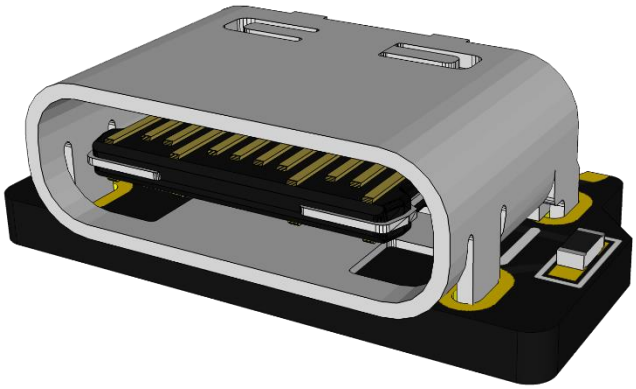
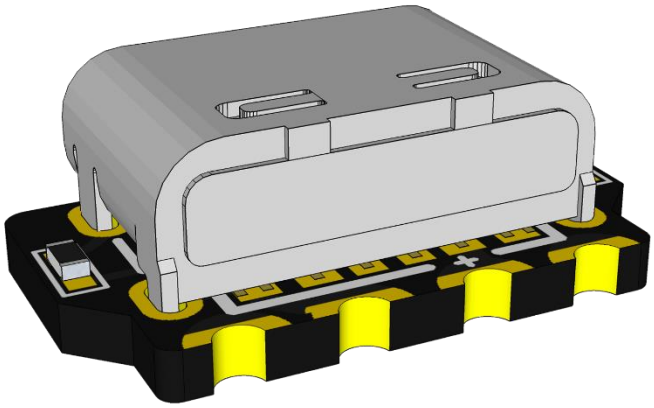
# USB-C KIT FOR

# NINTENDO 2DS

# NINTENDO NEW 2DS XL





PRODUCT

HTTPS://SHOP.GILTESA.COM/PRODUCT/NINTENDO-2DS-USB-C-KIT

HTTPS://SHOP.GILTESA.COM/PRODUCT/NINTENDO-2DS-3DS-USB-C-KIT-SUPPORTS-DATA-CONNECTION

***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 **Nintendo 2DS: 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 Nintendo 2DS with a standard USB-C charger**, like the charger of your **Nintendo Switch**, phone, laptop, you can with this kit.

This board is compatible with these two models:

- Nintendo 2DS
- Nintendo New 2DS XL

# FEATURES

- Charging your Nintendo 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
- Supports data connection via USB-C (**DATA** version only)

# INCLUDED

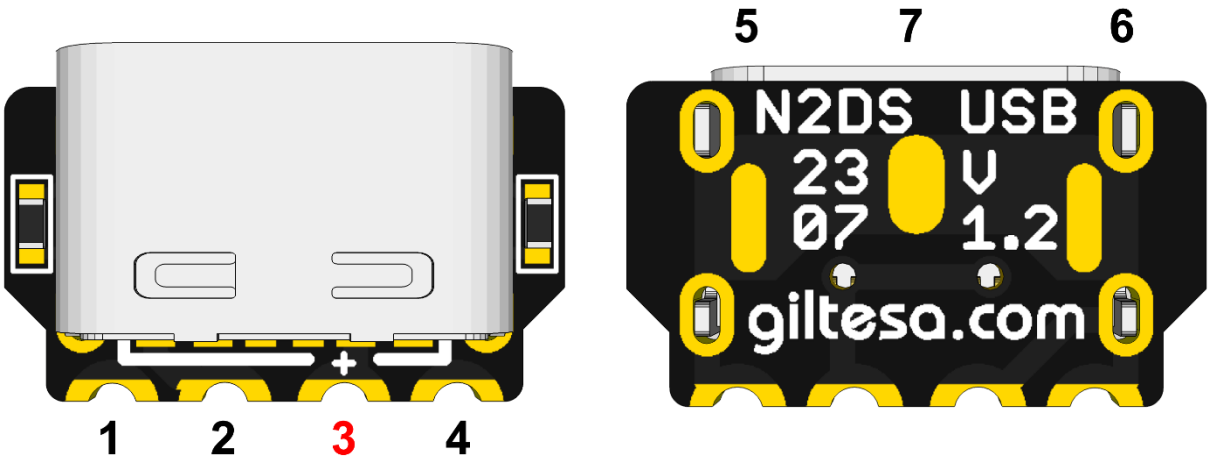
- 1 board.

# RECOMMENDED / REQUIRED [NOT INCLUDED]

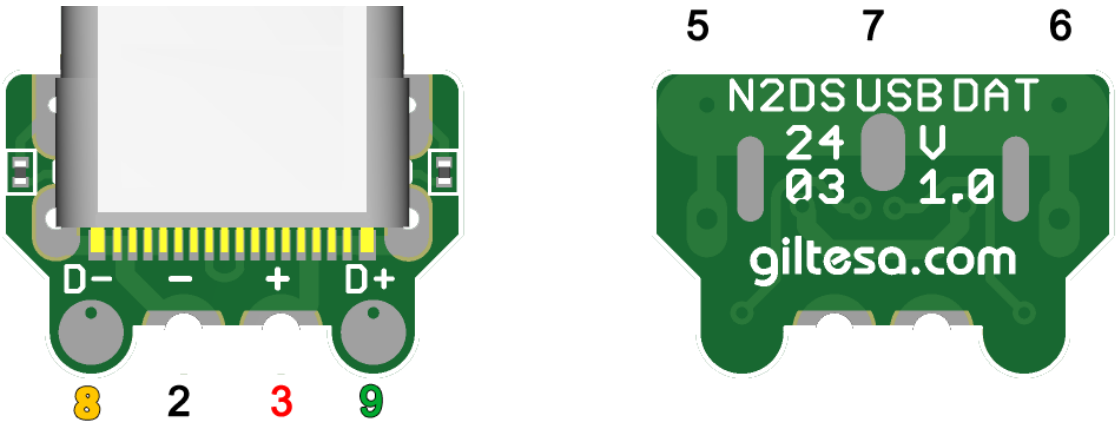
- Phillips screwdriver
- Kapton tape
- Soldering iron
- Tin
- Flux
- Desoldering pump
- Desoldering mesh
- Isopropyl alcohol

# BOARD DETAILS

This tiny board has eight pads in about 1cm$^2$ surface, which means it requires high soldering skills. The following explains what each pad is for.




*Nintendo 2DS - Standard version*




*Nintendo 2DS DATA - With support for data connection.*

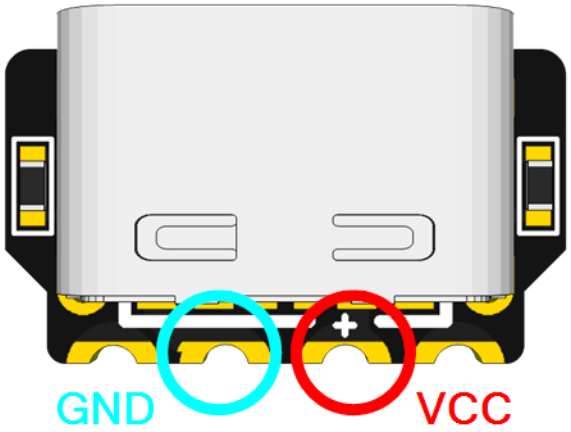
Starting from the left to the right:

1. **GND**: The ground pad.
2. **GND**: The ground pad.
3. **VCC**: The 5V line from the USB-C.
4. **GND**: The ground pad.
5. **GND**: The ground pad. (Only for Nintendo 2DS)
6. **GND**: The ground pad. (Only for Nintendo 2DS)
7. **GND**: The ground pad. (Only for Nintendo New 2DS XL)
8. **D-** Negative data pad for only DATA board model.
9. **D+** Positive data pad for only DATA board model.

# 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.

The guide explains how to install the product on a 2DS. If you are installing it in a **New 2DS XL, please refer to the following guide to open your device**: ifixit.com

## PRE INSTALLATION STEPS

Before the installation, your Nintendo 2DS may need some extra steps to have it ready for the kit.

