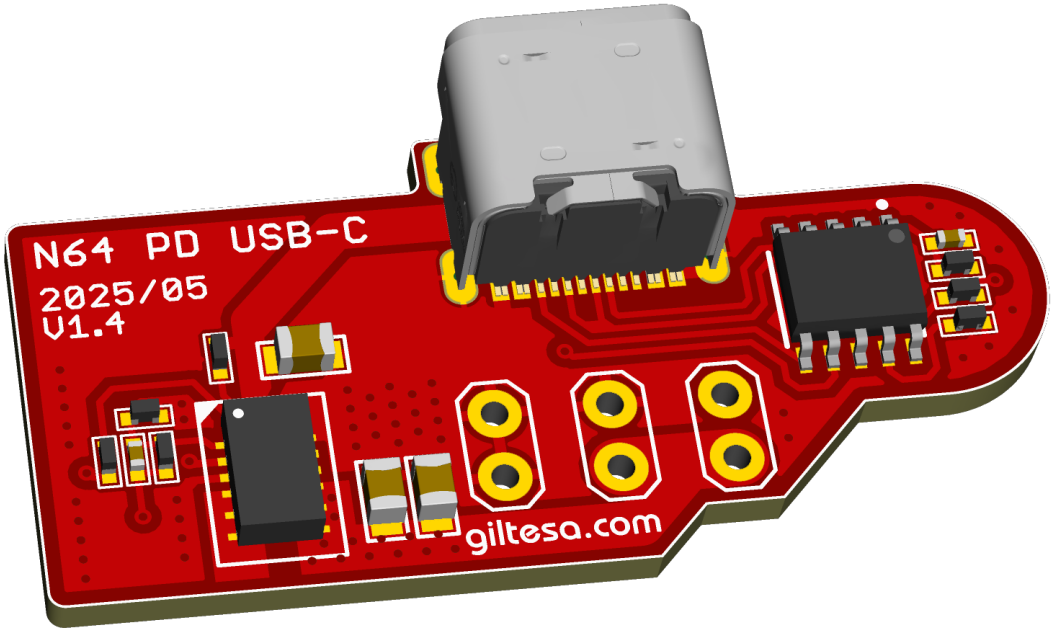
USB-C KIT FOR NINTENDO 64



PRODUCT

HTTPS://SHOP.GILTESA.COM/PRODUCT/NINTENDO-64-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 4
HOW DOES IT WORK? 4
FEATURES 4
INCLUDED 5
RECOMMENDED / REQUIRED [NOT INCLUDED] 5
NOTES 5
BOARD DETAILS 6
TEST THE BOARD! 7
INSTALLATION STEPS 8
PRE INSTALLATION STEPS 8
1. DISASSEMBLY THE NINTENDO 64 8
2. REMOVE UNNECESSARY PARTS 11
INSTALLATION STEPS 12
1. BOARD ASSEMBLY 12
2. DONE! 18
FREQUENTLY ASKED QUESTIONS – FAQ 19

DESCRIPTION

The Nintendo 64: USB-C Kit is a board that allows to replace the original power supply unit for a modern and standard USB-C.

If your original connector or power supply is too old or damaged and you need a new one, or if you would like to power your Nintendo 64 with a standard USB-C PD charger, such as the charger for your phone or laptop, you can do so with this kit.

HOW DOES IT WORK?

The USB-C Power Delivery technology (USB-C PD) allows for communication between the device and the charger, enabling the negotiation of the voltage to be supplied through the USB-C cable. In this case, the microchip included on this board is configured to request 9V, signalling to the charger that it requires 9V to operate. If the charger is compatible, it will supply the requested voltage. If it's not compatible, nothing will happen, and the Nintendo 64 won't power on.

As is well known, the original power supply unit provides not only 12V but also a 3.3V output. The kit includes a buck converter to supply this, ensuring that all electrical functions are covered by the kit. (The 12V rail can also be powered with 9V, which is how this kit works, resulting in higher energy efficiency)

FEATURES

- Exact shape for Nintendo 64.
- External power through USB-C.

INCLUDED

- 1 USB-C board.
- 3 header pins of two pins.
- 1 Plastic cap for the USB-C board *(black color)*
- 1 Aluminium heatsink.

RECOMMENDED / REQUIRED [NOT INCLUDED]

- 4.5mm gamebit and Phillips screwdrivers.
- Tin soldering iron.
- Tin.
- Flux.
- Desoldering pump.
- Isopropyl alcohol.

NOTES

This kit requires a special **power supply that supports power delivery (PD)** with an output of **9V** and a minimum of 3A. Generally, laptop power supplies and some phone chargers can be used. If you don't have any, take a look at the list of recommendations.

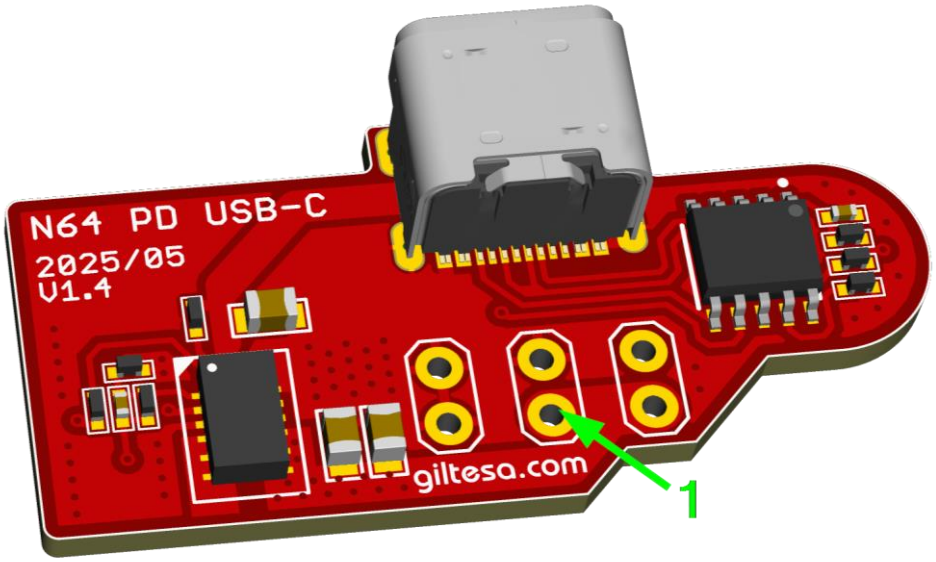
- Ikea SJÖSS 45W 12V 3A, 13€

You will also need a **USB-C to USB-C cable for PD**. If you don't have one, these will work:

- Ikea SITTBRUNN USB-C to USB-C 1m
- Ikea LILLHULT USB-C to USB-C 1.5 m

BOARD DETAILS

This small board comes almost fully assembled, except for the connector that will link it to the console.

