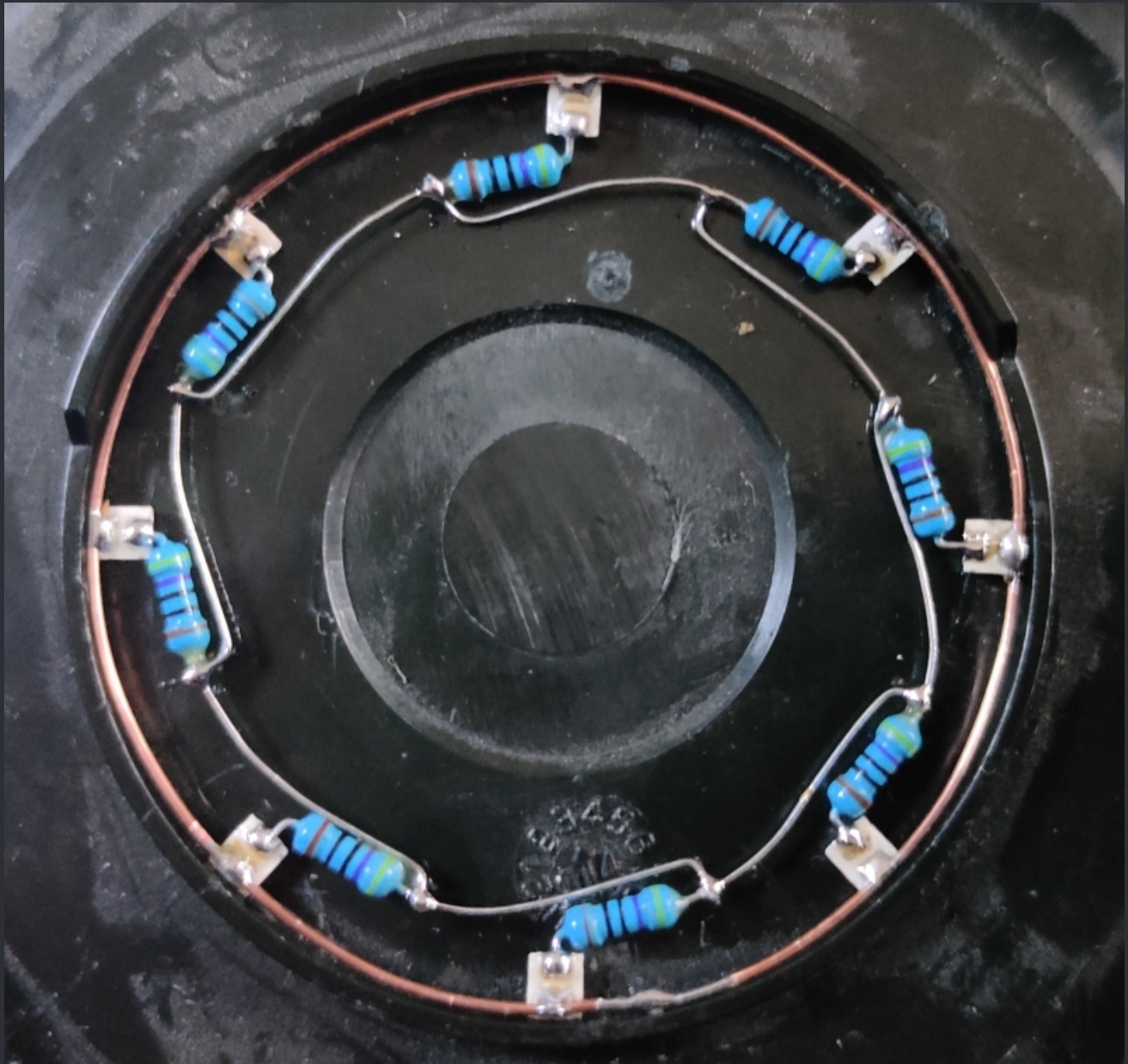
Here you see my „ring of light“ as well as the 8 x 470  $\Omega$  resistors I'm going to use. Now start by cutting down one side of each resistor to ~5mm and bent the cut down side 90° up and solder one resistor to each of the LED's like you see it on the image below.





When thats done, it's maybe a good idea to test the LED's again cuz now it's still a more or less easy fix to replace a dead LED.

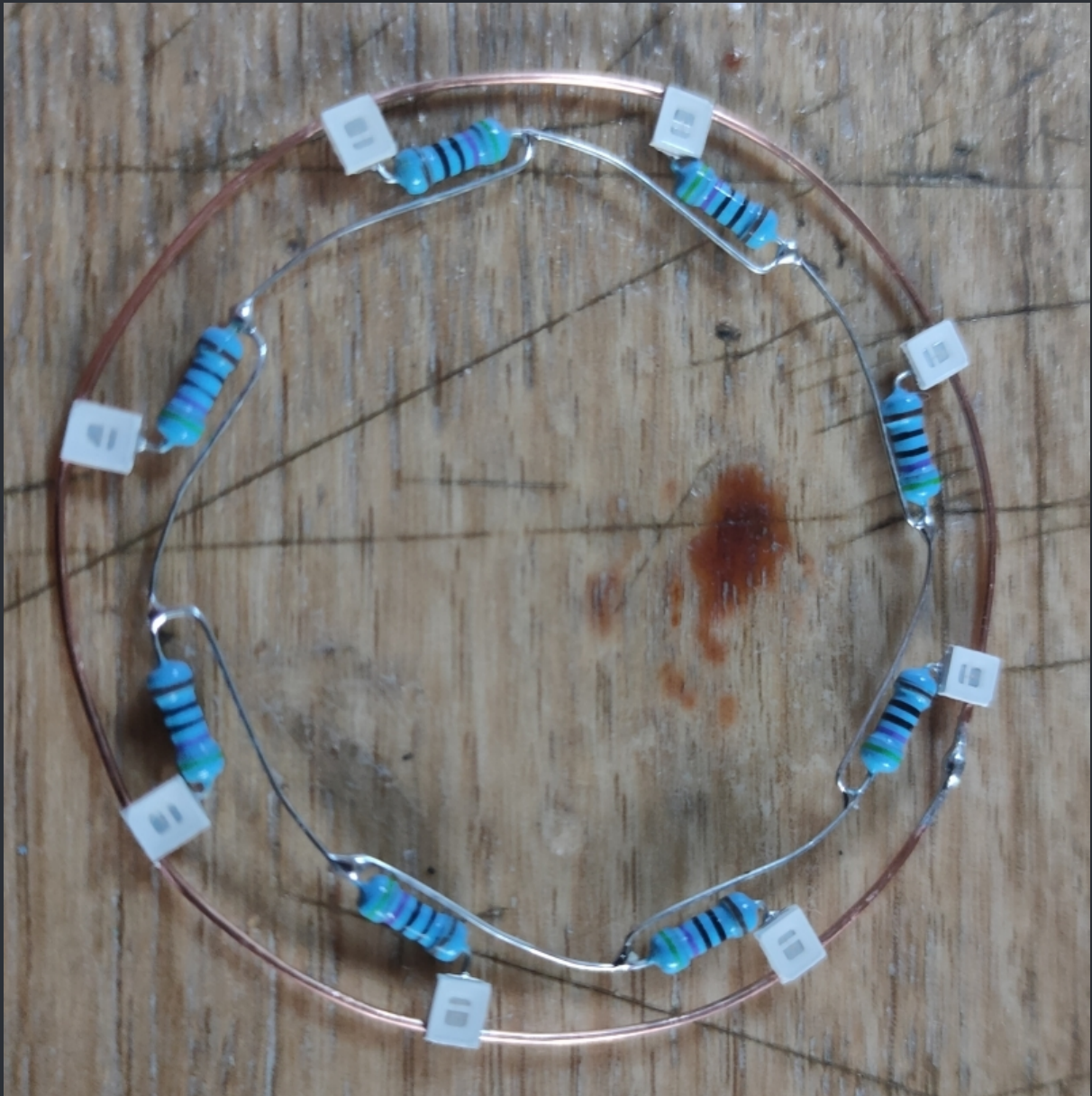
In the next step, you bent and solder the longer leg of each resistor the the one next to it. Take a look at the image below.



Be careful when bending the pins because it's really pretty easy to rip the pad off the LED. So what you want to do is to create a inner positive ring using the resitors legs.



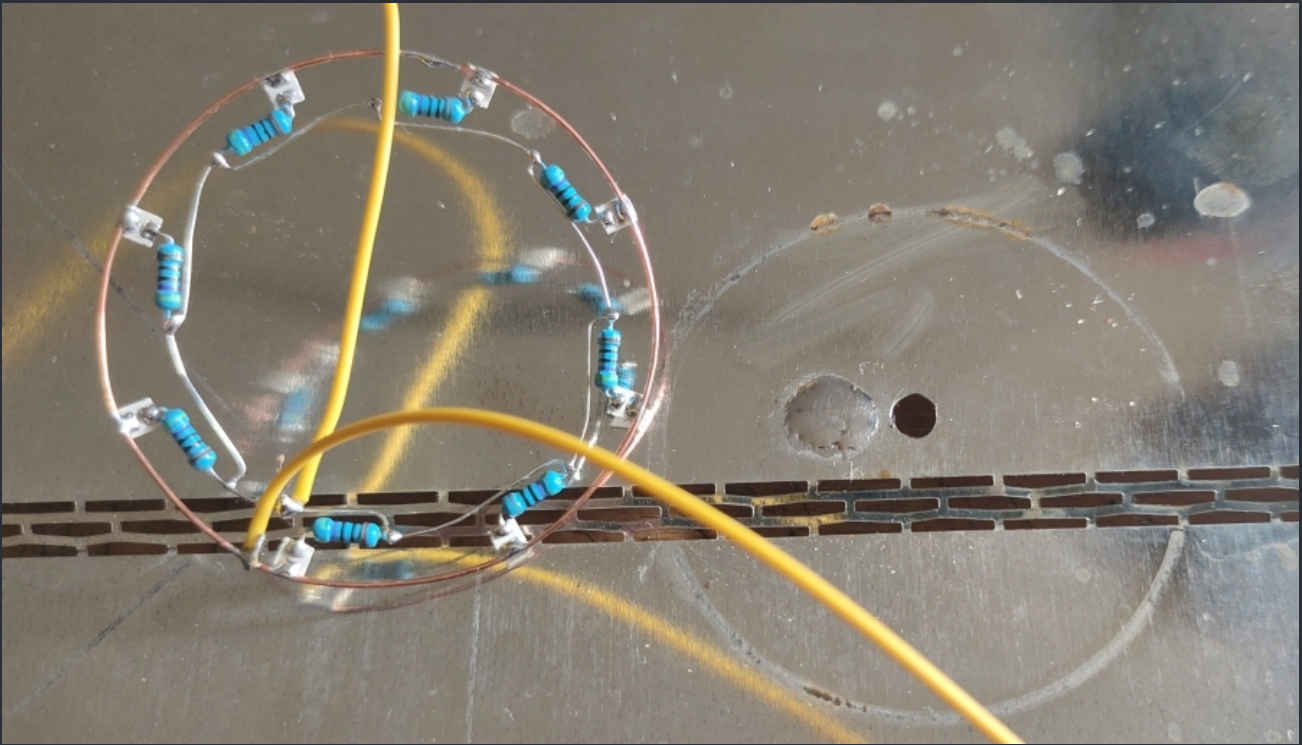
When that's done, take out the ring, clean it up and and test it one more time.



When everything still works, perfect. Time to solder the wires to you your ring.  
What I like to do is, to use the inner shielding as ground. That works well since the Xbox  
itself just have one ground point and uses the shielding as ground as well, so why change it?

So solder on long wire (Depending on where you like to solder it finally to) to the inner ring  
(the „resistor ring“) and a shorter one to the outer ring (our „ground ring“).

Take a look at the image on the next page.



Here you see that I have soldered the wires to the „ring of light“.  
You will also notice, that I already drilled a small hole in the top metal shielding.  
That's the spot we put our wire through.  
And see that solder blob beside the hole? That's where the ground wire goes to.  
There isn't really a downside of doing it that way other than the jewel will not light up when the case is open (because there is no ground connection right?).  
And also please take note, this is the inner side of the shielding which faces upwards against the upper case. So you have the ground wire in between the top case and the shielding.

Alright. Now it's time to get some other things straight before you solder ground and fit the +12v wire through the hole.



Here you see my jewel which are actually two glued together using some strong adhesive double sided tape. Yes tape because glue would eat up the paint and my be the acrylic. And it's also strong enough so it won't come loose to easy.







And here, you maybe already guessed it, it's the 60mm hole in the top case.  
I use 60mm because of the fact that I use a second jewel which fits perfectly  
upside down. If you use acrylic it's time to sand it so it matches up with your jewel.  
Then go to the next step. And for those of you who use a jewel like me, also move on to the next step.

Time to put the the jewel in, needless to say that you have to make it strait, and then tape it down as you see it in the image below.



That way the jewel will stay in place wile we flip the top case over to finish the work.

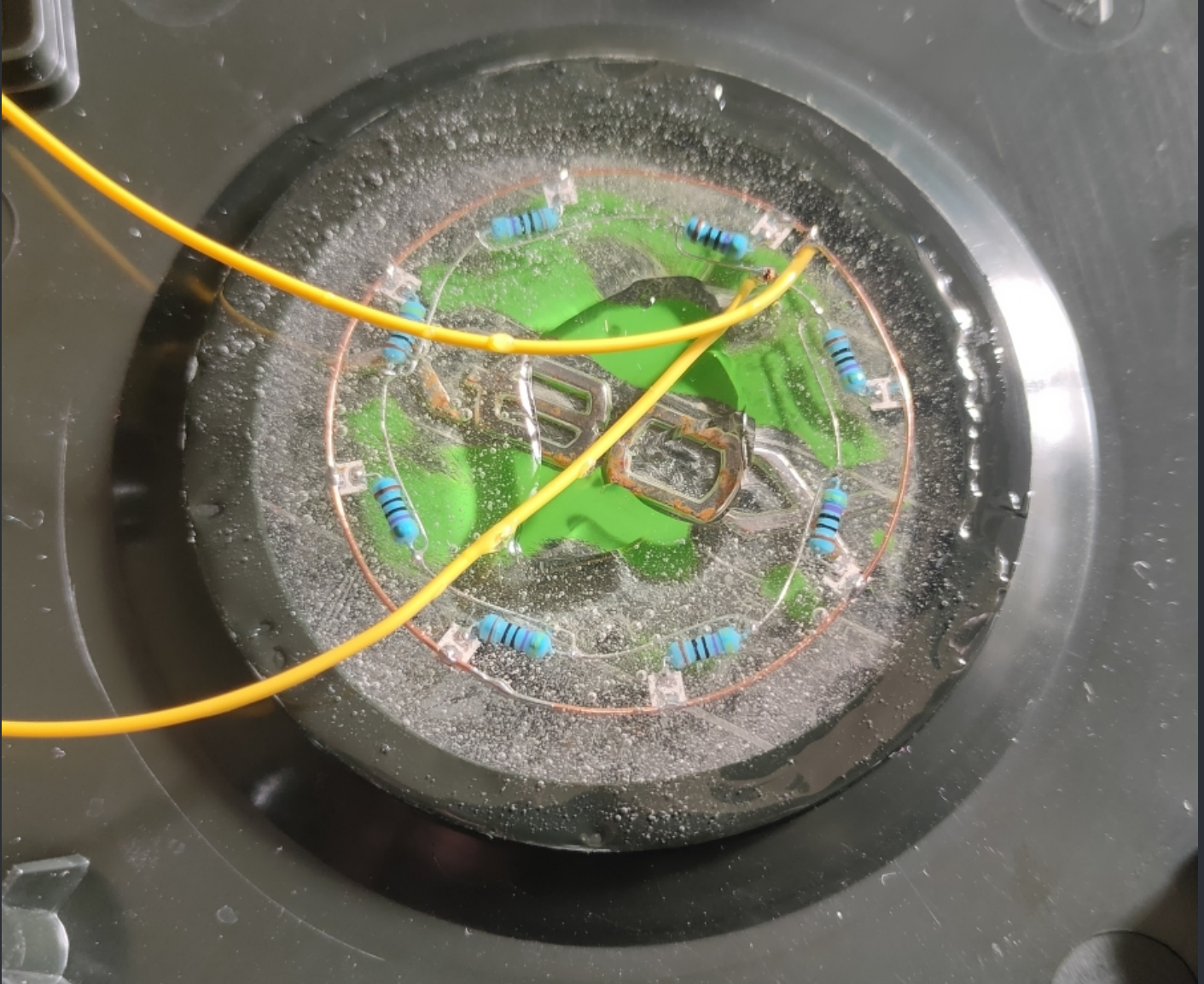


See, it still holds on. :)



And now the more or less final step.  
Take your „ring of light“ and put it in position. To hold the ring in position a **tiny** drop of super glue or better uv glue can be helpfull. That way you can make sure that the ring will not move and stay as close as possible to the jewel we are glue it to.

So what I use to glue the ring is some epoxi. It cures fast and holds everything very well together. Take a look at the image below.



Yes, there are some air bubbles but they will vanish when the expoxi is dry and it also does not matter if there are still some left when the expoxi is dry. It can be a benifit since it defuses the light slightly which is not a down side if you should think that.

And epoxi does not harm the jewel and, as said before, it holds everything together very well.

So, yeah. What ever you use, wait till everything is dry and then grab the inner shielding and solder your ground wire to the inner side and fit the +12v wire through the hole.  
Then press the shielding back onto the top case.





**This is what it then should look like. I have also used some heatshrink for the wire just to preventing it getting cut which would be bad.**

**What you can do is, to use some hot glue around the hole, and fix the wire in place.**

**As a final step solder the end of the wire to either your sata adapter, the second fan header or where ever you can get 12v from.**

**So that's it. A mod not to hard to pull of with a nice effect which costs next to nothing.**



# <=== XBox 128MB Ram Upgrade ===>

===> XBox v1.0-v1.4 Tutorial By William Quade <===



What's the point of upgrading the RAM?

The truth about upgrading the RAM in an original Xbox is that it isn't incredibly useful. You don't really see any benefits while playing retail games or anything like that. There are however some benefits of upgrading the RAM.

1. There are some Sega Chihiro arcade games that work on original Xbox consoles with 128MB of RAM. Those games include:

Ghost Squad  
Outrun 2 Beta  
Virtua Cop 3

And these games do not work:

Crazy Taxi High Roller  
Ford Racing Full Blown  
Gundam Battle Operating Simulator  
Ollie King  
Outrun 2 Final  
Sega Club Golf 2006 Next Tours  
Sega Network Taisen Mahjong MJ 2 and 3  
The House of the Dead III  
Wangan Midnight Maximum Tune 1 and 2

2. Many emulators on original Xbox can take advantage of 128MB of RAM
3. Game debugging performance is improved (Xbox development kits had 128MB of RAM).

So an original Xbox 128MB RAM upgrade isn't quite as useful as a hardmod or softmod for the system. It's more of a mod for those who want to try out those Sega arcade games, run additional emulators, or get into Xbox game development.

There are several ways to perform this upgrade.  
This is a list of the things I used to upgrade my console.

A hard modded Xbox console.  
Four extra RAM chips.  
Soldering iron.  
Hot air rework station.  
No clean flux.  
Solder wick.  
Solder.  
Tweezers.  
Magnification.  
Isopropanol 99,9%.



## Step 1. Sourcing original Xbox RAM chips



To upgrade the RAM in your original Xbox you'll need to get your hands on four extra RAM chips. There are two main ways to do this.

The first way to get extra RAM chips is to remove them from another original Xbox board.

This is what I did because I already had a broken original Xbox board.

The downside of this method is that you need to sacrifice an original Xbox, and that there's a chance the RAM will be damaged if you heat it up too much while desoldering it.

And, all of the various RAM's from the Xbox are compatible with each other.





## Step 2. Installing XBlastOS for RAM chip testing

This is a very important step if you want your installation to be less frustrating.

Basically what you need to do is install the XBlastOS BIOS onto your system. This BIOS allows you to boot with any number of RAM chips installed, and allows you to test each chip individually.

A normal Xbox BIOS will only boot with exactly 4 or exactly 8 perfectly installed RAM chips.

With XBlastOS as long as you don't have any serious shorts you'll be able to boot. Meaning that you'll be able to install a single chip and test it before moving on to the next chip. That removes a lot of guess work and troubleshooting and makes things so much easier.

Here's a link to the XBlastOS.

If you've ever flashed a BIOS to your Xbox before it's pretty much the same process.

There's a bios.bin file which you can flash to your BIOS chip.

Note that XBlastOS isn't something you'll want to keep on your Xbox once you're finished upgrading the RAM. At the moment it has very limited functionality and can't play original Xbox games. So you might want to take a dump of your BIOS so it's easier to flash it back when done.

Also place another bios in C:\bios\ for the backflash when you have done the ram upgrade!

## Step 3. RAM chip installation

In its default configuration the original Xbox will have two RAM chips on the top side of the board, and two on the bottom side of the board. To upgrade the RAM you'll need to solder two chips onto the top, and two chips onto the bottom. You can install them in any order, but I found the chips on the bottom to be easier to install because there weren't any components like capacitors or heatsinks in the way. So you might want to start on the bottom and work your way up.

The process of installing each chip is pretty much the same, so we cover installing a single chip. Just repeat steps 2 and 3 for each of the four chips.

Some boards already have a small amount of solder applied to the RAM chip pads.

My board didn't, but if it did there would be a fairly obvious small bump in each pad.

If there is you can choose whether or not you'd like to remove it using solder wick. Just be careful not to apply any pressure, or use too much heat, since you risk ripping off a pad.



Next you'll want to align the RAM chip in its correct orientation. Each chip should have the same orientation as the chip right next to it. With my chips there is also a smaller circle engraving on the chip that aligns with the corner with a small white circle on the silkscreen of the Xbox board.

With the RAM chip aligned you'll want to pre-tin one corner pad of the board with a little bit of solder. Then put the RAM chip back on top of the board making sure to align it over top of the pads as closely as possible. Then you can solder that one corner pin to the pre-tinned pad.





Recheck the alignment and make any adjustments if needed. You can make very small adjustments without needing to heat up the solder in the corner. Bigger adjustments will require heating up the solder in the corner. I find that keeping a finger pushed down on the chip during this whole process is useful in keeping things centered. Once the chip is fully aligned solder the opposite corner pin to the pad.



Now you can solder the rest of the pins to the board. Apply flux to all of the pins, don't worry about applying too much, the more the better. Once the flux is applied carefully apply a small amount of solder to the tip of your soldering iron, and drag it across the pins. You'll want to both drag across the pins from pin to pin, as well as drag down the pins from the top of the pin down to the edge of the pad. I did the dragging process in both directions several times before it was the way I wanted.





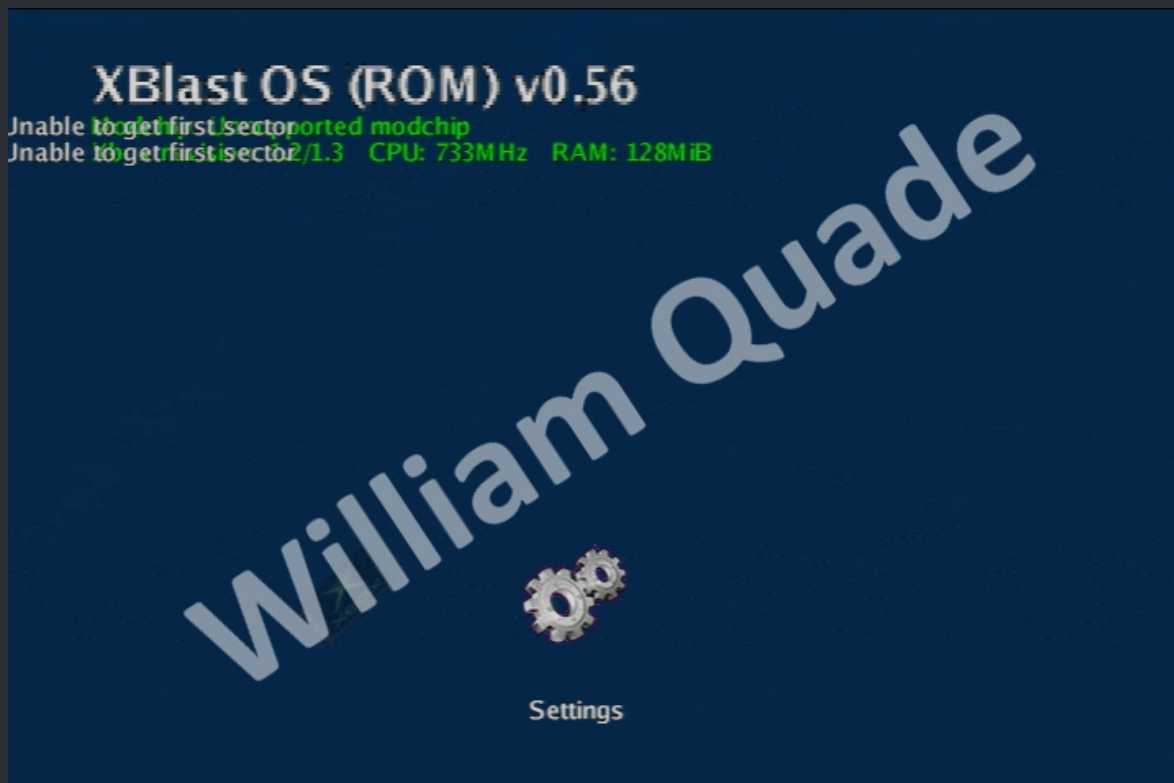
The goal is to apply an even coating of solder to each pin that forms a nice solid connection with the pad. It's better to use not enough solder and add more later than it is to apply too much solder and have a hard time removing it.

If you add too much solder it may work itself out as you repeat the dragging process focusing on bridged or cold connections.

If it doesn't you may need to use a little bit of solder wick to remove some solder.

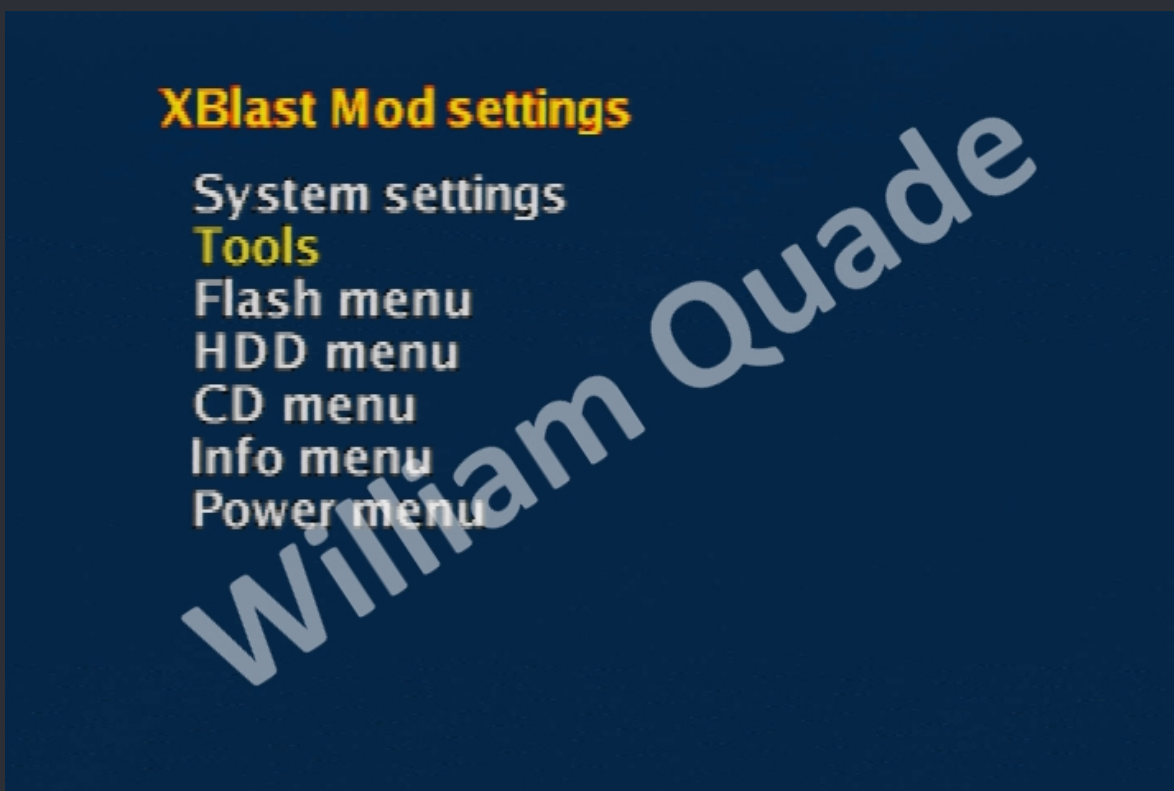
Repeat this process for each of the four sides of the chip. You'll likely start to get a feel for how much solder each side needs as you get more practice. Once you think the RAM chip is properly soldered move on to the RAM chip testing phase.

#### Step 4. RAM chip testing



Once you've installed a RAM chip you'll want to test it. Before you do that you'll want to clean off as much flux as you can using isopropanol and a brush. Then you can put the board into the console.

You don't need to connect everything, just the power supply connector, power button connector, and controller port connectors. Then you can plug in the power supply into an outlet, and the console into a TV.



## Tools

Save EEPROM to modchip

Edit EEPROM content

Reset system settings

**128MB RAM test**

Load C:\xblast.cfg

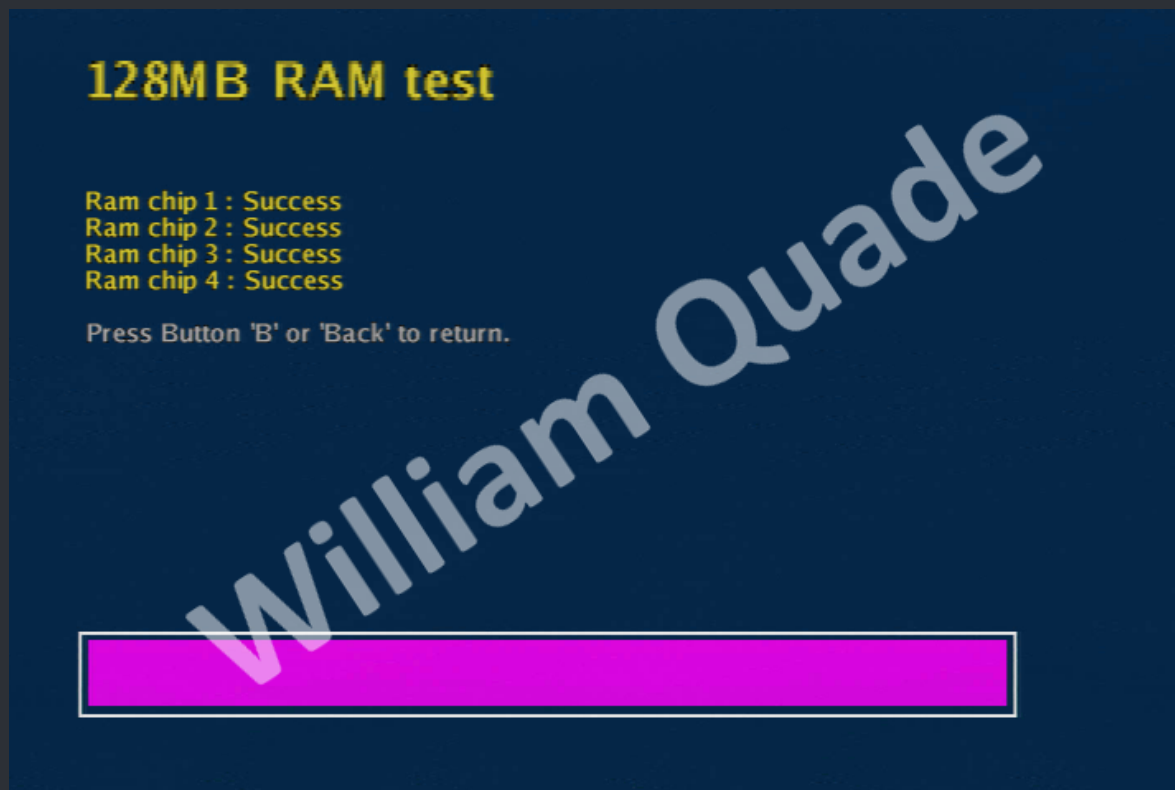
XBlast scripts

Turn on the console and you'll see the XBlast OS boot menu. If you don't then chances are you caused some sort of short on the board that needs to be fixed. Select the settings menu, then select tools, then select the 128MB RAM test.

**128MB RAM test**



The 128MB RAM test tool will go through each RAM chip and test it. It may take a while, especially when you've installed all four chips. It will either say success or failed for each chip. If the test fails for the chip you are trying to install then you'll need to rework it. If it succeeds you can move on to installing the next chip.



A good way to diagnose your soldering is to use tweezers and gently wiggle each pin. If a pin wiggles or moves in any way it's loose and needs to be soldered. You might also want to look around for any potential solder bridges and correct them. If you aren't having any luck at all you might want to try reapplying flux to all of the pins and reflowing them with your soldering iron again.

### Step 5. Finishing up the Xbox 128MB RAM upgrade



Once all four RAM chips have been tested you can completely put back together your system. You'll want to reflash your BIOS of choice which is Cerbios. ;)

★ Credits fly out to William Quade ★

## Intro

Since the beginning of time (2004) it was known that the 1.6 was missing the unpopulated footprints for the extra 4 RAM chips and this made the upgrade *impossible*.

I was thinking recently that if all the signals for the extra RAM chips are still available on the board, we can add RAM to the 1.6 by just connecting all the necessary signals. After the tutorial segment

I'll go into why this mod works. Here is also a video on [YouTube](#).

