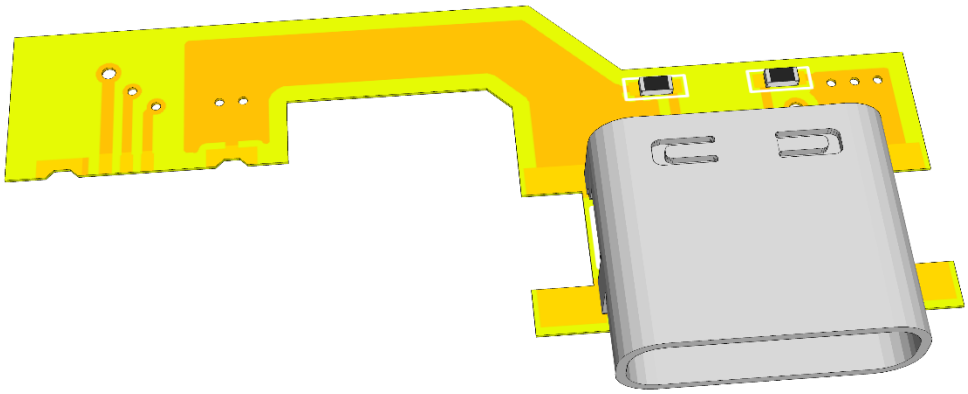
USB-C KIT FOR

SONY PS VITA SLIM



PRODUCT

HTTPS://SHOP.GILTESA.COM/PRODUCT/SONY-PS-VITA-SLIM-USB-C-KIT

PLEASE READ THROUGH THESE INSTRUCTIONS ENTIRELY BEFORE ATTEMPTING TO INSTALL.

WARNING: IF YOU ARE NOT COMFORTABLE WITH SOLDERING, OR PERFORMING ANY STEP IN THIS GUIDE, DO NOT PERFORM THE INSTALL YOURSELF. FIND SOMEONE WHO IS COMFORTABLE TO DO IT FOR YOU.

INDEX

DESCRIPTION

The **Sony PS Vita Slim: USB-C Kit** is a board that allows to replace the original charging connector for a modern and standard USB-C.

If your original connector is too old or damaged and you need a new one, or **if you would like to charge your Sony PS Vita Slim with a standard USB-C charger**, like the charger of your phone, laptop, you can with this kit.

This board is compatible with this model:

- Sony PS Vita Slim

FEATURES

- Charging your Sony PS Vita Slim with:
  - USB power banks
  - USB-A chargers
  - USB-C chargers
  - USB-C PD chargers (normal speed, not fast)
  - USB-A to USB-C cables
  - USB-C to USB-C cables
- USB data support.

INCLUDED

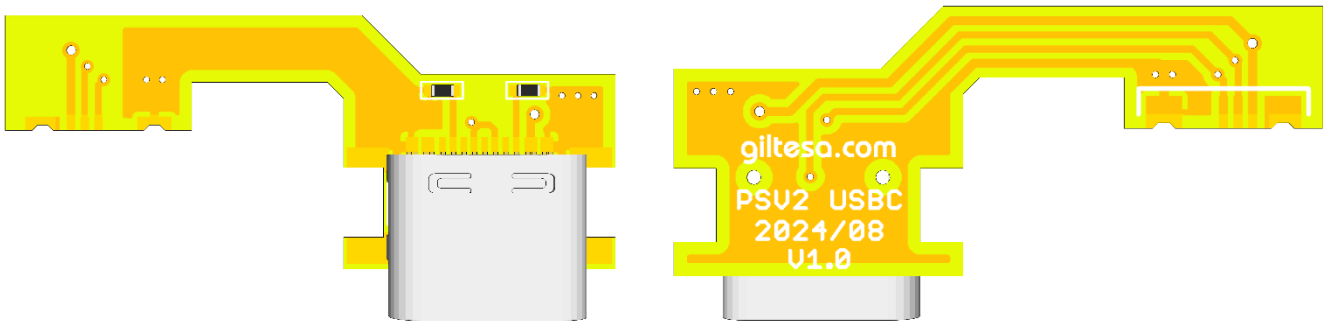
- 1 flexible board.

RECOMMENDED / REQUIRED [NOT INCLUDED]

- Phillips screwdriver.
- Soldering iron / hot-air soldering station.
- USB microscope.
- Kapton tape.
- Tin.
- Flux.
- Desoldering pump.
- Desoldering mesh.
- Metal file.
- Tweezers.
- Isopropyl alcohol.

BOARD DETAILS

This small flexible board has a total of 9 pads: 5 of them are on the bottom side of the PCB, exactly where the original MicroUSB connector was soldered. The other 4 pads correspond to the USB-C legs. The following explains what each pad is for.



The pads are, from left to right in the image on the right:

- GND — The ground pad.
- D+ — The positive data line.
- D- — The negative data line.
- VCC — The 5V line from the USB-C.
- ANCHOR — It secures the flex cable to the mainboard.

- USB SHIELD LEGS — They secure the board firmly to the mainboard.

INSTALLATION STEPS

Please, carefully read the following steps for a successful installation.

PRE INSTALLATION STEPS

Before the installation, your Sony PS Vita Slim may need some extra steps to have it ready for the kit.

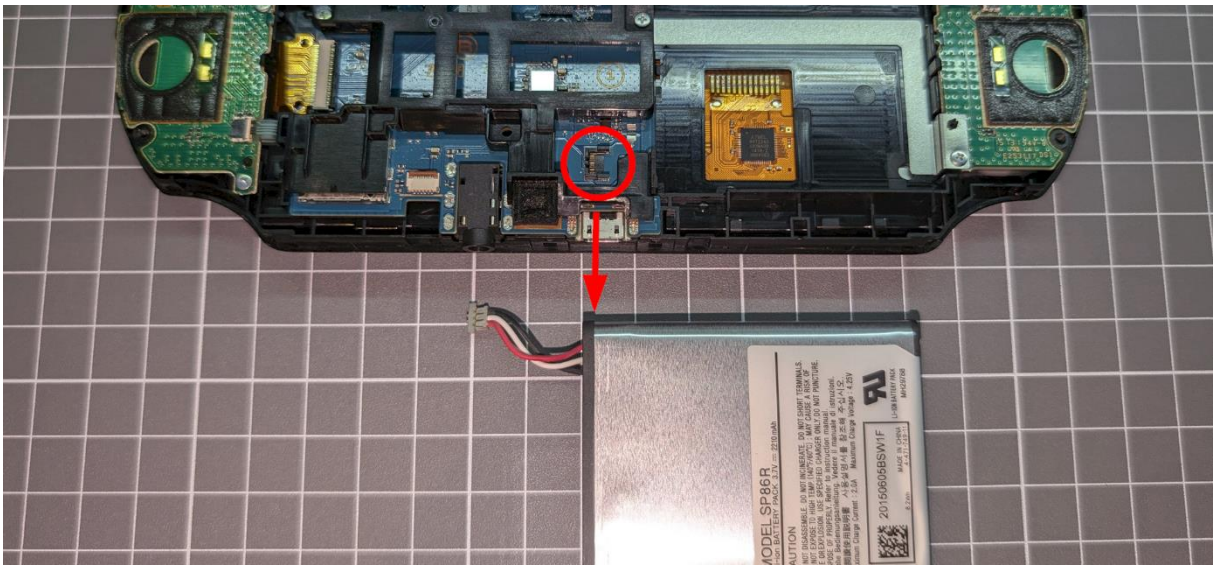
1. DISASSEMBLY THE SONY PS VITA SLIM

If the steps in this guide are insufficient and you can't proceed, you can refer to the iFixit guide for opening the console.

