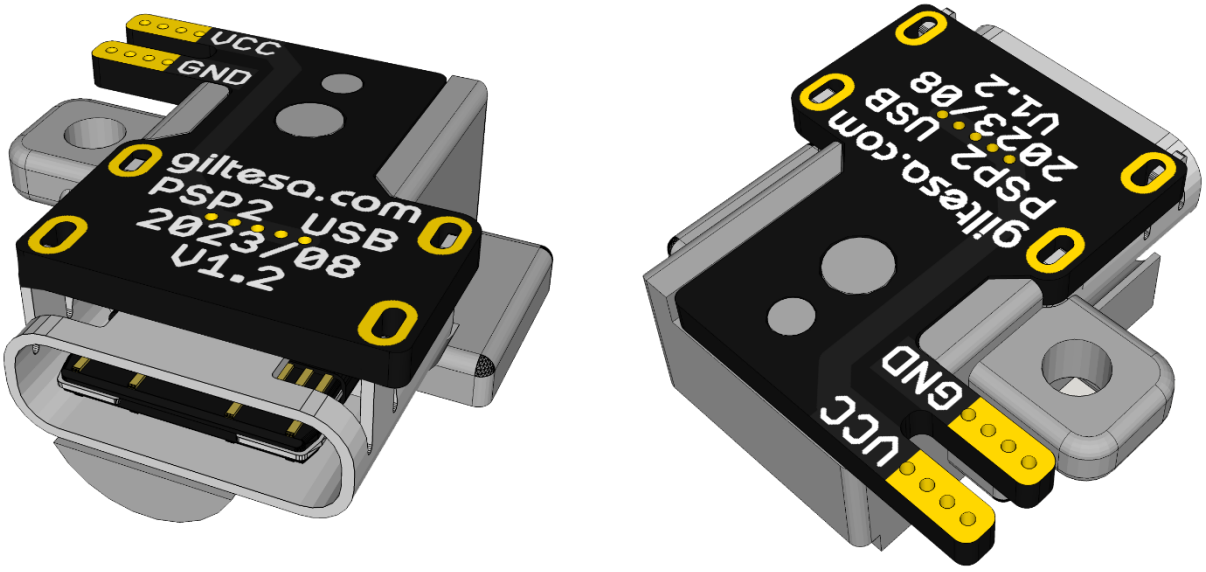
USB-C KIT FOR

SONY PSP 2000

SONY PSP 3000



PRODUCT

HTTPS://SHOP.GILTESA.COM/PRODUCT/SONY-PSP-2000-3000-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 PSP: 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 PSP with a standard USB-C charger, like the charger of your phone, laptop, you can with this kit.

This board is compatible with these two models:

- Sony PSP 2000
- Sony PSP 3000

FEATURES

- Plastic holder made by resin 3D printer.
- Charging your Sony PSP 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

INCLUDED

- 1 board.
- 1 plastic part to holder the USB board (random color: Grey/Black)
- 2 Heat shrink tube.

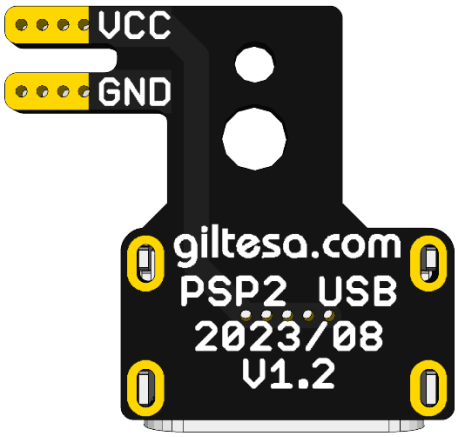
RECOMMENDED / REQUIRED [NOT INCLUDED]

- The power cable from the original connector.
- Phillips screwdriver
- Soldering iron
- Tin
- Cutting plier
- Cutter
- Tweezers
- Instant glue (Loctite, Super Glue)

BOARD DETAILS

This tiny board has 2 pads in about 2cm^2 surface, which means it requires good soldering skills. The following explains what each pad is for.

Version 1.2 and earlier:



Version 1.3 and onwards:

The pads are inverted, as we noticed that this prevents the cables from twisting during installation.

The pads are:

1. VCC: The 5V line from the USB-C.
2. GND: The ground pad.

TEST THE BOARD!

Before starting the installation, you should test the board. If it doesn't work contact me for a replacement *(all boards are fully tested, but they may damage during the shipping, we try to package them as better as possible),* **if it works, go ahead with the installation**.

Connect the power from your USB charger to the USB-C connector on the board. Then, with a multimeter in voltage measurement mode, **check for a 5V reading. If that's the case, continue with the installation.**

INSTALLATION STEPS

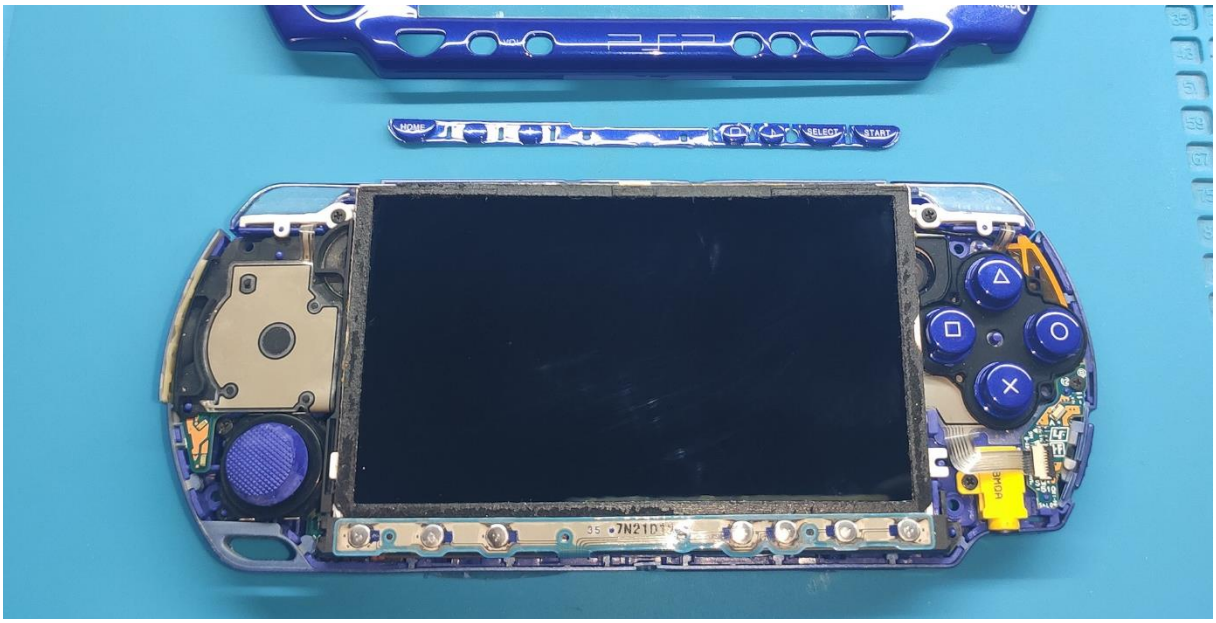
Please, carefully read the following steps for a successful installation.

