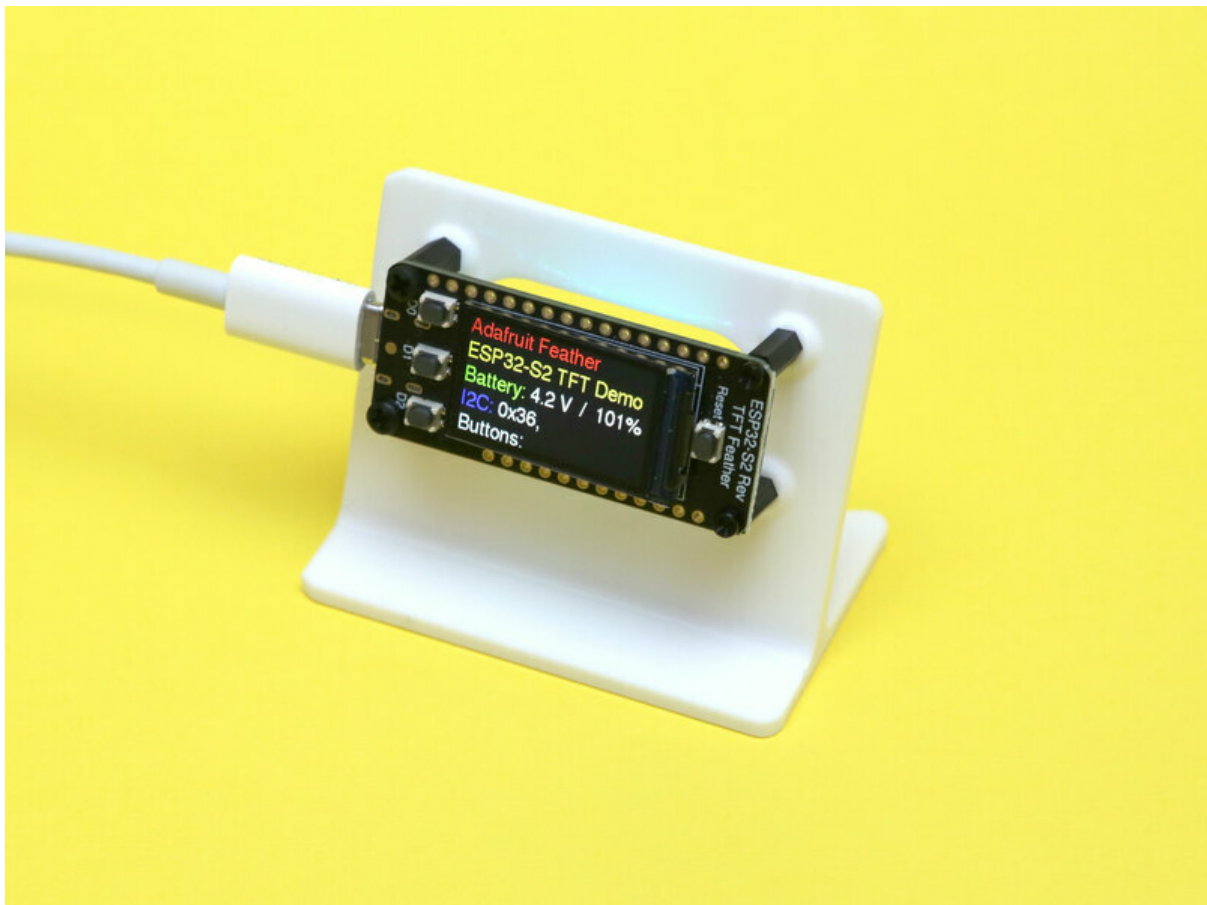




Stand for Feather ESP32 with Reverse TFT

Created by Ruiz Brothers



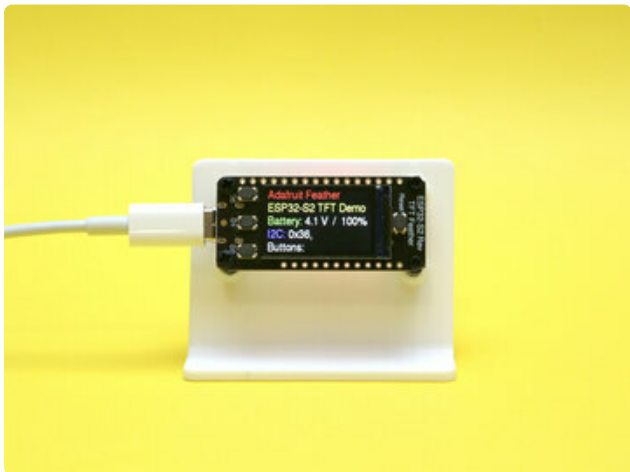
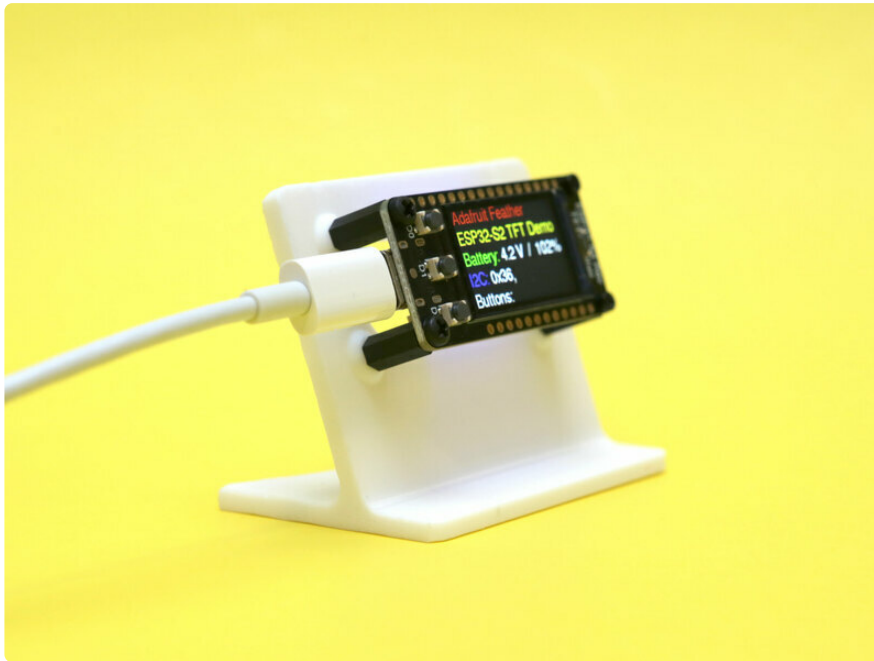
<https://learn.adafruit.com/stand-for-feather-esp32-with-reverse-tft>

Last updated on 2024-06-03 03:46:41 PM EDT

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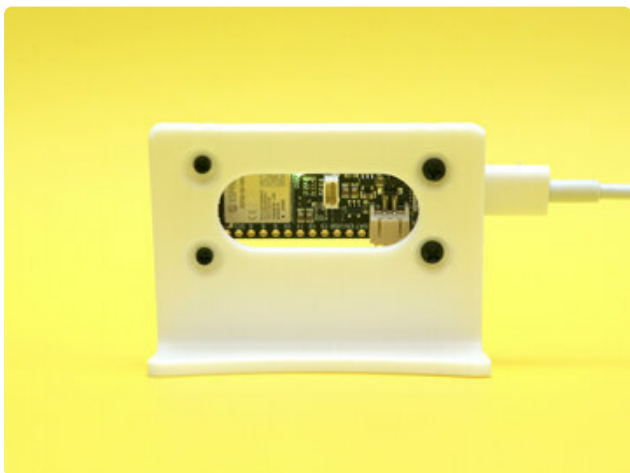
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Overview



