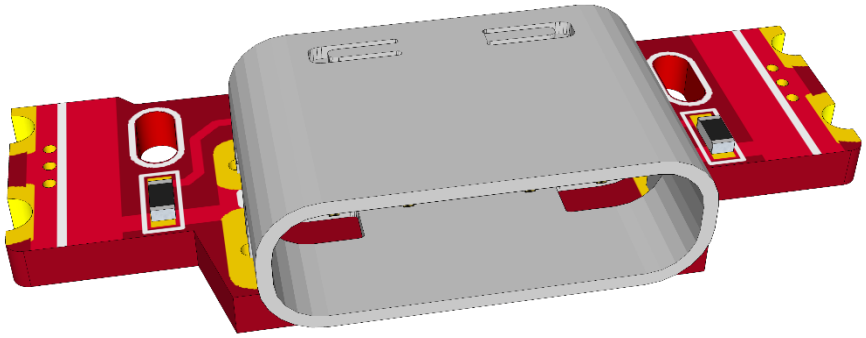
USB-C KIT FOR

SONY PSP GO



PRODUCT

HTTPS://SHOP.GILTESA.COM/PRODUCT/SONY-PSP-GO-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 Go: 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 Go 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 PSP Go

FEATURES

- Charging your Sony PSP Go 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 board.
- 2 cables.
- 1 plastic cap to cover the hole (In grey color)

RECOMMENDED / REQUIRED [NOT INCLUDED]

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

BOARD DETAILS

This small board has a total of 7 pads: 3 of them on the bottom side and the rest distributed on the sides of the board. The following explains what each pad is for.

The pads are:

- VCC — The 5V line from the USB-C.
- D+ — The positive data line.
- D- — The negative data line.
- SIDE PADS — The ground / **GND** pads, they also secure the board firmly to the mainboard.

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.**

Unfortunately, it is not possible to test the data connection until the board is fully installed.

INSTALLATION STEPS

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

PRE INSTALLATION STEPS

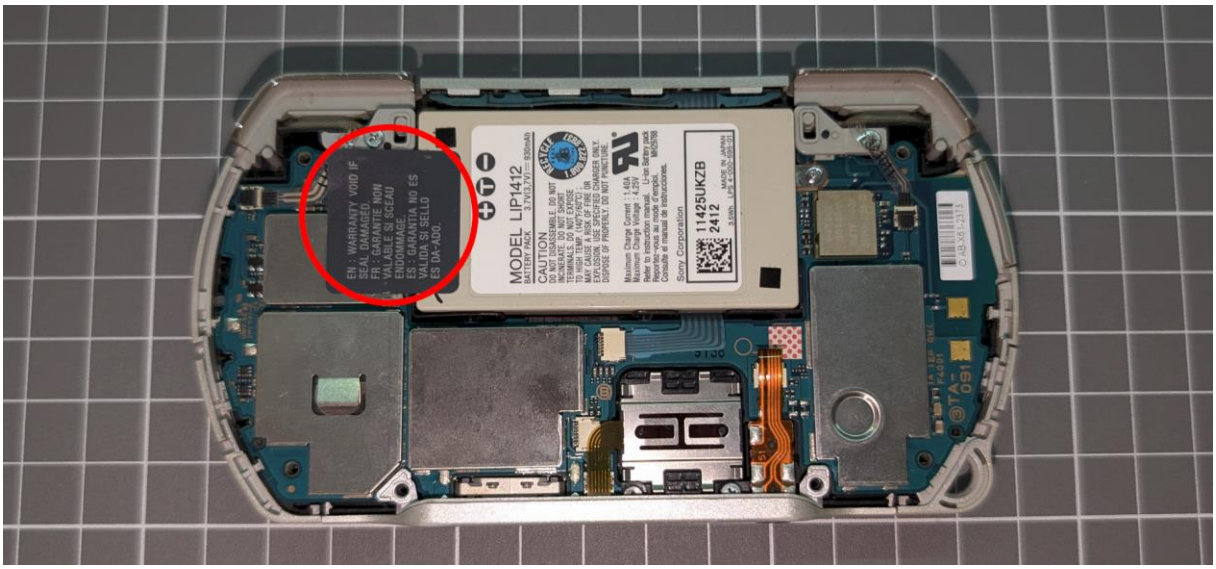
Before the installation, your Sony PSP Go may need some extra steps to have it ready for the kit.

1. DISASSEMBLY THE SONY PSP GO

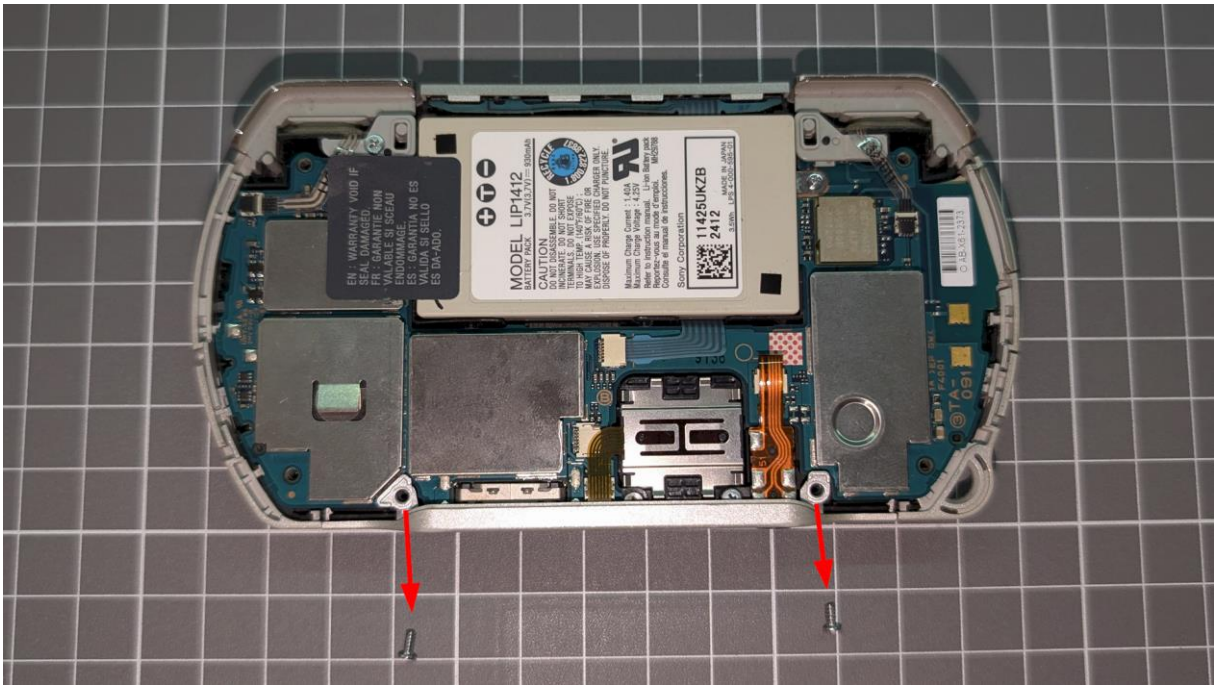
If the steps in this guide are insufficient and you can't proceed, you can refer to the iFixit guide for opening the console.

Sony PSP Go use the **phillips screws** to close the shell. Remove all the accessories such as the memory card. Then remove the 6 screws which hold the back shell.

