

SkyHub Enclosure v1

Dahua 12MP Fisheye
Dahua 8MP PTZ 40x
Nvidia Jetson Nano
and additional sensors



Bill Of Materials

Components to buy

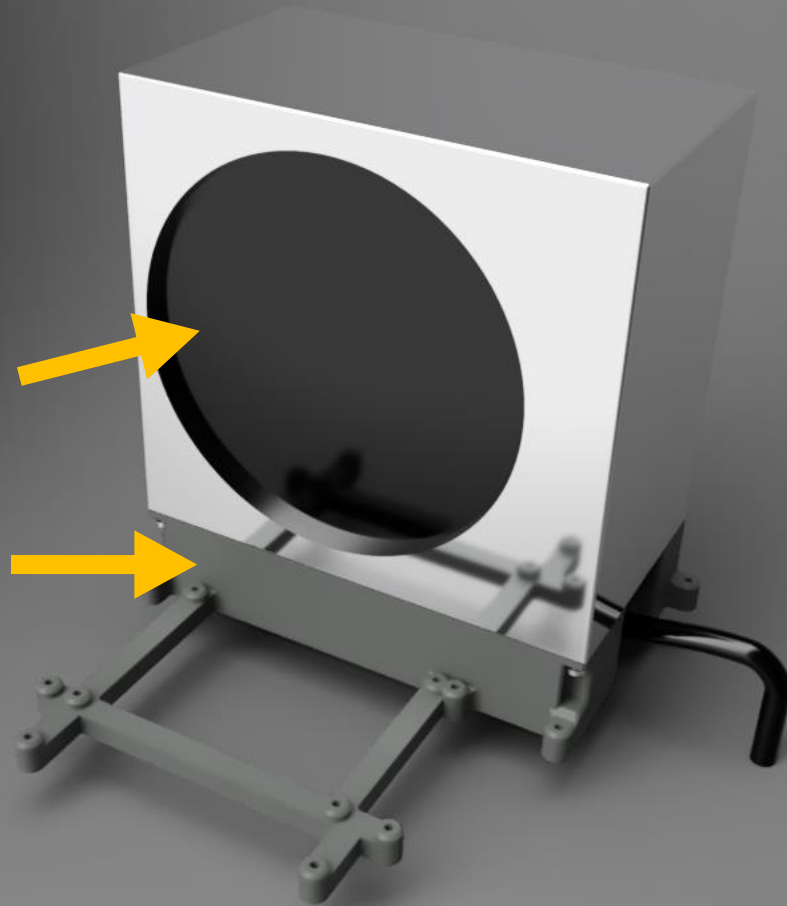
- Dahua 12MP Fisheye
- Dahua 8MP PTZ 40x (optional)
- Nvidia Jetson Nano (or Xavier NX, AGX, TX2)
- Noctua Fan 40x40x20mm
- ATX PSU 350W LC6350 (or stronger)
- 2x ATX Locks
- 4x Hinges 40x26mm (or similar)
- 2x Springs 8x120mm (to 200mm extendable)
- 120x M3x16mm REMFORM screws for plastics
- 4x M3x8mm flat headed screws
- 12x M3x10mm flat headed screws with nuts
- 12x M3x20mm flat headed screws with nuts
- 3x M4x16mm flat headed screws with nuts

Parts for 3D printing

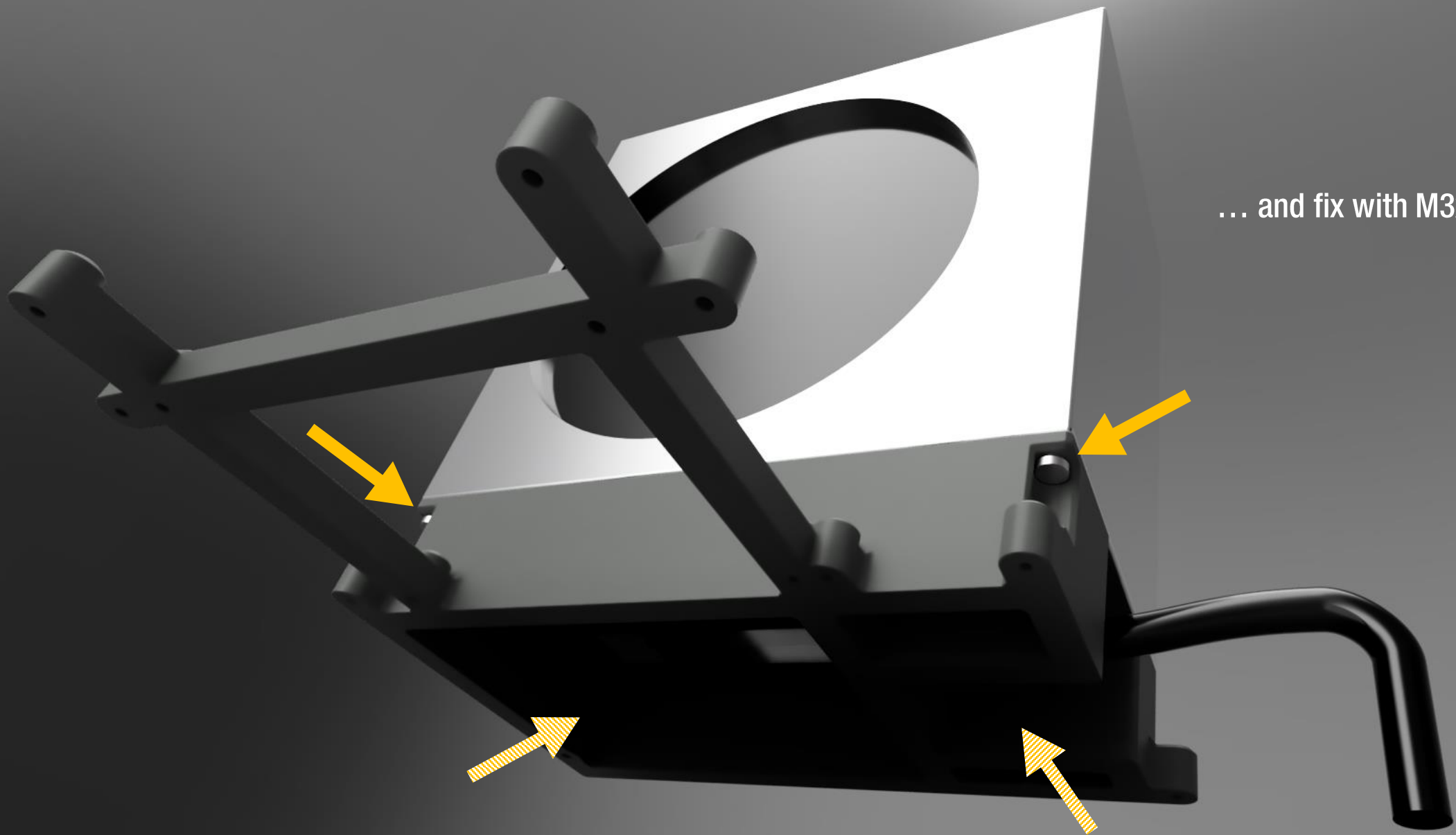
- Dahua 12MP Fisheye Tower
- Noctua Vent
- ATX PSU 350W LC6350 Foundation
- Airintake
- Power/Network Inlet1 & Inlet2
- Frontdoor Springholder left & right
- 7x Corner Fittings
- 3x Longside Fittings
- 1x Longside Fitting front bottom

