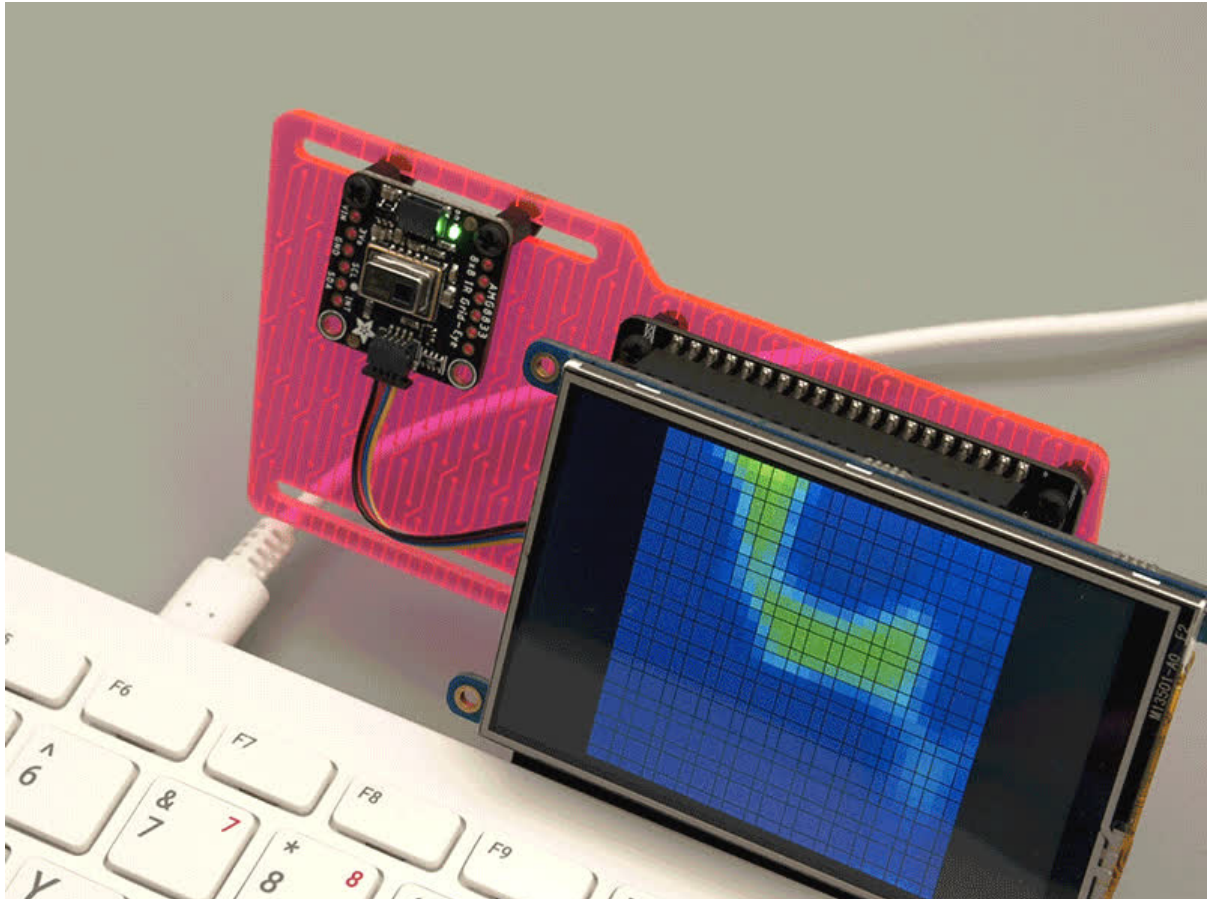




CYBERDECK Expansion Plate

Created by Ruiz Brothers



<https://learn.adafruit.com/cyberdeck-plate>

Last updated on 2024-06-03 03:22:17 PM EDT

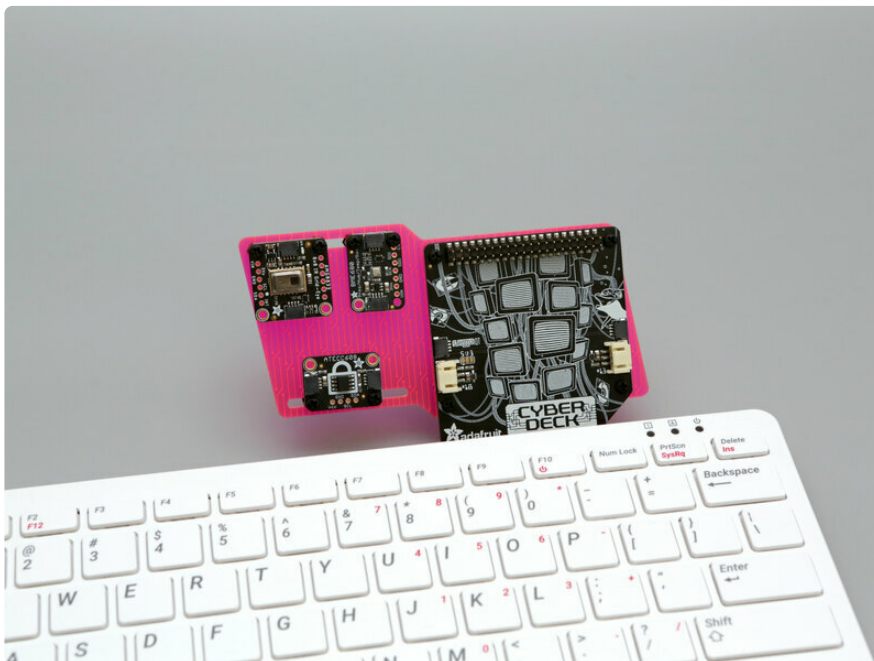
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Overview

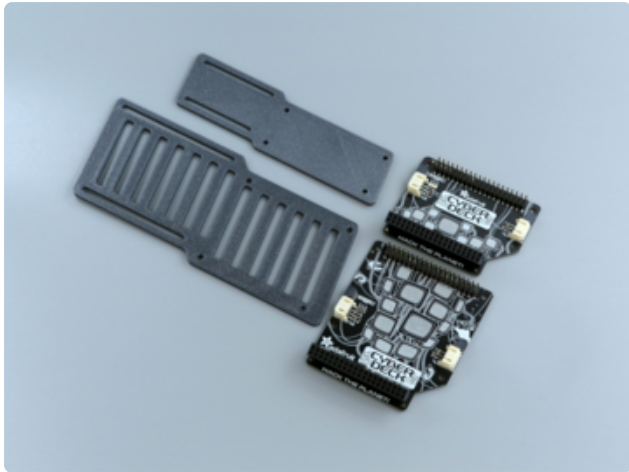


Got yourself a new CYBERDECK and wanna add breakouts like an IR