SUPER NINTENDO 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._

DESCRIPTION

The **Super Nintendo: USB-C Kit** is a board that allows to replace the original power 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 power up your Super Nintendo with a standard USB-C charger**, such as the charger for your **Nintendo Switch**, phone, or laptop, you can do so with this kit.

Moreover, with this board, **you can remove the original, old, and inefficient power converter**. Since the console operates at 5V, you only need the power from USB-C and a regular charger.

FEATURES

- Exact **shape for Super Nintendo / Super Famicom**.
- **External power** through **USB-C.** [1]

 [1] The USB-C requires trimming of the shell.

INCLUDED

- 1 USB-C board.
- 1 Power cable (with connector JST 1.25 2P)
- 1 Plastic cap for the USB-C board.

RECOMMENDED / REQUIRED [NOT INCLUDED]

- [4.5mm gamebit](#) and phillips screwdrivers.
- [Cutting plier](#).
- [Cutter](#).
- Tin soldering iron.
- Tin.
- Flux.
- Isopropyl alcohol.

BOARD DETAILS

There is a 2-pin 1.25mm JST connector to connect the included cable, so there is no need to solder anything on the board. The following explains what each pad is for.
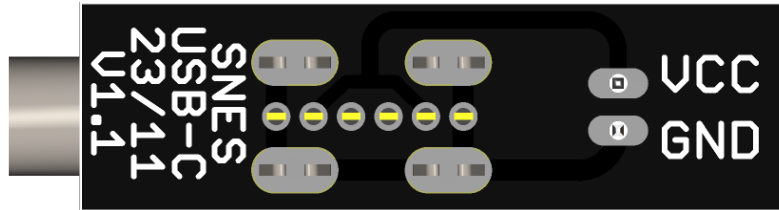
- **VCC**: The +5V line output to power the SNES main board.
- **GND**: The ground pad.

INSTALLATION STEPS

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

PRE INSTALLATION STEPS

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

1. DISASSEMBLY THE SUPER NINTENDO

Nintendo products in general use two kind of screws. The first one called **gamebit** to close the shell, and the second one called **phillips** to hold the main board to the shell.
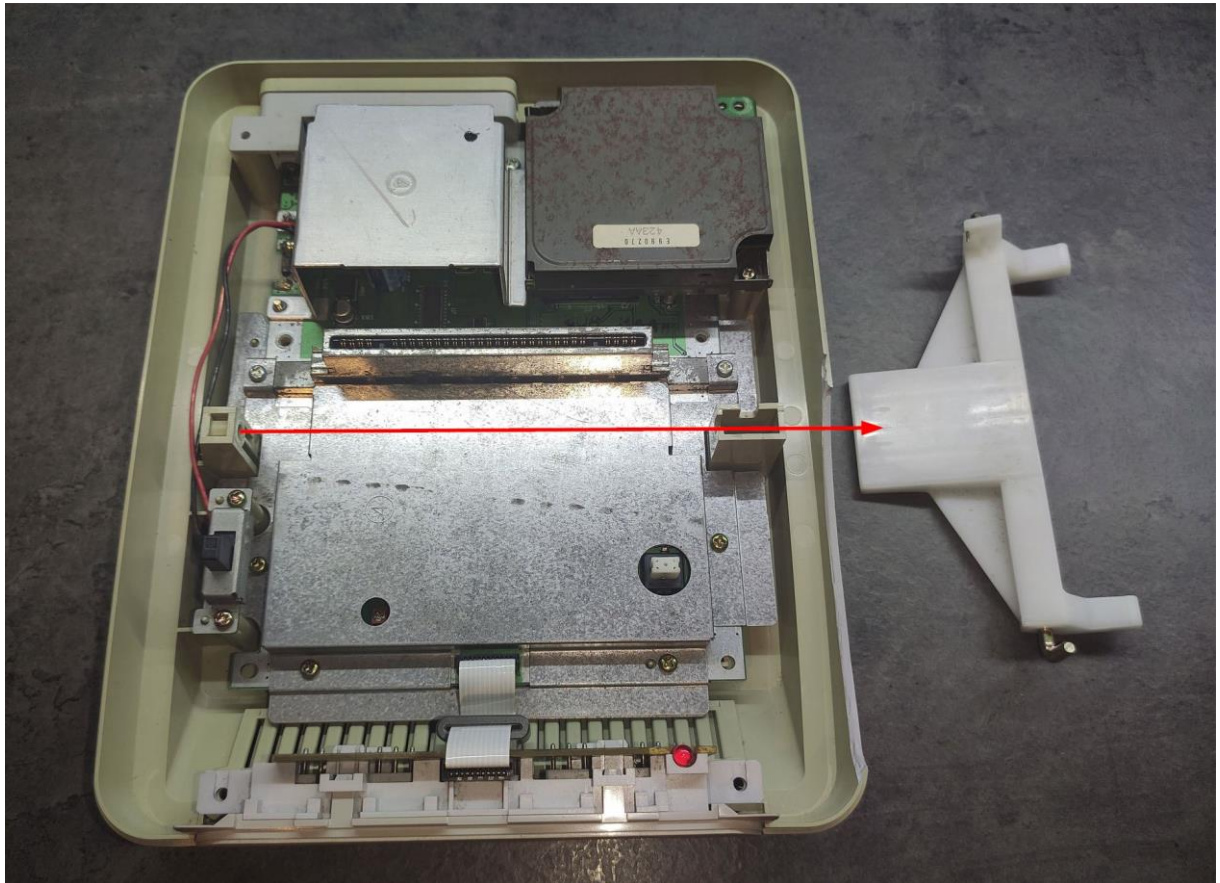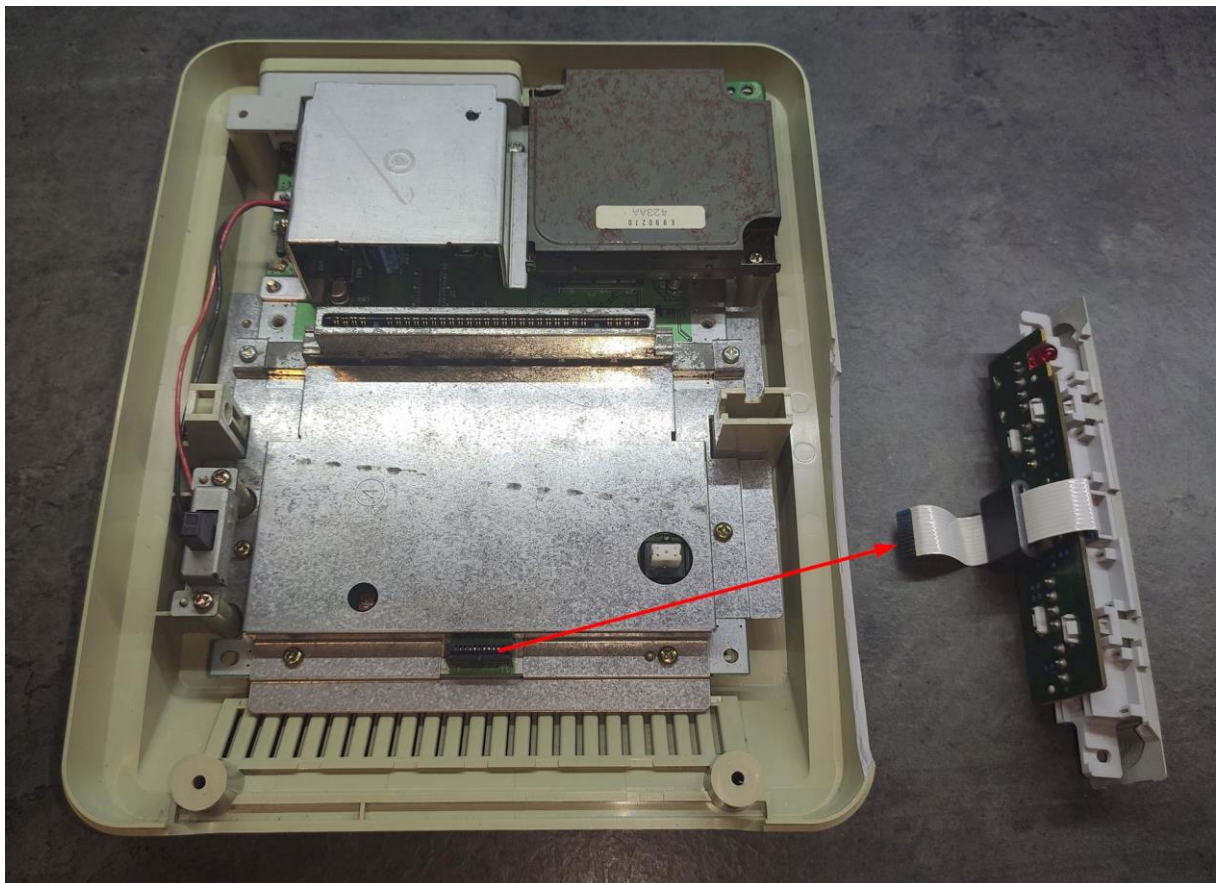