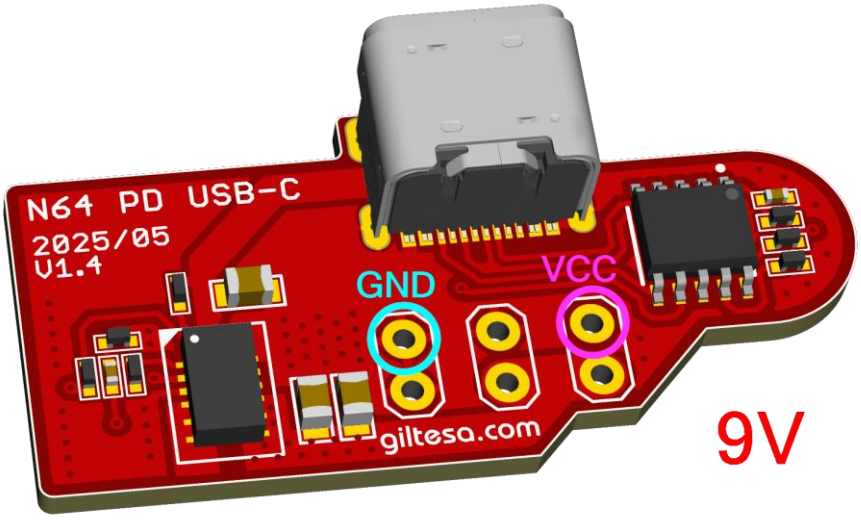


1. Pin connector for N64

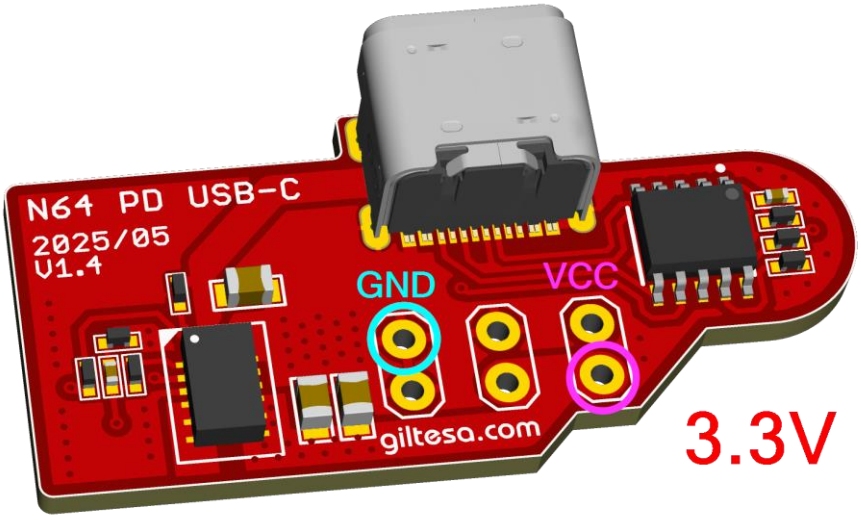
TEST THE BOARD!

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, using a multimeter in voltage measurement mode, **check for a 9V reading at these points:**



Next, **check for a 3.3V reading at these points:**



INSTALLATION STEPS

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

PRE INSTALLATION STEPS

Before the installation, your Nintendo 64 may need some extra steps to have it ready for the kit.

1. DISASSEMBLY THE NINTENDO 64

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.

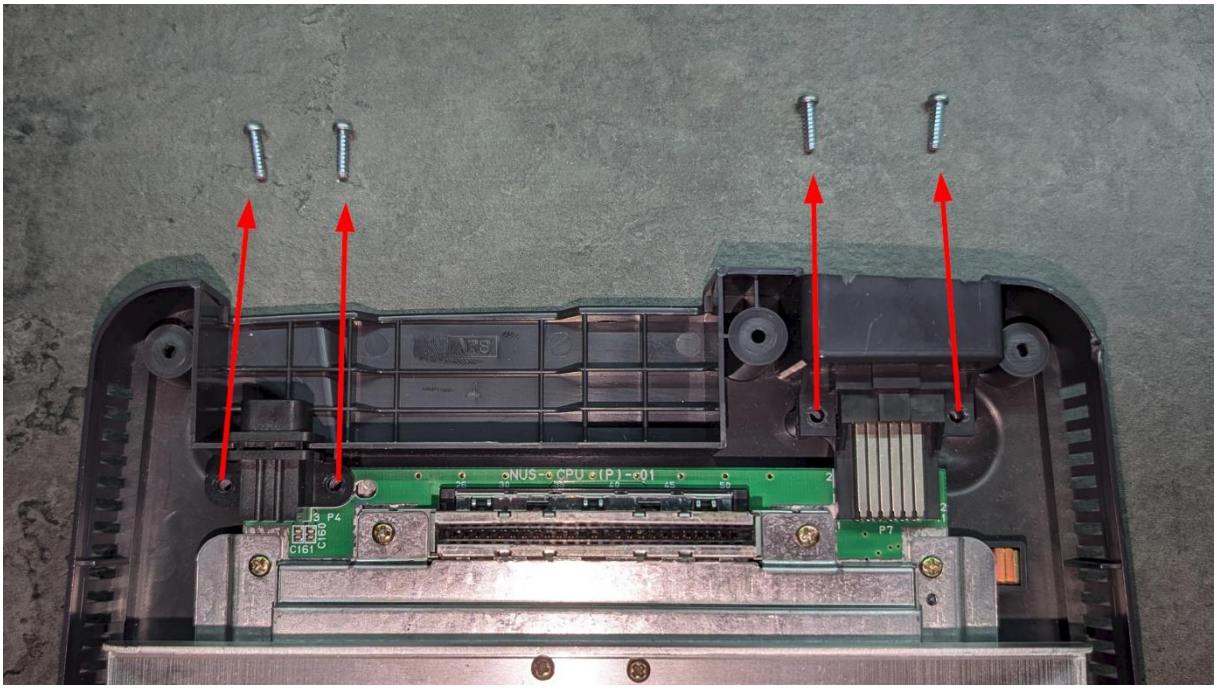


Gamebit screwdriver

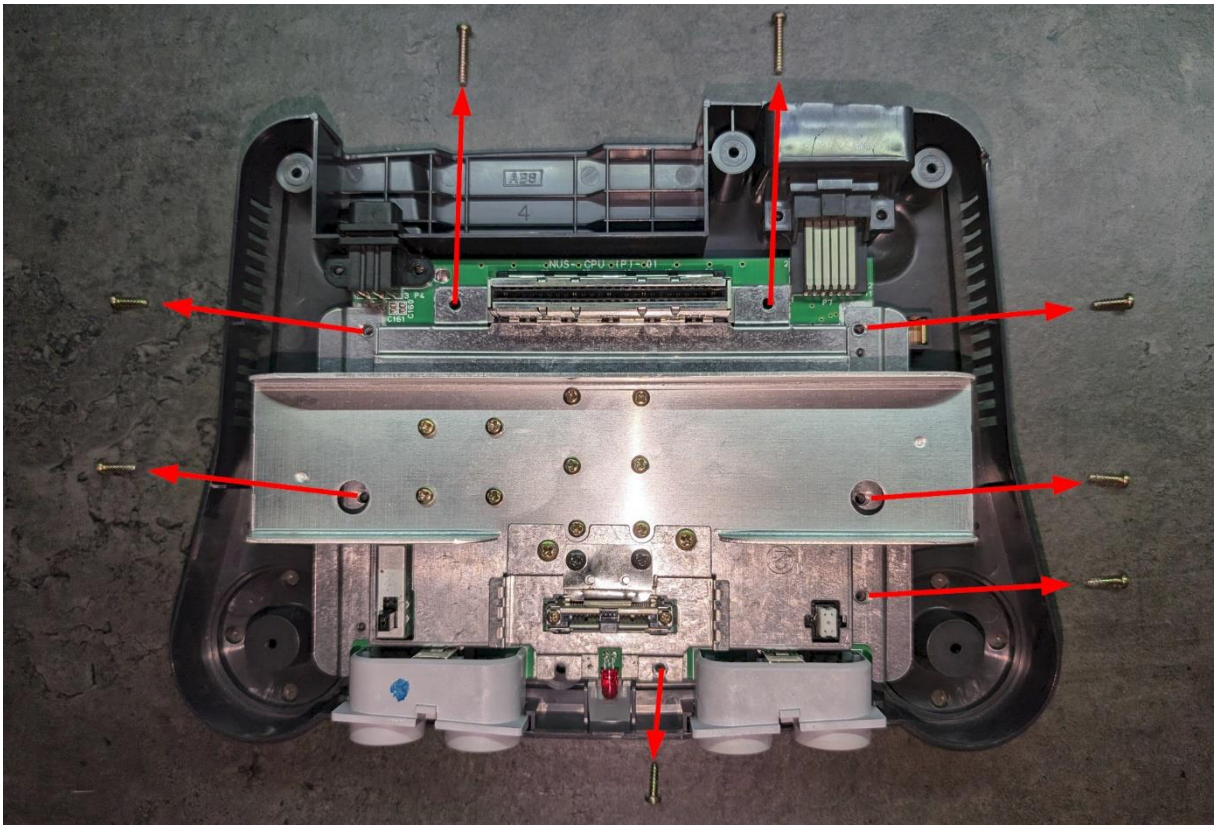
Use the 4.5mm **gamebit** screwdriver to open the shell and remove the 6 **gamebit** screws.