thermal camera? Make yourself a mounting plate! This can be 3D printed, laser cut or CNC milled. Heck, this could even be cut out of wood! The mounting plate is available as a 3D model (STEP, STL) and vector format (SVG, DXF).

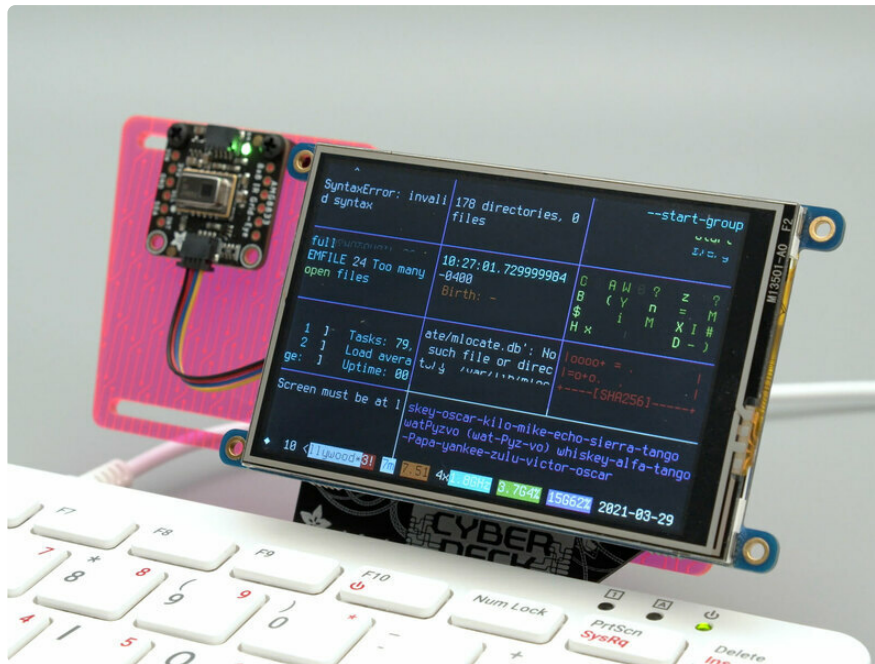


The mounting plate features mounting holes sized for the CYBERDECK HAT. It can be secured to the PCB using M2.5 standoffs and screws.