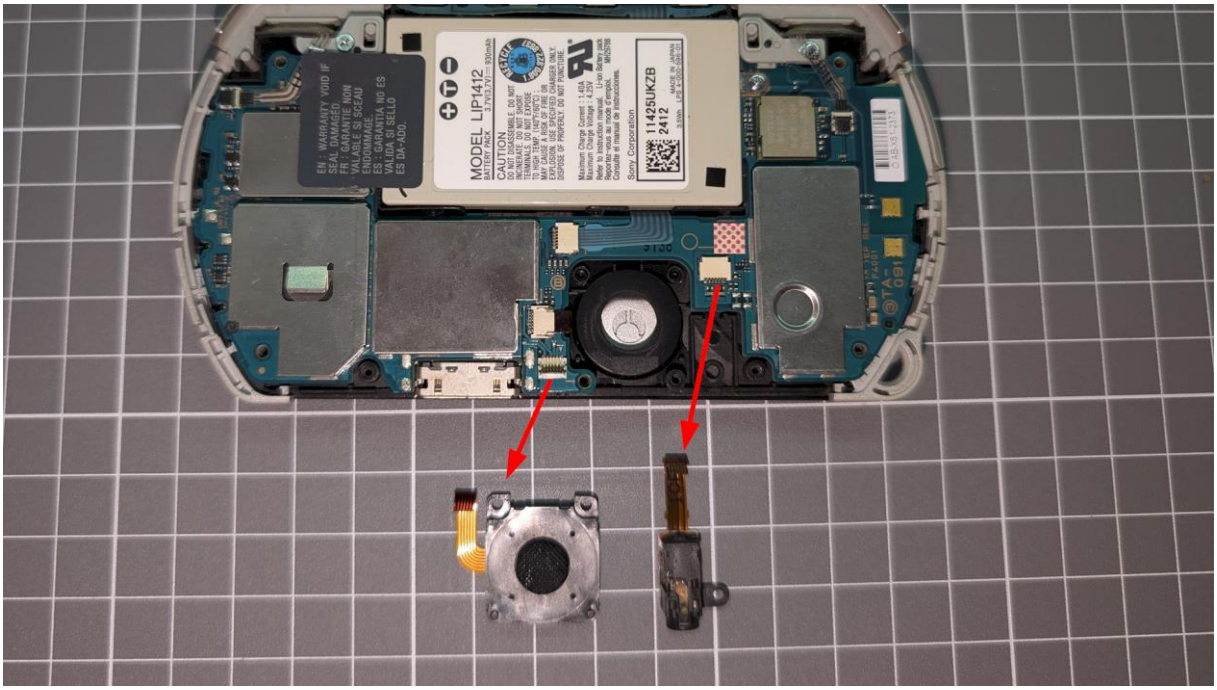
Before starting, disconnect the battery. The connection cable is covered by a warranty sticker; peel it off, disconnect, and remove the battery.



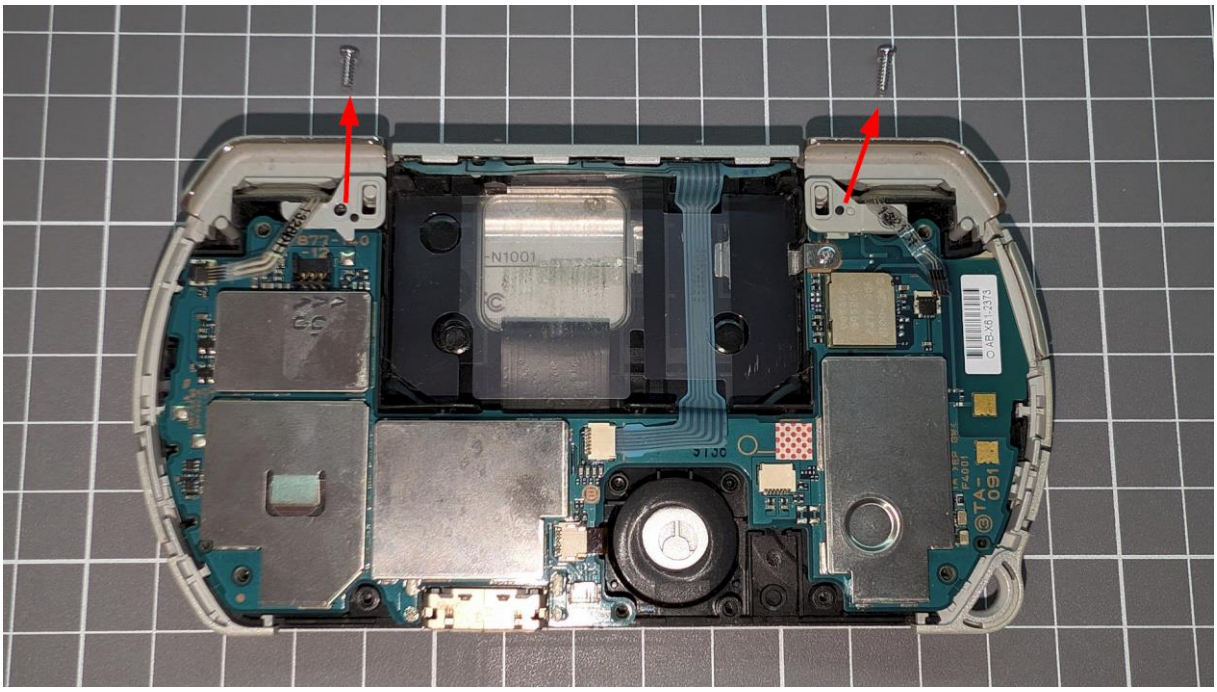
Continue by removing these two screws that secure the lower connector cover.

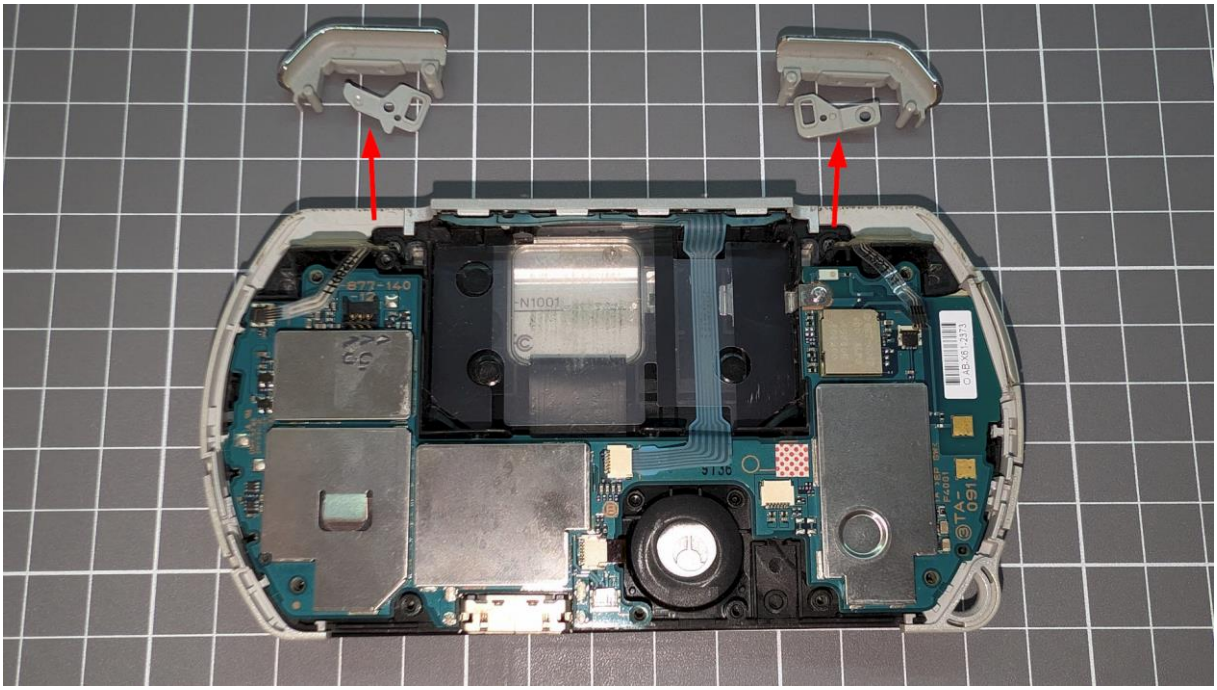


Remove the cover, which will reveal two more screws. Remove them as well, then disconnect the headphone jack and the joystick.

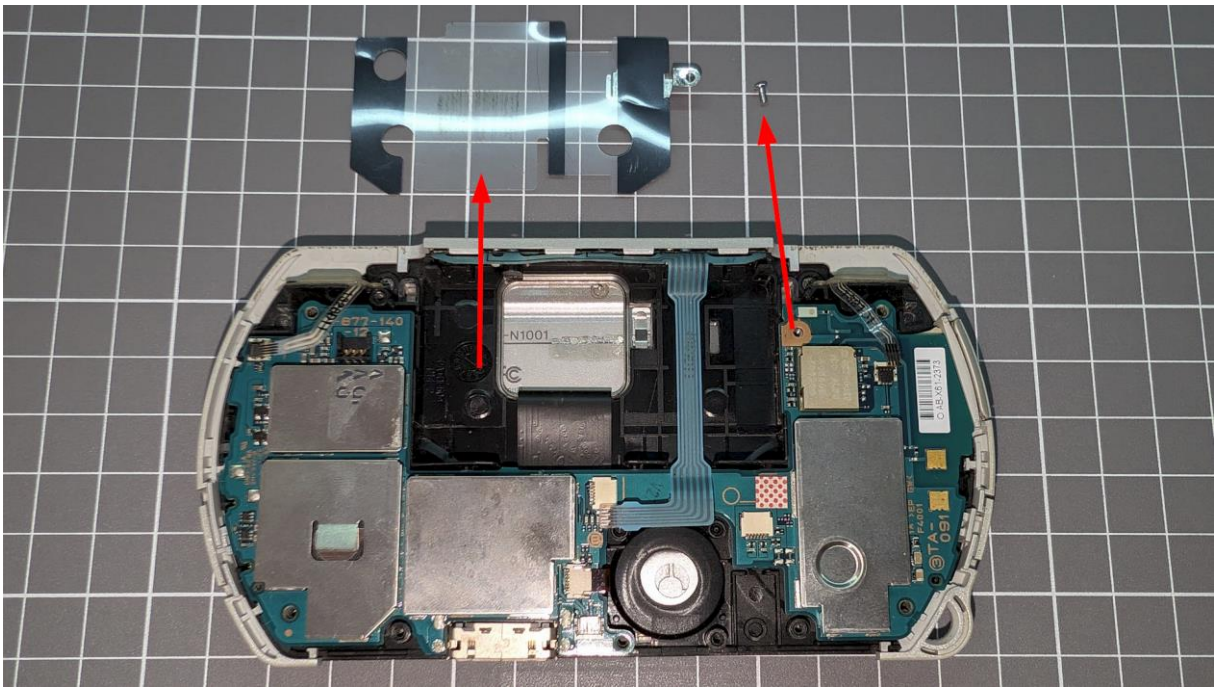


Now, remove the two upper screws and the triggers.