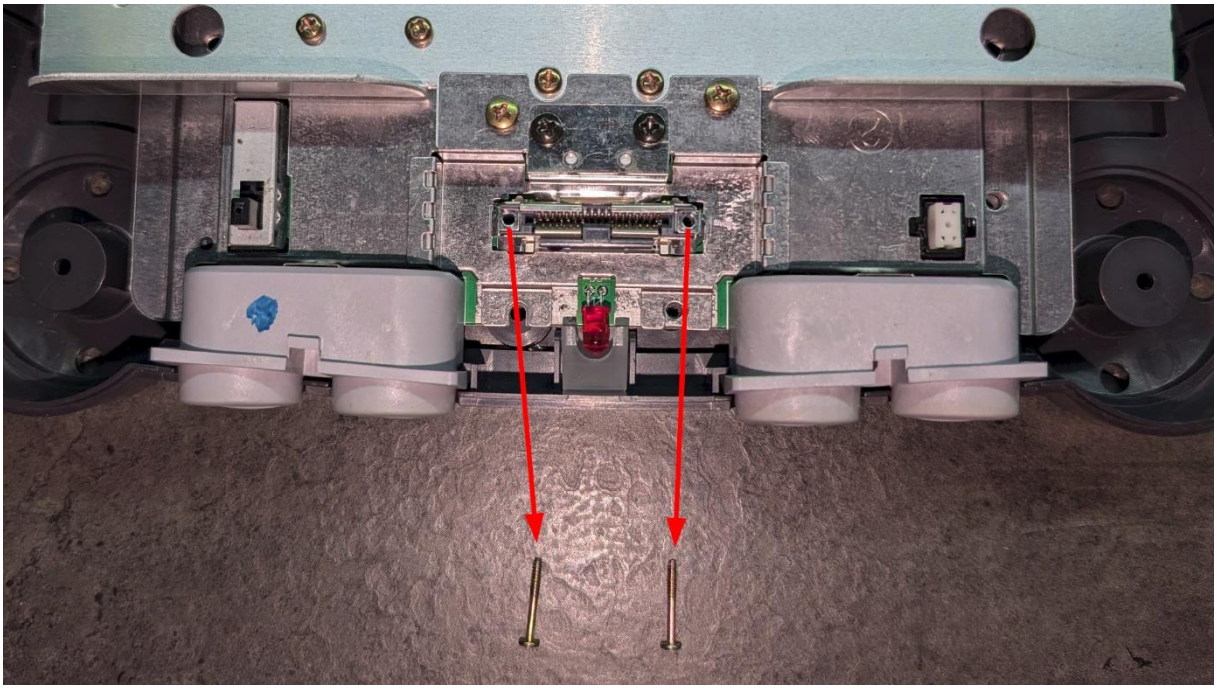
Remove the top part of the shell, then take out the 4 screws holding the rear connectors.



Continue with these other 8 screws.



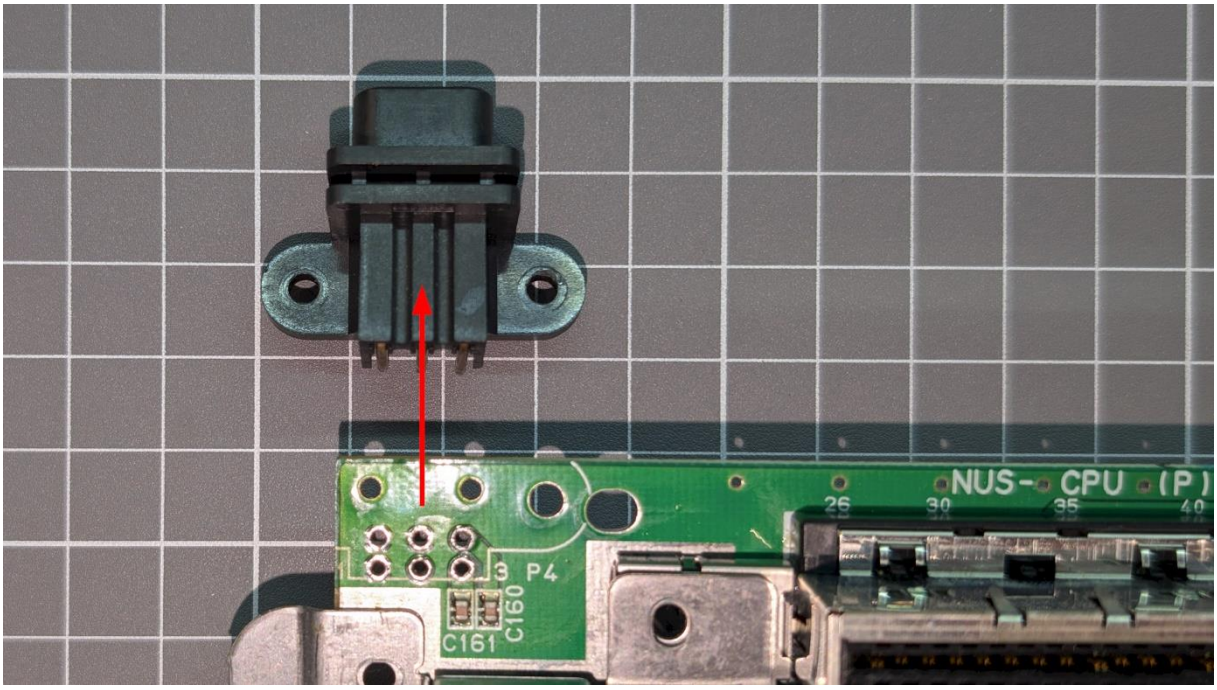
Finally, remove these two screws holding the memory expansion port.



2. REMOVE UNNECESSARY PARTS

The only part that needs to be removed is the power connector. Since all its pins are very close together, you can apply a solder ball to heat them all at the same time with the soldering iron. Once it's hot enough, the connector will fall off on its own or with a little help.