Parts for 2D laser cutting

- (white UV-resistant 8mm plastic sheets)
- Topwall
- Sidewalls left & right
- Rearwall
- Bottomwall
- Frontwall
- Frontdoor Barriers left & right
- Frontdoors left & right

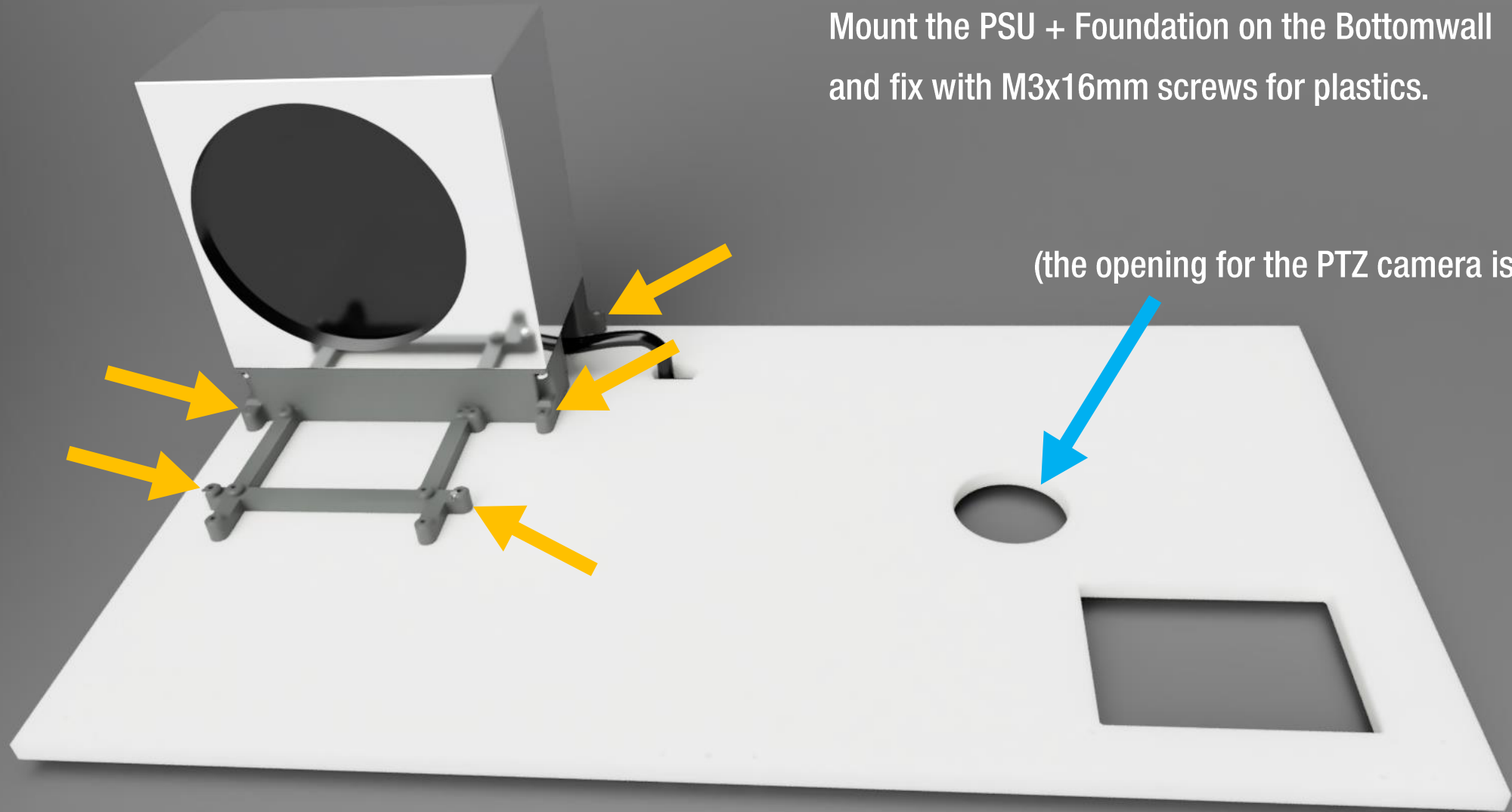


Mount the PSU on the Foundation ...



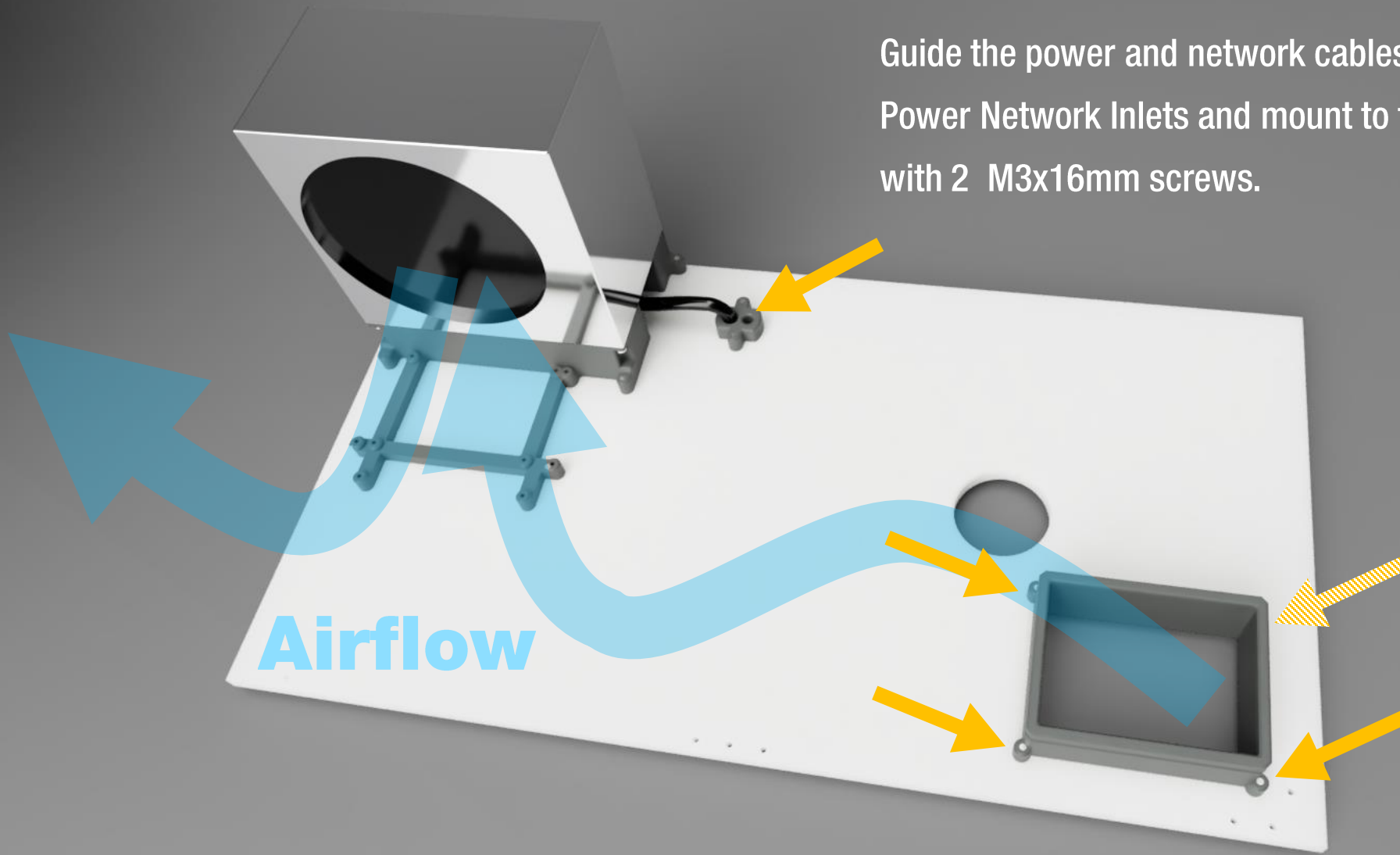
... and fix with M3x8mm screws.