Gamebit screwdriver

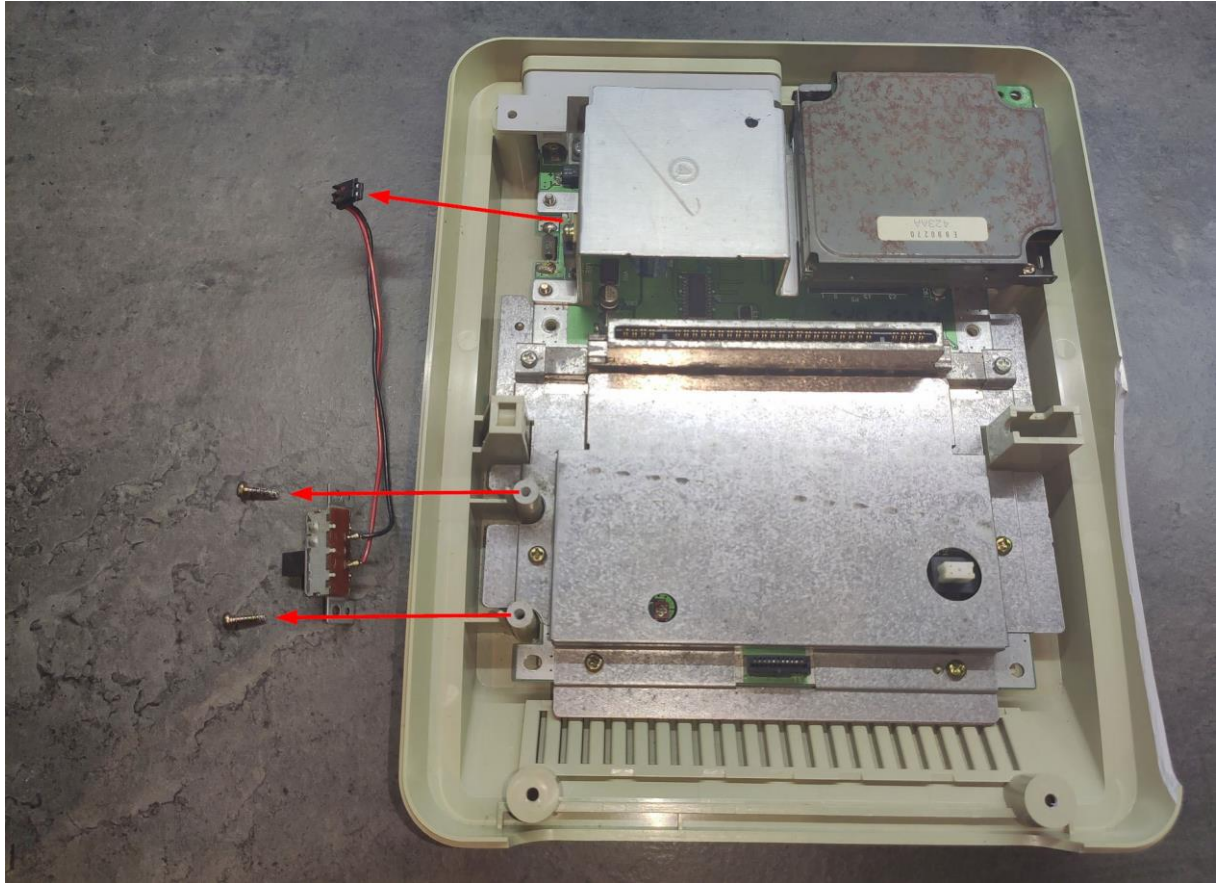Use the 4.5mm **gamebit** screwdriver to open the shell and remove the 6 **gamebit** screws.

Now remove the plastic that allows you to eject the game cartridges. Be careful not to lose the spring.
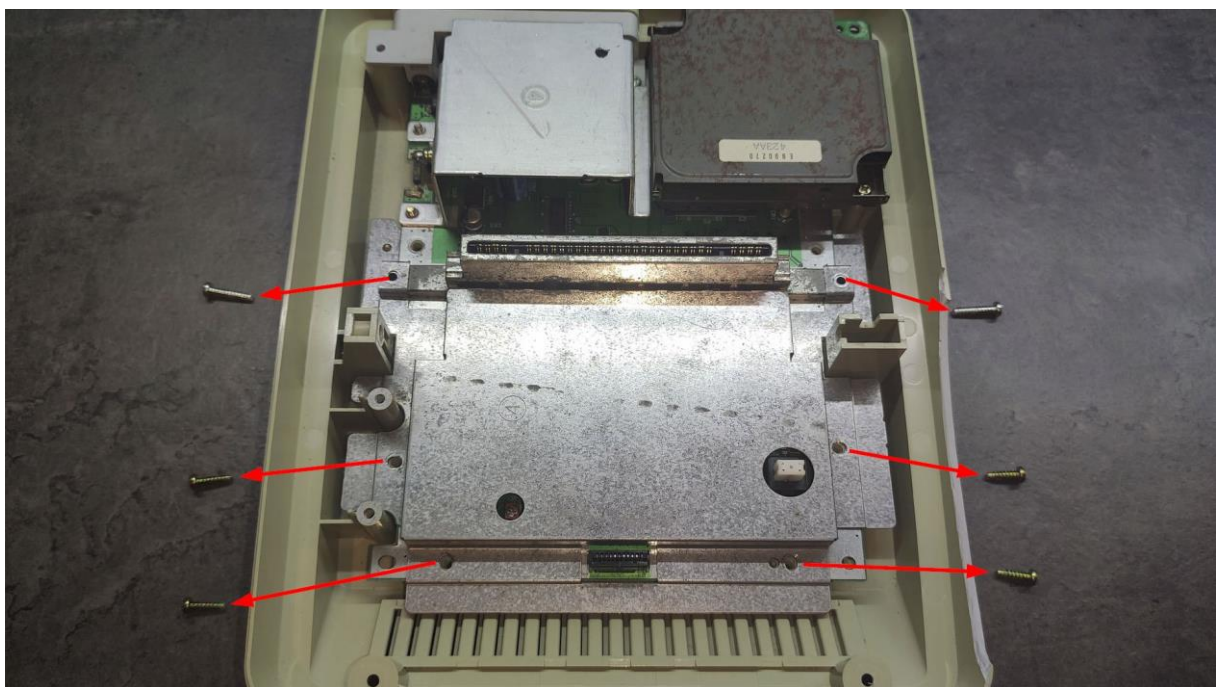