PRE INSTALLATION STEPS

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

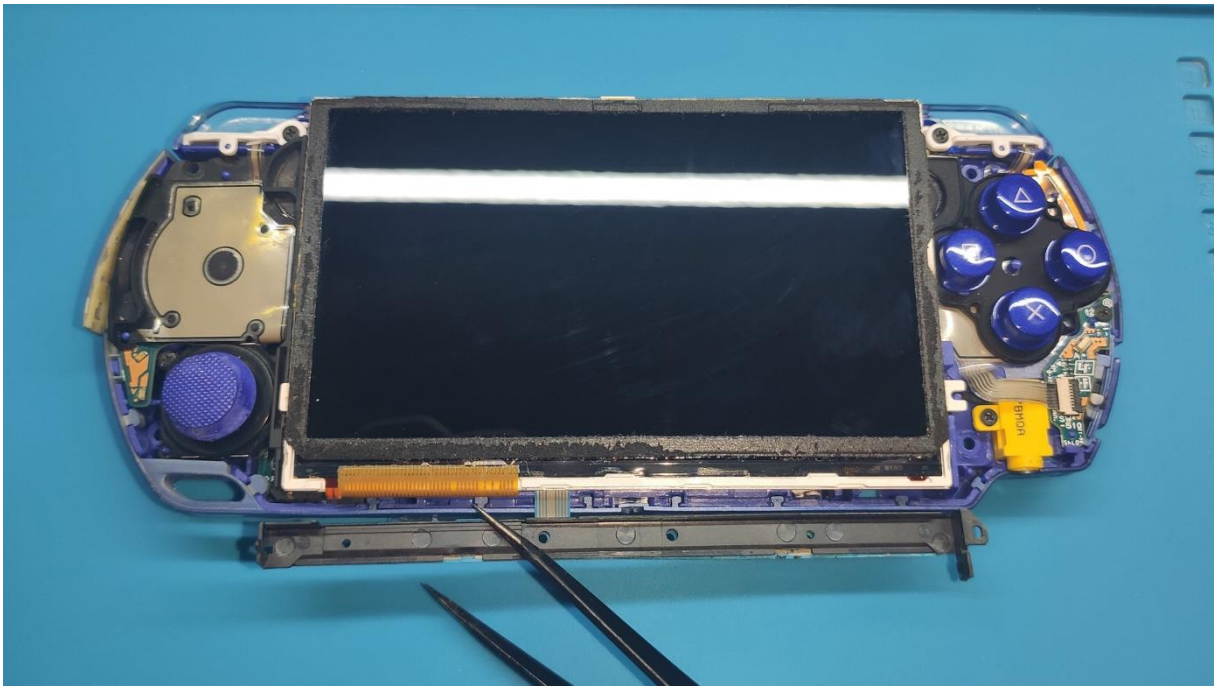
1. DISASSEMBLY THE SONY PSP

Sony PSP use the **phillips screws** to close the shell. Remove all the accessories such as the battery, memory card and game disc. Then remove the 7 screws which hold the front shell.

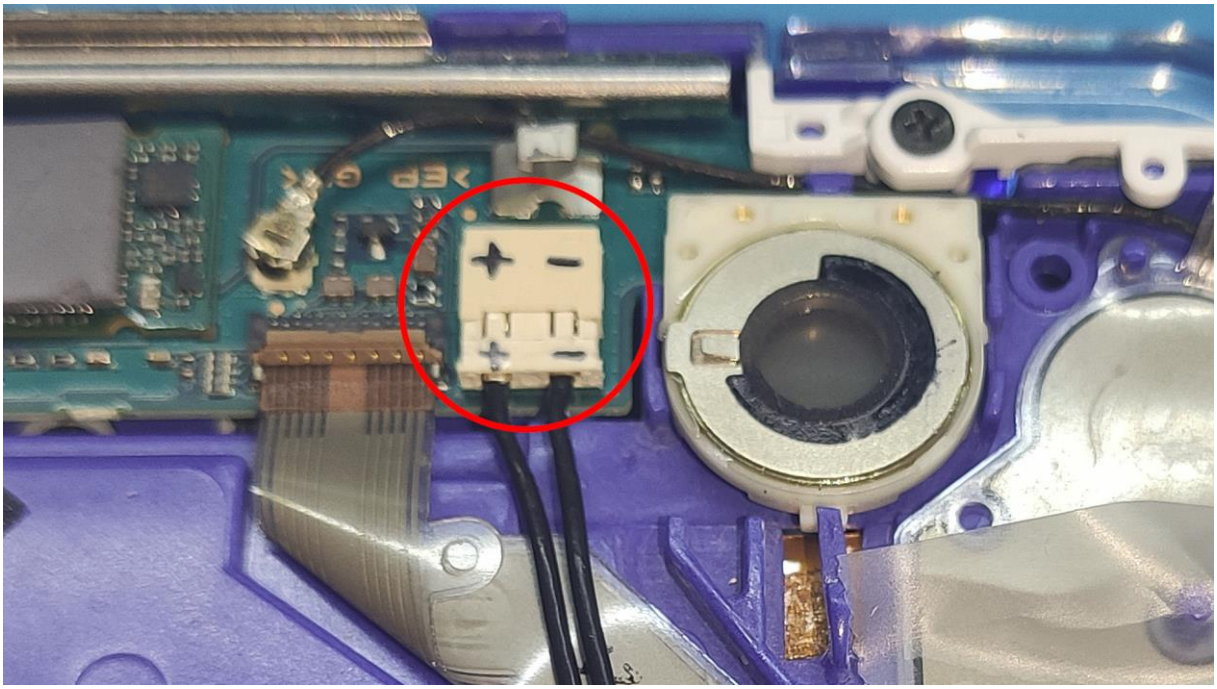


Now, in order to access the part that interests us, the power connector. It is necessary to remove the screen, which has a flexible cable for the front buttons and two more cables for the screen and the lighting.

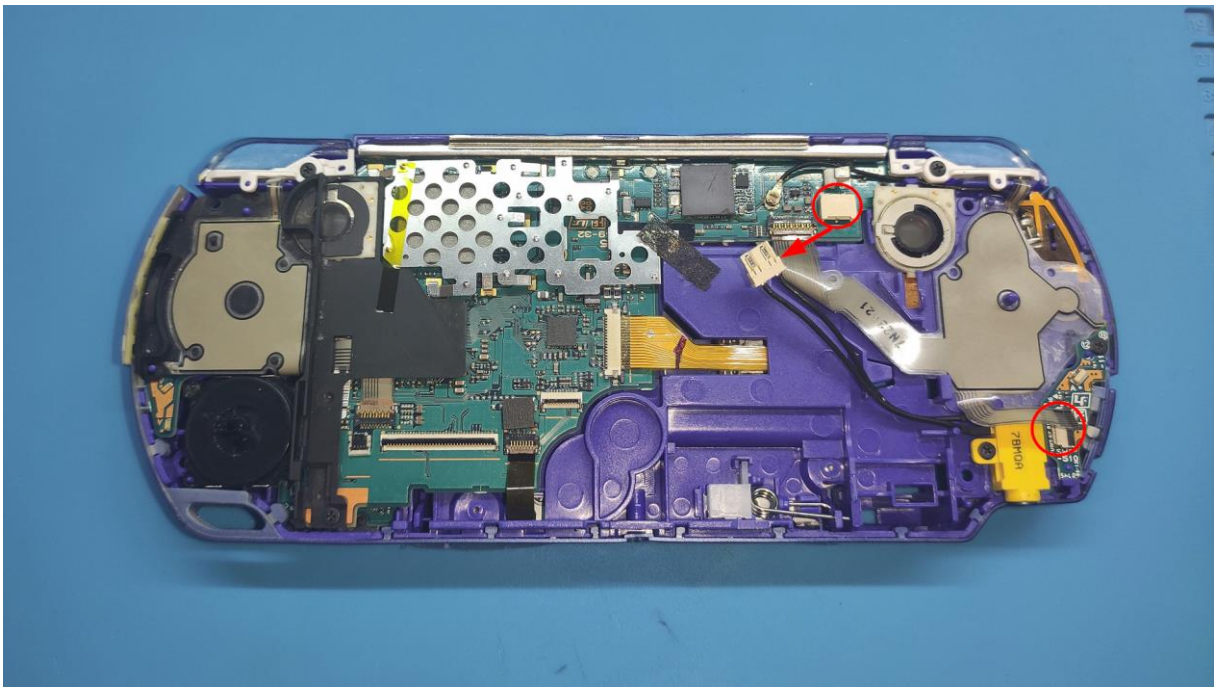
It's a bit complex, since I don't have step-by-step photos, I recommend consulting the [disassembly guide on iFixit].