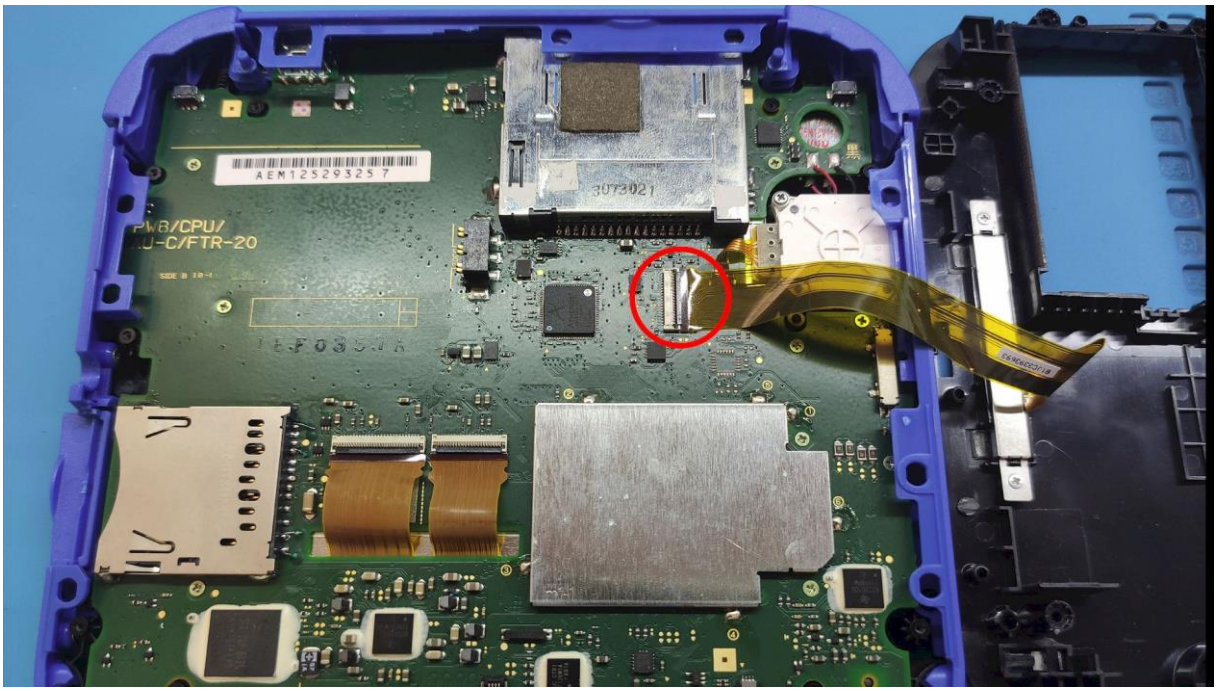
### 1. DISASSEMBLY THE NINTENDO 2DS

Nintendo 2DS use the **phillips screws** to close the shell. First remove the two screws which hold the 2DS plastic back cover.

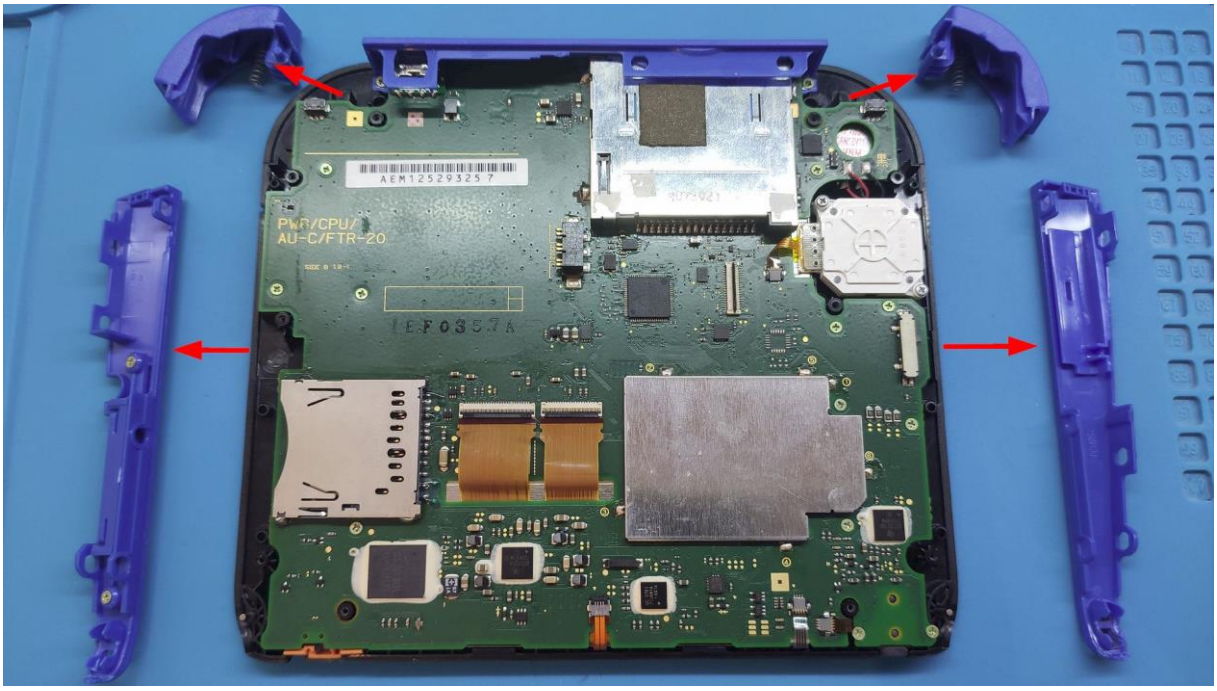
Remove all the accessories such as the battery, stylus, SD card and game card.

Then the ten screws which hold the back shell.

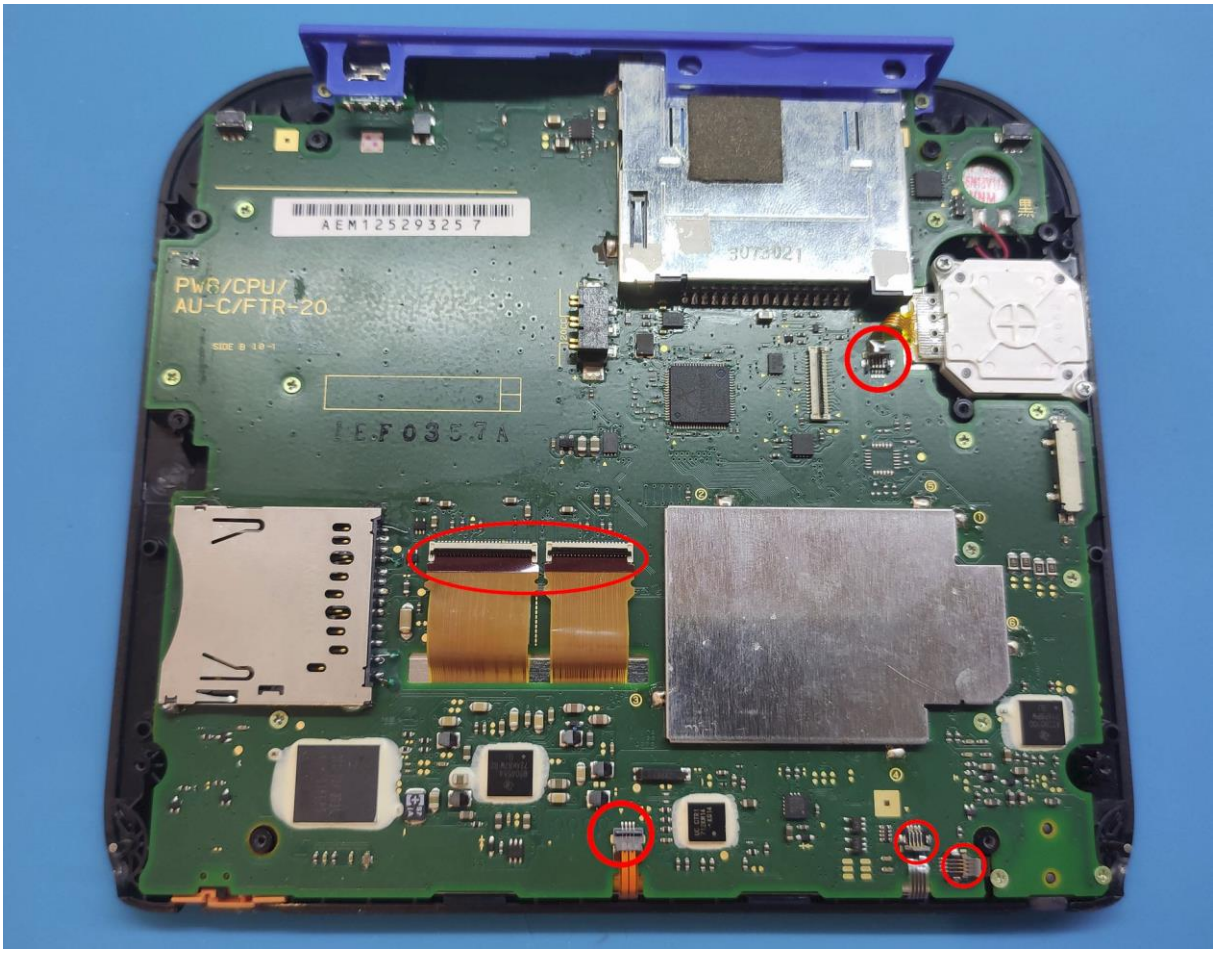
Open the back shell carefully because it is connected to the mainboard with one flex cable. To remove it, lift the plastic retainer and pull back the cable.