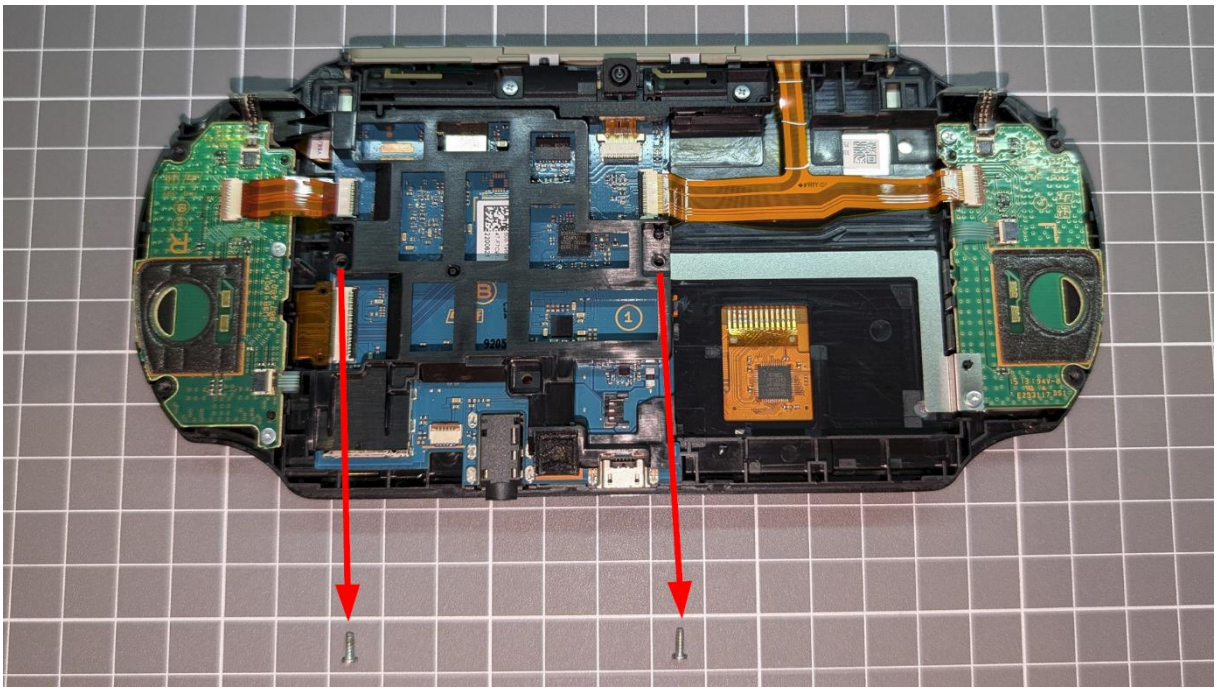
Sony PS Vita Slim use the **phillips screws** to close the shell. Remove all the accessories such as the memory card and game card. Then remove the 7 screws which hold the back shell.

When removing the cover, do it slowly and carefully, as the **rear touch sensor is connected with a flexible cable**.

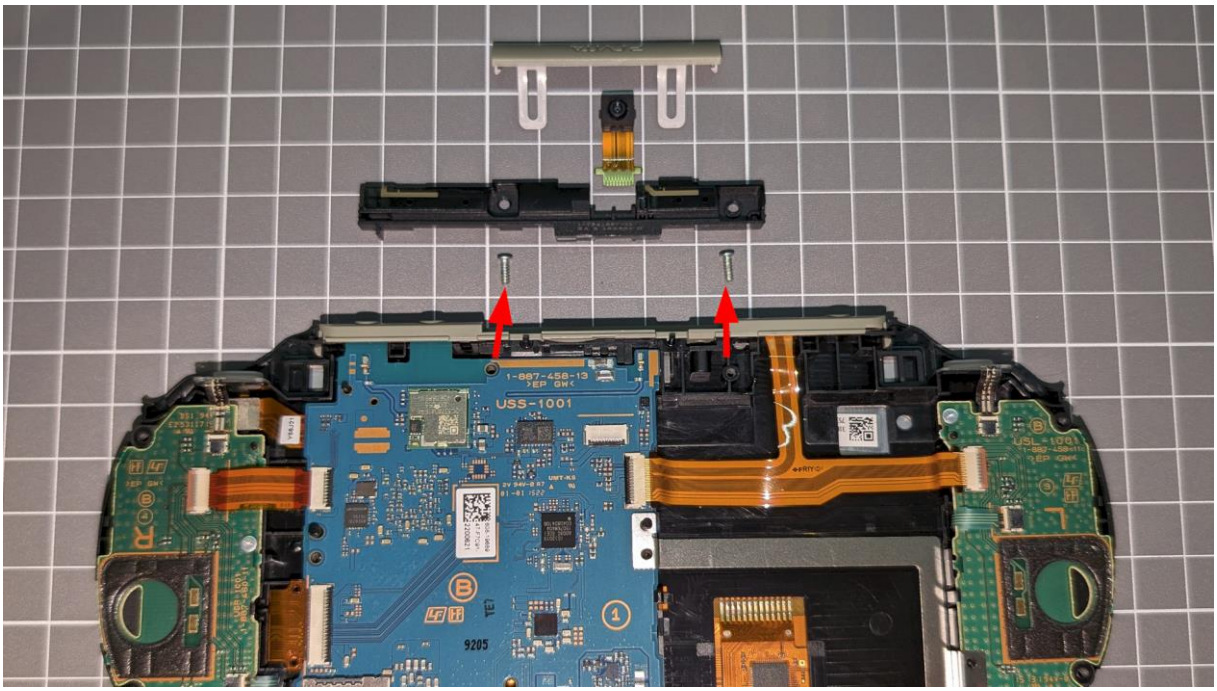
Before starting, disconnect the battery and remove it.



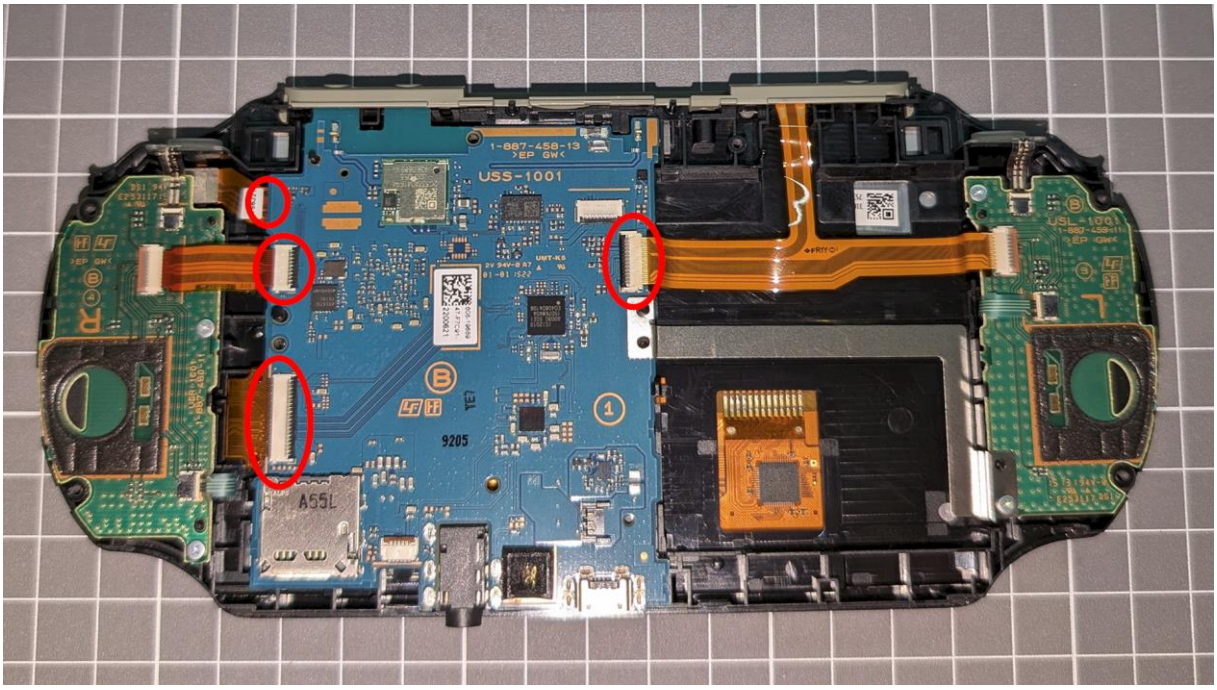
Next, remove these two screws that hold a plastic piece, which in turn secures the motherboard. Also remove the plastic piece.