Be warned: this is more difficult than a 1.0 - 1.4 RAM upgrade

## Tutorial

### Required items

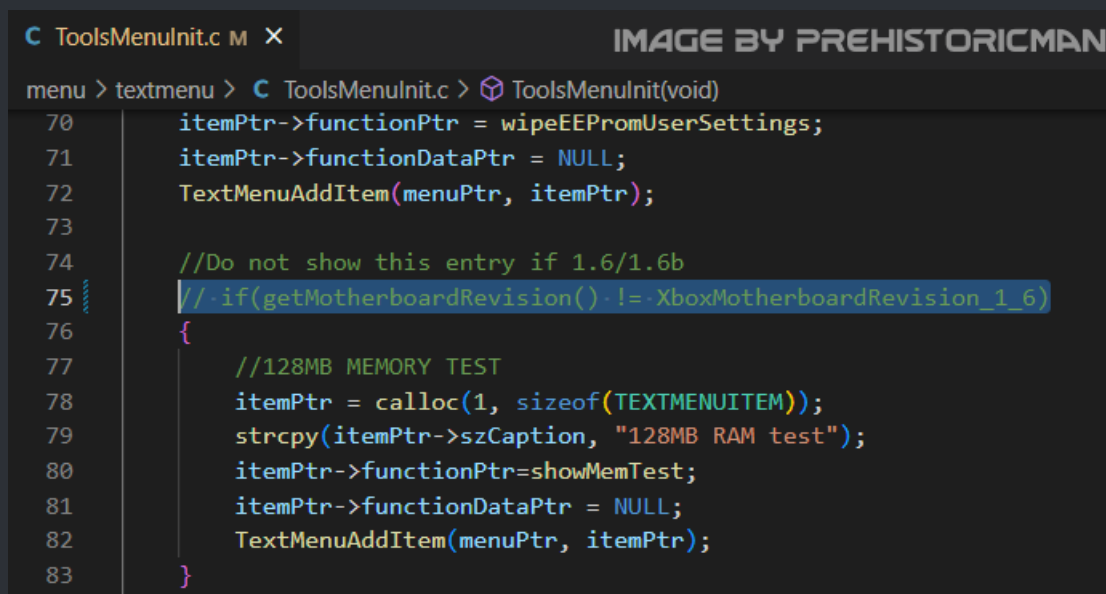
1. Everything mentioned in the 1.0 - 1.4 RAM upgrade tutorial: [https://consolemods.org/wiki/Xbox:RAM\\_Upgrade](https://consolemods.org/wiki/Xbox:RAM_Upgrade).
2. 4x 90mm long mod-wire. I used enamelled wire from a transformer.
3. ~8 hours spare time.

## Step 1

Flash the modified XBlast OS BIOS which you can download [here](#).

XBlast OS (as a BIOS) is super helpful in doing this install correctly. It will boot with any number of extra RAM chips and includes a test for the additional RAM. XBlast OS will not show the 128MB test option on a v1.6 Xbox, so I've gone ahead and rebuilt it from source with that check removed.

If you don't trust my build, this is the line of code that needs removing from the source code:



```

C ToolsMenuInit.c M X
IMAGE BY PREHISTORICMAN
menu > textmenu > C ToolsMenuInit.c > ToolsMenuInit(void)
70 itemPtr->functionPtr = wipeEEPromUserSettings;
71 itemPtr->functionDataPtr = NULL;
72 TextMenuAddItem(menuPtr, itemPtr);
73
74 //Do not show this entry if 1.6/1.6b
75 //if(getMotherboardRevision() != XboxMotherboardRevision_1_6)
76 {
77     //128MB MEMORY TEST
78     itemPtr = calloc(1, sizeof(TEXTMENUITEM));
79     strcpy(itemPtr->szCaption, "128MB RAM test");
80     itemPtr->functionPtr = showMemTest;
81     itemPtr->functionDataPtr = NULL;
82     TextMenuAddItem(menuPtr, itemPtr);
83 }
  
```

At this point, I suggest booting it up and running the test.

The test is under Settings > Tools > 128MB RAM test

## Step 2



## **Remove the motherboard from the Xbox**

### **Step 3**

#### **Place the new RAM chip on top of an existing chip**

You'll want to solder down the corner pins first to get a good mechanical bond and so that you can adjust the alignment. I do this by pushing down pins 30 and 31 and soldering them down to the chip below. Then I check the alignment of the rest of the pins. If it's bad, then the chip can be nudged into position while reflowing the two pins. Then solder the two pins opposite.

### **Step 4**

#### **Push down the rest of the pins**

You'll want to solder down the corner pins first to get a good mechanical bond and so that you can adjust the alignment. I do this by pushing down pins 30 and 31 and soldering them down to the chip below. Then I check the alignment of the rest of the pins. If it's bad, then the chip can be nudged into position while reflowing the two pins. Then solder the two pins opposite.

### **Step 5**

#### **Start soldering all the pins**

Very little extra solder is required. Use lots of flux. I like the tacky flux that usually comes in syringes. I also like the drag-soldering method. If there's any excess solder, you will get shorts between pins and this extra solder can be wicked away. The new pins won't naturally touch the pins below even after pushing them down.

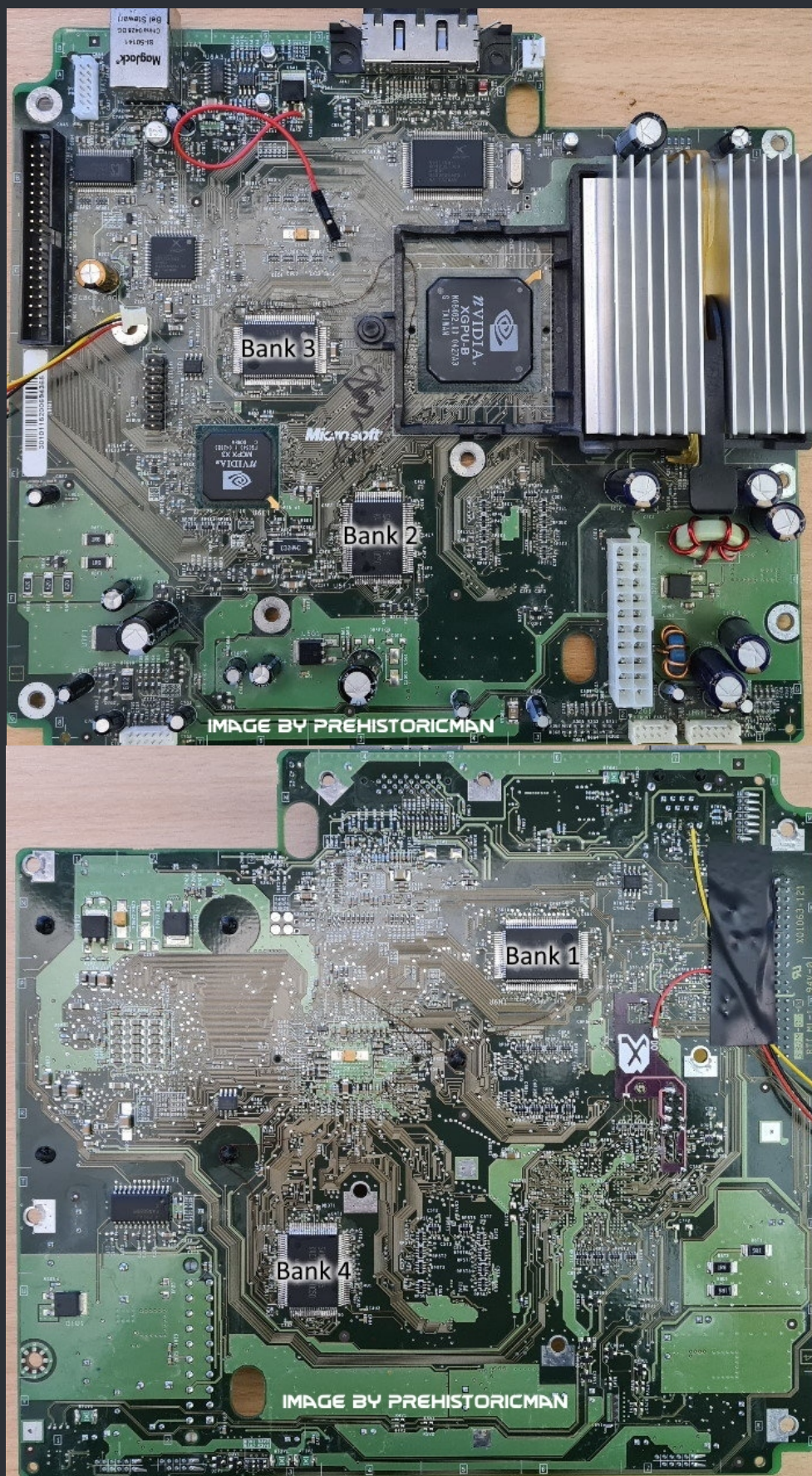
### **Step 6**

#### **Check for shorts and missing connections**

For the first pass, I like to go in with a microscope and nudge each pin (of the new chip) with a cold soldering iron tip. If the pin moves easily, it is not soldered. Also check for shorts at the same time. If you have the patience (and want it to work first try without frying your Xbox), check for shorts and continuity with a multimeter. I skipped this the first time and got bitten! Best to clean the pins and pads with IPA before checking with the multimeter.

### **Step 7**

First, figure out which bank you are adding

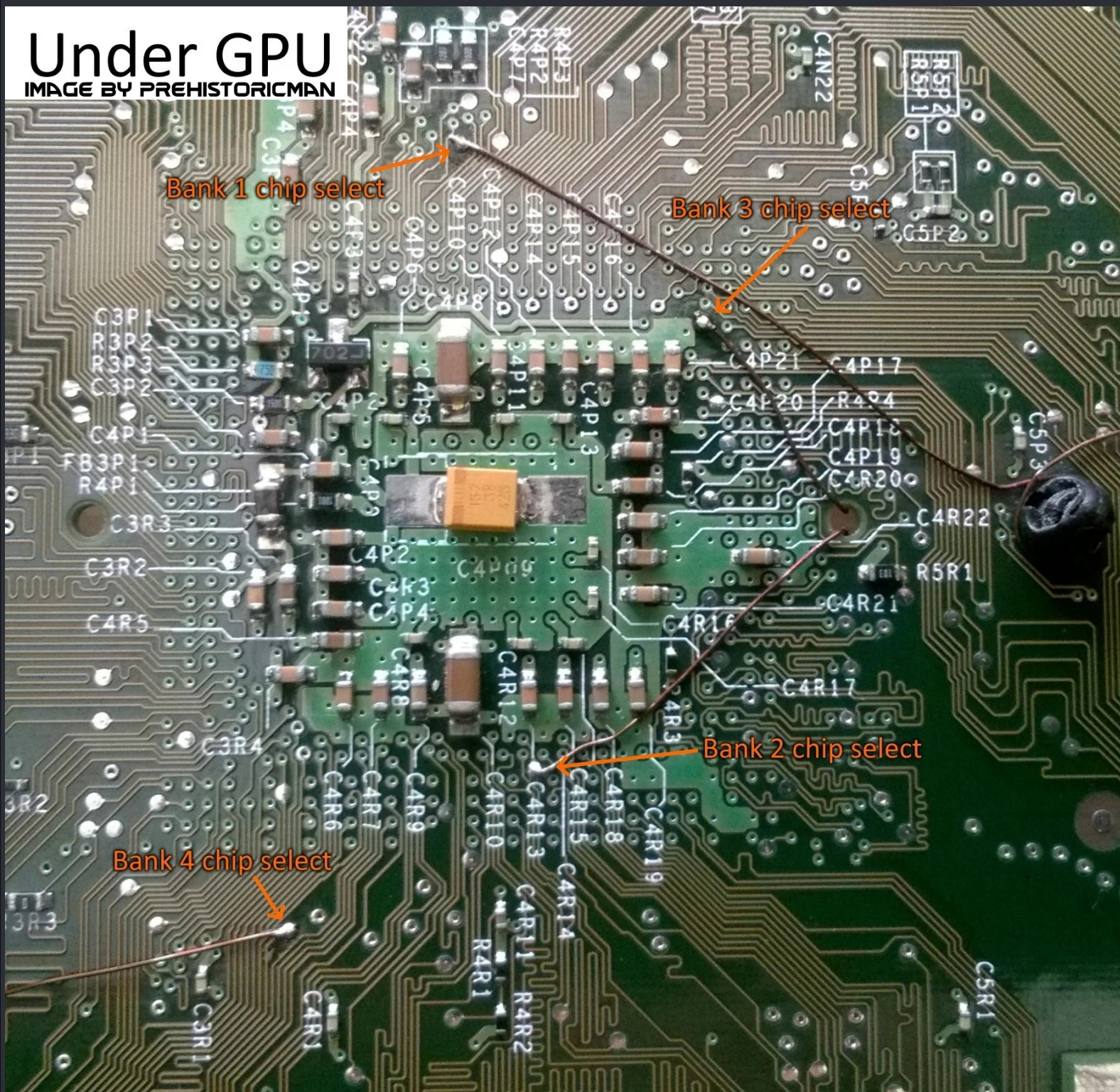




Then, find the chip-select solder point

# Under GPU

IMAGE BY PREHISTORICMAN

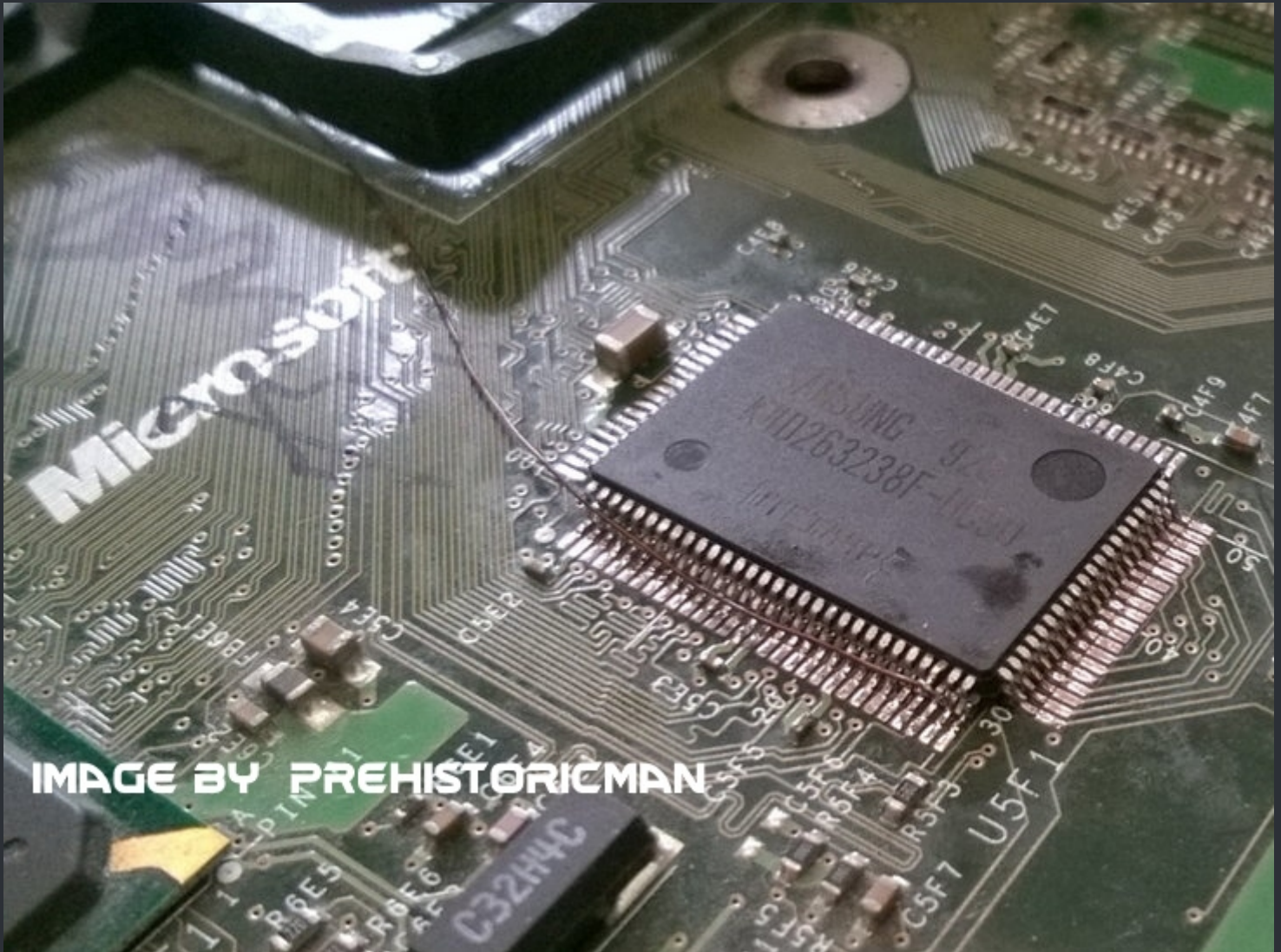


Bank 1	CS is left of the label for C4P10
Bank 2	CS is between the labels for C4R12 and C4R13
Bank 3	CS is left and above the label for C4P21
Bank 4	CS is between and above the labels C4R1 and C3R1



For banks 2 and 3, the chip-select wire can go through the hole to the left of the GPU.  
For bank 2, 90mm may be too short, so check the wire length and cut it as short as possible.  
I removed the GPU heatsink to access this hole.

At this point, it should look something like this:



### Step 8

Reassemble loosely and test in XBlast.

If the Xbox reboots twice and FRAGs, check the bios selection (if you have one available).

A normal BIOS will not accept between 1 and 3 extra RAM chips.

If the Xbox reboots three or four times (and it's faster than a normal FRAG sequence)  
check for shorts. This happened to me.

### Step 9

Repeat for the other 3 chips.



### Step 10

Reflash with your favourite BIOS.

Some 1.6 BIOSs won't support 128MB. The X3 BIOS works just fine and it's the only one I tested so far.

★ Credits fly out to Prehistoricman. ★

### Bios Options

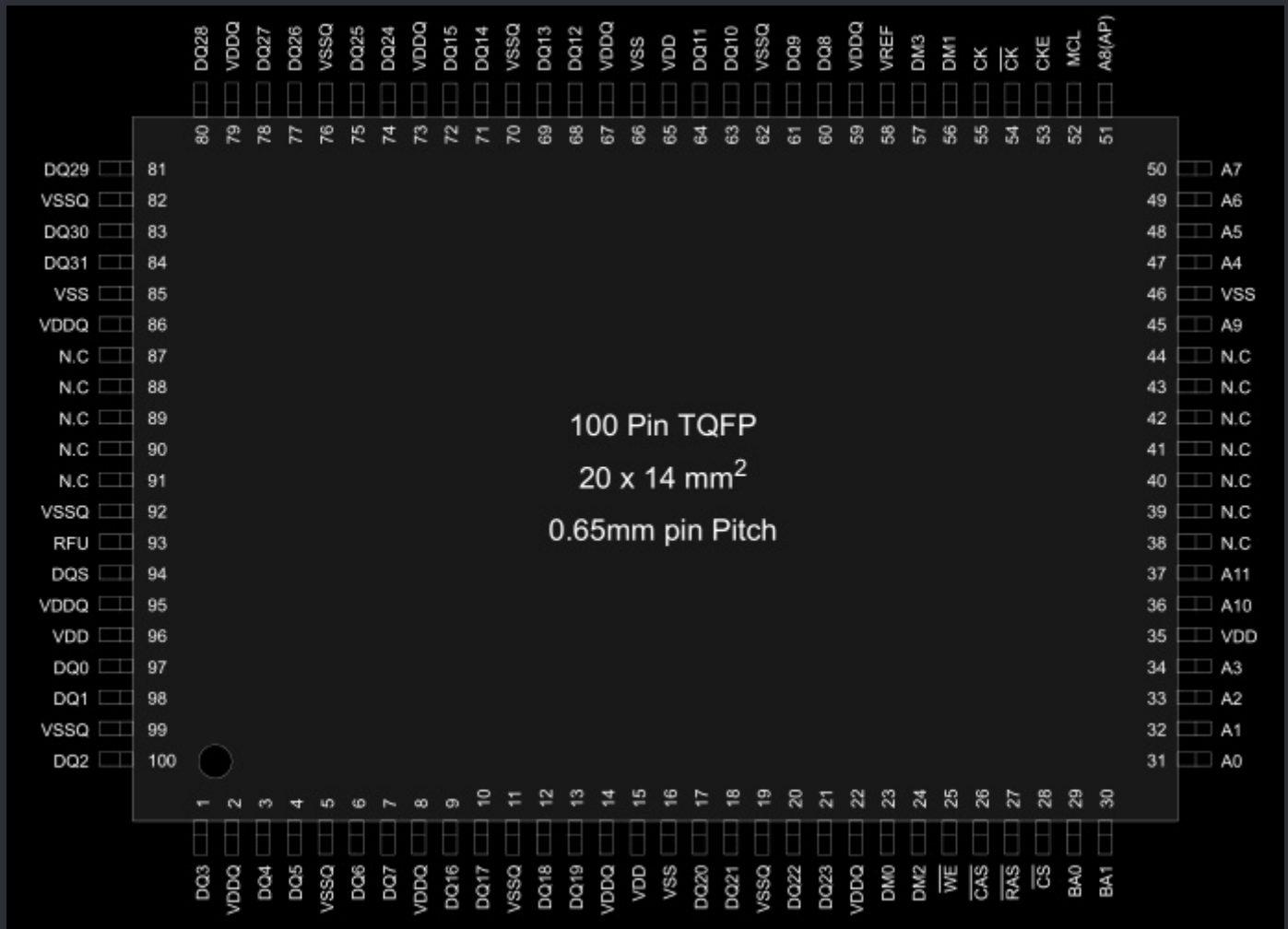
Xecuter x3

Cerbios

EvoX m8 plus v1.6 - 128MB Patched

# <=== Xbox Ram ===>

## ===> Samsung Ram Pinout <===



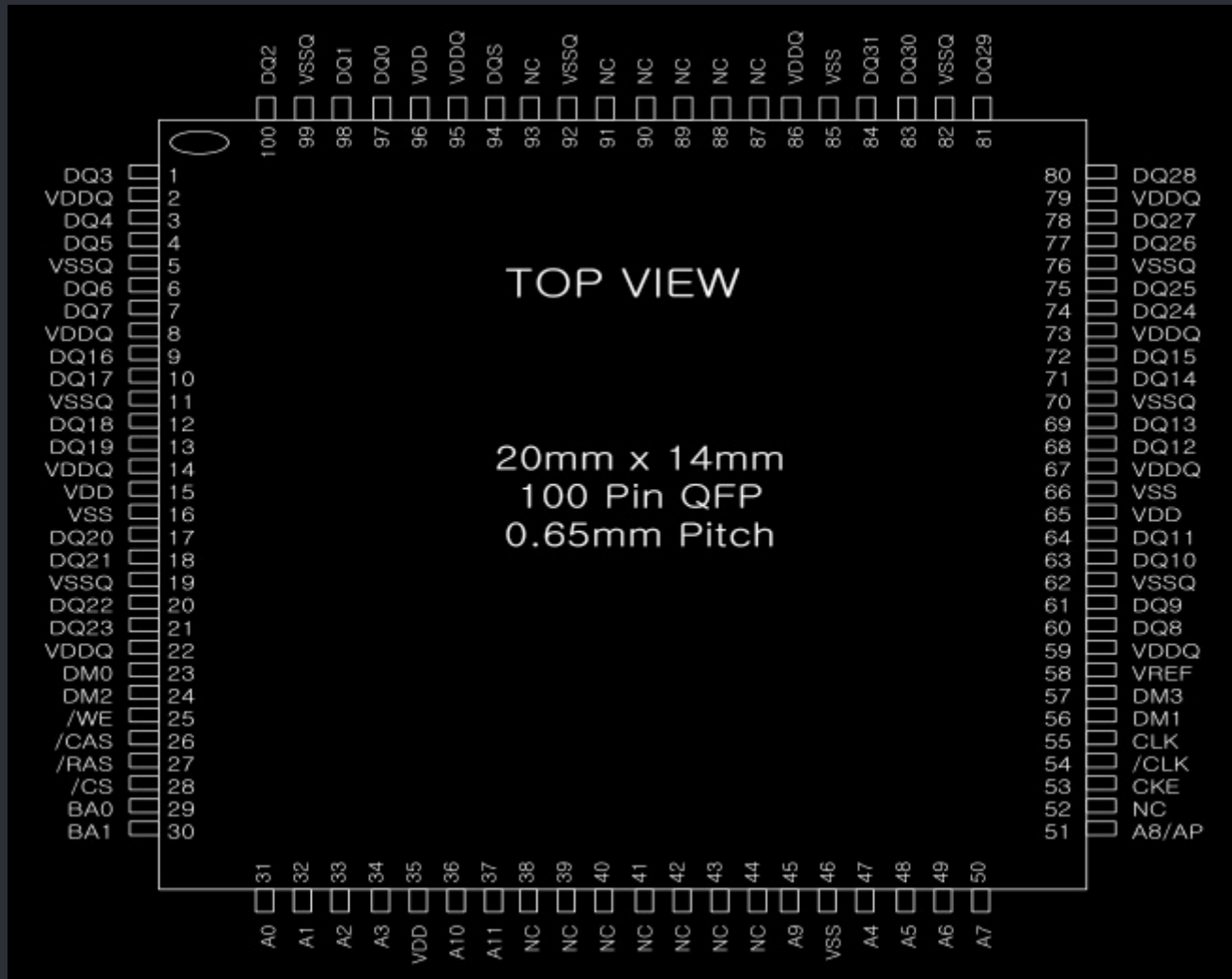
All Ram chips are interchangeable. You can mix M with F or even use 4 different ones for an upgrade. You can also mix Samsung with Hynix but it's not advised due to slower speeds of the Hynix ram.

And if you fancy you can replace all ram chips with the faster QC40 version.  
And yes, even a mix of QC50 and QC40 works fine.

Samsung Ram K4D263238M Datasheet download: [Here](#) or [here](#).  
Samsung Ram K4D263238F Datasheet download: [Here](#).



## ===> Hynix Ram Pinout <===



You can mix Samsung with Hynix but it's not advised due to slower speeds of the Hynix ram.

Hynix Ram Datasheet download: [Here](#) or [here](#).

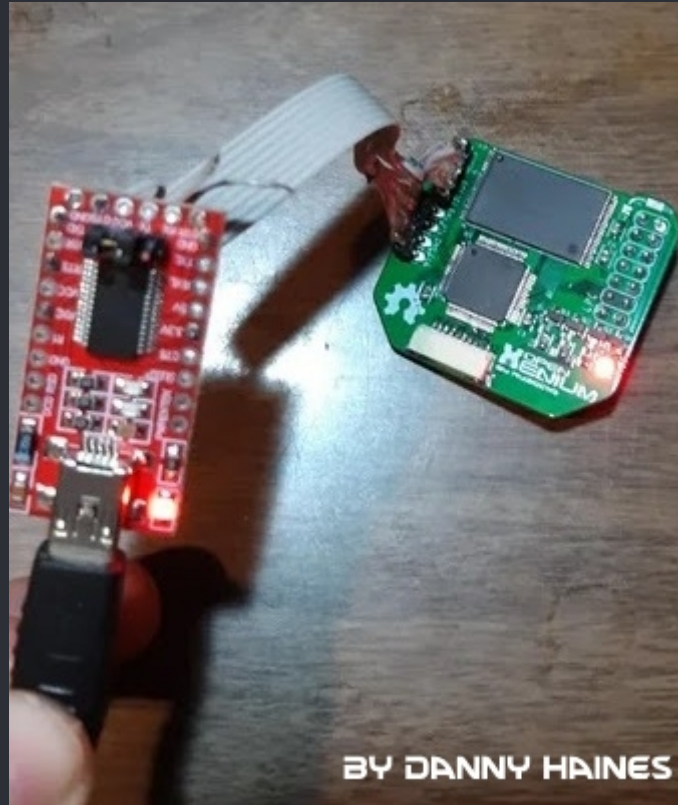
# <=== OpenXenium ===>

===> OpenXenium w. OpenOCD <===



By Danny Haines

## Programming XC9500XL with OpenOCD and an FTDI RS232R USB adapter



### About

These instructions and software allow you to easily program the OpenXenium in windows.  
Where it all began

So I bought all the parts to put together ten OpenXenium boards. It's an excellent project by Ryze119.

He's done all of the hard work so all you have to do is order the PCB's and the components.

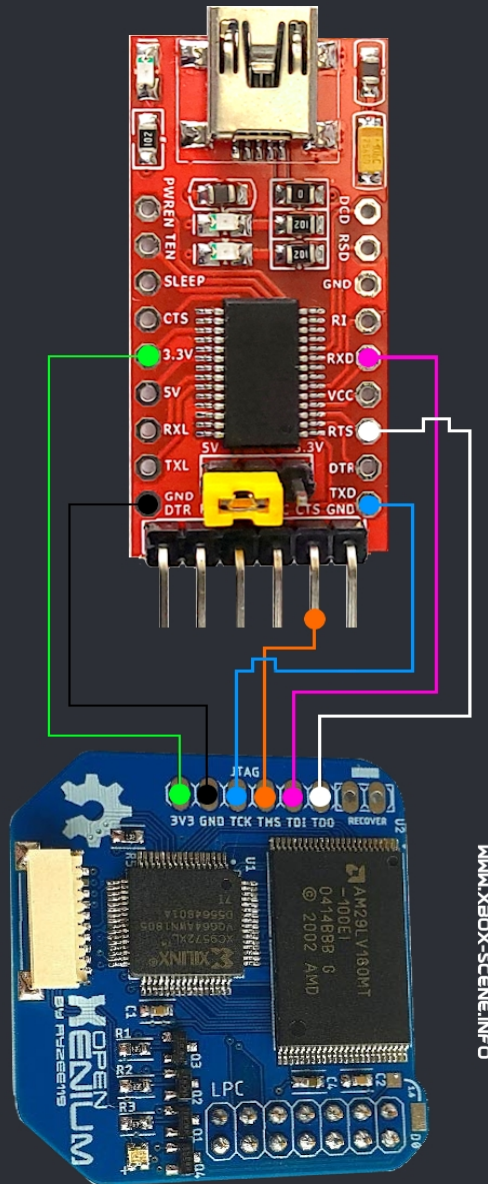
I went with PCB way and patiently waited a month for everything to arrive.

I had done some searching regarding the programming the XC9500XL CPLD and came across this article programming a xc9500xl cpld with a raspberry pi, the article makes mention of a few methods and different software but is sparse on details. The author mentions having success using a RS232R adapter, so I was determined to make this work. RS232R adapters cost less than \$3.00 each and I happen to have four of them.

So I scoured the internet and tried piecing together a solution. My initial setup involved compiling openOCD in linux and synthesizing the SVF file with ISE's impact. I had many issues getting everything working and thought about caving and just buying a legit programmer. Each small success helped me keep pushing through and I eventually figured it out. Now I'd like to share with you an easy solution which came from all of this work- no compiling, no linux, just wiring and clicking!

## Wiring the FT232R and the XC950XL

So the exact chip I'm using is the FT232RL, the L just designates the package type. So any FT232R is fine however your wiring will be different from the picture below. You don't have to solder all of these connections you just need good contact.



WWW.XBOX-SCENE.INFO

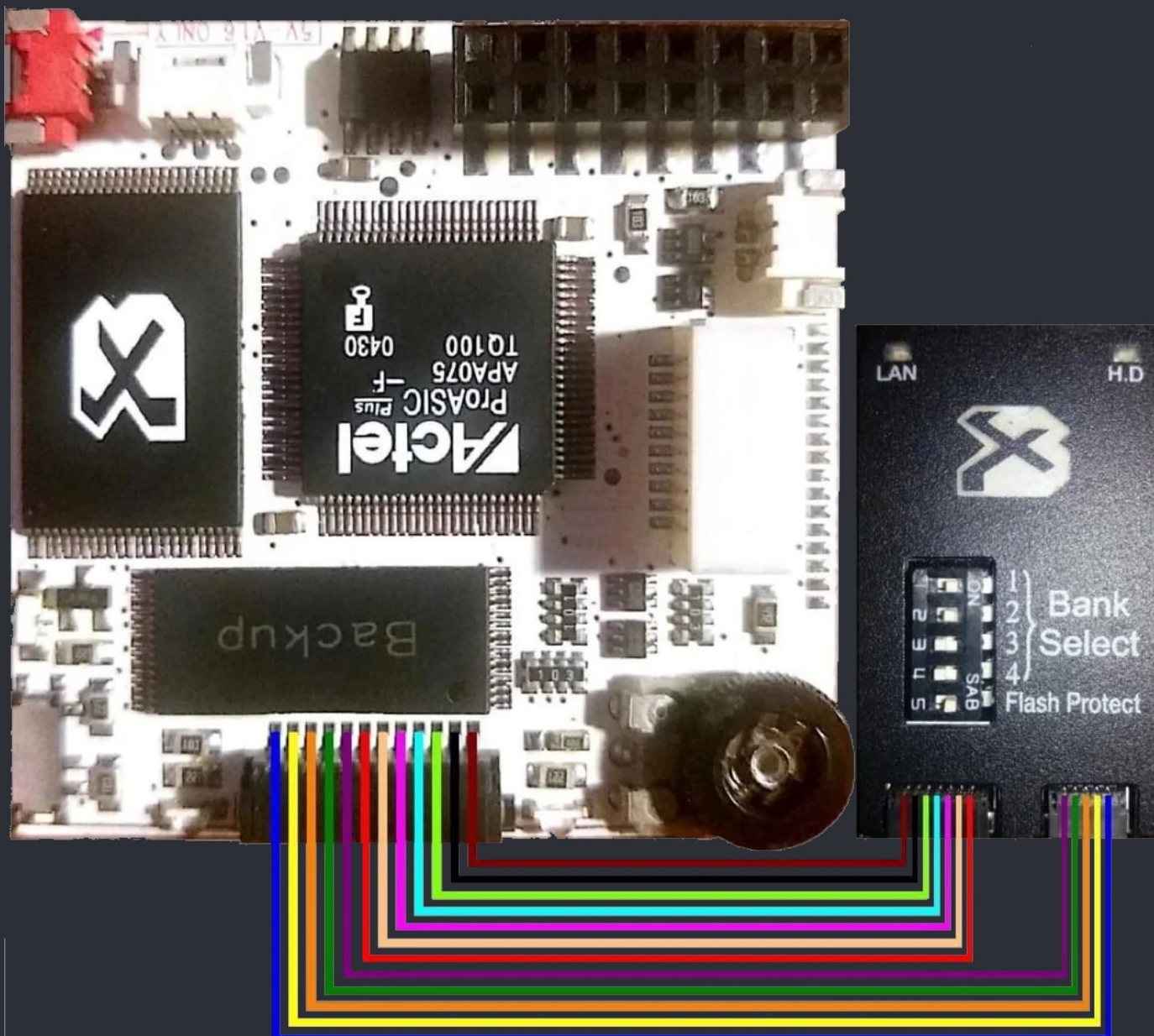
RS232	XC950XL
RXD(5)	TDI
TXD(1)	TCK
RTS(3)	TDO
CTS(11)	TMS
DTR(2)	TRST
DCD(10)	SRST

The required software can be downloaded [here](#) or [here](#).