Disconnect the front panel where the game controls are connected.
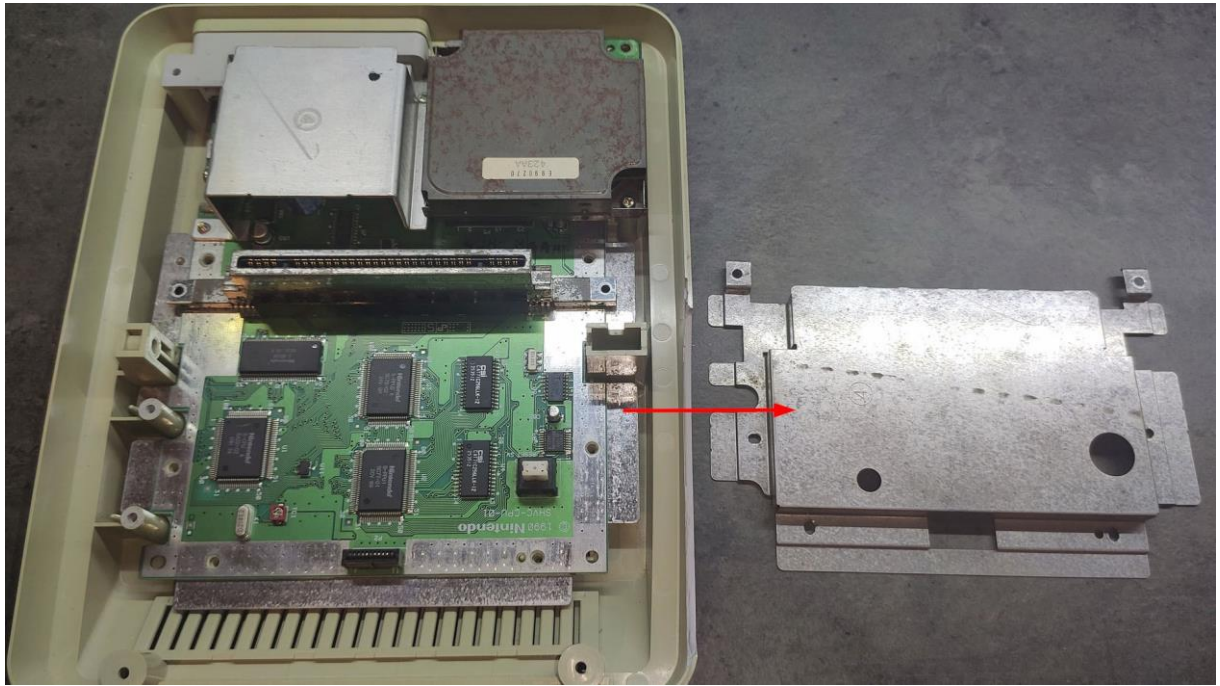
Disconnect the power switch cable of the SNES, remove the screws, and set the switch aside as well.
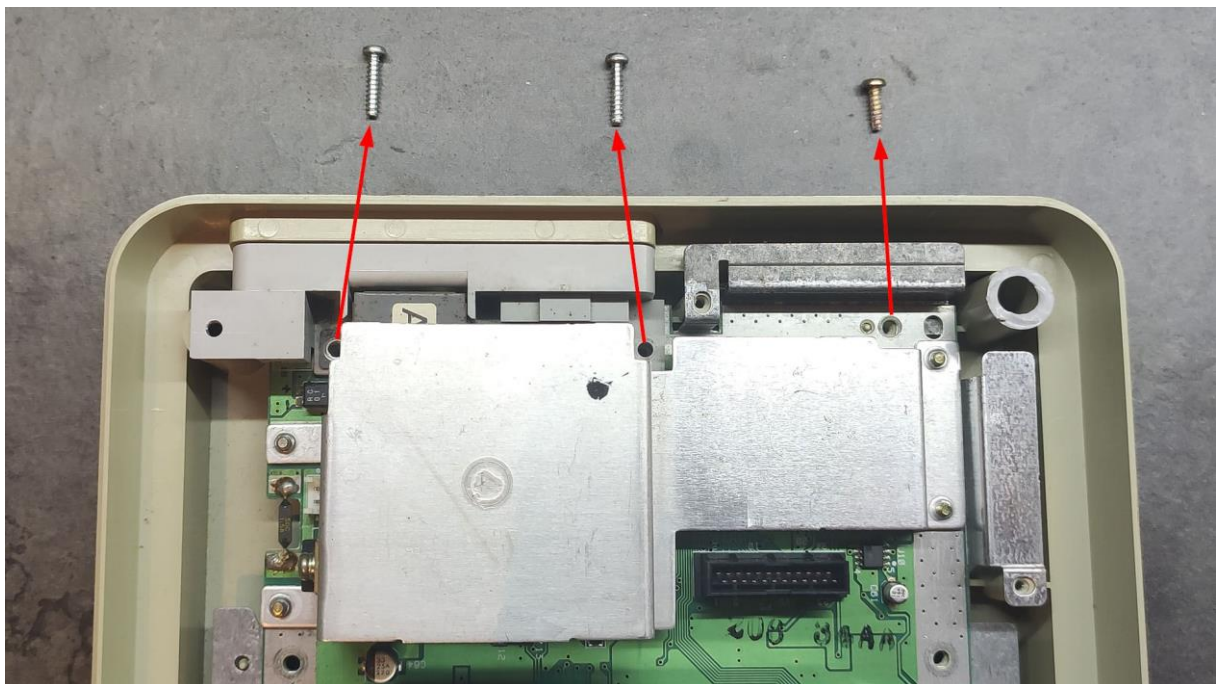

The next step is to remove the metal covering the motherboard; remove the six screws to do so.

Now, the metal cover can be removed.

Remove the last 3 screws holding the motherboard to the lower plastic shell.

As the voltage regulator included in the console is going to be removed, this allows us to also remove the aluminium heatsink.

