

Nexus eFinder Build

Parts list

1. 3d printed:
 - a. Housing
 - b. Rear cover
 - c. Dew shield & Cap (optional)
 - d. https://drive.google.com/drive/folders/11_KU8jGforpUasHtZ0udjSMjU2qBOGP2?usp=sharing
2. Raspberry Pi Zero 2 W
3. Nexus eFinder daughter board
4. 32GB microSD card. Fast and good quality. Recommend Sandisk, Ultra or Extreme A1
5. Raspberry Pi HQ camera with cs mount. (Check Digikey & Mouser for supplies)
6. Camera flex connector (Pi5 or Pi Zero compatible). The camera usually comes with a 200mm flex connector which will fit if looped around. Very neat it to use the '38mm stubby' version if available and the 80mm version will also fit.
7. Arducam 25mm f1.2 cctv lens c/cs mount
8. 4 off m2.5 x 3 + 6 mm brass standoffs
9. 4 off m2.5 x 3mm screws
10. 4 off m2.3 x 6mm self tap screws
11. 4 off m2.5 x 8mm countersink screws
12. 3mm diameter clear acrylic rod, 14mm long

See separate notes on how to prepare the microSD card

Assembly

First remove the ¼" tripod adapter from the camera using a 1.5mm hex key.

Then unscrew the adapter ring(s) from the front of the Pi Camera. If it was included, the 5mm spacer adapter can be discarded as the recommended arducam lens does not require it.

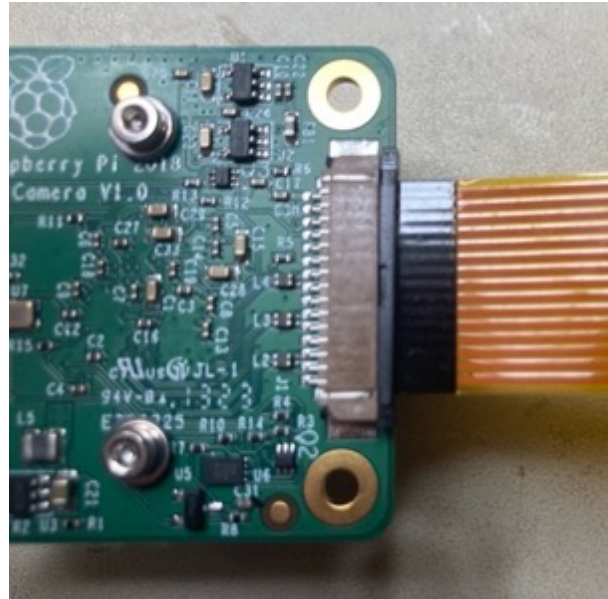


Connect the camera to the Pi Zero using the flexi connector. Wide end to camera, narrow to Pi Zero. Do not use too much force on the locking tabs on the connectors. Just ease them out gently. Ensure the shiny gold contacts on the flexi cable face the correct way (towards the circuit board). See photos below.

Locking tab in open position



Closed with cable attached



Fix the camera into the housing, with four self tapping screw. Do not tighten yet. See first photo for orientation.

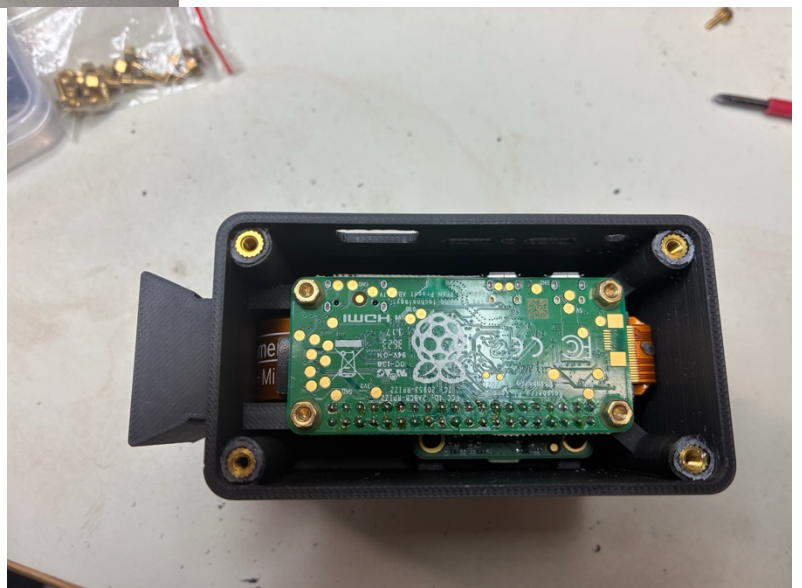
Now screw the thin adapter ring back into the camera from the front of the housing. Then gently tighten the four screws holding the rear of the camera.



Now fold back the flexi into a big loop so that the Pi Zero sits on its four fixing holes.

Fasten the Pi Zero in place with the four 3mm high stand-off pillars. Do not over tighten these!

Depending on your 3d printer characteristics, you may need to gently run a m2.5 tap down the housing holes first.



Now position the daughter board above the Pi Zero with its connectors and switch aligned with the holes in the housing. The USB connectors and switch button should fit in the holes in the housing. Do not force them in – if necessary enlarge the holes a little with a sharp craft knife. Do not handle the daughter board by its components, except by the USB connector shells. Fasten into place with the short m2.5 screws. Again, do not overtighten.



Glue the 3mm clear acrylic rod into the hole in the back cover. This acts as a light pipe for the small LED on the daughter board. Attach the back cover, and that's it!

Before connecting to the Nexus DSC Pro, select 'Electronic Finder' in the Nexus DSC Pro Settings/Communications/USB screen.

AstroKeith
10th March 2026