Walkthrough of programming the CPLD of the OpenXenium with an FT232R Youtube Video: [Click Me](#)

★ Credits fly out to Danny Haines. ★

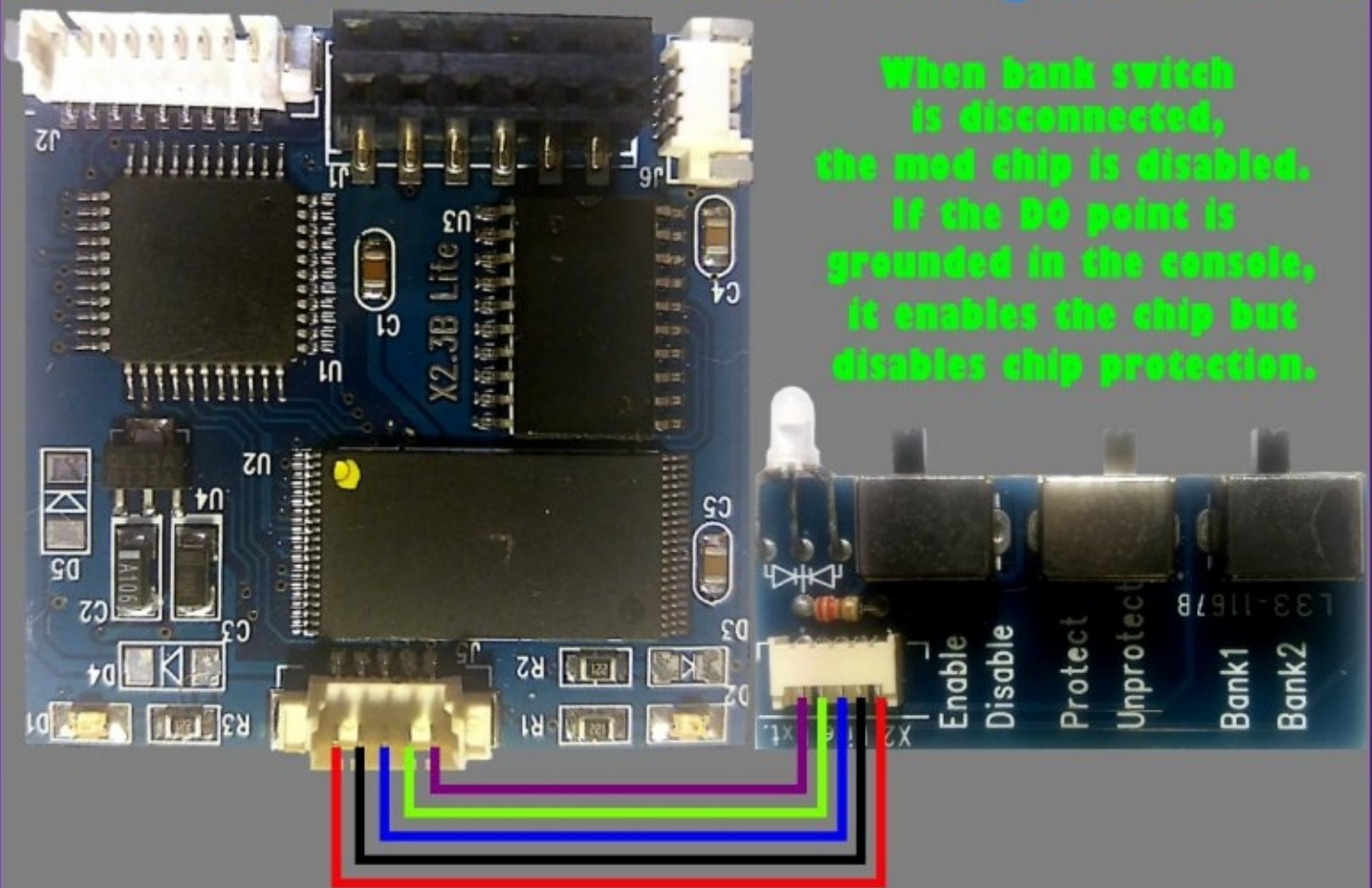




Blue	Bios protection (Short to ground)
Yellow	Unused (No connected circuit on the switch)
Orange	LAN LED +3.3v (When network port is active)
Green	HDD LED +3.3v (When hard drive is active)
Purple	Logo LED's (Blue) +3.3v (When x3 is enabled)
Red	Logo LED's (Red) +3.3v (When x3 is disabled)
Light Blue	Bank switch 1 (Short to ground)
Pink	Bank switch 2 (Short to ground)
Cyan	Bank switch 3 (Short to ground)
Light Green	Bank switch 4 (Short to ground)
Black	Ground
Dark Red	Bank select backlight LED's +3.3v (No LED's present, although solder pads are there)

When the bank switch is disconnectet, all banks are active giving access to full 2MB space and bios protection is disabled

## Xecuter 2.3b Bank Switch Wiring Schematic

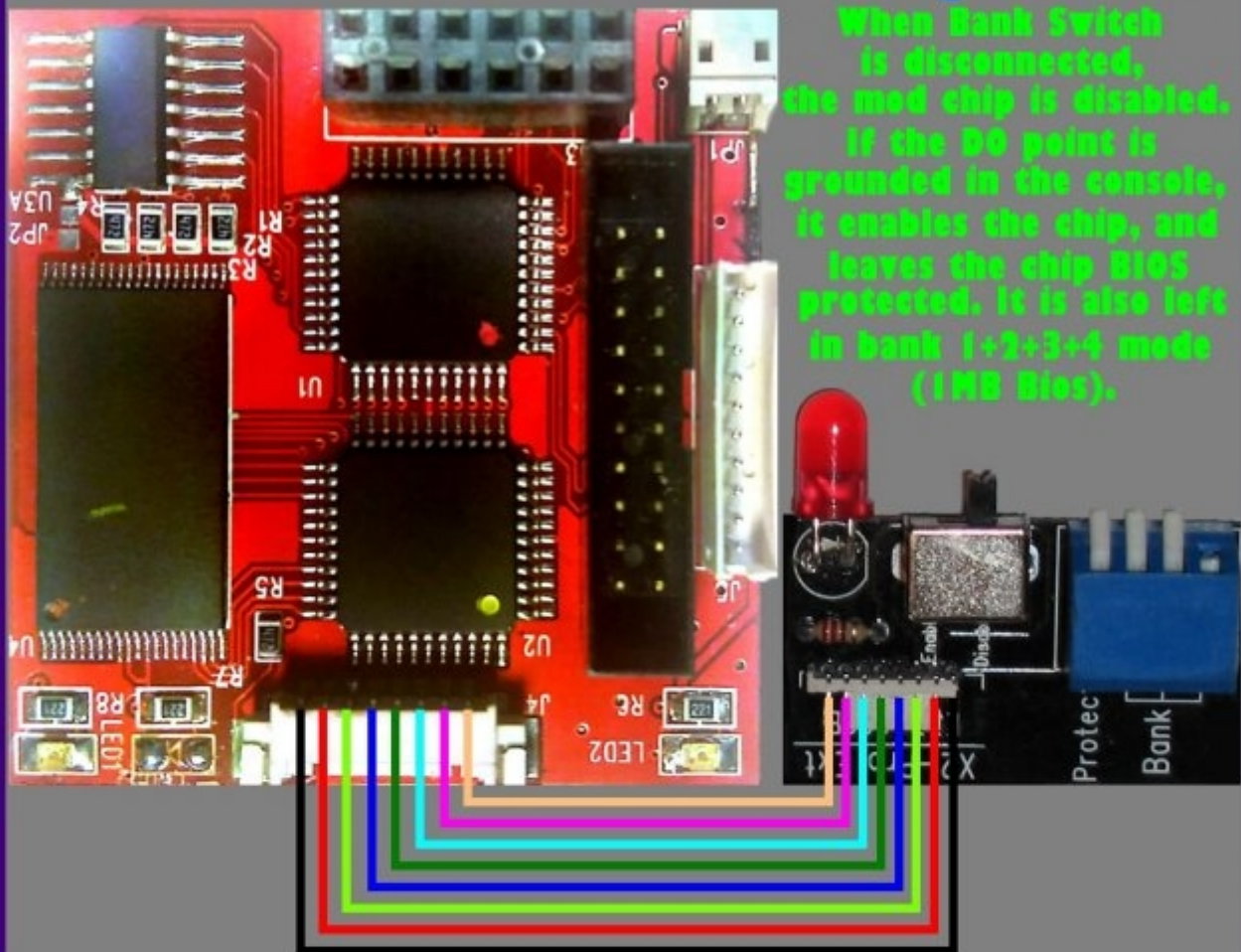


When bank switch is disconnected, the mod chip is disabled. If the DO point is grounded in the console, it enables the chip but disables chip protection.

- **LED +5v Power (on DPDT chip enable switch)**  
*\*green if enabled, red if disabled*
- **GROUND - (330 Ohm resistor on switch for LED only)**
- **BIOS Protection (when shorted to ground)**
- **MOD Chip Enable (when shorted to ground)**
- **Bank 1 Enable (when shorted to grnd, Bank 2 if not)**



## Xecuter 2.2 Pro Bank Switch Wiring Schematic



### — GROUND -

- LED +5v Power (on with Xbox, even if chip disabled)
- MOD Chip Enable (when shorted to ground)(D0 point)
- BP1 (BIOS unprotect when shorted to BP2)
- BP2 (BIOS unprotect when shorted to BP1)
- Bank Switch 3 (short to ground)
- Bank Switch 2 (short to ground)
- Bank Switch 1 (short to ground)



# X-B.I.T

Dip1-3 Up = Bios Bank ON/Selected  
Dip4 = Modchip Enabled - Disabled

Xbit Enabled dip 4 OFF(Down)  
Xbit Disabled Dip 4 ON (Up)

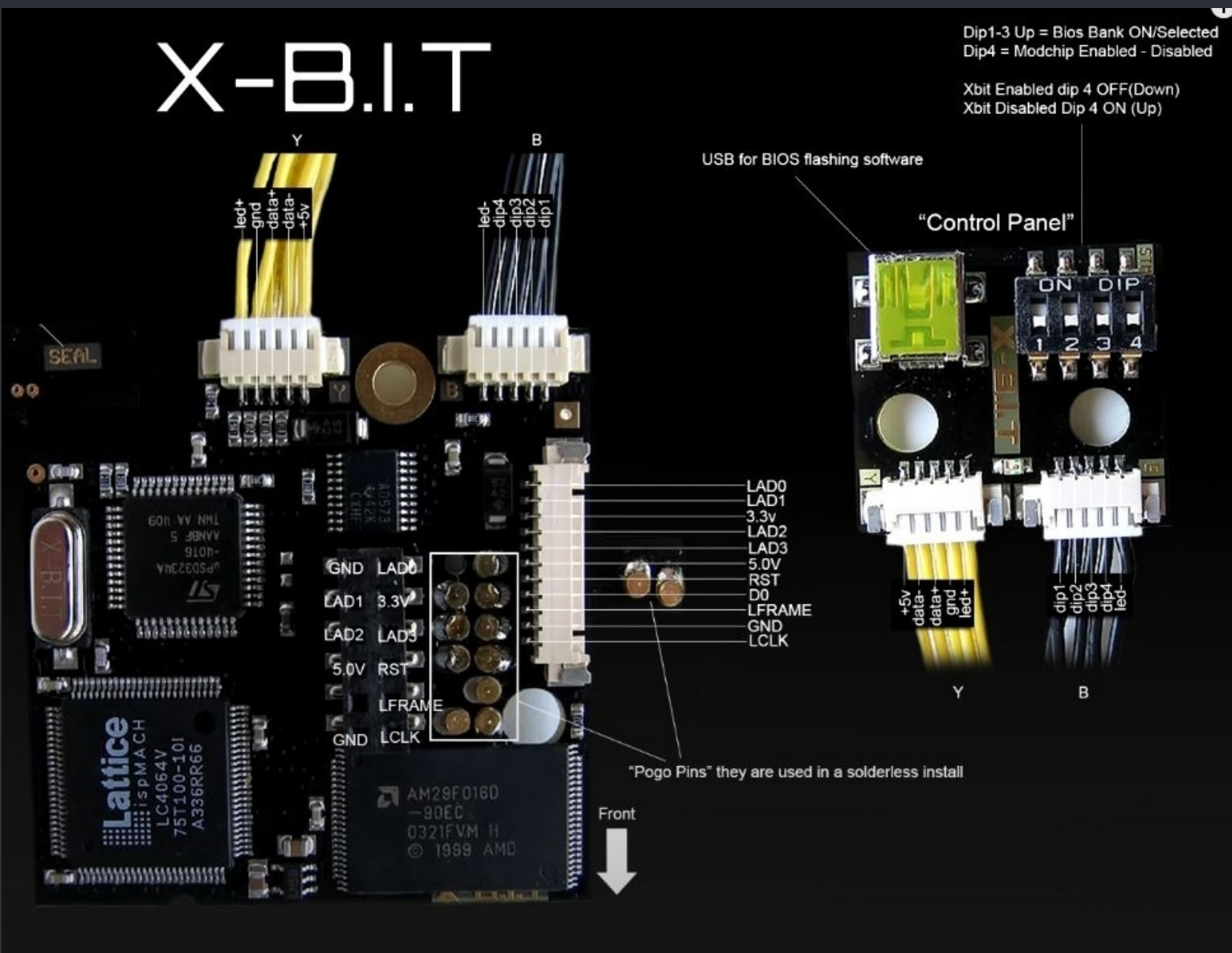
USB for BIOS flashing software

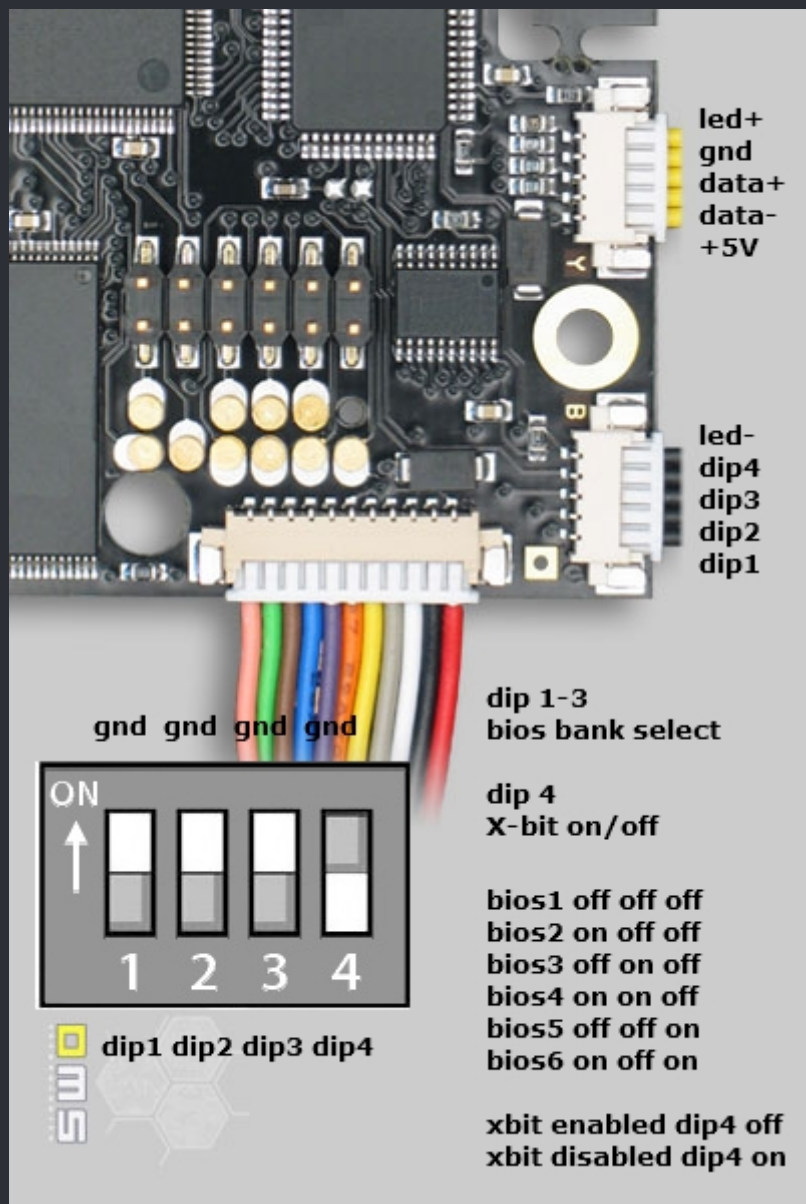
"Control Panel"

LAD0  
LAD1  
3.3v  
LAD2  
LAD3  
5.0V  
RST  
D0  
LFRAME  
GND  
LCLK

"Pogo Pins" they are used in a solderless install

Front





The Xecuter 2.X Pro series have 4 banks of 256k each.  
The Pro's come with 4 Dip switches which allow you to boot with a series of combinations:

### Xecuter 2.x Pro Dip Switch Settings

1MB (Banks 1234)

512k (Banks 12)

512k (Banks 34)

256k (Bank 1)

256k (Bank 2)

256k (Bank 3)

256k (Bank 4)

**Note: DIP 4 Is Flash Protection Mode**  
 DIP 4 ON: YOU CAN FLASH BIOS  
 DIP 4 OFF: YOU CANNOT FLASH BIOS

When flashing mod with Cromwell or X2BM the PRO must be in 1MB mode and DIP4 ON

And below are the old X2.0-2.2Pro switch settings:

The DIP switches settings for the X2.0 Pro are above the "Bios Switch Settings" picture and the X2.1 & X2.2 Pro are below it to make it easier to read.

For X-ecuter 2.0 Pro

Switch 4 (Sw4) is used to enable/disable the modchip.

Sw1	Sw2	Sw3	Bank selected
0	0	0	1Mb Banks 1,2,3,4 (Flash Address 0x00000 - 0xFFFFF)
0	1	0	512k Banks 1&2 (Flash Address 0x00000 - 0x7FFFF)
1	1	0	512k Banks 3&4 (Flash Address 0x80000 - 0xFFFFF)
0	0	1	256k Bank 1 (Flash Address 0x00000 - 0x3FFFF)
1	0	1	256k Bank 2 (Flash Address 0x40000 - 0x7FFFF)
0	1	1	256k Bank 3 (Flash Address 0x80000 - 0xBFFFF)
1	1	1	256k Bank 4 (Flash Address 0xC0000 - 0xFFFFF)



# Bios Switch Settings for Xecuter2 PRO

**1MB MODE**  
Banks 1/2/3/4



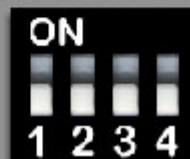
**512k MODE**  
Banks 1 & 2



**512k MODE**  
Banks 3 & 4



**MOD DISABLE**  
Switch 4 OFF



**256k MODE**  
Bank 1



**256k MODE**  
Bank 2



**256k MODE**  
Bank 3



**256k MODE**  
Bank 4



For X-ecuter 2.1 and 2.2 Pro

Switch 4 (Sw4) is used to enable/disable the flashprotection.

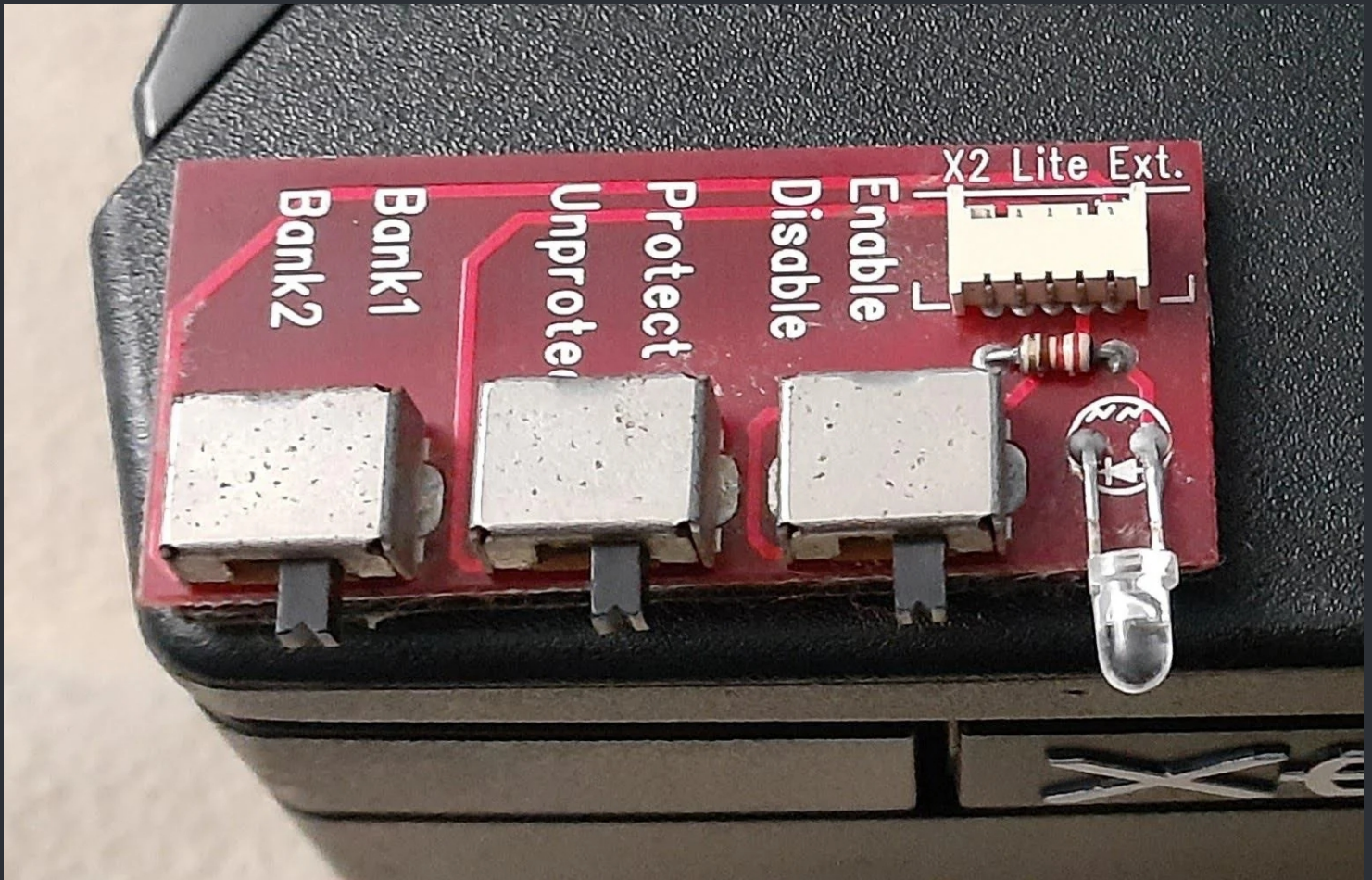
The separated black switch is to enable disabled your modchip:

if it's on the side of the blue/white switches the modchip is disabled, on the other side it's enabled.

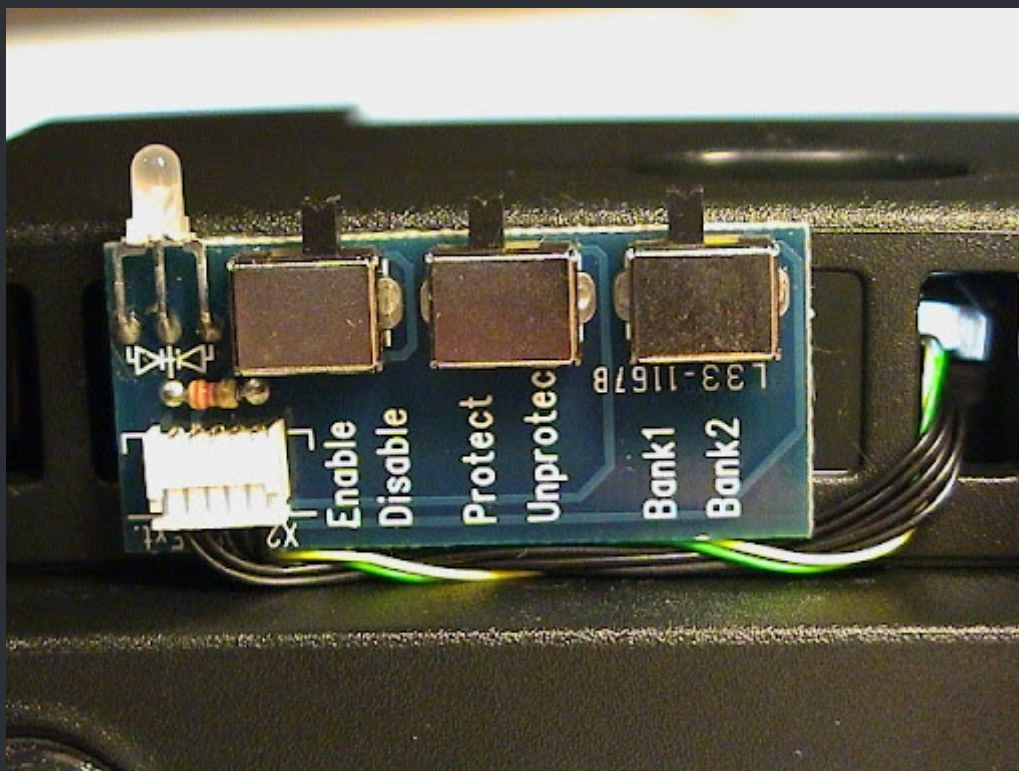
Sw1	Sw2	Sw3	Bank selected
0	0	0	1Mb Banks 1,2,3,4 (Flash Address 0x00000 - 0xFFFFF)
0	1	0	512k Banks 1&2 (Flash Address 0x00000 - 0x7FFFF)
1	1	0	512k Banks 3&4 (Flash Address 0x80000 - 0xFFFFF)
0	0	1	256k Bank 1 (Flash Address 0x00000 - 0x3FFFF)
1	0	1	256k Bank 2 (Flash Address 0x40000 - 0x7FFFF)
0	1	1	256k Bank 3 (Flash Address 0x80000 - 0xBFFFF)
1	1	1	256k Bank 4 (Flash Address 0xC0000 - 0xFFFFF)

★ Credits fly out to forahobby ★

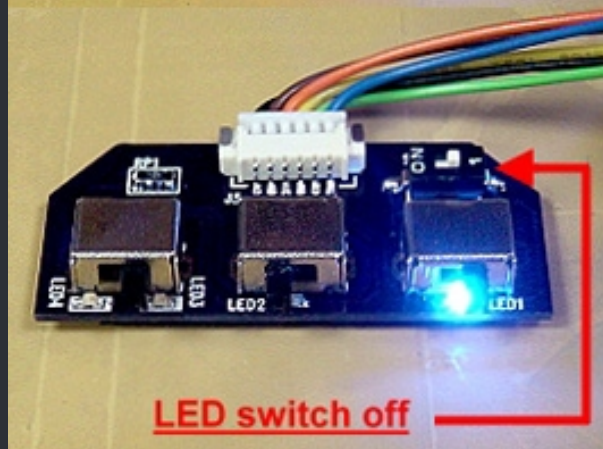
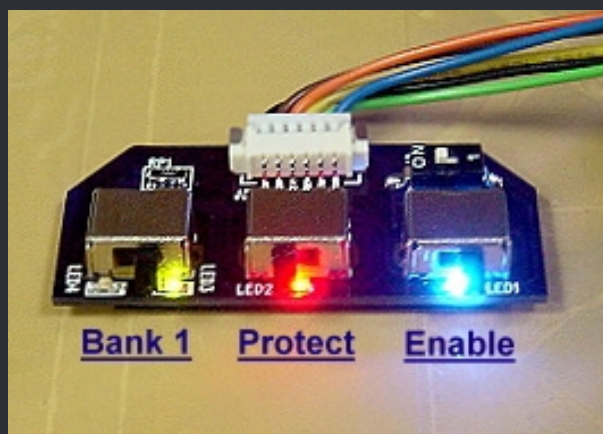
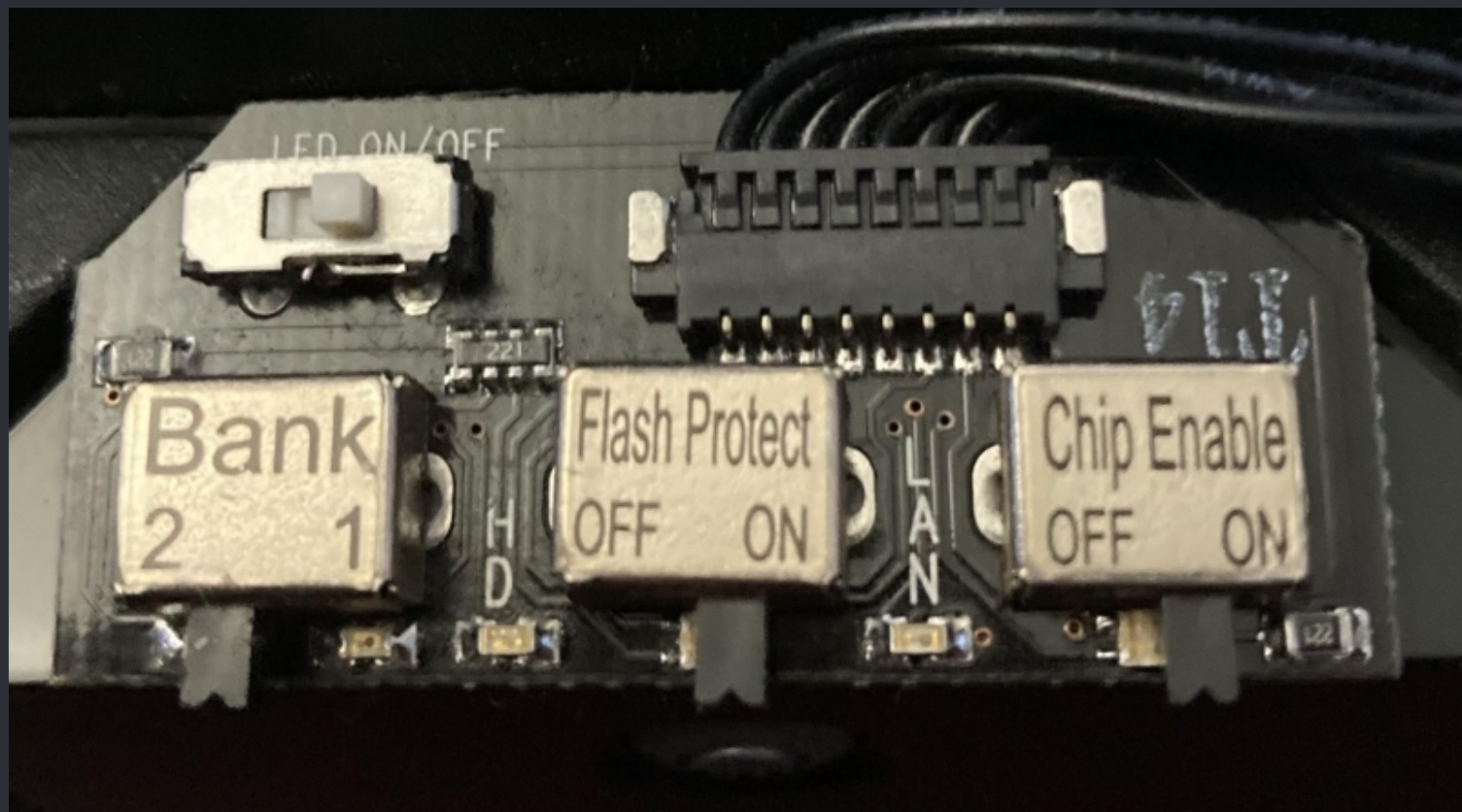
- Enabled + Unprotected = Boot from chip (Green LED)
- Disabled + Protected = Boot from onboard bios (Red LED)
- Enabled + Protected = Frag
- Disabled + Unprotected = Frag



- Enabled + Unprotected = Boot from chip (Green LED)
- Disabled + Protected = Boot from onboard bios (Red LED)
- Enabled + Protected = Frag
- Disabled + Unprotected = Frag







#### New Xecuter 2.6

**100% Compatible with 1.0 - 1.6**  
**New external switch**  
**LED to show protect / unprotect**  
**LED to show bank selection**  
**LED disable switch**  
**Disable mod on 1.6**  
**New Cromwell to support 1.6**  
**Hard Drive Lock / Unlock 1.0 - 1.6**  
**Same low price as X2.3B series**  
**X2.3B discontinued as of 10th August**

The new switch on the X3 is completely different than all previous chips, so naturally there is some confusion as to how to properly use the switch. Fortunately once you understand the features, you can understand the switch. First, let's recall the features of the X3 as per the BIOS flashing.