After finishing the installation, do not reinstall this part or the screws marked with the red arrow, it's not necessary! (But you must reinstall the screw marked in blue).
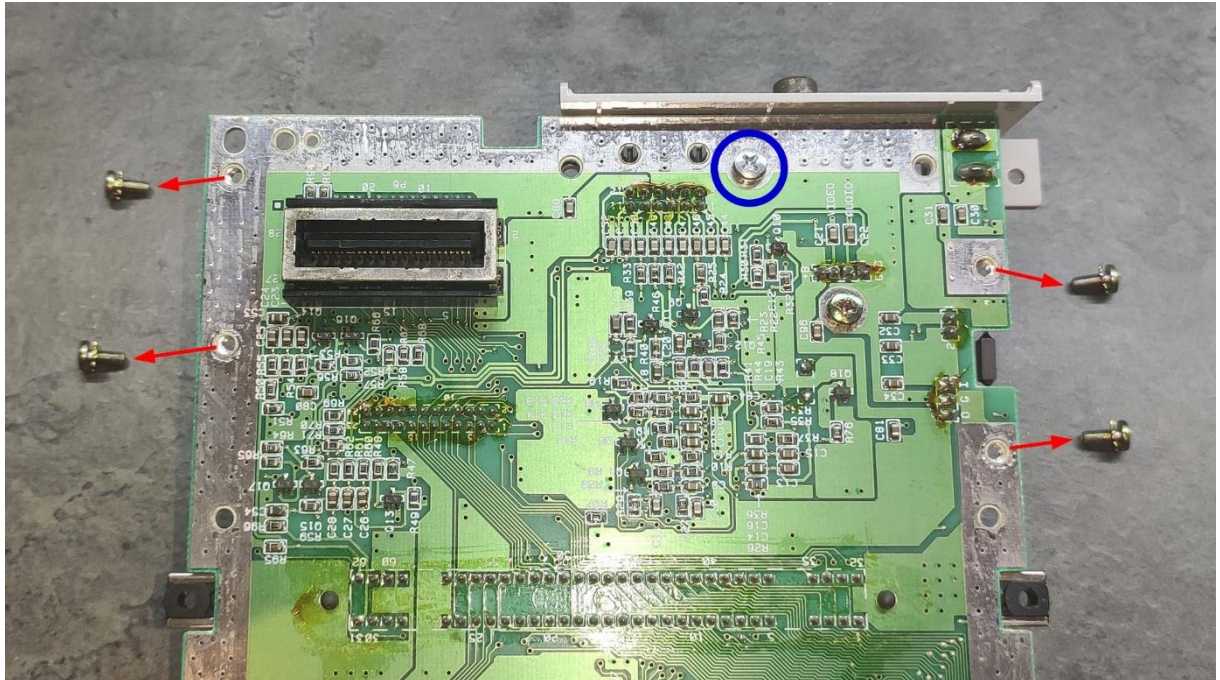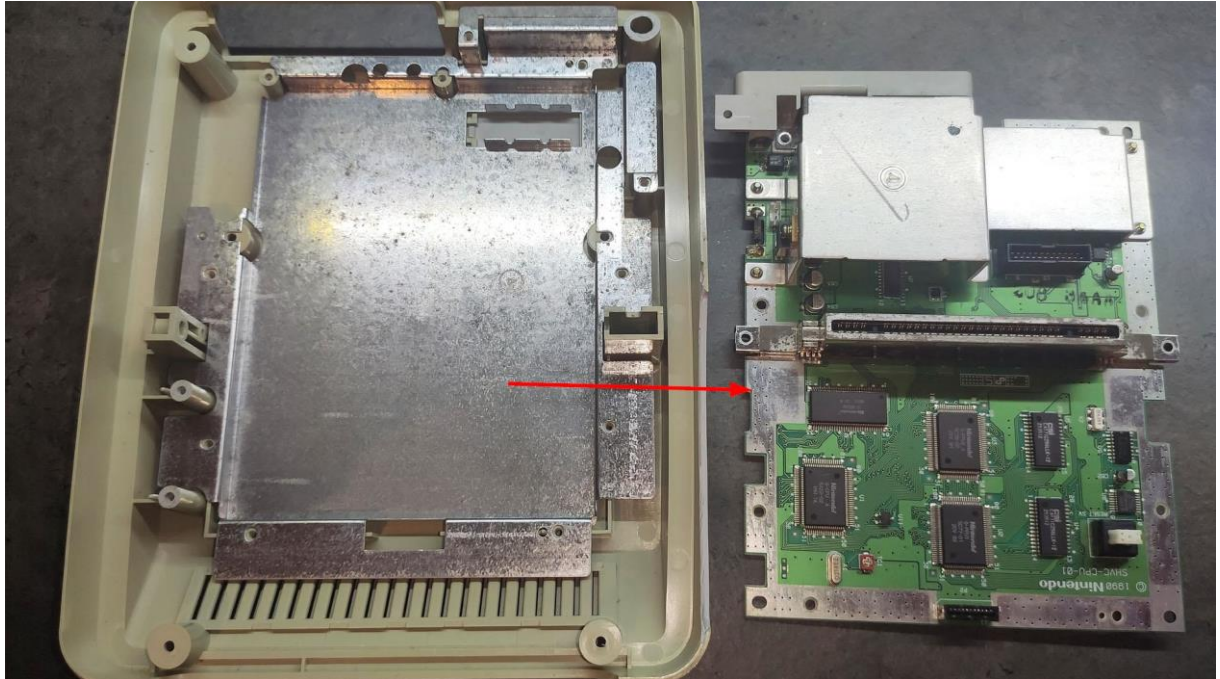
There is one more screw on the left side; this screw makes the voltage regulator make contact with the heat sink. Remove the screw.
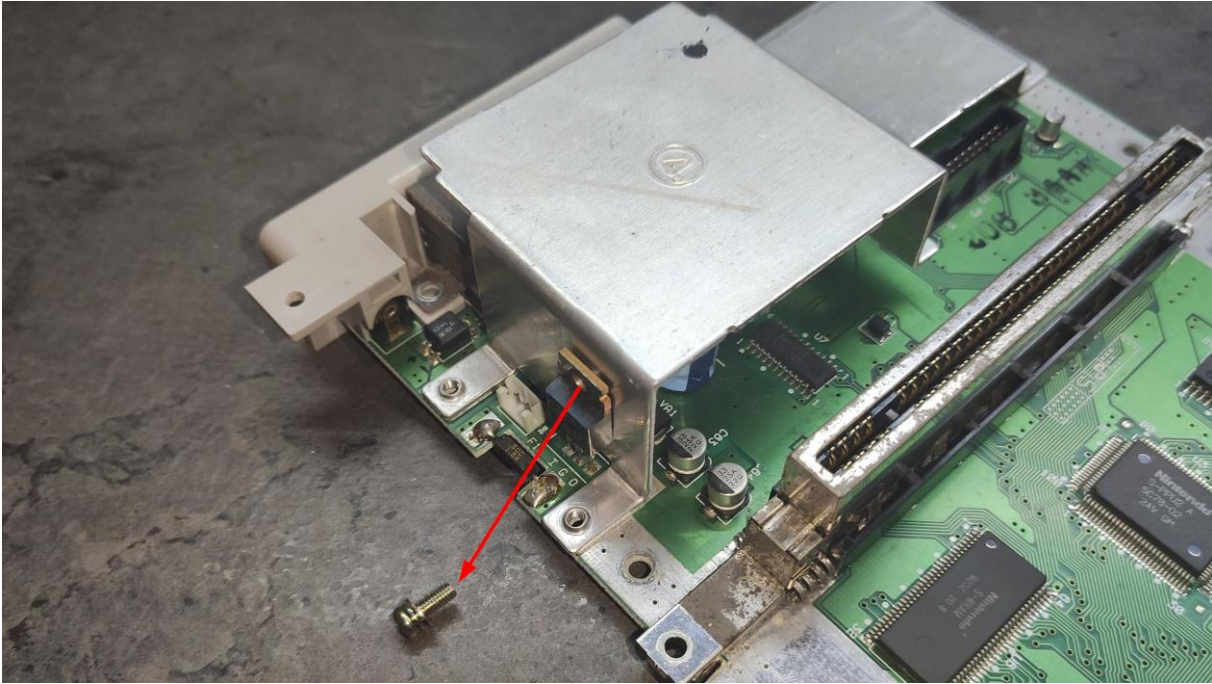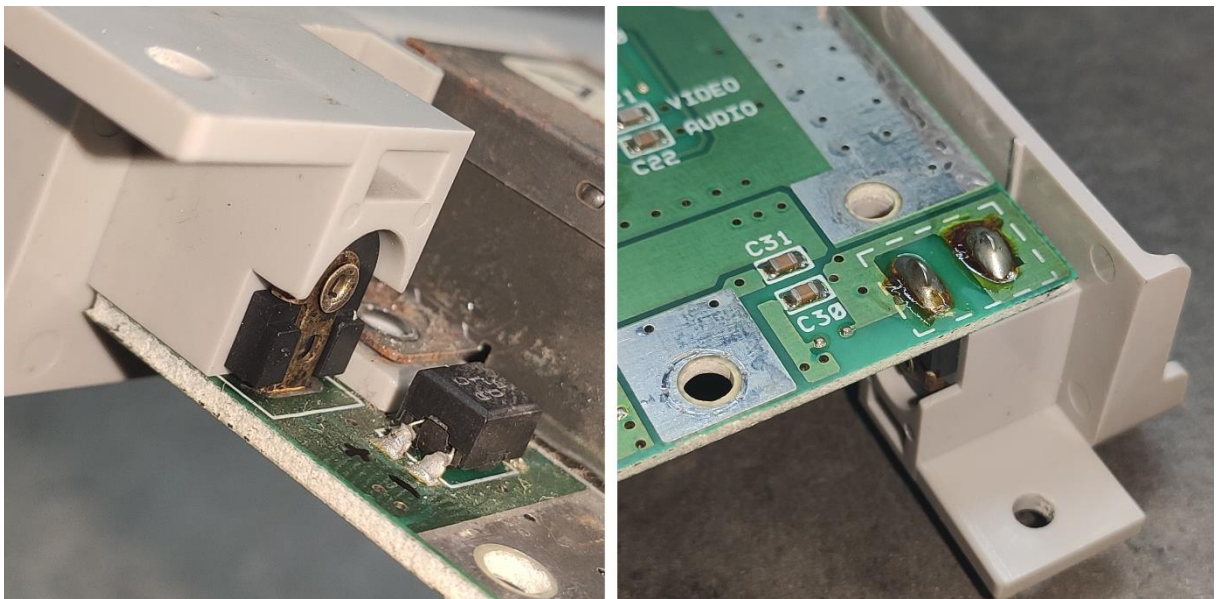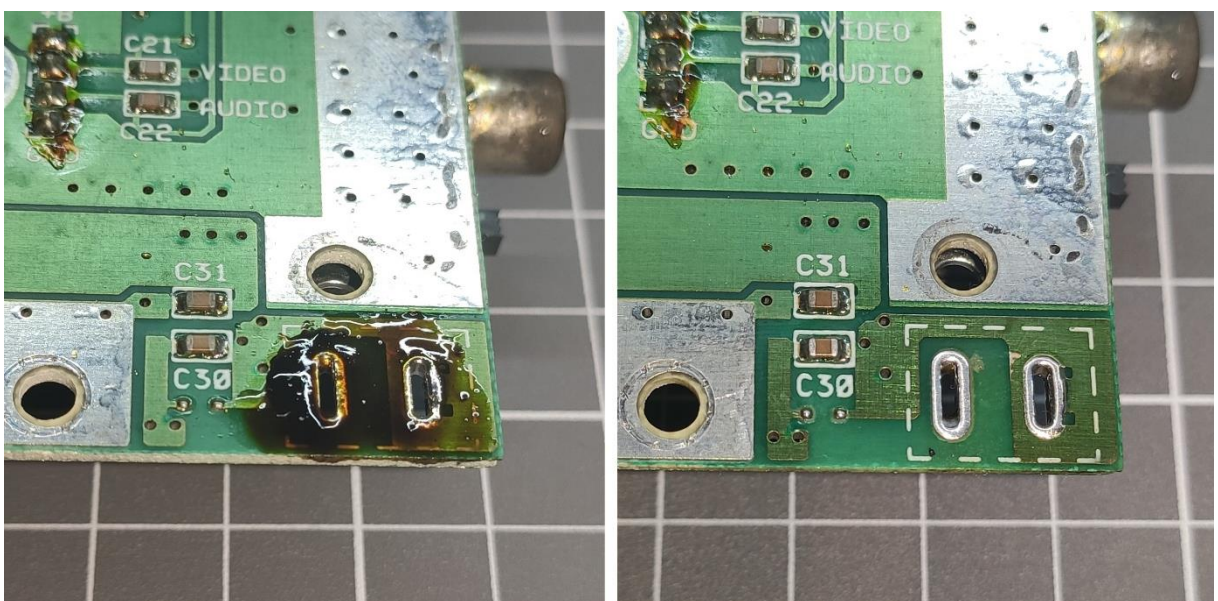
INSTALLATION STEPS

