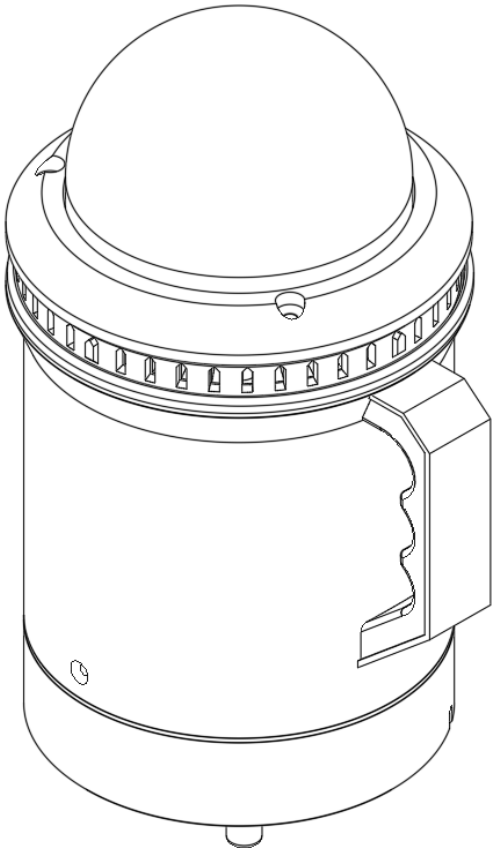
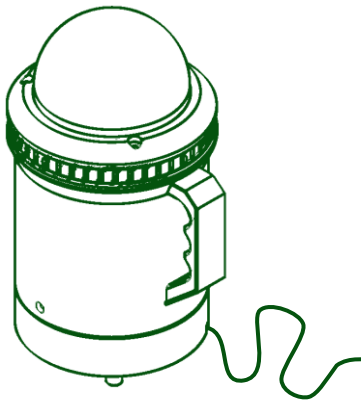
Allsky GO



Assembly Manual
v1.0

July 2025



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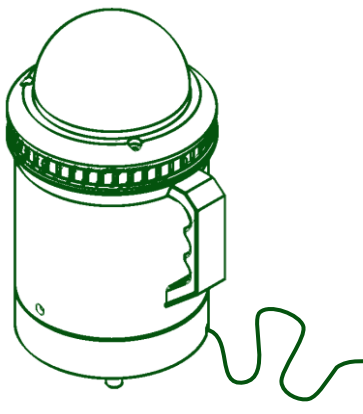
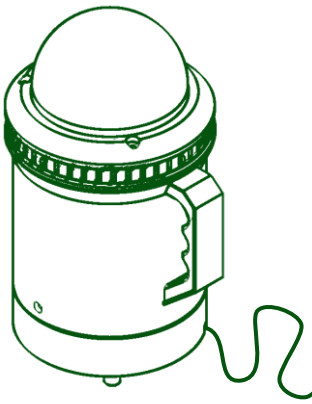
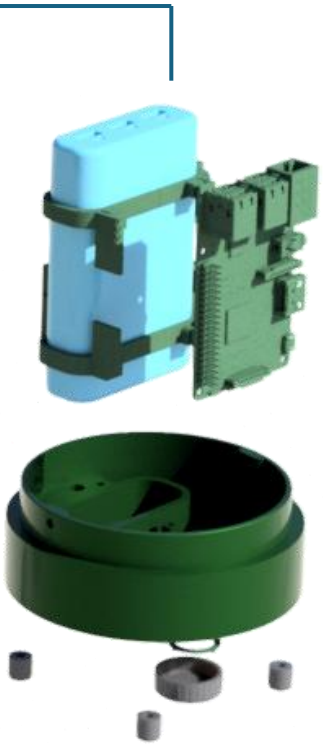