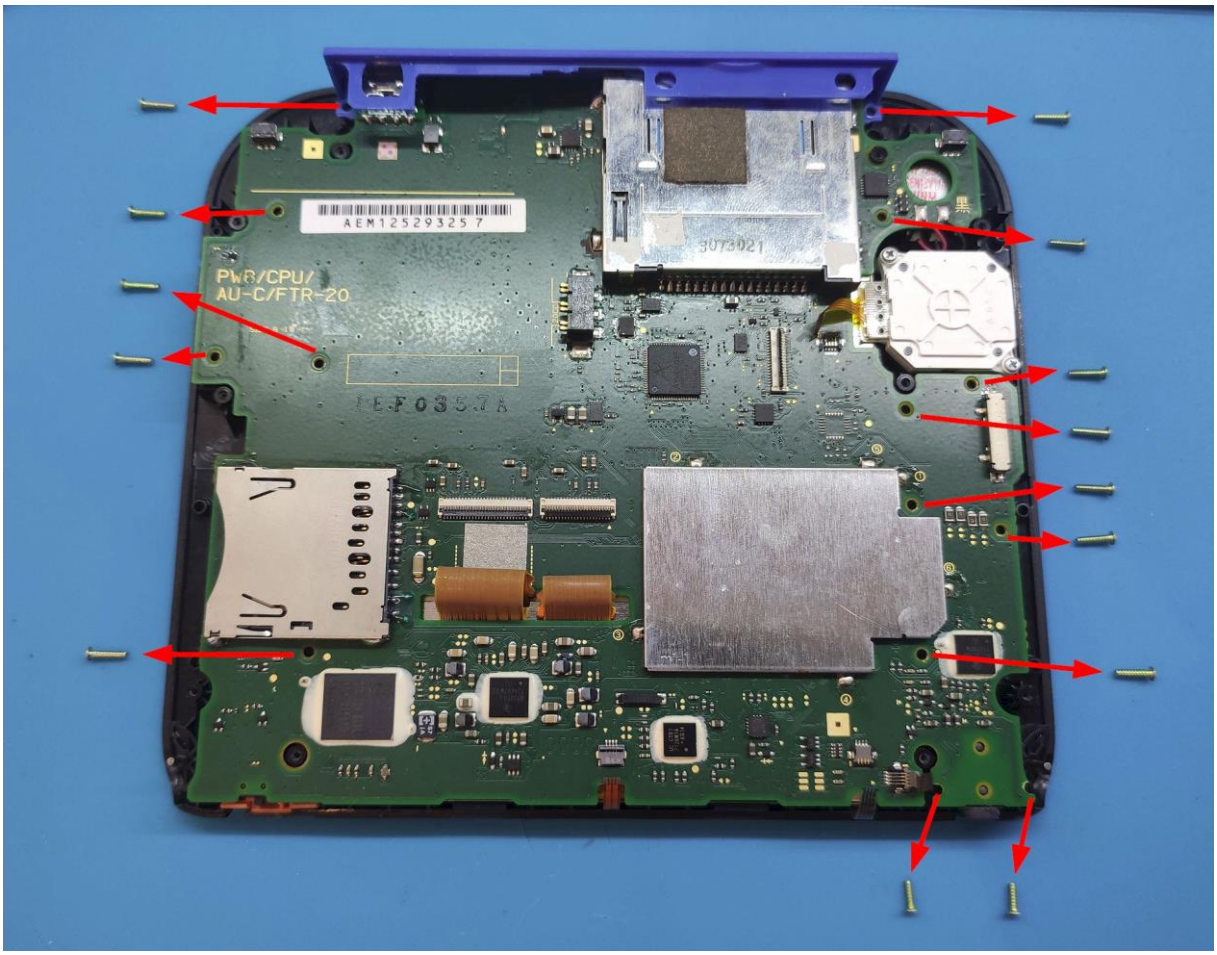
Remove all these plastic components:



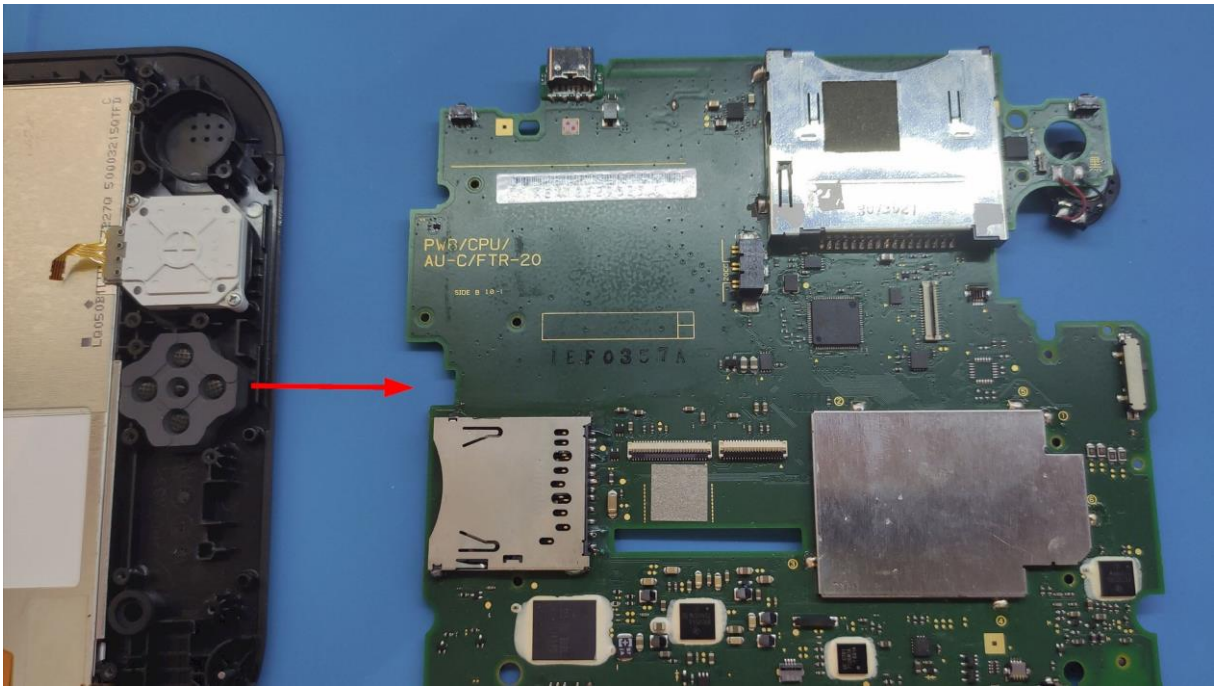
There are multiple cables connected to the mainboard. All of them need to be disconnected: Lift up on the plastic retainer, grip the cable, and pull back to disconnect it.