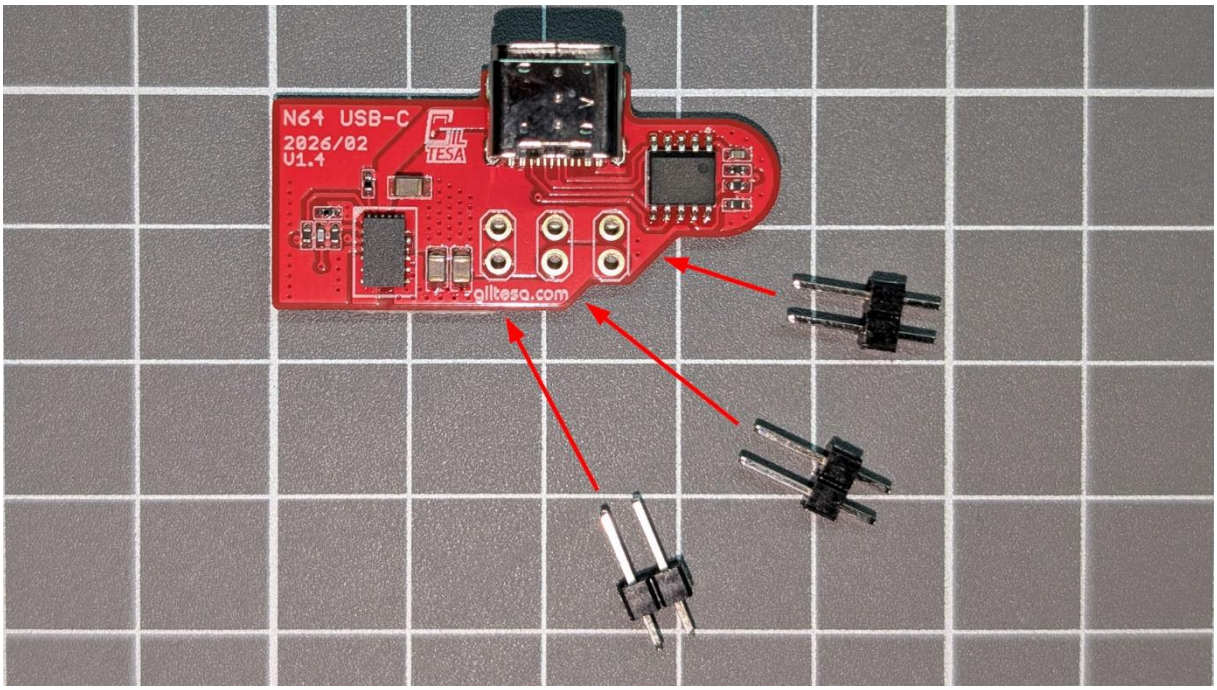
After removing the connector, clean up the excess solder and wipe the board with alcohol.



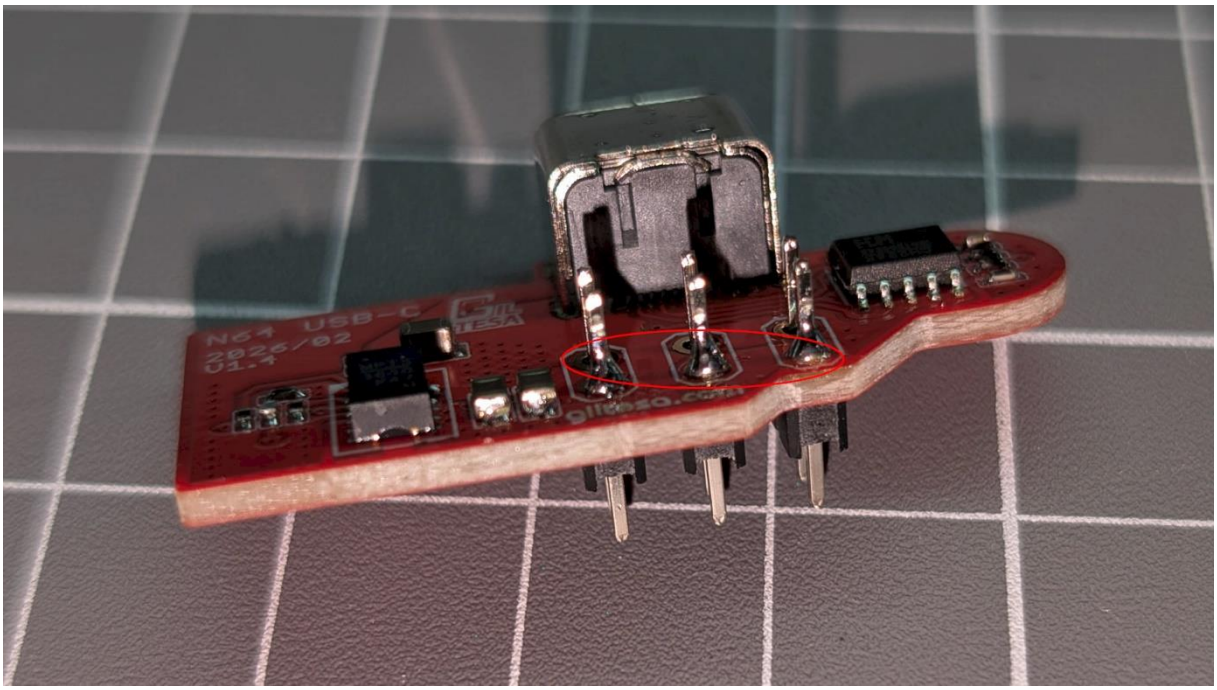
INSTALLATION STEPS

1. BOARD ASSEMBLY

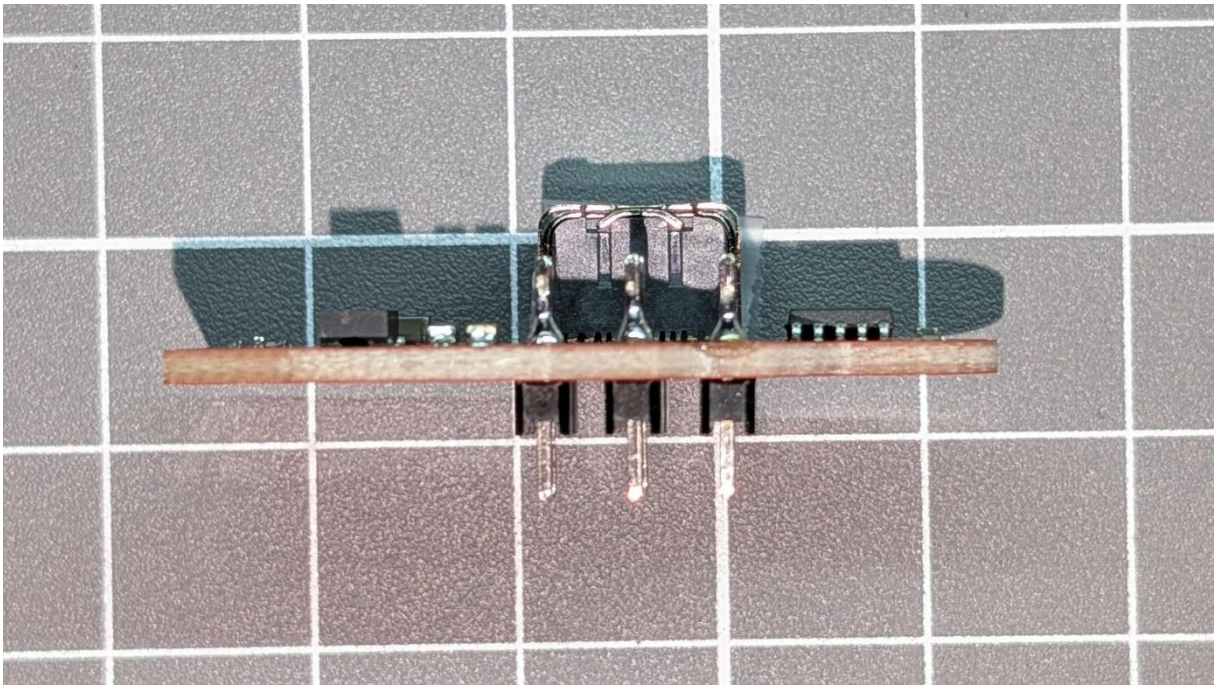
First, you'll need to place the three included pins onto the kit board, with the plastic facing the underside.