3D Printed Design & Layout



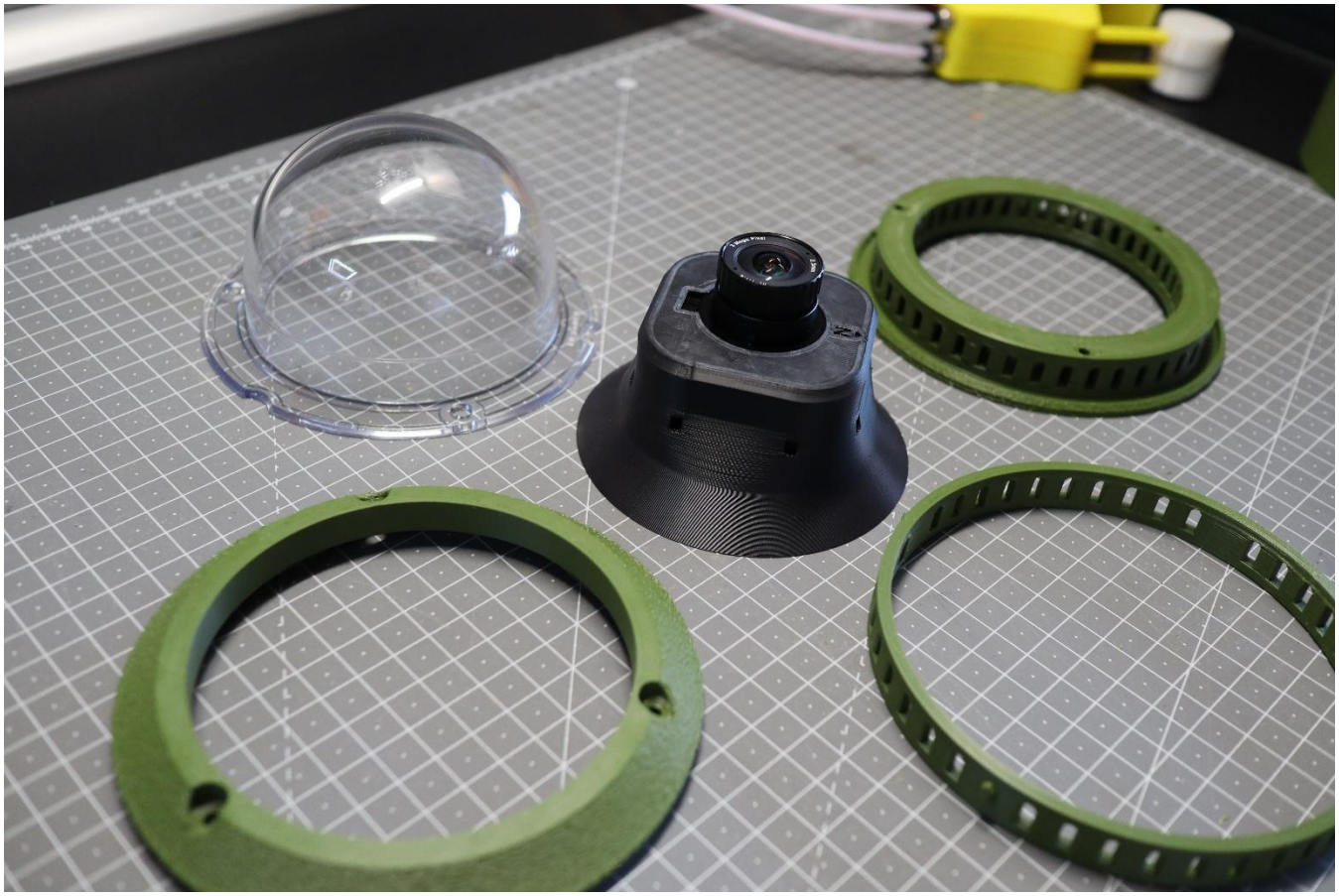
ASSEMBLY

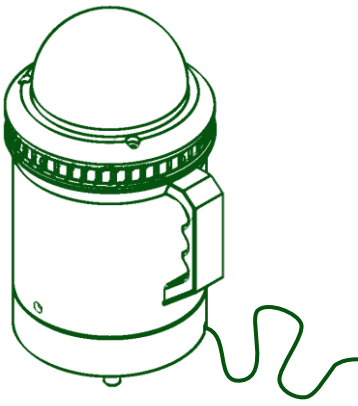


Dome Printing (Pi HQ Version)

