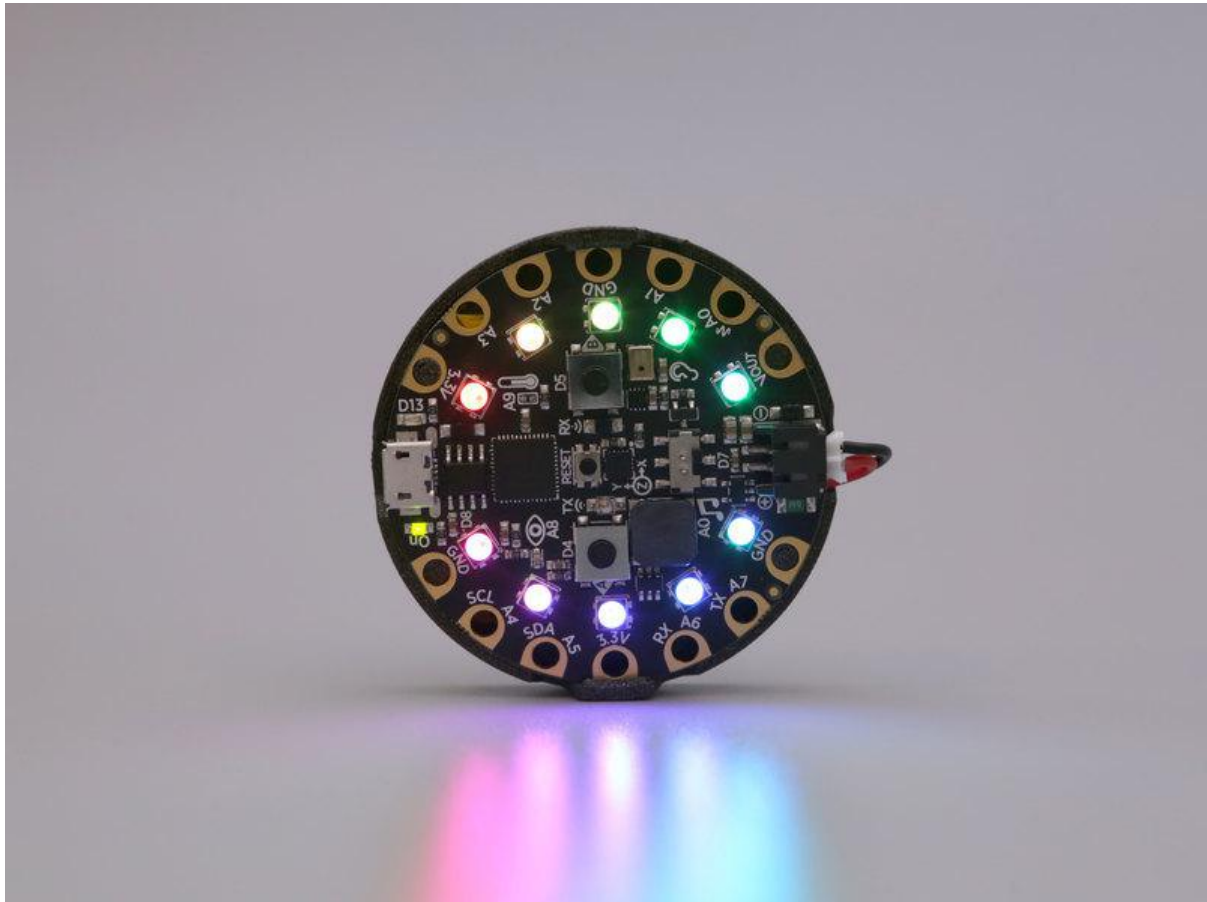




Snap Fit Mount for Circuit Playground Express

Created by Ruiz Brothers



<https://learn.adafruit.com/snap-fit-mount-for-circuit-playground-express>

Last updated on 2022-12-01 03:44:38 PM EST

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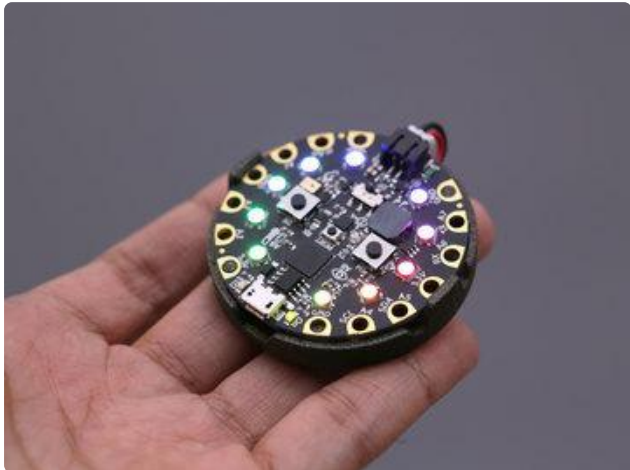
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3D Printing