Use the two slotted rails to secure breakout boards with M2.5 or M3 hardware.



The plate is designed for the CYBERDECK HAT and Bonnet.



The infamous hacker demo above is the **hollywood** linux script by [Dustin Kirkland](https://adafru.it/RvC) (<https://adafru.it/RvC>). The display is the 3.5in PiTFT.

Prerequisite Guides

Take a moment to walk through the following guides.

- [CYBERDECK Learn Guide](https://adafru.it/RvD) (<https://adafru.it/RvD>)
- [AMG8833 Thermal Camera](https://adafru.it/CiU) (<https://adafru.it/CiU>)
- [3.5in PiTFT Touch Screen Display](https://adafru.it/eno) (<https://adafru.it/eno>)



Raspberry Pi 400 Desktop - Full Computer Kit

Raspberry Pi 400 is a complete Raspberry Pi 4-based personal computer, integrated into a keyboard. The Pi 4 is the first computer from the Pi Foundation that really feels 'desktop...

<https://www.adafruit.com/product/4796>



Adafruit CYBERDECK HAT for Raspberry Pi 400

Cyber-warriors, listen up here! We've got with some zero-day unreleased hardware we just dumpster-dived. Now you can crack kodes, and write skripts with style, thanks to the...

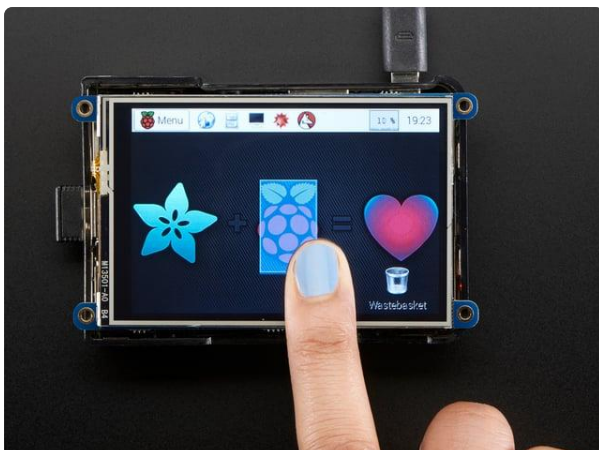
<https://www.adafruit.com/product/4863>



Adafruit CYBERDECK Bonnet for Raspberry Pi 400

Howdy keyboard cowboys, are you surfing the information superhighway with a Pi 400? Want a cool heads-up display, or maybe you need to wire up some NeoPixel wetware...?Well, we...