Then, remove the last fourteen screws (Be careful with the two lower screws, they are shorter than the rest)




Finally, the mainboard is completely disconnected, and it can be retired aside:



# *INSTALLATION STEPS*

## *1. PROTECT THE NEAREST COMPONENTS*

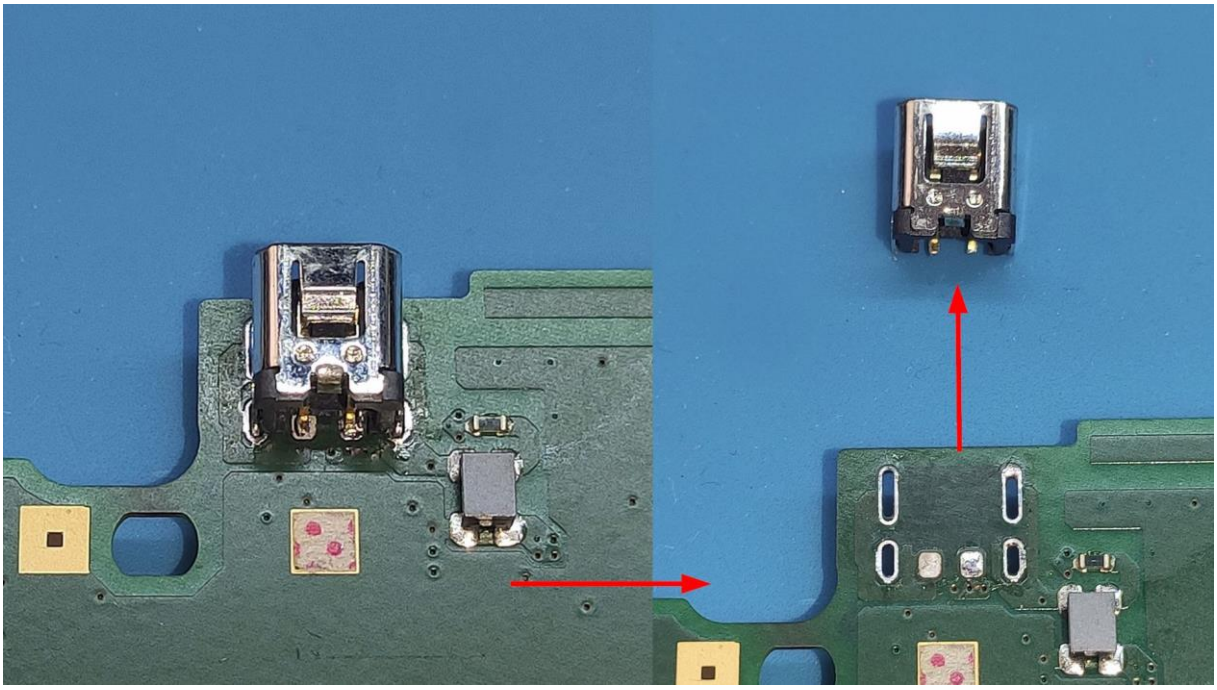
Use Kapton tape to protect and avoid any damage to the electronic components that are next to the connector.

## *2. REMOVE UNNECESSARY COMPONENTS*

This kit only requires removing the power connector. However, it has many legs, and it may be hard to remove.

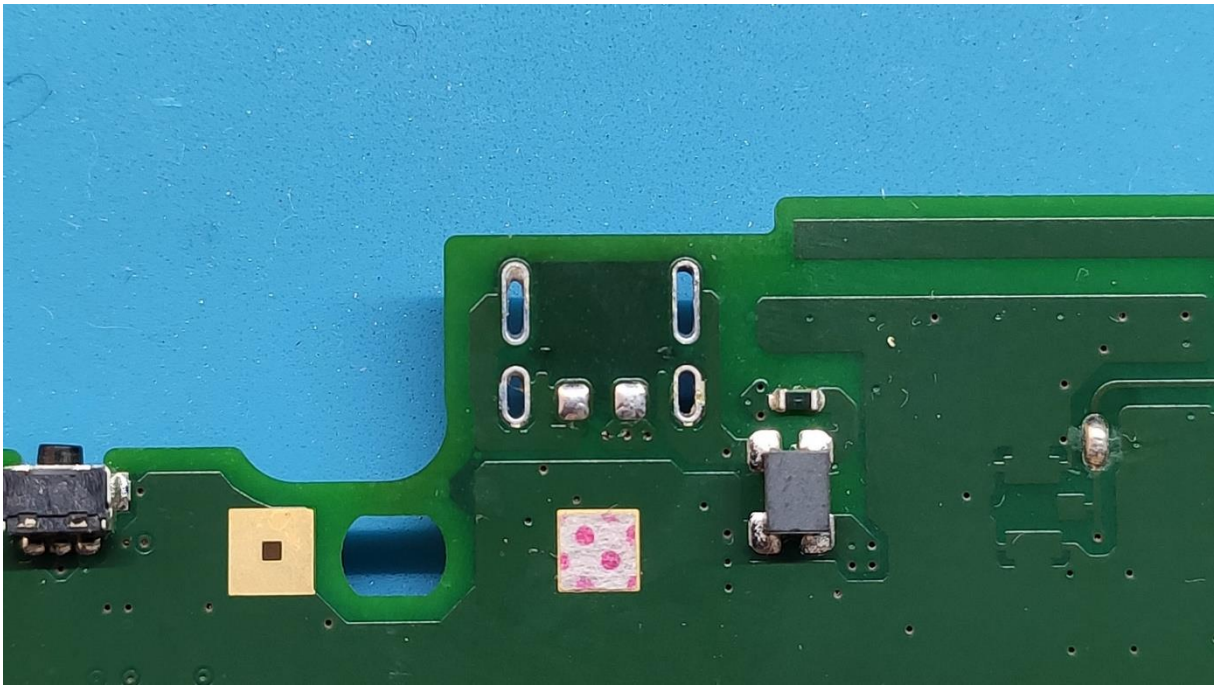
*If you have an air solder station, you can remove it easily, but protect perfect the nearest places with Kapton tape or something may be burn.*

Otherwise, the recommendation is using a desoldering pump which will help to remove the tin from each hole/pad.



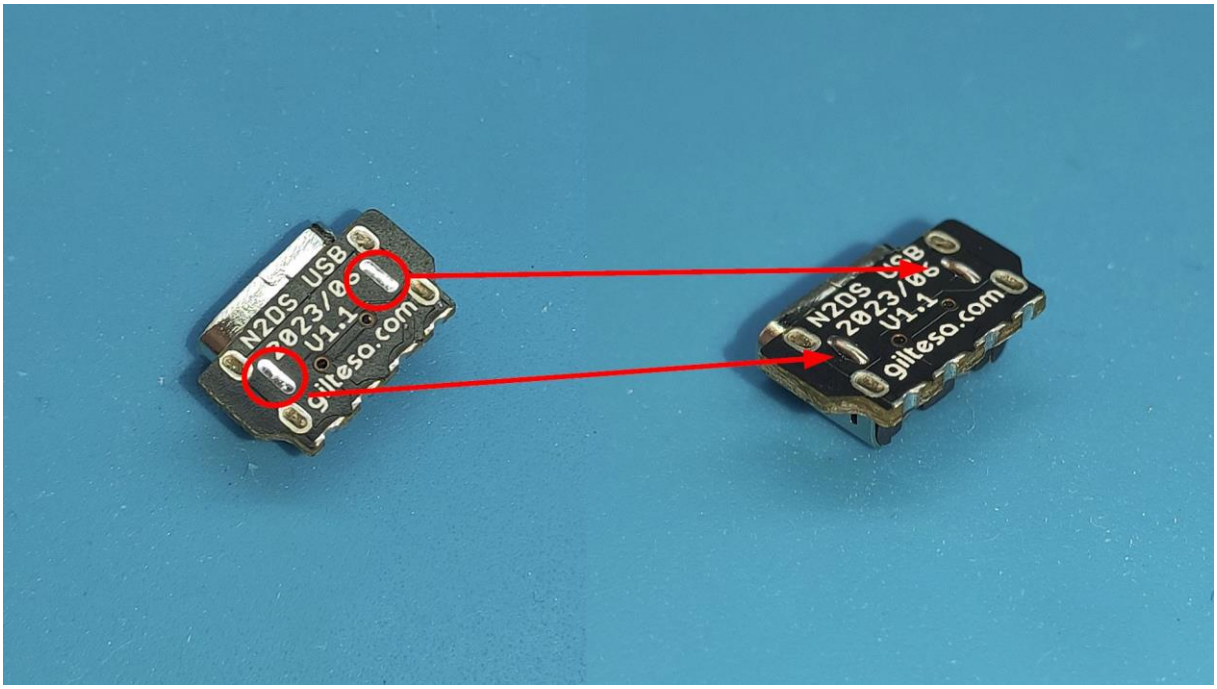
## 3. CLEAN THE BOARD

After the component is removed, it may be dirty, clean both sides.