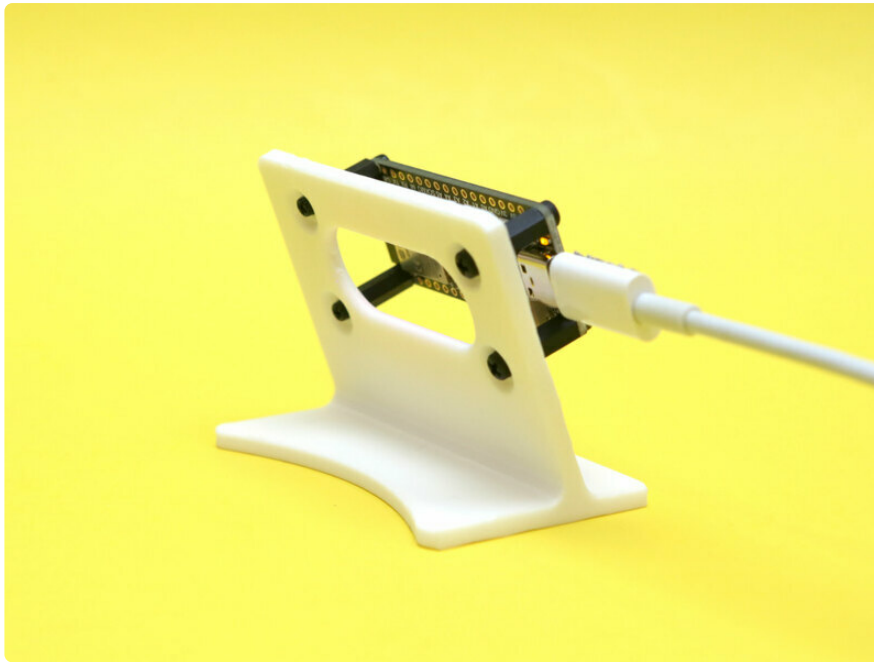
3D Printed Stand

Prop up your Feather ESP32-S2 Reverse TFT with a 3D printed stand! Just what you need for displaying that IoT project you've been hackin' on.

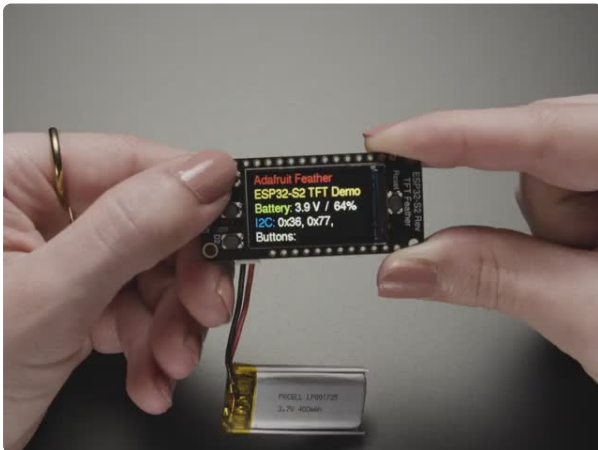


Accessible Features

Use nylon hardware screws and standoffs to secure the Feather to the 3D printed stand. A large opening in the back allows access for STEMMA QT sensor breakouts and other add-ons.



Parts



[Adafruit ESP32-S2 Reverse TFT Feather](https://www.adafruit.com/product/5345)
Like Missy Elliot, we like to "put our [Feather] down, flip it and reverse it" and that's exactly what...

<https://www.adafruit.com/product/5345>



[Woven USB A Cable with Magnetic Tips - Micro B, Type C, and iOS](https://www.adafruit.com/product/5652)

Some days we're feeling extra fancy here at the 'fruit warehouse, and we have a big soft spot for woven fabric cables. Like, peep

<https://www.adafruit.com/product/5652>



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

Totalling 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>

1 x M2 Hardware Kit

M2 Nylon Hardware Assortment Kit

<https://www.amazon.com/Litorange-320PCS-Standoff-Assorted-Assortment/dp/B07D78PFQL/>

Assembly



Hardware

Use the following hardware to secure the Feather to the 3D printed stand.