Unscrew the two upper screws, then remove the plastic pieces, and finally, take out the rear camera.



Finally, disconnect all the flat cables from the console. After this, the motherboard can be removed from the front shell.

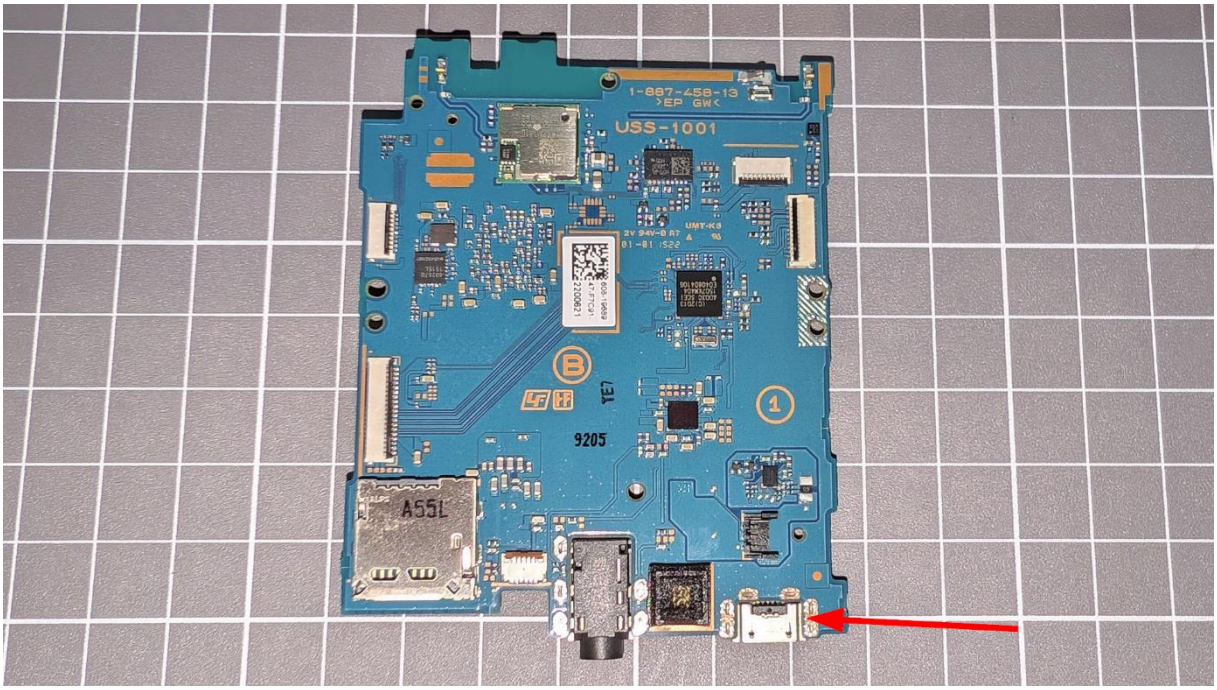


After completing all these steps, the mainboard is now free from the shell.

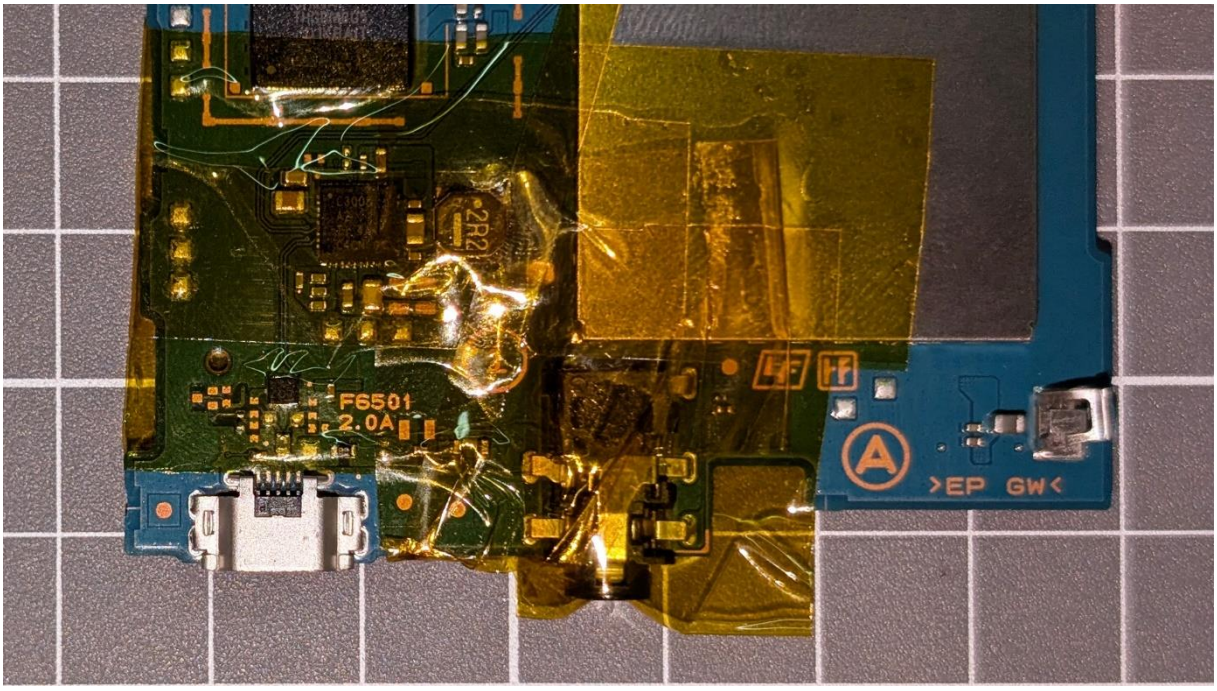
INSTALLATION STEPS

1. REMOVE UNNECESSARY COMPONENTS

This is the main circuit of the console, and this is the connector that needs to be desoldered to be replaced with the USB-C board.