No supports required

- Dome Ring
- Ventilation
- Ventilation Ring
- Camera Cone





Dome Assembly

PI HQ Version V2

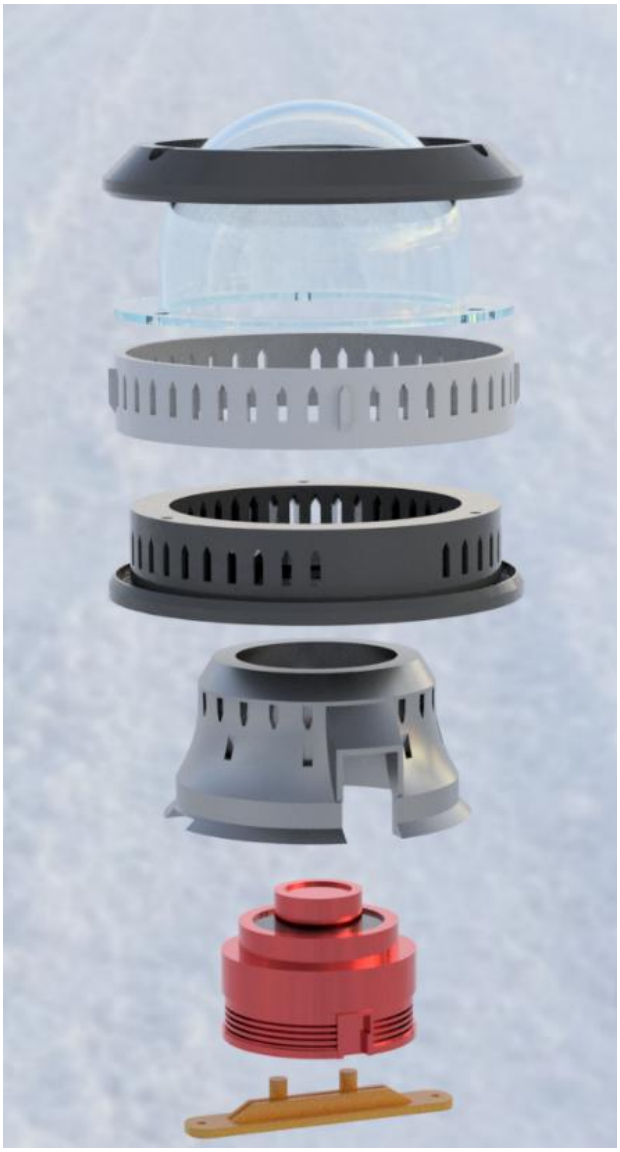
Secure with 3x M3x40 Screws

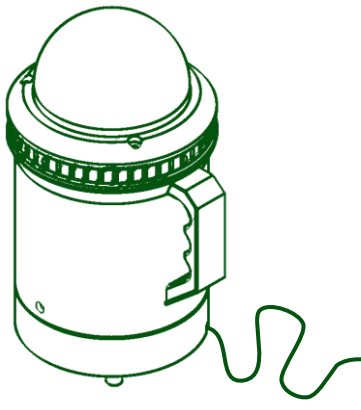
& 4 x M2 Screws for the Camera

ZWO Version

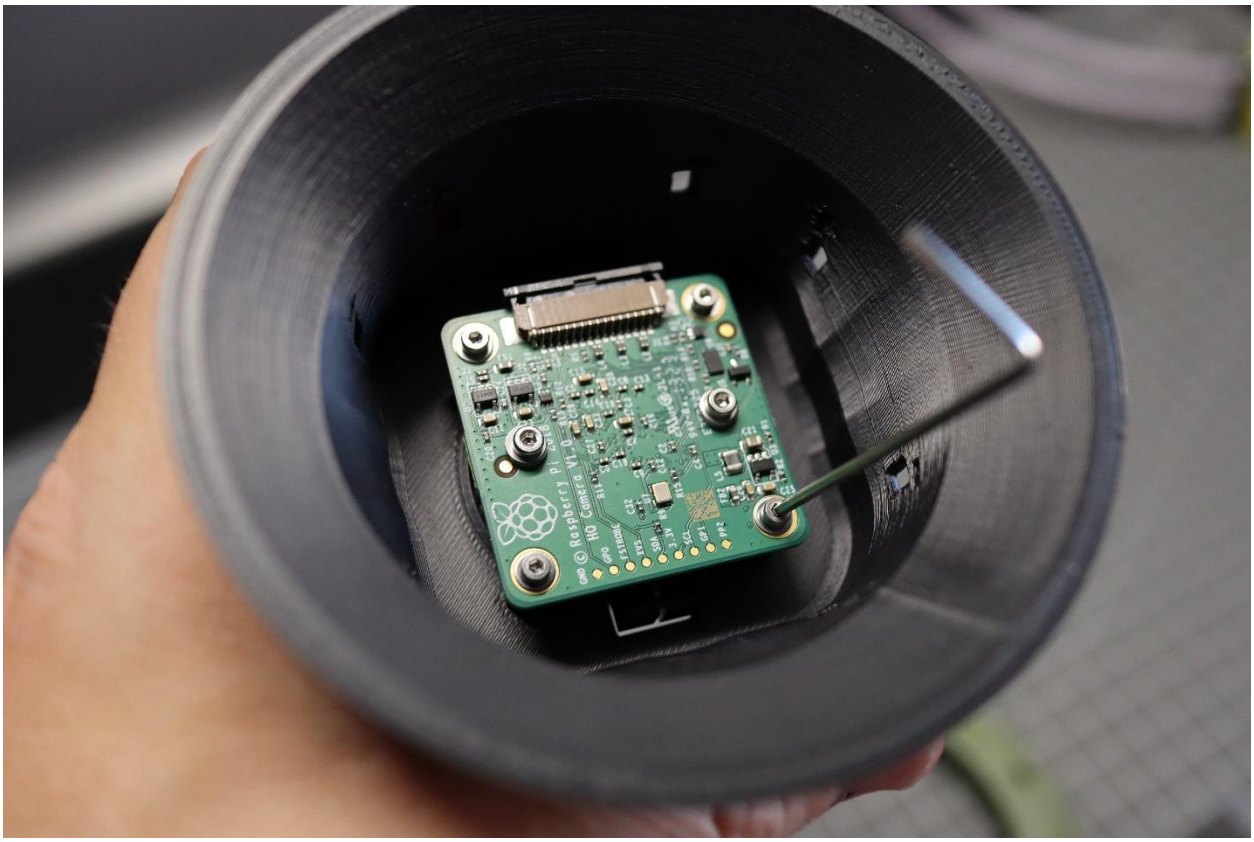
Secure with 3 x M3x50 Screws

& 2 x M3 Screws for the Camera





Camera Assembly (Raspberry PI HQ)



Printing the Main Housing Components

Design optimized to reduce the requirement for supports where not necessary.

Printing Tips

Printing tested with 0.4 and 0.6 Nozzles with reasonable result

Print on smooth Print bed to optimize sealing surfaces.

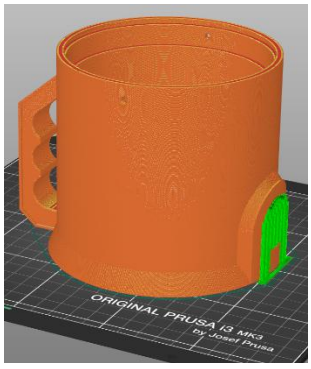
If printing in ABS or ASA – please be cautious of eventual warping that can impact the flatness of sealing edges. Additional Tabs as pictured can increase bed adhesion.

Printing with Fuzzy skin on the external surfaces can reduce the visibility of print lines, or variable layer height.