Now disconnect the power cable. Well, as a recommendation, you might want to mark the VCC(+) and GND(-) pins with a permanent marker beforehand, as shown in this image:



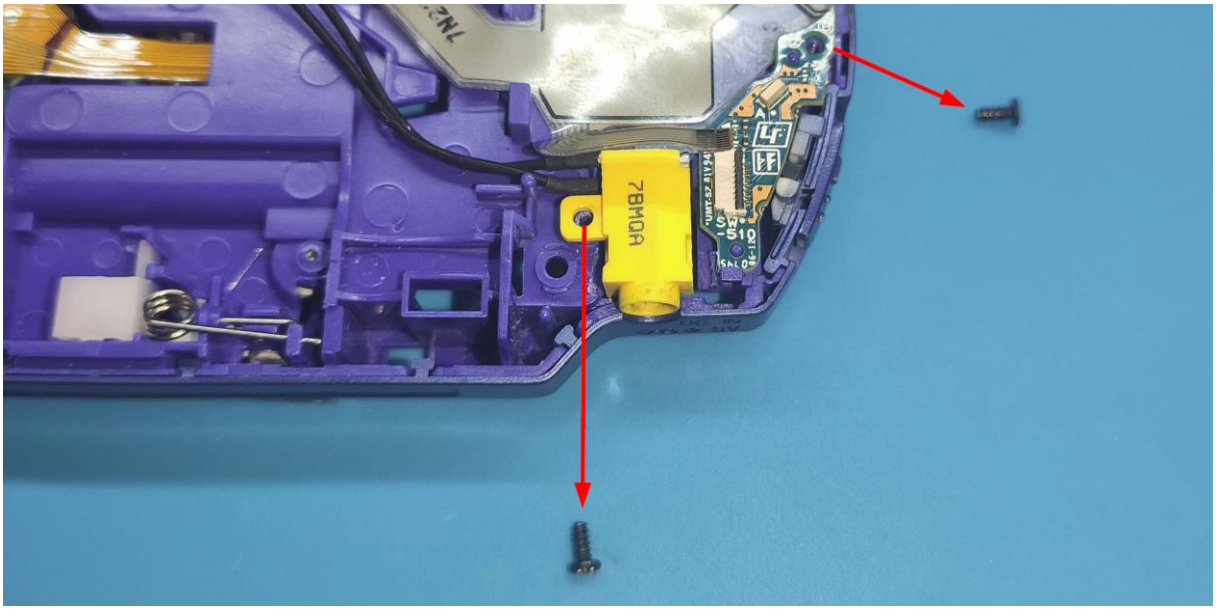
So, now go ahead and disconnect the cable, also disconnect the flat cable marked in the photo:



INSTALLATION STEPS

1. REMOVE UNNECESSARY COMPONENTS

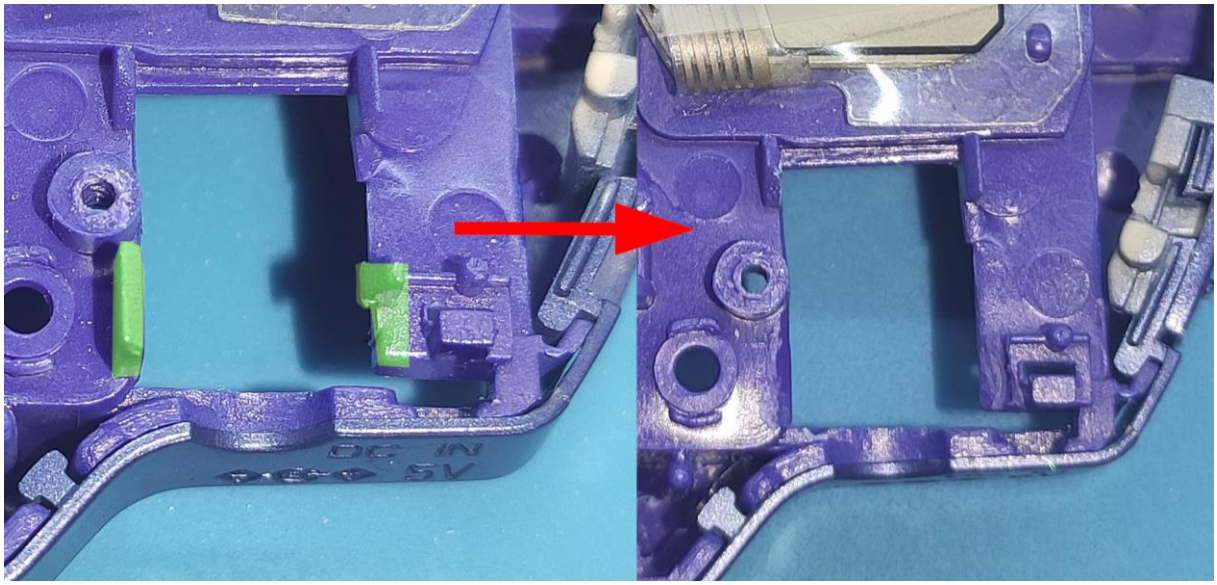
This kit only requires removing the power connector. This will free the yellow charging connector that will be replaced by the USB-C. It's also necessary to temporarily remove the small PCB next to the connector.



