Build Instructions

YYYYMMDD → The newest date in that folder.

First Build:

1. Prepare the required parts. Please refer to the document (Needed Parts).
2. Solder the circuit board and assemble the components.
3. Unzip SD_YYYYMMDD.zip and copy the files to a clean microSD card (FAT32 format).
4. Install CircuitPython 10.0.1 CircuitPython Download and Installing CircuitPython
5. Unzip CIRCUITPY_YYYYMMDD.zip and copy the files to your CIRCUITPY drive.
6. Wait for the device to reboot. (press reset if waiting more than 10 mins)
7. Run WiFiCom's Settings, enter Drive Mode, and set your Config Files. (optional)

Update:

1. Backup the **savedata** folder from the microSD card and the **Config Files** from the CIRCUITPY drive.
2. Unzip SD_YYYYMMDD.zip and copy the files to a clean microSD card (FAT32 format).
3. Copy the **savedata** folder (from step 1) to your microSD card.
4. Download flash_nuke.uf2 and Flash Resetting your board.
4. Install CircuitPython 10.0.1 CircuitPython Download and Installing CircuitPython
5. Unzip CIRCUITPY_YYYYMMDD.zip and copy the files to your CIRCUITPY drive.
6. Wait for the device to reboot. (press reset if waiting more than 10 mins)
7. Run WiFiCom's Settings, enter Drive Mode, and copy the **Config Files** (from step 1) to your CIRCUITRY drive.
8. Eject CIRCUITPY drive and hold button C to exit (reboot).

P.S. The **Config Files** include secrets.json, config.json, and digiroms.txt, but exclude board_config.py.

Here are the update steps and recovery guide written by **altcho1w**:
https://docs.google.com/document/d/1ebgkWnCqvn5RFfDfUeG7LSj5gOsr1jpUNO6RbbZfzRU/edit?tab=t.0#heading=h.jws5d49wcby3

Video:
https://drive.google.com/file/d/1nVKf4A5XnQDhUxty3Jg7eR-T-tY8AOOg/view?usp=drive_link

A update guide written by **Legendary Sword WarOmnimon**:
https://discord.com/channels/761581682686951455/1382033368337612920/1550624277139558580

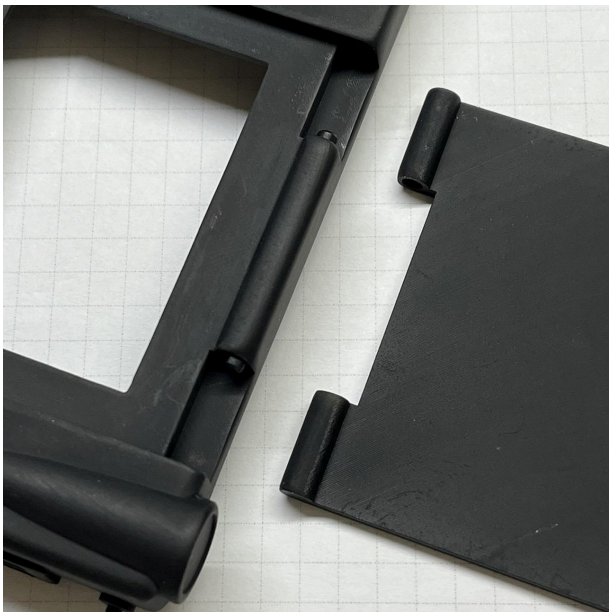
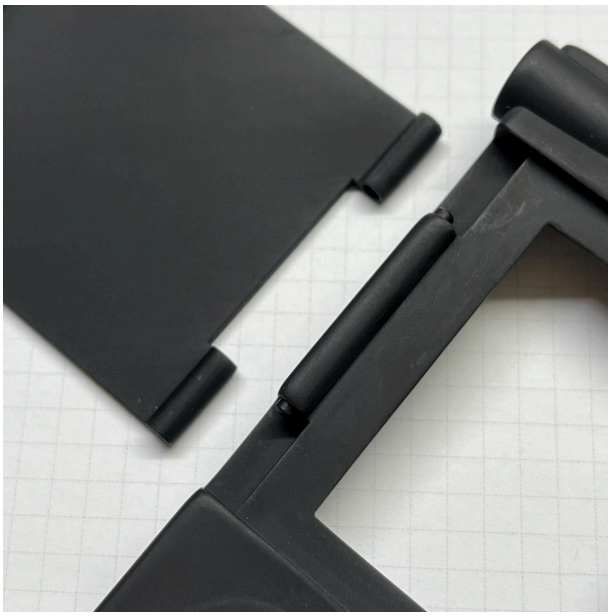
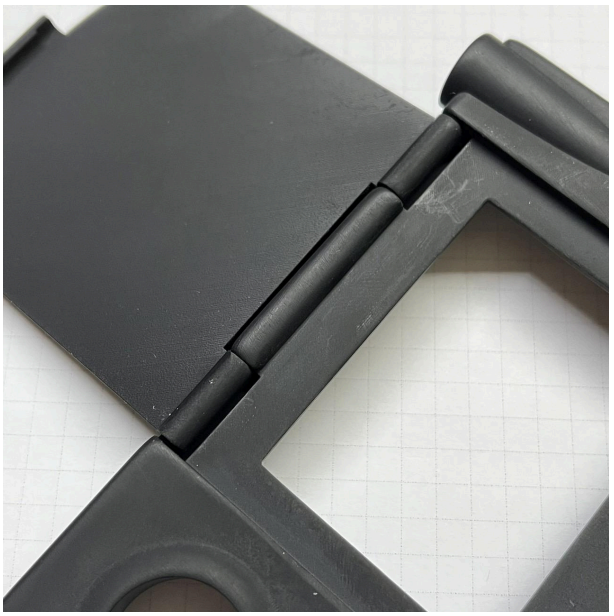
Others:

For information about the DS3231 RTC module, please check the guide on Discord. → link1 link2
If you want to modify the terminal.py and ui.py file. → link

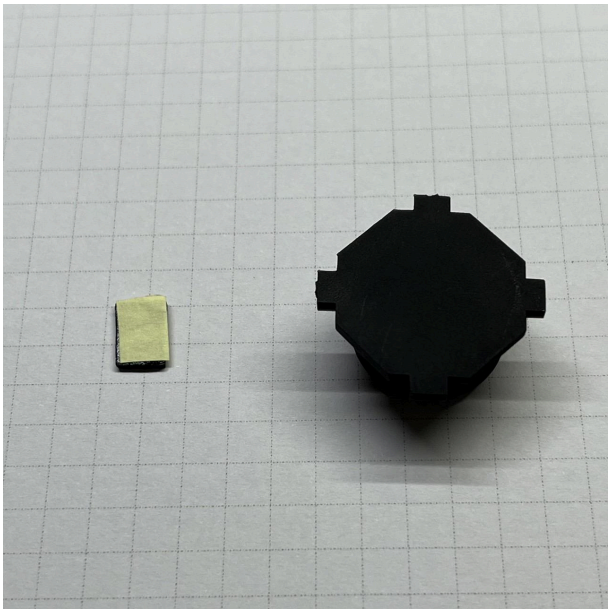
↓↓↓ Here are some notes to keep in mind ↓↓↓

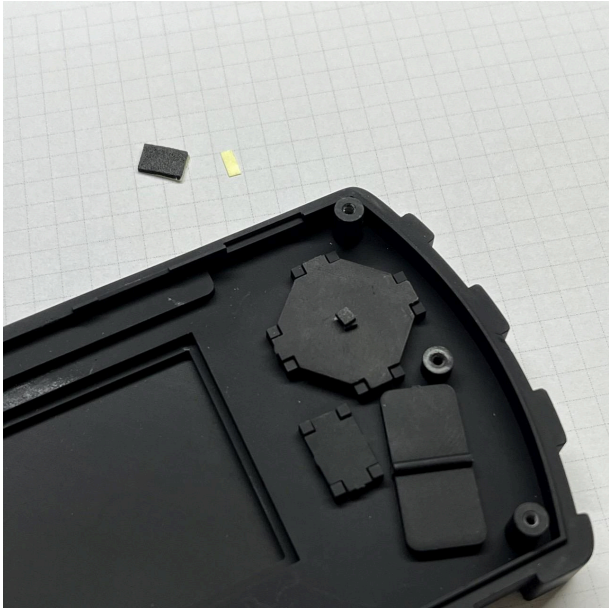
Digimon Pico Terminal

Using springs and snap-fits to connect between 03_Cover.stl and 01_TOP.stl.
Cut 08_Cover_Holder.stl to 7.5-8mm as the snap-fit.