Mount the PSU + Foundation on the Bottomwall
and fix with M3x16mm screws for plastics.

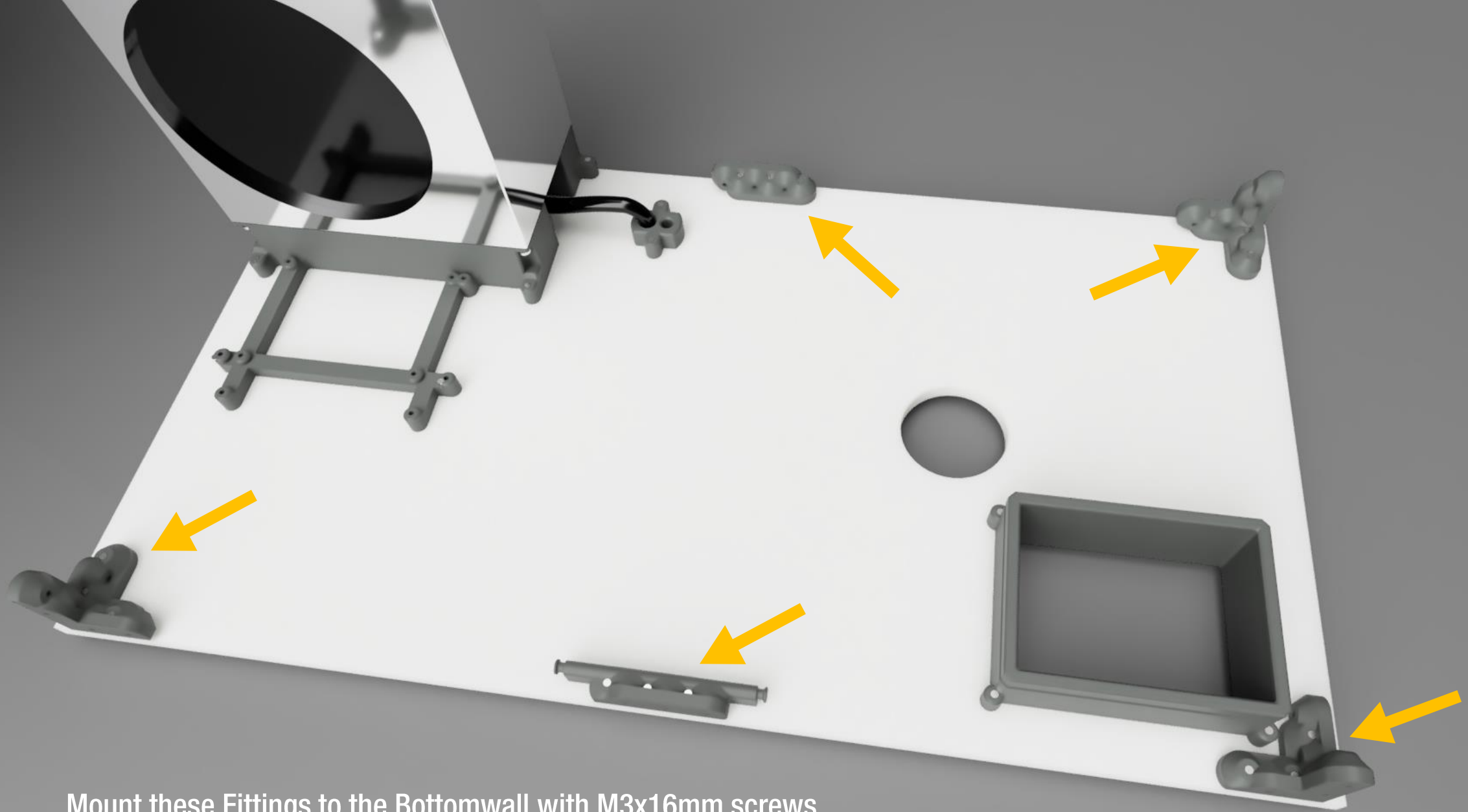


(the opening for the PTZ camera is optional)

Guide the power and network cables through the Power Network Inlets and mount to the Bottomwall with 2 M3x16mm screws.