Snap Fit

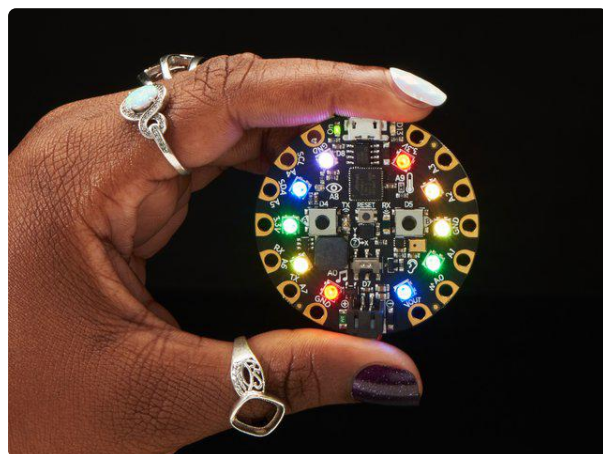
Need a quick mount for your Adafruit Circuit Playground Express board? 3D Print this snap fit mount and secure the PCB without any hardware screws. No support material necessary!



Simple Design

The low-profile design allow this to be embedded in other props. Add a diffuser on top and stuff it into a pumpkin or cauldron to make a simple Halloween project!

Parts



[Circuit Playground Express](https://www.adafruit.com/product/3333)

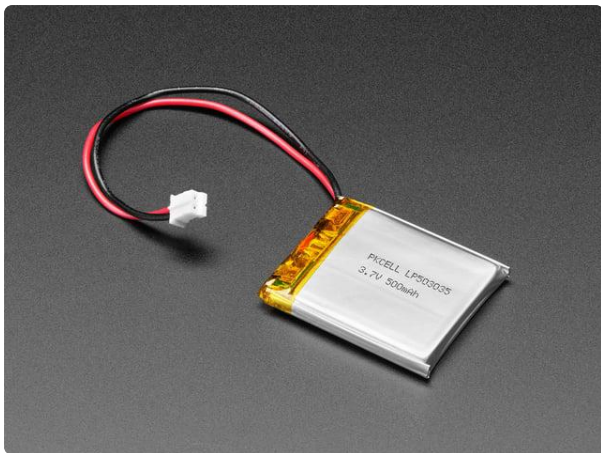
Circuit Playground Express is the next step towards a perfect introduction to electronics and programming. We've taken the original Circuit Playground Classic and...

<https://www.adafruit.com/product/3333>



Fully Reversible Pink/Purple USB A to micro B Cable - 1m long

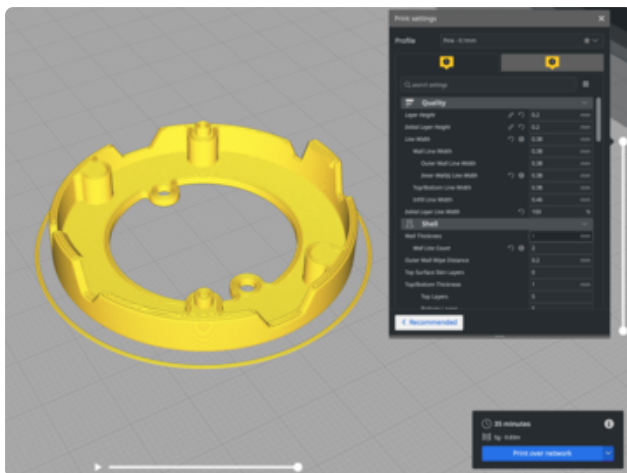
This cable is not only super-fashionable, with a woven pink and purple Blinka-like pattern, it's also fully reversible! That's right, you will save seconds a day by... <https://www.adafruit.com/product/4111>



Lithium Ion Polymer Battery - 3.7v 500mAh

Lithium-ion polymer (also known as 'lipo' or 'lipoly') batteries are thin, light, and powerful. The output ranges from 4.2V when completely charged to 3.7V. This... <https://www.adafruit.com/product/1578>

Slicing Parts



Tested with PLA filament. The model is oriented to be 3D printed "as-is" and does not require any support material.