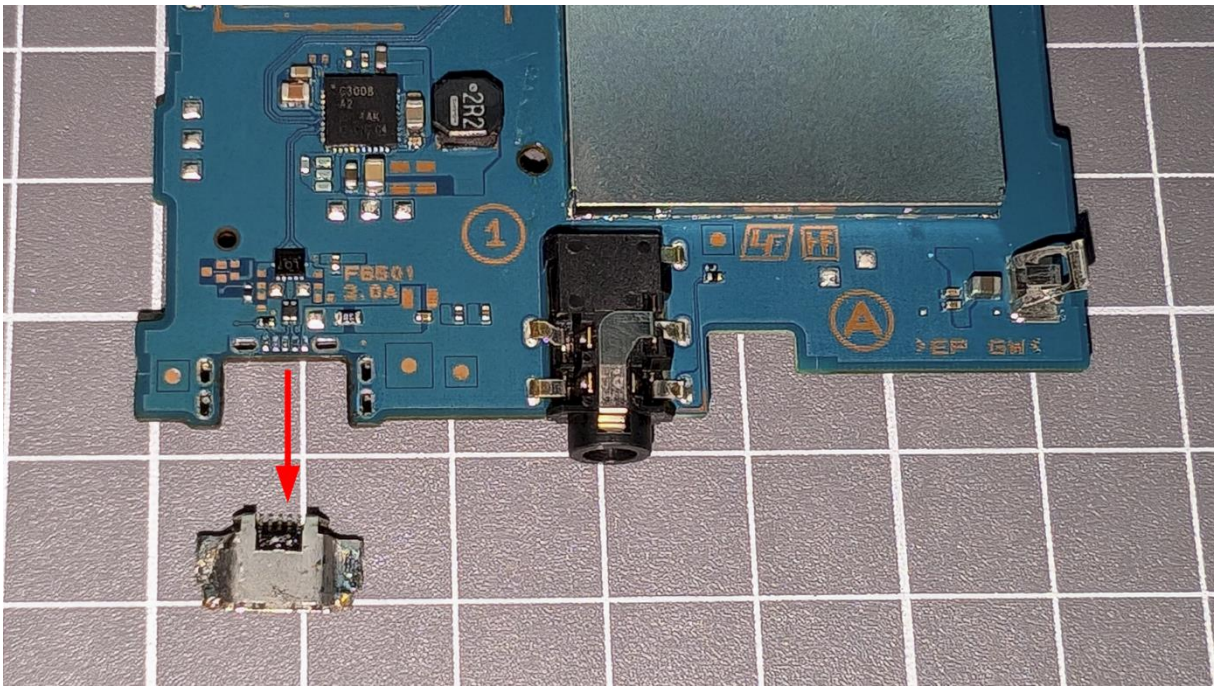


Before even turning on the soldering iron or the hot air station, thoroughly protect all the nearby areas with kapton tape. Don't skimp on the kapton tape.



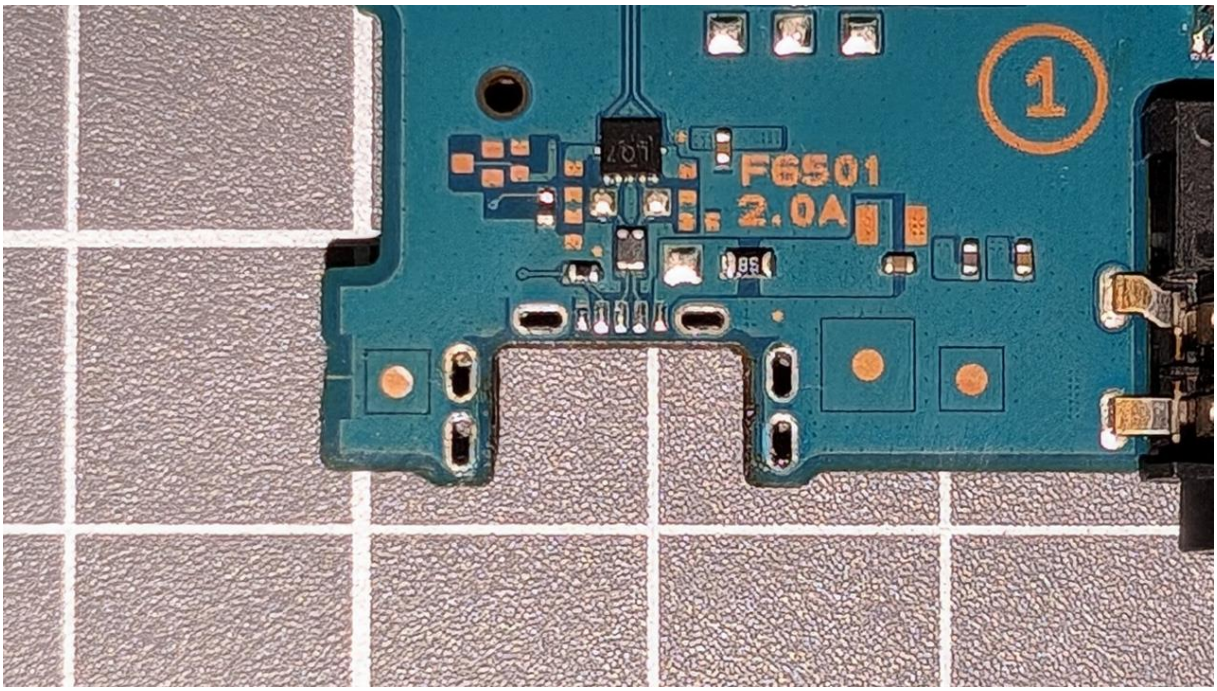
Now, remove the connector. This can be challenging because the six legs of the connector's housing are firmly attached to the mainboard. Additionally, the ground plane is very large, causing heat to dissipate quickly.

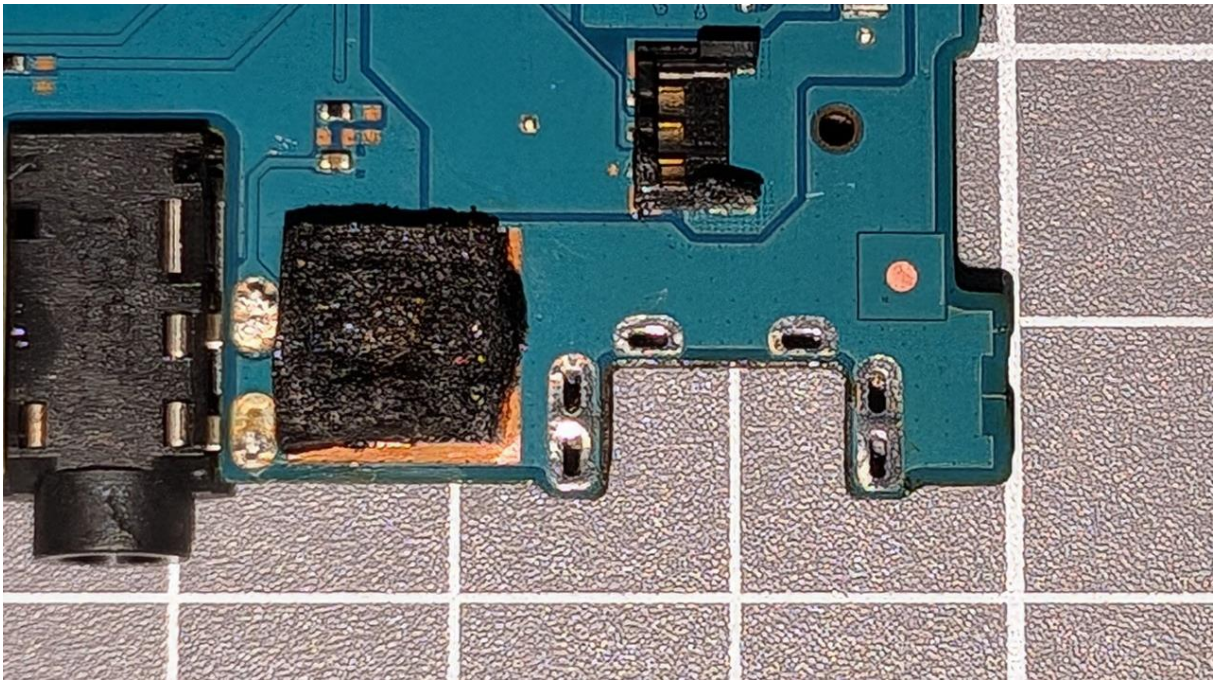
Apply flux and desolder each leg one by one. You can also add higher-quality solder to mix with the existing solder, which will help you remove it all more easily.



Remove the solder from the pins, ensuring they are not bridged together. It's not necessary to remove the solder from the four holes where the connector was soldered but try to ensure that the solder/pads are completely flat.