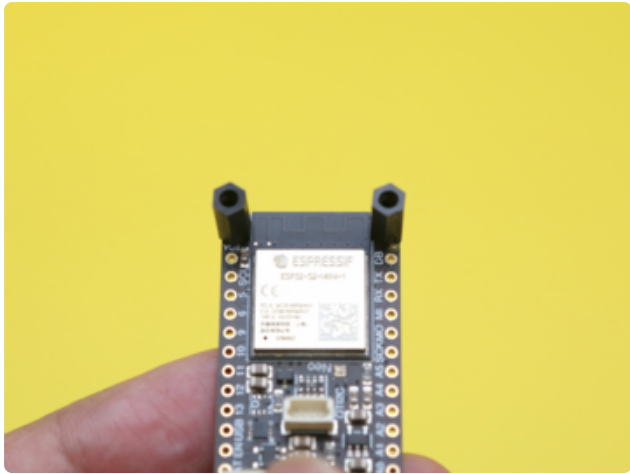
- 4x M2.5 x 6mm long screws
- 2x M2.5 x 10mm long female-female standoffs
- 4x M2 x 6mm long screws
- 2x M2 x 10mm long female-female standoffs



Install M2 Hardware

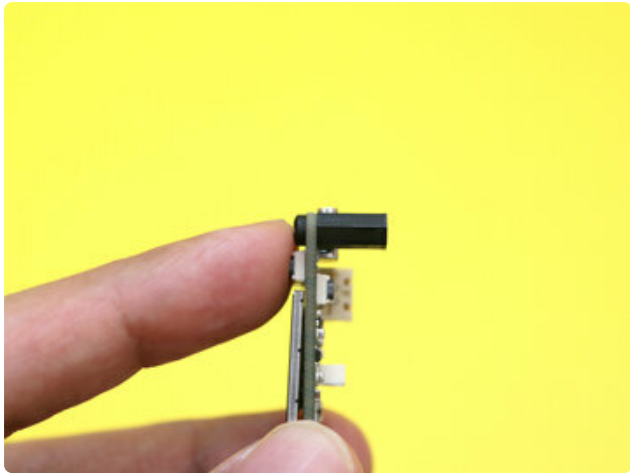
Insert an M2 x 6mm long screw through the smaller mounting hole on the TFT side of the PCB.

Then, fasten an M2 x 10mm long standoff onto the thread of the screw.



Installed M2 Standoffs

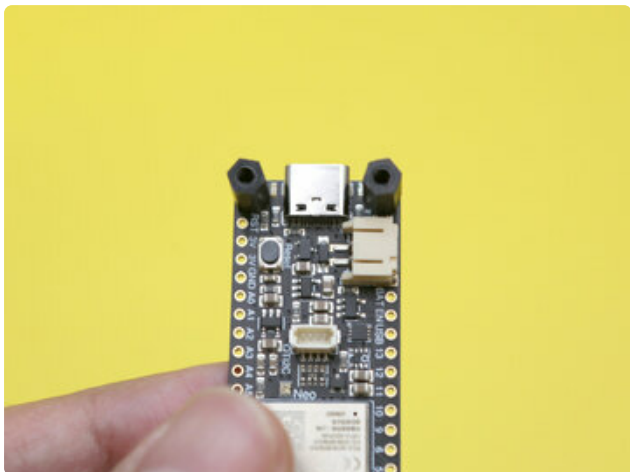
Repeat the process for the second smaller hole. The standoffs should sit flush with the edge of the ESP32 chip.



Install M2.5 Hardware

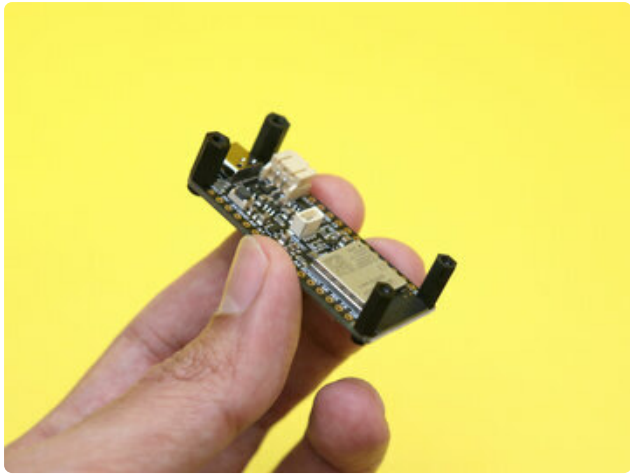
Install an M2.5 x 6mm long screw through the larger sized holes on the TFT side of the PCB.