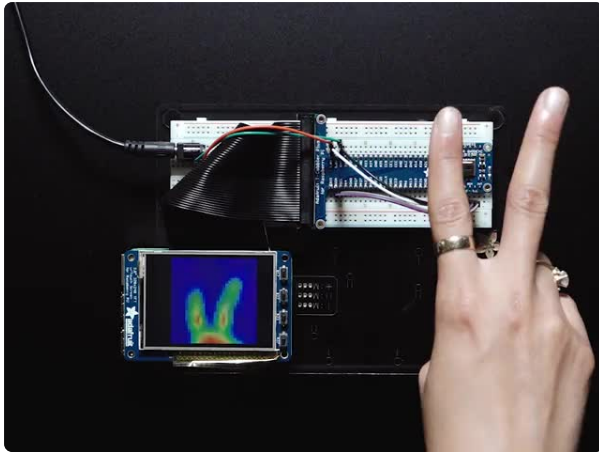
<https://www.adafruit.com/product/4862>



PiTFT Plus 480x320 3.5" TFT+Touchscreen for Raspberry Pi

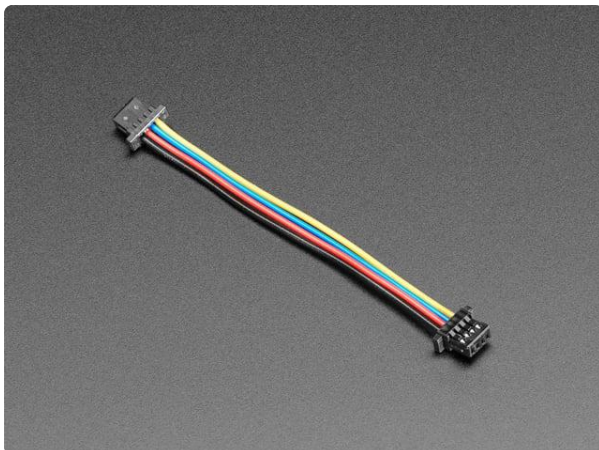
Is this not the cutest, little display for the Raspberry Pi? It features a 3.5" display with 480x320 16-bit color pixels and a resistive touch overlay

<https://www.adafruit.com/product/2441>



Adafruit AMG8833 IR Thermal Camera Breakout

Add heat-vision to your project with an Adafruit AMG8833 Grid-EYE Breakout! This sensor from Panasonic is an 8x8 array of IR thermal sensors. When connected to your microcontroller (or... <https://www.adafruit.com/product/3538>



STEMMA QT / Qwiic JST SH 4-Pin Cable - 50mm Long

This 4-wire cable is 50mm / 1.9" long and fitted with JST SH female 4-pin connectors on both ends. Compared with the chunkier JST PH these are 1mm pitch instead of 2mm, but... <https://www.adafruit.com/product/4399>



Black Nylon Machine Screw and Stand-off Set – M2.5 Thread

Totaling 380 pieces, this M2.5 Screw Set is a must-have for your workstation. You'll have enough screws, nuts, and hex standoffs to fuel your maker... <https://www.adafruit.com/product/3299>

CAD Files

Files for 3D Printing

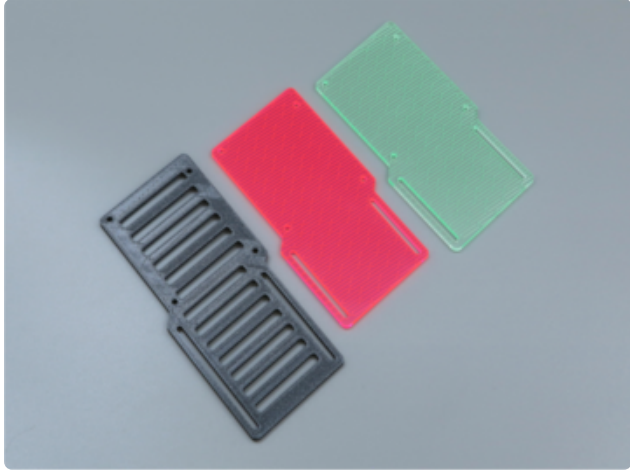
The file names have a prefix denoting the version for the HAT or Bonnet. The suffix numbers relate to the length of the slot.

- hat-plate-66mm.stl

- hat-plate-46mm.stl
- bonnet-plate-66mm.stl
- bonnet-plate-46mm.stl

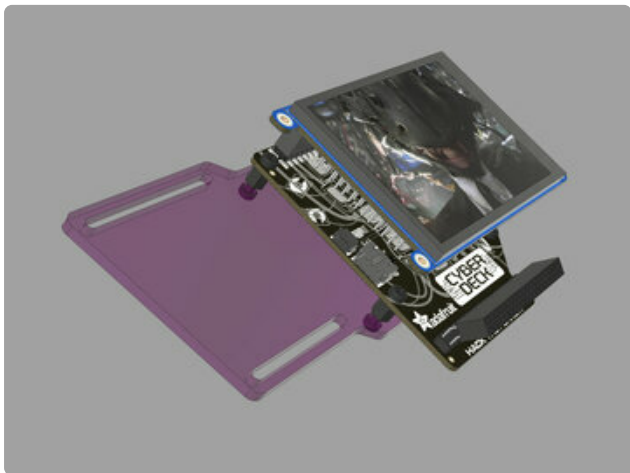
Download STLs.zip

<https://adafru.it/RvE>



The plate can be 3D printed, CNC milled or laser cut. The dimensions can be adjusted by changing the user parameters in Fusion 360.