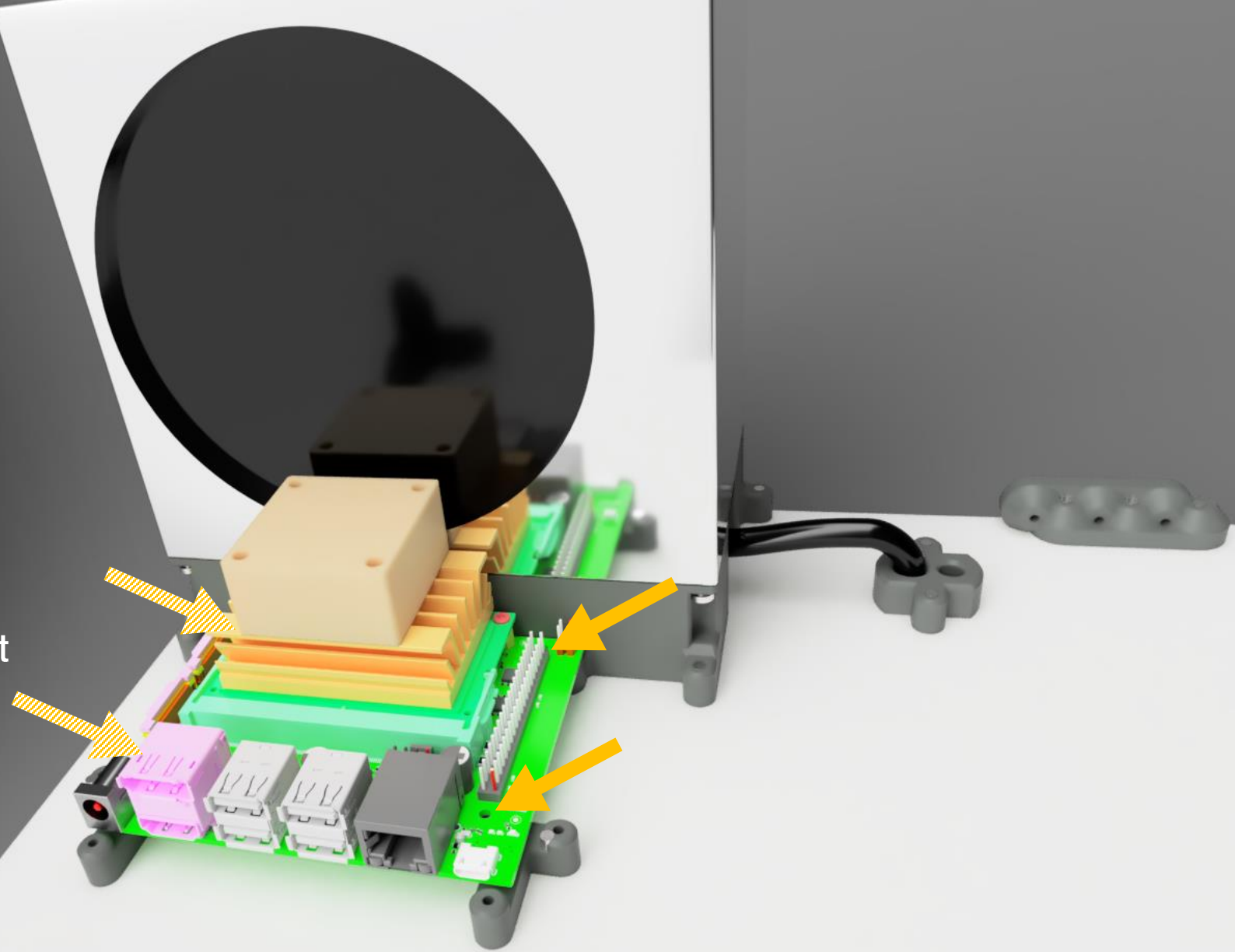


Mount the Airintake on the Bottomwall with 4 M3x16mm screws.
(wrap a gaze-mesh over the Airintake and fix with rubber band)

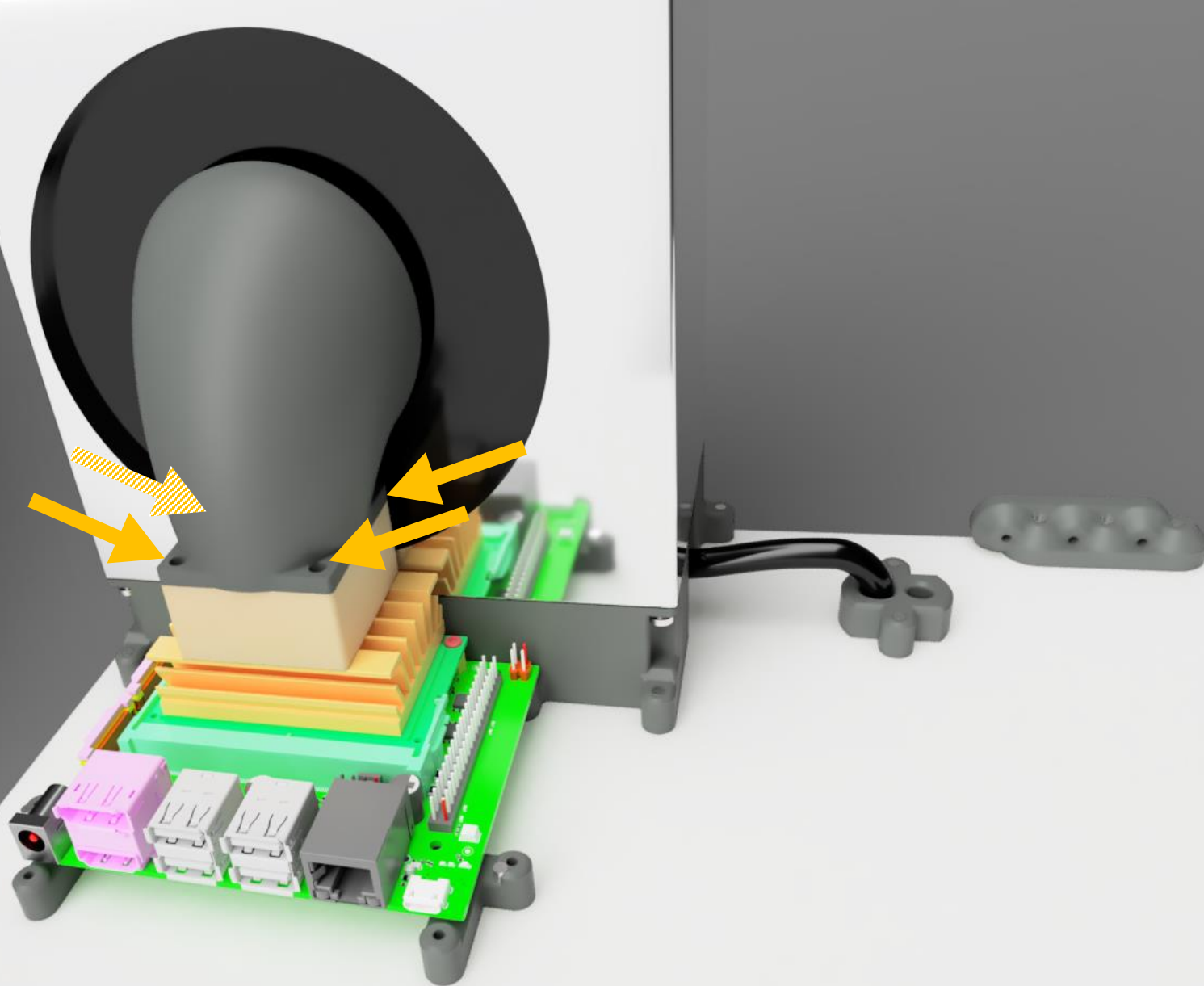


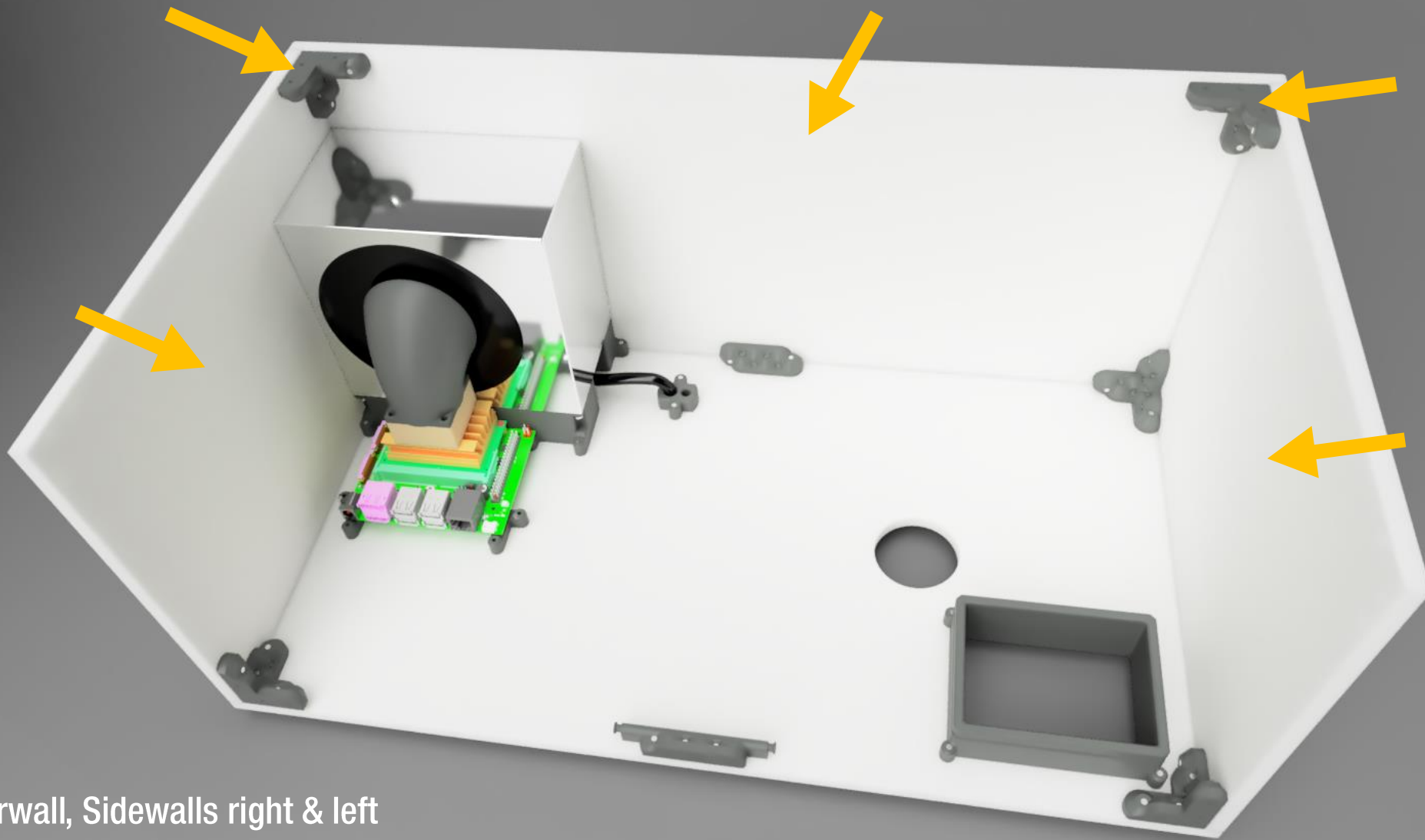
Mount these Fittings to the Bottomwall with M3x16mm screws.