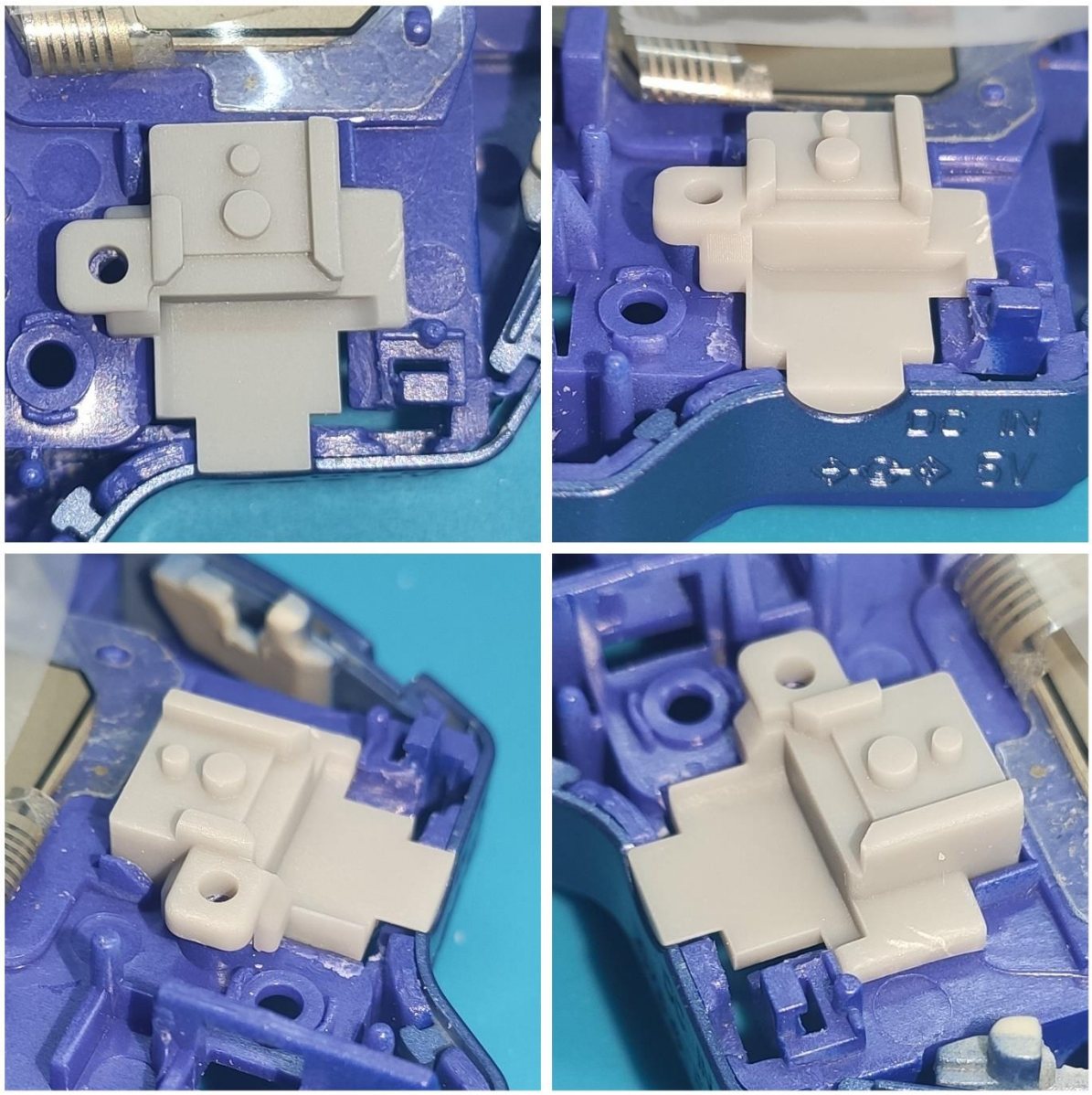
2. CUTTING THE INTERNAL PLASTIC SHELL

After removing those two parts, now it's time for some crafting, as it's necessary to trim the casing a bit.

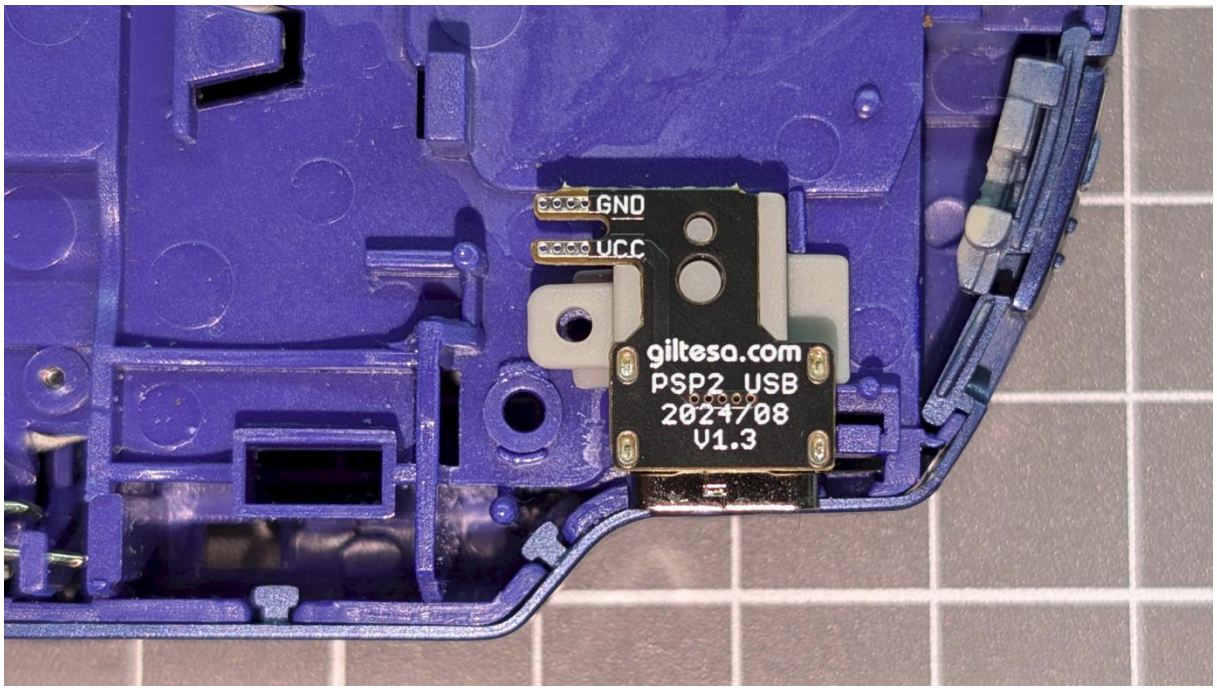
NOTE: Only the flat part of the plastic should be left; do not drill through to the other side of the plastic.



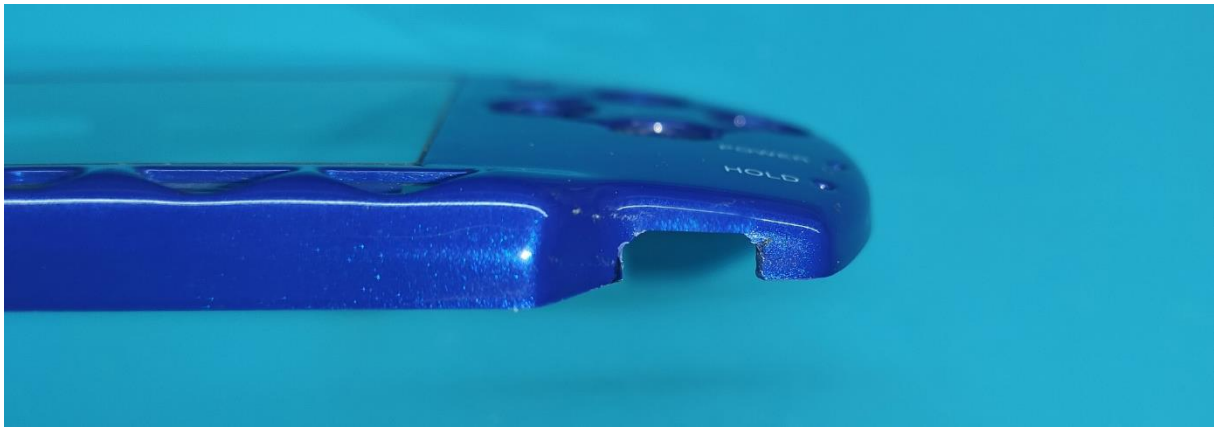
Once the plastic has been sufficiently trimmed, you can place the plastic support provided with the kit. It should be completely flat and snug. Depending on your PSP's shell, you may need to trim it further. Take your time and check at each step if you have trimmed the plastic enough to fit the kit piece.



You can also place the PCB board on the plastic support to verify that the board lies flat and is properly positioned. Here’s a visual reference.