Then, fasten an M2.5 x 10mm long standoff onto the thread of the screw.



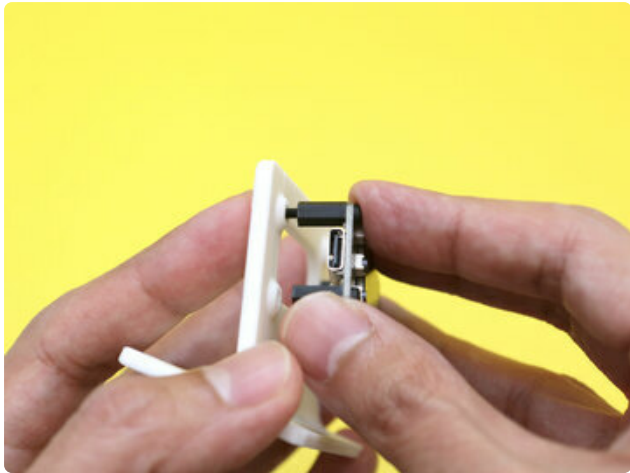
Installed M2.5 Standoffs

Repeat the process for the second hole. The standoffs should sit flush with the edge of the SMD LEDs.



Installed Hardware

Double check the standoffs have been properly secured to the Feather's mounting holes.



Secure M2.5 Hardware

Place the Feather onto the 3D printed stand with the mounting holes lined up with the standoffs.

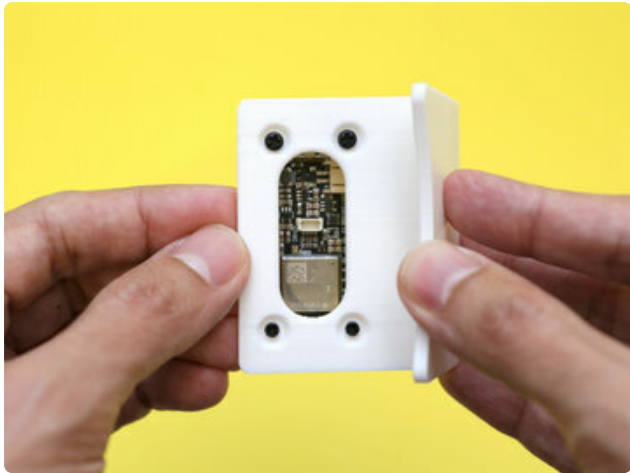


Insert and fasten the remaining M2.5 screws to secure the M2.5 standoffs.



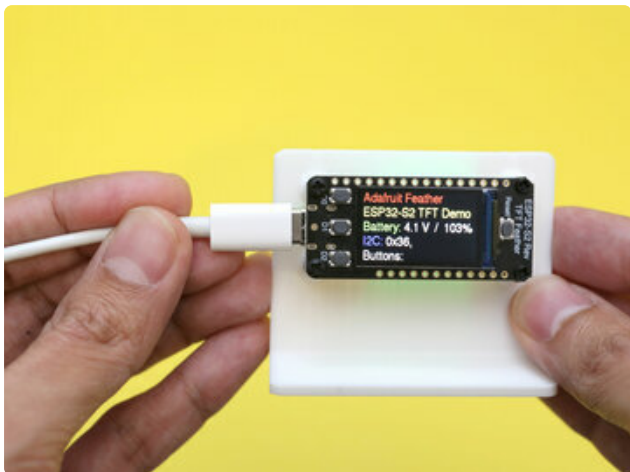
Secure M2 Hardware

Repeat the process to secure the M2 standoffs to the 3D printed stand.