Mount the Nano board,
with the Noctua Fan attached,
onto the Foundation with
4 M3x16mm screws.
(Foundation comprises support
for Nvidia Jetson series and
Raspberry Pi4)

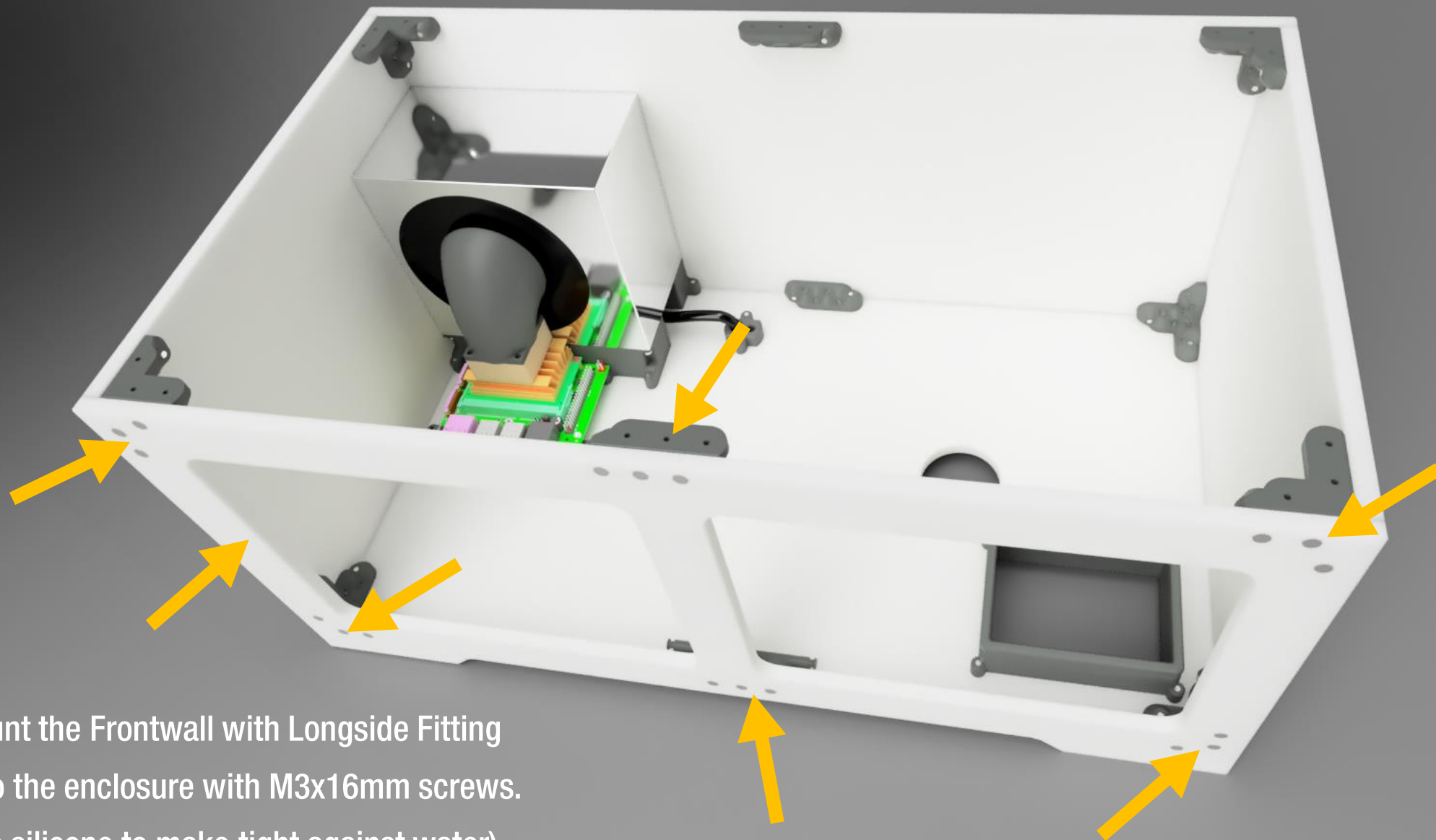


Mount the Nano Vent onto the Noctua fan with Noctua rubber fixings.