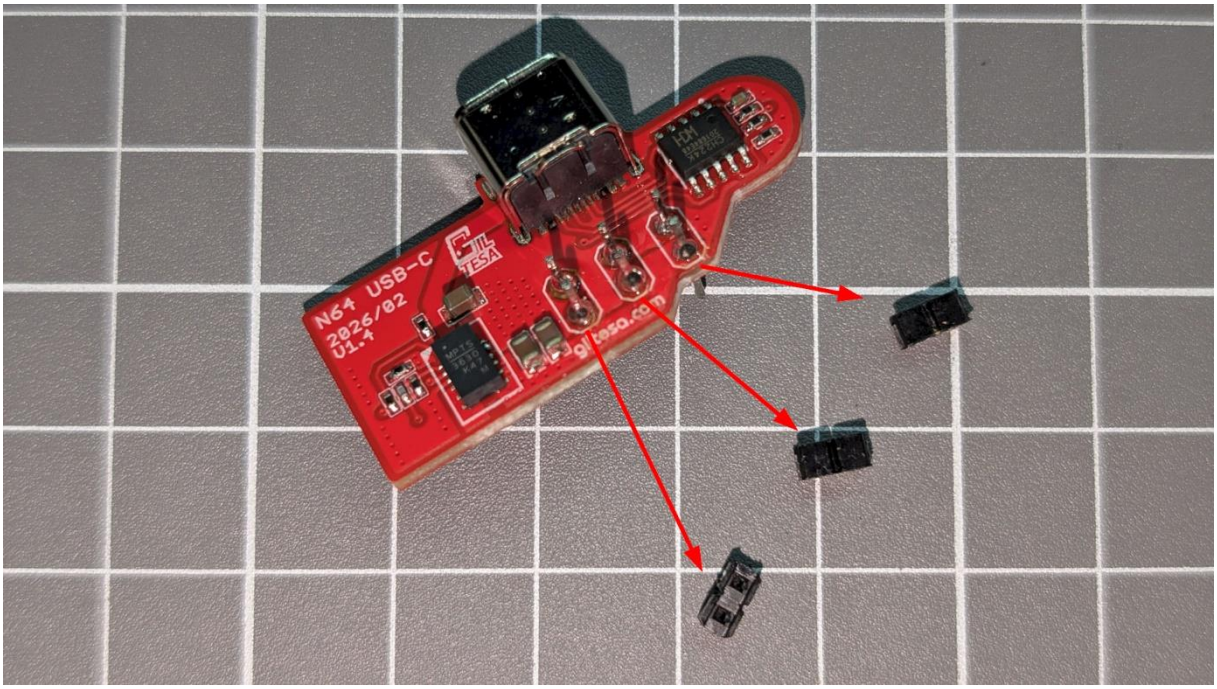
Solder just one pin first, make sure it's properly aligned and perpendicular to the board, then solder the other pin, and if needed, touch up the first pin you soldered.



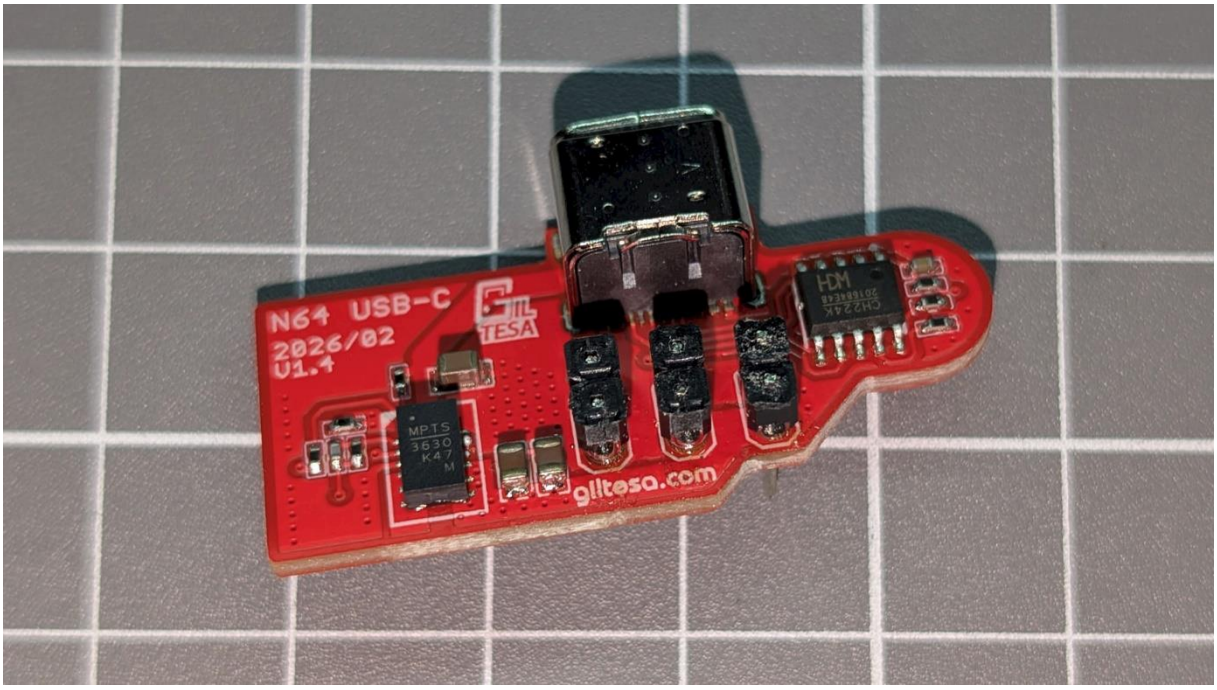
Once soldered, the pins should look like this:



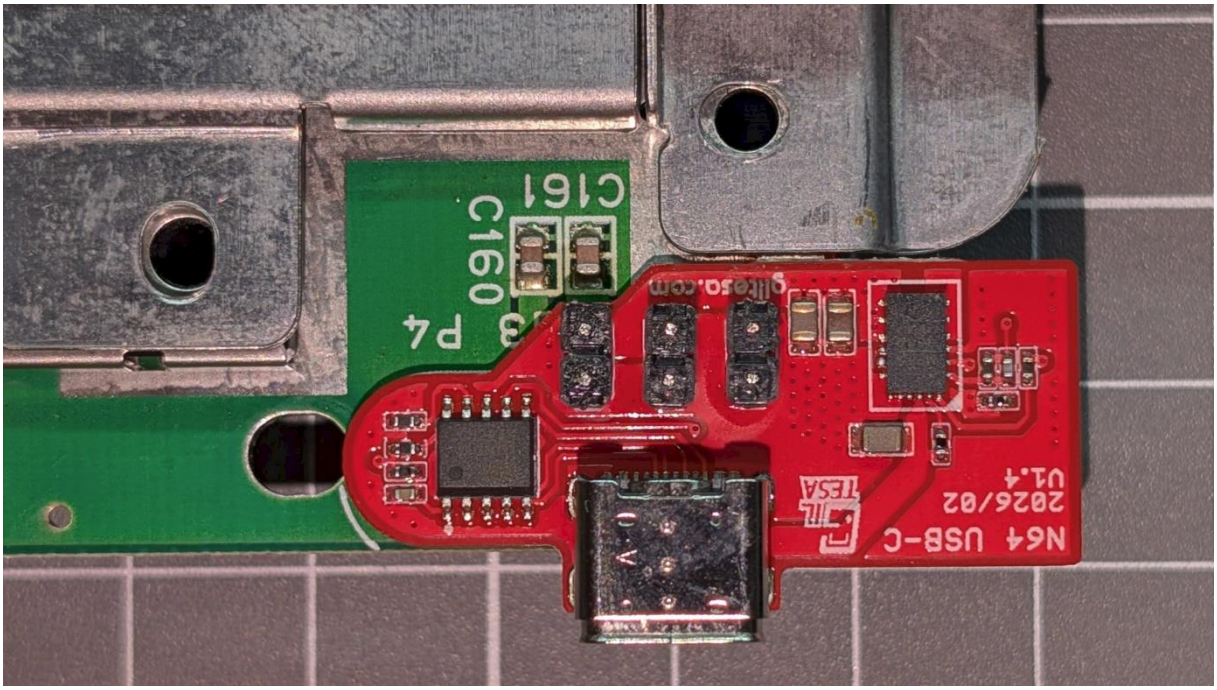
Now remove the three plastics from the pins. We'll reuse them on the top side to prevent the pins from moving when we solder the board to the Nintendo 64 mainboard.