Secured Feather

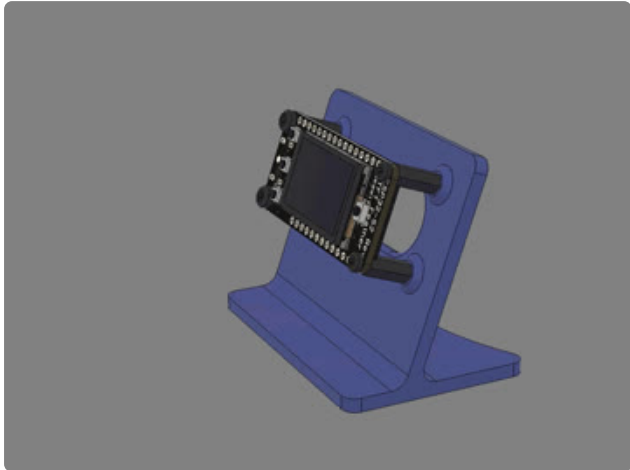
Use the opening on the back of the 3D printed stand to access the various ports.



USB Power

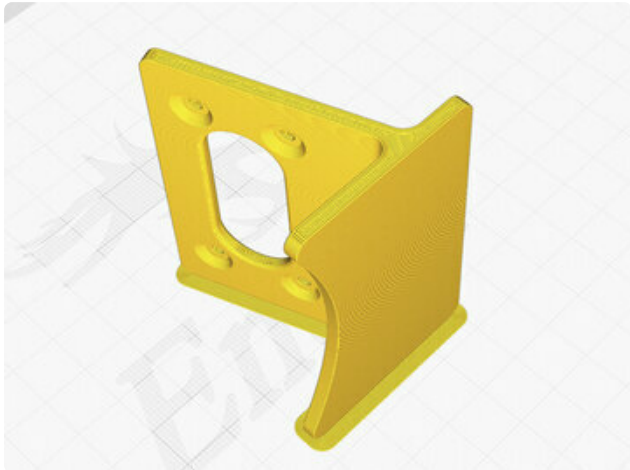
Connect the Feather with a USB-C cable and power using 5V power supply or computer hub.

CAD Files



CAD Assembly

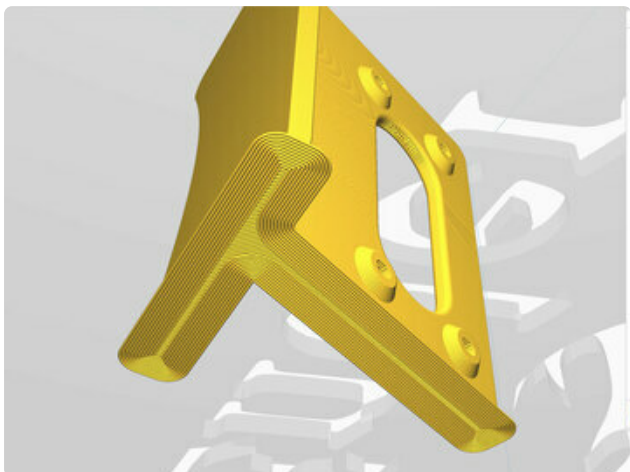
The Feather is secured to the stand using two M2.5 x 10mm long standoffs, two M2 x 10mm long standoffs, four M2.5 x 6mm screws and four M2 x 6mm screws.



Build Volume

The parts require a 3D printer with a minimum build volume.

50mm (X) x 50mm (Y) x 68mm (Z)



Slice Settings

Use your preferred slice settings for your choose of filament.

It is suggested to use a brim for best build plate adhesion. A brim adds a single layer flat area around the base of the part to prevent warping.

CAD File

STL file for 3D printing is oriented to print "as-is" on FDM style machines. The part is designed to 3D print without any support material with PLA filament. Original design source may be downloaded using the links below

Download STL.zip

<https://adafru.it/18vf>

Download CAD source

<https://adafru.it/18vD>



Design Source Files

The project assembly was designed in Fusion 360. This can be downloaded in different formats like STEP, STL and more. Electronic components like Adafruit's boards, displays, connectors and more can be downloaded from the [Adafruit CAD parts GitHub Repo \(https://adafru.it/18uC\)](https://adafru.it/18uC).