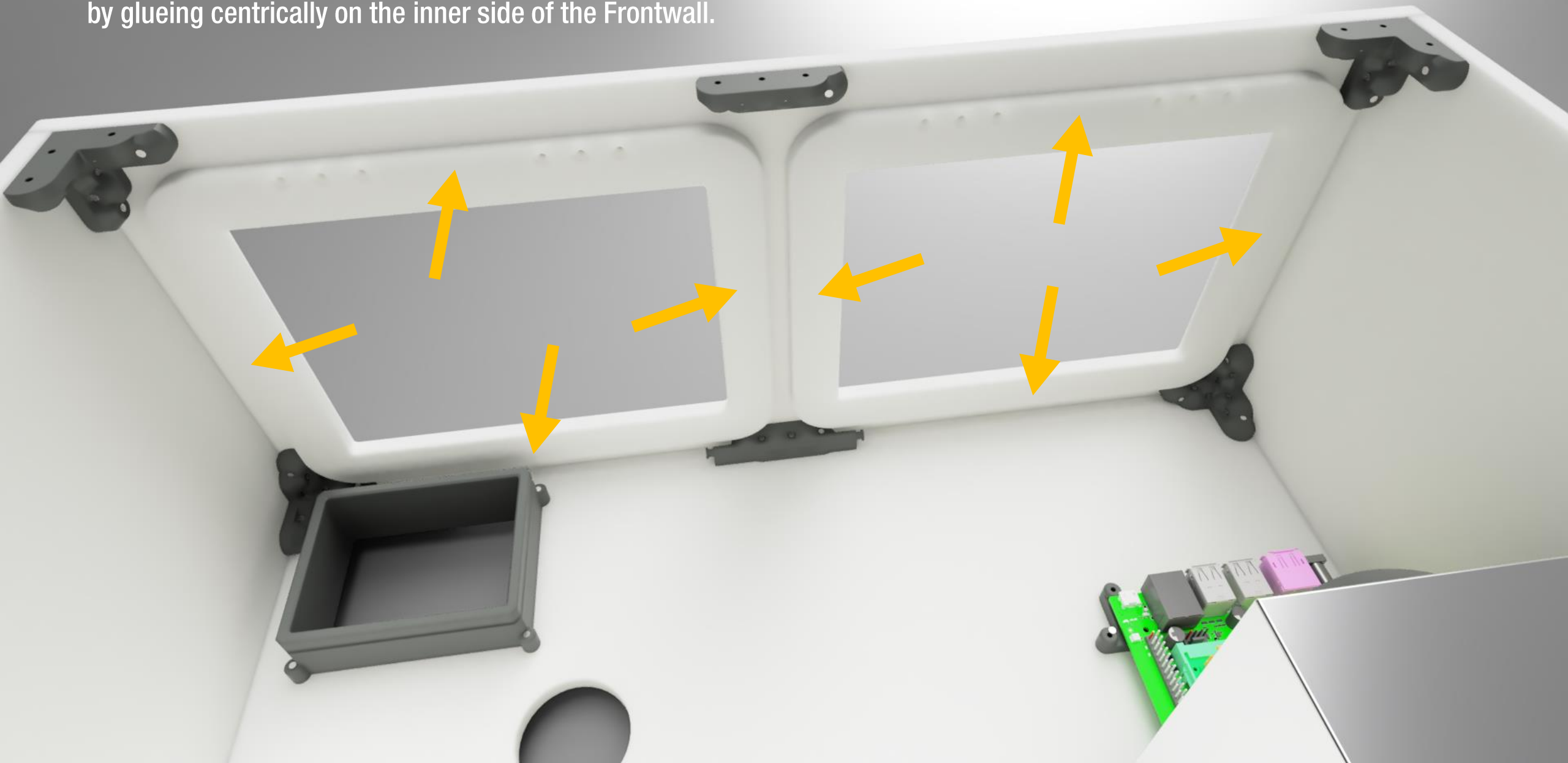


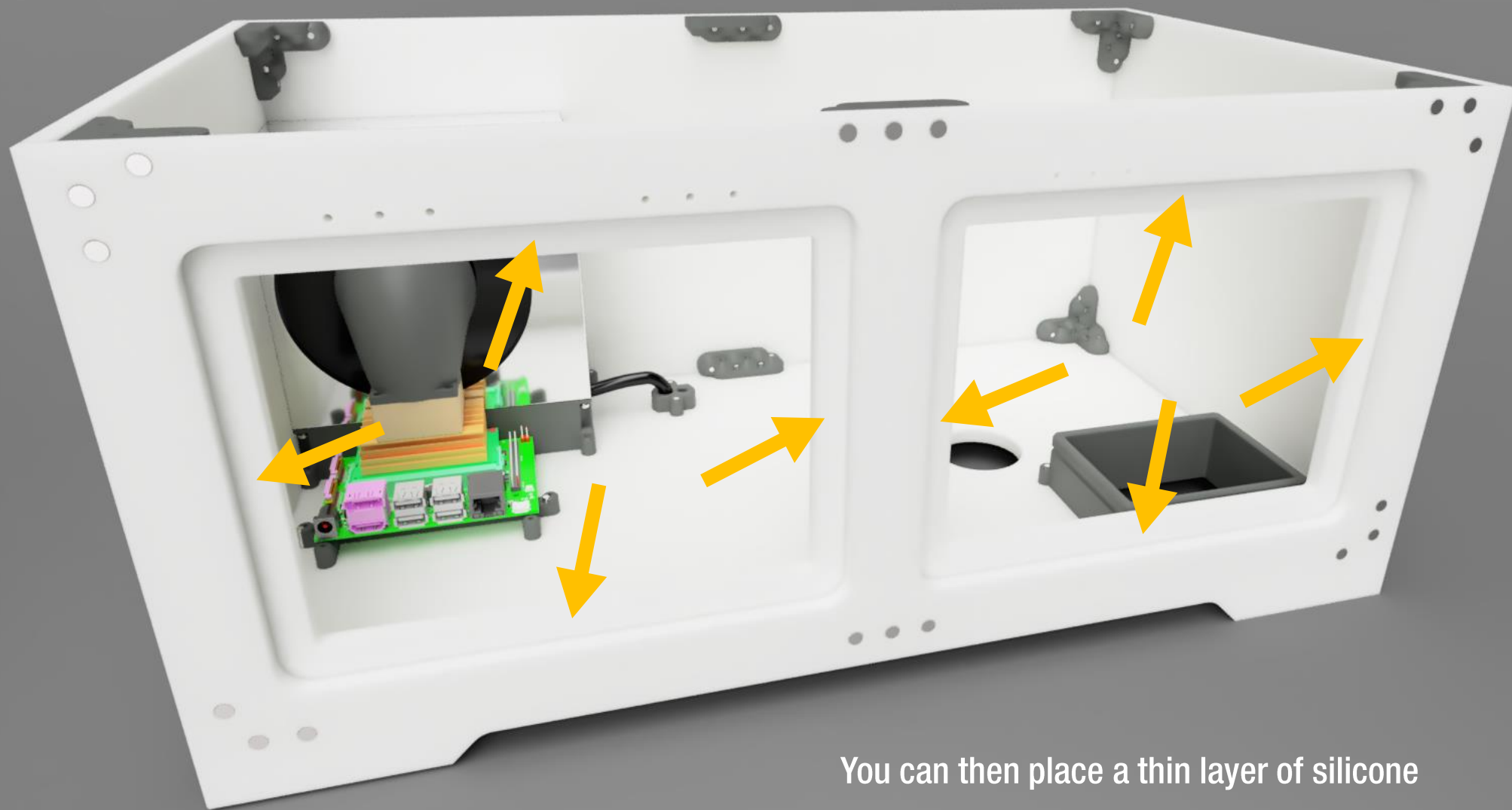
Mount the Rearwall, Sidewalls right & left
and 2 Corner Fittings onto the Bottomwall with M3x16mm screws.
(use silicone to make tight against water)