Take off the kapton tape and clean the board on both sides using alcohol. This is how it should look:





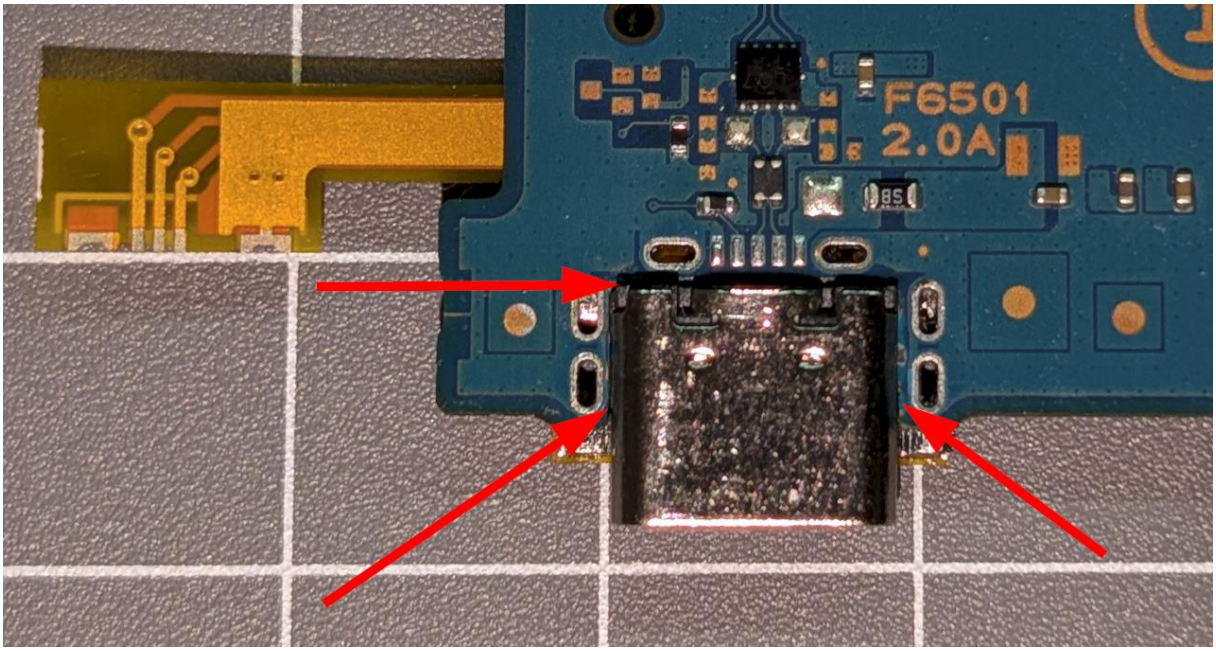
2. INSTALLATION OF THE USB-C BOARD

It's time to install the USB-C board.

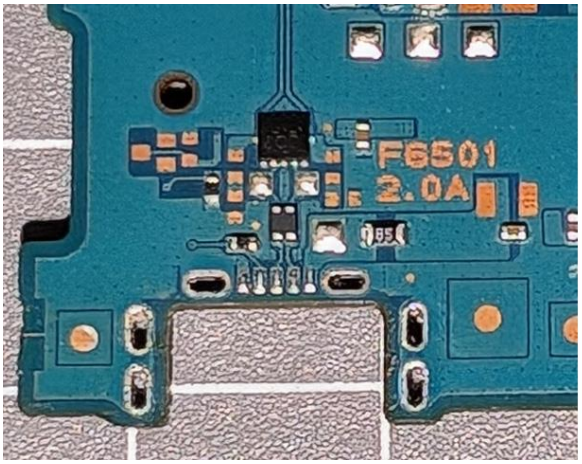
1. ENLARGE THE CONNECTOR OPENING

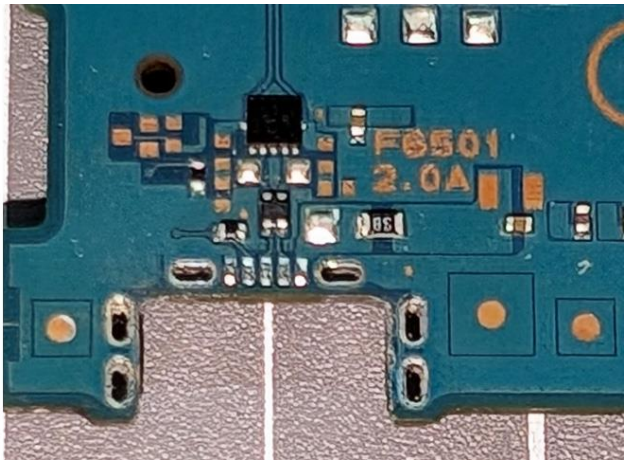
Since the USB-C connector is wider than the MicroUSB connector, it cannot be installed yet. First, you need to slightly modify the PCB to make the hole wider.

Using a metal file, evenly file both sides. After each small filing, check if the connector fits or if more filing is needed. Make sure the corners are at 90 degrees and not rounded, as the USB-C connector needs to sit flush against the mainboard.



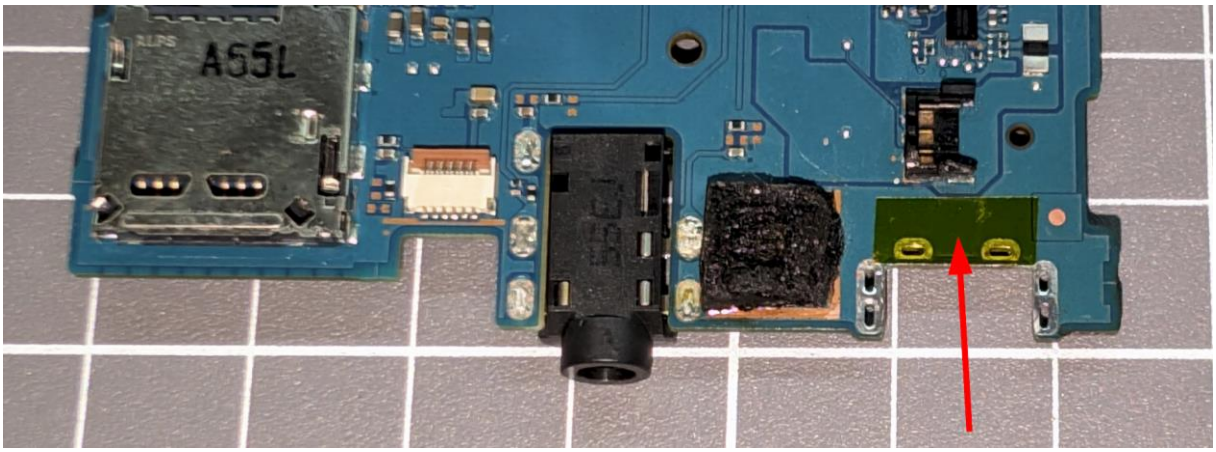
Here’s how it looks before and after making the modification:





2. SOLDERING THE FLAT CABLE

Before soldering the cable, first **protect this area with kapton tape**. This will prevent the solder from seeping into this side of the PCB. Additionally, the USB-C pins will later touch this area, and without the kapton tape, there could be a short circuit.