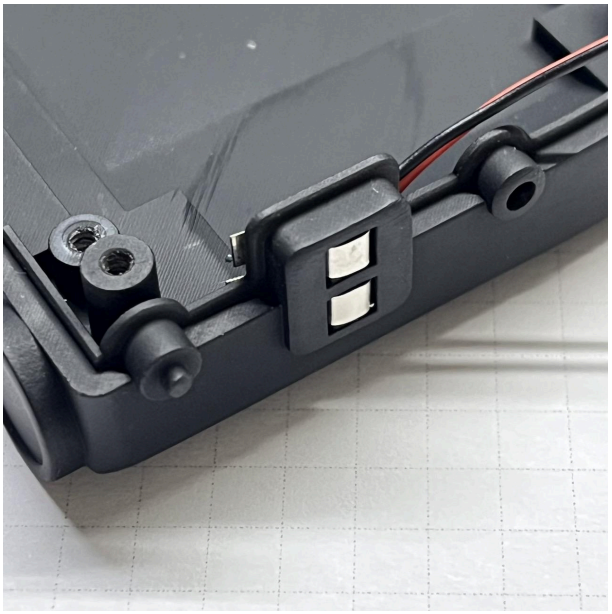





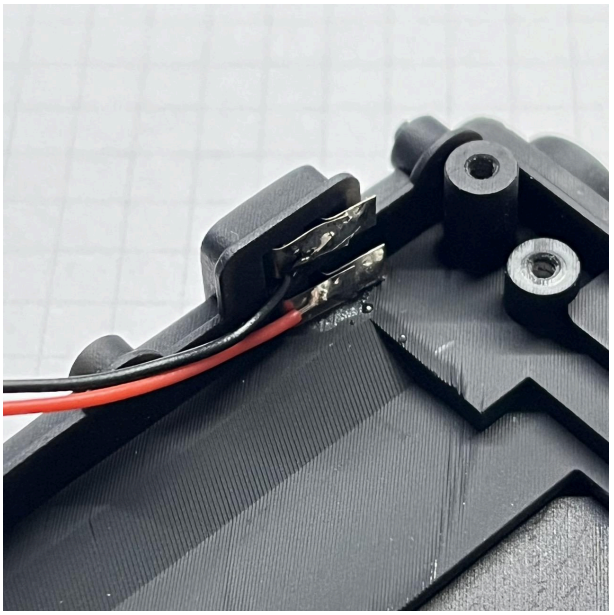
About Directional_button, cut and overlap the Foam Tape to about 3x3x2mm and attach it in the center of the bottom of the Directional_button.



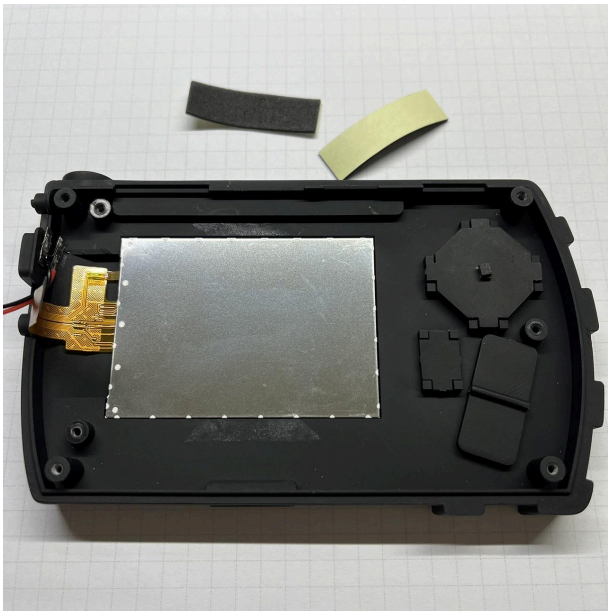
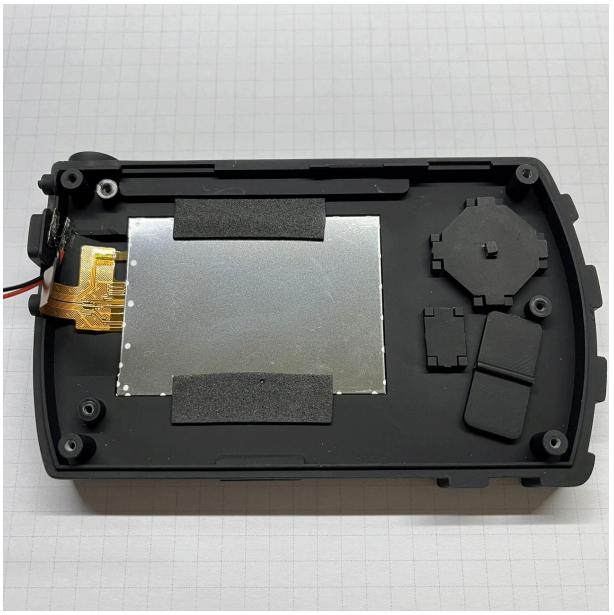


About connection prongs, use Nickel Plated Steel Strip. The SIGNAL (Red wire) should be placed near the top of the device, and the GND (Black wire) near the bottom.