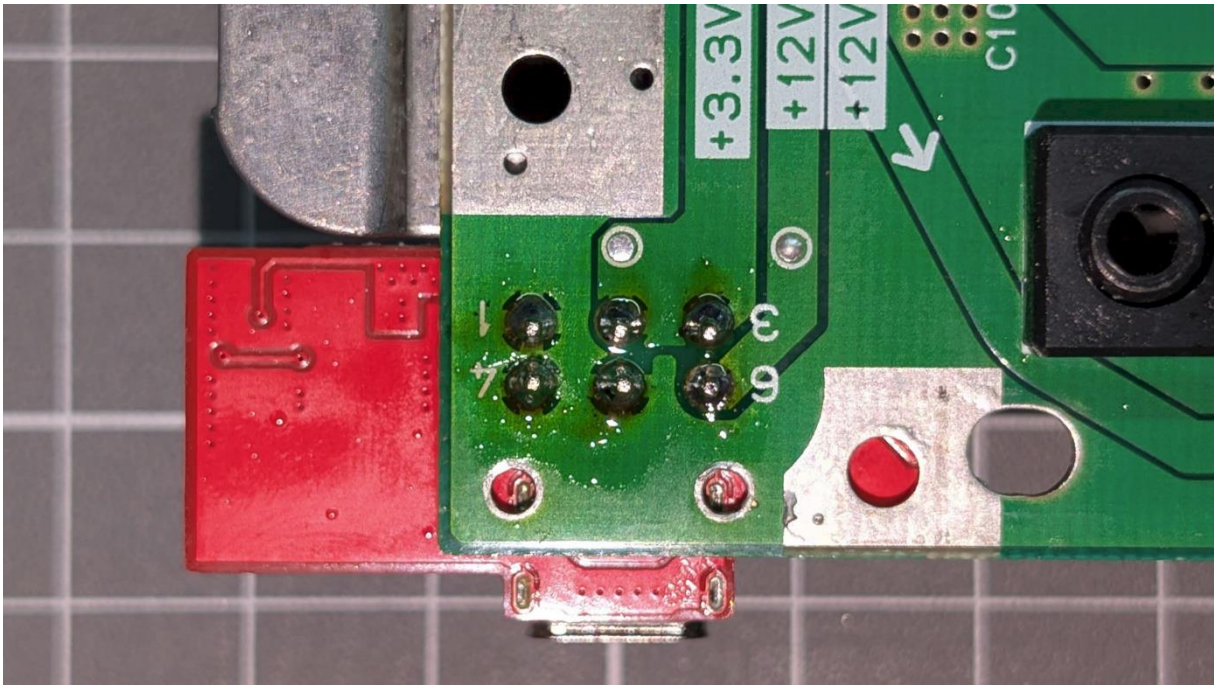
Place them on the top side:



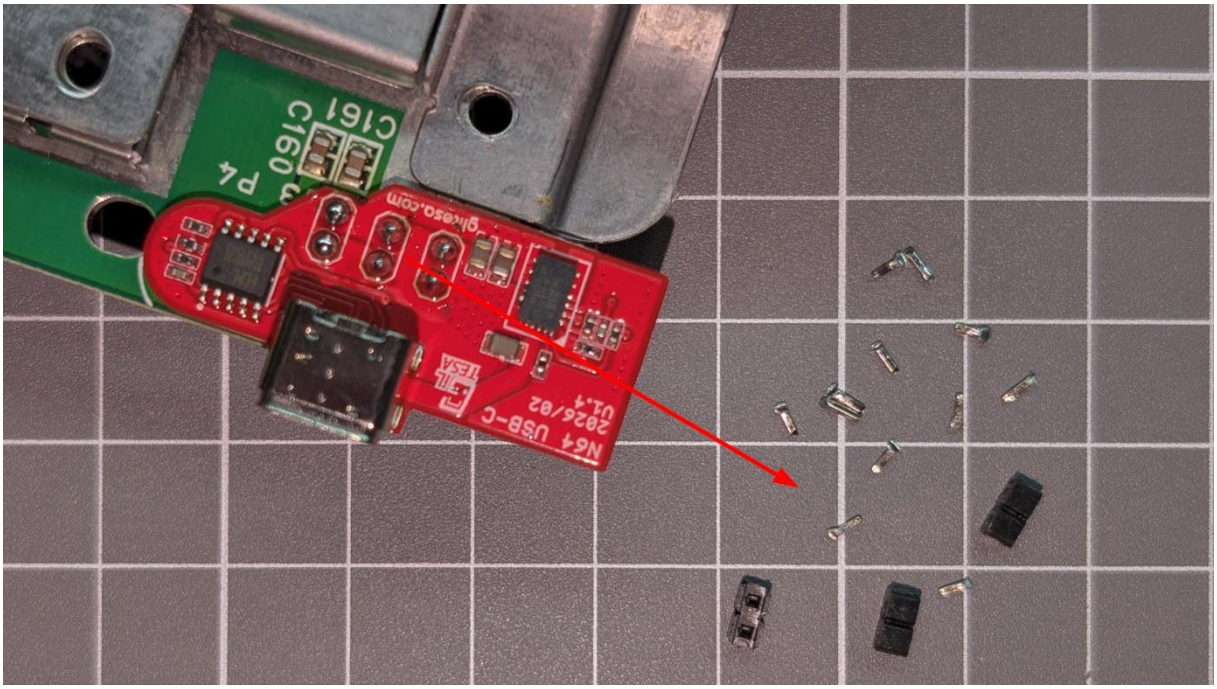
Place the board onto the Nintendo 64 mainboard:



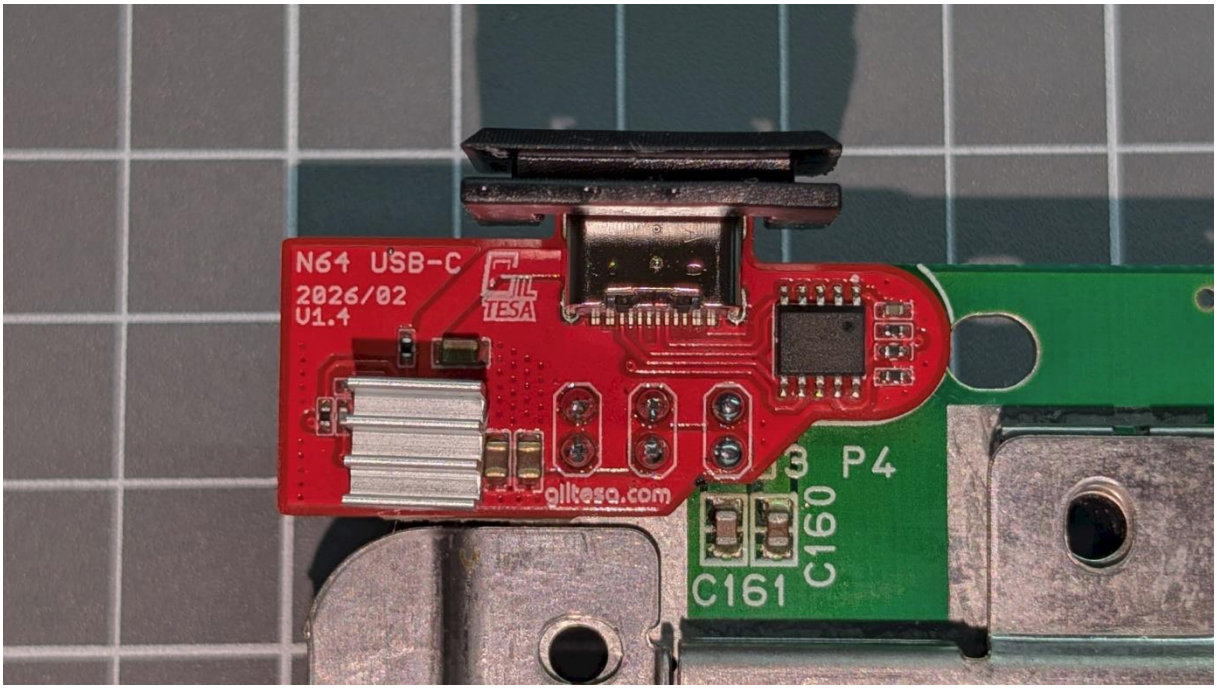
Solder the 6 pins. You can trim them either before or after soldering, if you want.