"2MB Flash Rom With 15 Bios Storage Options Dedicated 256K Backup Rom  
(Can be upgraded to any bios you wish)"

**Bank Modes:**

256k/256k/256k/256k/256k/256k/256k/256k/  
512k/512k/512k/512k/  
1024k/1024k  
2048k

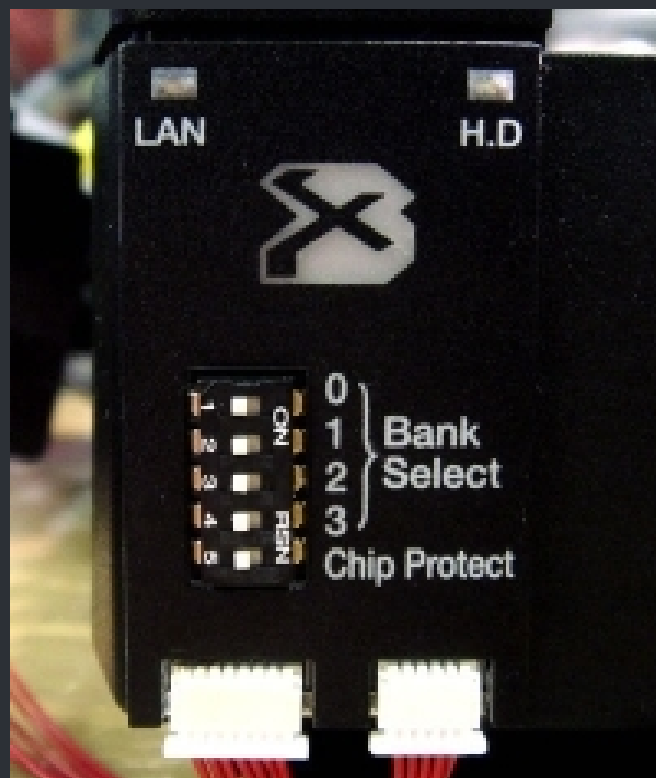
This information was pulled from this thread on the TeamXecuter forums. Reading this post we can see that it appears that the X3 can handle up 15 different BIOS options and has 2MB of memory built in. This is where the switch comes in.

Each 'bank' of the chip is divided into the smallest components. Per the post, 256K is the smallest amount of BIOS data that can be flashed to the chip.

Given the fact that the X3 has 2MB or 2048K (remember 1024-kilobytes = 1 megabyte) of available flash memory, using simple math we can determine that we have 8 banks of 256K memory (  $2048K / 256K = 8$  ) available to use.

This is where the dipswitch on the front of the unit comes into play.

Let's take a look at the switch:



As you can see the front of the X3 switch contains 5 different little white switches. This allows us to change the different banks on the chip for flashing. 0-3 are the banks we have and the last switch determines if we will use flash protection or not.

Now, when you received your X3 chip, all the switches were to the left, and everything flashed and booted just fine.

But to fully unlock the potential of the chip we need to understand how to switch banks.

### Switching Banks

Per this post on the TeamXecuter forums Xecuter tells us the proper settings for the switch in order to tell the X3 chip which bank to flash to. Here is the quote:

#### "256k Bank

Bank 1: on on on on  
Bank 2: off on on on  
Bank 3: on off on on  
Bank 4: off off on on  
Bank 5: on on off on  
Bank 6: off on off on  
Bank 7: on off off on  
Bank 8: off off off on

#### 512k Bank

Bank 12: on on on off  
Bank 34: off on on off  
Bank 56: on off on off  
Bank 78: off off on off

#### 1MB Bank

Bank 1234: on on off off (Set to this when flashing first time with FlashBIOS)  
Bank 5678: off on off off

#### 2MB Bank

Bank 12345678: off off off off"

Now I know that you are sitting there wondering what the hell all of this means, and that is understandable, so let's get into it.

If you recall the X3 chip can support a BIOS from 256K through 2048K in size, so, if you think about when you acquired the X3 BIOS, regardless of version, the file size was exactly 1024K. Now, using simple math again, if the available flash memory we have is 2048K and the X3 Config Live BIOS is 1024K, we need to 'bank' 1024K of memory in order to flash the BIOS correctly.

Per the switch info posted by Xecuter, the 1024 or 1MB bank is accessible by pushing the Bank 0 and Bank 1 switch to the right - the 'on' position - in order to enable memory banks 1-4. Now before you freak out, think about what I just said.

If the lowest common BIOS size is 256K and the max we have is 2048K, then we have 8 banks of 256K memory available for flashing. Now, since we need 1024K to flash the X3 BIOS correctly, we use the switches on the front to select those banks.



To add to the confusion, we still have 1024K of memory available to us for flashing since we have a max of 2048K available. Which could be in either memory bank 1234 or 5678.  
Make sense? If not, maybe this little image will help.

# Xecuter 3 Switch Bank Settings

- Note: switch 5 is flash protect. "ON" is protection enabled -

## 256k Banks



## 512k Banks



## 1MB - 2MB Banks



★ Credits fly out to Jeff McCloy ★

Switch Position (Mode)	Description
<p><b>Mode 1</b></p> 	<p><b>Mode 1</b> Dip switch 1 &amp; 2 ON LED: Red or Green (Flashing)</p> <p>Test/Disable This mode is primarily used for the alignment of the Matrix during installation. It may also be used to fully disable the Matrix while in circuit.</p>
<p><b>Mode 2</b></p> 	<p><b>Mode 2</b> Dip switch 1 OFF, 2 ON LED: Green (Always On)</p> <p>This mode enables the Matrix to take over the original bios at all times.</p>
<p><b>Mode 3</b></p> 	<p><b>Mode 3</b> Dip switch 1 ON, 2 OFF LED: Green =Matrix, Red =Original</p> <p><b>Swap mode</b> This mode works as follows: On every power up the Matrix “bios” is loaded indicated by the Green LED. To switch to the original bios the user must load a game and then press eject, at this time the LED will turn Red indicating that the original bios is active. To switch back the user may either turn off and on the console or repeat the above.</p>
<p><b>Mode 4</b></p> 	<p><b>Mode 4</b> Dip switch 1 OFF &amp; 2 OFF LED: Orange (Flashing)</p> <p><b>Write enable</b> In this mode the Matrix is always active but has the ability to be flash updated via DVD Rom. We do not recommend you leave this mode on permanently, a bad update of the flash will mean you will have to reprogram the Matrix via the programmer.</p>

### Hardwired Microsoft IR PCB w/ Xerc2 XE

**Notes on SL:**  
 SL (Status Light) can either connect to the eject ring, as shown in the diagrams below, or to your own LED(s).  
 Do not connect to both red and green.  
 v1.6 Xboxes can power up to 10 LEDs from the SL pad.  
 v1.0-1.5 Xboxes can power up to 2 LEDs from the SL pad.  
 If you connect your own LEDs, connect the positive side to SL.

**Port Auto Switching**  
 Unplugged = MS-IR Active  
 Plugged in = Port 4 Active

### XBOX PORT RELAY SWITCH WIRING DIAGRAM FOR HK3FF-DC5V-SHG

- 1 - Red / 5v Power
- 2 - Green Data to Mobo
- 3 - To Port Case Housing
- 4 - Green Data to IR PCB
- 5 - Green Data to Port

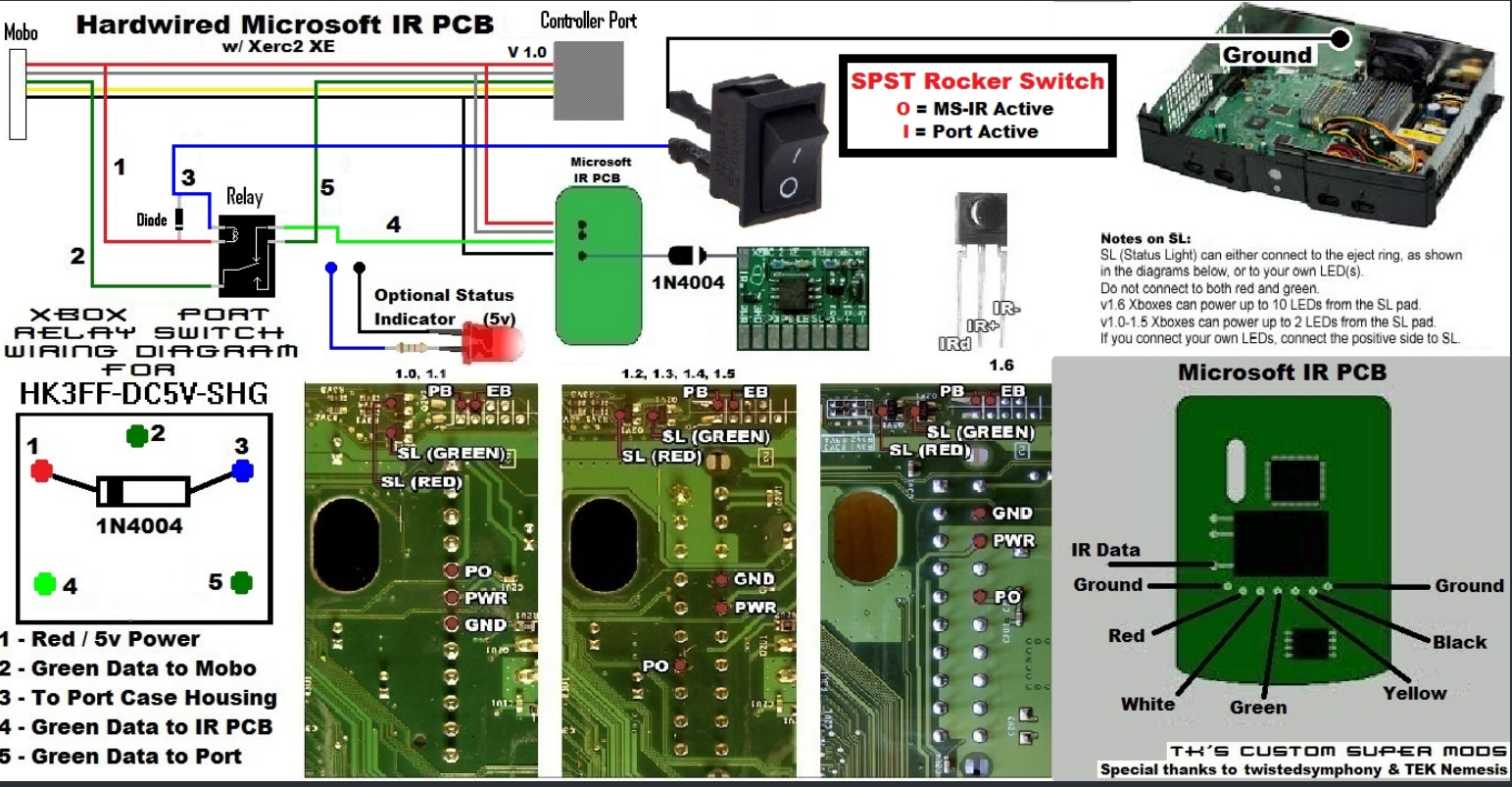
### Microsoft IR PCB

**Solder Directly to port**

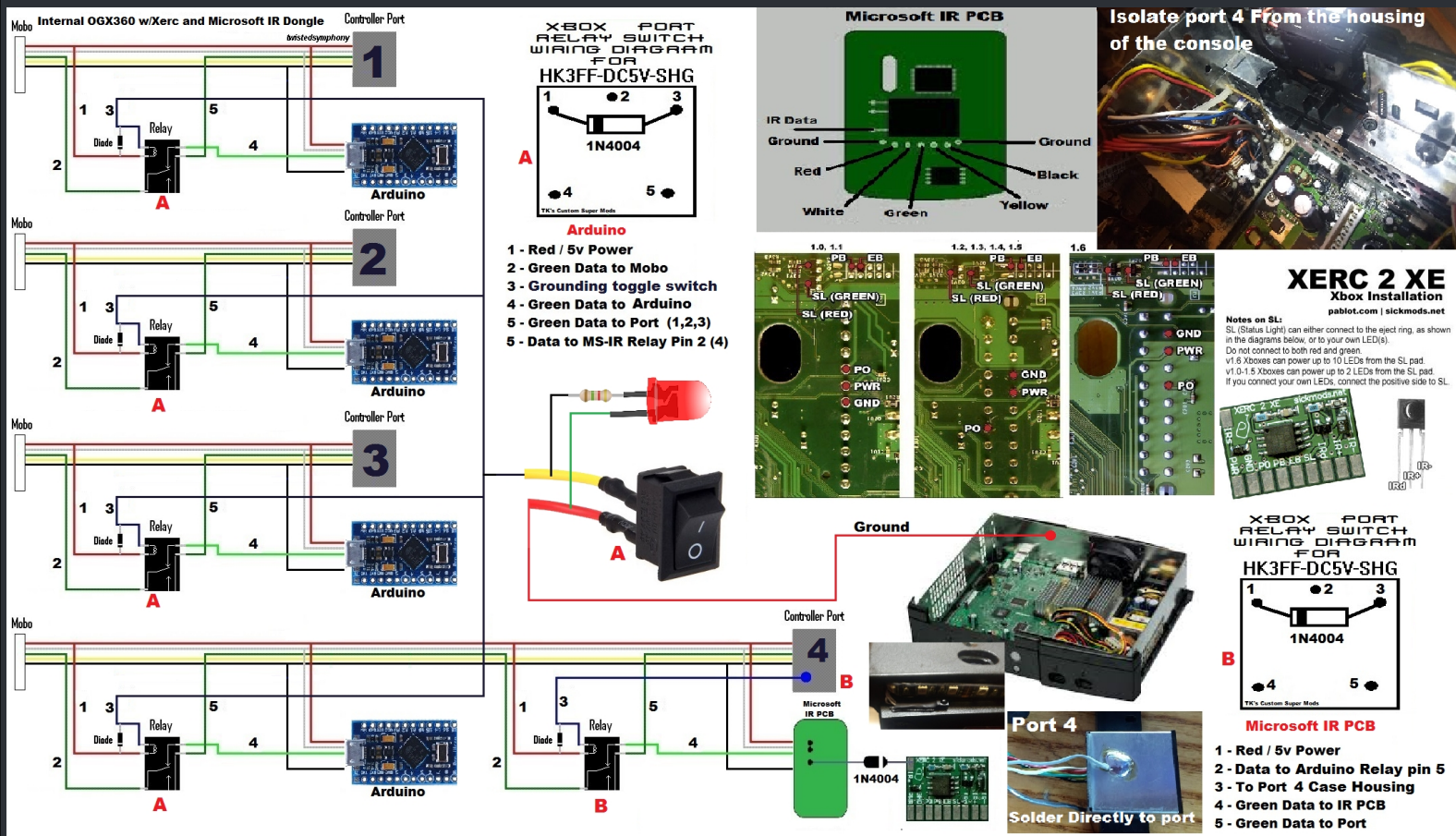
**Isolate the port from the console's housing.**

TH'S CUSTOM SUPER MODS  
 Special thanks to twistedsymphony & TEK Nemesis





★ Credits fly out to TK's Custom Super Mods, twistedsymphony & TEK Nemesis. ★



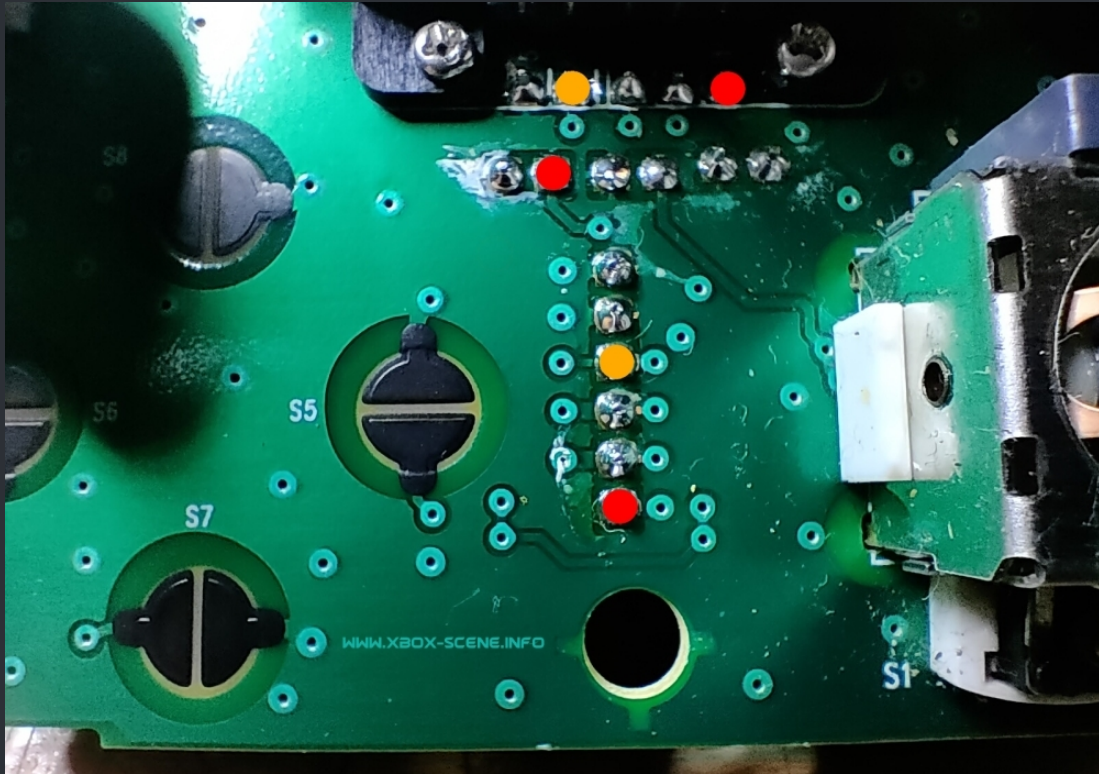
★ Credits fly out to TK's Custom Super Mods, twistedsymphony & TEK Nemesis. ★



## <=== Controller Power Button Mod ===>

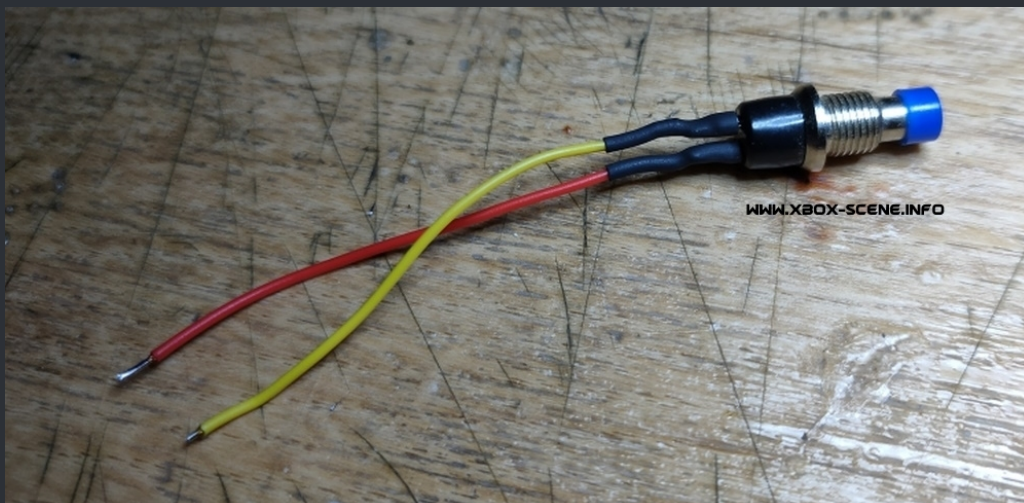
### ===> The Belgium Mod <===

Do you ever wanted an option to fire up your XBox from your couch? Yes? Alright, here we go. What you need is just some wire and momentary switch (Beside a soldering iron ofc). Take your controller apart and then take a look at the first image below.



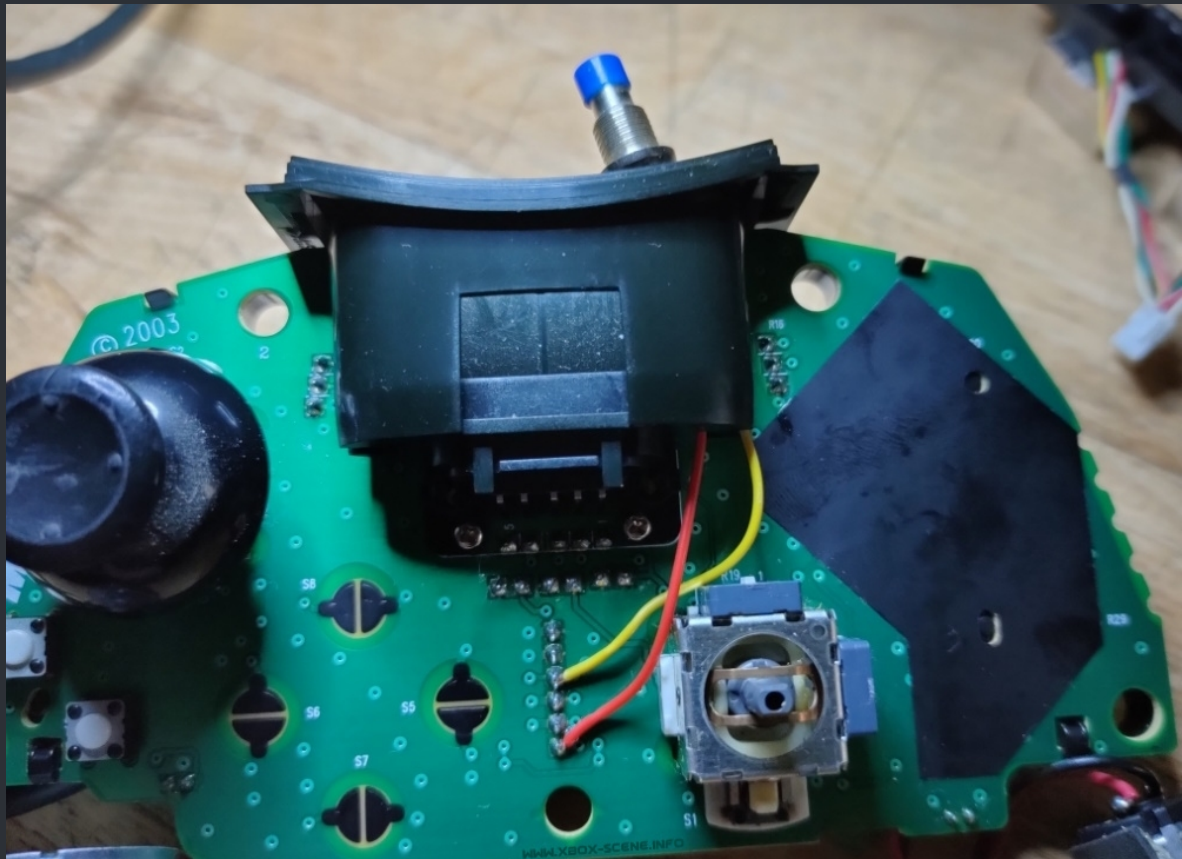
Here you see a couple of markings. The RED ones are the +5v (Red cable in your controller cable) and some YELLOW ones (Yellow cable in your controller cable). You can pick one of each which you're comfortable soldering to. My suggestion is to just the ones from the cable connector.

Now grab your soldering iron, add some flux to each of the points and add some fresh solder. When that's done, it's time to prepare your switch. For that, take a look at the image below.





The wire should be around 4 cm long (little less than ~2 inch.)  
Solder one piece of wire to each of the legs and then use some heat shrink to insulate the solder joints.  
Then tin up each of the other ends. Then solder the ends to the controller PCB (See image below).

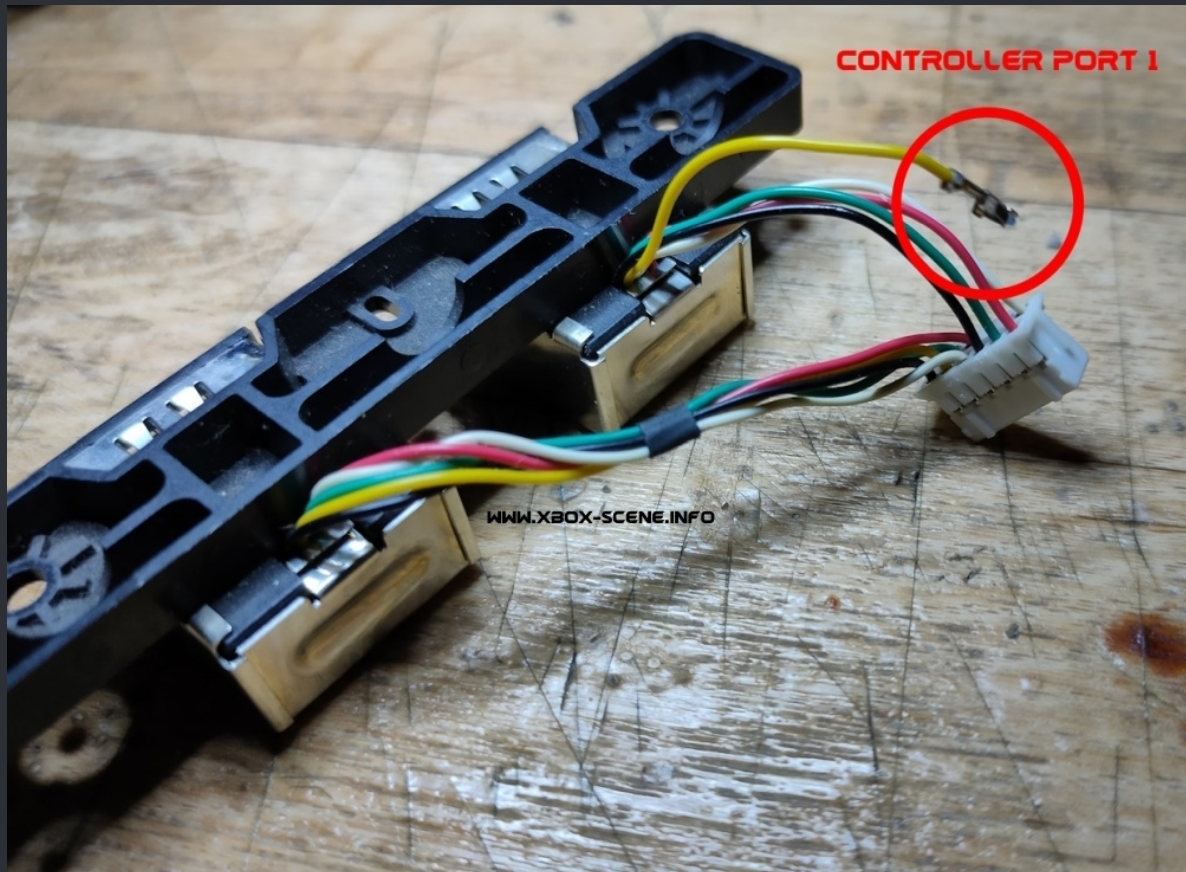


As you see in the image above, I have decided to place the switch in the first memory card slot.  
When you have soldered your cables, glue the switch in place with some UV-Epoxy or hot glue.  
When that's done, you can reassemble your controller.

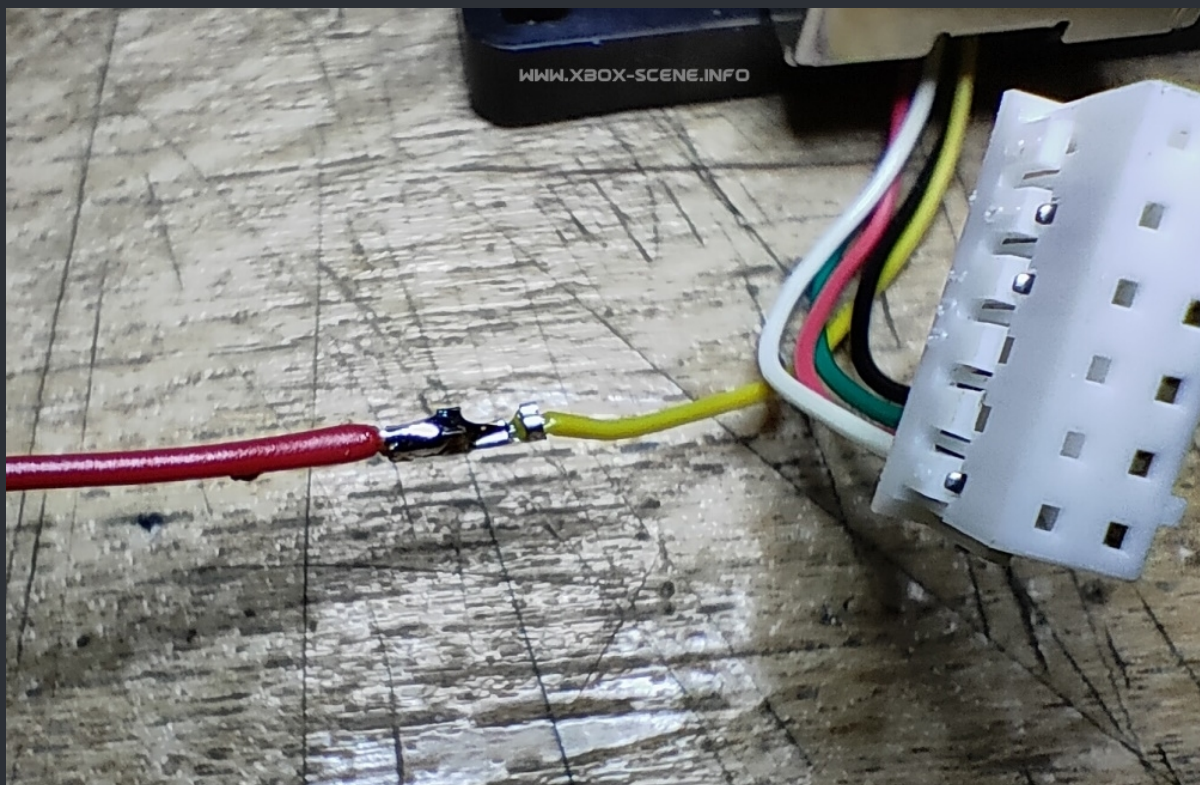




Yet it's time to remove the first controller port assembly from your XBox and remove the yellow wire from the first controller port connector (See image below).