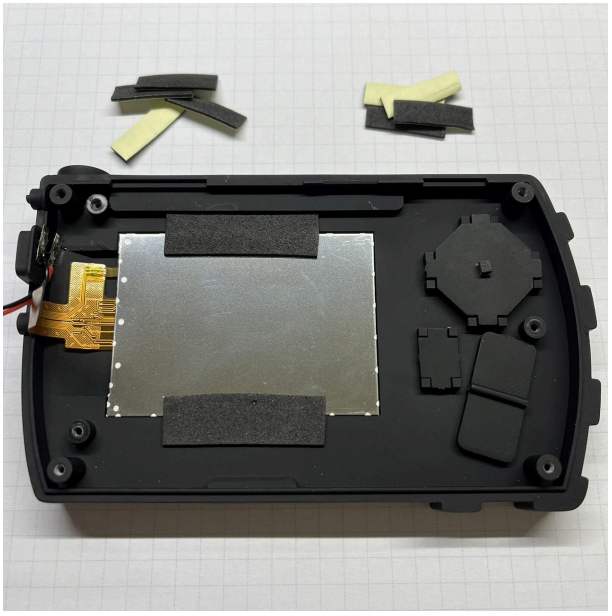
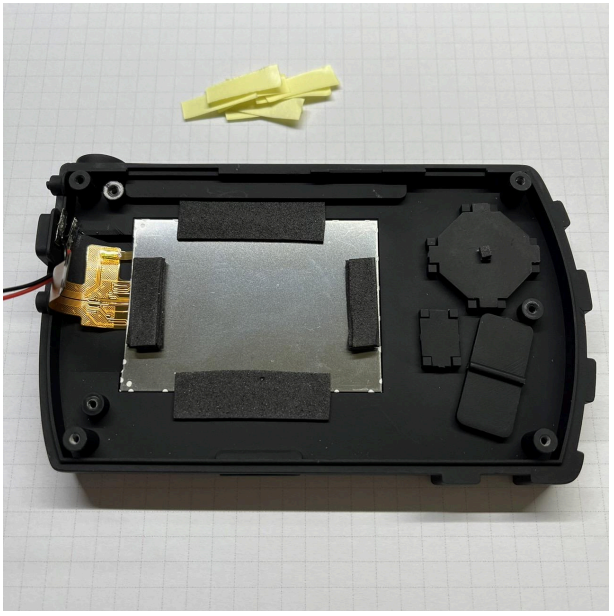




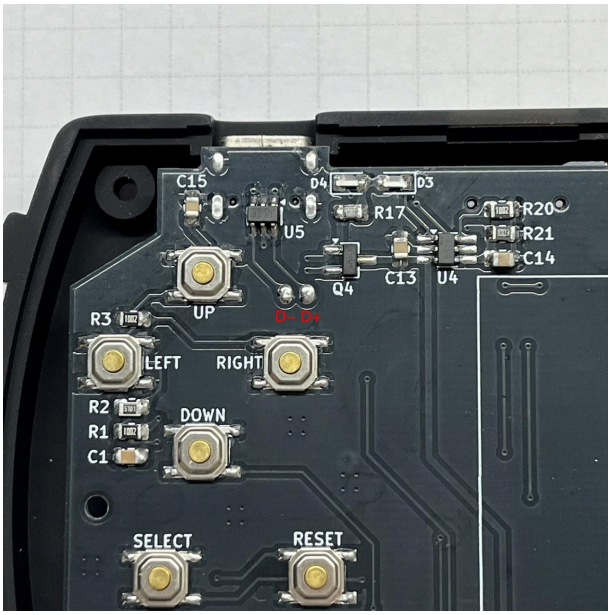
To secure and hold the screen, use Foam Tape.
Additionally, the screen can also be secured using hot glue.