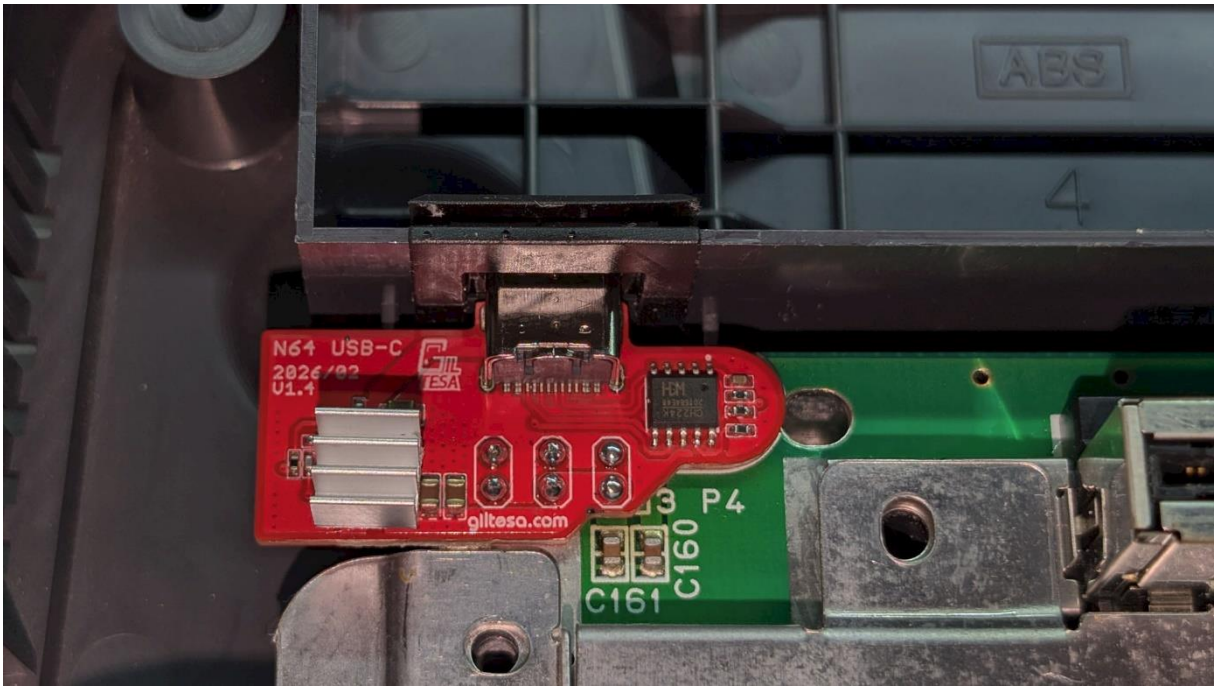
Once the soldering is complete, you can optionally remove the plastic covers from the top side and trim any excess pin length.



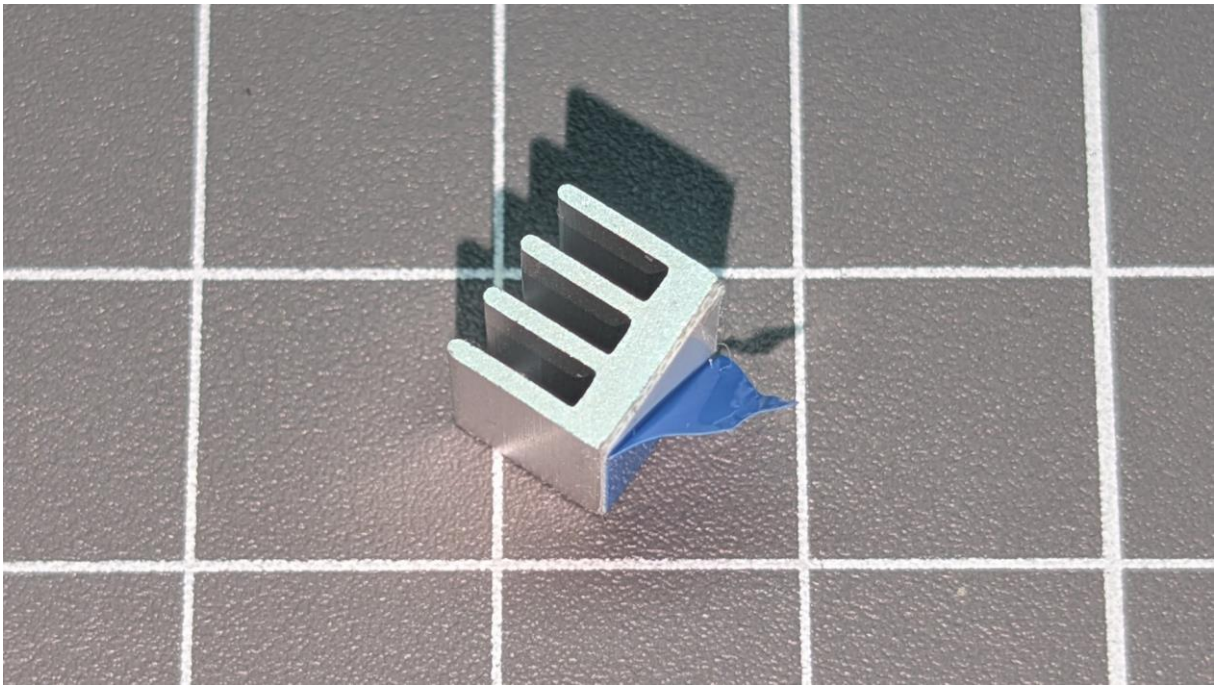
Now place the printed plastic onto the connector and then position the mainboard into the console's lower shell.