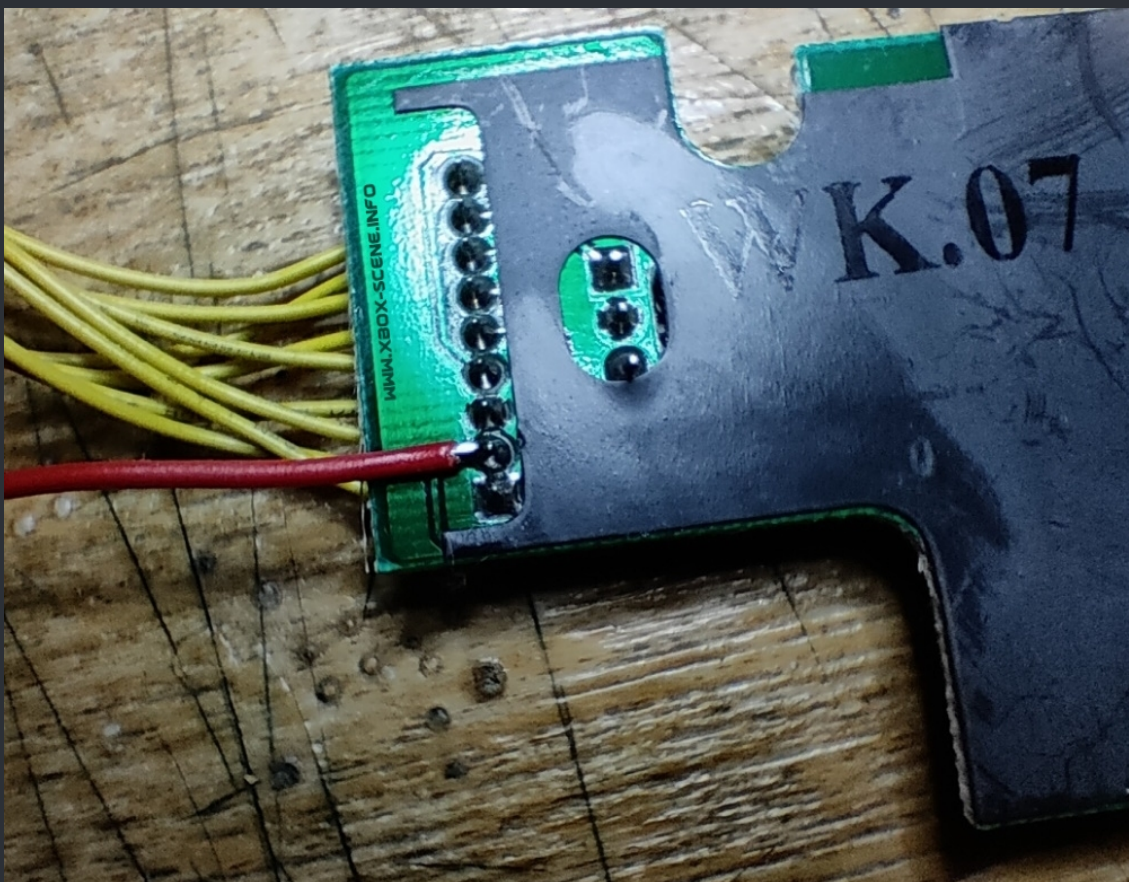
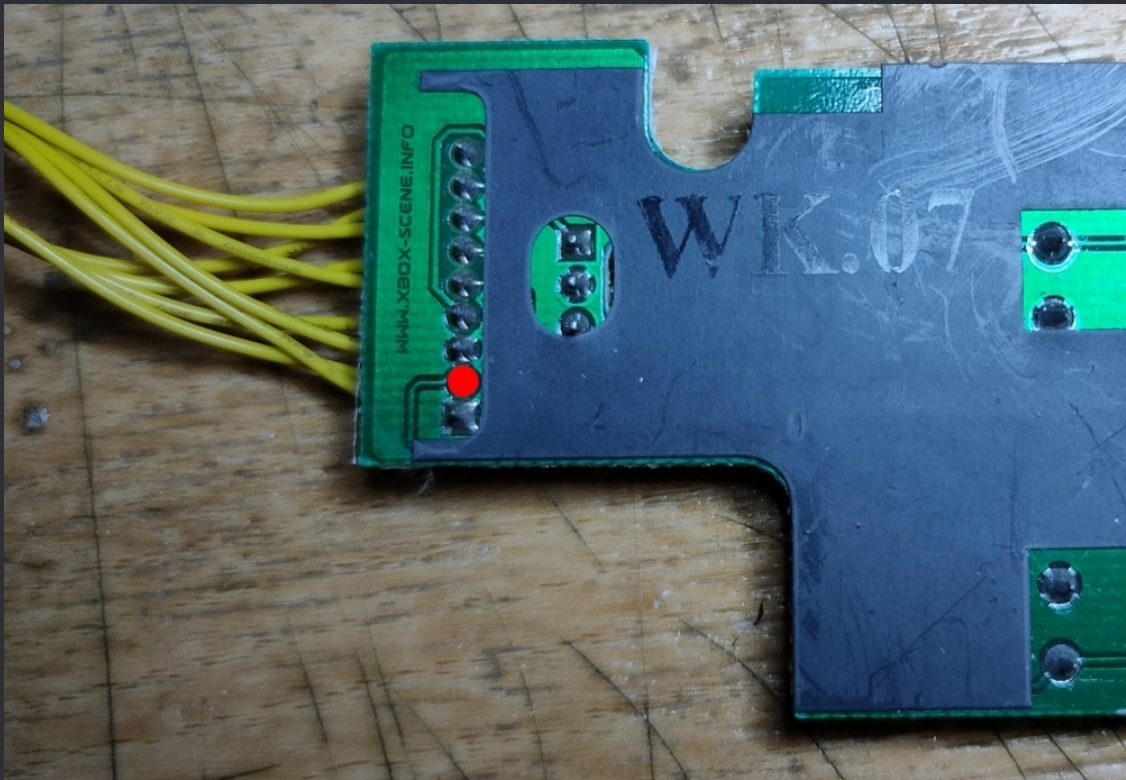


Solder a ~ 10cm (little less than 4 inch.) wire to that yellow wire and then insulate it



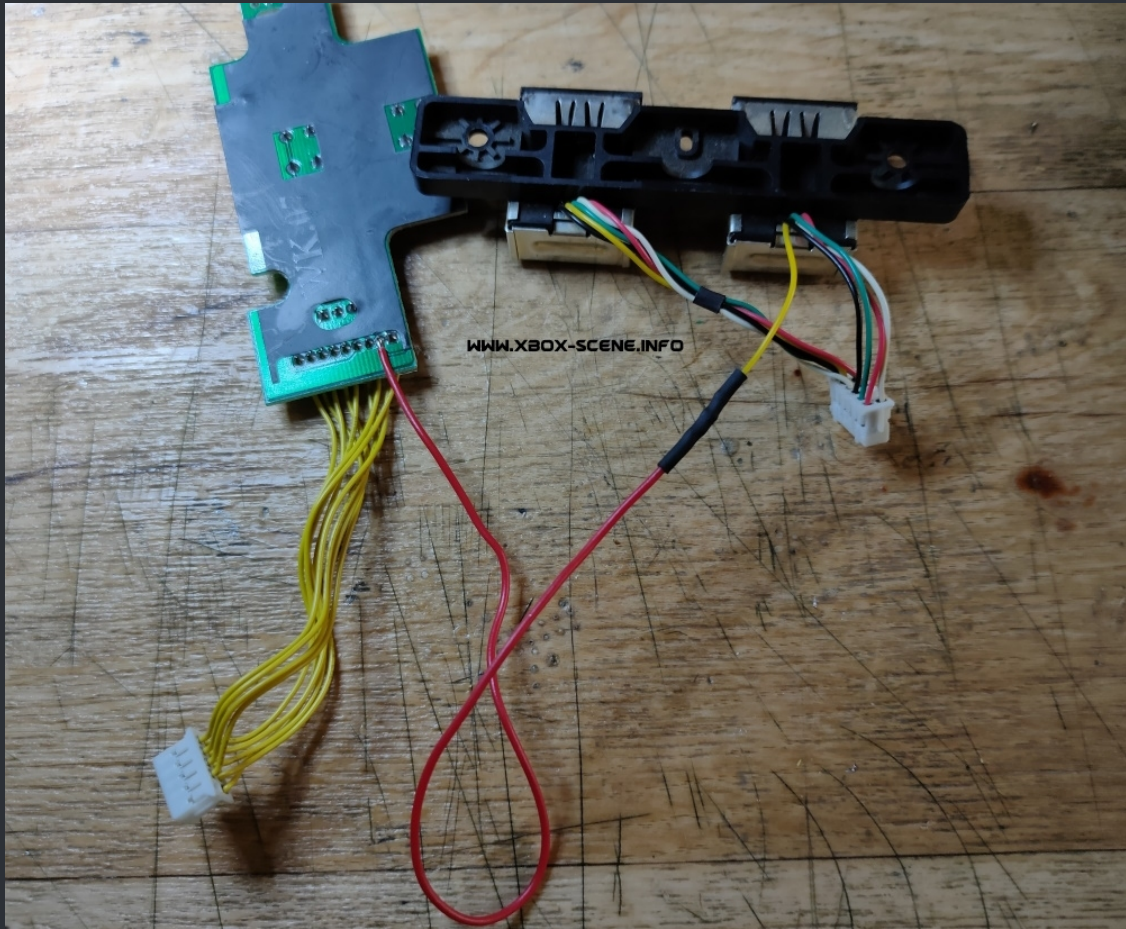


Alright, now you have to solder the wire to the front panel PCB. The easiest way to do so is, to disassemble the XBox but it's also possible to do it by just tilling it (What ever works best for you).  
So here is where you have to solder the other end of the wire to (See image below).





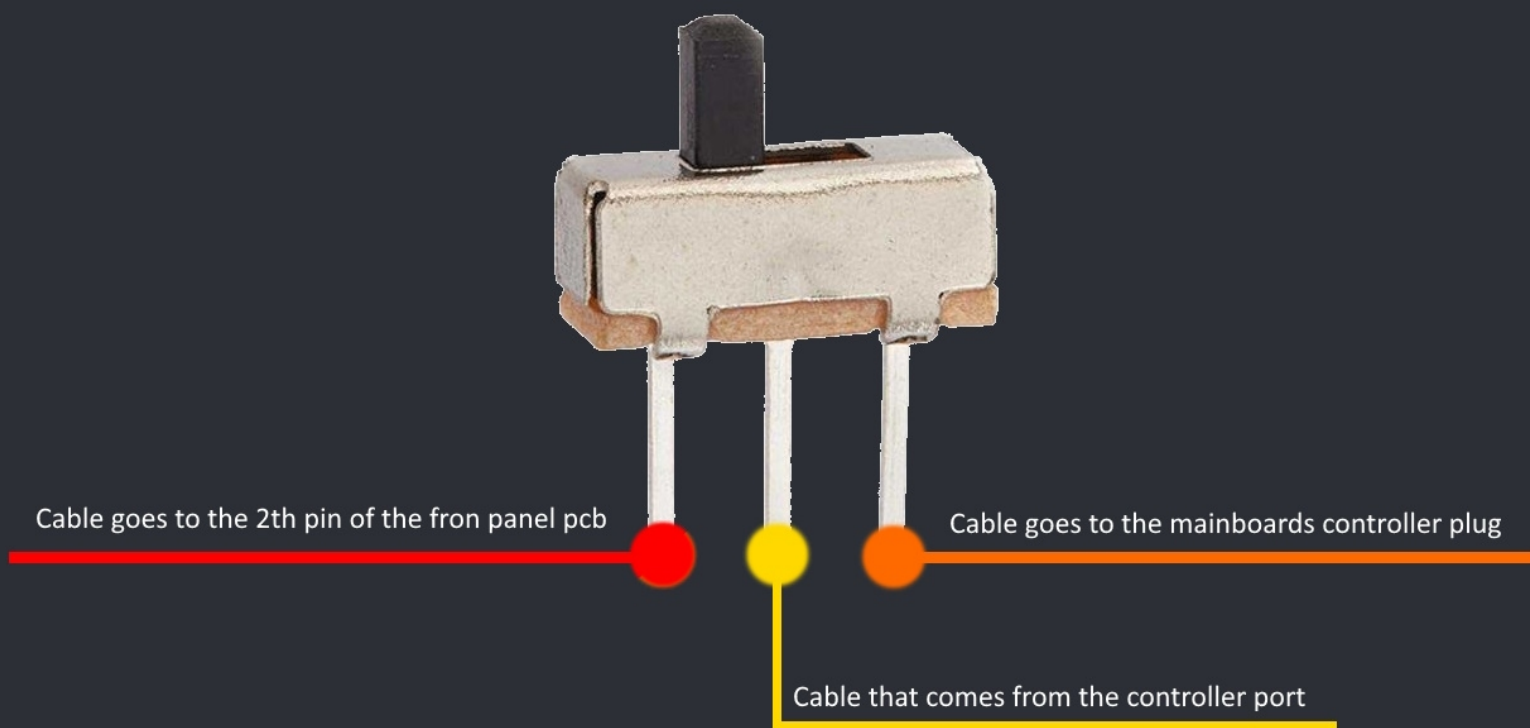
**When you have soldered the wire, you're almost done. Just put back together your Xbox and enjoy the confort of an belgium switch.**



**Overview of how it should look like.**

**One last thing. When you do this mod, you cant use light guns on your Xbox anymore cuz those make use of the yellow wire for sync.  
So if you plan on using these and want this mod, you would have to do one thing different.**

**Take a look at the next page to see how you can make that work.**



With that switch in between the yellow wire instead of removing it from the connector, you would still have the option to disable the controller switch mod which enables you to use a light gun for example.

I also recomment to use a switch like the one shown in image above simply because you can hide it perfectly finly in the front under the controller port.  
And if you like, you could add status LED.

RXD-629A7-7



## Change R4 to 100 $\Omega$ r

**If you like, you can change the 2 low quality 220uf 25v caps on the left side for 2 good quality low esr 470uf 25v ones. And YES, in this case it's ok to go from 220uf to 470uf.**

**VER:M03C / VER:M03E**



**Add 100 Ωr to R5**

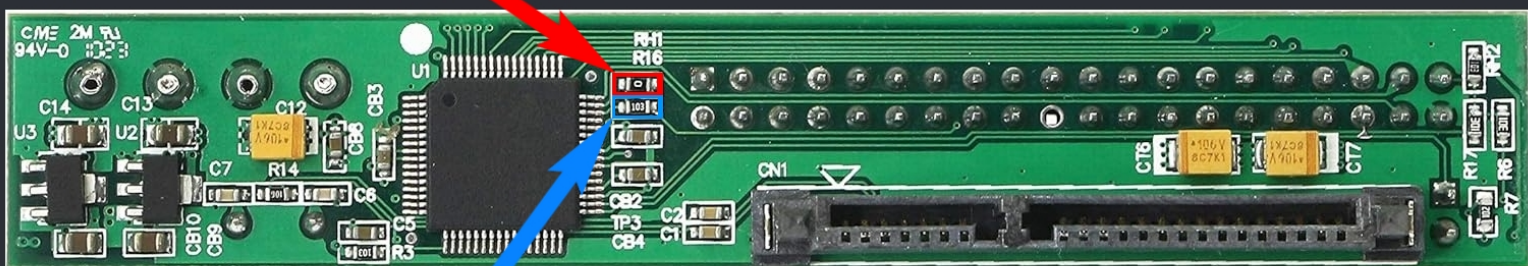
## Add 10k $\Omega_r$ to RH1

**If you like, you can change the 2 low quality 220uf 25v caps on the left side for 2 good quality low esr 470uf 25v ones. And YES, in this case it's ok to go from 220uf to 470uf.**

**Take note that some ppl. suggest to remove the resistor at R5 from these two adapters. I don't think that's necessary cuz the JP-103-5 has the resistor in the same place with the same value and works without a problem.**



Remove the 0  $\Omega$  and add a 10k  $\Omega$



Replace the 10k  $\Omega$  with a 100  $\Omega$

One last thing. Your adapter, in case it has jumpers, should always be set to master!  
Not cable select, not slave ==> MASTER!

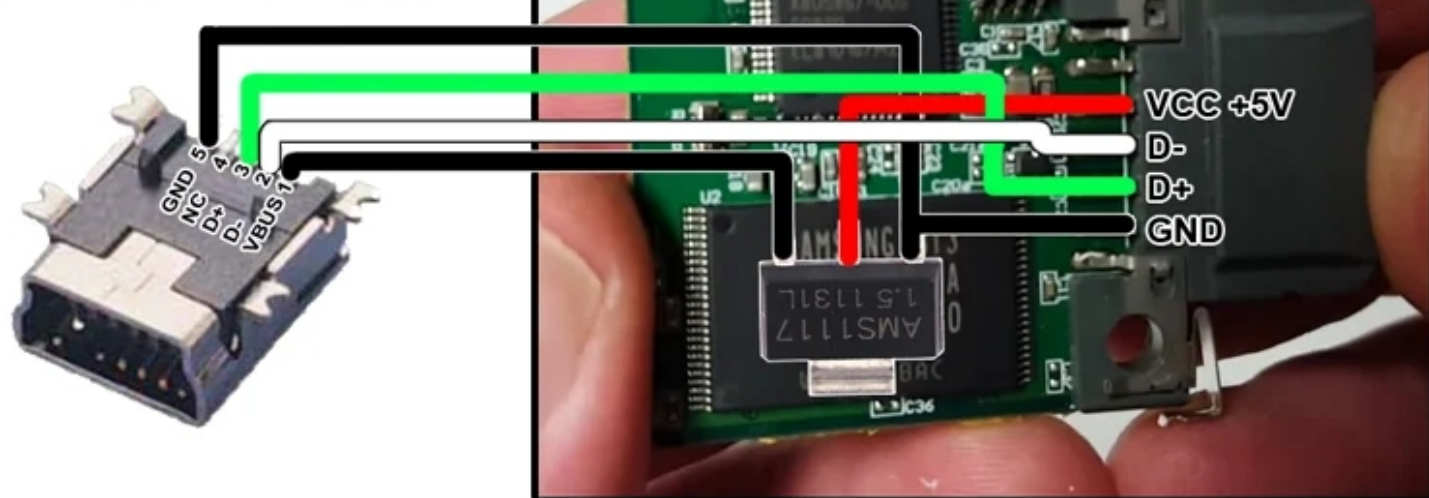
Some interesting topics which you may should give a read:

OG Xbox Storage Upgrade Shootout ( [Topic](#) ) ( [PDF Download](#) )

PATA IDE to SATA Adapter Speed Test and Bottleneck Assessment 2024 ( [Topic](#) ) ( [PDF Download](#) )

What you need: 3.3v voltage regulator and an old usb cable or as used above, a mini usb connector. You could also use a old xbox controller cable but keep in mind, you're then not able to hook up the bard to your PC.

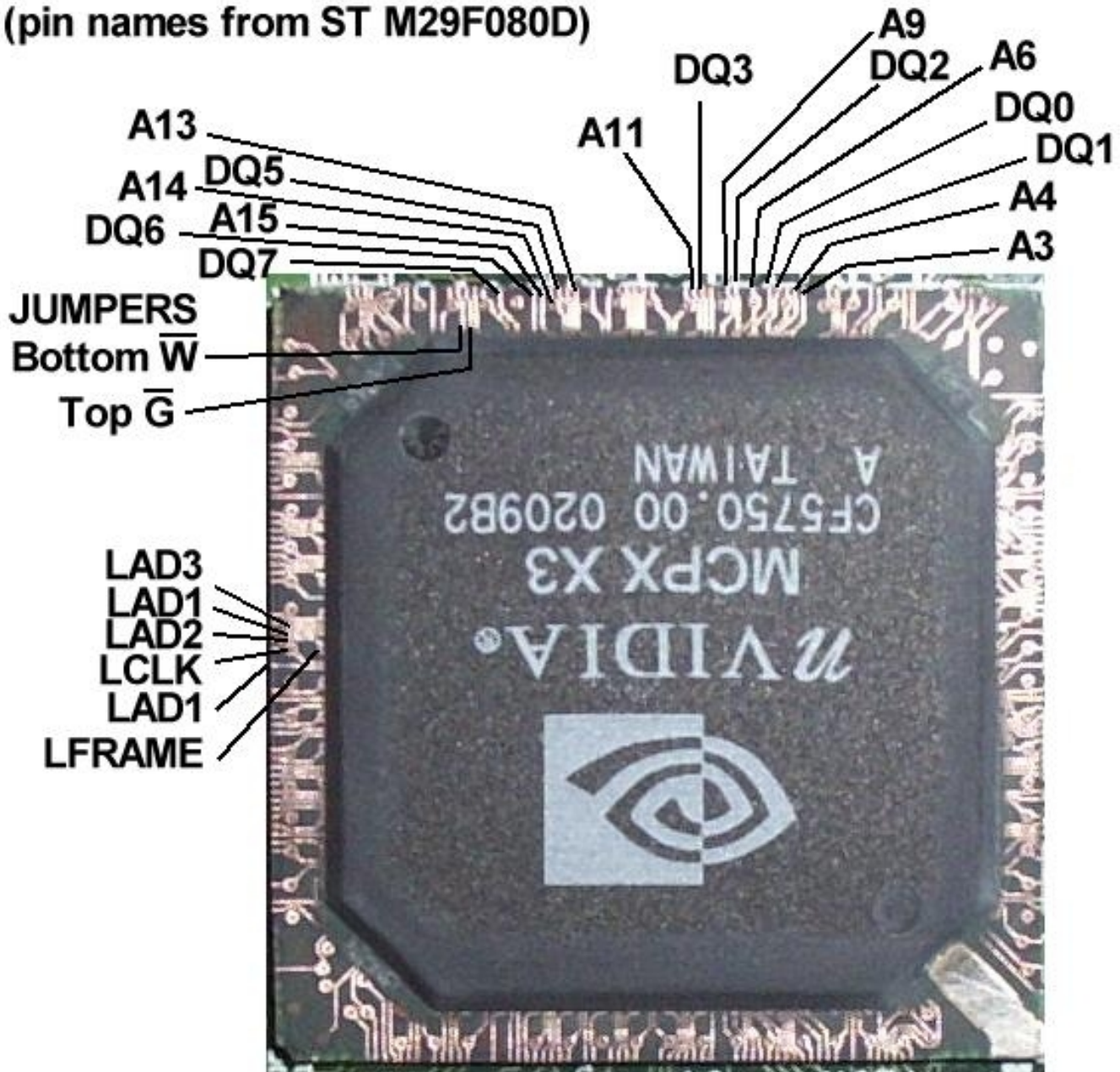
USB B Mini Female Connector



So simply solder the 3.3v voltage regulator as shown in the image above and let the xbox format it once. After that you need the XBox 360 MU driver for windows from Eaton-Works which you can download for free [here](#) or [here](#) (Follow the install instructions in the included PDF) and you also need [FatXplorer](#) to copy files to the MU on your PC.

★ Credits fly out to Eaton for the drive and to EVERYONE who has discovered this mod. ★

## MCPX Partial Flash Rom & LPC Bus Pinout (pin names from ST M29F080D)



NVIDIA's Media Communications Processor. A key part of NVIDIA's PDA strategy, the MCP is analogous to a Swiss army knife in that the MCP contains many capabilities that already exists in today's personal computers. The MCPX supports the Universal Serial Bus (USB) which allows a host of input devices such as game controllers, digital cameras, and optical devices to be connected to the Xbox.

The MCPX also offers a solution for high density storage devices and the communications arm of the chip has been coined as a router on a chip. Multiplayer gaming on the Xbox will be accomplished using existing technologies including Ethernet, cable modems, 56K modems, and HomePNA 2.0 (home phoneline networking).

Equally exciting is the audio processing unit (APU). Similar in concept to the GeForce GPU, the APU will be hardware accelerated thus alleviating the central processor of handling audio chores. The APU will be the first DirectX 8 audio processor which consists of four independent hardware processors. The APU will be able to deliver 256 2D and 56 3D voices along with 3D effects such as reflections, occlusion, and reverb. Add in real time support "for Dolby Digital A3, and the MCPX offers an advanced audio solution for the Xbox.





DO on MCPX



Lframe on MCPX

★ Shouts go out to Perplexor and networkboy ★  
MCPX Datasheet Download: [Here](#) or [here](#).

# <=== Xbox Error Codes ===>

===> LED Codes <===			☰
LED Code	Reason	Solution	
Solid Green (Coma Console)	Corrupt BIOS bank or unseated video cable.	Try another video cable. If 1.0 or 1.1 motherboard, solder A18 and/or A19 to ground. If all else fails, install a modchip.	
Solid Red	Bad EEPROM or improper modchip install.	Flash EEPROM or install modchip.	
Solid Orange	No video cable connectet.	Connect a video cable.	
Flashing Green	Bad EEPROM.	Flash EEPROM or install modchip.	
Flashing Orange	Damaged trace or solder splashed on components.	Try cleaning the inside of your Xbox and inspect the motherboard to find the issue.	
Flashing Red	Bad EEPROM.	Flash EEPROM or install modchip.	
Flashing Orange, fan speed increases to 100%, console eventually turns off	Overheating, or there may be an issue near the temperature sensor chip at location U6F1.	Verify that fans are working. Replace the old thermal paste under the CPU and GPU heatsinks. Clean and inspect the temperature sensor.	
Flashing Orange 50% and Green 50%	Missing or broken video cable.	Try reseating or replacing the video cable. May be bad video hardware.	
Flashing Red 50% and Orange 50%	General system failure. Often caused by an improper modchip install. May indicate a RAM error.	Try cleaning the inside of your Xbox and inspect the motherboard to find the issue.	
Flashing Red 50% and Green 50% (FRAG)	General system failure. Often caused by an improper modchip install.	Try cleaning the inside of your Xbox and inspect the motherboard to find the issue. Clock Capacitor may be leaking.	
Flashing Red 75% and Green 25% (FRAG)	HDD error.	See error codes 5, 6, 7, 8, and 9.	
Flashing Red 25% and Green 75% (FRAG)	DVD error.	See error codes 10, 11, and 12.	
Tries to Boot 3x then FRAG (Christmas Lights)	Usually due to a failed or improperly installed modchip or the IDE cable being plugged in upside down somewhere.	Check modchip wiring and IDE cables. If you did not do any soldering, it could be a bad PSU.	
Tries to Boot 3x then FRAG (Christmas Lights) and Turns Off	Corrupt EEPROM.	Usually wrong EEPROM version flashed to Xbox. Also can be caused by wiping the EEPROM or not hashing it properly.	
Other	Likely bad EEPROM.	Likely need to flash EEPROM or install modchip.	



## Error Code 01

### ROBLEM

General motherboard issue.

### CAUSE / SOLUTION

Cause is unknown; it is recommended to replace the motherboard.

## Error Code 02

### PROBLEM

EEPROM check failed. This error is triggered by the bootloader and as a result does not display an error code on screen. You will see the Xbox rebooting and flashing red and green lights (FRAG).

### CAUSE / SOLUTION

You flashed something wrong or caused a short somewhere on your motherboard (possibly while soldering). If you're using a modchip and you just flashed it, try again using a different BIOS. If you recently did some soldering to your Xbox, check for any stray solder balls that may be present and carefully remove them.

## Error Code 03

### PROBLEM

General motherboard issue.

### CAUSE / SOLUTION

Cause is unknown; it is recommended to replace the motherboard.

## Error Code 04

### PROBLEM

RAM check failed. This error is triggered by the bootloader and as a result does not display an error code on screen. You will see the Xbox rebooting and flashing red and green lights (FRAG).

### CAUSE / SOLUTION

RAM chip failure. This could be from pins on the RAM chip(s) becoming bridged, possibly from an accidental splash of solder or a failed 128MB RAM upgrade. Remember, electrostatic shock can sometimes damage integrated circuit chips like RAM chips, so even if you can't see a problem, the RAM could still be fried. Replacing the RAM chips could be a solution but is risky and time consuming.

## Error Code 05

### PROBLEM

Hard disk drive (HDD) not locked.

### CAUSE / SOLUTION

If you have not replaced your Xbox's BIOS via a modchip/TSOP flash, then your HDD needs to be locked using a special password that is generated based on your Xbox's EEPROM, which is unique per each individual Xbox. Microsoft designed it this way to prevent people from being able to plug the drive into a computer and have access to its contents and thus hacking it. Virtually all non-retail BIOSes (including modchip/TSOP) will not require the hard drive to be locked in order to start. If you're seeing this error on a non-retail BIOS, then chances are your modchip/TSOP flash process had issues and for some reason you are now using a stock BIOS which is now requiring a password-locked hard drive again. If you're seeing this error and your Xbox has been softmodded (through gamesave/font/audio exploits), then you just need to lock your drive again. Hopefully you have your EEPROM backed up at this point because if not, things get a lot more complicated. If you unlocked your HDD on the Xbox itself (using ConfigMagic for example), chances are the app you used made a backup of your EEPROM for you and it's now sitting on your E: drive called "eeprom.bin" or something similar. You can plug the HDD into a computer at this point and use an Xbox hard drive explorer program like "FatXplorer 3.0" (Windows only) to view its files to copy your EEPROM backup. There are multiple ways to lock a HDD, one of which is by using XboxHDM by author ldotsfan. XboxHDM runs on a PC and one of its features is the ability to lock hard drives if you have an EEPROM backup. Choose option "3" from XboxHDM and follow the on-screen instructions to lock the HDD.

## Error Code 06

### PROBLEM

Incorrect hard drive password.

### CAUSE / SOLUTION

The hard disk drive (HDD) is locked but it is locked with a password that belongs to a different Xbox. You will need to unlock the HDD and then re-lock it using the correct password. As stated above, each Xbox is locked using a password that is generated based on each Xbox's unique EEPROM. Assuming you have the EEPROM of your Xbox backed up, you will just need to unlock the drive and re-lock it using your EEPROM backup. See the solution for Error Code 05 for more info.

## Error Code 07

### PROBLEM

Hard drive timeout / HDD took too long to become ready.

### CAUSE / SOLUTION

The Xbox seems to know the HDD is present but it times-out waiting for the drive to become ready and respond to commands. This is probably due to a loose connection or faulty wire. See the solution for Error Code 08. If you're using a SATA to IDE adapter, it's possible that the adapter you're using is not compatible with the drive you're using or isn't compatible with the Xbox at all. Try another SATA to IDE adapter / HDD combination. Some "green" drives are temperamental with certain SATA adapters. This error may also be caused if you have a SATA to IDE adapter and you are not using an 80 wire IDE cable (by default, they are 40 wire cables). Or, the console's DVD drive is bad preventing access to the hard drive via the IDE bus. Swap the DVD drive with one from a different Xbox. They are all interchangeable.

## Error Code 08

### PROBLEM

No hard drive found.

### CAUSE / SOLUTION

The Xbox can't find the hard disk drive (HDD) while booting up. Try the following:

- If you are using a SATA to IDE adapter, you will need an 80 wire IDE cable. By default, it will be a 40 wire cable.
- Make sure the IDE ribbon cable (flat grey cable) is securely connected to the HDD, the DVD drive, and the motherboard itself.
- Check the IDE cable for signs of damage. If the cable looks like it has been scraped or has evidence of any damage then replace it.
- Check the HDD's power cable and make sure it's securely plugged in.
- If you can wiggle the HDD power cable around and make the Xbox work at certain times, then the leads coming from the power supply are loose and the power supply should be replaced.
- Take the HDD out and make sure the jumper is set correctly. There should be a diagram printed on the drive's label that shows how the jumper should be connected. Make sure its set to Cable Select (CS), Master, or isn't present at all. If the drive is set to Slave then you will run into issues!
- If all other cables are in fact securely connected and not damaged, you can try replacing the IDE cable anyway. It's possible that it is damaged in a way that isn't visible and IDE cables are cheap to come by.
- If all else fails, your hard drive is probably to blame and is faulty and needs to be replaced.



### Error Code 09

#### PROBLEM

Hard drive parameters are missing or incorrect.

#### CAUSE / SOLUTION

Very uncommon error. The hard drive power cable may be unplugged, it might be in the wrong transfer mode (PIO/DMA), or the jumper is set to slave instead of master. If it's a debug console, the size may be incorrect (minimum size is required for debug). Replace the hard drive otherwise.

### Error Code 10

#### PROBLEM

DVD drive timeout.

#### CAUSE / SOLUTION

Similar to error codes 07 and 08, this is usually caused by a loose/faulty cable. The Xbox seems to know the DVD drive is present but it times-out waiting for the drive to become ready and respond to commands. Check the yellow cable running from the motherboard to the DVD drive. If all else fails, replace the DVD drive.

### Error Code 11

#### PROBLEM

No DVD drive found.

#### CAUSE / SOLUTION

The Xbox cannot find the DVD drive. Similar to Error Code 10, this is usually from a loose/faulty cable. See solutions for Error Code 10. Note that many non-retail BIOSes can be configured to skip using a DVD drive entirely.

### Error Code 12

#### PROBLEM

DVD drive parameters are missing or incorrect.

#### CAUSE / SOLUTION

This is an uncommon error. Try solutions for Error Code 10.

## Error Code 13

### PROBLEM

Dashboard failed to launch due to missing/bad key, or anything else that would prevent it from running and the dashboard didn't specify why it failed.

### CAUSE / SOLUTION

This can be caused by a kernel version issue but is a lot less common in recent years. Make sure you're running the latest kernel. If you're using a softmod, make sure your dashboard and softmod files are installed correctly.

It is recommended to use JCRocky5's Xbox Softmodding Tool as your softmod installer, if you're using something else currently.

If you are receiving this error only when launching games, try deleting E:, if it exists.

## Error Code 14

### PROBLEM

Dashboard failed to launch (generic error).

### CAUSE / SOLUTION

Similar to Error Code 13. This can also result from changing names of files or messing with files on the HDD without knowing the repercussions. A common cause is from changing the boot orders or names of startup files on the HDD. It can also happen when you are rebuilding your HDD with a Slayer CD and the power was cut, or if your DVD drive is going bad when attempting to load a disc that uses PBL, such as Cerbios Disc.

## Error Code 16

### PROBLEM

Internal clock cannot be set.

### CAUSE / SOLUTION

This happens when the Xbox tries to boot to the stock dashboard in order to have you set the current date/time, but fails to load the menu. This happens if you:

- Just replaced the HDD and are missing your clock capacitor or left your Xbox unplugged for a few hours.
- Erased the Microsoft dashboard files (which contain the clock setting) and are missing your clock capacitor or left your Xbox unplugged for a few hours.
- Have a revision 1.6 Xbox and an old (before 2004) BIOS installed without a clock loop patch and are missing your clock capacitor.
- Your DVD drive is blocking the databus and therefore no data can be loaded from the HDD.

Try starting the Xbox with the Eject button instead of the power button in case it has a dual-boot configuration. If that fails, but you do have a modchip installed, boot into Cerbios Disc and try installing the stock dashboard back on your HDD's C: partition.

## Error Code 20

### PROBLEM

Dashboard failed to launch.

### CAUSE / SOLUTION

It was a cold boot, and the dashboard didn't specify why it failed, but it needed to be noted that the DVD passed the challenge/response authentication during boot.

## Error Code 21

### PROBLEM

Unspecific/generic error.

### CAUSE / SOLUTION

The Xbox was instructed (possibly by an XBE you launched) to reboot the Xbox and display this error. This occurs frequently when the Xbox is unable to boot due to dashboard changes being made (i.e. an XBE hasn't been signed correctly or parts of the stock dashboard are missing). Also, if you're using XbeShortcutMaker and seeing this error code then you might try regenerating the shortcut XBE file as it could be corrupted. If you are receiving this error only when launching games, try deleting E: if it exists. If you are trying to softmod, it may be a bad USB device. In very rare cases, a failing clock capacitor on 1.0-1.5 Xboxes may cause this issue, so removing it would be a wise path to explore as it is also a great risk to the health of your Xbox.



# <=== XBox Factory Reset ===>

===> <===



The original Xbox has an undocumented feature allowing the user to factory reset the console by inputting a special button combo on the System Info screen. **This button combo is unique to each system** and is derived from the system's unique HDD key stored in EEPROM. Microsoft support would give this code to users.

This is the only official way to factory reset the console, and it bypasses parental controls or any other considerations which would otherwise prevent it.

This script will calculate your console-unique factory reset code given the HDD Key.  
Methods for deriving the HDD Key are beyond the scope of this project.

## Download

<https://github.com/CitricDolphin1/xbox-restore-combo-calculator/>

Or if you prefer, create a new file called „ **code\_gen.py** „ and copy and paste the text below into it.

```
import hmac
import struct

string_hdd_key = input("Input your HDD key in hexadecimal now, no spaces: ")
hdd_key = bytearray.fromhex(string_hdd_key)

# hardcoded constant
random_key = bytearray.fromhex('BC20051AB597F96048375A83787FE594')

key_combo_generator_hmac = hmac.new(random_key, hdd_key, 'sha1')
key_combo_generator_digest = bytearray.fromhex(key_combo_generator_hmac.hexdigest())

recovery_key_map = "AXYUDLR"

button_indexes = []

digest_counter = 0
for i in range(4):
    word_int = struct.unpack('H', key_combo_generator_digest[digest_counter:digest_counter+2])[0]
    button_index = word_int % 7
    button_indexes.insert(0, button_index)
    digest_counter += 2

buttons = []
for index in button_indexes:
    buttons.append(recovery_key_map[index])

print(f'Your button combo is: Y{buttons[0]}{buttons[1]}{buttons[2]}{buttons[3]}')
print("To use this button combo, go to the System Info screen of your dashboard and input the button combo.")
print('Directions (U,D,L,R) should be performed on the left stick.')
```

## How to use

Python 3+ is required.

Download code\_gen.py and run it in Python.

Type or paste your HDD Key when prompted. The program will print your reset code to the console.

Go to your console's dashboard and enter Settings -> System Info. Input your button combination. A prompt will appear warning you that your data will be erased. Press "yes" to factory reset your console.