1. REMOVE UNNECESSARY COMPONENTS

You will need to remove the rear plastic where the power and image connection connectors are located. This plastic has the power connector integrated, which means that it cannot be removed until we desolder the connector.
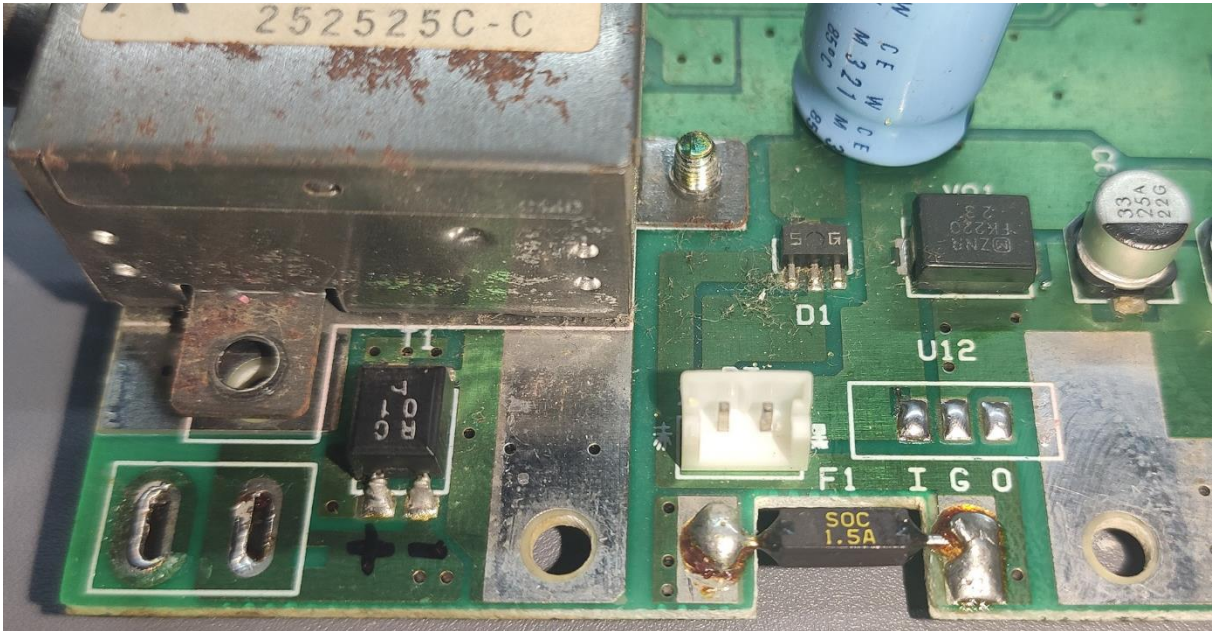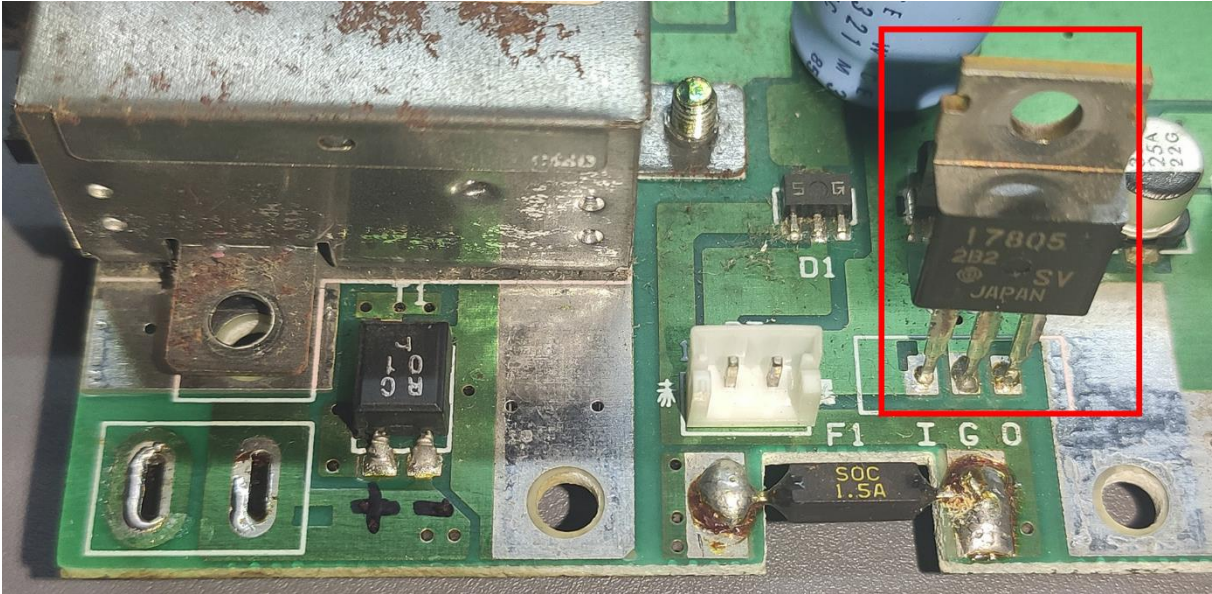
When you unsolder the connector, be very careful, as doing so may cause the plastic to start melting.