Cut and overlap the Foam Tape to approximately 5x20x4mm, and place it on both sides of the back of the screen.

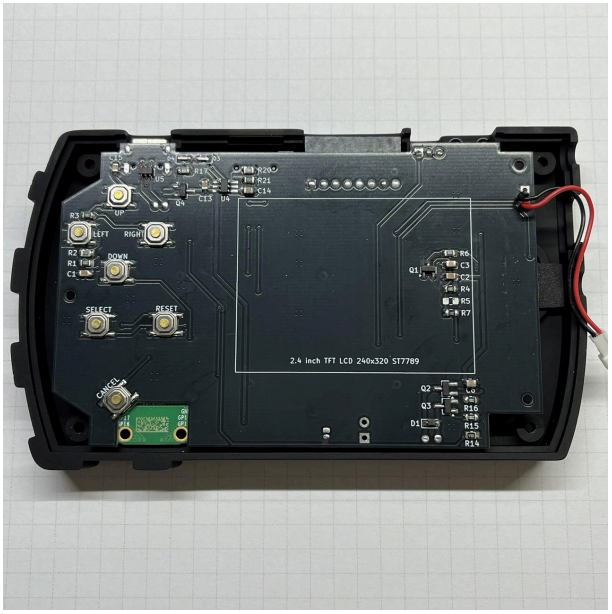



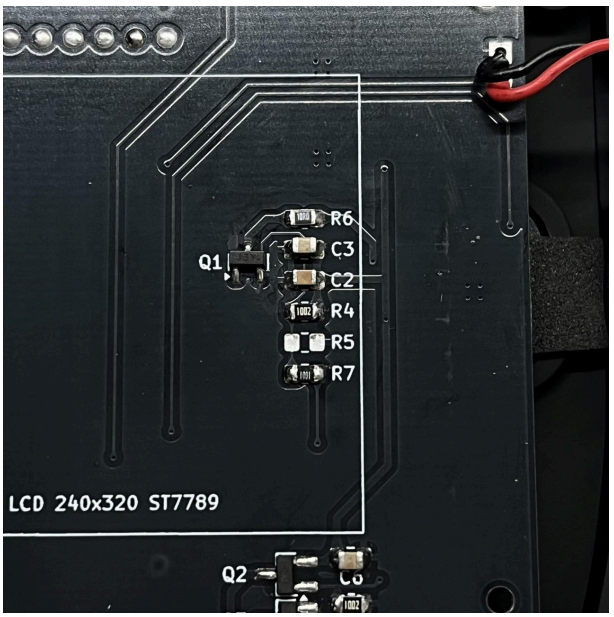
Side View LED (D3, D4) is used, and when charging, light can be seen coming through the top.
Make sure D+ and D- are connected to the pico 2 w.





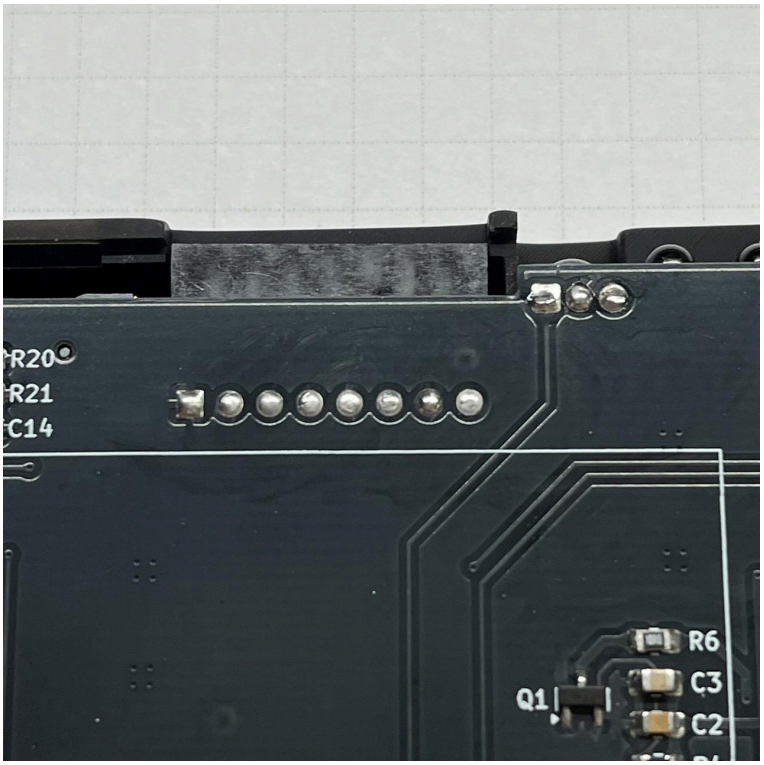
About resistors R4 and R5, solder only one of them. (Recommended R4)