## Notable button combinations

If you have a modded console and have overwritten your HDD Key with one of the following, you can use the following pre-computed button combinations:

All zeroes (null key): **YRLLY**

All ones: **YRLAX**

★ Credits fly out to CitricDolphine1. ★

## <=== Parental Control Bypass ===>

===> Button Sequence <===



X-Button - Y-Button - Left-Trigger - X-Button

## <=== Clone Softmod HDD w. Chimp ===>

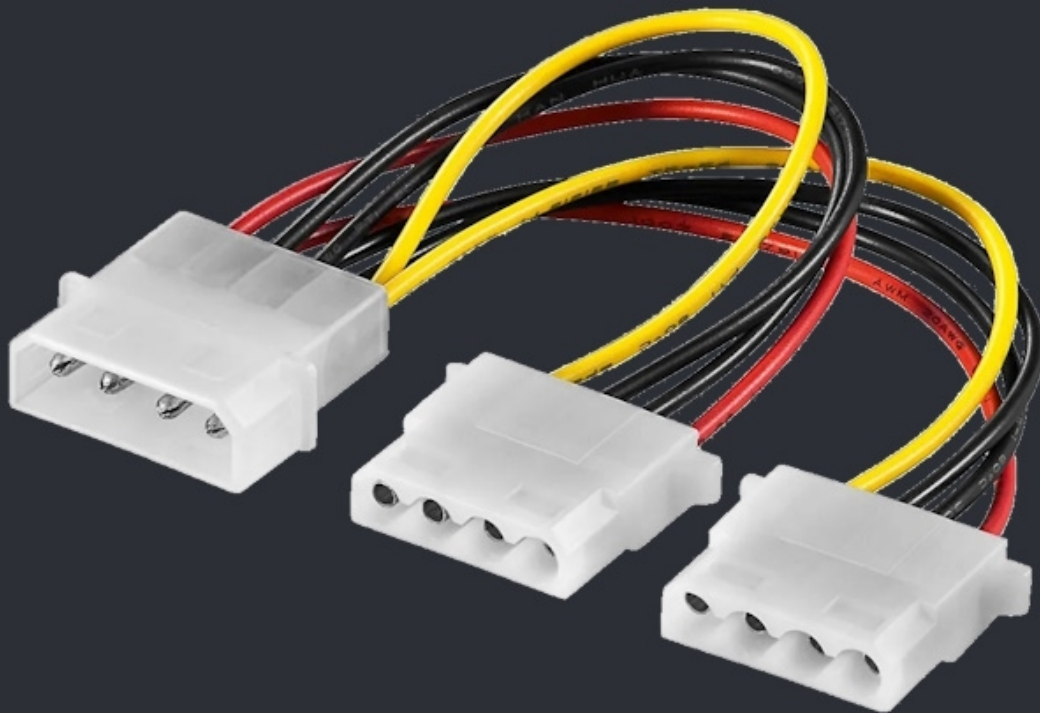
===> Rocky5's Chimp 261812 <===



First of all, this is for Rocky5's version of Chimp261812 which you can download below.

Download from : [Mega](#) | [1fichier](#) | [Github](#)

So what do you need beside your new HDD and the files from above?  
A 4 Pin Molex Y-Splitter like the one in the image below.



Or in case you use a StarTech adapter the included power cable is fine since the StarTech uses a floppy drive power connector type and also offers a 2th Molex plug to then power your stock IDE HDD.

And depending on what HDD you plan to use, a 40 pin 80 wire IDE cable which would be needed in case you use a SATA adapter.

If you stick with a new (old) IDE HDD, your old 40 pin 40 wire IDE cable will work just fine.

You will also need a **first party** XBox Controller, all others will not work with Chimp!  
You will also the standard XBox AV cable because Chimp ain't like HD.

Finally, your new HDD needs to be jumpered to CS (Cable Select) until everthing is done.



Let us start...

Connect your Y Molex Splitter and hook up the new HDD to the power cable so that both HDD's are powered on when starting the Xbox. And if you use a SATA adapter also switch out the IDE cable because, as said above, it will not work with your SATA HDD.

Your setup should then looks something like this (See image below).



So when that's done and you double checked everything, boot up your Xbox.

Now unpack the files from above and copy or FTP them to your Xbox.  
Place the XBP Table Writer folder and the Chimp folder in your E:\Apps folder.

Now you need to prepare your old HDD which is probably the original HDD.  
So navigate to : E:\Apps\Chimp\XBP Table Writer\ and launch the default.xbe in that folder. After a moment you will be greeted with this (See image below)

This is only to be used if your Hard drive was formatted with the following:  
UnleashX, Evox or older versions of Chimp. ( 2618 or lower )

Press (Back) to exit.  
Press (A) to write - F takes all, partition tables.  
Press (B) to write - F & G, partition tables.

XBP Table Writer 0.1 - LBA48 patch v4

Select the option depending on your drive and press A.  
Another message will show up (see image below).

This is only to be used if your Hard drive was formatted with the following:  
UnleashX, Evox or older versions of Chimp. ( 2618 or lower )

Press (Back) to exit.  
Press (A) to write - F takes all, partition tables.  
Press (B) to write - F & G, partition tables.

Press Y to write table.  
or any other button to abort.

XBP Table Writer 0.1 - LBA48 patch v4



Here you confirm your choice with Y and XBP Table Writer will do it's job.  
When thats done, press the back button to jump back to your dashboard.

Alright, now with the software side ready, and your HDD prepared with LBA48  
you're ready to clone your drive.

Back in your dashboard launch the file browser again and navigate to  
E:\Apps\Chimp and highlight the default.xbe but **DO NOT** launch it yet.



Now it's time for you to switch the IDE cable from the DVD drive to your new HDD/SATA adapter.  
When that's done, launch the default.xbe (Chimp).

A few seconds later you will see this (See image on the next page).



# Chimp Loader v1.01



Please Connect the Slave HDD and Press (A)

Since you already connectet your HDD, just press A. Chimp will then launch...

# Chimp Loader v1.01

Booting Chimp 261812...

Boot: Loading kernel '/apps/chimp/linux267'... [ ok ]

Boot: Loading initrd '/apps/chimp/initrd.gz'...

## SCART

```
////////////////////
// Chimp 261812
////////////////////
Disabling the bloody cursor!
Populating ramdisk...
Starting network...
DHCP broadcast failed, falling back to static IP
IP Address: 192.168.0.3
Starting FTP Server...
Starting Telnet Server...

You may now connect using:
username:root
password:xbox

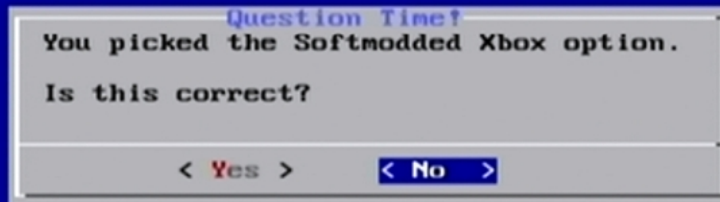
Please press Enter to activate this console.
```

After a moment you will see this which is the main selection screen (see image below)



In here you select option no.2 and press A.

Chimp will then ask you if you're sure. So select Yes and press A again.

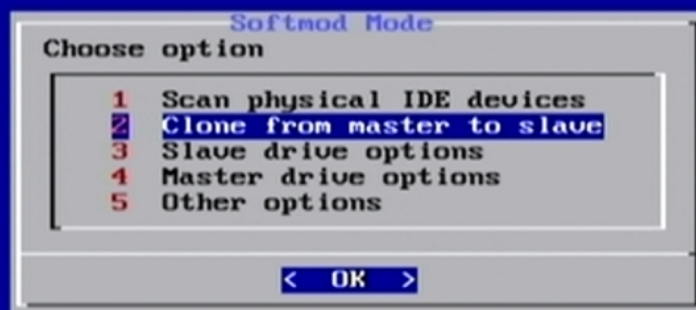


A disclaimer will show up where you also have to select YES and confirm that with A again.

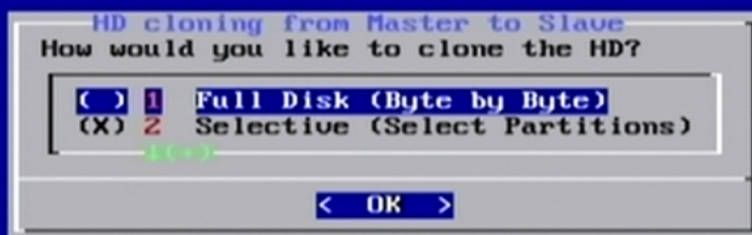




On the next page (see image below) you have to select option no.2 and confirm that with A.



In the next window (see image below) you select option no.1 and you confirm that with A again.



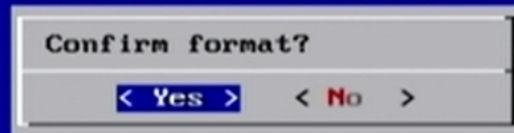
Now it comes down to how you have set up your LBA48 config with XBP Table Writer. Since we assumed you have/had the stock drive you select option no.2 and confirm that with A.



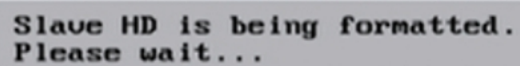
And, you may guessed it, another window comes up (see image below) which will let you choose how to setup your partitions of your destination HDD. Here it comes down on how much space your new HDD has. So here you are on your own. Make your pick and confirm with A.



And the final window shows up. So select YES and press a last time A.



Chimp will then format the new HDD (see image below).

A screenshot of a 'Slave HD is being formatted. Please wait...' dialog box on a blue background. The dialog box is white with a black border. It contains the text 'Slave HD is being formatted.' and 'Please wait...' on two lines.

Slave HD is being formatted.  
Please wait...



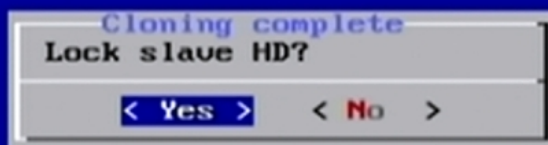
When Chimp has finished that job, the cloning process will start (Finaly)

```
Cloning Status: Cloning C Partition.
24.2MiB 0:00:02 [11.9MiB/s] [>] 1 4% ETA 0:00:39
```

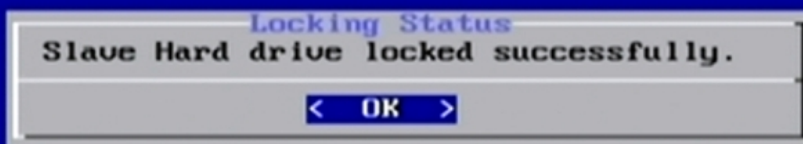
```
Cloning Status: Cloning E Partition.
3.46GiB 0:04:11 [14.4MiB/s] [=====>] 1 72% ETA 0:01:35
```

C & E partitions take a little and F is usually empty. So it will take round about 5-6 mins.

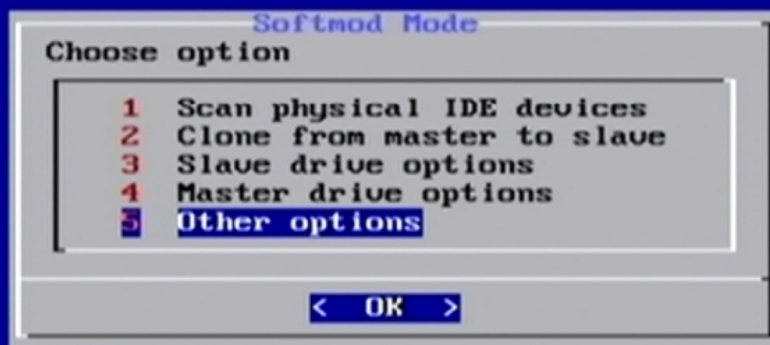
When Chimp has cloned the partitions to the new drive, it will ask if the new HDD should be locked (See image below). You select YES here and confirm that with A.



One sec. later Chimp tells you that the drive is locked (see image below). Confirm that message with A.



You will now find your self back in the main window of Chimp.  
With everthing done now, select option no.5 and press A.

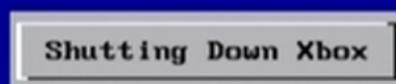
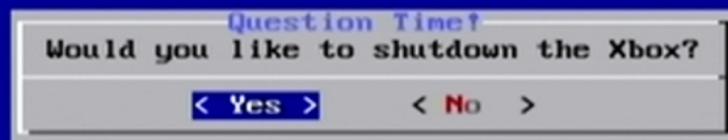


In the next window you select option no.6 and press A.





Chimp will then ask you if you're sure. Confirm that by selecting YES and press A.



When your XBox has shutdown, you can disconnect the old HDD and screw in the new one.  
Check that you have connectet all cables properly and fire up your XBox.

Enjoy your new HDD.

# <=== Clone Softmod HDD w. FatXplorer ===>

===> Eaton RockZ <===






So, what do you need?  
Fatxplorer, your new HDD, your old HDD and a EEprom Backup of your XBox on your PC!

And read this twice if needed BEFORE you start to do anything!

## Step 1

**This is the most important step!**

Backup your XBox EEPROM and copy or FTP it to your PC it to.  
On your PC make a copy of it, just to be safe!

 eeprom.bin	01.01.2022 13:00	BIN-Datei	1 KB
 eeprom.cfg	01.01.2022 13:00	CFG-Datei	1 KB
 xbox info.txt	01.01.2022 13:00	TXT-Datei	1 KB

## Step 2 \*

**(Quickly jump to the end of this tutorial and check the notes  
If you prefer the notes, jump to Step 10)**

Unlock your XBox HDD in your XBox.  
YES, you have read right. Unlock your softmodded HDD in your XBox.  
Use XBlasTOS or Config Magic. Then shut down your XBox.

## Step 3

If not already done, download and install FatXplorer.

## Step 4

Connect your now unlocked softmodded XBox HDD to your PC.

## Step 5

Launch FatXplorer and let it scan for your HDD.  
Then start with mounting the C partition.

## Step 6

Create a folder "C" on your desktop and copy over everything  
from your XBox HDD to that folder on your desktop.

### Step 7

Repeat the same as above with the E partition.

### Step 8

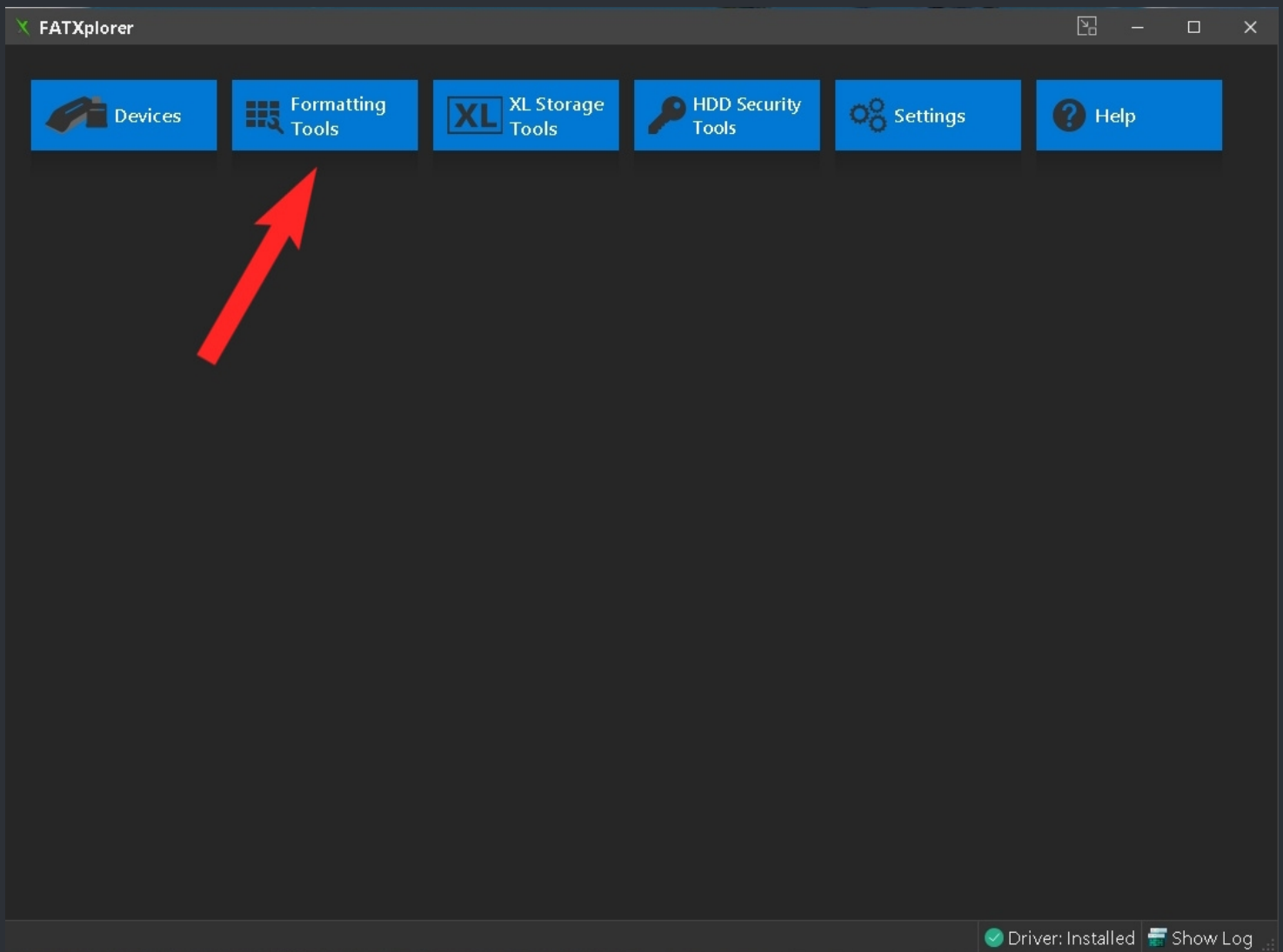
Repeat the same again with your F / G partitions.

### Step 9

Now that you have all the files from your partitons on your desktop, unmount your XBox HDD for now and disconnect it from the PC.

### Step 10

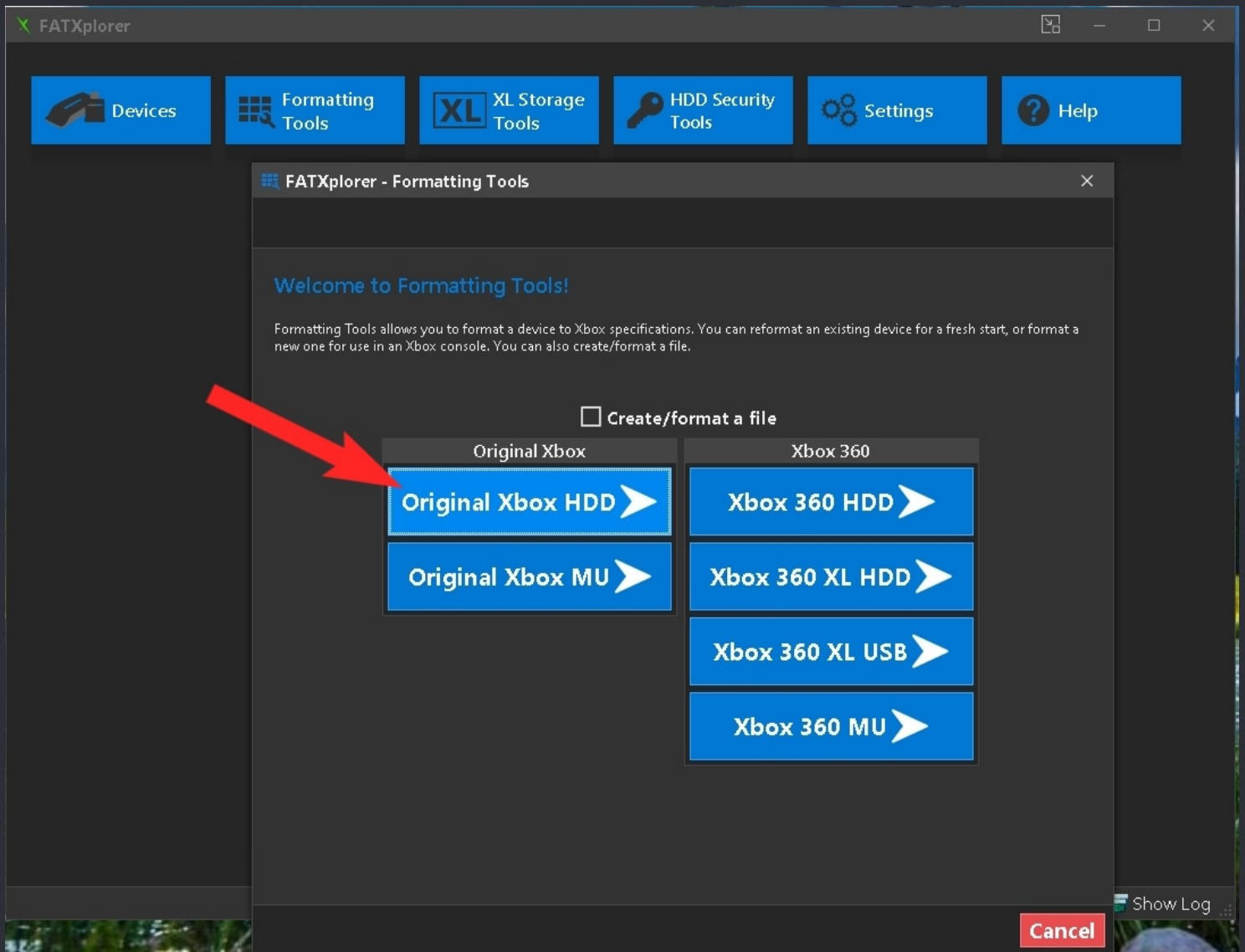
Connect your new HDD to the PC.  
Then click in Fatxplorer on the "Formting Tools" button.





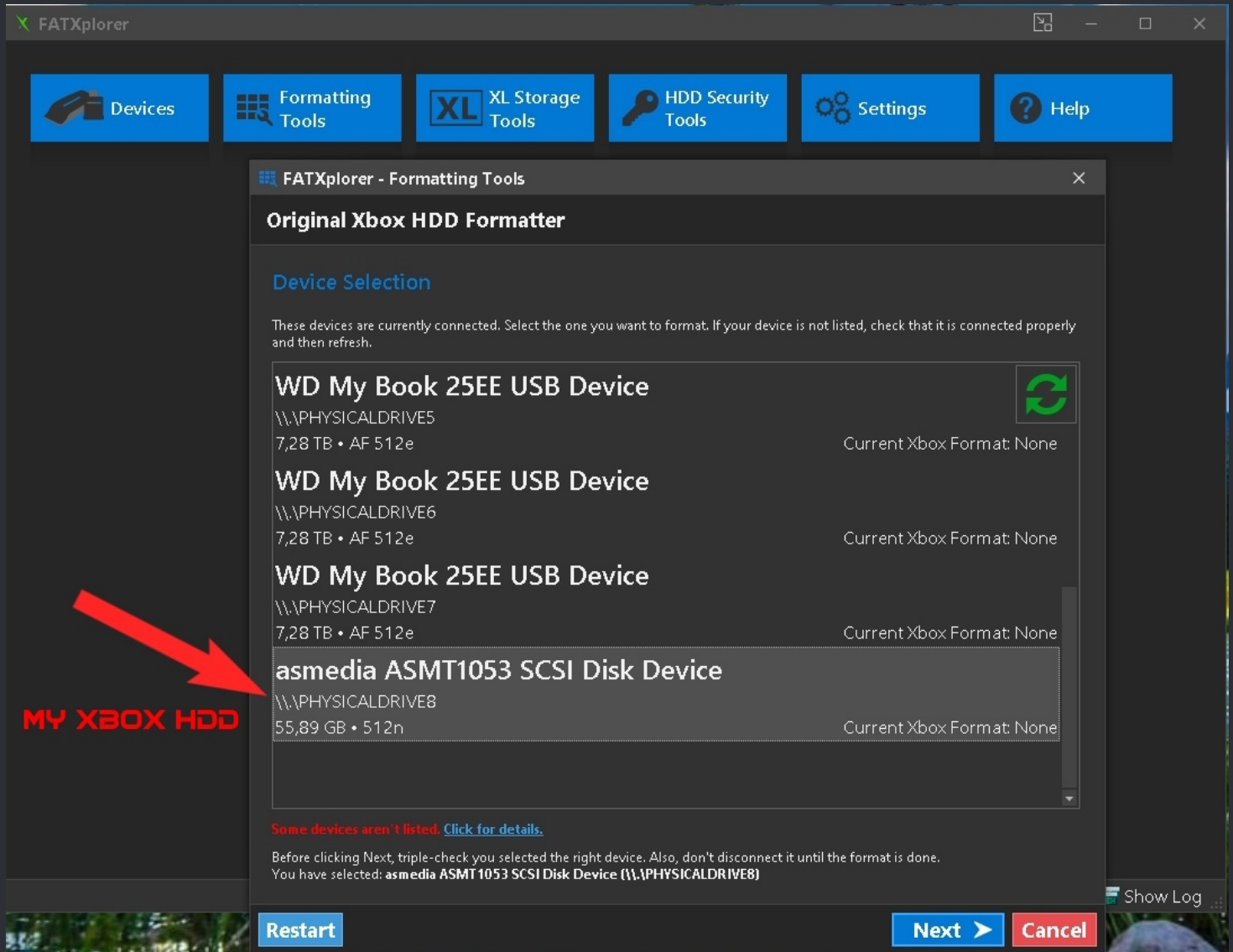
## Step 11

In the upcoming window click on "Original Xbox HDD."



## Step 12

Select in the new wind the right HDD which you want to use for your Xbox.  
In my case, it's the asmedia usb HDD with ~60GB.



## Step 13

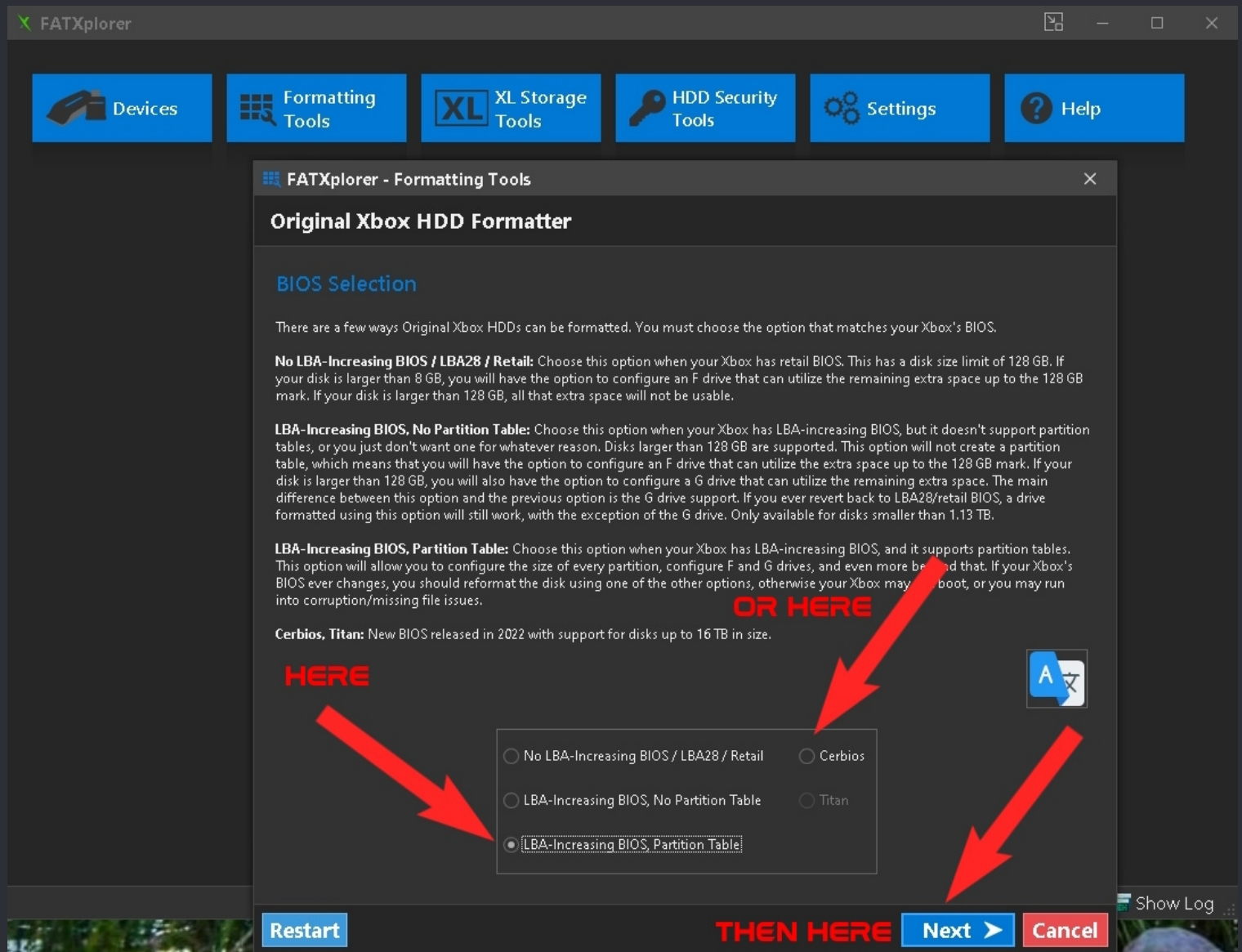
Depending on the size of your new HDD, select the proper format.

In my case it's "LBA-Increasing, Partition Table".

This is basically LBA48 and fine for any bios up to a 2TB HDD and works with the Cerbios Softmod & Rocky5's Softmod.

If you have more than 2TB HDD space, select Cerbios.

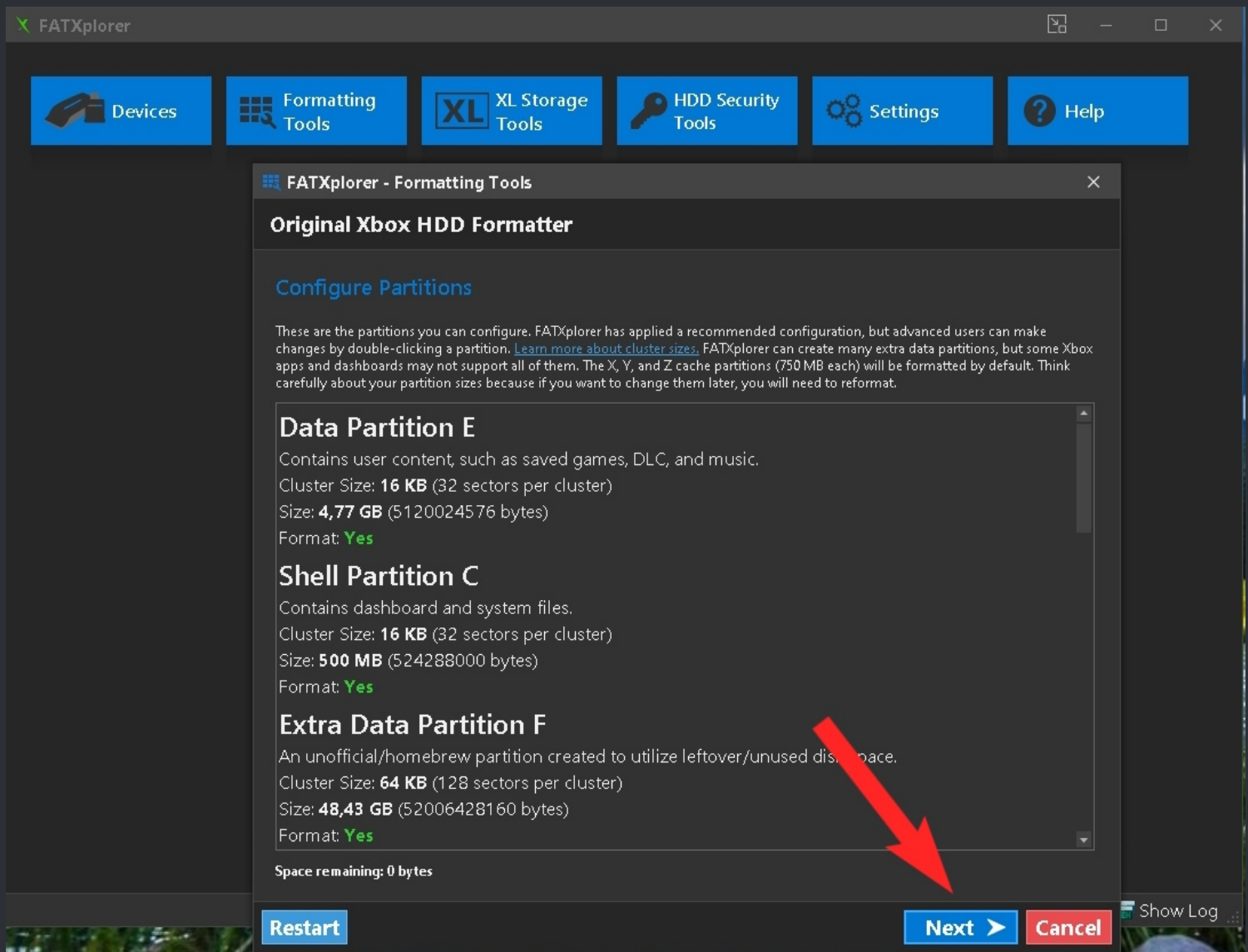
But be warned, this works only for the Cerbios Softmod OR Rocky5's Cerbios softmod, not his default EvoX Softmod!