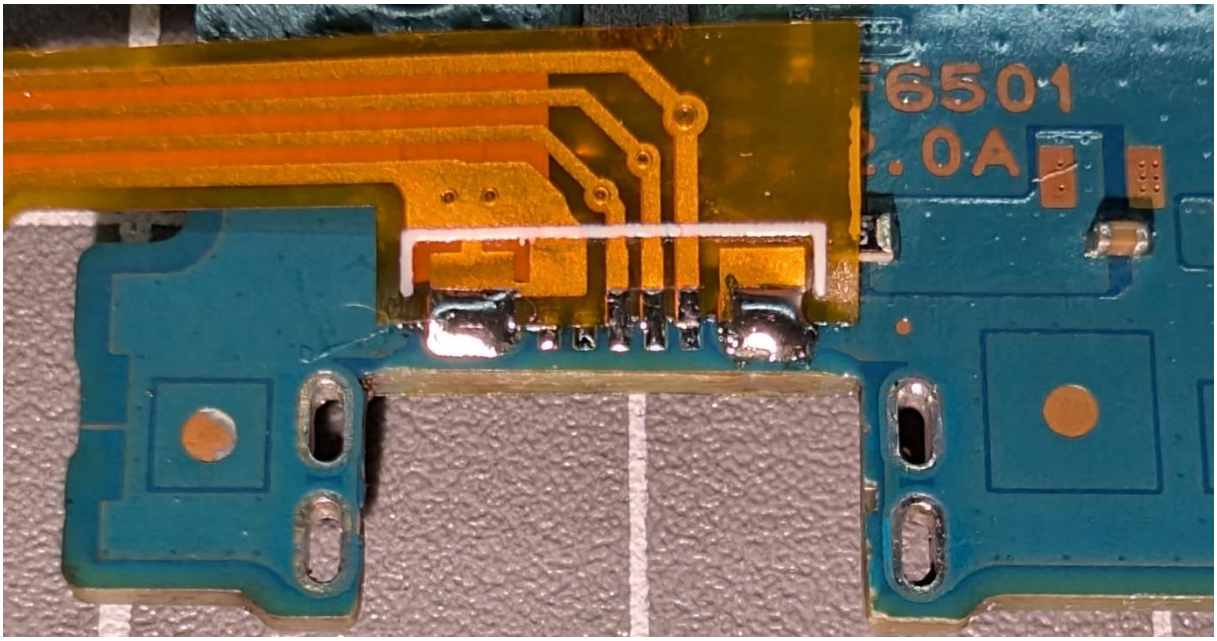


Then, you need to solder the flat cable or flexible PCB from the kit. It should be positioned exactly where the original MicroUSB connector was located.

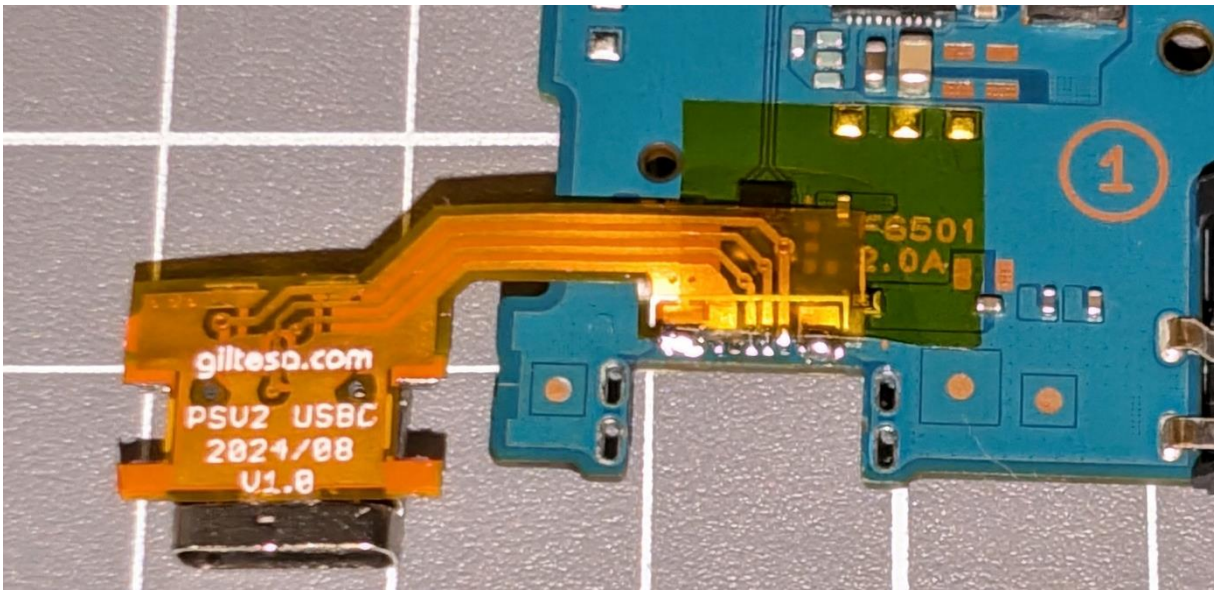
NOTE: If you tin all the pads on the flexible PCB on both sides first, by applying flux and then solder, it'll be easier to solder the cable to the mainboard later.

Start by soldering the large pad on the right. At the same time, make sure the rest of the pads are perfectly aligned with the pads on the mainboard.

Once all the pads are aligned, solder the large pad on the left. Finally, solder the central pads. It should look something like this:



Although the two large pads on each side hold the cable firmly, you can add some kapton tape for extra security if you wish.



3. CONNECTION TEST

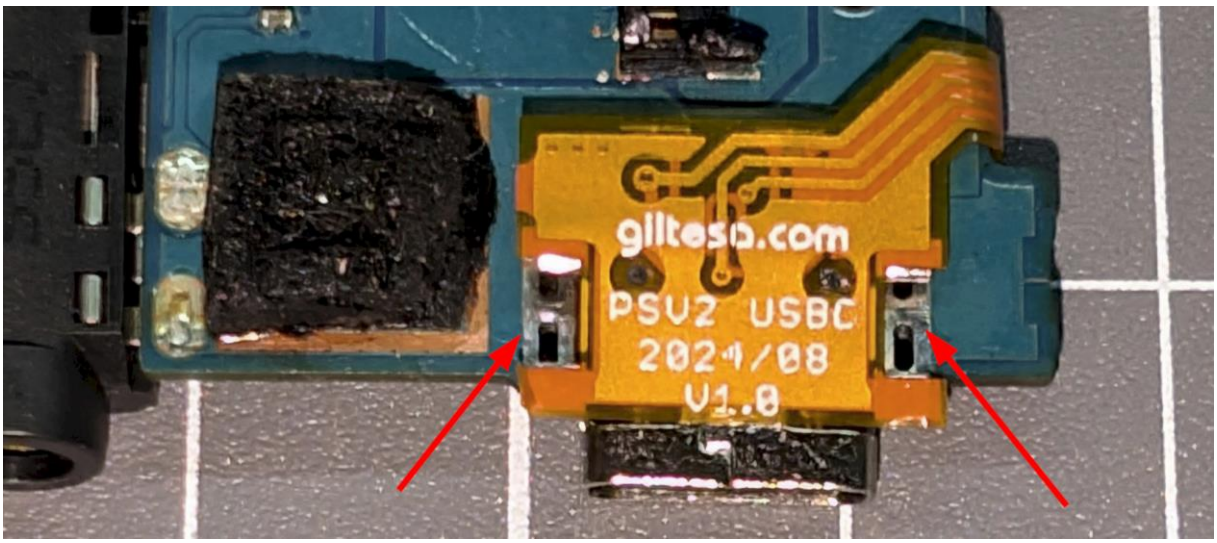
Before proceeding to the next step, it is advisable to use a multimeter to check that all connections are properly made.

You can even partially reassemble the console to ensure it charges the battery and allows data transfer from the PC.

Do it now, because once the USB-C is fully soldered, the area will have almost no access.