After removing the connector, clean the board with alcohol.

You will also need to remove the voltage regulator.

2. CABLE INSTALLATION

Now you can solder the included cable in the kit as follows, making sure that the red wire and the black wire are securely soldered in the correct positions.

Furthermore, if you notice, the surplus cable has been used to create a bridge between the **I** (INPUT) and **O** (OUTPUT) pins of the voltage regulator.

> *(Since the SNES is now powered with 5V, a voltage regulator from 10V to 5V is no longer necessary. That's why a bridge is created between its input and output)*
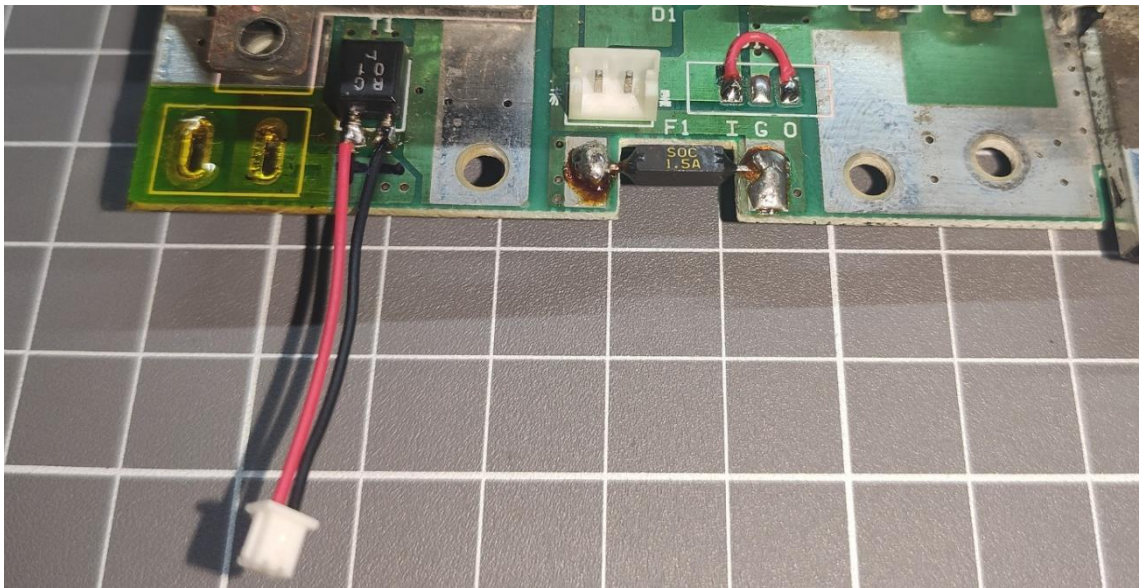

IMPORTANT NOTE: It seems that **some models of SNES have reversed polarity**. Before soldering the cable, **make sure that the red cable is connected to the VCC pin of the SNES, likewise, ensure that the black cable is connected to the GND of the SNES.**