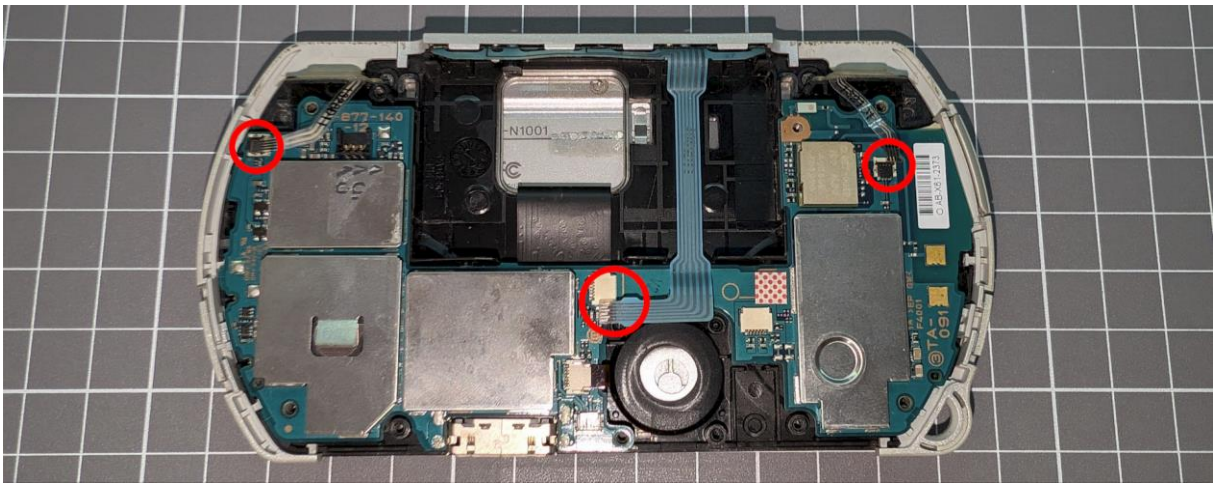




In the spot where the battery was located, there's a plastic piece secured with a screw. Remove both the plastic piece and the screw.



Disconnect the three flat cables indicated in the photo. Then, open the casing by sliding the controls to make them visible. Lift the mainboard and disconnect the last cable, which is for the screen.

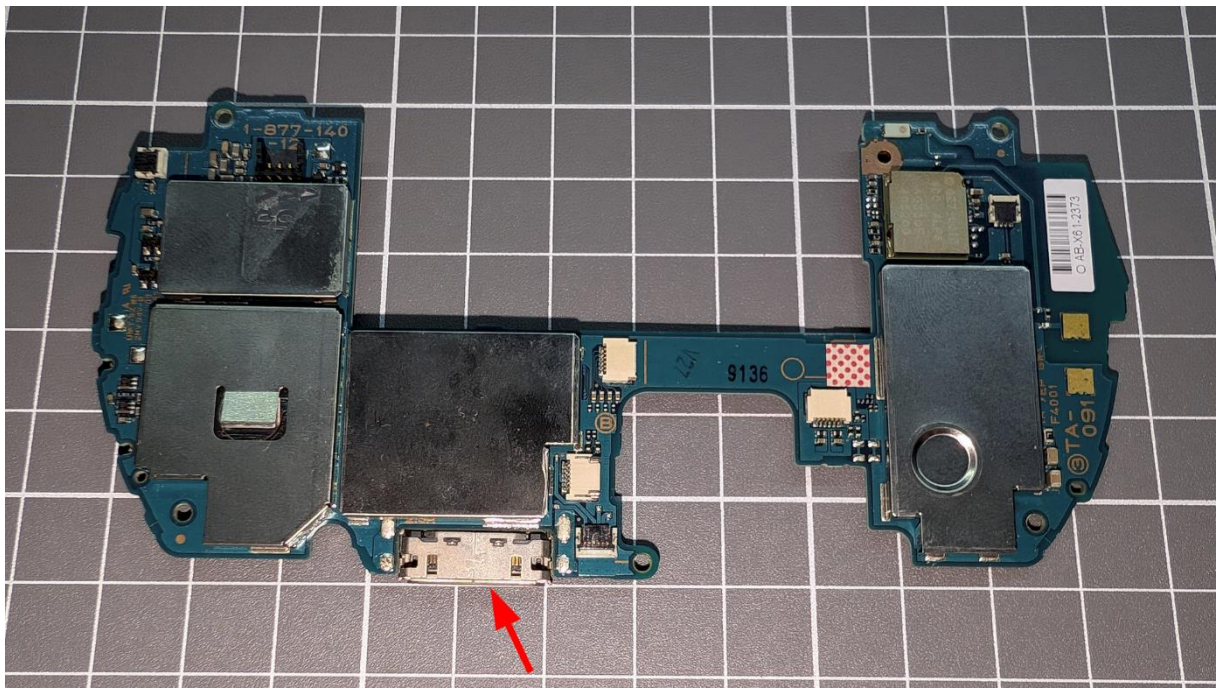


After completing all these steps, the mainboard is now free from the shell.

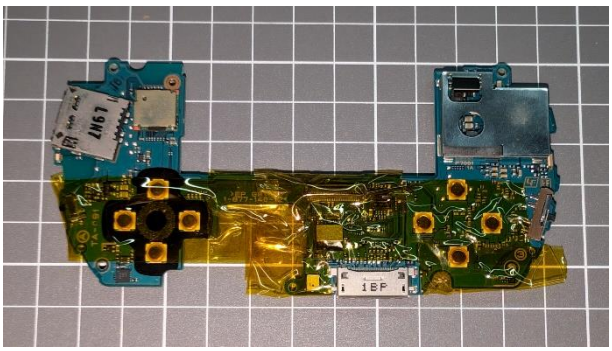
INSTALLATION STEPS

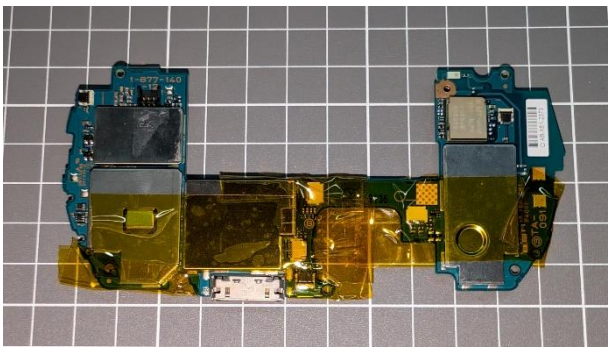
1. REMOVE UNNECESSARY COMPONENTS

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.