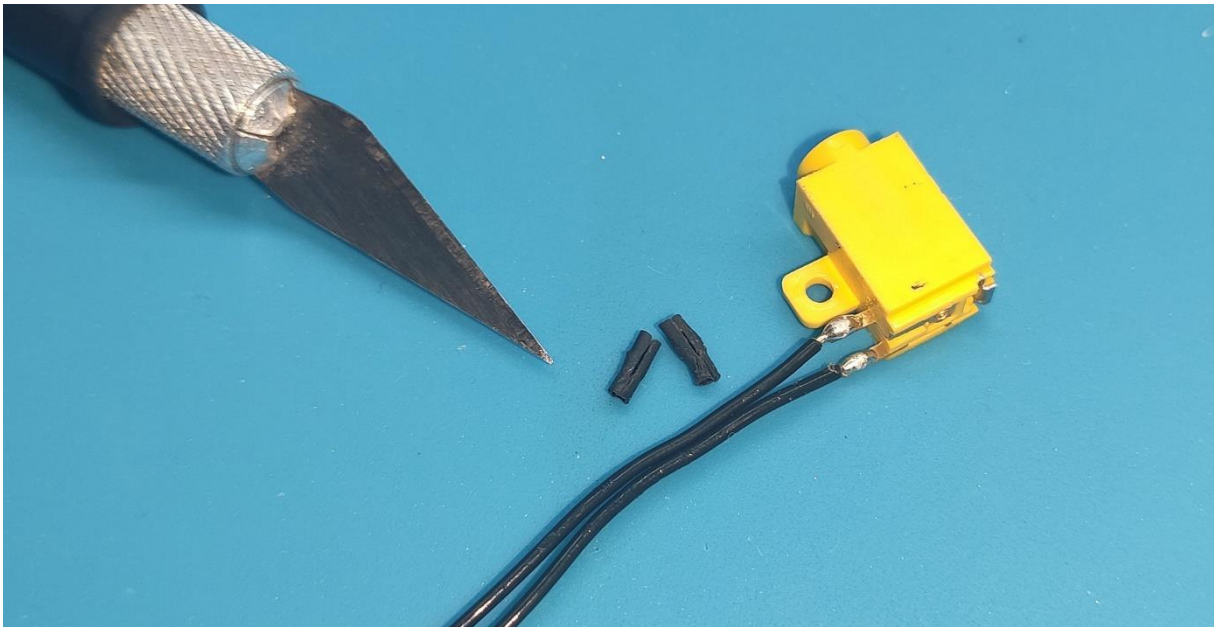


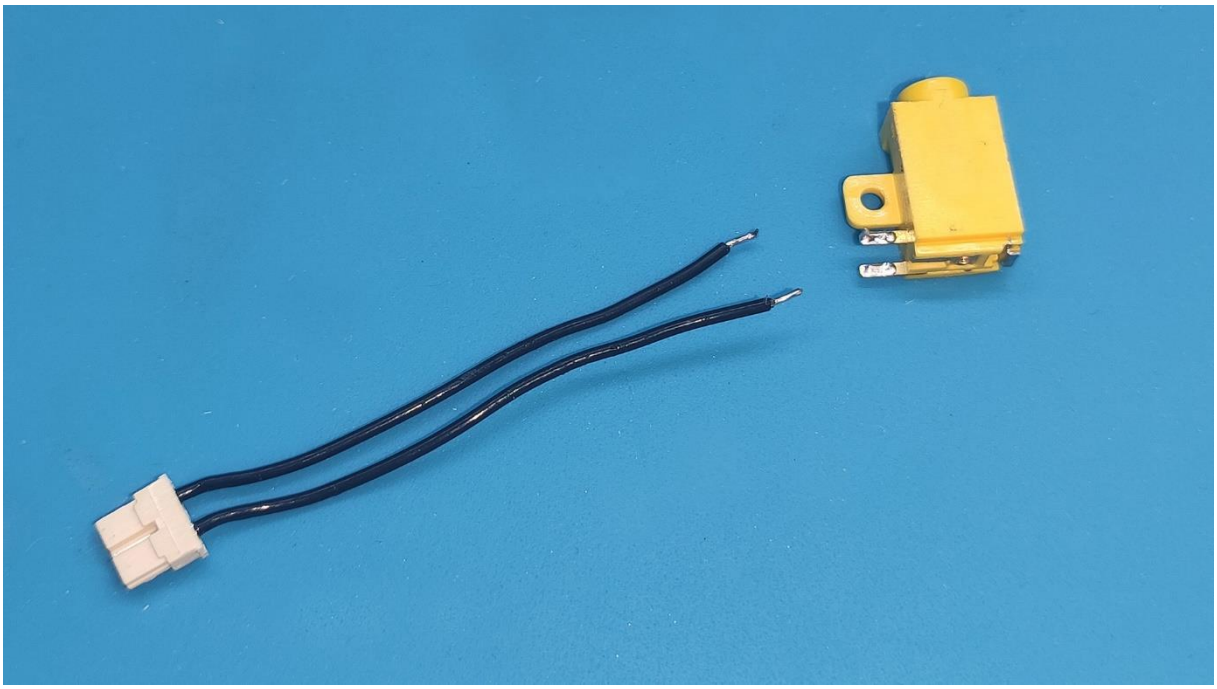
You will also need to make the hole for the connector larger in the back shell. **However, it's better to do this at the end when you have completed the installation** and only the closing step remains (or perhaps before installing the screen to avoid annoying things in the middle).



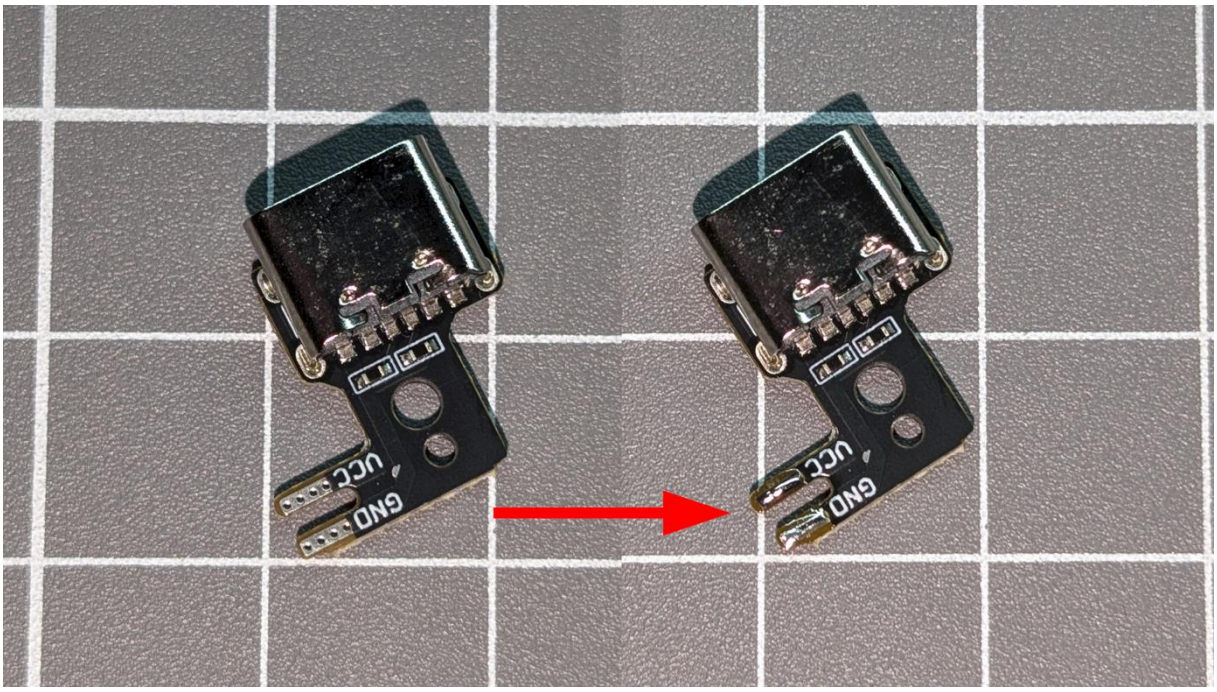
3. INSTALLATION OF THE USB-C BOARD

The first step is to remove the power cable from the original power connector since we need to reuse it. With the help of a utility knife, you can cut the plastic sleeve covering the copper pins:

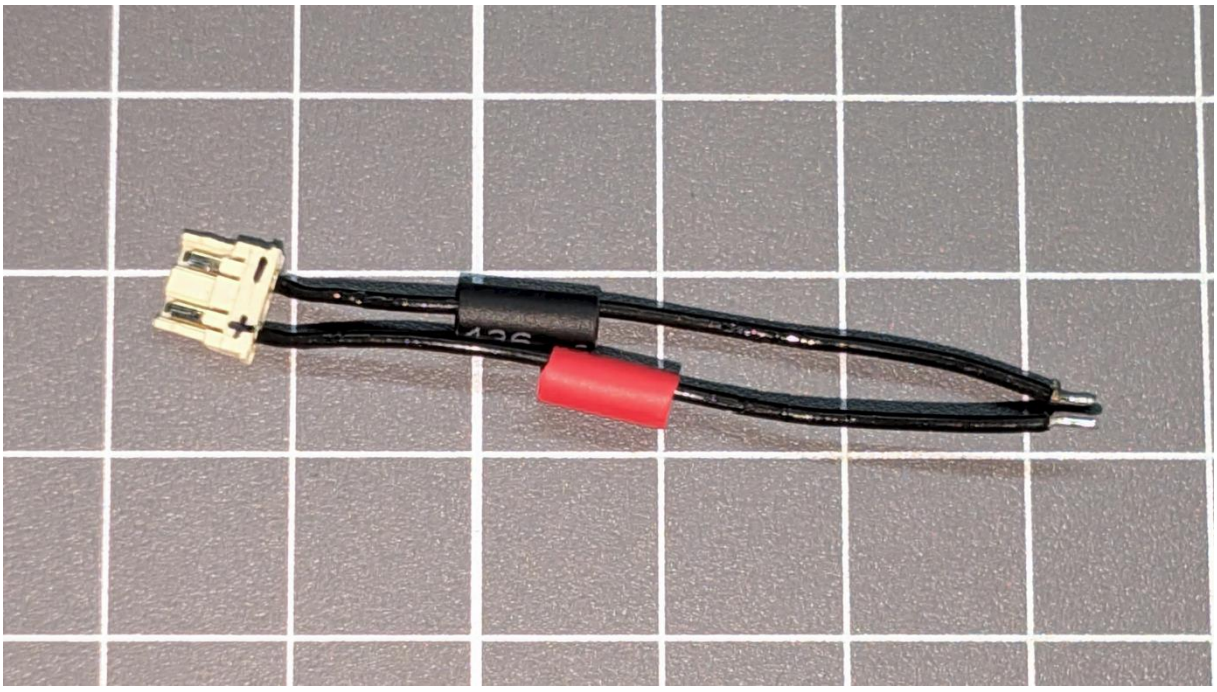




Now, pre-solder the pads **located on the same side as the USB-C** connector:

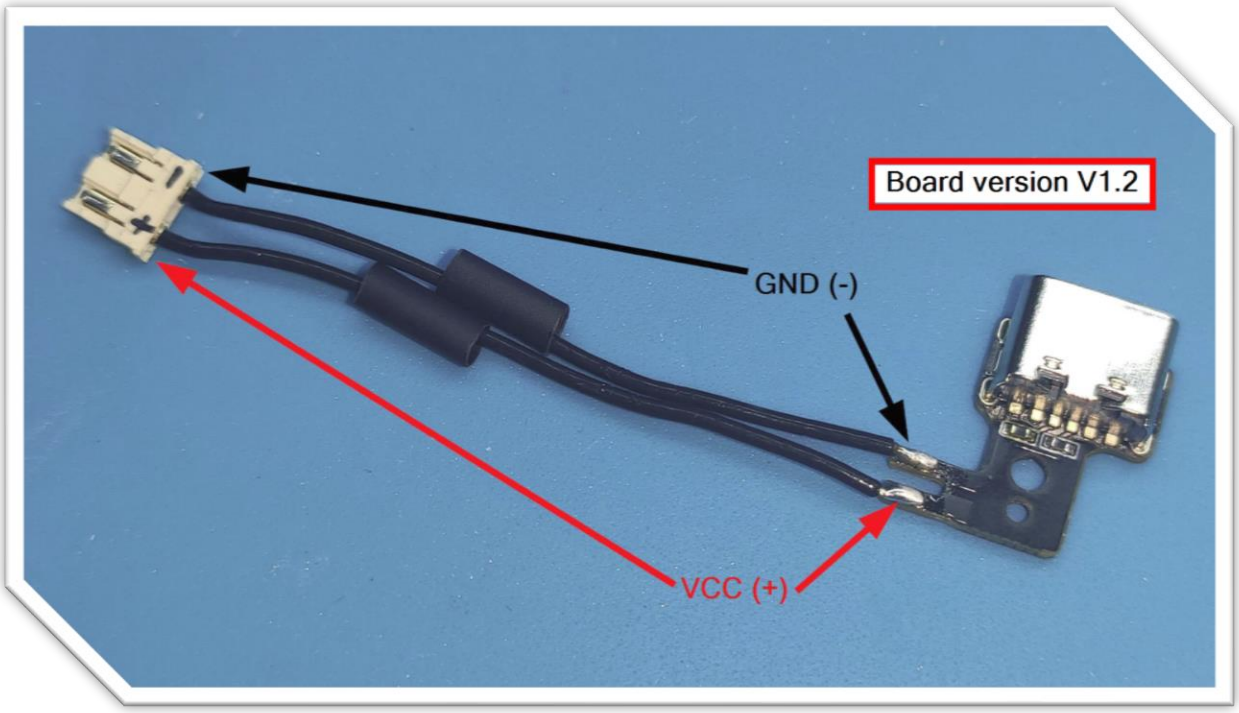


The next step is to solder the cables to the USB-C kit, but **don't forget to place the plastic sleeves inside both cables**.

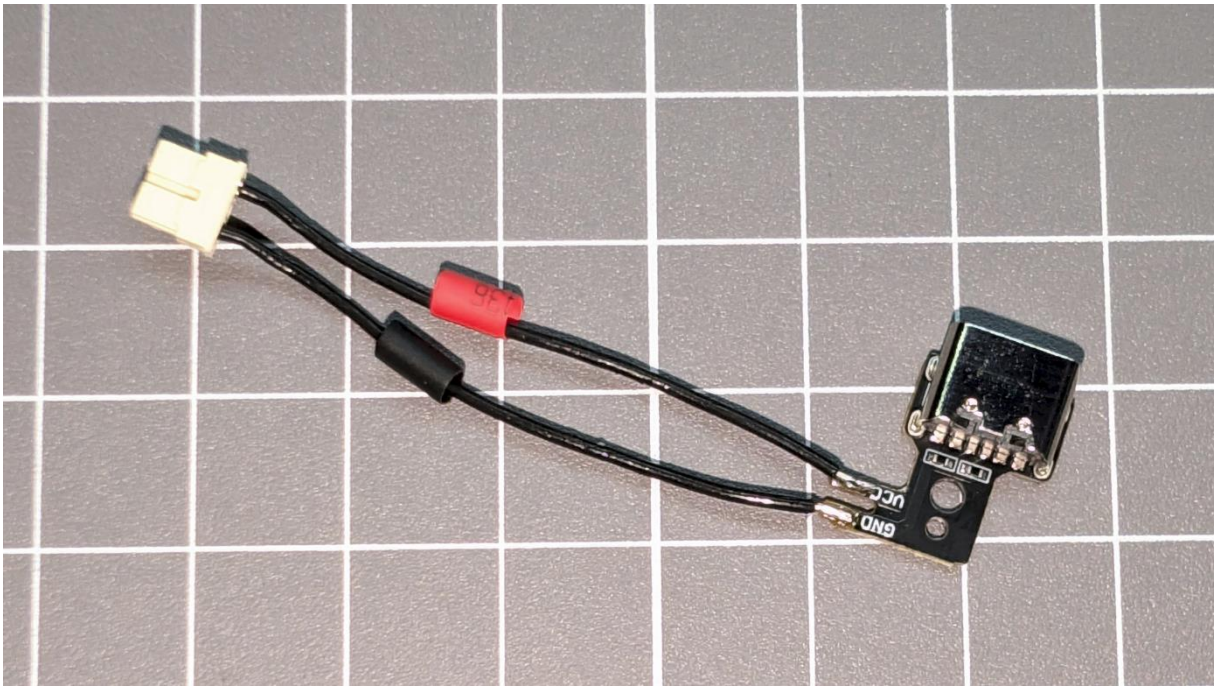


It's time to solder the wires, but **make sure to solder the positive + wire to the VCC pad and the negative - wire to the GND pad**.

Solder the wires on the same side as the USB-C connector.