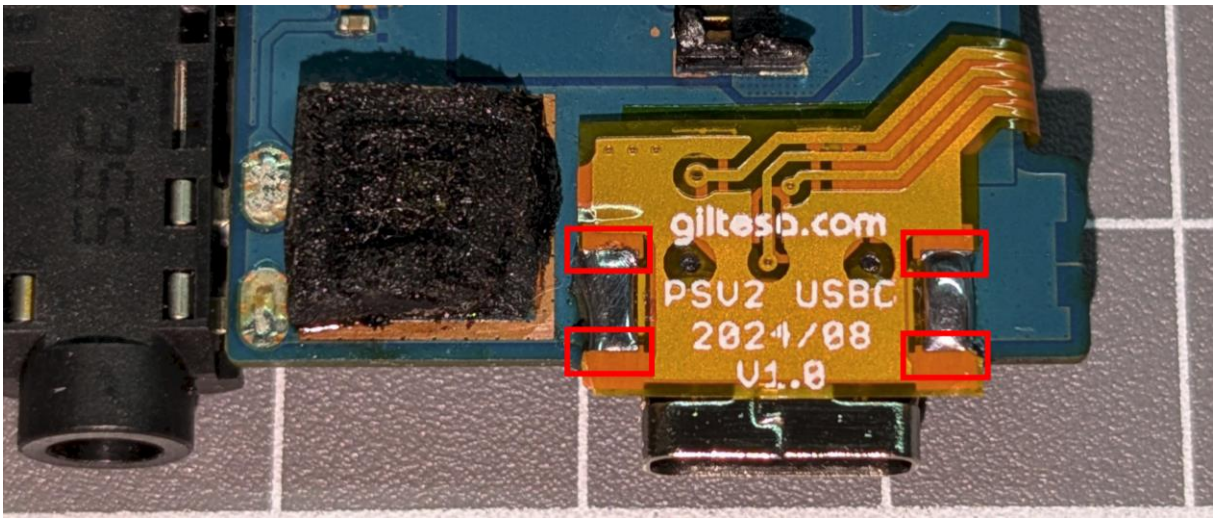
4. SOLDERING THE USB-C CONNECTOR LEGS

Fold the flexible circuit over the mainboard and place it in the hole as shown in the picture. The four legs of the USB-C shield need to be soldered to the mainboard.



Make sure to heat the pads on the mainboard sufficiently so that the solder forms a strong bond. Keep in mind that the ground plane (copper surface) connected to those pads is very large, which causes the heat from the soldering iron to dissipate quickly.

It is crucial that the soldering is done properly, as it is the only thing that will secure the new connector to the mainboard.



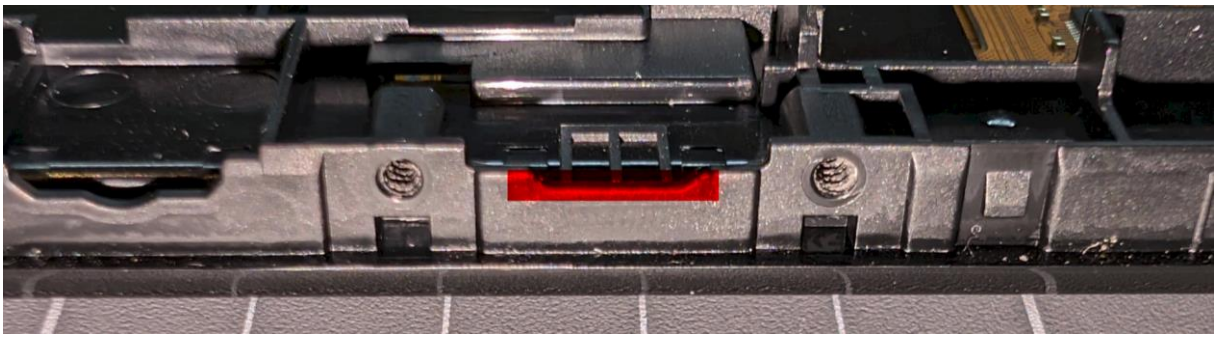
IMPORTANT NOTE: Make sure the legs of the **USB-C are as close to the mainboard as possible.**

3. CUTTING THE PLASTIC SHELL

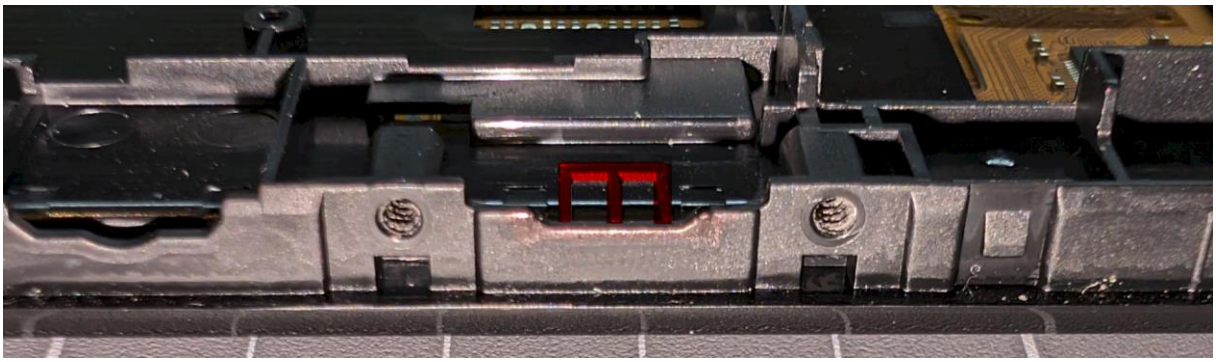
Currently, the board cannot be mounted in the shell as the connector clashes with everything. Some adjustments are necessary.

1. FRONT SHELL

First, you need to trim about 1mm from this area of the front shell, which will ensure the circuit sits correctly.



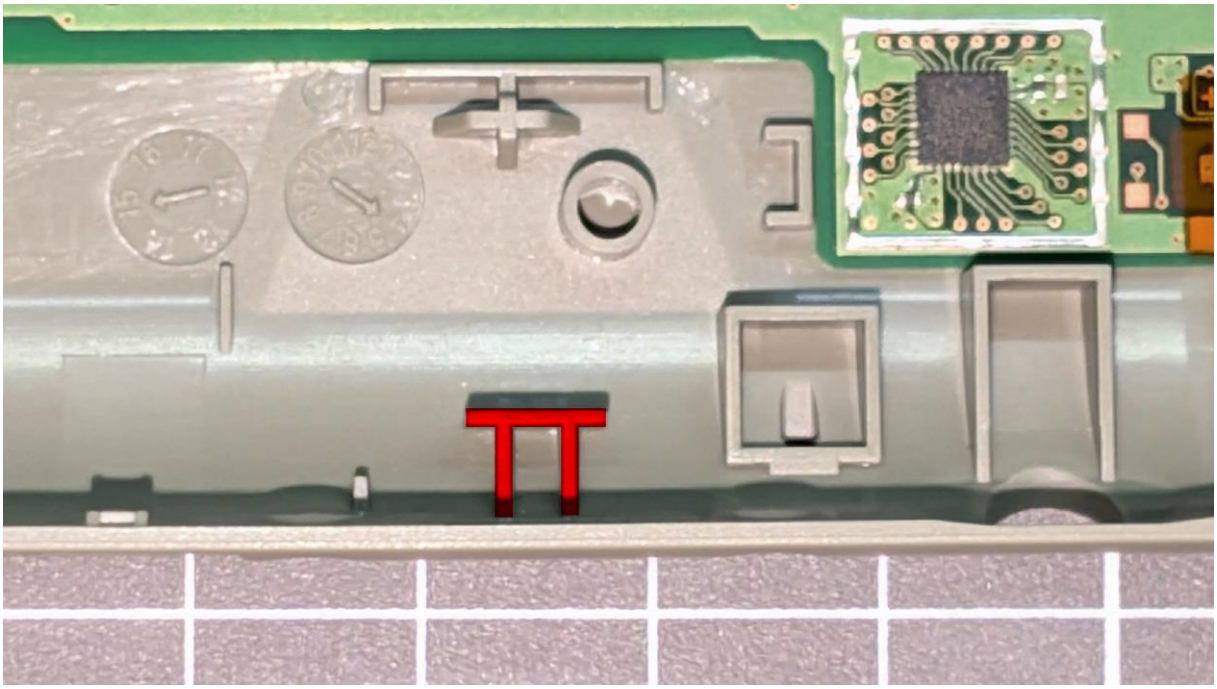
It is also advisable to remove this part, as it protrudes less than 0.5mm but could potentially interfere with the USB-C.



After those two modifications, the mainboard along with the USB-C will fit seamlessly into the front shell.