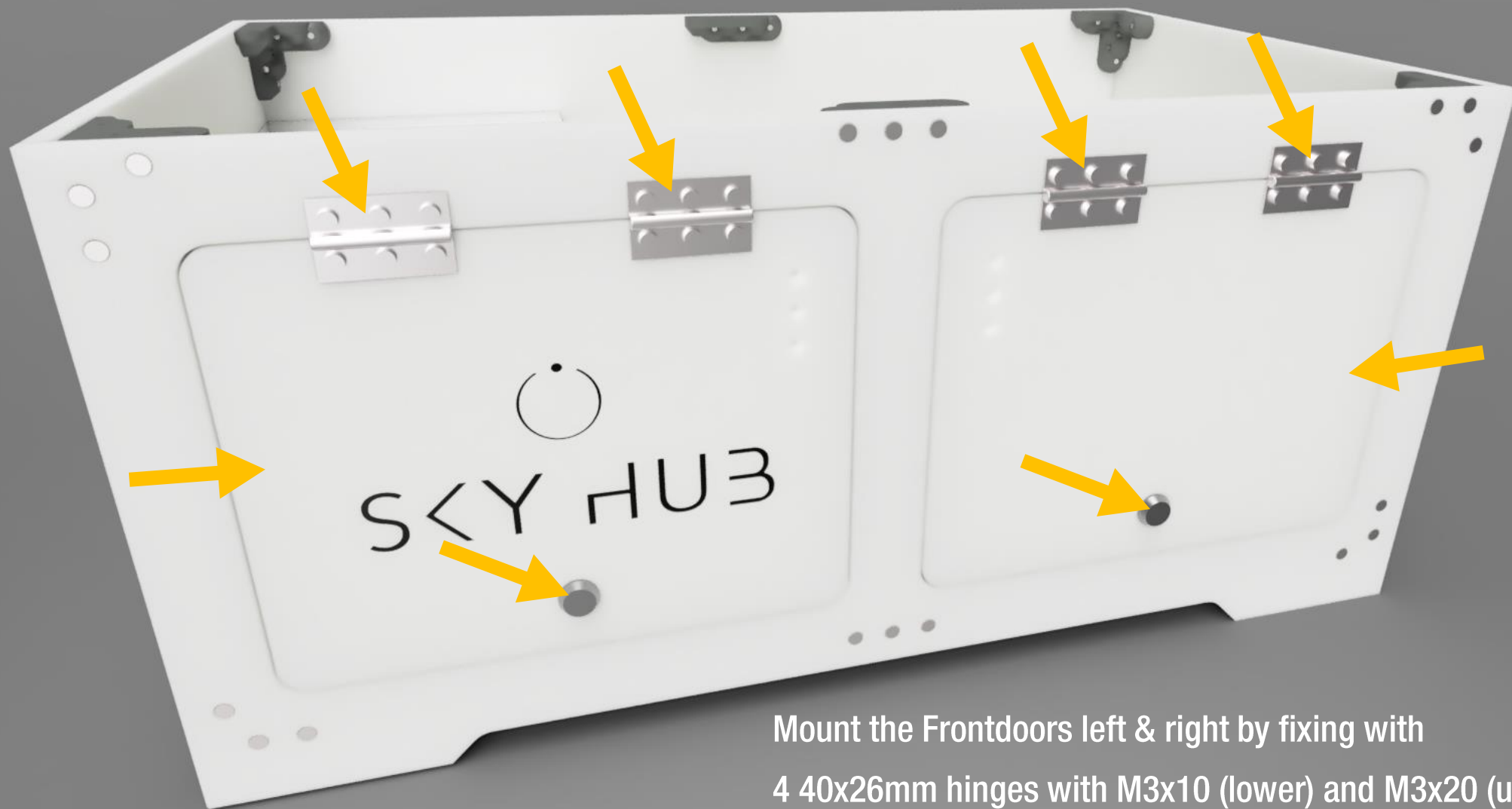
Mount the Frontwall with Longside Fitting
onto the enclosure with M3x16mm screws.
(use silicone to make tight against water)

Mount the Frontdoor Barriers left & right
by glueing centrally on the inner side of the Frontwall.

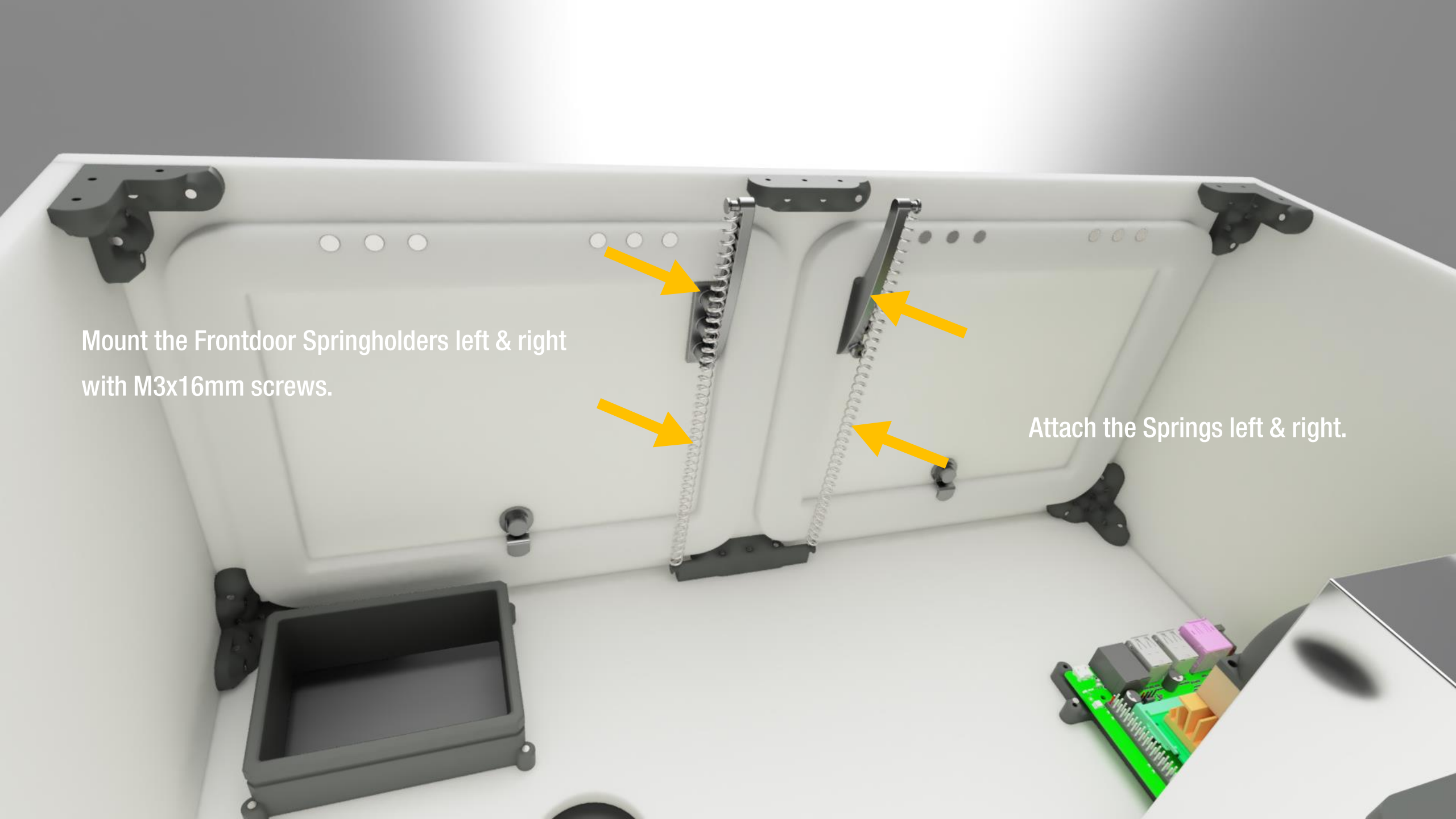




You can then place a thin layer of silicone
on the outer side of the Barriers against water ingress.