CAD Source Files

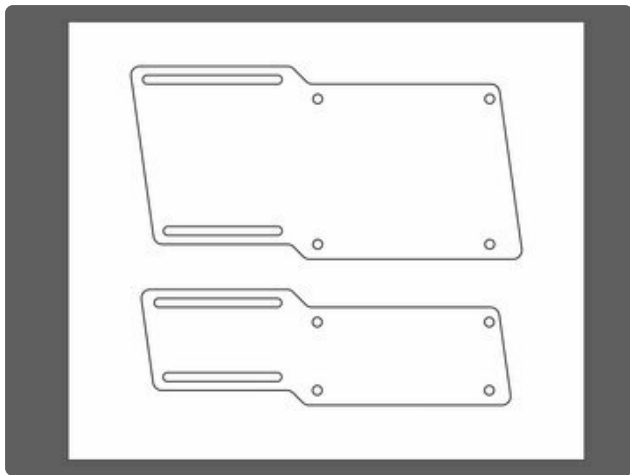


Download the STEP or Fusion 360 archive. The source files contain sketches, user parameters and models of the Cyberdeck HAT and PiTFT.

For more 3D models of parts, check out the [3D parts repo on GitHub \(https://adafru.it/RvF\)](https://adafru.it/RvF).

Download CAD Source

<https://adafru.it/Rwa>

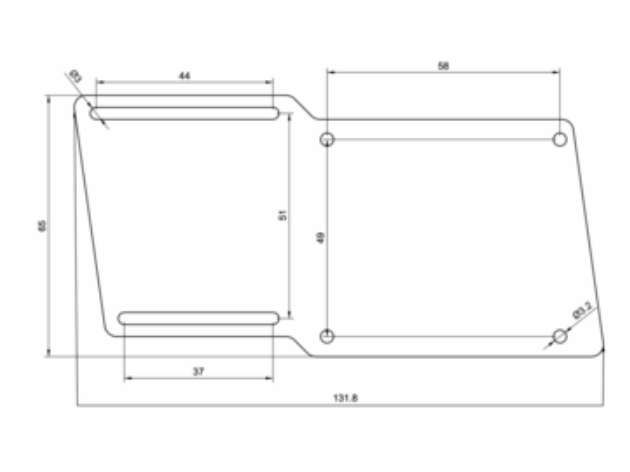


Download the vector files for CNC milling or laser cutting. The DXF is an export from Fusion 360. The SVG has been modified as a compound path for best accessibility.

Download Vectors

<https://adafru.it/Rwb>

Mechanical Drawing



Use the mechanical drawing to create custom attachments. The dimensions can help determine material stock size for CNC milling or laser cutting.