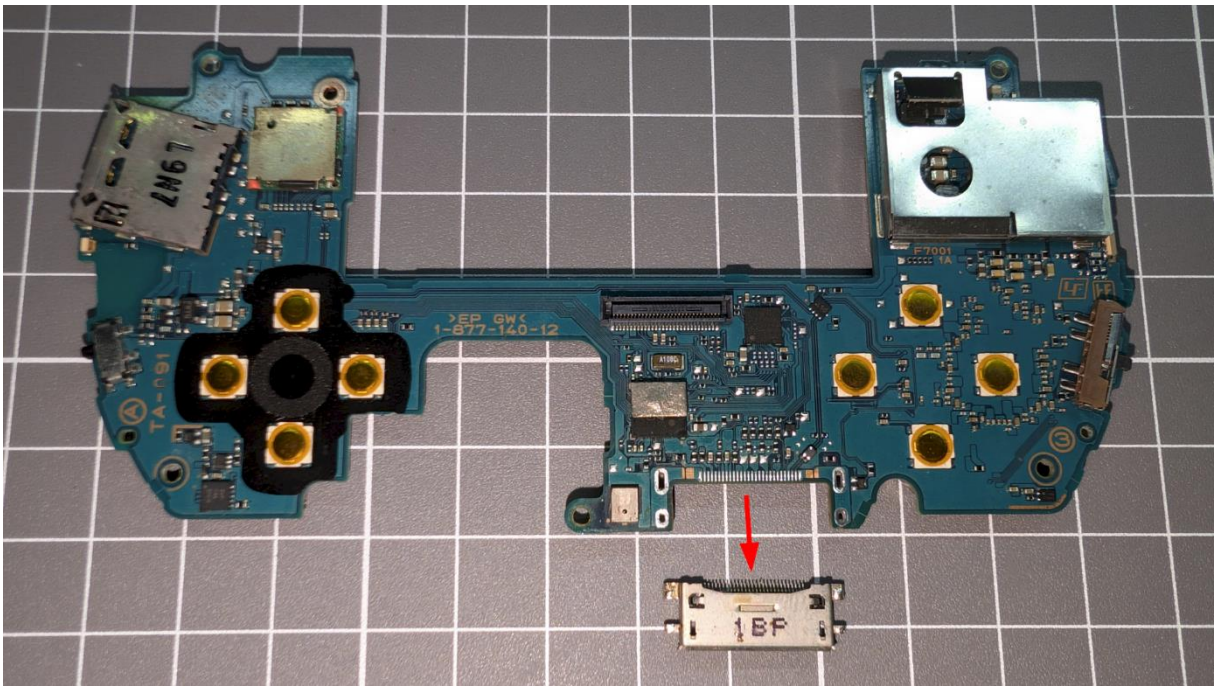
Before even turning on the soldering iron or the hot air station, thoroughly protect all the nearby areas with kapton tape. Don't skimp on the kapton tape.





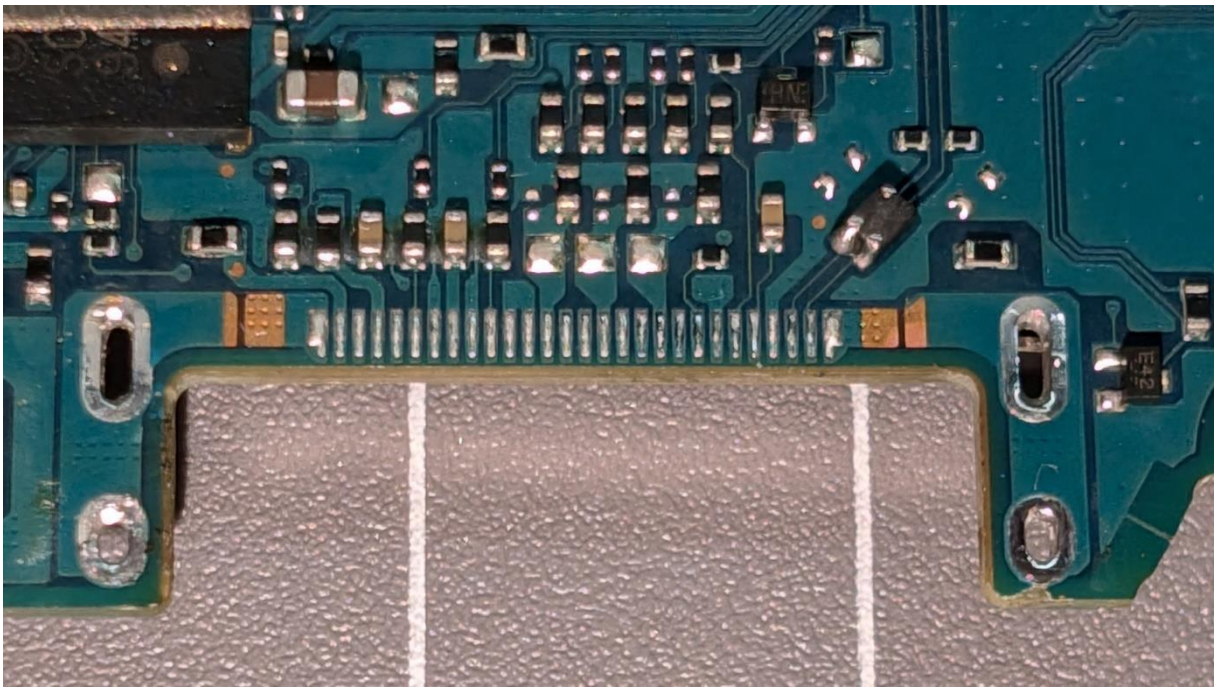
Now, remove the connector. This can be challenging because the four legs of the connector's housing are firmly attached to the mainboard. Additionally, the ground plane is very large, causing heat to dissipate quickly.

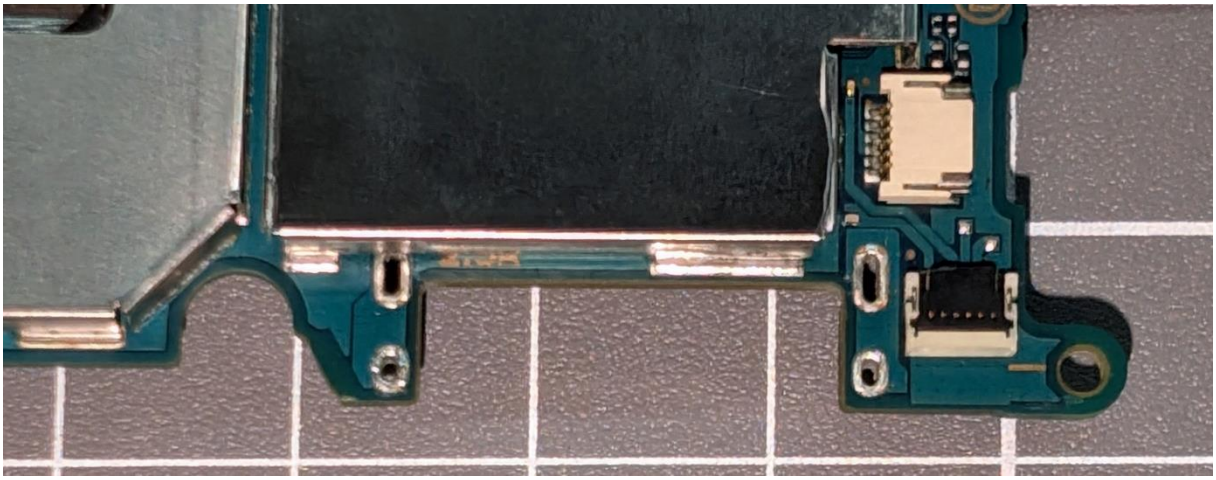
Apply flux and desolder each leg one by one. You can also add higher-quality solder to mix with the existing solder, which will help you remove it all more easily.



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.

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.

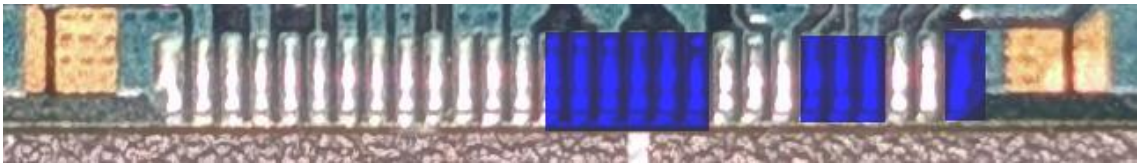
BEFORE STARTING, SOME TIPS

- The kit includes two cables. The short, thicker cable is used for the power connection, while the long, thinner cable is used for the two data connection joints.

  The cables are coated with enamel instead of plastic, making them ideal for precision installations.

  To remove the enamel, simply bring the soldering iron with solder close to it. This will burn off the enamel layer; however, if you can't achieve this, you can use a cutter to scrape off the enamel, and the solder will adhere to the wire. Afterward, it's recommended to cut the exposed (non-enamel) part to the exact length needed for soldering the cable in place.

- If you have Solder Mask, you can apply it to the pads where none of the cables need to be soldered. This will make it easier to avoid bridging the pads with adjacent ones.