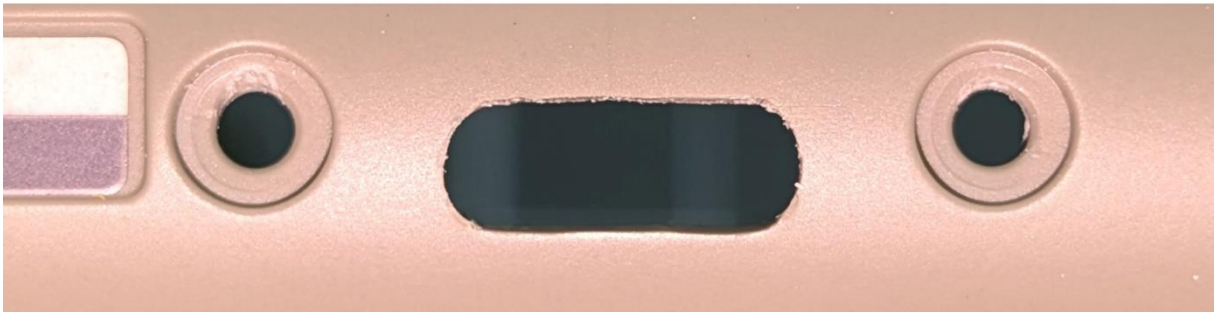
2. BACK SHELL

Here are two parts that need to be trimmed; let's start with the easy one. You need to remove 1mm of depth from this entire area of plastic.



As for the complicated part, it's the hole where the USB-C connector protrudes. The new connector is significantly larger than the original one and needs to pass completely through the casing from the inside to the outside, as it is also longer.

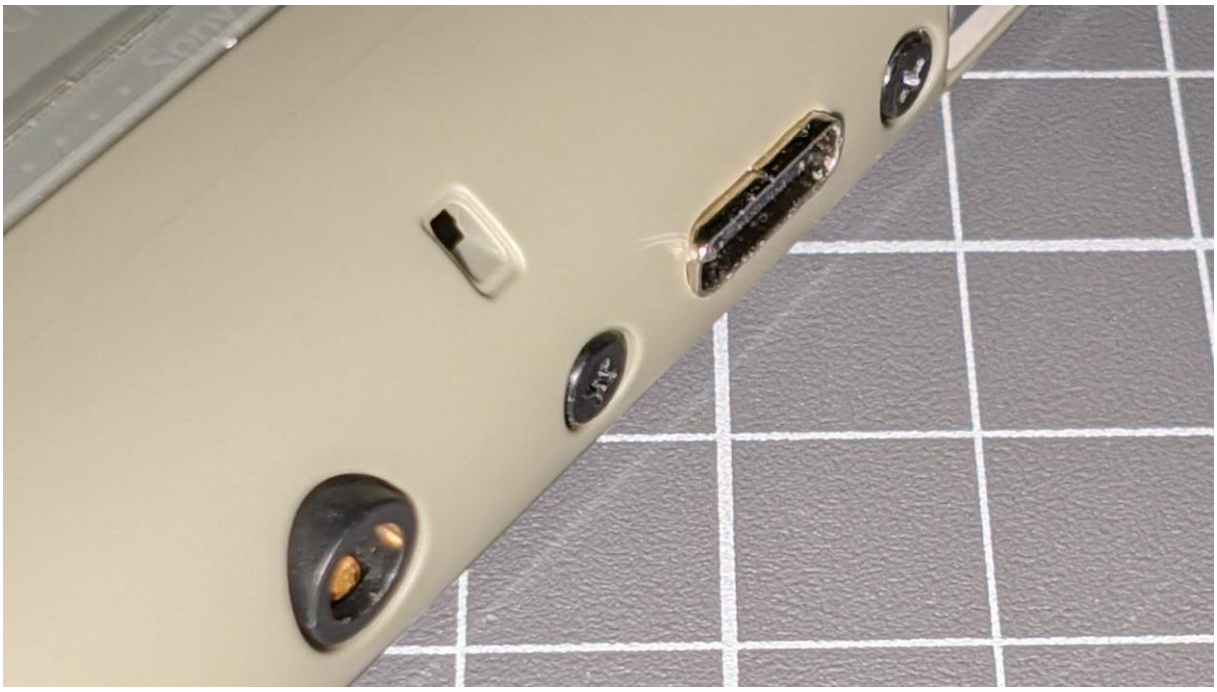
Enlarge the hole using a fine-tipped cutter, metal files, or any other tool you have available. Preferably use a non-electric tool to avoid melting the plastic.



This part is a bit laborious, but that's all it is. Take all the time you need and keep checking if the connector fits or if the hole still needs to be enlarged.

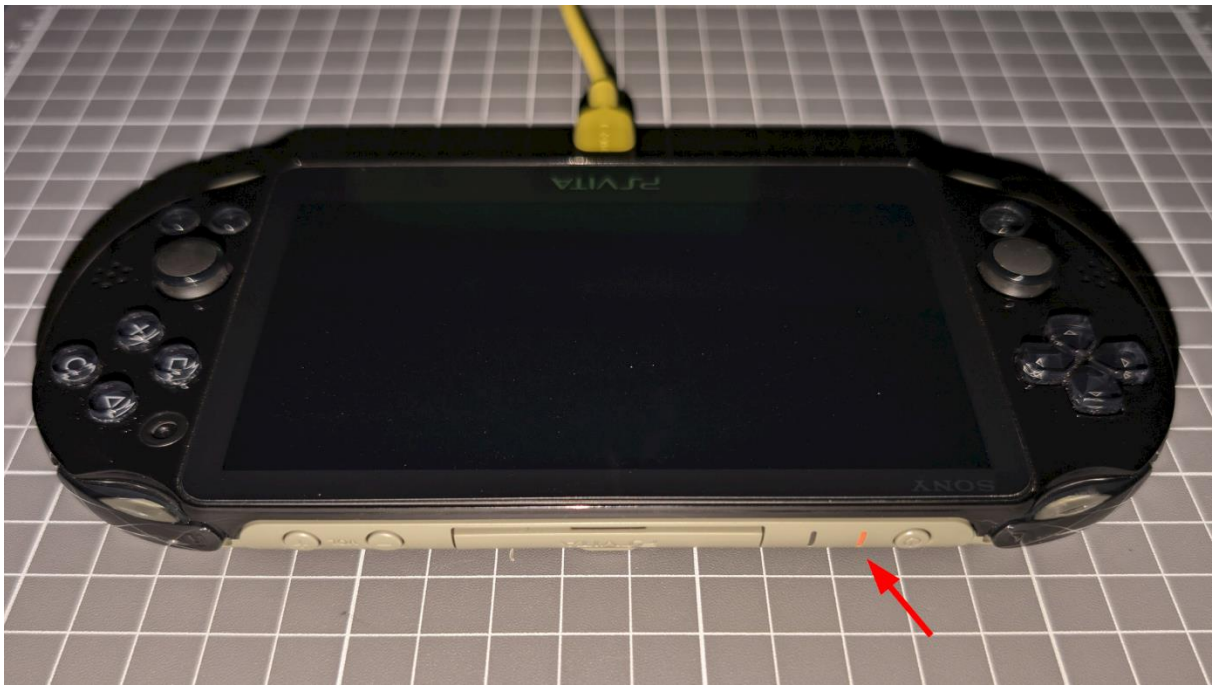
In my case, it took me about an hour. If it helps, you can use just the mainboard and the rear casing to test the fit; you won't need the front casing until near the end for the final adjustments.

This is how it turned out for me. As you can see, the connector protrudes slightly, just like the audio jack.



4. FINISHING THE INSTALLATION

Follow the steps backward, placing each thing in its place, and the installation will be complete. Enjoy it!



FREQUENTLY ASKED QUESTIONS - FAQ

Nothing yet