



3D Printed Raspberry Pi A+ Case

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<https://learn.adafruit.com/3d-printed-raspberry-pi-a-plus-case>

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Overview

Enclosures are great to use in projects because they can protect your electronics.

This is a simple two part case let's you securely mount the Raspberry Pi A+ to the enclosure using machine screws. It features openings and cut outs for each of the ports, so it's easily to pass cables through.

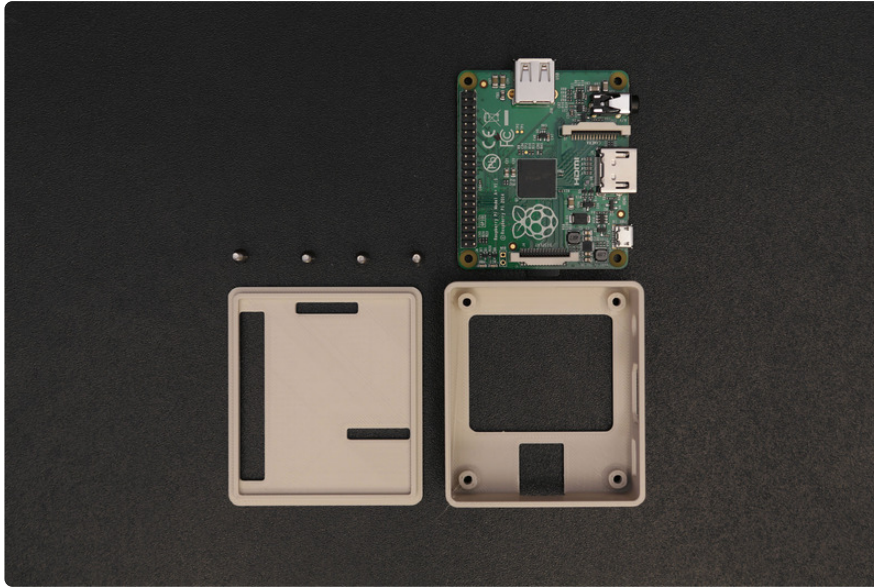


The enclosure features cutouts for USB, HDMI, A/V, MicroUSB, GPIO, MicroSD and Camera/Display cables. Use #4-40 Phillips machine screws to secure the Pi to the enclosure. Cover easily snaps on and off. Case is 1.5mm thick.

Tools, Parts, Supplies

- [Raspberry Pi A+](http://adafru.it/2266) (<http://adafru.it/2266>)
- [3D Printer](https://adafru.it/doT) (<https://adafru.it/doT>)
- [PLA Filament](https://adafru.it/doT) (<https://adafru.it/doT>)
- [Screwdriver](http://adafru.it/822) (<http://adafru.it/822>)
- #4-40 3/8 Phillips flat head machine screws

3D Printing



PLA Material

PLA is recommended to minimize warping. Both 1.75mm and 3mm filament types will work.

Enclosure Dimensions

The total size of the enclosure is just a few millimeters bigger than the Raspberry Pi A+ PCB. It's only 1.5mm thick.

Outside: 71mm(x) 63mm (y) 20mm (z)

Slicing Parts

Slice parts using your preferred slicer. Parts are oriented to be centered on your printer's build plate. They require no raft or support material to print.

Parts tested were printed on Makerbot Replicator 2 using MakerWare and Lulzbot TAZ4 using Cura.

piaplus-top.stl
piaplus-case.stl

PLA @230c
10% Infill
2 Shells
90/120mm speeds

Takes about 2.5 hours to print
both parts

Download STLs

<https://adafru.it/edN>

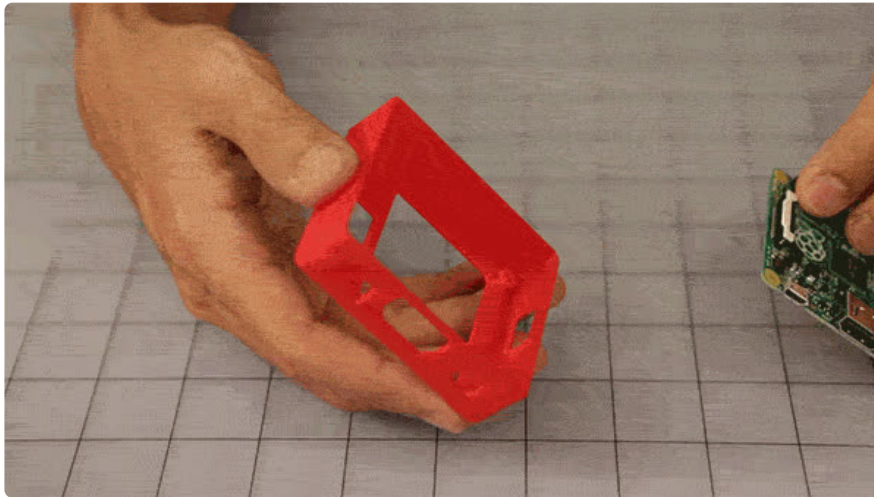
3D Printing Services

Check out 3D Hubs for a local directory listing of makers who own and operate desktop 3D printers that will print your parts for reasonable prices.

3DHubs

<https://adafru.it/edO>

Instructions



Installing Raspberry Pi A+

1. Insert Pi at an angle, with the corner going in first.
2. Press down and align up ports with the cutouts.
3. Fasten four #4-40 Phillips machine screws into the mounting holes.
4. Place the cover over the top with the cutouts aligned up with the GPIO headers and camera/display ports. Press down to snap it into place.

Usage

You can stick this on to any surface using adhesives, double stick tape, zip ties or mounting tack. Add little rubber bumper feet to keep it gripped onto your work surface.