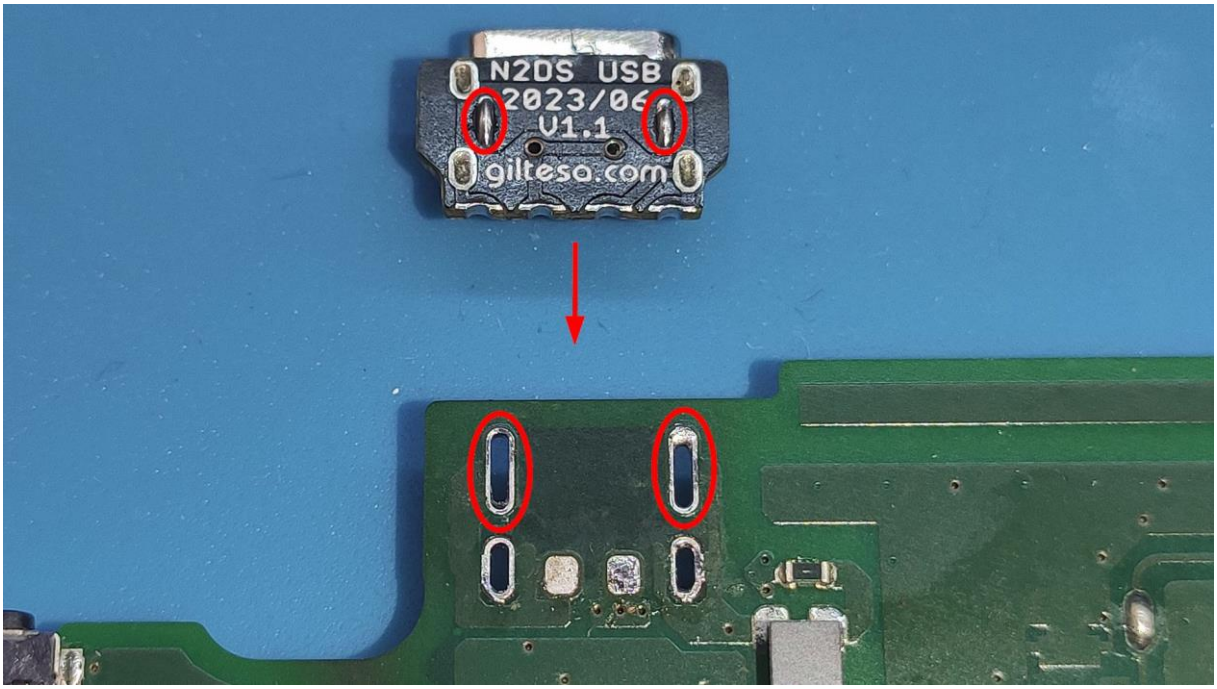


## 4. INSTALLATION OF THE USB-C BOARD

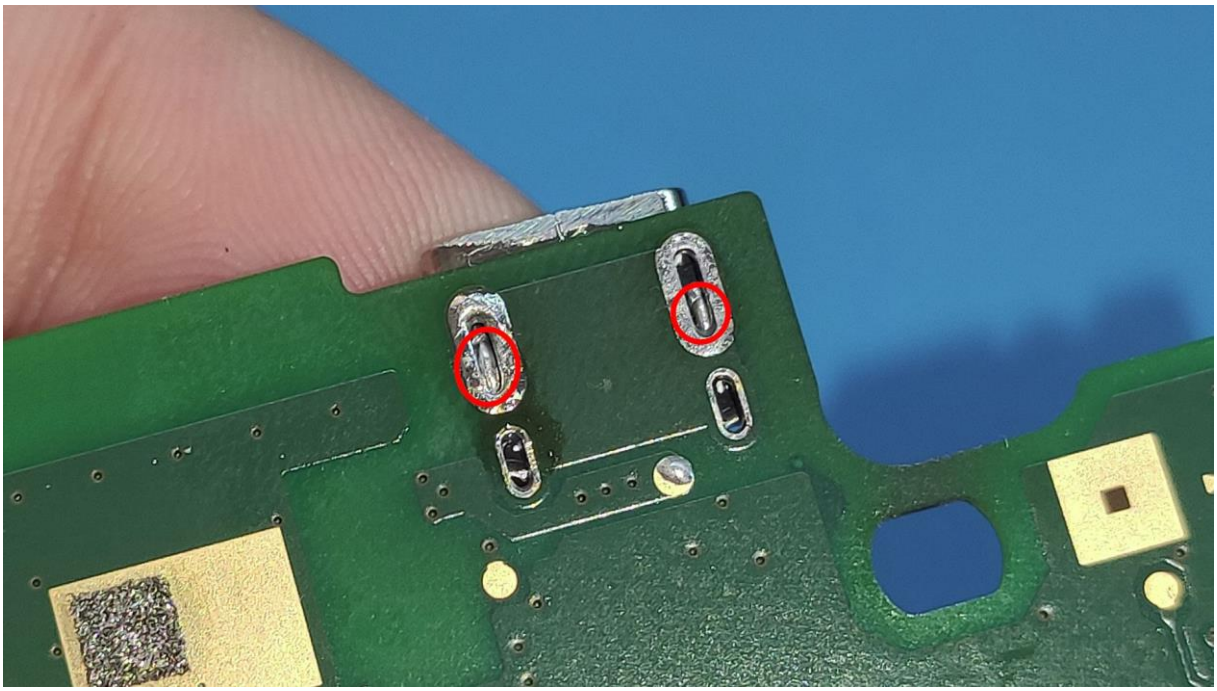
First, the bottom pads of the board need to be pre-soldered with a small amount of tin.



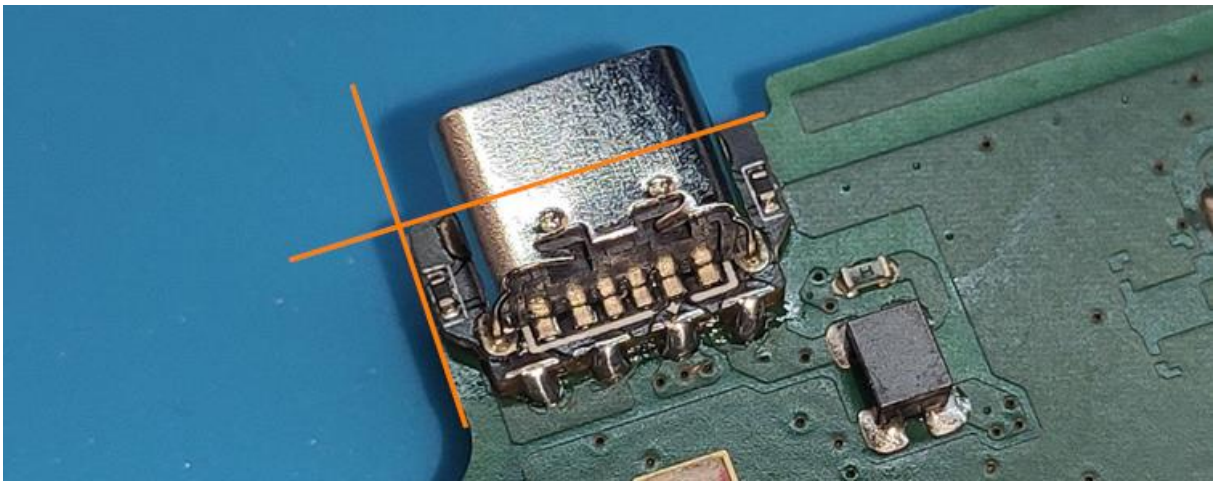

These pads will align with the large holes on the original connector. It is crucial that these two pads are soldered securely as they serve as the main points of support for the board.



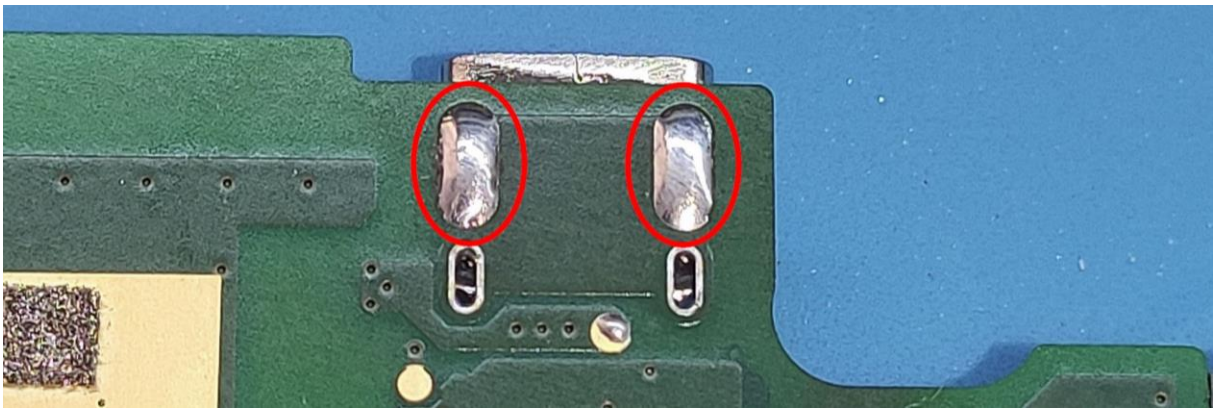
Align the board properly; you will notice that the two pads you pre-tinned earlier align with the two large holes on the 2DS mainboard.