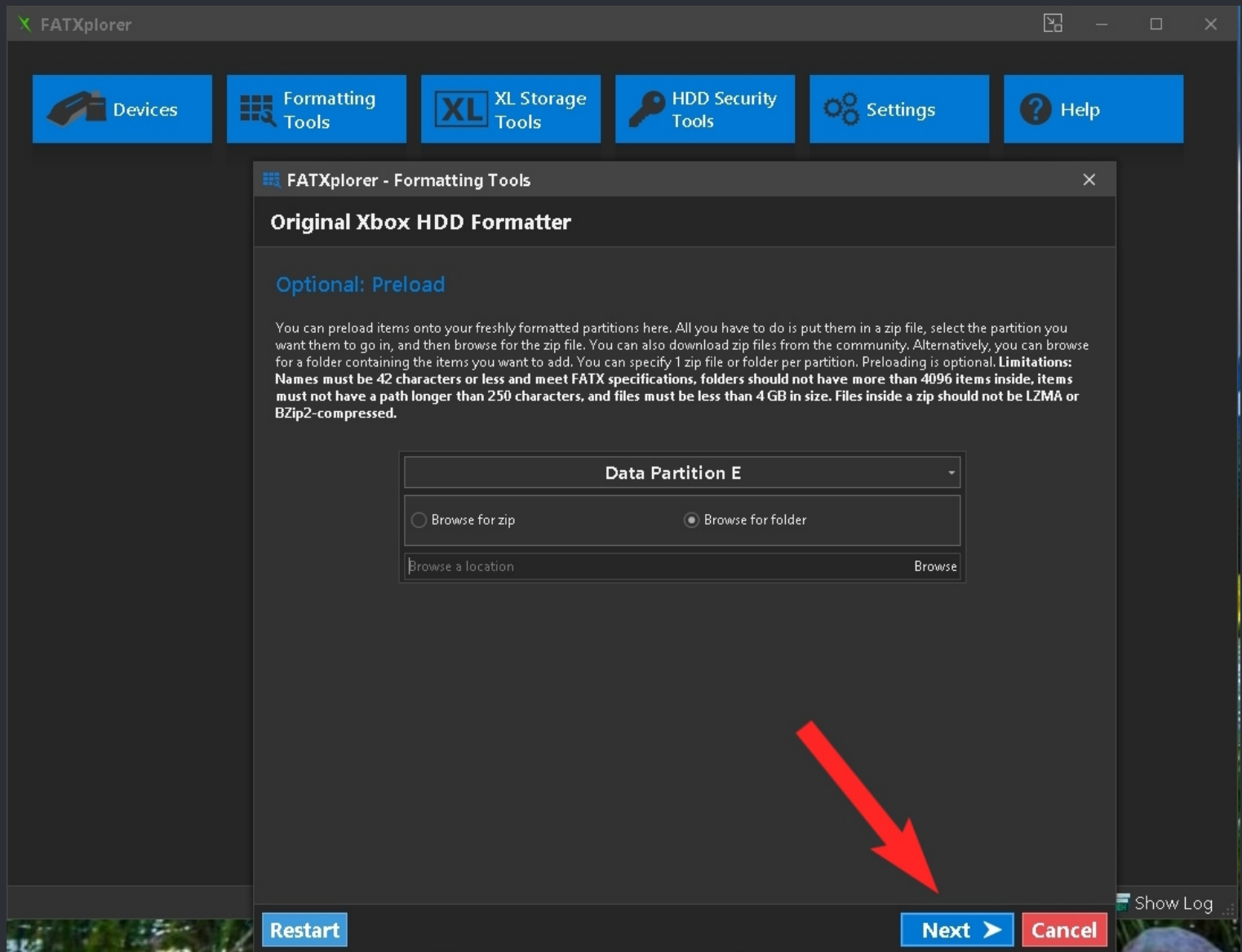
## Step 14

FatXplorer will show you the summary of the partitions. Click on NEXT.



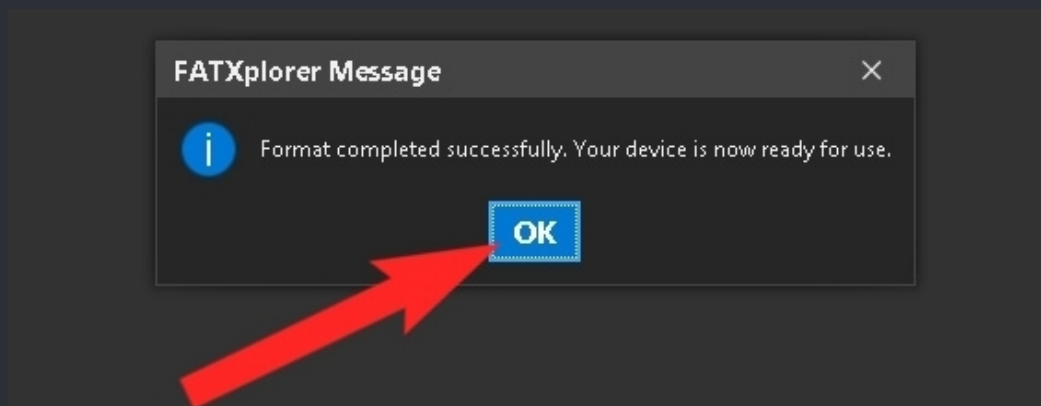
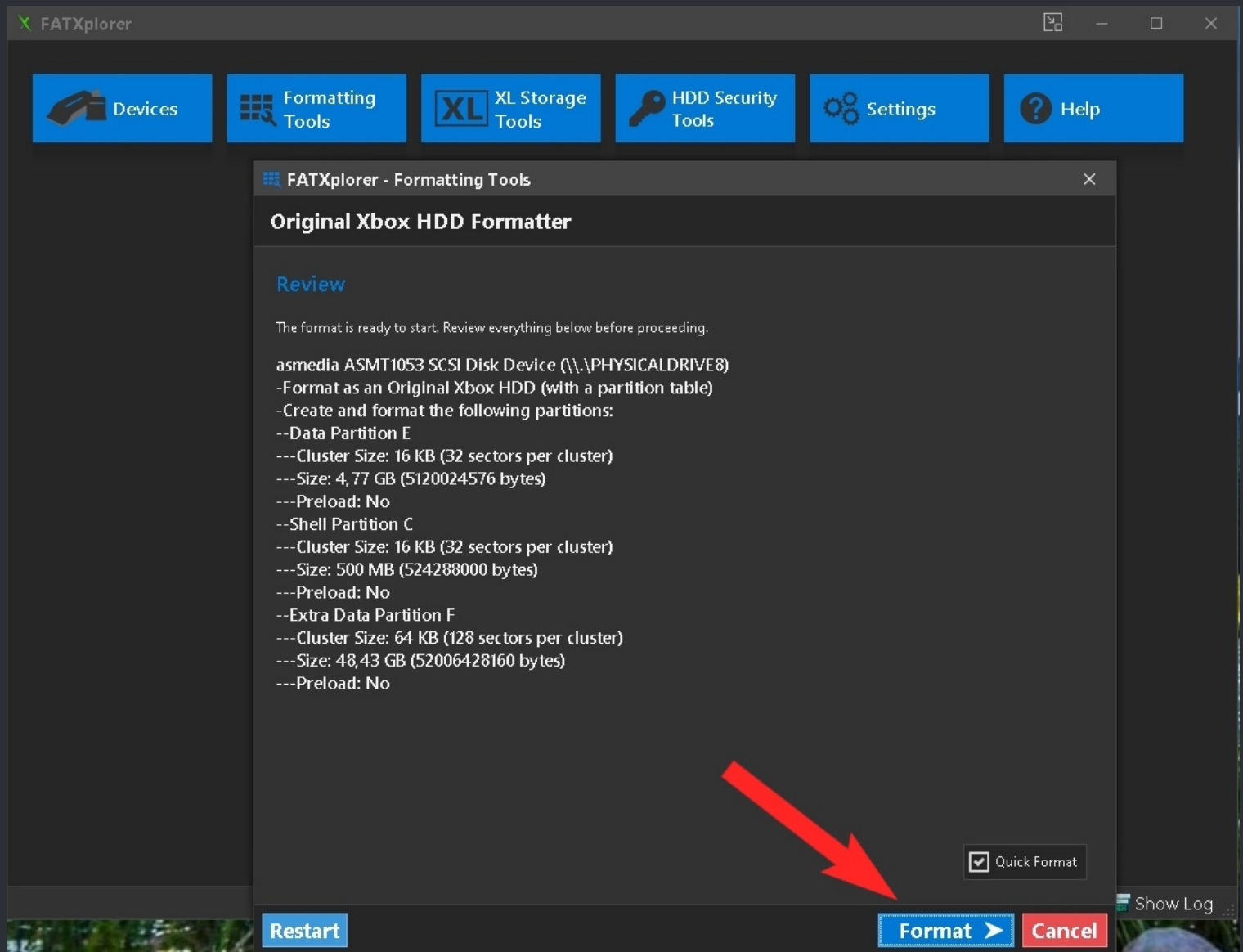
## Step 15

FastXplorer will give you the option to select files which you simply skip by pressing NEXT.



## Step 16

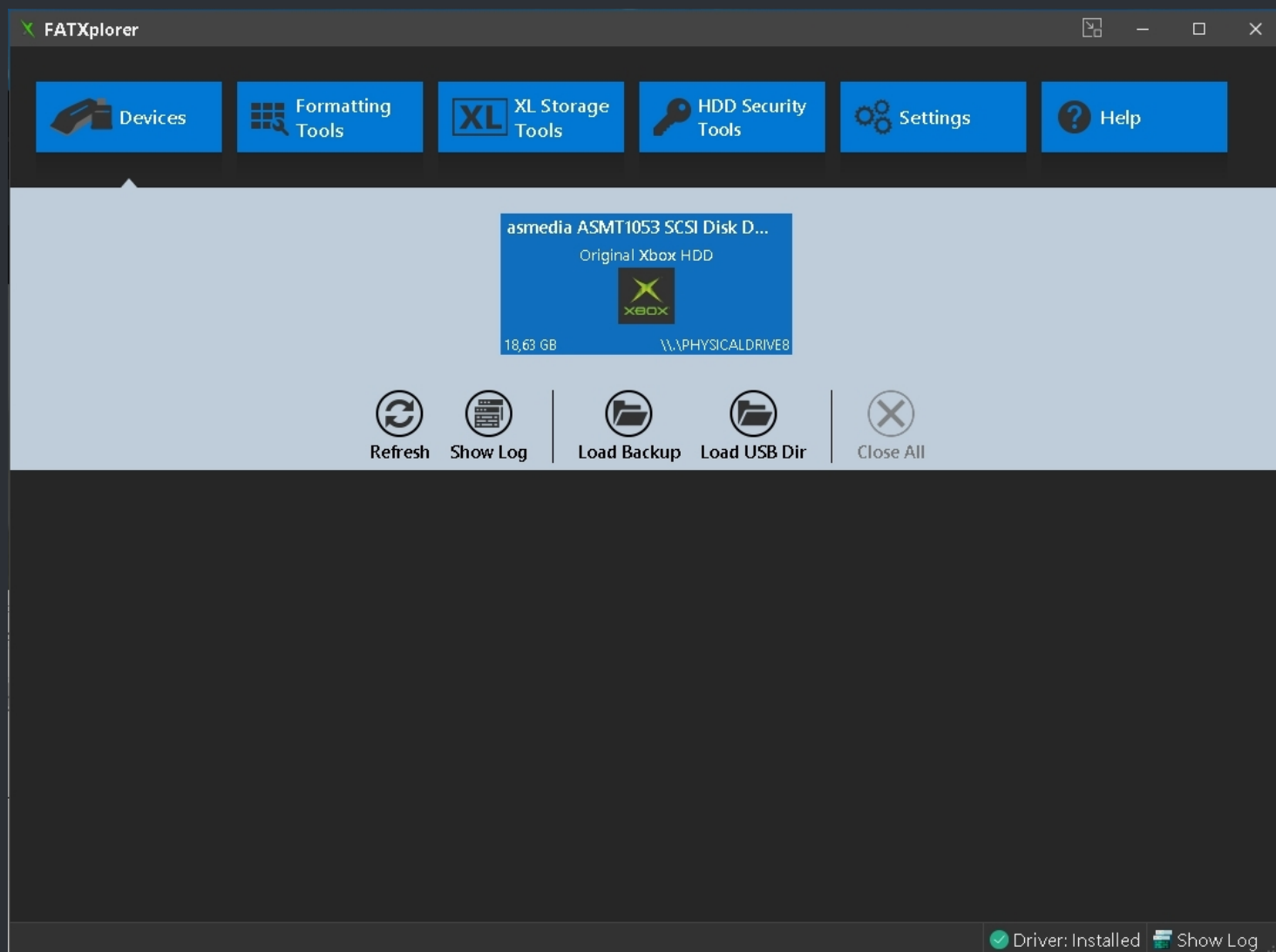
FastXplorer shows you a Review of everything. When you are sure you have made everything right, hit the "Format" button. FatXplorer will then format your HDD and will show you a message. Click on the "OK" button to proceed.





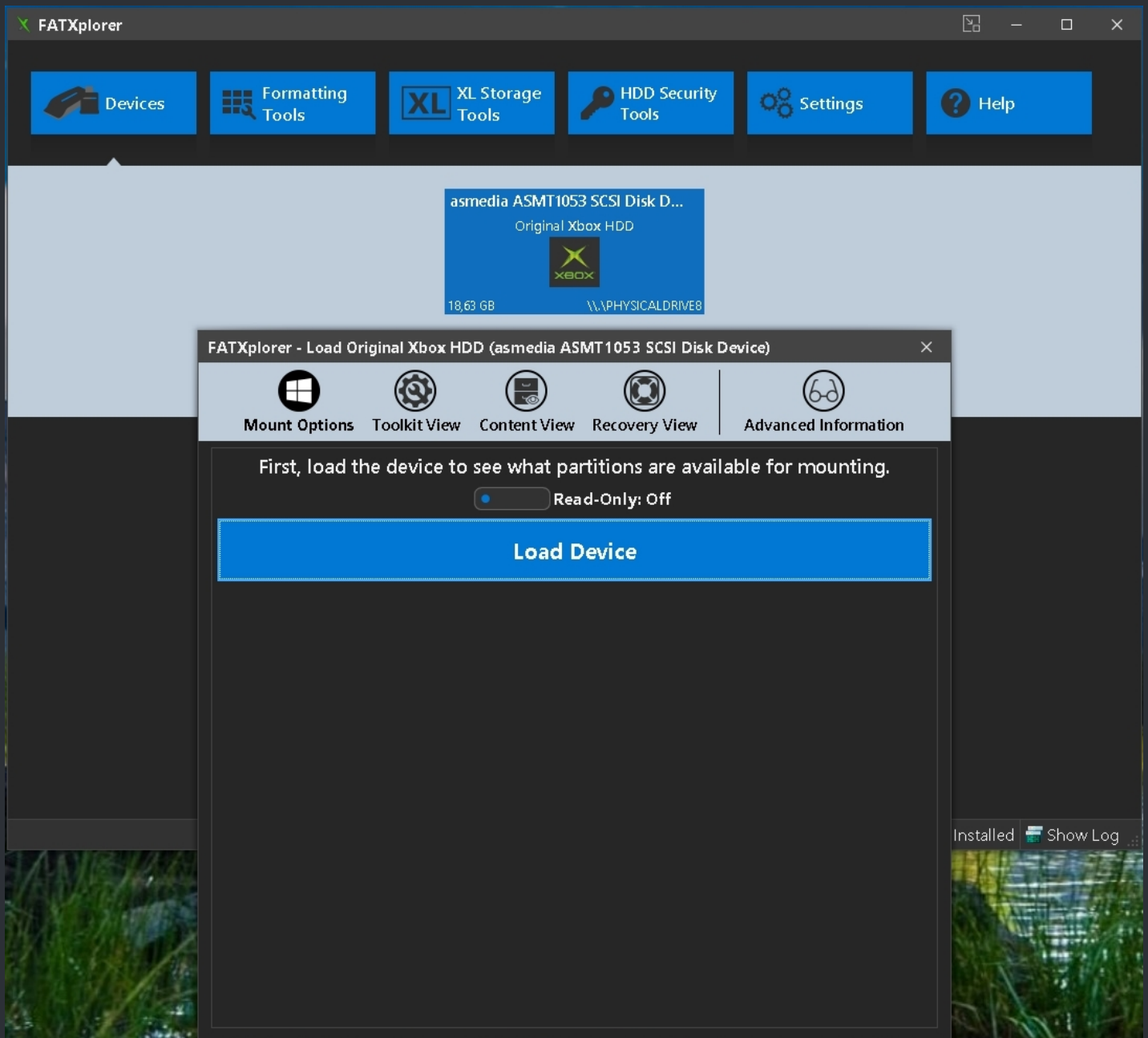
## Step 17

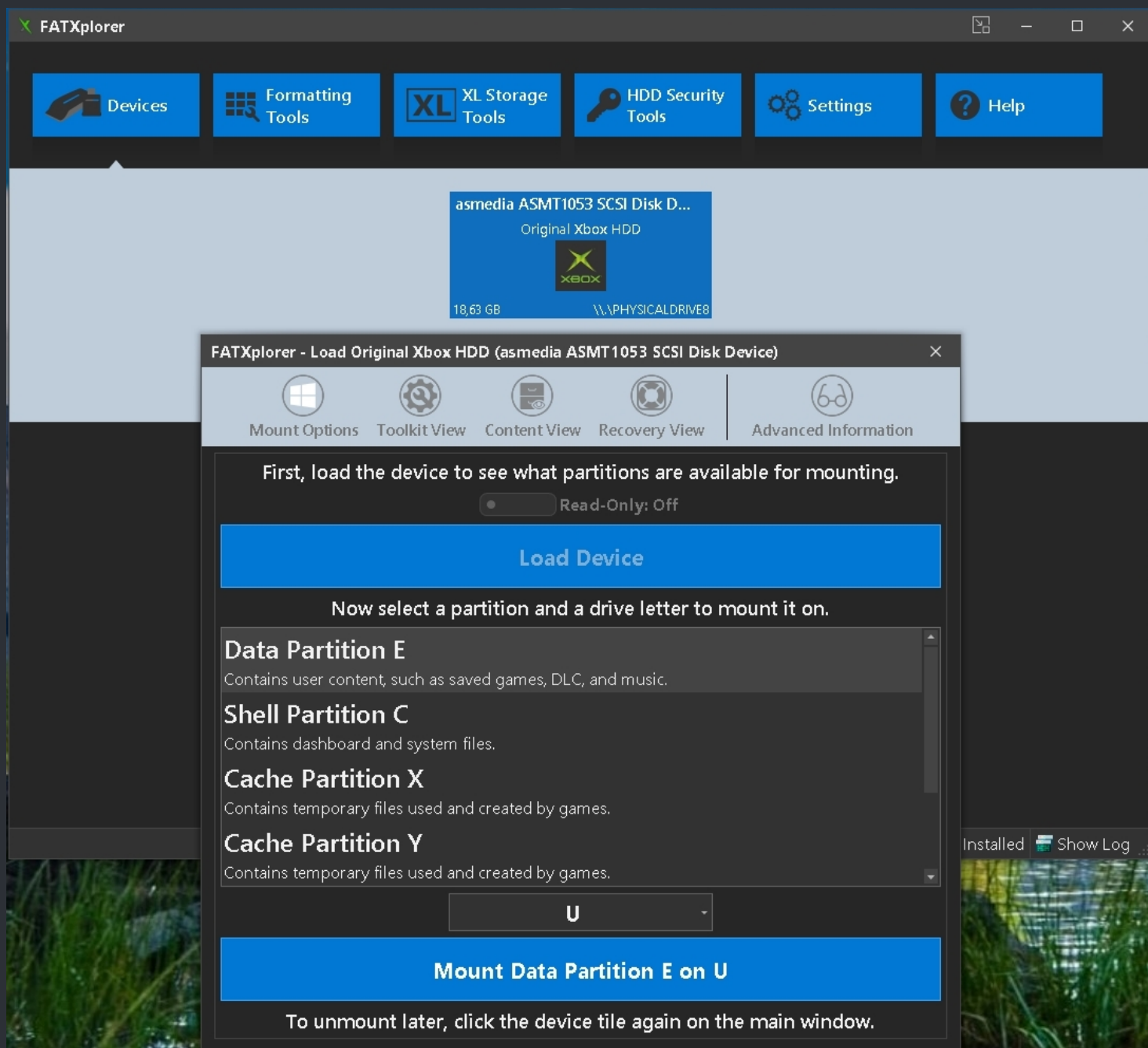
Back in the main window of fatxplorer Scan for devices by clicking on the "Device" button.



## Step 18

Click on your HDD and then on „Load Device“.  
Then mount the C partition of the HDD and copy over all files from the C folder from your desktop over to the XBox HDD.





### Step 19 / Step 20

Repeat the above for the E and F/G partitions.

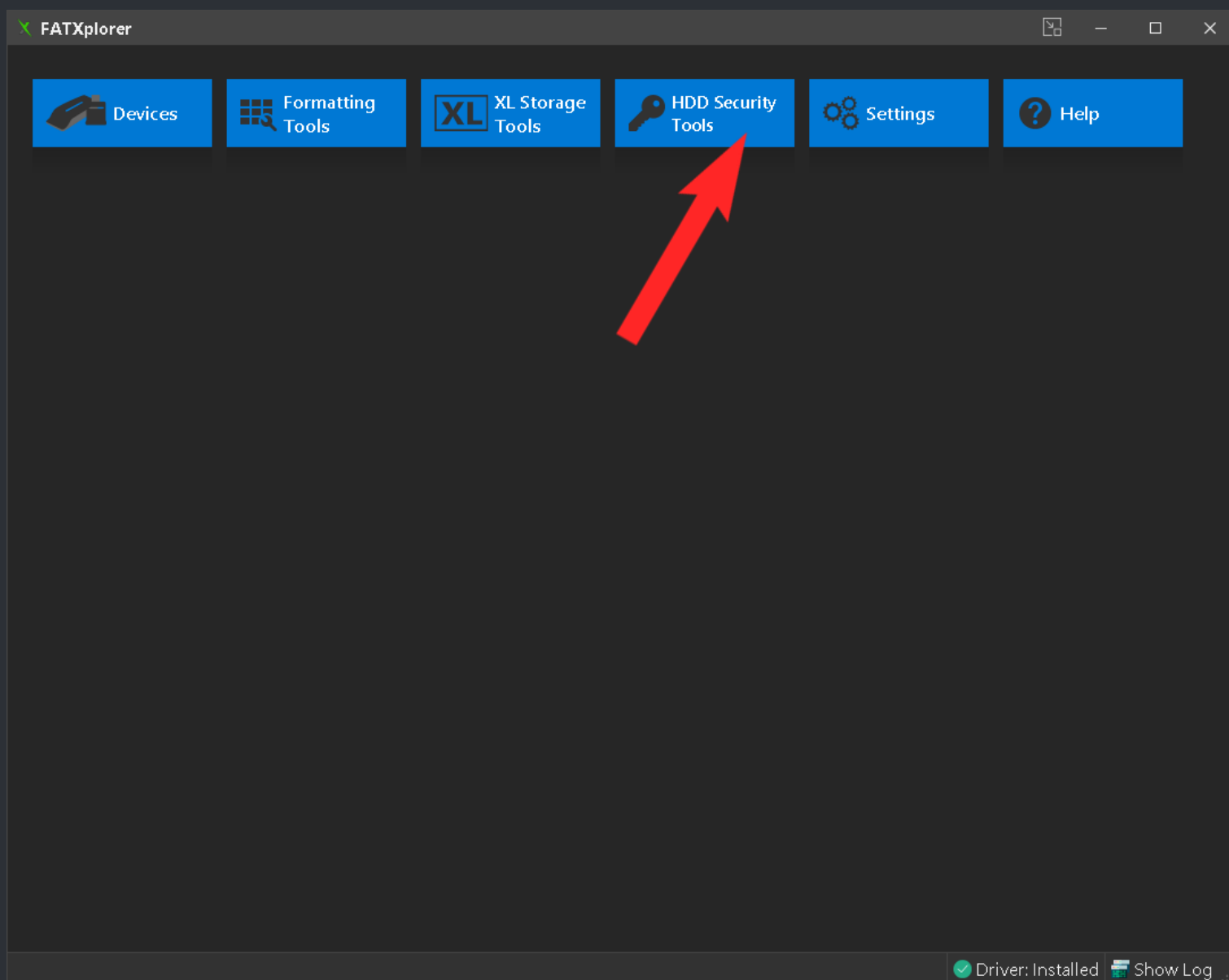
### Step 21

When you have copied over all files to all your partitions, close all explorer windows and unmount the XBox HDD but leave it connectet and FatXplorer open!



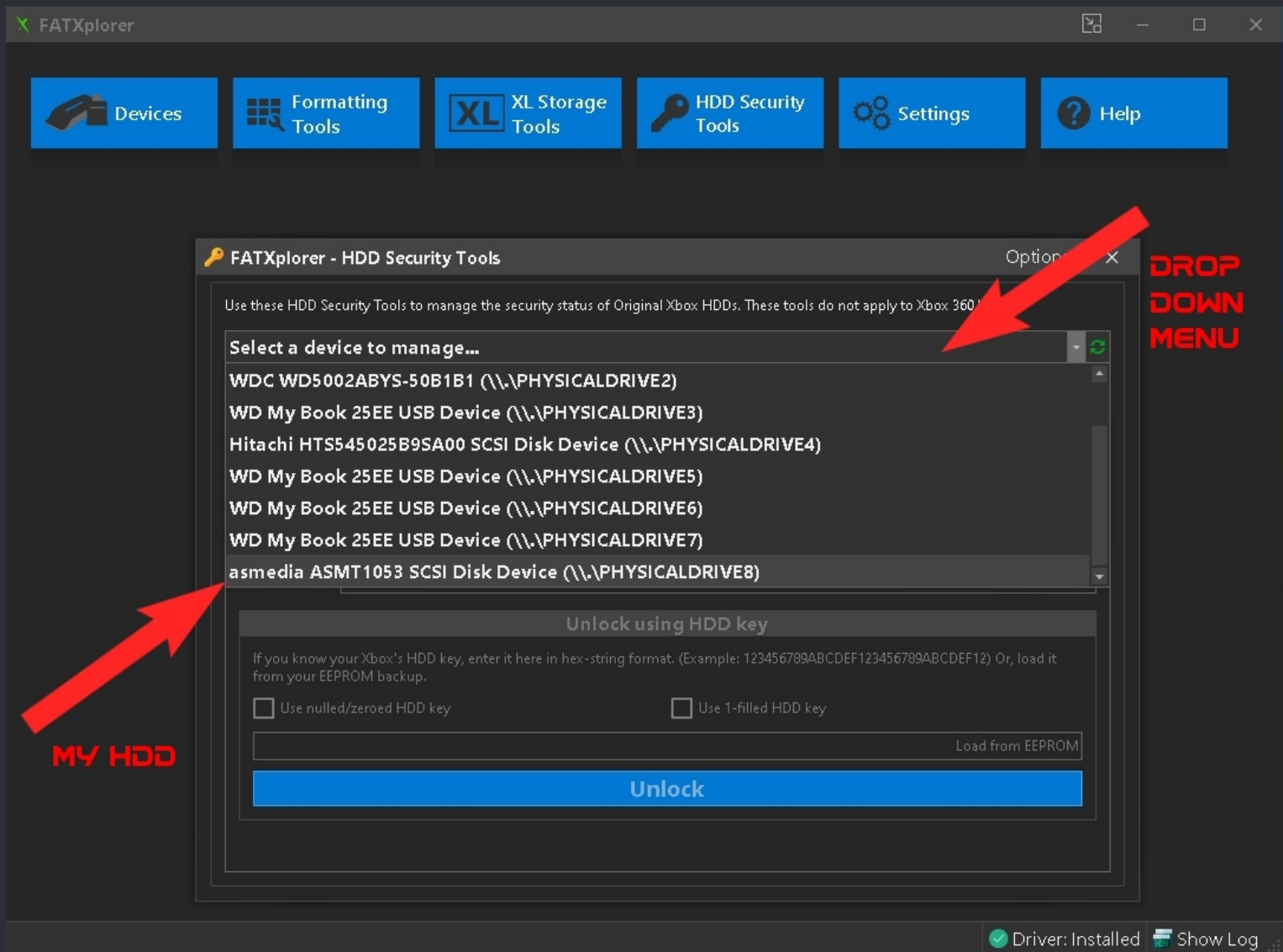
## Step 22

Click on the " HDD Security Tools" button in the fatxplorer main window.



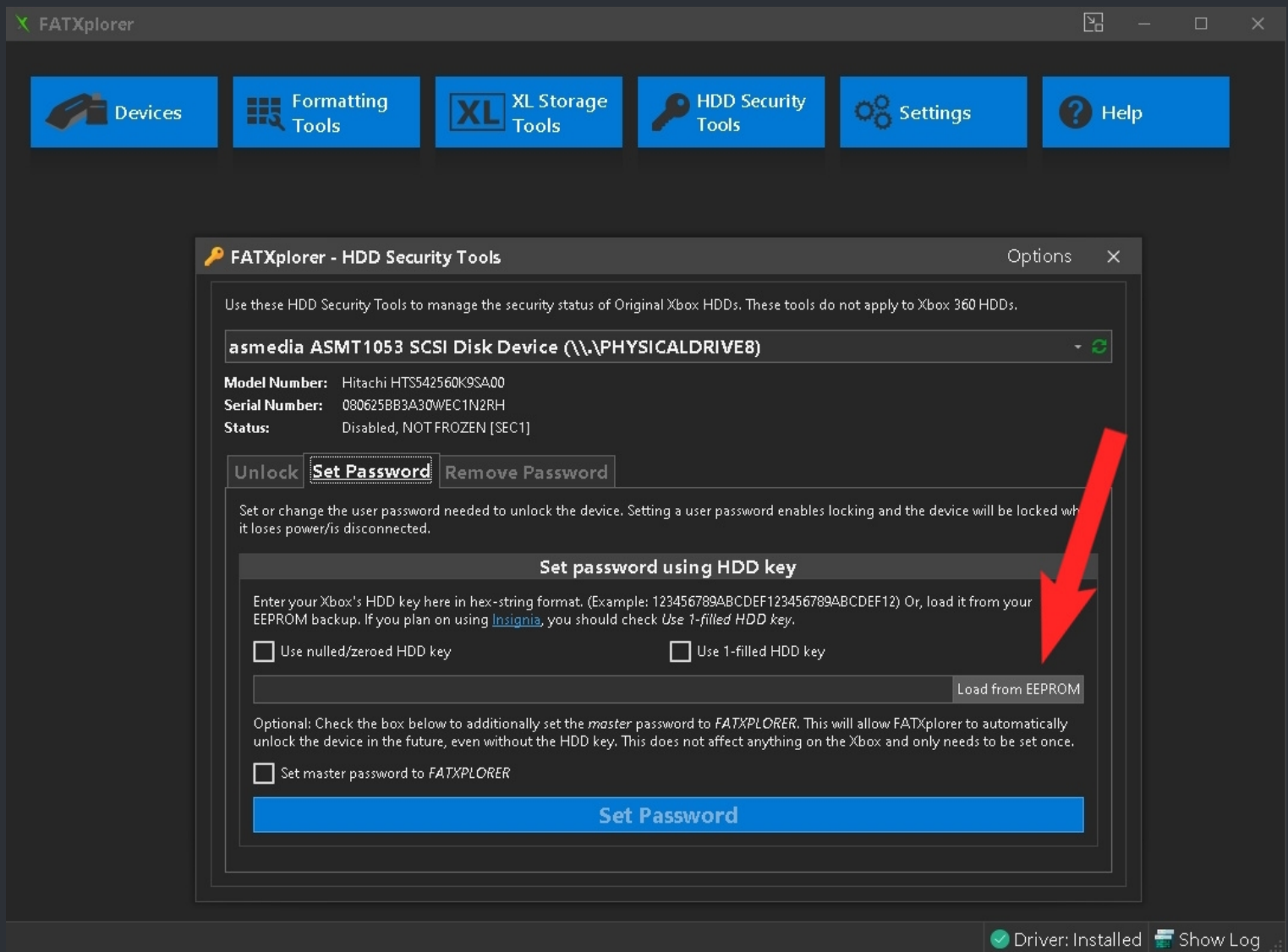
## Step 23

Select your XBox HDD from the drop down menu.



## Step 24

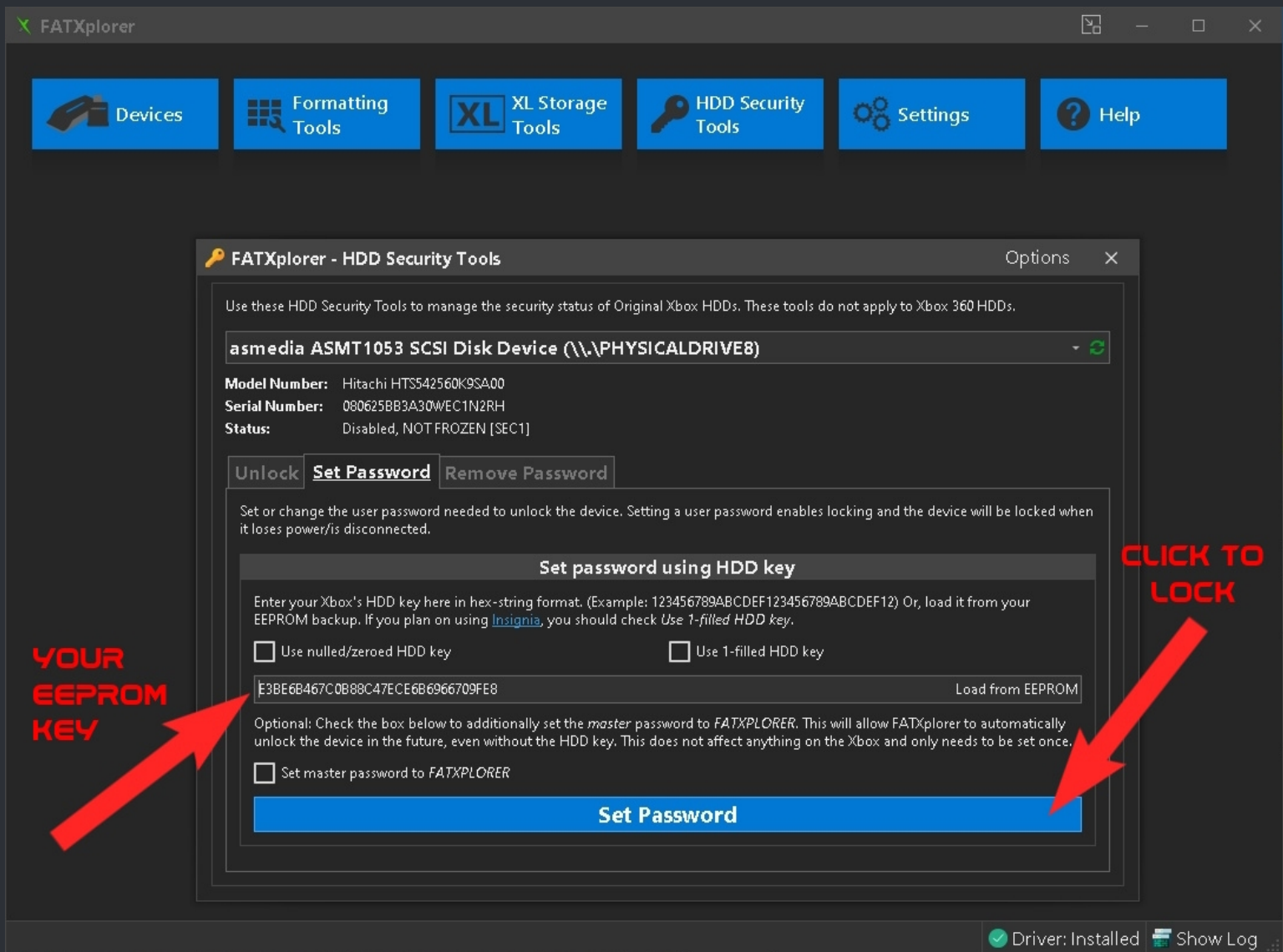
Click on the "Load from EEPROM" button right under "Set password using HDD key" and navigate to the folder where you have saved your eeprom. Select the eeprom.bin and press open. You will then see the HDD key next to the button.