One way to verify where to solder each cable is to check which of the cables is connected to the console's ground plane. For example, in my SNES, all these points have continuity and cause the speaker of my multimeter to beep (when it is set in continuity test mode).
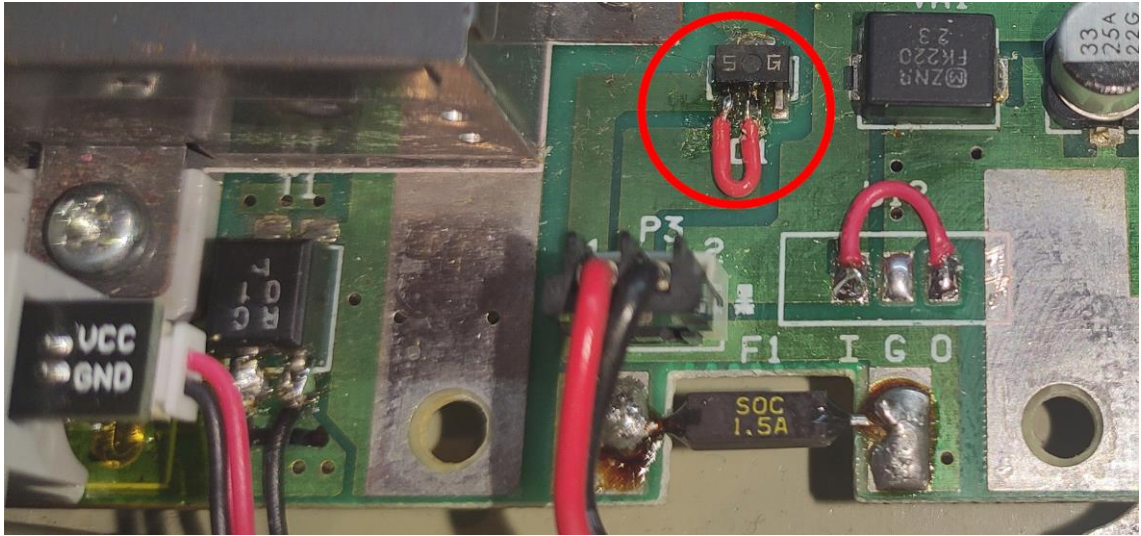
Then, check which pin is GND, and by process of elimination, you'll know which one is VCC.
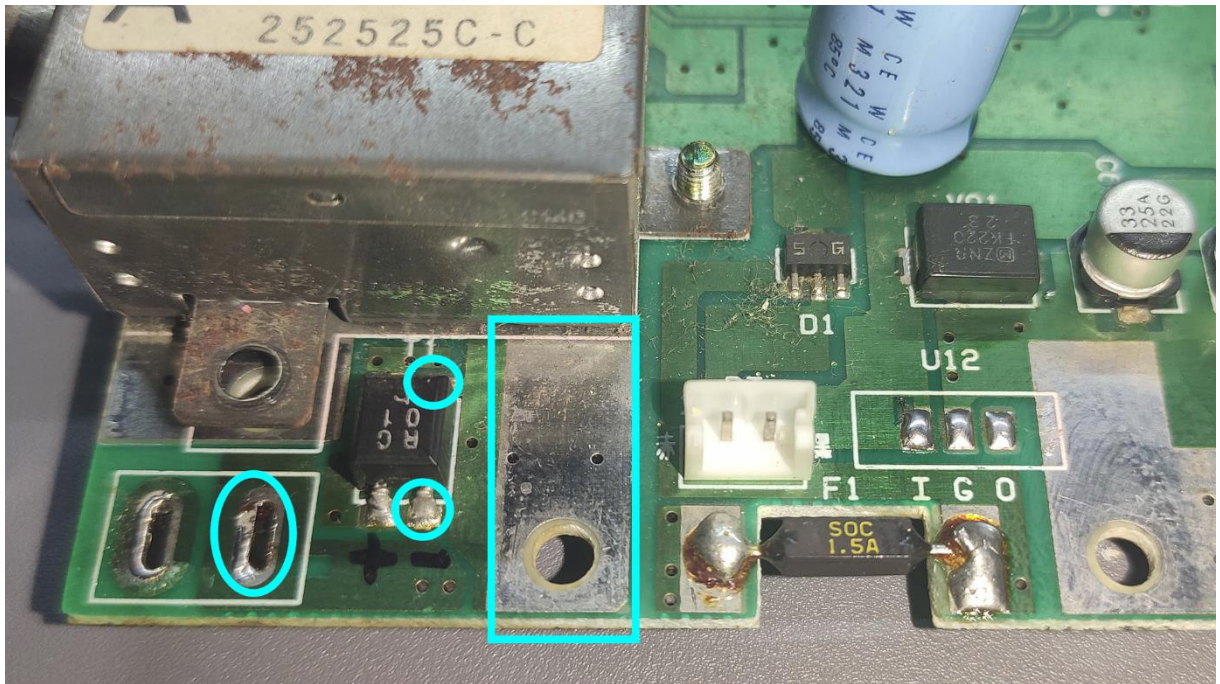
Therefore, by process of elimination, we know that these pads are connected to VCC.
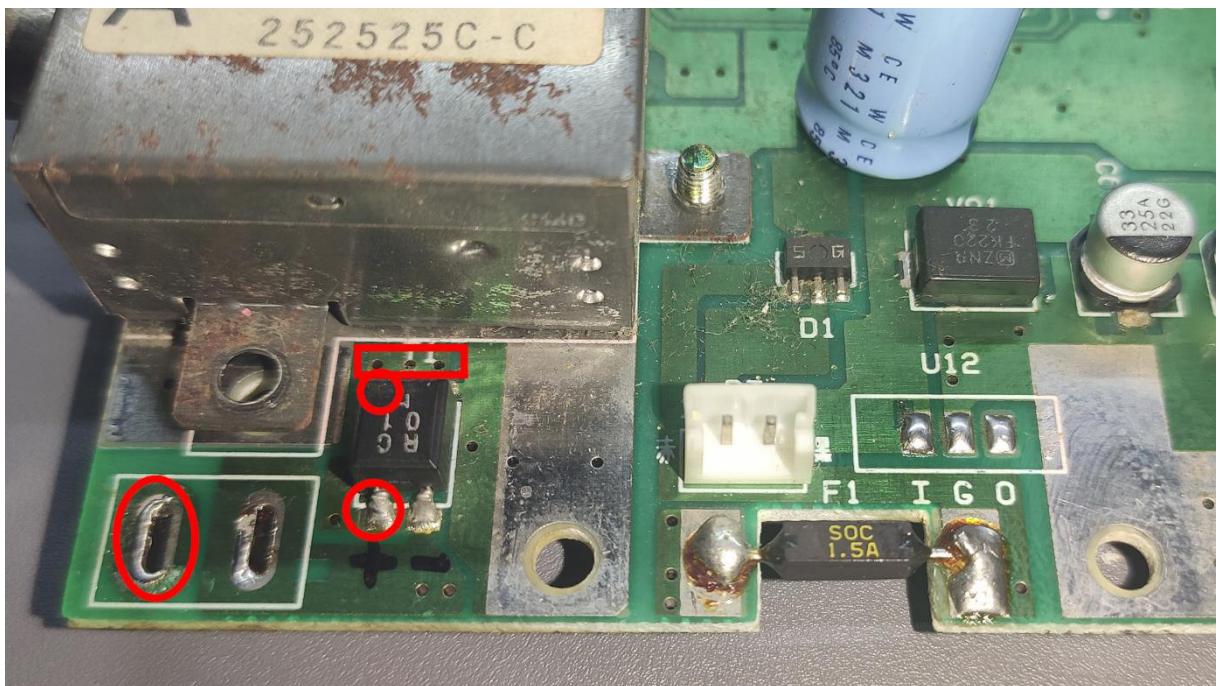
Possibly, you may also need to bridge these two points because that component (a diode) causes the voltage to drop between 0.3 to 0.5V, resulting in the SNES receiving only 4.5V instead of 5V.
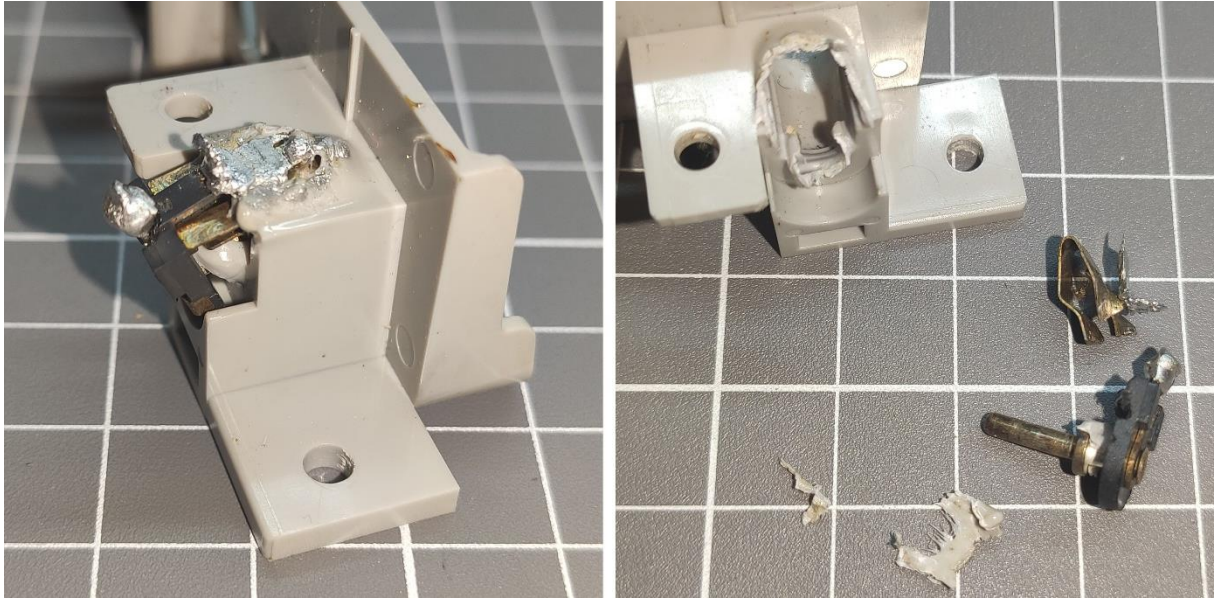

At that point, if you want, you can connect the USB-C board and test that the console works.

