Nexus eFinder Build

Parts list

1. 3d printed:
    a. Housing
    b. Rear cover
    c. Dew shield & Cap
    d. Switch button cap
2. Raspberry Pi Zero 2 W
3. Nexus eFinder daughter board, complete with fixings. Part no ASD-EFAB001
    a. 4 off m2.5 x 3 + 6 mm brass standoffs
    b. 4 off m2.5 x 3mm screws
4. 32GB microSD card. Fast and good quality. Recommend Sandisk, Ultra or Extreme A1
5. Raspberry Pi HQ camera with cs mount.
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 m2.3 x 6mm self tap screws
9. 4 off m2.5 x 8mmcountersink screws
10. 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.
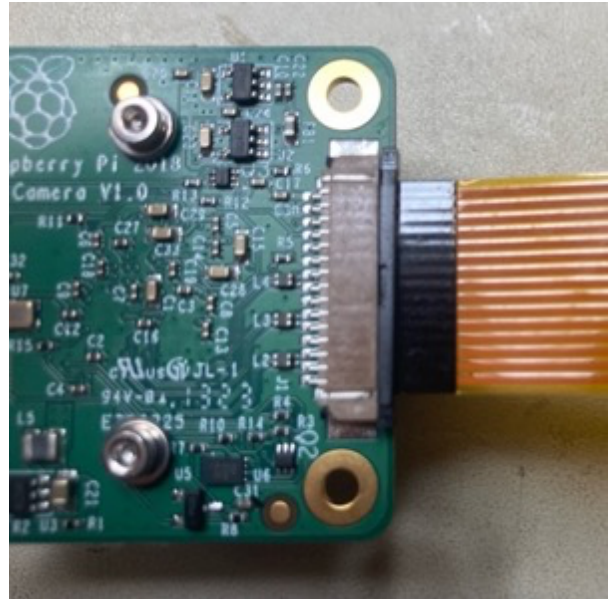

Connect the camera to the Pi Zero using the flexi connector. Wide end to camera, narrow to Pi Zero. Do not use too much force on the locking tabs on the connectors. Just ease them out gently. Ensure the shiny gold contacts on the flexi cable face the correct way (towards the circuit board). See photos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

Locking tab in open posiiton

Closed with cable attached

Fix the camera into the housing, with four self tapping screw. Do not tighten yet. See first photo for orientation.
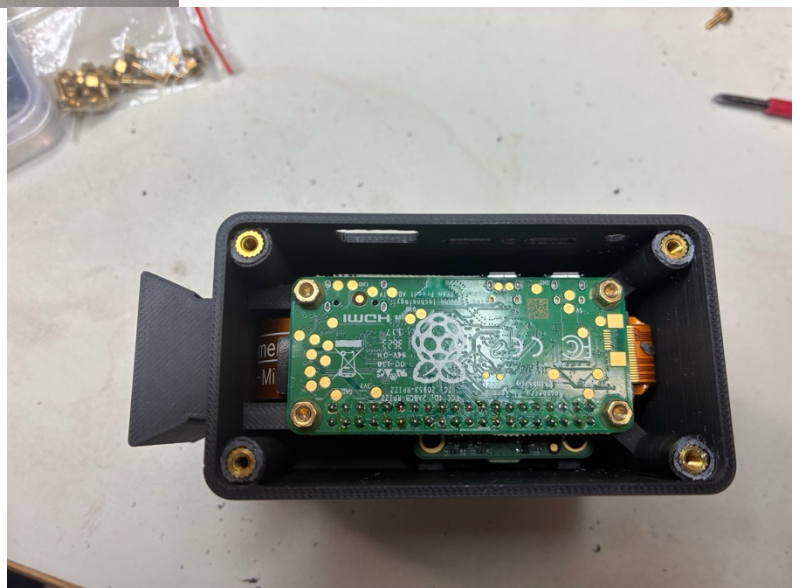
Now screw the thin adapter ring back into the camera from the front of the housing. Then gently tighten the four screws holding the rear of the camera.

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 carefully position the daughter board above the Pi Zero with its connectors and switch aligned with the holes in the housing. Make sure the connectors and switch fit easily into the holes in the housing without being forced. Fasten into place with the short m2.5 screws. Again, do not overtighten. Glue the switch button cap onto the switch stalk with a small dap of superglue.

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 thats it!

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

AstroKeith
15th Jan 2026