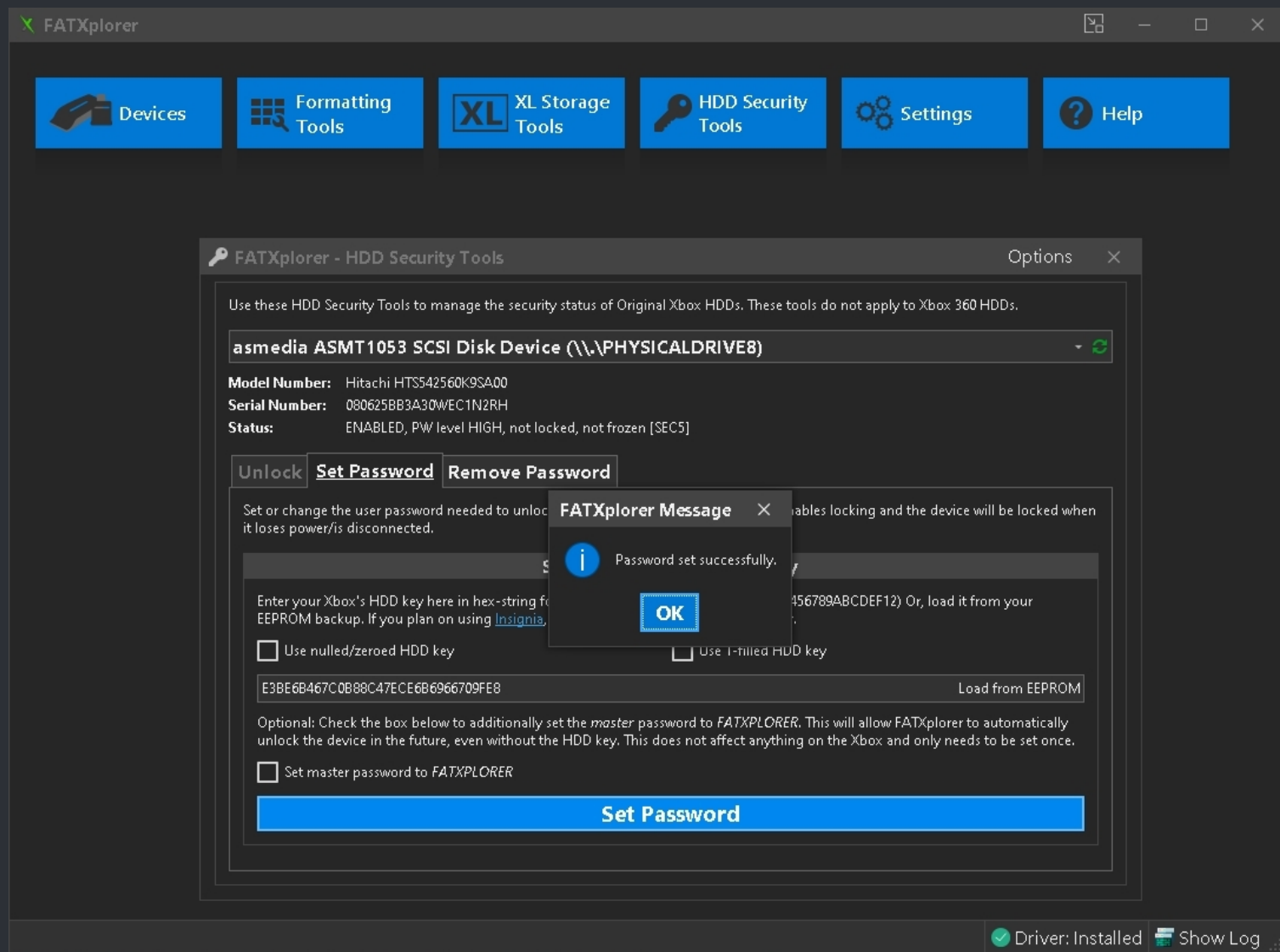




## Step 25

Click on "Set Password".





And done.

## Step 26

Close fatxplorer, and disconnect your new HDD.  
Then connect it to your Xbox.

And if you want, you can relock your OLD HDD the same way with the eeprom.bin if you like.

**\* Notes: One more thing though.**

If you don't need anything more than just C & E, you maybe don't need to Unlock your main HDD as written in step 2. If you ain't have much games on lets say F keep the HDD locked and FTP over your C and E partitons to your PC. It may makes oyu feel a bit safer even I have testet evething my self. So the simple "rebuild" as describbed above, works just fine.

And finally, if you like to copy games to F/G, do it before you lock the HDD.

And now, as written, repeat reading this and then give it a go.

# <=== XBox / PC Files ===>

===> Dashboards <===				☰
Dashboard	Version	Dashboard Download	Manual Download	Dev. Status
AnOd-X	v1.02.1	<a href="#">Digiex.net AnOd-X</a>		●
Avalaunch	v0.49.3	<a href="#">Digiex.net Avalaunch</a>	<a href="#">Mega</a>	●
BlackStormX (BSX)	unknown	<a href="#">Xbox-Scene.info BlackStormX</a>		●
Chihirox	v0.1	<a href="#">Digiex.net Chihirox</a>		●
Dash2Gam	v3.18	<a href="#">Digiex.net Dash2Gam</a>		●
EvolutionX (EvoX)	v3935	<a href="#">Digiex.net EvolutionX</a>	<a href="#">Mega</a>	●
LithiumX	v0.94	<a href="#">github.com LithiumX</a>		●
MediaXMenu (MXM)	v0.9n6	<a href="#">Xbox-Scene.info Media X Menu</a>	<a href="#">Mega</a>	●
MXM-Reloaded	v0.93	<a href="#">Xbox-Scene.info MXM-Reloaded</a>	<a href="#">Mega</a>	●
NeoDashX	v1.4	<a href="#">Digiex.net NeoDashX</a>		●
neXgen	v0.95	<a href="#">Digiex.net neXgen</a>		●
OpenDash	unknown	Unknown.		●
OpenDash Reborn	unknown	<a href="#">github.com OpenDash-Reborn</a>		●
RSX	unknown	<a href="#">Digiex.net RSX</a>		●
tHc	v1.1	<a href="#">Xbox-Scene.info tHc</a>		●
thc Lite	v1.2	<a href="#">Xbox-Scene.info tHc-Lite</a>		●
User Interface X (UiX)	01.03.05	<a href="#">Digiex.net UiX</a>		●
UiX Lite	V0.9.5.7	<a href="#">github.com UIX-Lite</a>		●
UiX Ultra Lite	unknown	<a href="#">github.com UIX-Lite</a>		●
UnleashX	v0.39.0528A	<a href="#">Xbox-Scene.info UnleashX</a>	<a href="#">Mega</a>	●
XBMC / XBMC4XBox	v3.5.3	<a href="#">Xbox-Scene.info XBMC4XBox</a>	<a href="#">Mega</a>	●
XBMC4Gamers	v2.xxx	<a href="#">github.com XBMC4Gamers</a>	<a href="#">Mega</a>	●
XBMC-Emustation		<a href="#">github.com XBMC-Emustation</a>		●
XBox-OS	v0.4a	<a href="#">Digiex.net XBox-OS</a>		●

Please take note here that most of the dashboards are EOL (End Of Life) and doesn't receive updates anymore.

But because this is The Cerbios Playbook, we have added them all anyway.  
That way you have the chance to see which dashboards were there back in the good old days  
and you will have the chance to play around with the one or other if you like.

Last but not least, we marked some white and some grey.  
The white ones are the ones which are still be used up to this day.  
The grey ones one the other hand are not really recommended but if you like, play  
around with them but expect the one or other thing not to work.

Finally, if you're after a dual HDD dashboard you have to use LithiumX or UiX-Lite for now.  
We hope to see XBMC-Gamers and XBMC-Emustation in the future.







## ==> XBox Apps <==



Application	Version	Download	Development Status
boXplorer	v0.96b	<a href="#">Xbox-Scene.info - boXplorer</a>	
Config Magic	v1.6.1	<a href="#">Xbox-Scene.info - Config Magic</a>	
Controller Test	Unknown	<a href="#">Xbox-Scene.info - Controller Test</a>	
Dashloader Customizer	v1.0.0	<a href="#">Xbox-Scene.info - Dashloader Customizer</a>	
DVD2Xbox	v0.7.8	<a href="#">Xbox-Scene.info - DVD2Xbox</a>	
EEPROM Backuperer	Unknown	<a href="#">Xbox-Scene.info – EEPROM Backuperer</a>	
ElpisHD	Unknown	~ Comes with PrometheOS ~	
ENDGAME DVD Launcher	v2.0	<a href="#">Xbox-Scene.info – Endgame DVD Launcher</a>	
Hardware Test Suit	Unknown	<a href="#">Xbox-Scene.info - Hardware Test Suit</a>	
HDTV Test App	v1.3	<a href="#">Xbox-Scene.info - HDTV Test App</a>	
Insignia	Unknown	<a href="#">Insignia.live</a>	
Mimesis Revived	v3.2.1	<a href="#">Xbox-Scene.info – Mimesis Revived</a>	
Video Mode Switcher	Unknown	<a href="#">Xbox-Scene.info – Video Mode Switcher</a>	
XBlast / XBlastOS	v.0.56 Official	<a href="#">Xbox-Scene.info - XBlastOS</a> <a href="#">Github BennyDiamond Source Code</a>	
Xbox Artwork Installer	Unknown	<a href="#">Xbox-Scene.info - Xbox Artwork Installer</a>	
Xbox Ram Check		<a href="#">Xbox-Scene.info - Xbox Ram Check</a>	
XboxOverclock	v.1.3	<a href="#">Github GXTX XboxOverclock</a>	
XBOverclock	v1.0	<a href="#">Github WulfyStylez XBOverclock</a>	
XBpartitioner	1.3	<a href="#">Xbox-Scene.info - XBpartitioner</a>	
XCat	<a href="#">1.02b</a>	<a href="#">Xbox-Scene.info - XCat</a>	
Xenium Tools	v2.0.0	<a href="#">Github - Xenium Tools</a>	
Xored Mini Laucher	v2.2	<a href="#">Xbox-Scene.info - Xored Mini Laucher</a>	
X-RTC	Unknown	<a href="#">Github Andr0</a>	

These are just a couple of usefull apps but tbh you don't really need all of them and some not at all. Evething comes down to your XBox setup and what you want to do.

===> PC Apps <===				☰
Application	Version	Download	Development Status	
Brutus OGX Online	Unknown	<a href="#">Xbox-Scene.info - Brutus OGX Online</a>		
OgXHD	v1.0.5a	<a href="#">Xbox-Scene.info - OgXHD</a>		
Xbe Shortcut Maker	v2.0	<a href="#">Xbox-Scene.info - Xbe Shortcut Maker</a>		
XBE Patcher	v1.0	<a href="#">Xbox-Scene.info - XBE Patcher</a>		
XDVDMulleter	v10.2 beta	<a href="#">Xbox-Scene.info - XDVDMulleter</a>		
deXBE	v0.5.0 (fixed)	<a href="#">Xbox-Scene.info - deXBE</a>		
XEMU	v0.7.132	<a href="#">XEMU Website</a>		
CerbiosTool	v2.0.2	<a href="#">Github – CerbiosTool</a>		
Repackinator	v1.4.4	<a href="#">Github - Repackinator</a>		
Pandora	v1.0.7	<a href="#">Github – Pandora</a>		
Qwix	v1.0.1	<a href="#">Xbox-Scene.info - Qwix</a>		
XBEdump - FontEnd	v1.0.1	<a href="#">Xbox-Scene.info - XBEdump</a>		
IPSWin	v2.0	<a href="#">ZeroSoft</a>		
FatXplorer	v3.0 Beta	<a href="#">Eaton Works - FatXplorer</a>		
PonyProg2000	v2.08d	<a href="#">Lancos.com</a>		
HxD	v2.5.0.0	<a href="#">Mh-nexus.de/en</a>		
Extract-xiso *	202303040307	<a href="#">Github - extract-xiso</a>		
WinRAR **	v3.0	<a href="#">Mega – WinRAR 3.0 Portable</a>	-	
WinMD5Free	v1.20	<a href="#">winmd5.com</a>		
XBox Eeprom Editor	v1.0.0.1	<a href="#">Github – XBox Eeprom Editor</a>		
LiveInfo By Yoshihiro	Beta 3	<a href="#">Mega – LiveInfo</a>		

These are just a couple of useful apps but tbh, you don't really need all of them and some not at all.

\* Useful app if you like to unpack a ISO/XISO with bad header. This lil tool will unpack it anyway.

\*\* Only useful if you need to pack rar files for the XBox like you would do for an installer based on UnleashX for example. Newer version will not work for that.





# ==> Github & Co – Projects <==



Project	Description	Website
Hawk!	Open Source Recreation of the Xbox Live Communicator.	<a href="#">Github.com - Hawk!</a>
OpenXenium	Open Source Xenium Modchip.	<a href="#">Github - OpenXenium</a>
ogx360	Add modern xinput USB support to your Original Xbox.	<a href="#">Github - ogx360</a>
ogx360-t4	Use modern USB game controllers on the original Xbox.	<a href="#">Github - ogx360-t4</a>
spi2par2019	Addon that allowed you to use HD44780 compliant LCDs on Xenium/OpenXenium modchips.	<a href="#">Github - spi2par2019</a>
ArduinoProm	Arduino based Original Xbox EEPROM reader & writer .	<a href="#">Github - ArduinoProm</a>
AladdinLCD	Convert the AladdinXT 4032 modchip to an LCD driver.	<a href="#">Github - AladdinLCD</a>
Xbox Serial USB	Xbox Serial to USB Adapter .	<a href="#">Github - Xbox Serial USB</a>
BlueRetro	Bluetooth controllers adapter for retro video game consoles.	<a href="#">Github - BlueRetro</a>
OX Programmer	OpenXenium CPLD and FLASH programmer.	<a href="#">Github – Xenium Prog</a>

===> 3D Print Parts <===			☰
Project	Website	File Mirror	
SATA IDE Xbox adapter	<a href="#">thingiverse</a>	<a href="#">Mega</a>	
xBox2Wii2HDMI Bracket	<a href="#">thingiverse</a>	<a href="#">Mega</a>	
Xbox 1.0 GPU Fan Adapter	<a href="#">thingiverse</a>	<a href="#">Mega</a>	
xbox rubber feet	<a href="#">thingiverse</a>	<a href="#">Mega</a>	
60mm Noctua Fan Mount Adapter	<a href="#">thingiverse</a>	<a href="#">Mega</a>	
CPU and GPU bracket v2	<a href="#">Printables</a>	<a href="#">Mega</a>	
Xbox Mini case (2 versions)	<a href="#">Printables</a>	<a href="#">Mega</a>	
X3cp team xecuter xecuter 3 control panel	<a href="#">thingiverse</a>	<a href="#">Mega</a>	
	<a href="#">thingiverse</a>	<a href="#">Mega</a>	
	<a href="#">thingiverse</a>	<a href="#">Mega</a>	
	<a href="#">thingiverse</a>	<a href="#">Mega</a>	
	<a href="#">thingiverse</a>	<a href="#">Mega</a>	
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	<a href="#">thingiverse</a>	<a href="#">Mega</a>	
	<a href="#">thingiverse</a>	<a href="#">Mega</a>	

===> PDF's <===			☰
PDF Titel	Description	Download	
Motherboard Schematics v1.0-v1.1	Schematics	<a href="#">Here</a> or <a href="#">Here</a>	
Motherboard Schematics v1.2-v1.3-v1.4	Schematics	<a href="#">Here</a> or <a href="#">Here</a>	
Motherboard Schematics v1.6-v1.6b	Schematics	<a href="#">Here</a> or <a href="#">Here</a>	
Motherboard Schematics v1.6-v1.6b Remade	Schematics	<a href="#">Here</a> or <a href="#">Here</a>	
MS PowerPoint Debug Guide for Tuscany		<a href="#">Here</a> or <a href="#">Here</a>	
Xbox Hardware Design Specification v1.02		<a href="#">Here</a> or <a href="#">Here</a>	
MCP-1 South Bridge Datasheet	Datasheet	<a href="#">Here</a> or <a href="#">Here</a>	
Microprocesador Pentium III		<a href="#">Here</a> or <a href="#">Here</a>	
BCP5x 51-52-53 Transistors	Datasheet	<a href="#">Here</a> or <a href="#">Here</a>	
Wolfson DAC (WM9709)	Datasheet	<a href="#">Here</a> or <a href="#">Here</a>	
PWM Controller (ISL6520B)	Datasheet	<a href="#">Here</a> or <a href="#">Here</a>	
Semtech SC1186	Datasheet	<a href="#">Here</a> or <a href="#">Here</a>	
Fairchild FAN5059	Datasheet	<a href="#">Here</a> or <a href="#">Here</a>	
Samsung Ram	Datasheet	<a href="#">Here</a> or <a href="#">Here</a>	
Hynix Ram	Datasheet	<a href="#">Here</a> or <a href="#">Here</a>	
Conexant Video Encoder	Datasheet	<a href="#">Here</a> or <a href="#">Here</a>	
Focus Video Encoder	Datasheet	<a href="#">Here</a> or <a href="#">Here</a>	
JMicron JM20330 Datasheet (FULL)	Datasheet	<a href="#">Here</a> or <a href="#">Here</a>	
		<a href="#">Here</a> or <a href="#">Here</a>	
		<a href="#">Here</a> or <a href="#">Here</a>	
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		<a href="#">Here</a> or <a href="#">Here</a>	
		<a href="#">Here</a> or <a href="#">Here</a>	
Hacking The Xbox	eBook	<a href="#">Here</a> or <a href="#">Here</a>	
The Black Art of Xbox Mods	eBook	<a href="#">Here</a> or <a href="#">Here</a>	
XBox Cheat Guide	eBook (Sort of)	<a href="#">Here</a> or <a href="#">Here</a>	
XBox Game Wide Screen Hacks	eBook (Sort of)	<a href="#">Here</a> or <a href="#">Here</a>	



==> XBox Hardware Manuals <==			☰
Manual	Description	Download	
XBox System Link Cable		<a href="#">Here</a> or <a href="#">Here</a>	
XBox High Definition Av Pack		<a href="#">Here</a> or <a href="#">Here</a>	
XBox Advanced AV Pack		<a href="#">Here</a> or <a href="#">Here</a>	
XBox Advanced Scart Cable		<a href="#">Here</a> or <a href="#">Here</a>	
XBox Communicator		<a href="#">Here</a> or <a href="#">Here</a>	
XBox Controller (Duke)		<a href="#">Here</a> or <a href="#">Here</a>	
XBox Controller (S)		<a href="#">Here</a> or <a href="#">Here</a>	
XBox DVD Movie Playback Kit		<a href="#">Here</a> or <a href="#">Here</a>	
XBox Hardware Manual v1		<a href="#">Here</a> or <a href="#">Here</a>	
XBox Hardware Manual v2		<a href="#">Here</a> or <a href="#">Here</a>	
XBox Memory Unit		<a href="#">Here</a> or <a href="#">Here</a>	
XBox RF Adapter		<a href="#">Here</a> or <a href="#">Here</a>	
XBox Standard AV Cable		<a href="#">Here</a> or <a href="#">Here</a>	
XBox Wireless Adapter		<a href="#">Here</a> or <a href="#">Here</a>	
		Here or Here	

# <=== FAQ ===>

<=== Frequently Asked Questions ===>			☰
Question	?	Answer	!
How do I report my test results/bugs?		You can share your findings on the <a href="#">xbox-scene forum</a> Or in the Cerbios room on the <a href="#">xbox-scene discord</a> .	
Where can I get cerbios from?		You can find a copy of each version here: <a href="#">Cerbios – Bios Mirror &amp; Arcive</a> .	
Where do I put the cerbios.ini?		Root of the C:\ partition	
Which XBox versions are supportet?		All versions are supportet.	
Where can I get an installer disc from?		The latest Cerbios Disc can be found here: <a href="#">OGXBox Cerbios Disc</a>	
Can I use Cerbios for a softmod?		Yes and you can find the latest Cerbios SMI here: <a href="#">OGXBox Cerbios BFM USB Softmod Installer</a>	
Can I use Cerbios for XEMU?		Yes.	
Is there a ready to use XEMU version?		Yes and you can find it <a href="#">here</a> .	
Where can I get the CerbiosTool from?		<a href="#">Team Resurgents CerbiosTool</a>	
Where can I get FatXplorer from?		<a href="#">FatXplorer - Eaton-Works</a>	
Which SATA adapter should it buy?		Take a look at this topic on xbox-scene.info: <a href="#">IDE to Sata Adapter compatibility thread</a>	
Where can I find the XBox Debug Files?		You can download them <a href="#">here</a> or <a href="#">here</a> .	
Where can I get Phoenix Bios Loader PBL from?		You can download PBL <a href="#">here</a> or <a href="#">here</a>	
Where can I find the latest MS Dashboard files?		You can download the latest untouched MS Dash files <a href="#">here</a> or <a href="#">here</a> .	
Can I use an installer disc like: Cerbios Disc, OGXBox Installer or the Extras Disc`s, HeXEn, TruHeXEn, Slayers (you name it) in ISO/xISO,CCI ect. format of the HDD to setup a HDD?		No! Those installers all have configs on them which points to D:\ (DVD Drive) and it will just end up in a black screen, a brick or something else! That being said, you can use any installer you want in ISO format (mountet in XEMU) for an XEMU setup. There is no special disc required.	
I have a version 1.5 and ...		... you don't have, had or will have a v1.5.	
What happens when I install a false kernel version in the Cerbios softmod?		The answer is simple, you buy a modchip to fix your XBox.	
What should I use, a HDD, SSD, CF or FDD *JK*?		OG Xbox Storage Upgrade Shootout click <a href="#">here</a> or <a href="#">here</a> .	
Do I need to lock my HDD/SSD after an upgrade?		Only if you're on a softmod.	

## <=== Glossary ===>

### ===> CCI <==



Cerbios Compressed Image. Works only with Cerbios.

### ===> Dashboard <==



The primary system interface on the Xbox, the box ships with a dash written by Microsoft, which is limited in it's functionality. Several other groups produce custom dashboards such as: XBMC4Gamers, UnleashX, UiX-Lite, LithiumX, MXM, tHc-Lite, Avalaunch and so on. EvolutionX however was the first third-party dash and it still regarded by many as the most robust and stable.

### ===> Daughterboard <===



Rev 1.0 Xboxes used an intermediary card between the motherboard and the controller ports. This component was eliminated starting with rev 1.1 Xboxes.

### ===> EEPROM <===



EEPROM (Electrically Erasable Programmable Read-Only Memory) is a type of non-volatile memory. In the XBox it holds a mere 256 bytes.

Some of the system settings it maintains are:

- The console's unique HDD key, used for opening the disk's ATA security lock on boot.
- The console's serial number, used for system identification.
- The console's language setting, used by games which support more than one.
- The console's region, used to determine which discs it's allowed to boot & which video modes to use.
- The console's IP settings & MAC address used for Insignia.
- The console's allowed display modes, determining the resolution settings games may select from.

If you like to get more infos about the EEPROM, check out [consolemods.org/wiki/Xbox:EEPROM](http://consolemods.org/wiki/Xbox:EEPROM).

### ===> EOL <==



An end-of-life product (EOL product) is a product at the end of the product lifecycle, which prevents users from receiving updates, indicating that the product is at the end of its useful life (from the vendor's point of view). At this stage, a vendor stops the marketing, selling, or provisioning of parts, services, or software updates for the product. All users can continue to access discontinued products, but cannot receive security updates and technical support.

### ===> GPU <==



Graphics Processor Unit. In the Xbox this is based on an nVidia GeForce series graphics controller. Specs: 233 MHz Name: nVidia NV2A



### ===> IPA <==



Isopropyl Alcohol also known as 2-propanol. In electronics used to clean PCB's and components. It's non conductive and will not cause a problem. It's recommended to use 99,9% cause evething lover will contain distilled water.

### ===> Kynar <==



A brand of insulation used on the fine gauge wires. Often used as wire-wrapping wire insulation.

### ===> Lframe <==



Cause of much debate, the #Lframe signal (# denotes active low) is used by all mod-chips. In newer revision Xboxes (rev 1.3 and above) this signal has been deliberately disabled by Microsoft. Third generation mod-chips combated this by adding a CPLD (type of programmable logic device) to emulate the signal for the BIOS chip.

For older mod-chips and cheapmods you need to pull the #Lframe signal from the MCPx. The picture below links to a larger photo showing where this signal is. It is not an easy mod and is not recommended except by true professionals in the tech business.

### ===> LPC <==



Low Pin Count interface. This interface allows several devices to operate in a pin constrained environment. On the Xbox it is used as a debug and boot device port by Microsoft and as a method to introduce a hacked BIOS allowing unsigned code to execute by hackers.

This interface is present on all Xbox models. On revision 1.0, 1.1, and 1.2 Xboxes it is fully functional. On revision 1.3, 1.4 Xboxes the #lframe signal is disconnected and must be tapped off the MCPx chip or emulated on a CLPD. On Rev 1.6 boxes it is all but removed and must be re-constructed (LPC Rebuild).

### ===> PLCC <==



#### Plastic Leadless Chip Carrier

This refers to the physical package design used for the Flash memory containing the BIOS on the Xbox. The most common package for Flash memory (used in most mod chips and on rev 1.0-1.5 Xboxes) is the TSOP. The other common package type is the "PLCC (Plastic Leadless Chip Carrier), most commonly seen in Cheapmods and direct descendants.

### ===> PSU <==



Power Supply Unit.

## ===> QFP <==



### Quad Flat Package

This chip design is similar to a PLCC but the chip is thinner and has leads which, rather than curling under the device (as on the PLCC) extend out and bend down to be flush with the device. These are exceptionally common chips on most current platforms. In the Xbox this package type is used for the memory, video encoders, and several other components.

They can be square or slightly rectangle (but not as extreme as TSOPs).

A related component is the Thin Quad Flat Package (TQFP). These devices are thinner (like TSOPs) and are usually more square, though there is certainly no rule that they must be.

## ===> TSOP <==



### Thin Small Outline Package

This refers to the physical package design used for the Flash memory containing the BIOS on the Xbox. The most common package for Flash memory (used in most mod chips and on rev 1.0-1.4 Xboxes) is the TSOP. The other common package type is the PLCC (Plastic Leadless Chip Carrier), most commonly seen in Cheapmods and direct descendants.

## ===> USB <==



The Xbox game controller ports use USB as their interface. While "normal" USB uses 4 wires (power, ground, signal+, signal-) the Xbox uses 5. The fifth wire is not implemented in the normal controllers or joysticks.

The Xbox only supports Full Speed operation, thus is not suitable for Hard disks.

The USB specification allows for two basic modes of operation "Full speed" and "High Speed", commonly referred to as USB1.1 and 2.0. Full speed (USB1.1) operates in a half duplex (send or receive, one at a time) at 12 Mbps. High speed (USB2.0) operates in a half duplex 480Mbps (40x faster).

And on a side note here, it is not possible to use this for a USB HDD and play game of it.

## ===> VIA <==



A via (Latin for "way", as in Via Roma, the way to Rome). In the electronics it means a "way" through the circuit board. Vias should not be confused with through holes, as the latter are designed and sized with component insertion in mind. Vias are a circuit path through the board and nothing more. Blind vias and Buried vias are vias that go partway through the board and stop (blind), or are completely enclosed within the layers of the PCB and are not accessible on either side of the PCB.

Due to the exponentially higher cost associated with using blind or buried vias, they are not used on the Xbox (or nearly any other mass market electronics for that matter).

## ===> xISO <==



### Xbox ISO

Basicly the same as ISO as you know from the PC.

XBox Discs are usually dual layer with a video partion and game partition.  
You can rip the disc and make then a xISO out of the files which are mostly  
significant smaller as the usual 6.4 GB XBox DL DVD.

## ===> Motherboard Component Naming Scheme <==



Designator	Component Type
C	<a href="#">Capacitor</a>
R	<a href="#">Resistor</a>
U	<a href="#">Integrated Circut</a> or <a href="#">Transistor</a>
L	<a href="#">Inductor</a>
RP	Resistor Pack (Resistor Array)
Q	<a href="#">Transistor</a>
CR	<a href="#">Diode</a>
J	Connector or Jumper
RT	Resettable Fuse
Y	<a href="#">Crystal</a>

## <=== Cerbios Compatibility ===>

Compatibility	Link	
ISO / xISO (XBox ISO)	<a href="#">Open The Google Spreadsheet</a>	
CCI (Cerbios Compressed Image)	<a href="#">Open The Google Spreadsheet</a>	

The full list/s can be found on Google.



## <=== Console / Mod Shops ===>

### ===> USA <===



Shop	Webside	Youtube
ModzvilleUSA	<a href="https://modzvilleusa.com/">https://modzvilleusa.com/</a>	<a href="#">Click Me</a>
Computer Booter	<a href="https://www.computerbooter.com/">https://www.computerbooter.com/</a>	<a href="#">Click Me</a>
Voultar	<a href="https://voultar.com">https://voultar.com</a>	<a href="#">Click Me</a>
OGXStore	<a href="https://ogxstore.com/">https://ogxstore.com/</a>	-

### ===> Canada <===



Shop	Webside	Youtube

### ===> Australia <===



Shop	Webside	Youtube
ACE Console Repairs	<a href="https://aceconsolerepairs.com.au/">https://aceconsolerepairs.com.au/</a>	<a href="#">Click Me</a>
XeniumMods by NeMesiS	<a href="https://www.ebay.com.au/str/xeniummods">https://www.ebay.com.au/str/xeniummods</a>	<a href="#">Click Me</a>

### ===> Europe & Great Britain <===



Shop	Webside	Youtube

## ===> Disclaimer <===

We are not affiliated with any of the shops above!  
We have only added shops which we are know, trust and would use our selfs because they do superior work.

**In more or less alphabetical order:**

**Team Assembly, Team Avalaunch, Team Cerbios, Team Enigmah, Team EvoX,  
Team EvolutionX, Team Insignia, Team Resurgent, Team UIX, Team UnleashX,  
Team XEMU, Team Xecuter, Team Xodus, The Consolemods.org Team,  
The ConsoleMods.org Team, The XboxDevWiki.net Team, The XBox Modders Market Team,  
The XBox Linux Team**

**ACE\_AU, acidflash, Andr0, AngryCamel, Arnova, BennyDiamond (Aka psyko\_chewbacca),  
Blazed, BobMcGee, Bomb Bloke, bunnie, Buzz, CitricDolphine1, CLuis, Conker09,  
CrackJack Italy, Craig, CrunchBite, D-Blood, Danny Haines, Dan Dare, Dempsey\_86,  
dj0wns, dtomcat , dx4m, Eaton, EqUiNoX, ExtraordinaryBen, forahobby, Garry Owen,  
gaasedelen, Gcue, Geeba, GoTeamScotch, Grimdoomer, GXTX, Haguero, Harcroft, Hazeno,  
Heimdall, Highland Sun, idosfan, Incursion64, InsaneNutter, JaredC01, Jay, JbOnE,  
Jeff McCloy, John S. Allen, jjsmith (Devenic), KaosEngineer, Lord FireFucker, loser,  
juanknet, lys, ManCloud, master801, Milenko, ModzvilleUSA, MrMajst3r, NeMesiS,  
networkboy, Nuka, Nucken\_futz\_, OGXBox Admin, paccforce, Poire\_, Perplexor, r0wdy,  
Prehistoricman, Ramzi, RedHerring32, RetroProFrank, Rocky5, Ryzee119, ShALLaX,  
shutterbug2000, Siktah, Skye, SlaYer, Snowman, soilengreen (Aka HAL9000), SS\_Dave,  
strictlyfocused02, TEK Nemesis, The Joker, ToXicMedz, tuxuser, Warlock, weinerschnitzel,  
Wenid, William Quade, WiSo, WulfyStylez, xbox7887, xbs, Xphazer, Yoshihiro, zatchbot.**

**And to all the great people in the community who are reports there results and/or bugs.**

**Finally lets do not forget to credit the still unknown guy/girl who came up  
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**ACE\_AU, Andr0, CrunchBite, Dempsey\_86, EqUiNoX, founchki, GoTeamScotch, Haguero,  
Harcroft, Hazeno, Incursion64, KaosEngineer, Rocky5, SS\_Dave, ModzvilleUSA, NeMesiS,  
zatchbot**

## The Cerbios Playbook

Version 1.5

October 30th, 2024

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XBOX™



2001 - 2024

~ Thanks Fly out to the Original XBox Developer Team ~