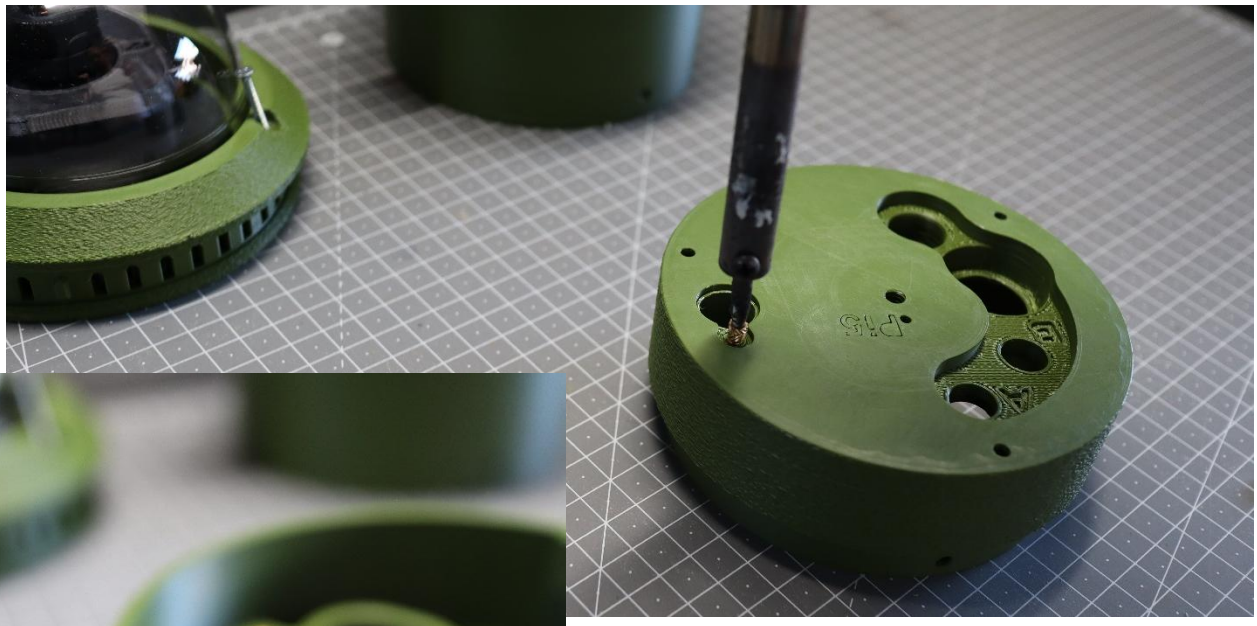
Post Processing

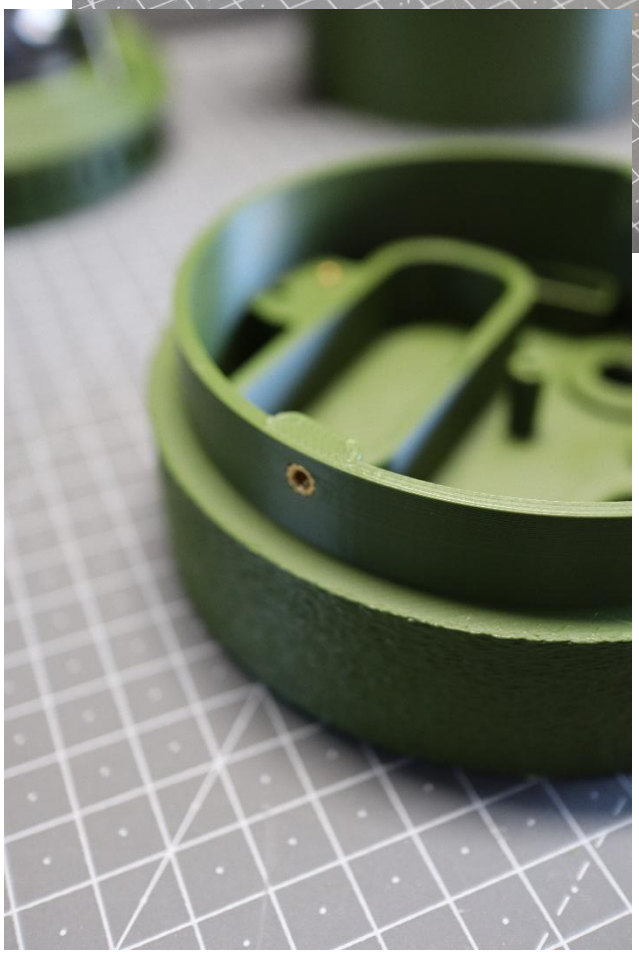
Remove all support material

Some holes may require sanding, based on the specific tolerances of your printer, print speed and material used during print. Threaded M12/M16 switches can be secured with their own retaining nut and seals.



Install the M3 and 1/4-20 Inserts with soldering iron





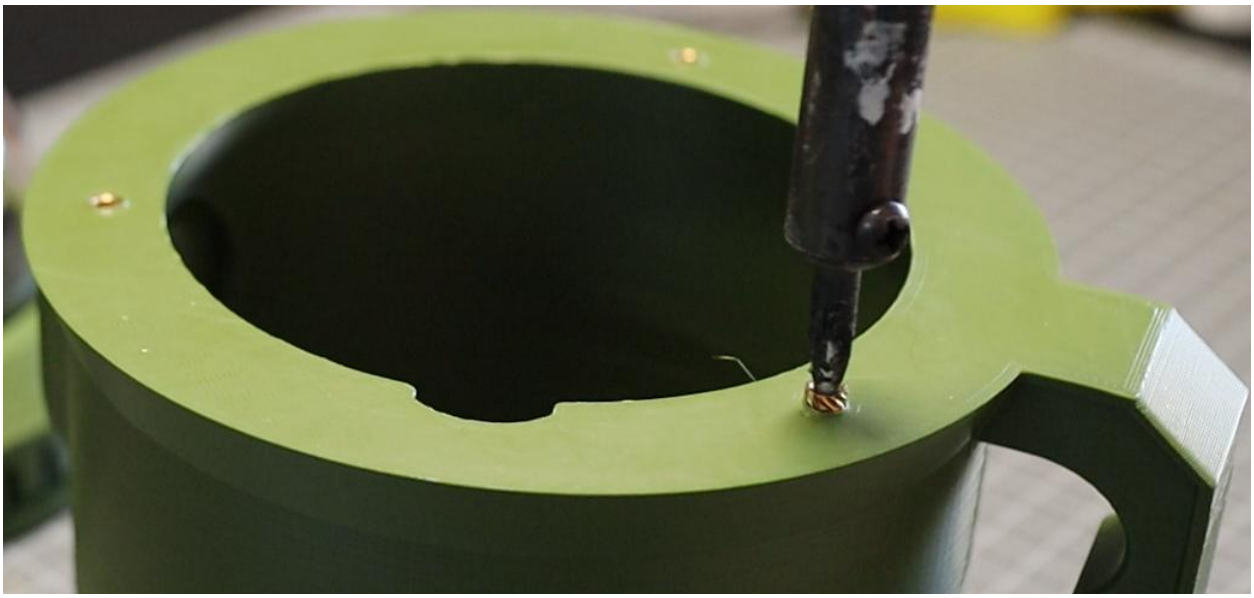
M3

Qty 4 in Base; Feet

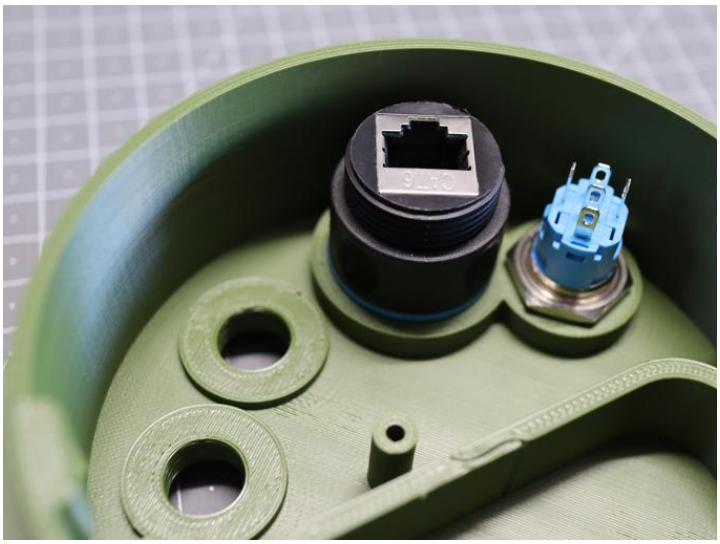
Qty 2 in Side; Tub Fixation

Qty 1 in Top; Cradle Fixation

Qty3 Inserts on top of main Tub;

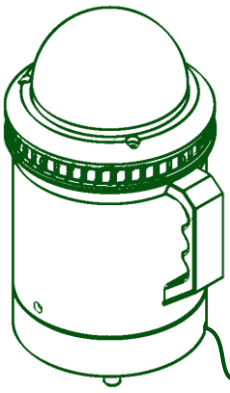


Install the main switches and ports.