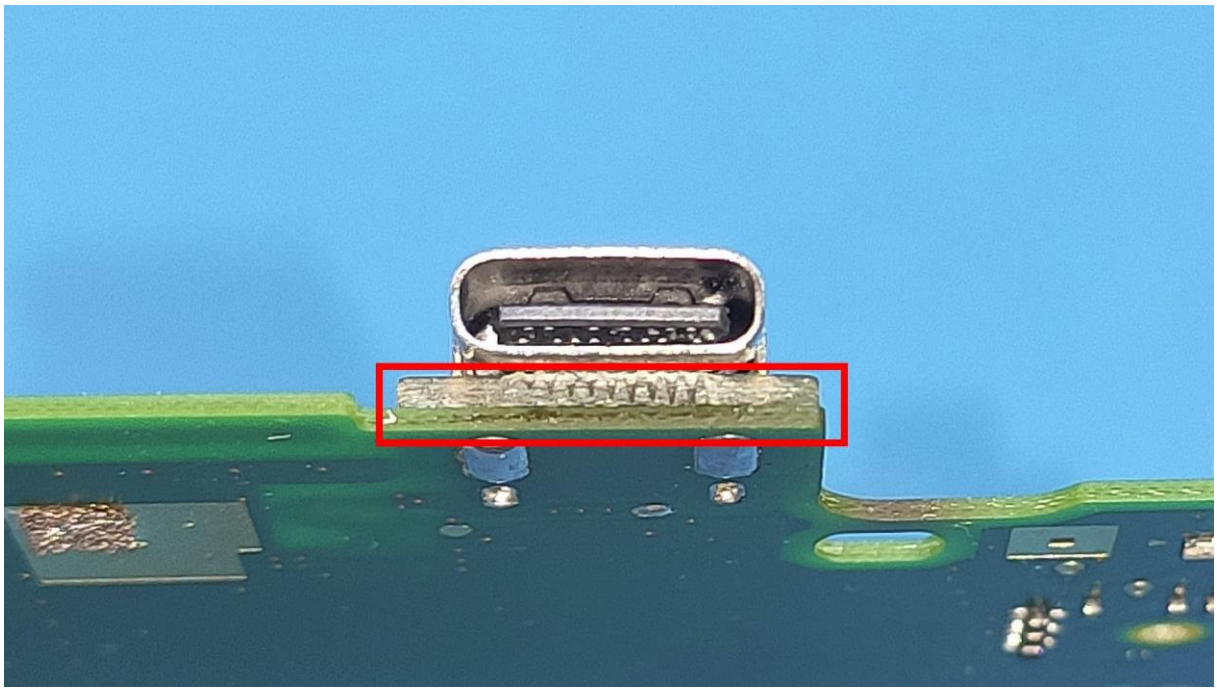
Additionally, it is important for the board to be flush with both the top and bottom edges *(In this photo, the board is already fully soldered).*



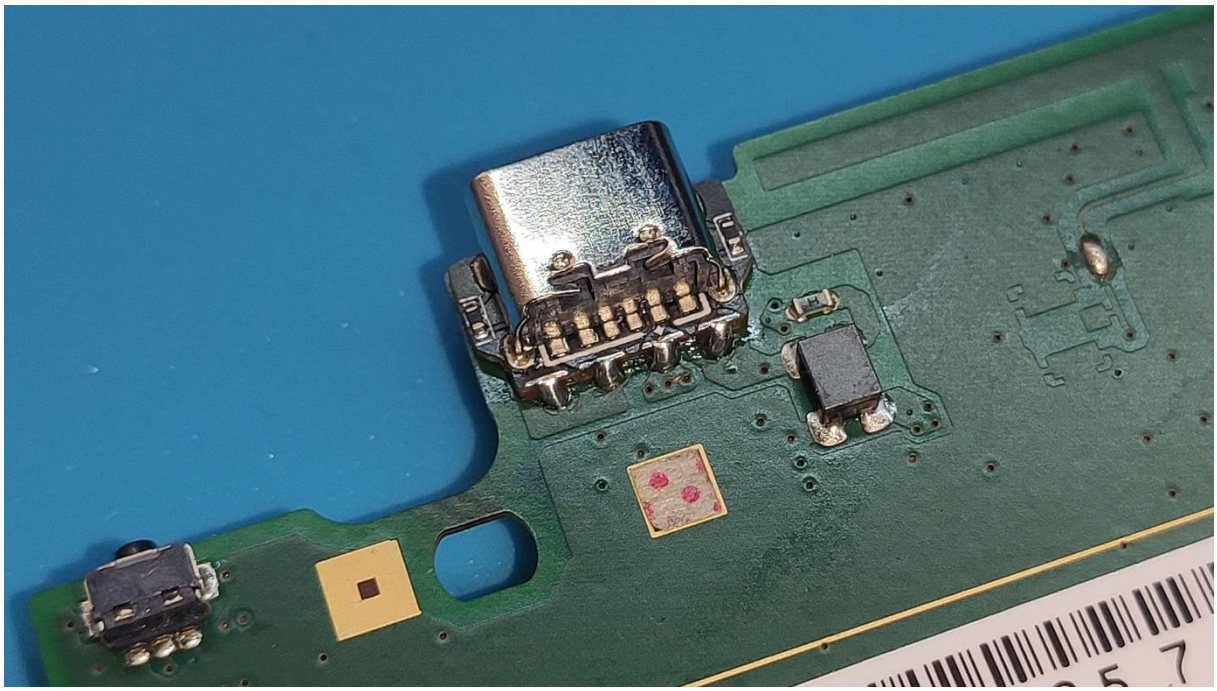
Once aligned, solder the first pad on the bottom side. Then, double-check that the boards are still properly aligned and solder the second one.



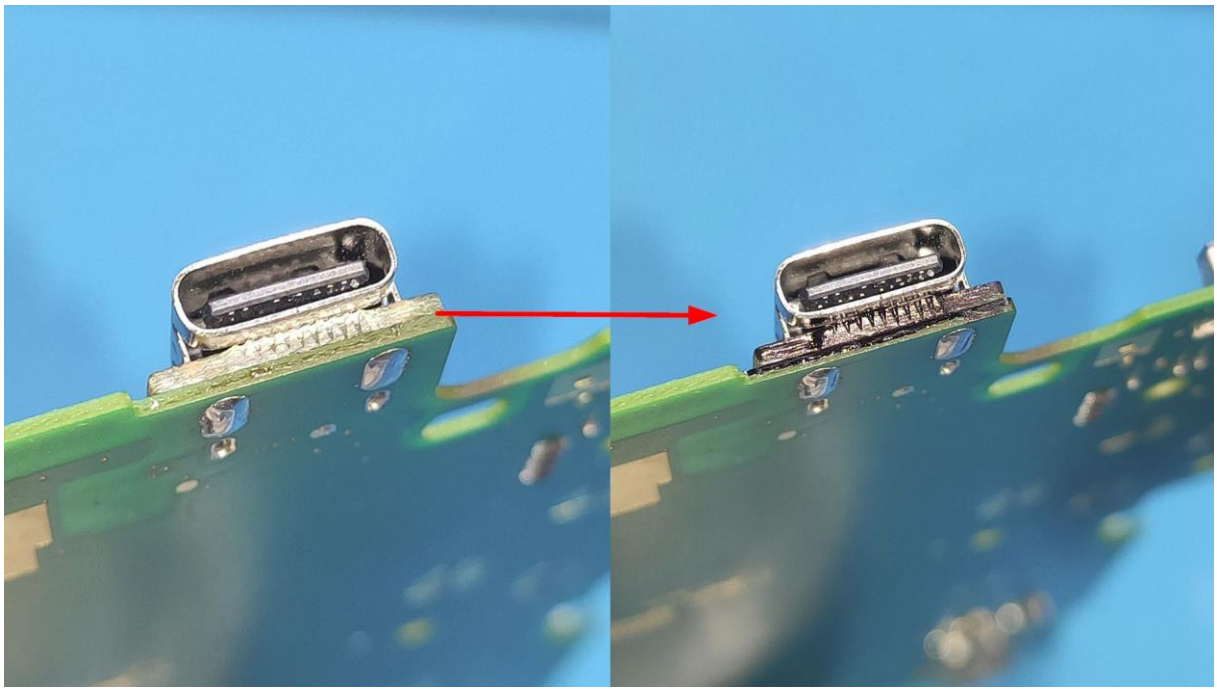
The board should be completely flat against the Nintendo 2DS mainboard, without any gaps in the middle.