3. REMOVE THE CONNECTOR

In my case, I overheated it, and the plastic melted. This is not a problem because we will have to trim certain parts to make space for the new connector.

Remove the connector parts using cutting pliers.


4. MODIFY THE PLASTIC

Now we need to start modifying the plastic in order to install the new connector. First, remove the plastic from the sides to make it look just as shown in these images.

Don't worry if it's not perfect, this part can't be seen from the outside.

Afterward, a groove needs to be made that connects the main hole of the connector with the rectangular hole located just above it. This groove should be made in the center and should have a width of about 3.3mm.

This will allow placing the board circuit inside the rectangular hole and for the USB-C to descend into the connector hole.
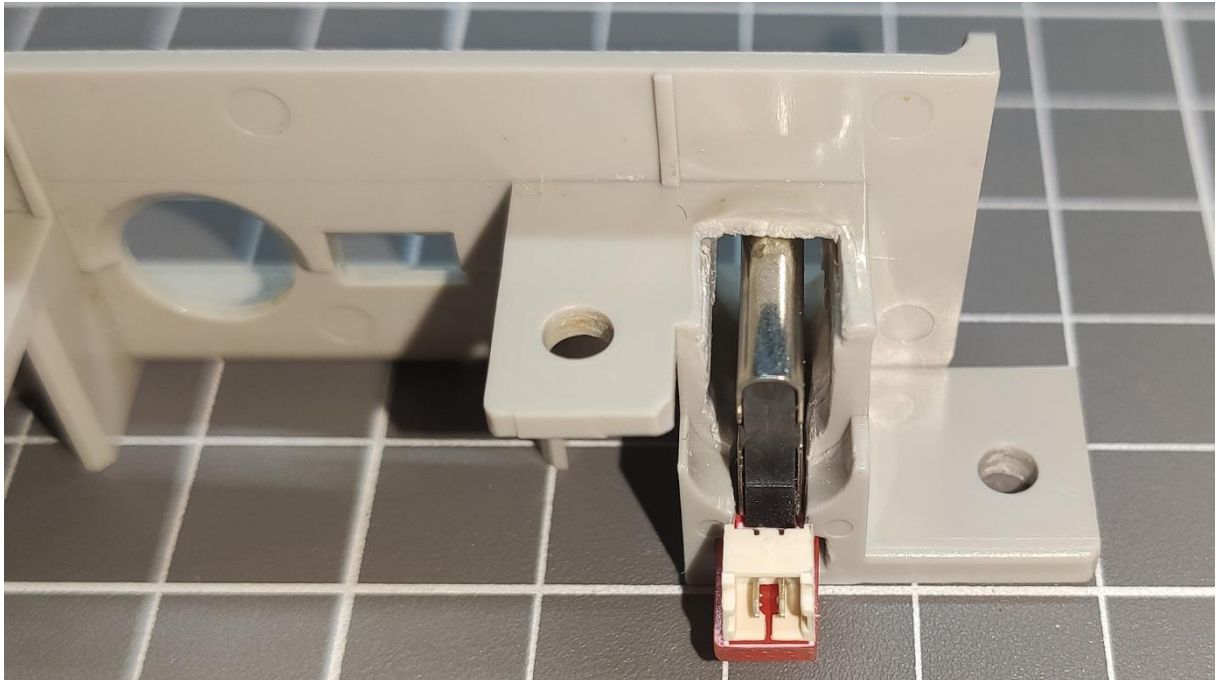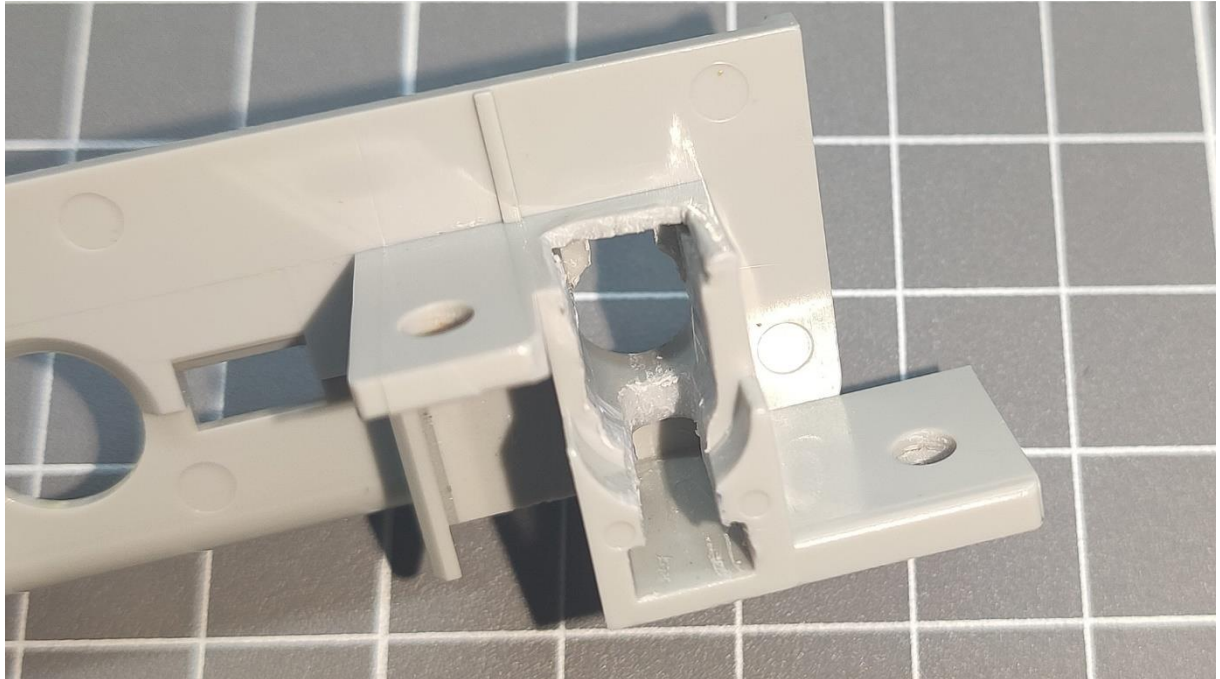
Finally, enlarge the front hole so that the USB-C can protrude. Place the board in its position, and you'll notice that the hole is not large enough. Gradually file the plastic and test with the board until it is large enough.

Don't forget to place the plastic cap to cover the hole and achieve a perfect finish:

Once all the pieces fall into place, it is recommended to apply glue under the board to securely attach the board to the plastic. To do this, remove the board, apply the glue, and then put back the board and its plastic cab. Once the glue has dried, this part of the installation is complete.

5. DONE!

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