In blue, a representation of the applied Solder Mask

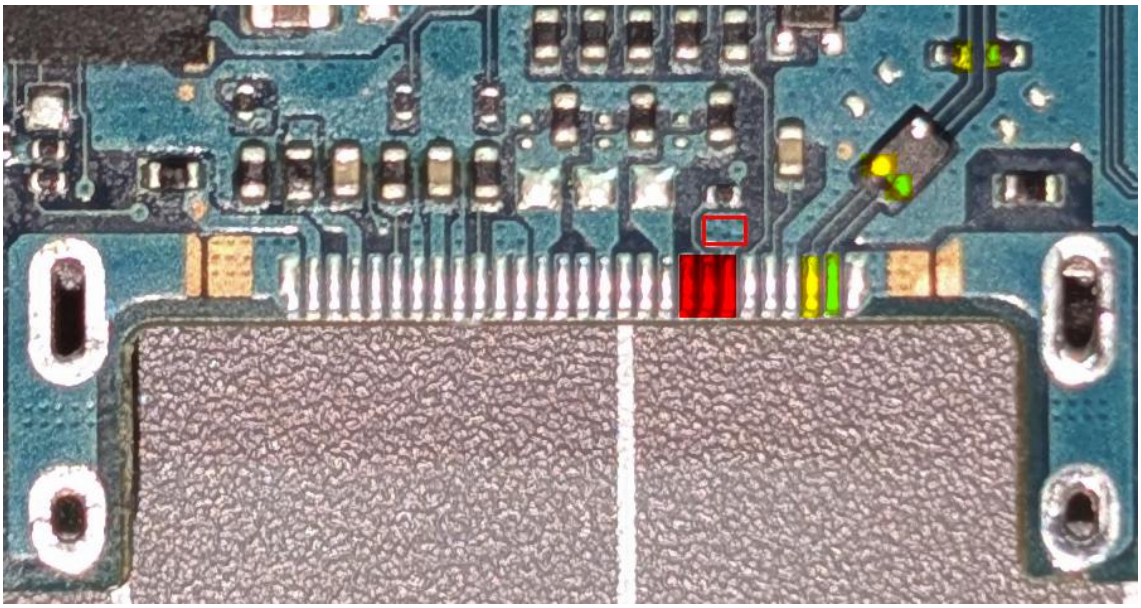
  However, be sure to apply the Solder Mask carefully, as once it’s cured with a UV lamp, it becomes difficult to remove.

  If you need to remove your Solder Mask, I’ve noticed that it’s easier if you first apply pressure with a cutter to crack it. Then, you can carefully scrape it off.

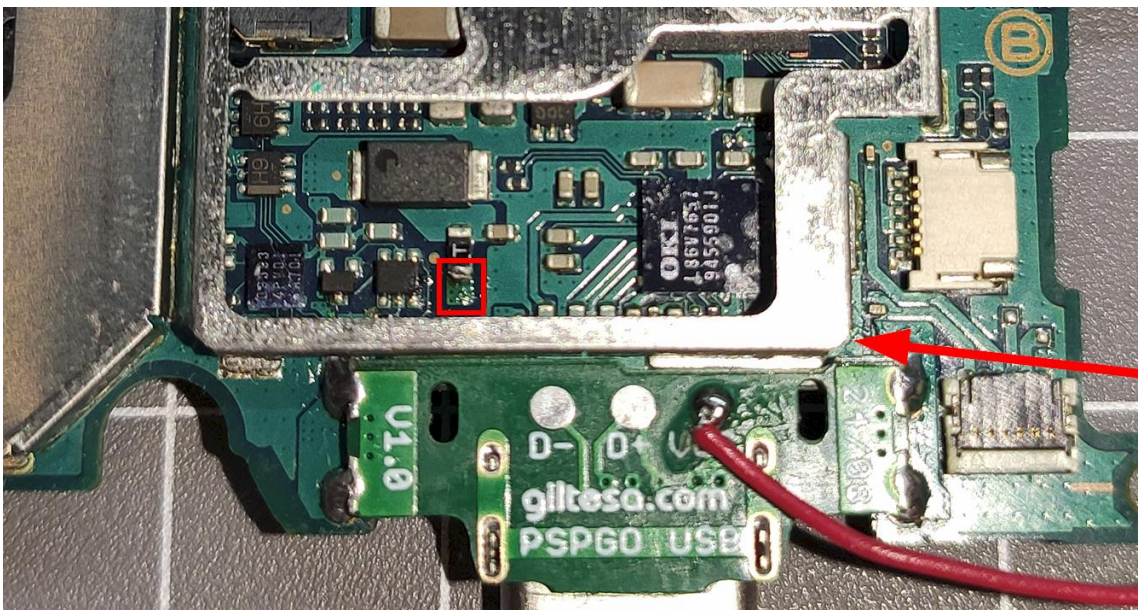
- Use a USB microscope to at least verify that the connections are correctly made and that there are no short circuits. If you can use it while making the connections, even better.

- There are alternative points where you can solder the cables, but they are all more complicated than soldering the cables to the pads where the original charging connector was located.

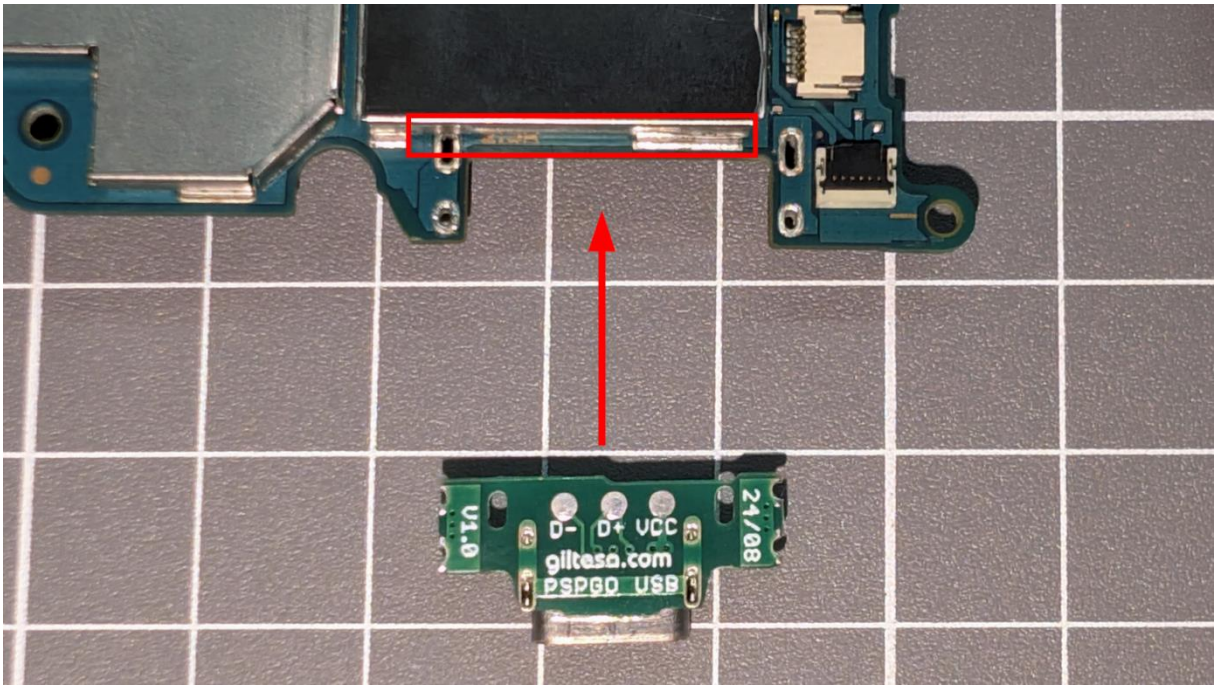
  Here are all of them. For VCC, marked in red, all three pads need to be soldered together, even if you don’t solder the cable there. Otherwise, the console won't detect that it needs to charge.



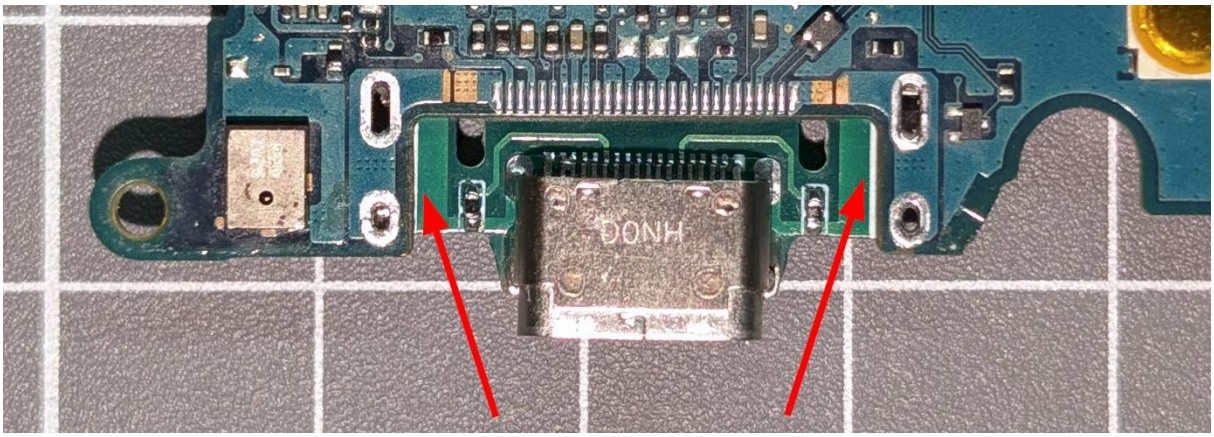
  If you use this alternative point for VCC, you can route the cable through the corner indicated by the arrow (be careful not to scrape it and lose the enamel coating).