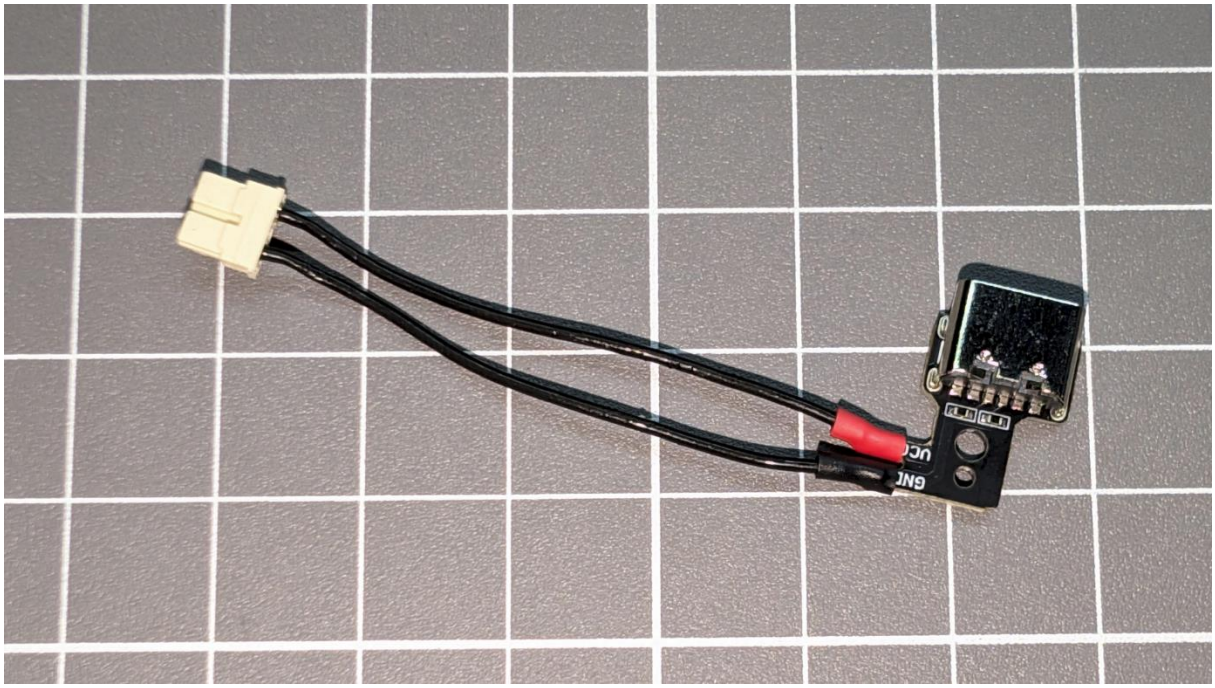


Only for version 1.2 and earlier



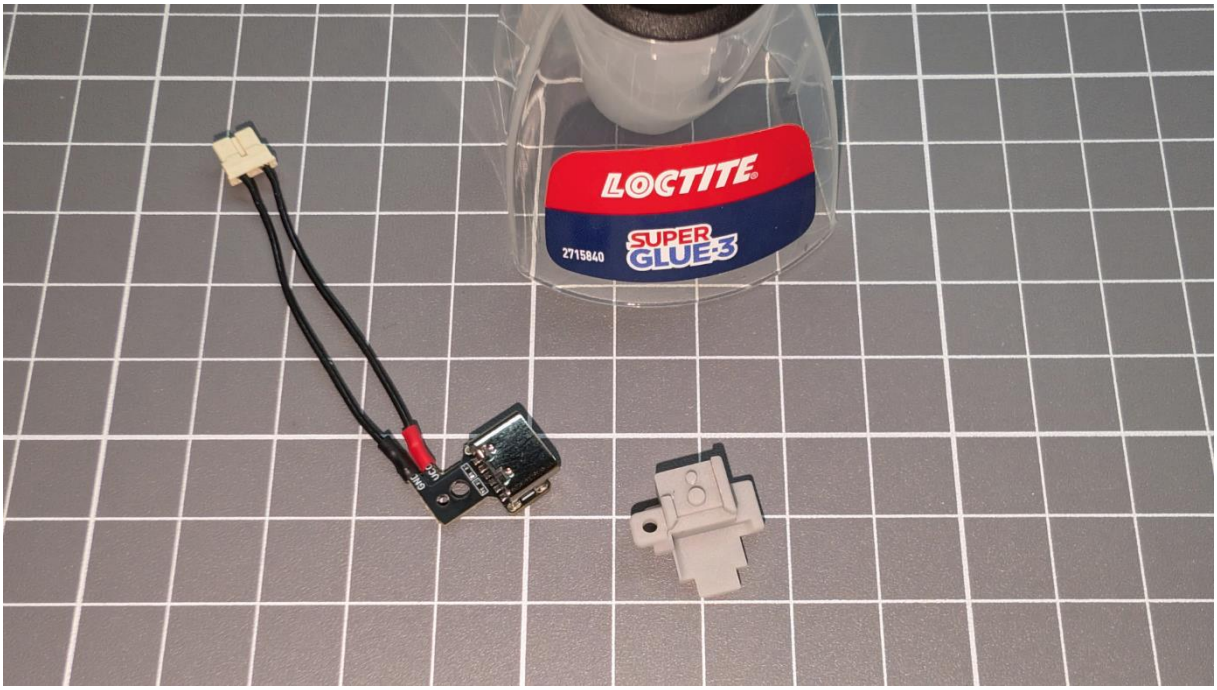
For version 1.3 and onwards

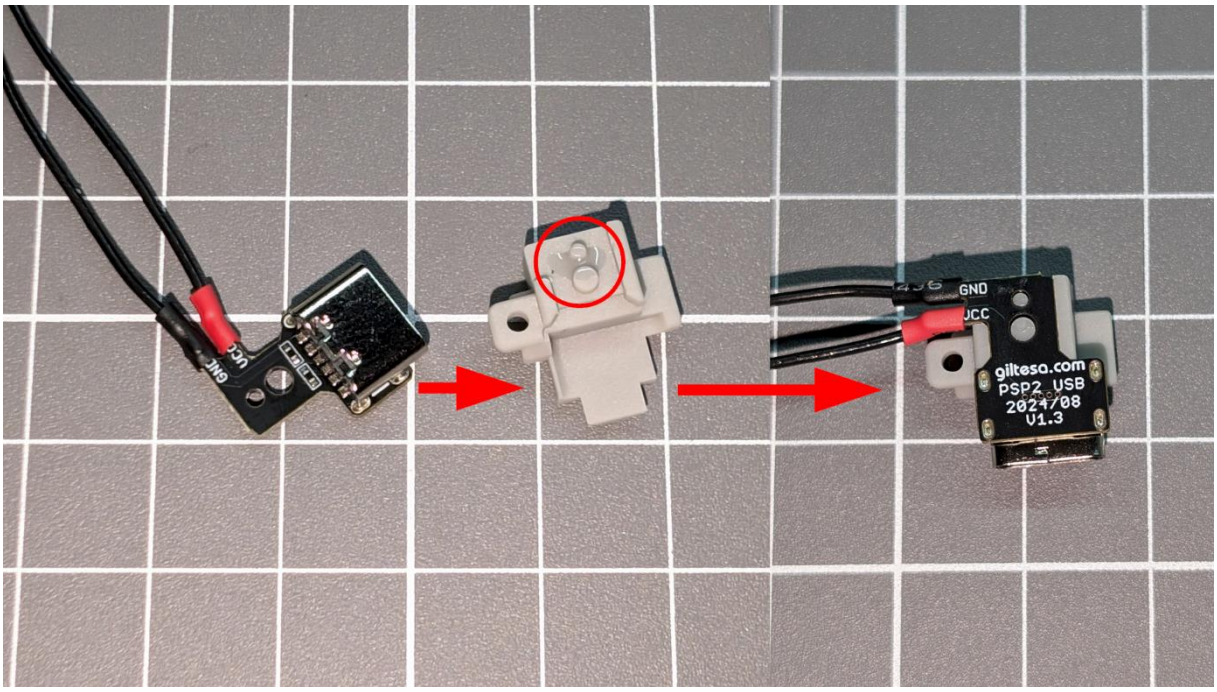
Place the plastic sleeves in position and apply heat, for example, using a lighter, but be careful not to burn the unprotected part of the cables. If you have kapton tape, you can use it to protect the cable.