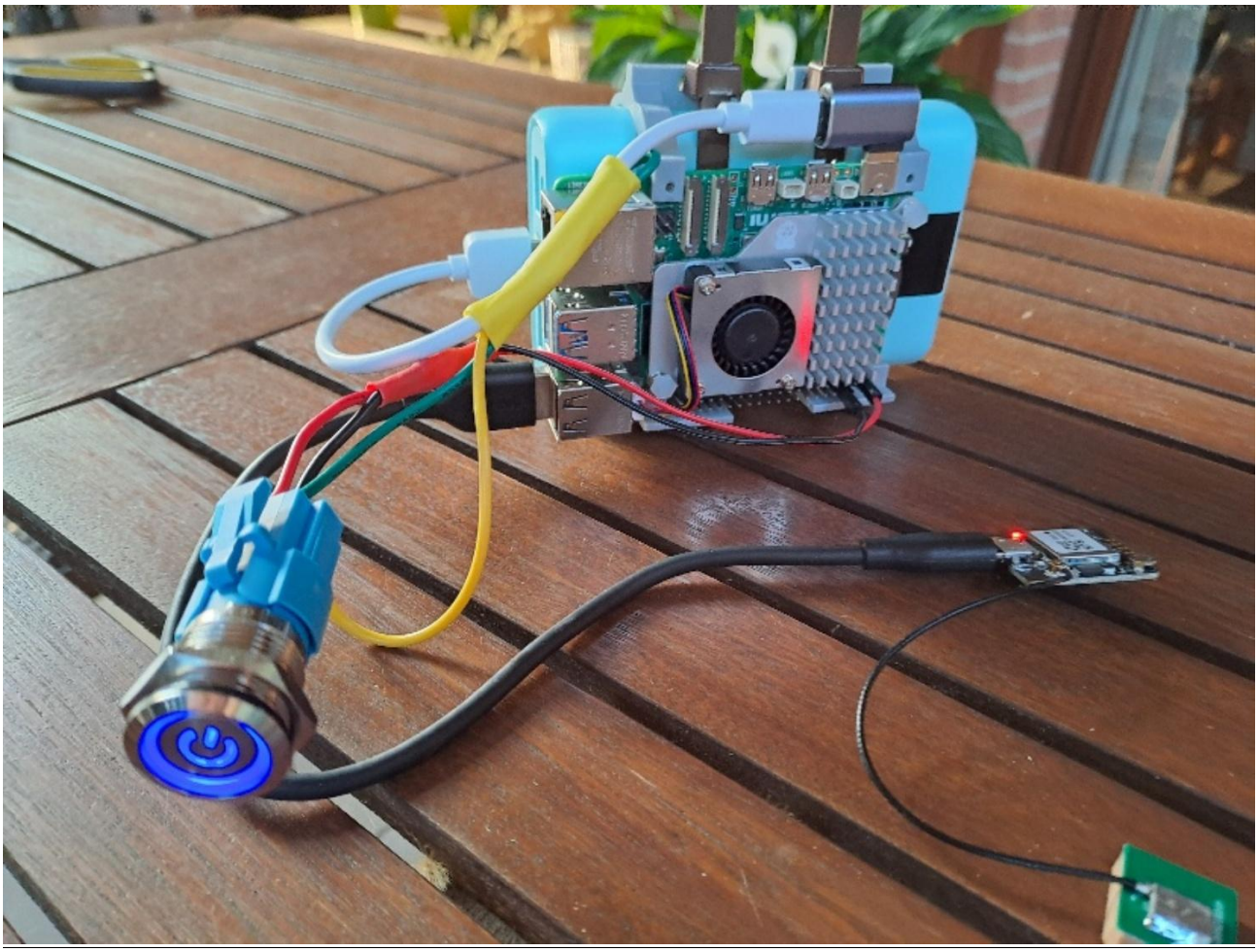
The M12 and M16 switches come provided with their own seals to protect against rain or moisture.

The female jack plug is interference fit ; it should push in with force. Sand if required, glue optional.