When installing the board, make sure it is in contact with this metal shield at all times.

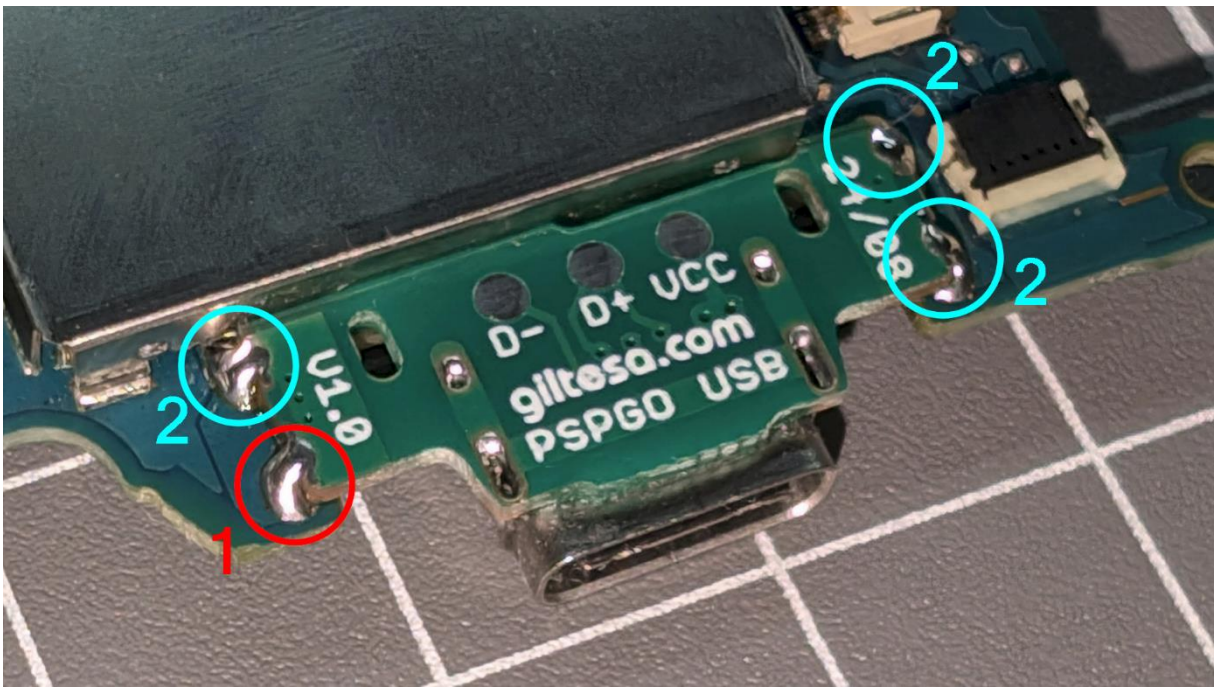


In addition, you'll notice that the USB-C board has a white line marked on both sides. You need to align these lines with the outline of the mainboard. Make sure the lines are visible and not covered. This ensures that the connector is properly centered.



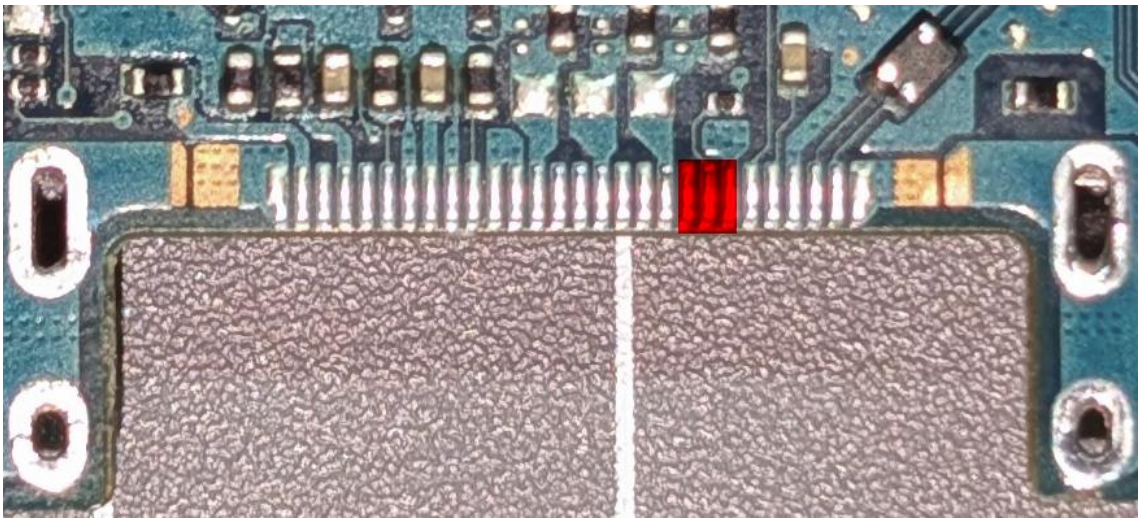
Once the connector is in position, flip the mainboard over and solder one of the side pads to secure both boards together. (1)

Ensure that the USB-C connector remains well-centered and that the board is completely flat relative to the mainboard. If it's not, heat the solder on the pad you've already soldered and adjust the board to the correct position. Once the board is centered, solder the other 3 pads with additional solder(2)



It's time to solder the cables between the USB-C board and the mainboard of the console.

In this step, the pads of interest are the three colored in red, which are the VCC pads. One of the pads is the power input, and the other two detect the presence of power. Therefore, **it's important that all three pads are connected together and with the cable**.

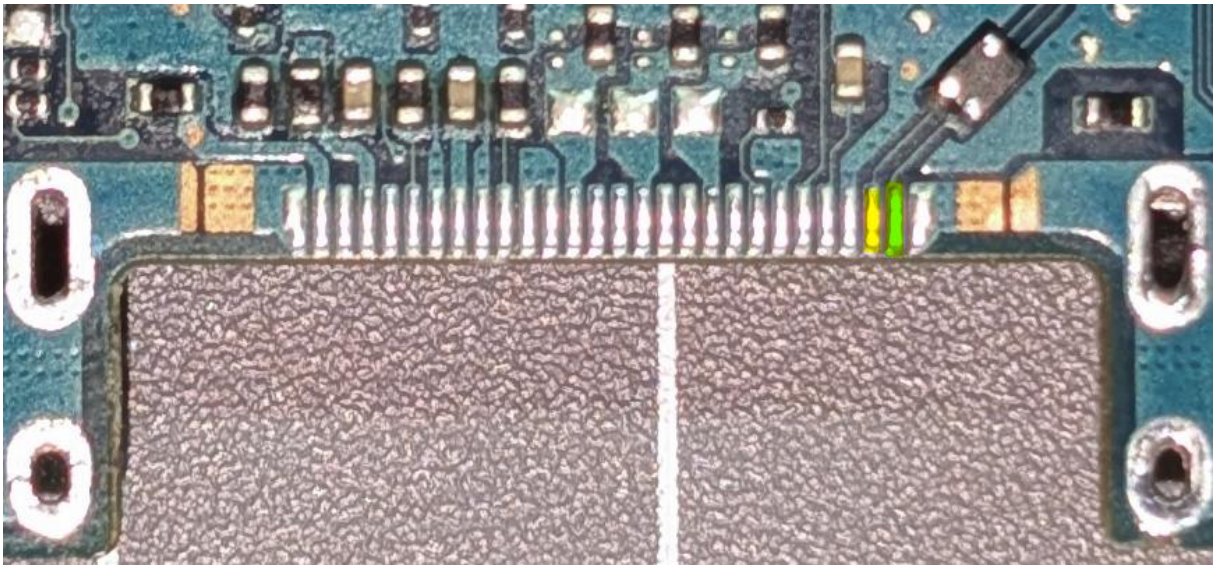


Use the included cable to make the connection between those three pads and the VCC pad on the USB-C board.