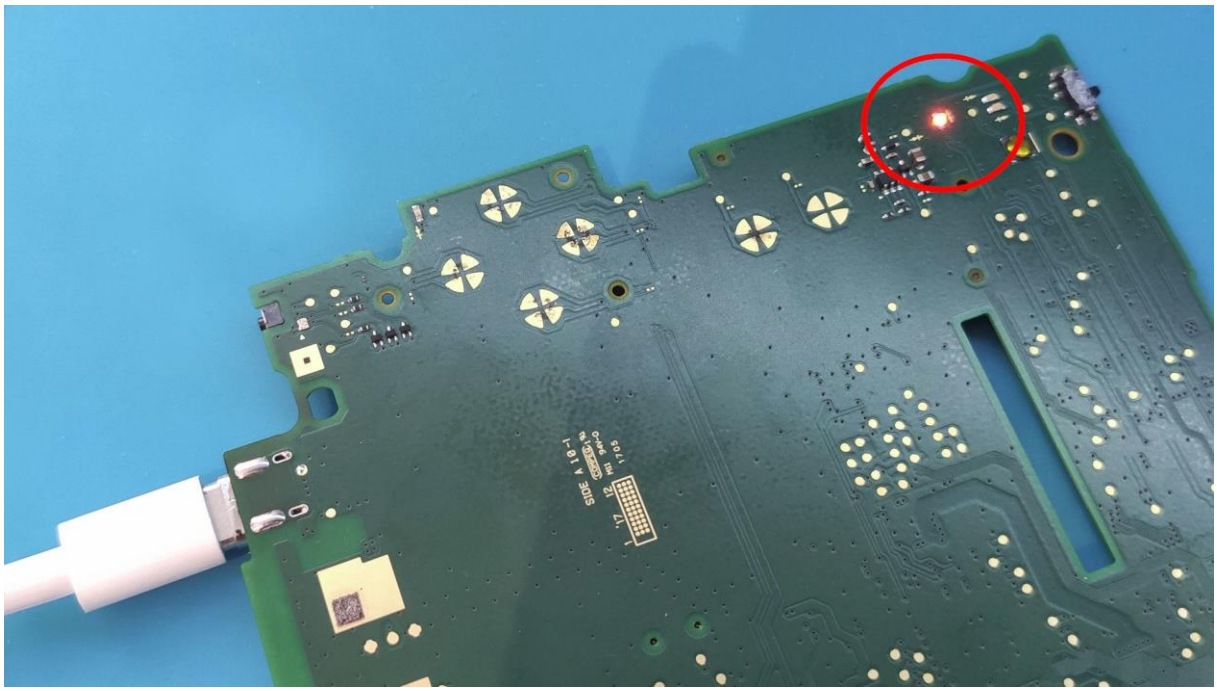
If everything appears to be correct, proceed to solder the remaining four pads.



Optionally, the front side can be painted with a permanent black marker.

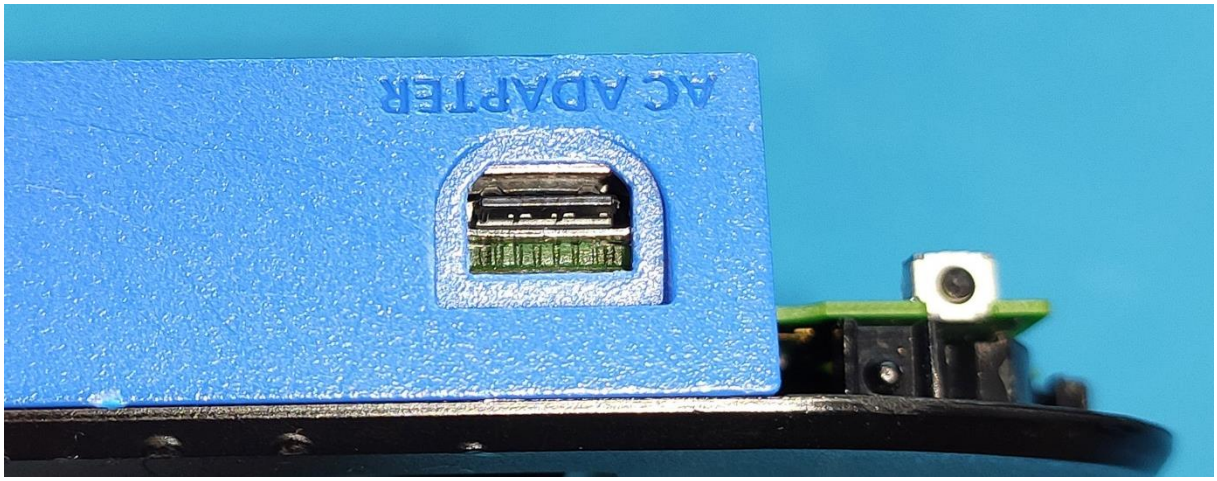


Before reassembling everything, you can connect the USB-C cable to the connector and observe if the orange light turns on for a few seconds and then turns off. This confirms that the installation is perfect.

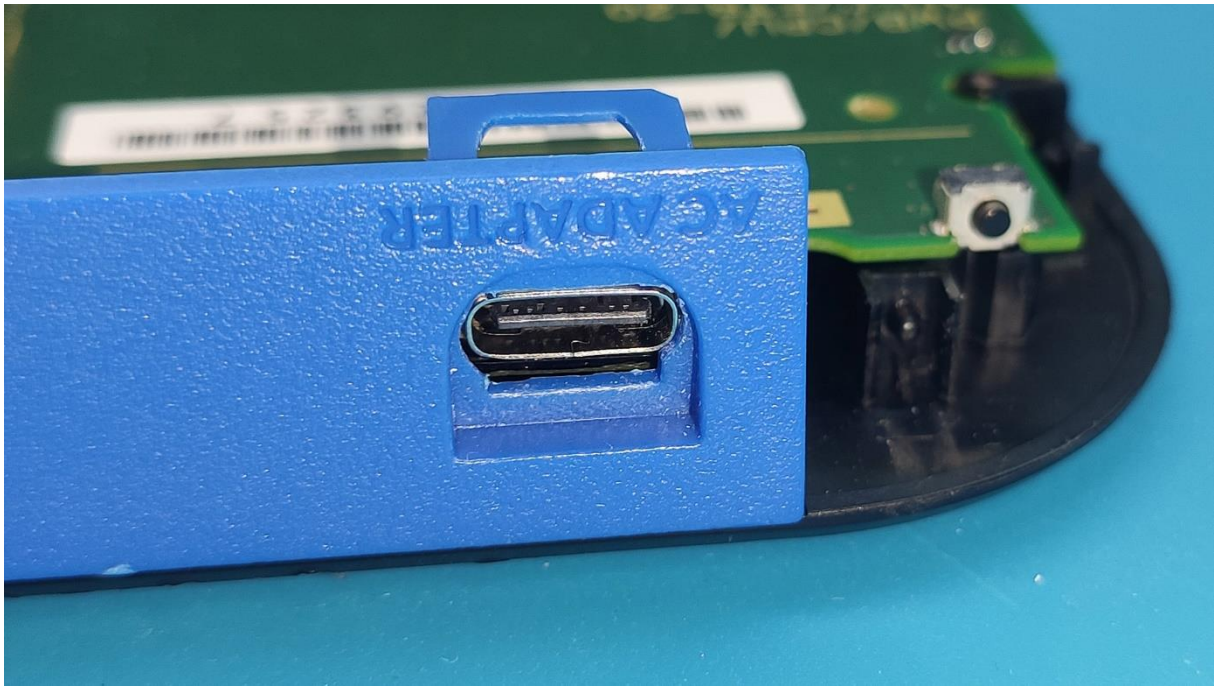


## 5. CUTTING THE PLASTIC SHELL

The original connector hole in the shell is not enough big for the new USB-C connector, so it needs to be enlarged.