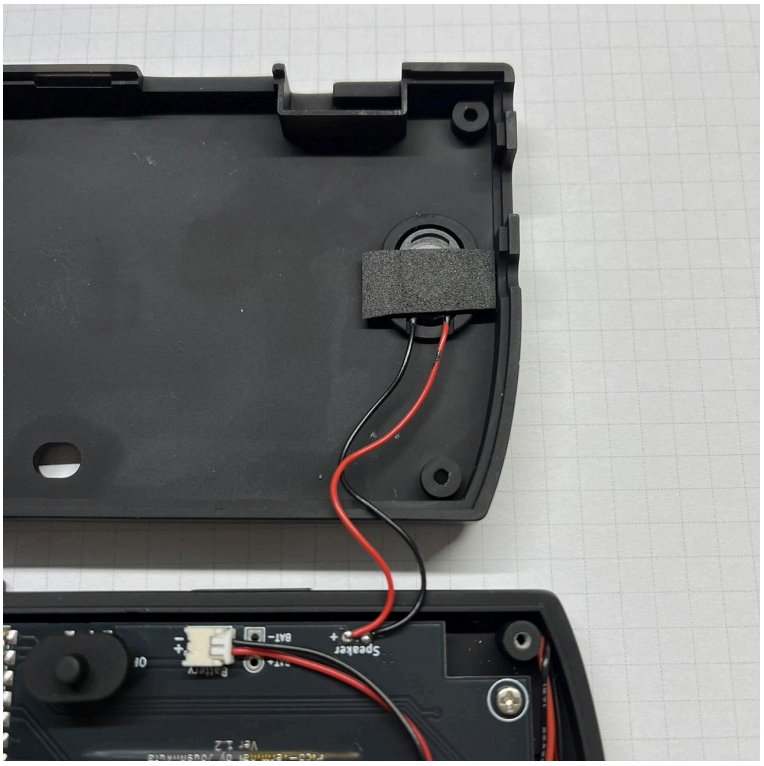


R4: Turn backlight on when power on
R5: Turn backlight off when power on
Do not solder R4 & R5 at the same time.
P.S. Screen's backlight is controlled by software after the program is running.

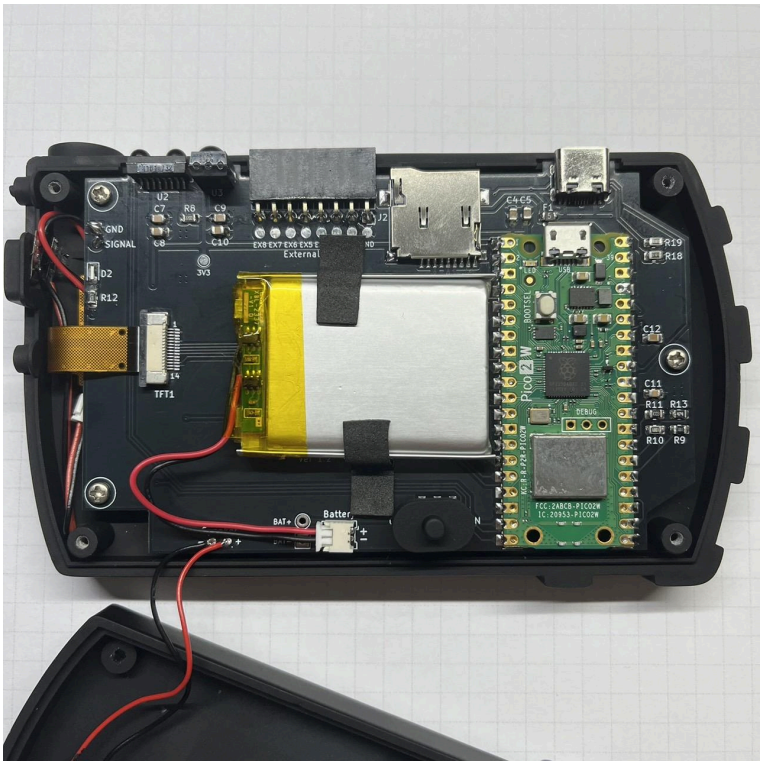
Remember to cut the pins.