You should use the hole next to the VCC pad to allow the cable to pass from one side of the board to the other.

Although the cable is enameled, make sure it does not touch any metal areas.

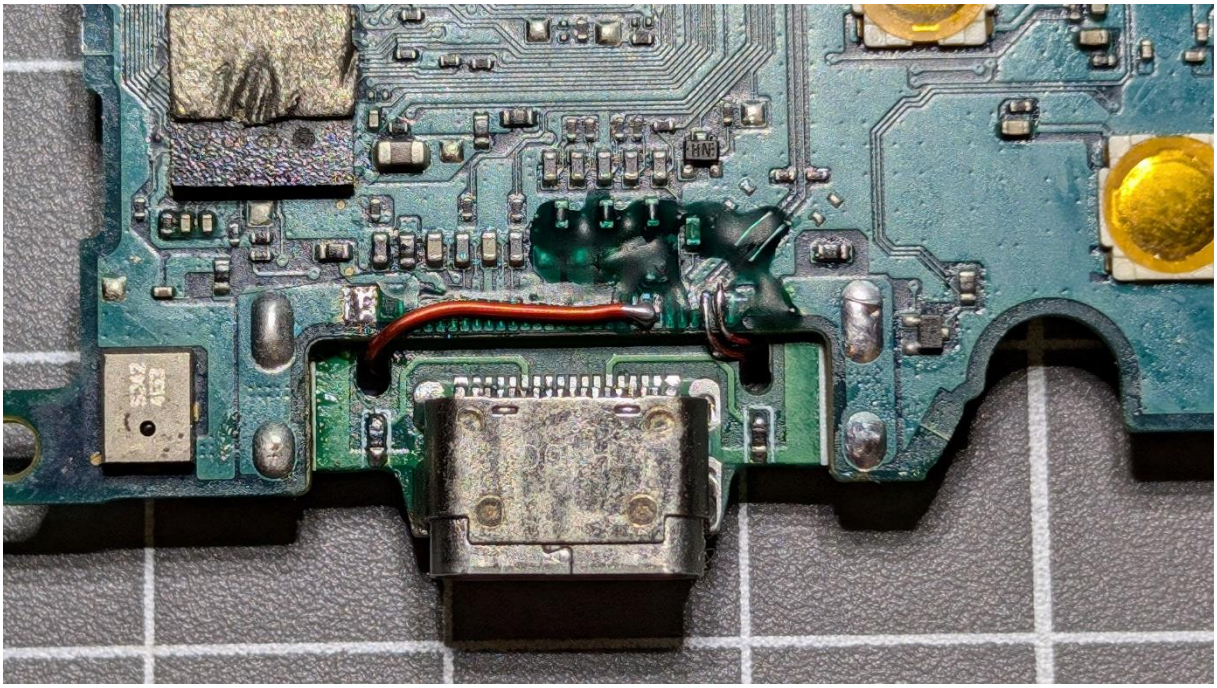
For the data line, there are two cables to solder: the DATA+ cable colored green, and the DATA- cable colored yellow.

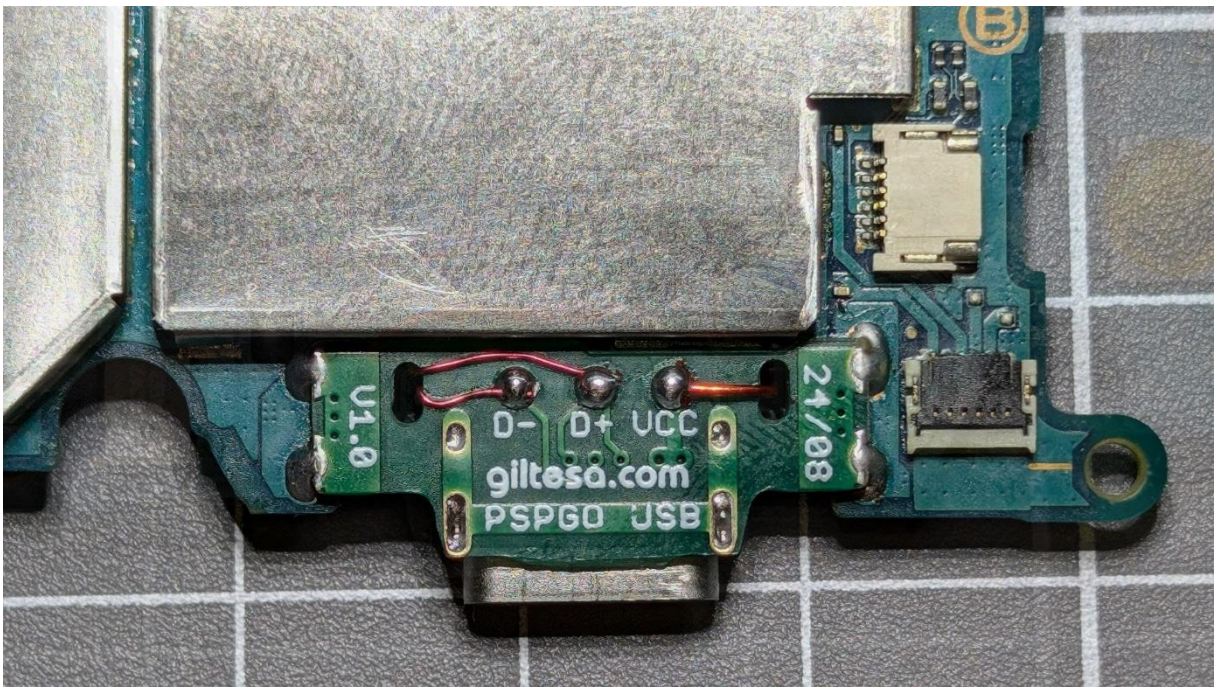


In this case, use the thinner gauge wire for the connection. First, solder one of the data lines and then use the leftover cable to solder the other line.

Route the cables from one side to the other using the opposite hole.

Regarding my installation, unfortunately, **during the product development and multiple tests, the circuit deteriorated significantly**. When I get another PSP Go, I will update the images with decent ones.