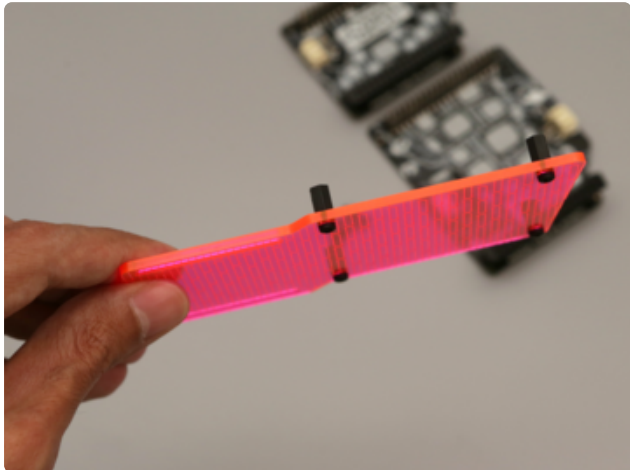
Cyberdeck HAT Plate Drawing PDF

<https://adafru.it/Rwc>

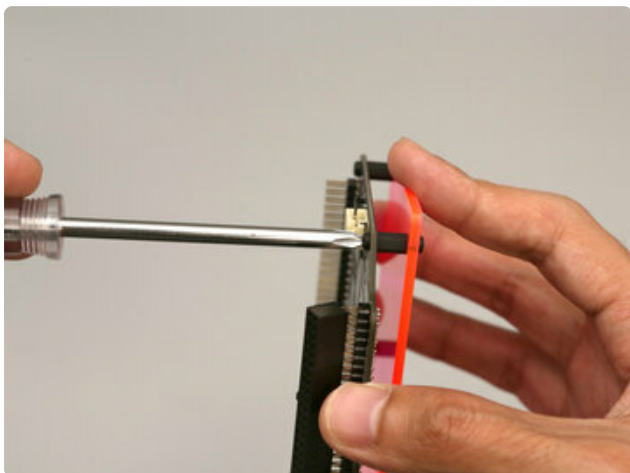
Assembly



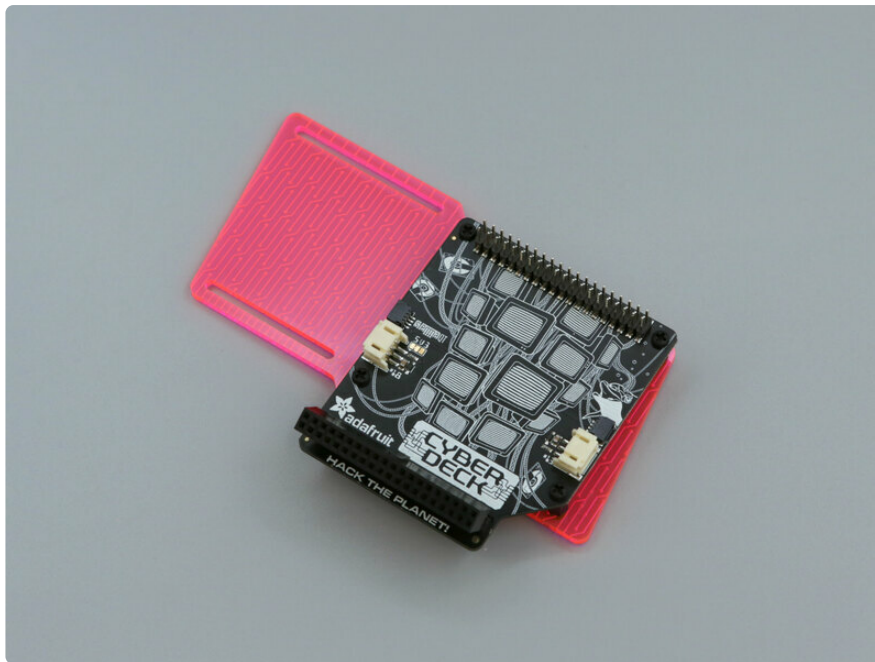
Use hardware screws to secure the plate to the CYBERDECK.

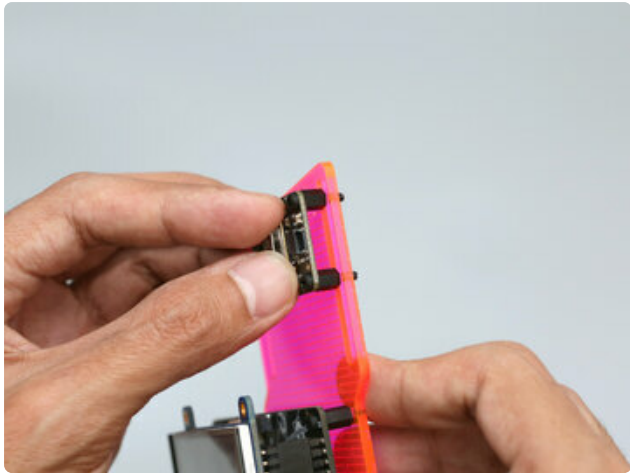
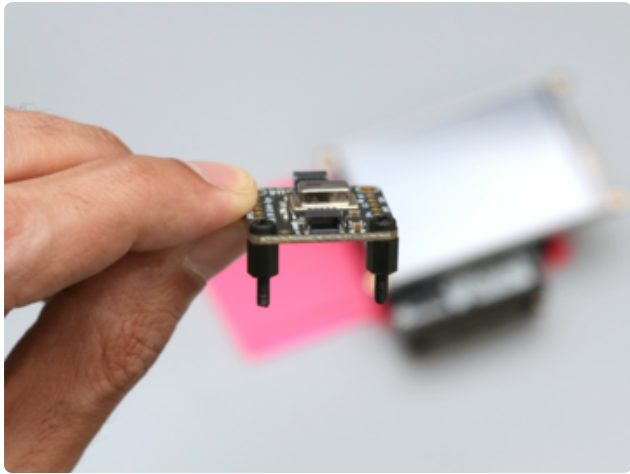


Secure the standoffs to the plate using M2.5 x 6mm long screws. Insert a screw through the mounting hole and fasten a standoff onto the thread of the screw.