The Speaker can be secured to 02_Bottom.stl using Foam Tape.



For the battery, it can be connected to the PCB either by soldering or using an MX 1.25mm connector. The battery specification is 603040 (600~800mAh), and it can be adjusted as needed.



When disassembling, remember to remove the microSD card.



M2x5 Flat Tail Self-Tapping Screw for PCB. (Right)
M2x10 Flat Tail Self-Tapping Screw for shell. (Left)





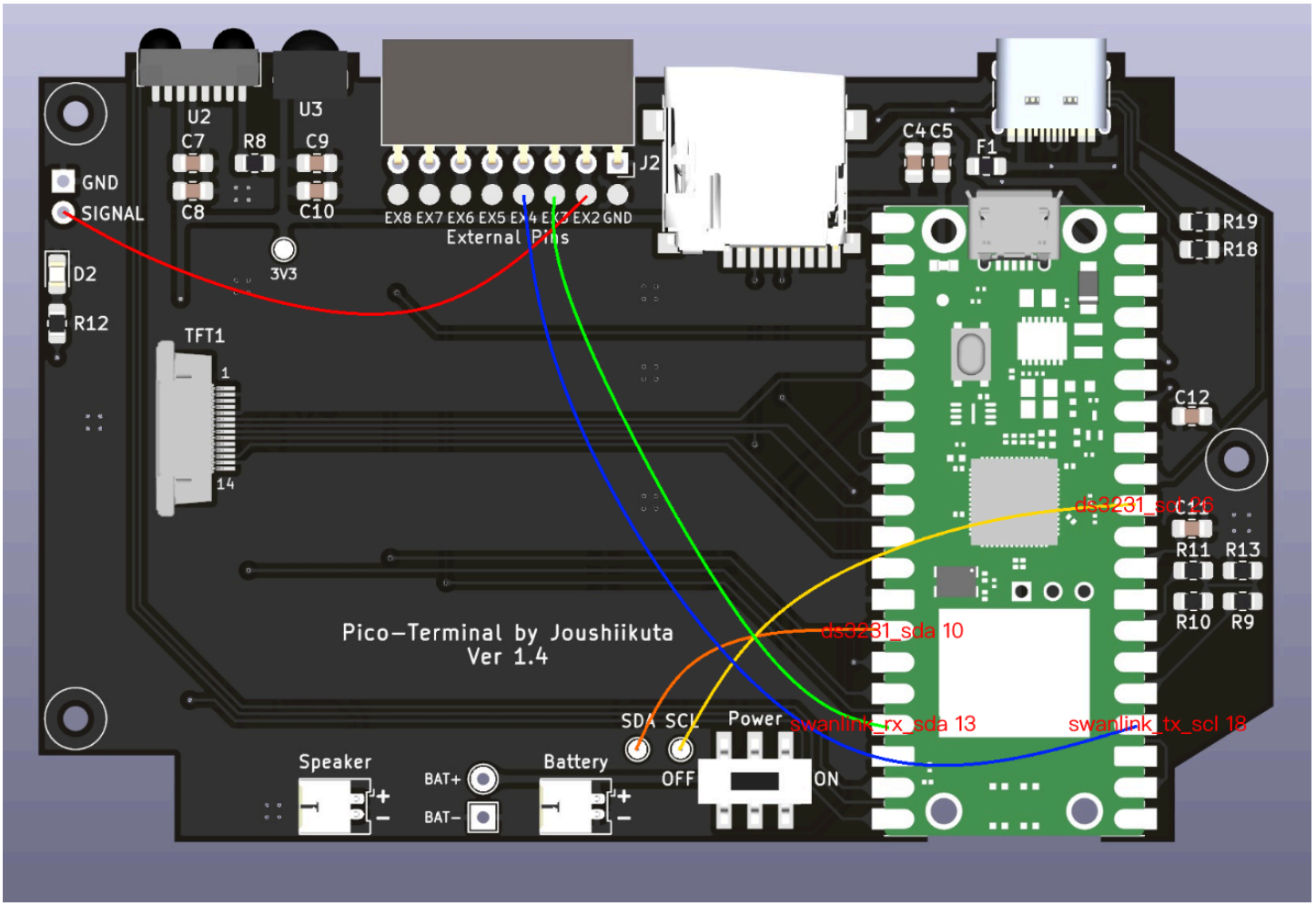

If the screen cover 3D-printed part is hard to remove, an alternative is to use a silicone rod about 2.8mm to 3mm in diameter.
I replaced one side with a silicone rod (Φ2.8mm) , and it works as well.