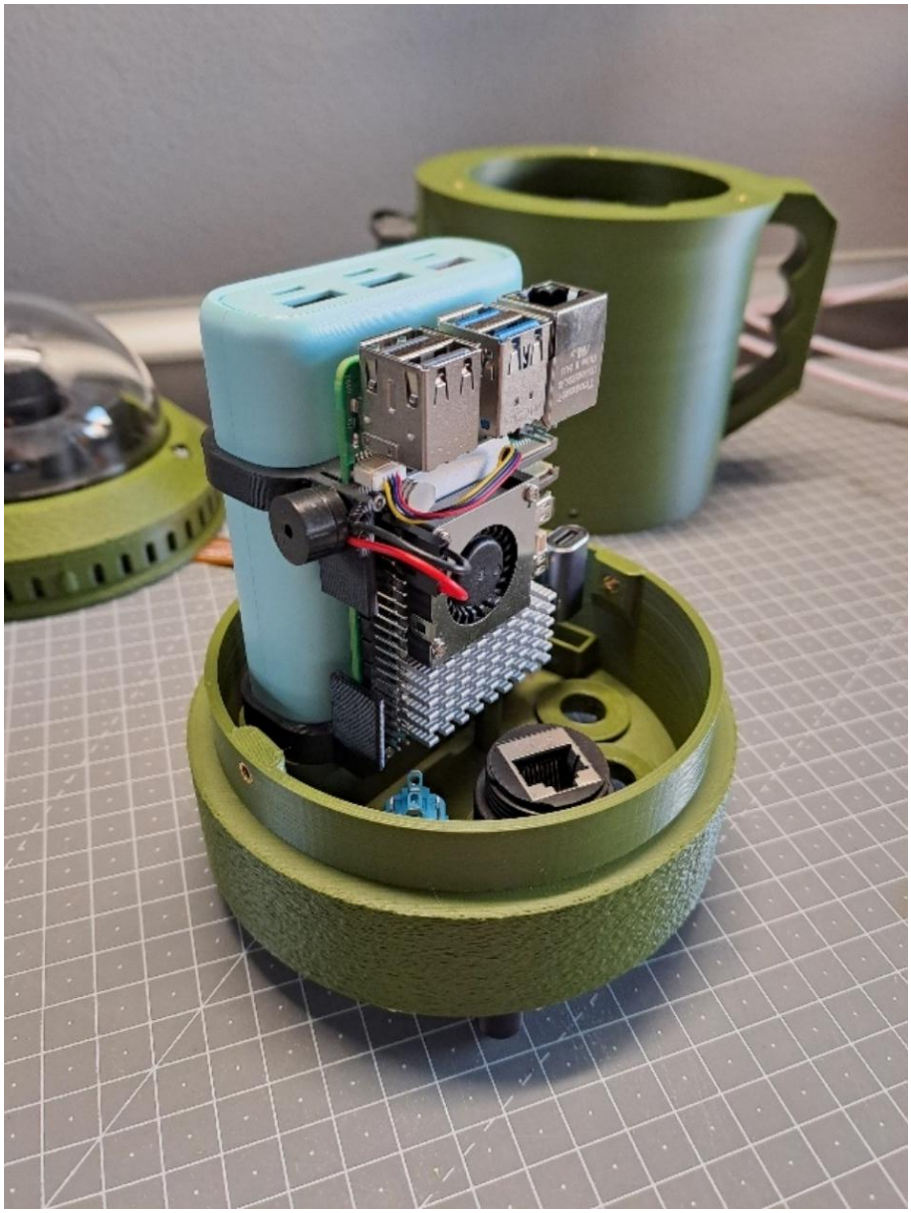


Electronics Check

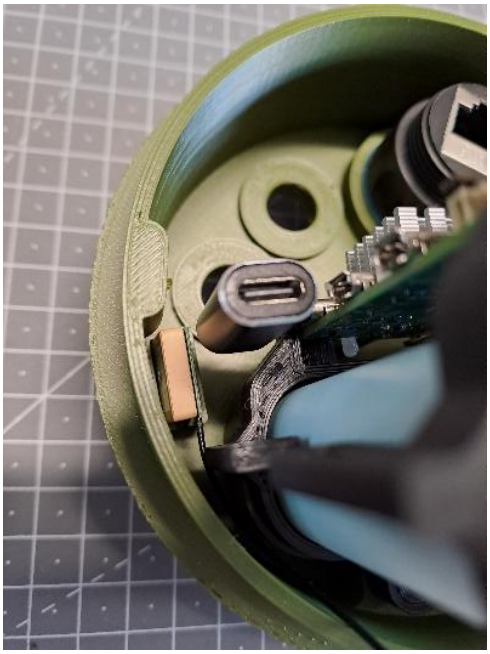
Check the harnesses and electronics are wired and functioning properly & GPIO Pins are correctly arranged.

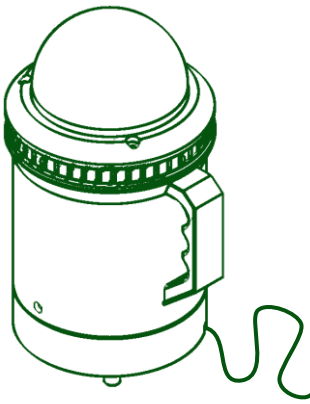


Base Installation - Install the base



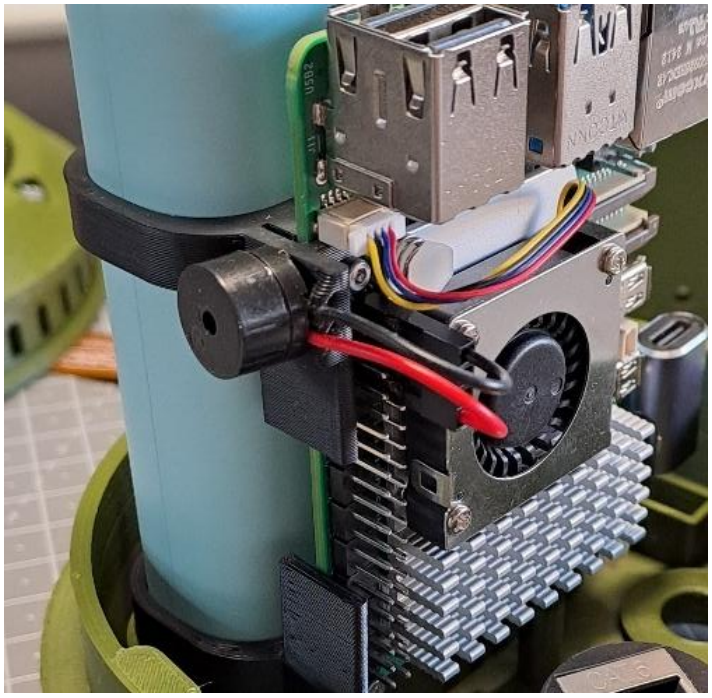
Pocket for the GPS Antenna





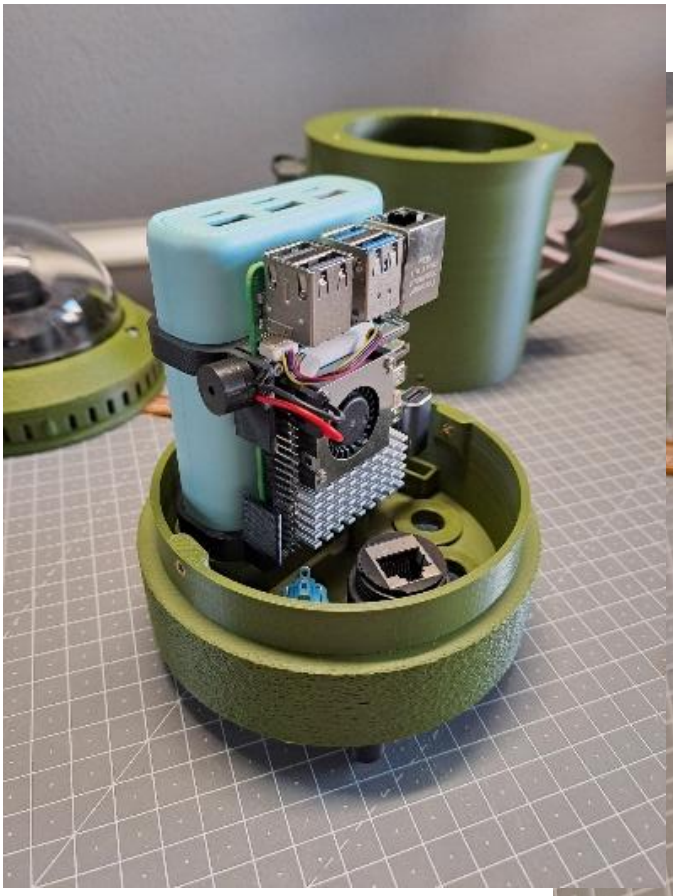
Secure the cradle in position with the locking screw