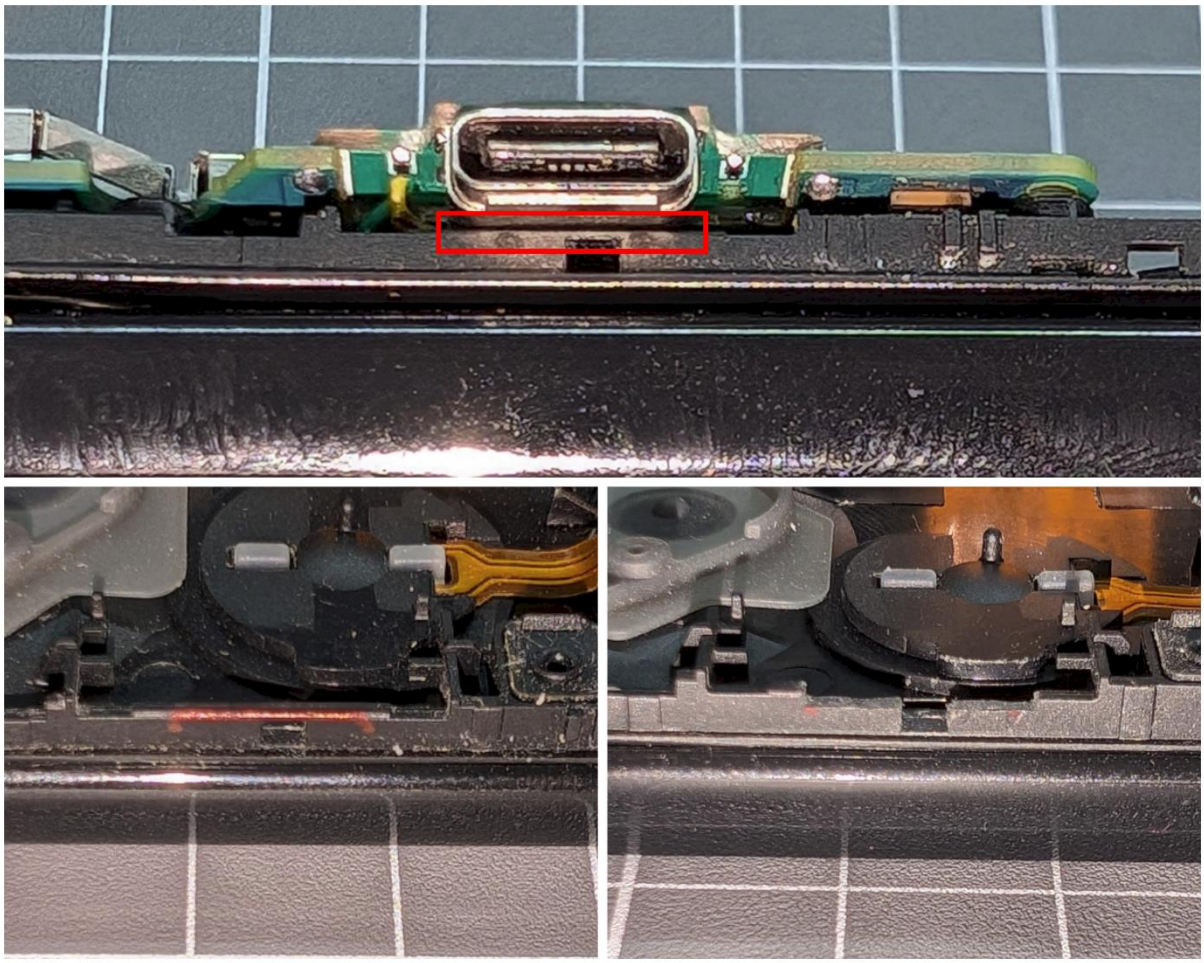




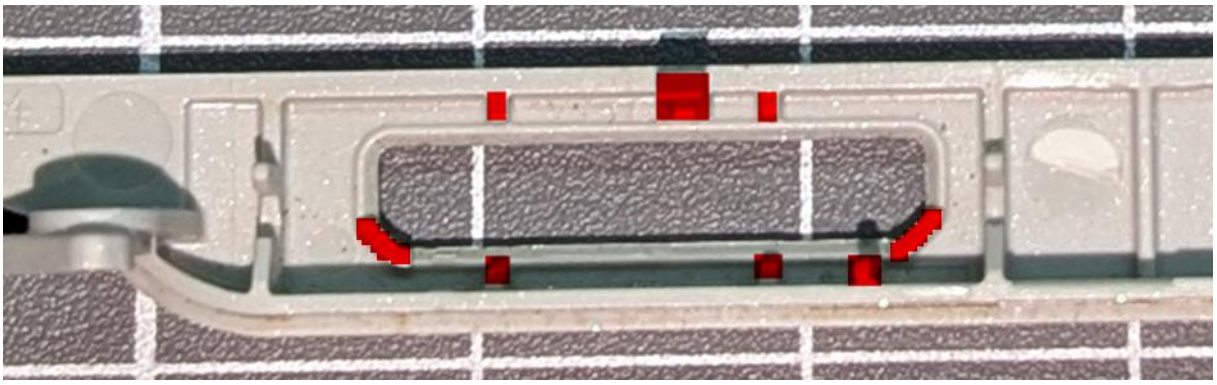
3. CUTTING THE BACK PLASTIC SHELL

Currently, the board cannot be mounted in the shell as the connector clashes with everything: the front casing and side trim. Some adjustments are necessary.

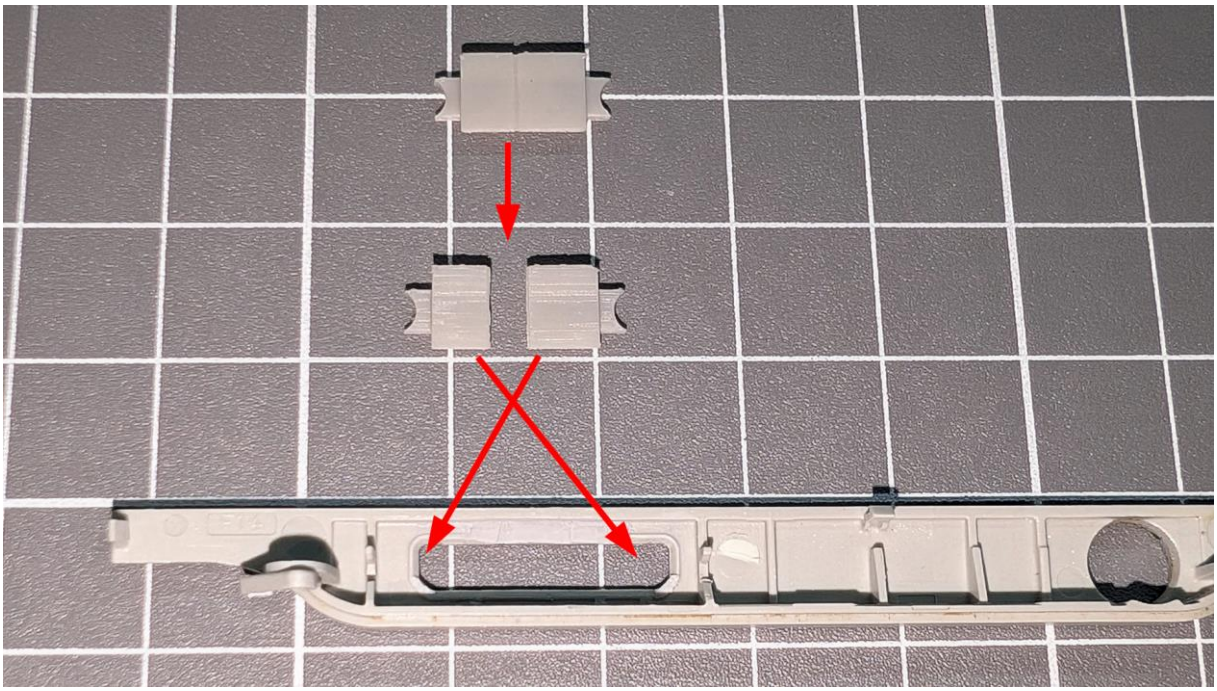
First, you need to trim about 1mm from this area of the casing, which will ensure the circuit sits correctly.



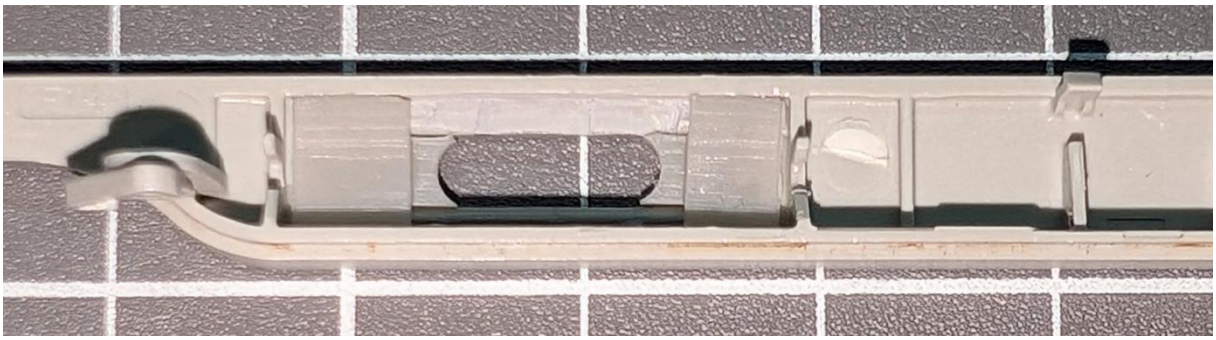
Next, you need to trim these areas of the side trim so that the USB-C can protrude through the hole.

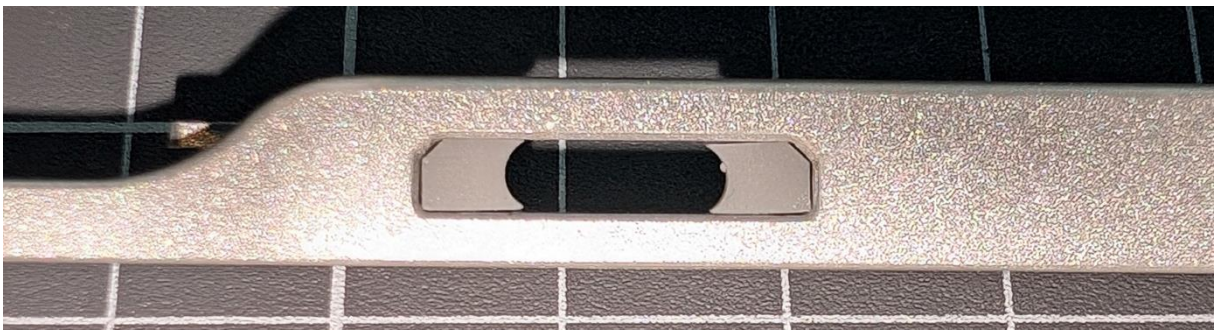


Once those cuts are made, you can install the supplied plastic cab. First, you must divide it into two parts:



Then, with a bit of superglue, you can stick each part in place.





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

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.