



# QT Py Snap Fit Case

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<https://learn.adafruit.com/qt-py-snap-fit-case>

Last updated on 2024-06-03 03:32:31 PM EDT

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# Overview



## QT Py Case

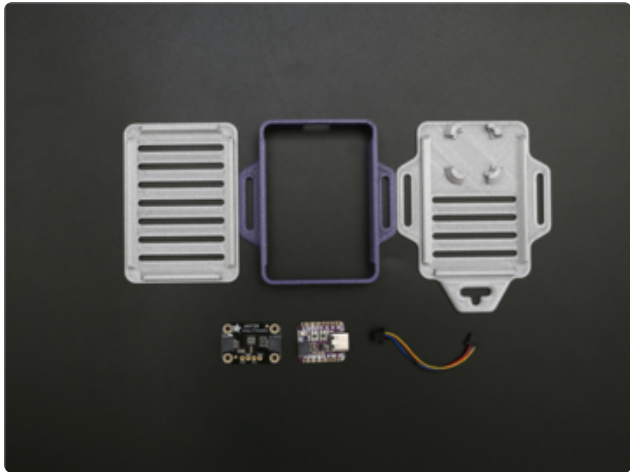
3D print yourself a snap fit case to house a QT Py and a STEMMA QT breakout board. The bottom cover has built-in holder for the QT Py that can be secured without any screws!



## Modular Design

The top cover has several vents that can be used as mounting holes so you can secure the board in different orientations.

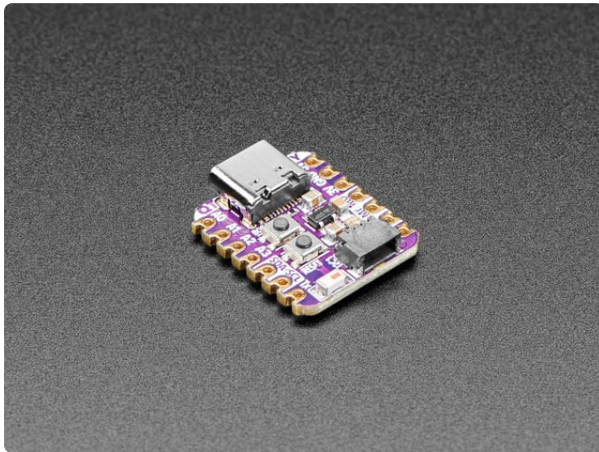
The bottom cover features similar slots so you can mount it to either the top or bottom.



## QT Accessories

The case features two mounting tabs for attaching to surfaces. Just snap fit the covers over the framing with the opening lined up for the USB-C Port.

## Parts



### [Adafruit QT Py ESP32-S2 WiFi Dev Board with STEMMA QT](https://www.adafruit.com/product/5325)

What has your favorite Espressif WiFi microcontroller, comes with our favorite connector - the STEMMA QT, a chainable I2C port, and has...

<https://www.adafruit.com/product/5325>



### [Black Nylon Machine Screw and Stand-off Set – M2.5 Thread](https://www.adafruit.com/product/3299)

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...

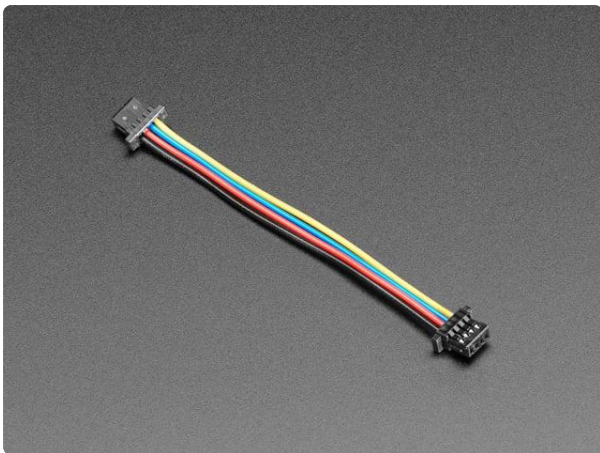
<https://www.adafruit.com/product/3299>



### STEMMA QT / Qwiic JST SH 4-pin Cable - 100mm Long

This 4-wire cable is a little over 100mm / 4" 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...