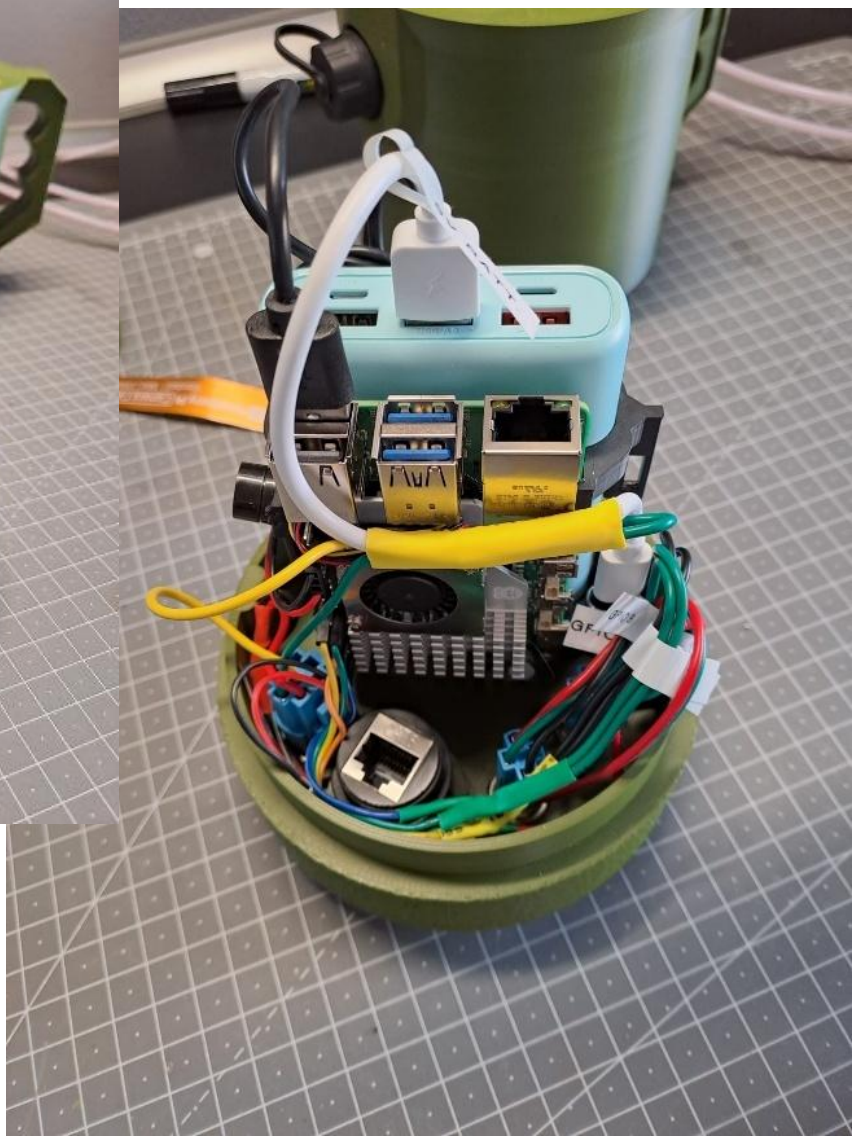
Tuck the Piezo buzzer into the notches; double sided tap might also be helpful

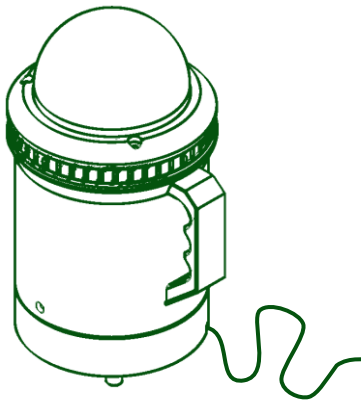


Apply the wire harnesses and tuck the wiring into the base.

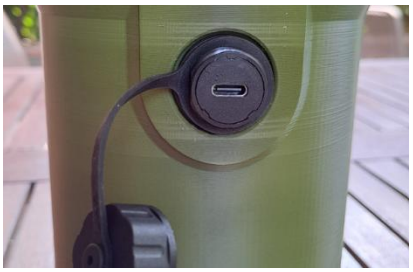
Avoid to block the airflow around the fan