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

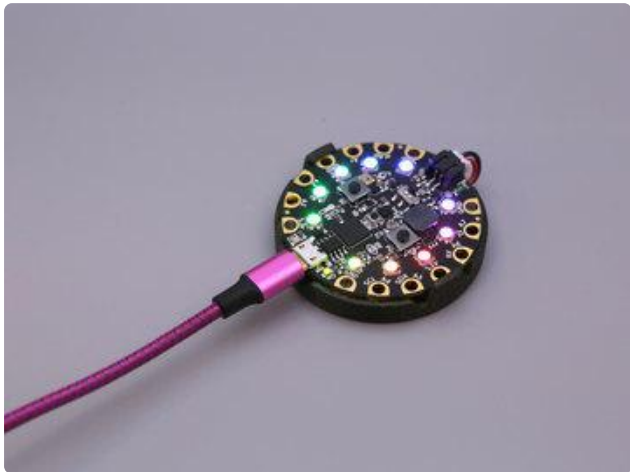
Download CAD files

Features



Portable CPX

Add a 500mAh battery on the bottom to make your project portable. Fits in between the built-in standoffs with enough space for the length of the cable.



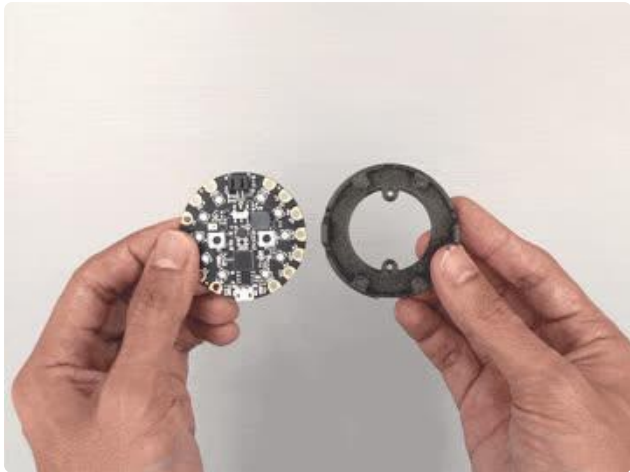
USB Cables

Cutouts on the sides allow you to connect a micro USB cable and battery.



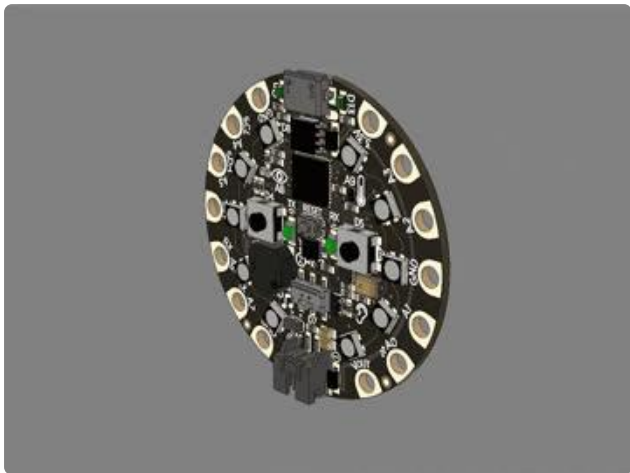
Mounting Tabs

M3 size mounting tabs can be used to attach the Circuit Playground Express with hardware screws to other surfaces such as walls, cardboard, and other materials.



Snap Fit

Orient the Circuit Playground Express micro USB port with one of the cutouts. Insert the PCB at an angle to get it underneath one of the tabs. Press down to snap fit PCB.



3D CAD Models

The project assembly was designed in Fusion 360. This can be downloaded in different formats like STEP, SAT and more. Electronic components like Adafruit's board, displays, connectors and more can be downloaded from our [Adafruit CAD parts GitHub Repo](#) ().

[Adafruit CAD Parts GitHub](#)

Layer by Layer

Interested in CAD tutorials? Check out my [playlist on YouTube](#) () – There's over 100 of them! My personal favorite is the snap fit tutorial for cases and enclosures.

[CAD Tutorials – YouTube Playlist](#)