<https://www.adafruit.com/product/4210>



### 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...

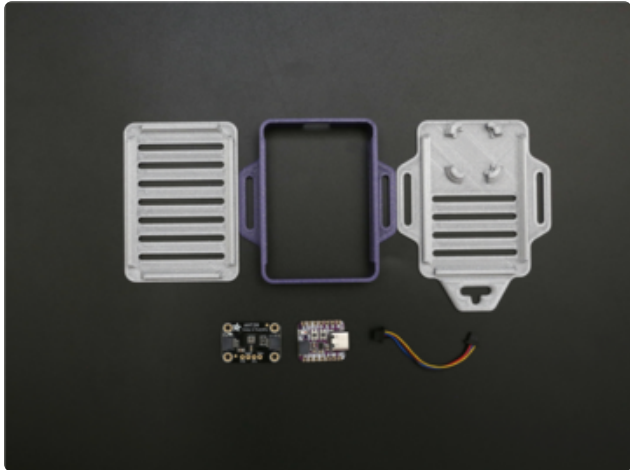
<https://www.adafruit.com/product/4399>





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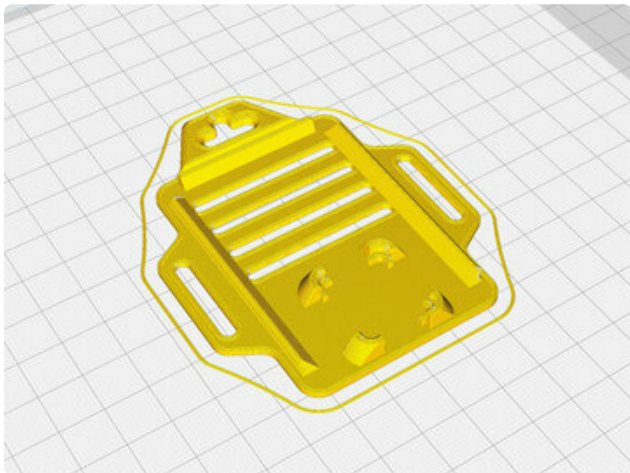
# 3D Printing



## CAD Parts List

STL files for 3D printing are oriented to print "as-is" on FDM style machines. Parts are designed to 3D print without any support material. Original design source may be downloaded using the links below:

- QTPy-Case-Top
- QTPy-Case-Bottom
- QTPy-Case-Frame



## Slicing Parts

No supports are required. Slice with setting for PLA material.

The parts were sliced using CURA using the slice settings below.

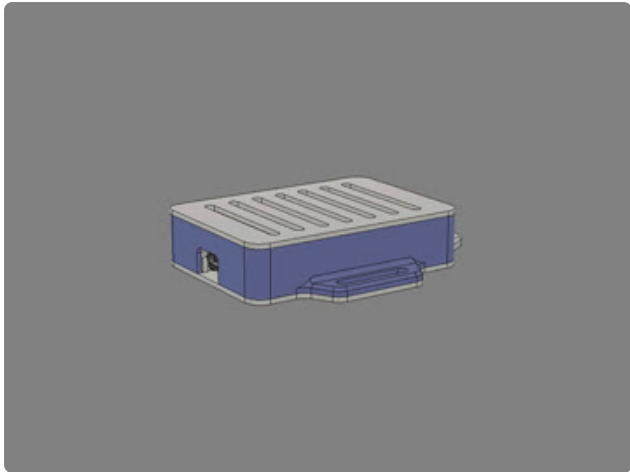
- PLA filament 220c extruder
- 0.2 layer height
- 10% gyroid infill
- 60mm/s print speed
- 60c heated bed

[Download STLs.zip](#)

<https://adafru.it/XOb>

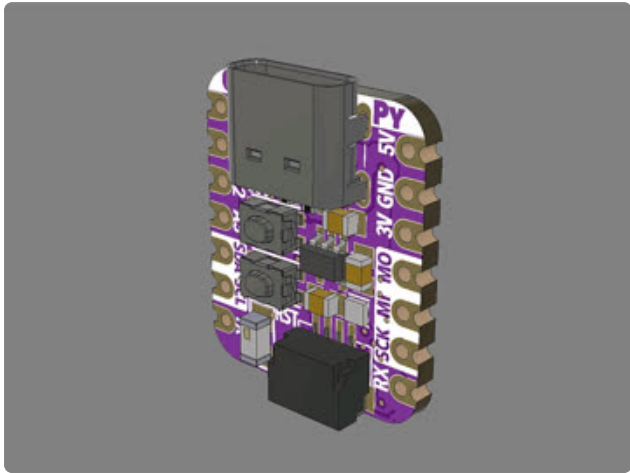
[Download CAD source](#)

<https://adafru.it/XOc>



## CAD Assembly

The QT Py is press fitted into the bottom cover. A Stemma QT breakout is mounted to the top or bottom cover using M2.5 hardware. The case frame is fitted over the top and bottom covers and snap fit together.



## 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 board, displays, connectors and more can be downloaded from the [Adafruit CAD parts GitHub Repo \(https://adafru.it/AW8\)](https://adafru.it/AW8).