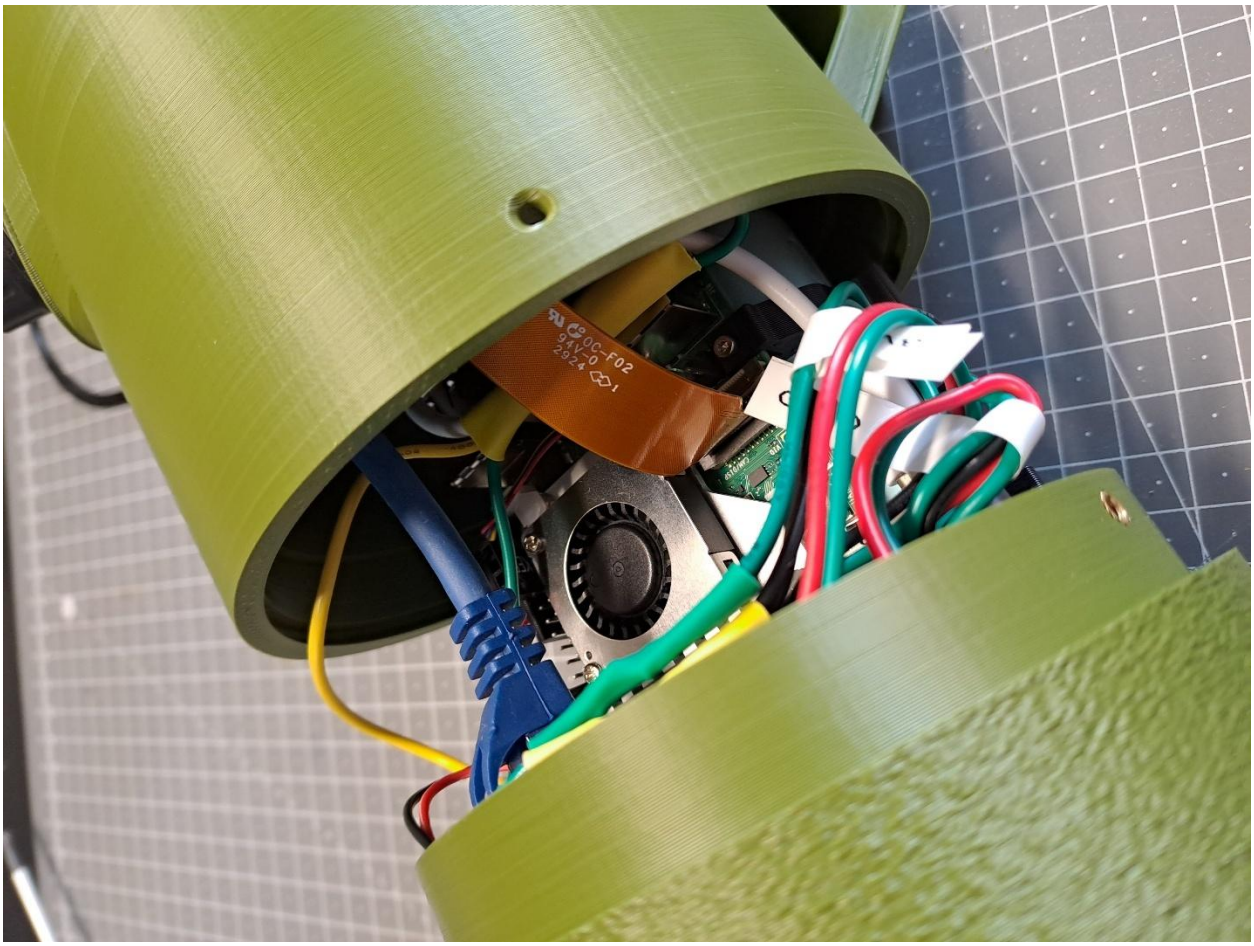




Install the USB Port to the Tub,



Slide the tub into position between
the Dome and Base
a) connect the USB cable to the USB Port
b) connect the PI HQ ribbon cable to the Pi



Align the screws to the inserts and tighten with the seal in place

I used the Humidity Sensor Housing for SHT31 from @TriD_693382

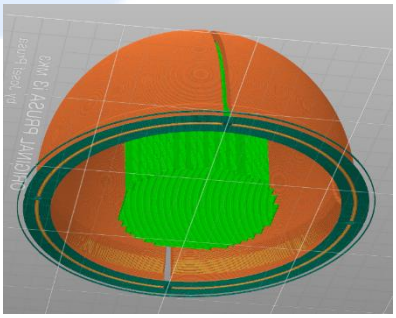
https://www.printables.com/model/893393

Protective Dome Cover

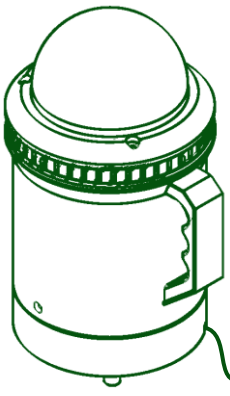
To protect the dome during assembly and travel
A protective dome is strongly recommended.

Also protects the lens from UV Rays when not in use

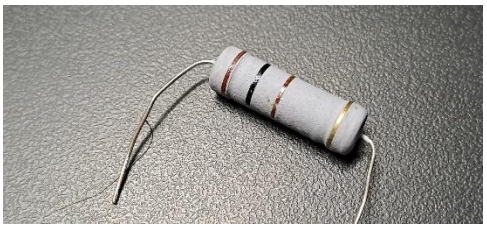
printed with central support column in ASA.



Apply adhesive felt pad to protect the lens The cover clips over the dome ring.



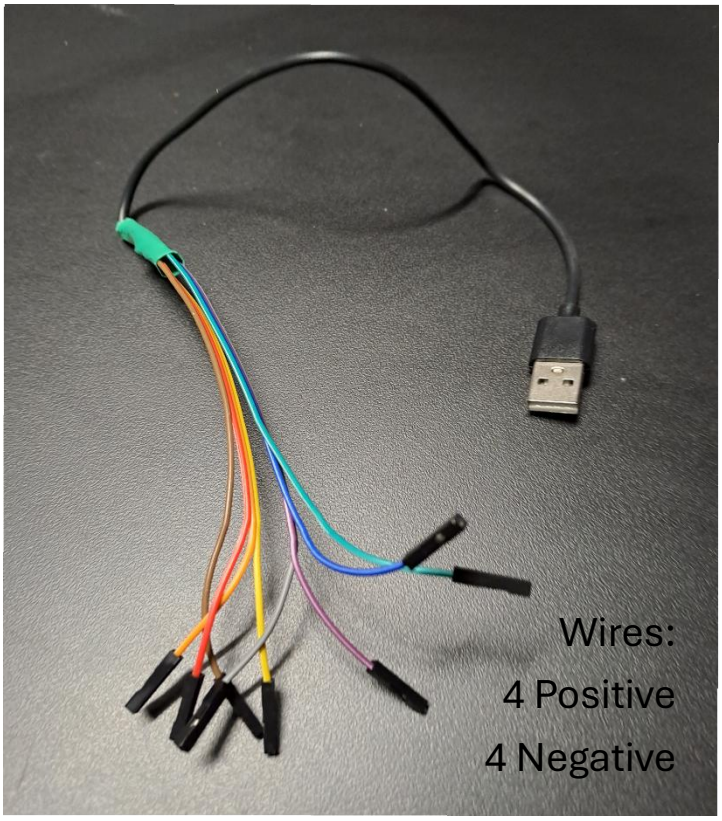
Dew Heating (Optional)

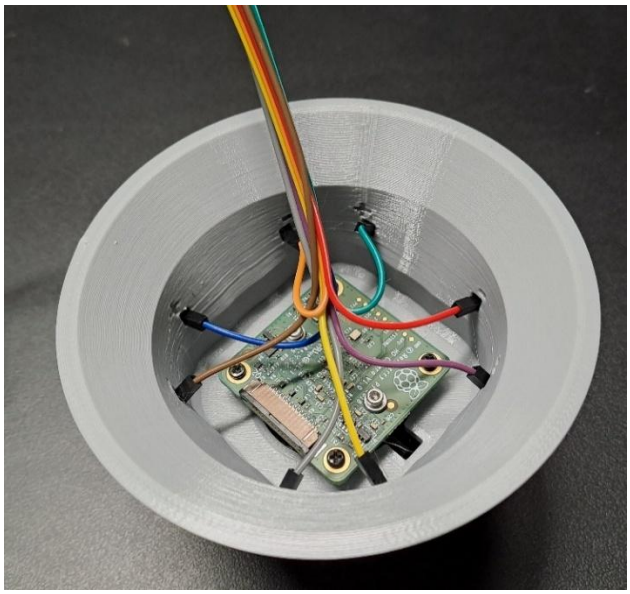


- 4 x 100ohm Metal Oxide Film Resistors

- USB Power Cable (Cut & soldered to GPIO Jumper Wires)

- Resistors Connected in Parallel (5V,1AMP)





Camera Assembly

4 x M2 Screws