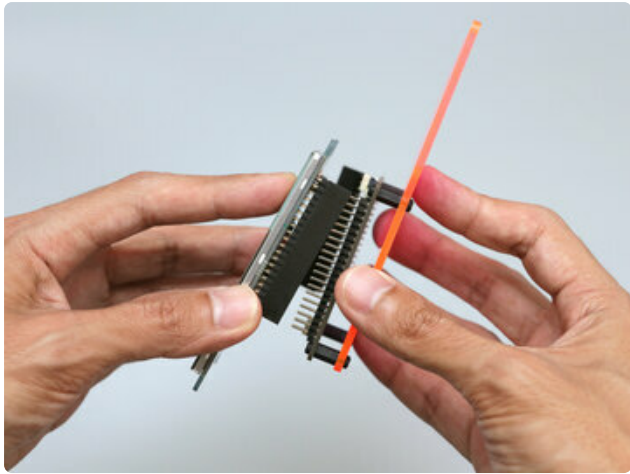


Place the CYBERDECK over the standoffs and insert an M2.5 x 6mm screw. Use a screwdriver to secure the CYBERDECK to the plate.

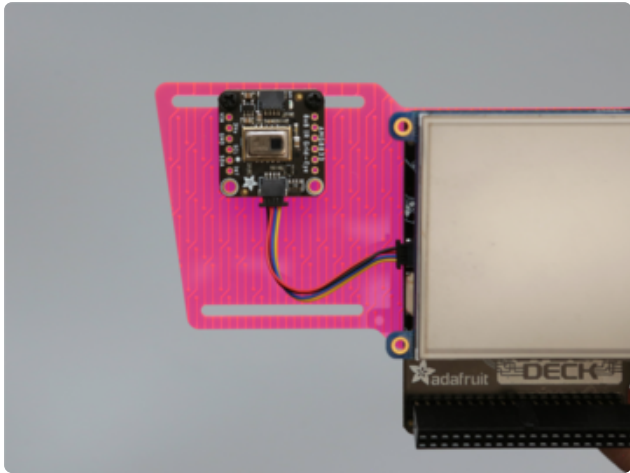




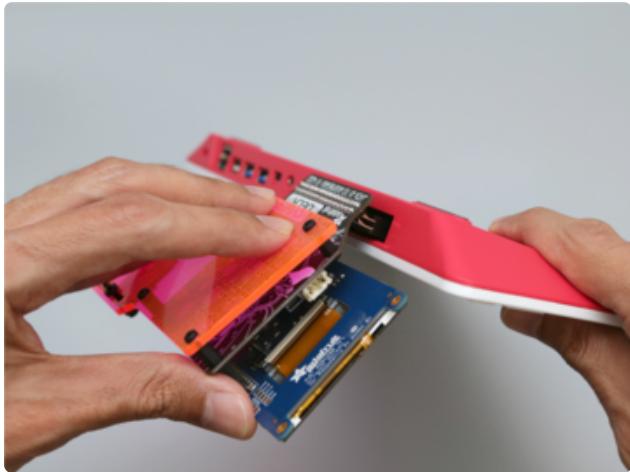
Install M2.5 screws and F-M standoffs onto the STEMMA QT breakout. Place the threads of the standoffs through the slot on the plate. Use hex nuts to secure the STEMMQ QT breakout to the plate.



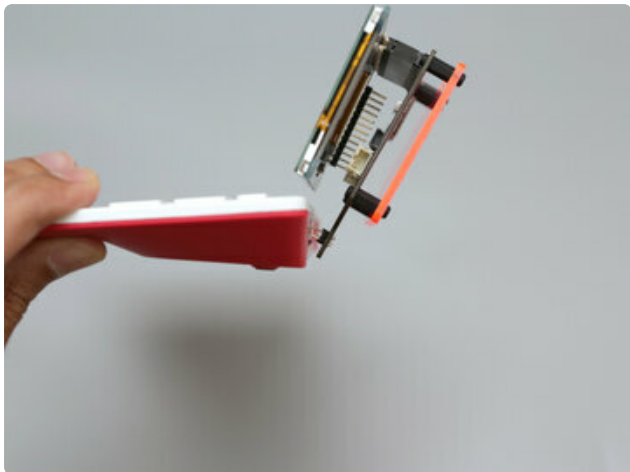
Install the Pi TFT by lining up the headers and firmly pressing them together.



Use the STEMMA QT cable to connect the breakout to the CYBERDECK using the port on the side.



Plug in the CYBERDECK to the back of the Pi400.



Now your ready for HACKING!