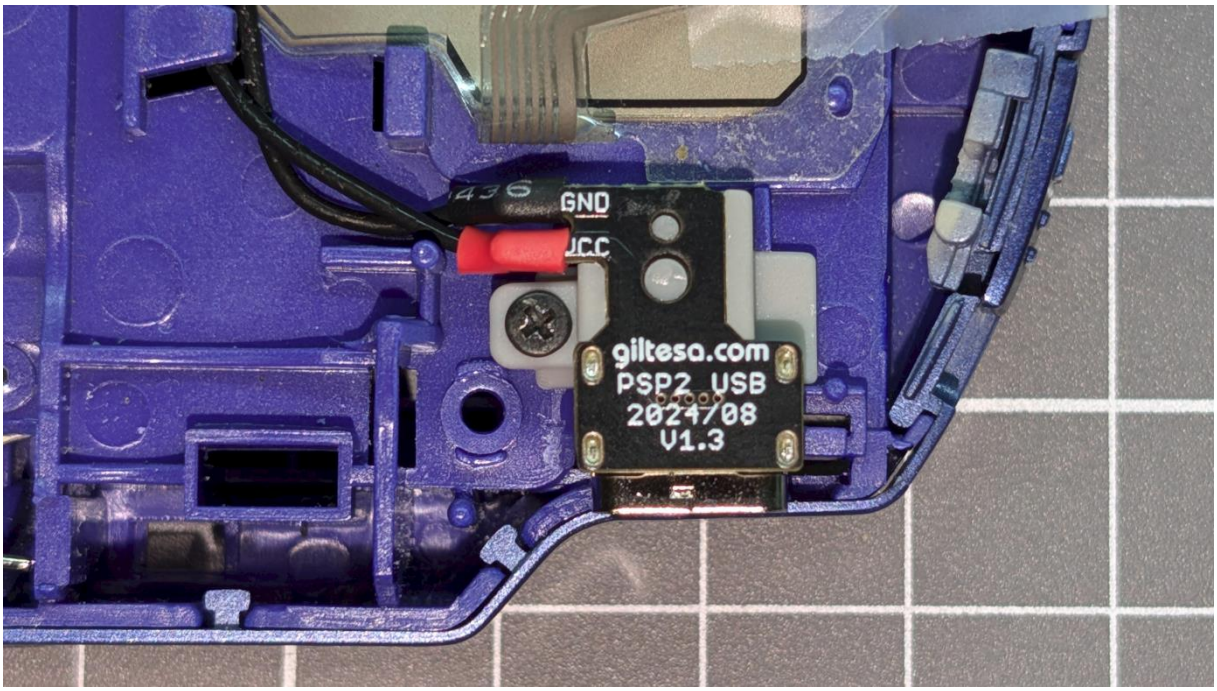
The final step is to apply a drop of instant adhesive and attach the PCB to the plastic.

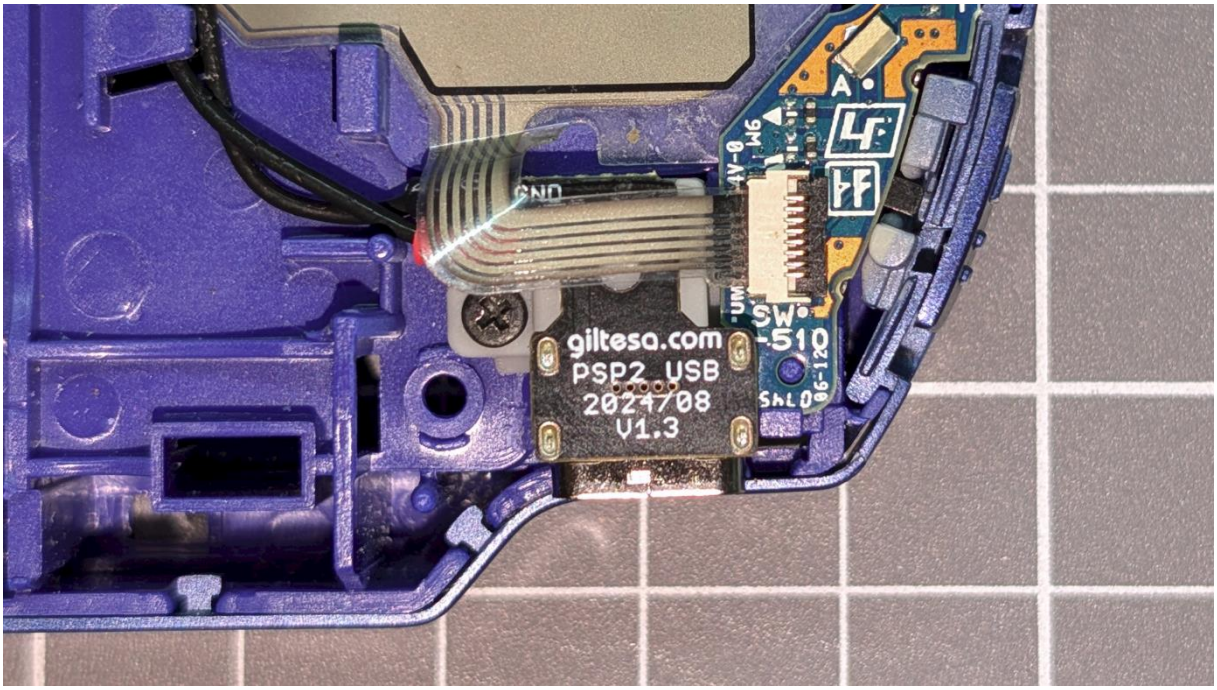
NOTE: This step is irreversible; once the board is glued, it will be impossible to separate.





Now you can install the new connector in its place, connect the power cable to the motherboard, reassemble everything, and close the PSP:





4. FINISHING THE INSTALLATION

Now, you can put the mainboard back to the shell, and put the screws and cables as before. Enjoy it!

I bought this second-hand PSP, and the PSP battery seems damaged :(

FREQUENTLY ASKED QUESTIONS - FAQ

WHAT CHARGER CAN BE USED?

You can use any standard charger for mobile phones, computers, etc., with 5V 1A. It doesn't need to be a Power Delivery charger since this feature is not used. Of course, if you want to use a Power Delivery charger, there's no problem or risk.

Technical data for curious minds:

Power Delivery chargers can supply a wide range of voltages: 5V, 9V, 12V, 15V, and 20V. However, for this to happen, the device must communicate with the charger to explicitly request the desired voltage. Without this communication, the charger will never supply more than 5V. That's one of the advantages of USB-C, as it can be used with both old and modern devices.

THE CONSOLE DOESN'T CHARGE WITH USB-C TO USB-C CABLES/CHARGERS.

All our kits incorporate two resistors to indicate to the charger that it is a legacy device and should charge at a maximum of 5V.

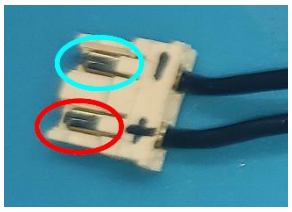
The only reason one might consider for it not working is that one might be using a charger/cable from Apple or another company that doesn't follow the standard 100%. Trying other cables, for example from the Nintendo Switch, a laptop, or another mobile device, should work.

THE CONSOLE IS STILL NOT CHARGING.

Although all our products are tested before being packaged, please verify that the product is working correctly.

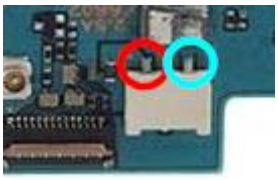
To do this, use a multimeter in voltage measurement mode. Connect the USB-C cable to the board and check that there is a 5V reading on these two pads.

If you get the measurement, then the issue is not with the board but with the installation or/and the console. Solder the wires and perform the same test from the power connector. You should get a 5V reading. **If you get -5V, then you have soldered the wires in the wrong orientation.**



If you continue to get a 5V reading, then the issue is not with the cable or its soldering to the board.

Connect the cable to the mainboard connector and repeat the same test.



If everything is fine up to this point, then check the console's fuses; there might be a blown one.