About DS3231 and PN532 Module (Early version)

Gerber:
Pico-Terminal_(PCB Thickness 1.0mm)_20250831_Gerber.zip
Pico-Terminal_PCBA_20250831_Gerber_v2.zip

DS3231 RTC Module's Pinout:
SCL → GP26
SDA → GP10
~~*To enable the DS3231, set "TRY_DS3231" to True in the following file:*~~
~~*\lib\pico_terminal\terminal.py*~~
In the latest version, the device automatically checks the DS3231 during startup.
-
PN532 NFC Module Pinout:
GND → GND
3V3 → VCC
GP13 → SDA
GP18 → SCL

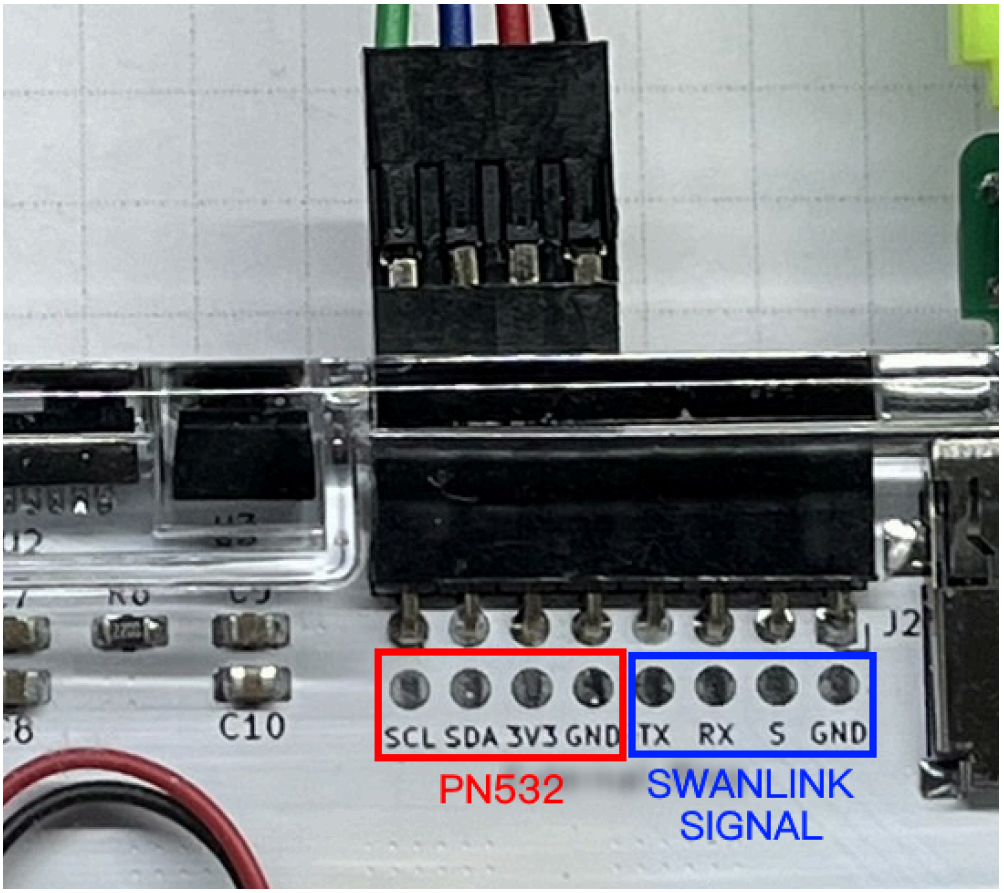


About DS3231 and PN532 Module (New version)

Gerber:
Pico-Terminal_(PCB Thickness 1.0mm)_20251201_Gerber.zip
Pico-Terminal_PCBA_20251201_Gerber.zip

DS3231 RTC Module's Pinout:
No extra wiring on the external pins.
~~*To enable the DS3231, set "TRY_DS3231" to True in the following file:*~~
~~*\lib\pico_terminal\terminal.py*~~
In the latest version, the device automatically checks the DS3231 during startup.
-
PN532 NFC Module Pinout:
No extra wiring on the external pins.

PN532 Cover:
https://www.thingiverse.com/thing:7154670



Check the Manual for more info.