## 6. FINISHING THE INSTALLATION

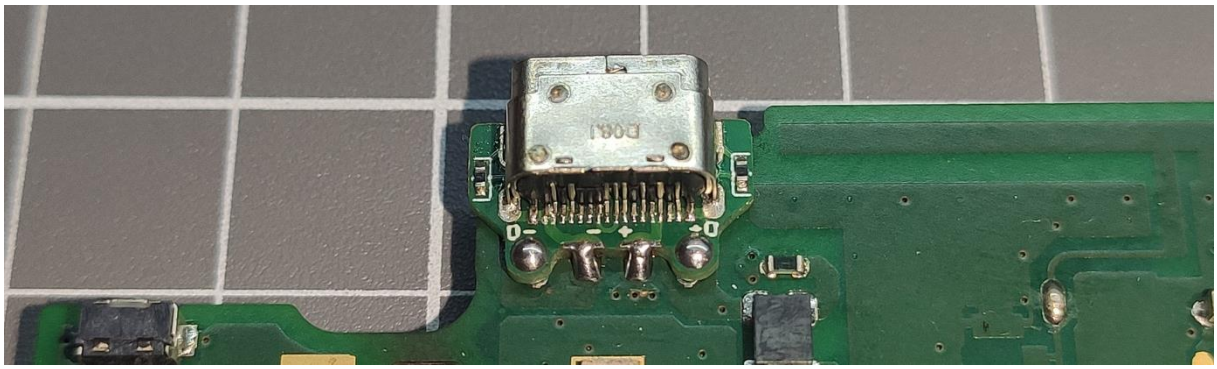
Now, you can put the mainboard back to the shell, and put the screws and cables as before. Enjoy it!

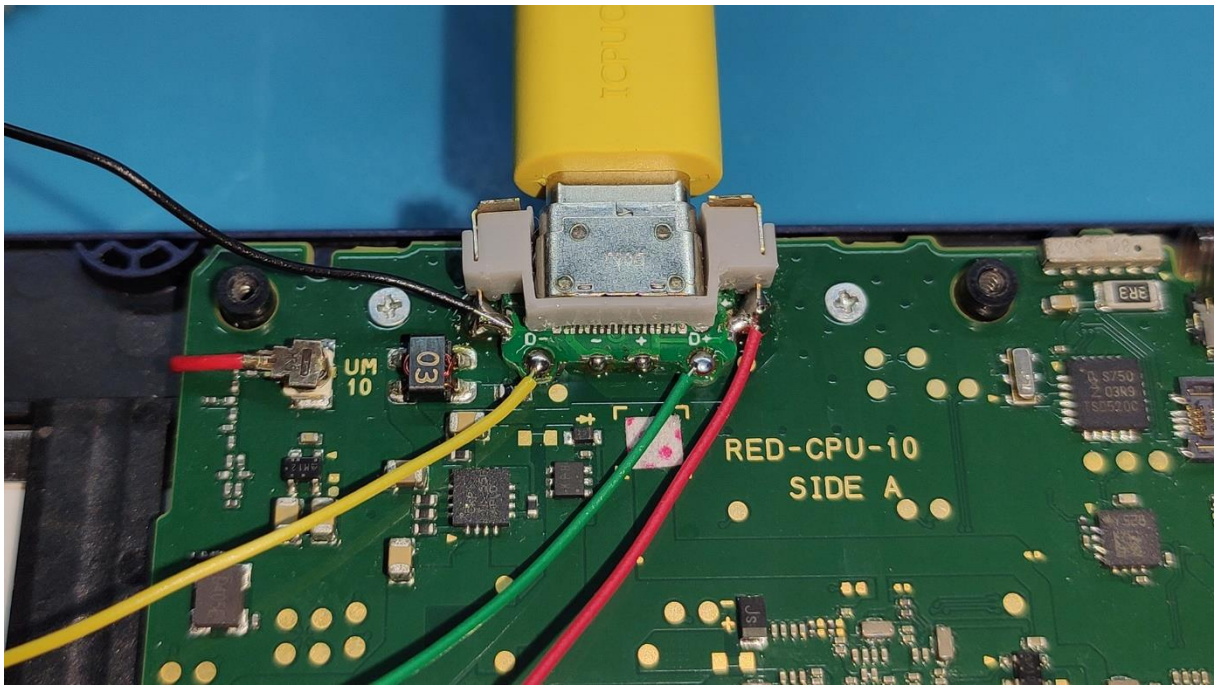
# NINTENDO 2DS DATA - WITH SUPPORT FOR DATA CONNECTION

This specific version of the board supports data connection via USB-C, not just power like the standard version.

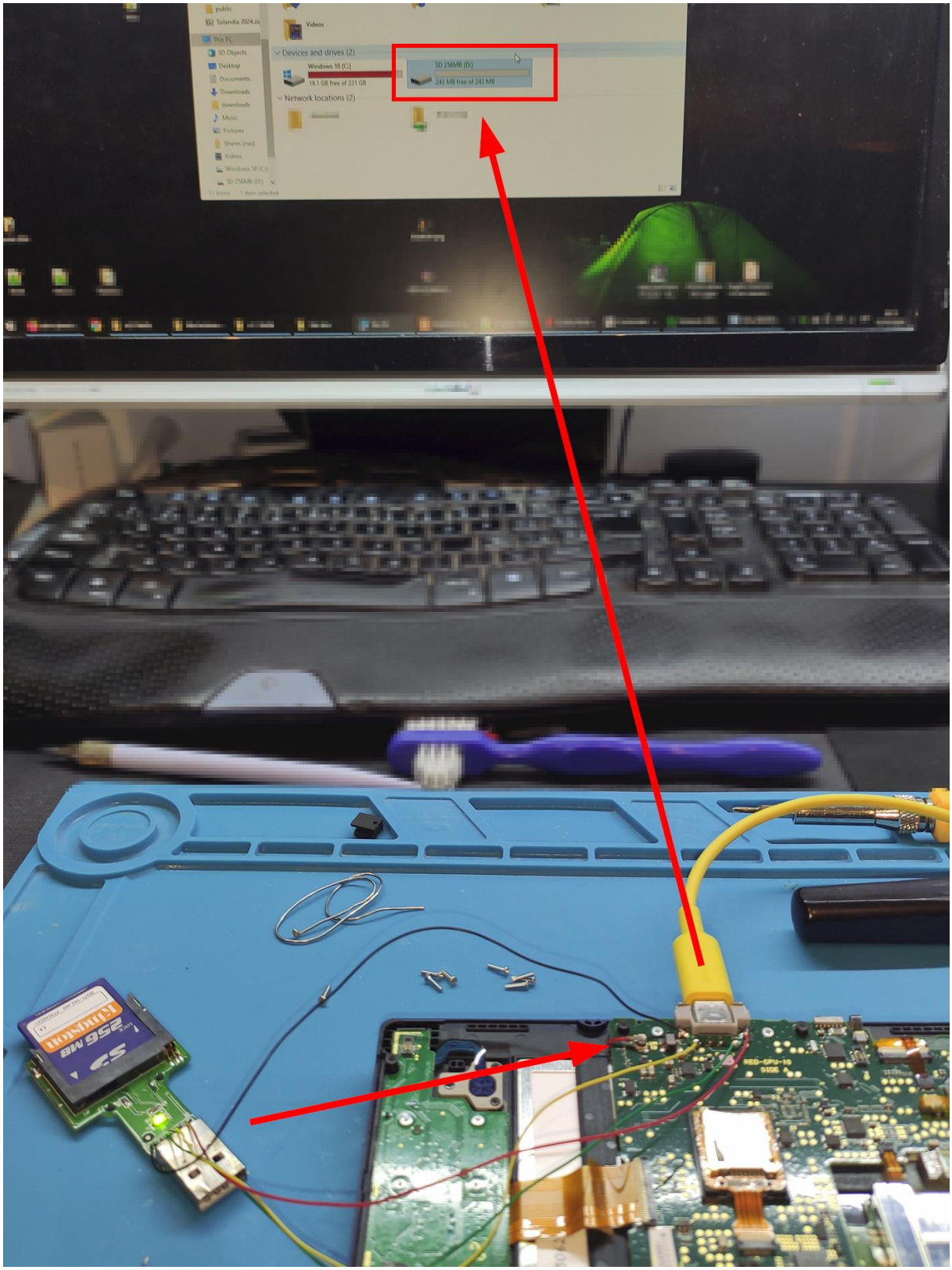
**This feature is for very specific use cases.** Essentially, it allows some mod installed inside the console to use the USB-C connector to transmit data to a computer. **The most typical use is when a video capture card is installed to record on the computer what is displayed on the console screens.** Instead of using an extra connector, the same one can be used for everything: charging the console and transmitting data.

Given that I do not have a video capture card, I am showing a test performed with an SD card reader connected to the computer. This is simply a test, not a real use case. **This product can never be used to access the console's MicroSD.**






*This is an N3DS, but it's the same for an N2DS.*




*This is an N3DS, but it's the same for an N2DS.*

# 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.*