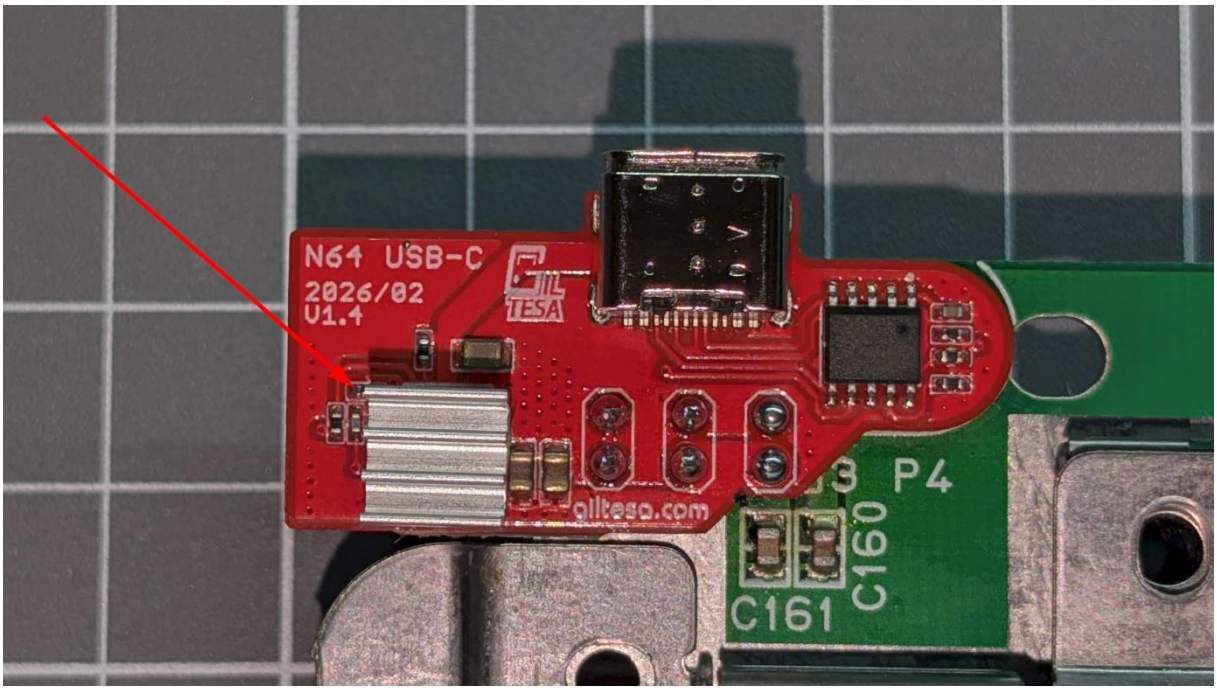


The included plastic has rails on all sides and aligns with the shell's plastic; just let it slide down until it reaches the bottom. *(Remember to insert the Nintendo 64 mainboard and the plastic at the same time; you can't do it in separate steps)*



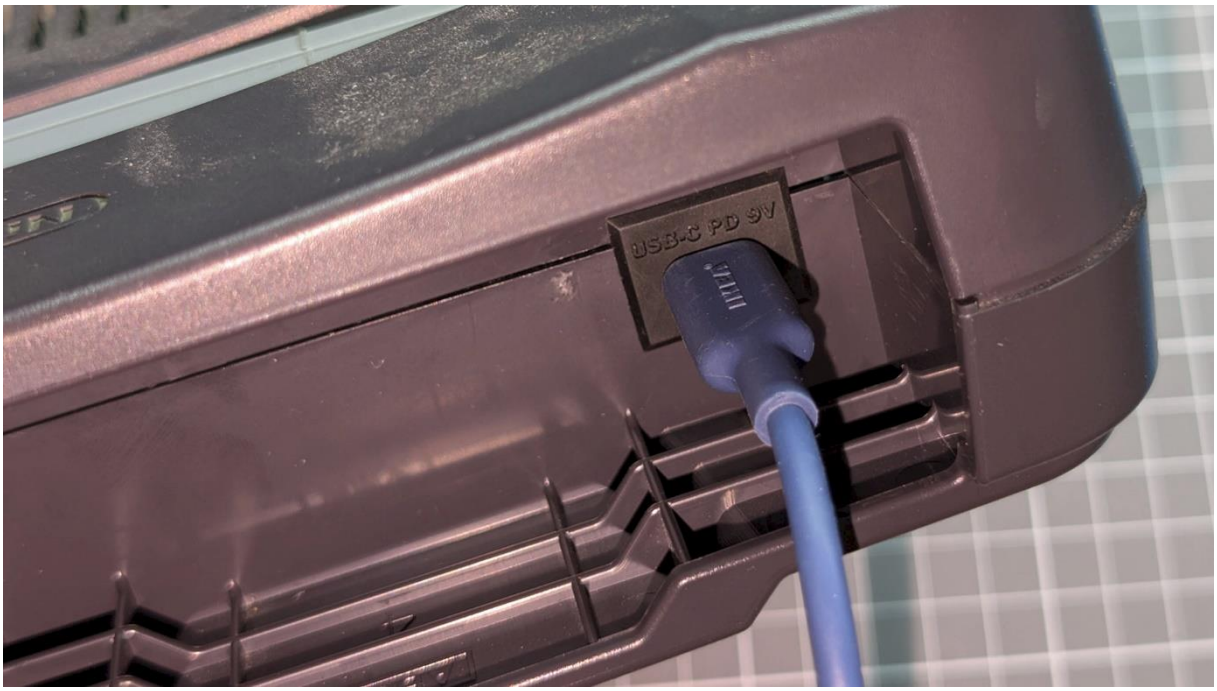
To finish, don’t forget to attach the small aluminium heatsink onto the chip as shown in these images.

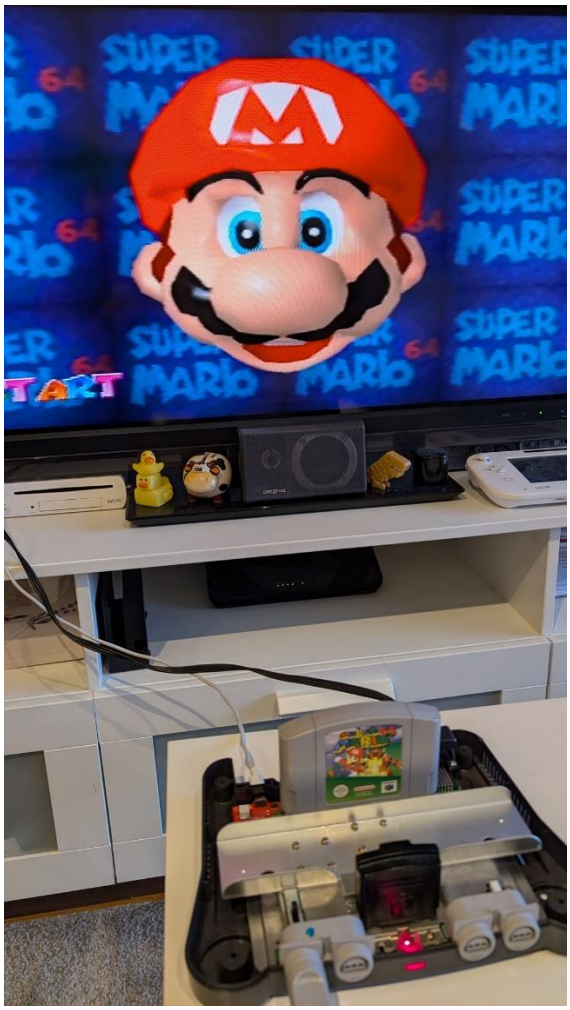




2. *DONE!*

The installation is complete. Reassemble everything as it was, and you can now enjoy your Nintendo 64 powered via USB-C!





FREQUENTLY ASKED QUESTIONS – FAQ

IS THERE A RECOMMENDED POWER SUPPLY?

Any USB-C Power Delivery charger with a **9V** 3A output is more than sufficient. We used the Ikea SJÖSS 45W (**9V** 3A) for all our tests.

THE NINTENDO 64 DOESN'T TURN ON.

Make sure you are using a USB-C power supply that can provide an output voltage of **9V** and an electric current of at least 3A.



MY POWER SUPPLY DOESN'T HAVE A 9V OUTPUT.

Power Delivery chargers can supply a wide range of voltages: 5V, 9V, 12V, 15V, and 20V. However, they're not required to support all of them, a charger might offer 5V, 9V, and 15V but not 12V or 20V.

That's why it's important to check whether your charger actually supports 9V output.

CAN THIS KIT BE USED WITH OTHER MODS?

Of course, as long as you use the appropriate power supply, 9V and 3A, then you can use any other mod or accessory you would normally use with the original power supply.

However, if you use any special mod that requires direct 12V power, you won't be able to use it with this kit, as the maximum input voltage is 9V.

ENABLE COMPATIBILITY FOR MODS POWERED AT 12V.

If you absolutely need the 12V input from the USB-C PD power supply, you can modify the board for this. It is not entirely easy due to the size of the components, but replacing this resistor with a 24K one, size 0402, will enable this function.

It is possible that with this change, and with high consumption on the 3.3V line, the current converter may heat up a little more.