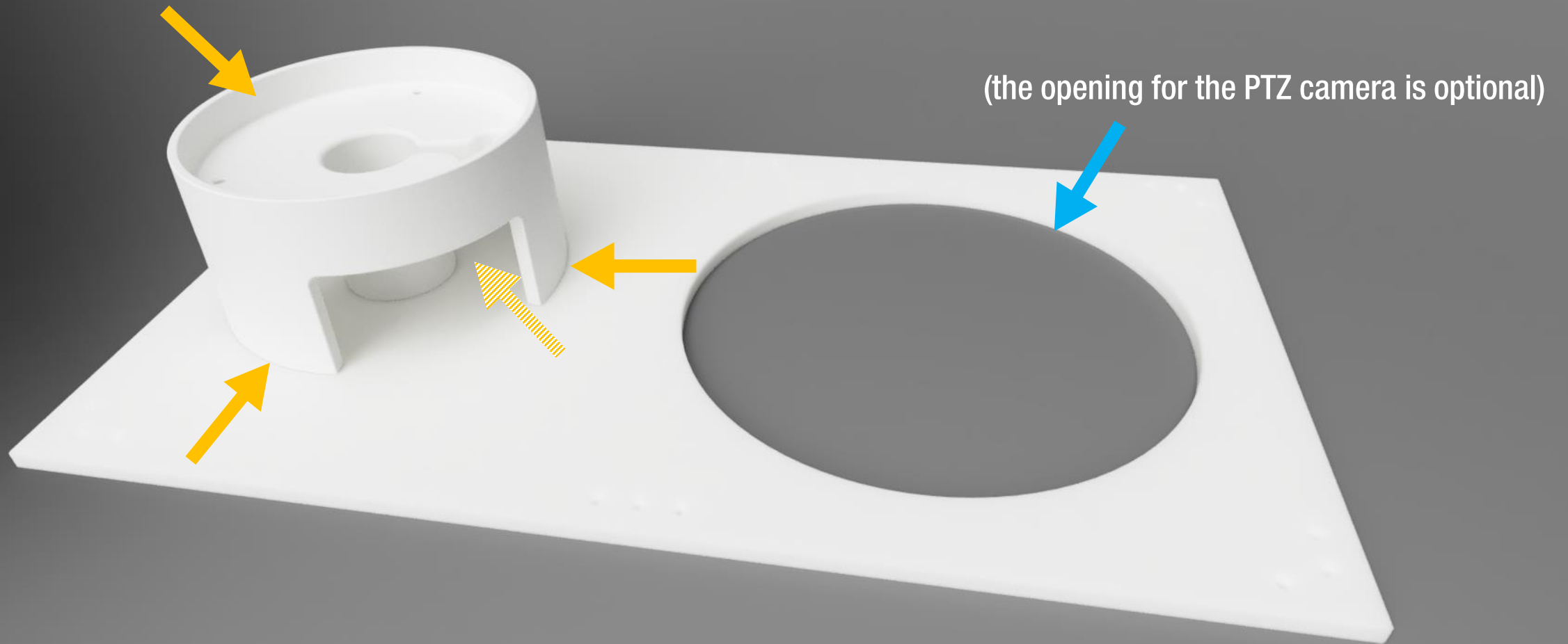


Mount the Frontdoors left & right by fixing with 4 40x26mm hinges with M3x10 (lower) and M3x20 (upper) screws. Apply the ATX Locks left and right. (you might have to adjust the latch)

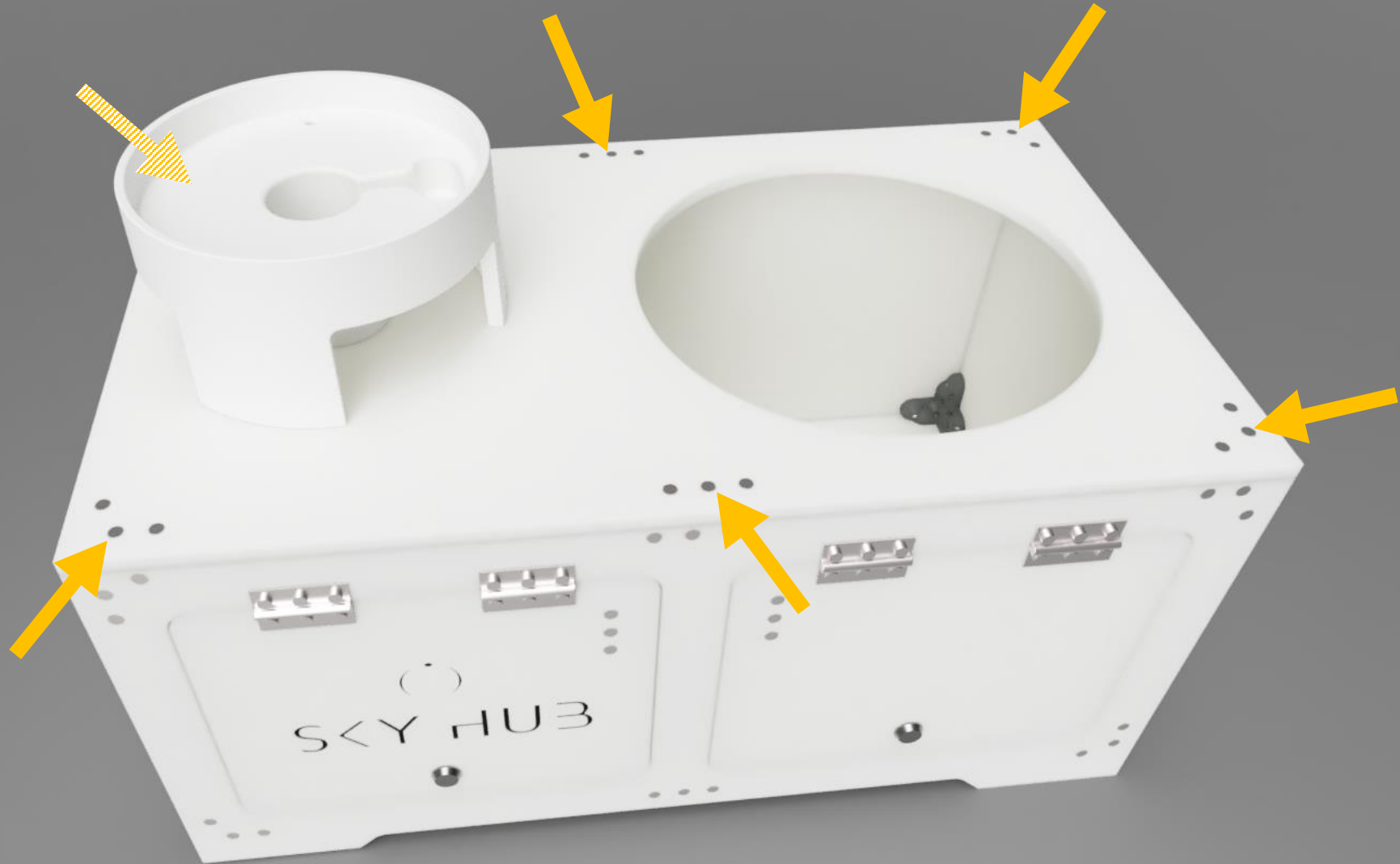


Mount the Frontdoor Springholders left & right
with M3x16mm screws.

Attach the Springs left & right.



Mount the Fisheye Tower onto the Topwall with 9 M3x16mm screws.
(use some silicone on the inner rim next to the Topwall)



Mount the Topwall onto the enclosure
with M3x16mm screws. (use silicone to make tight against water)

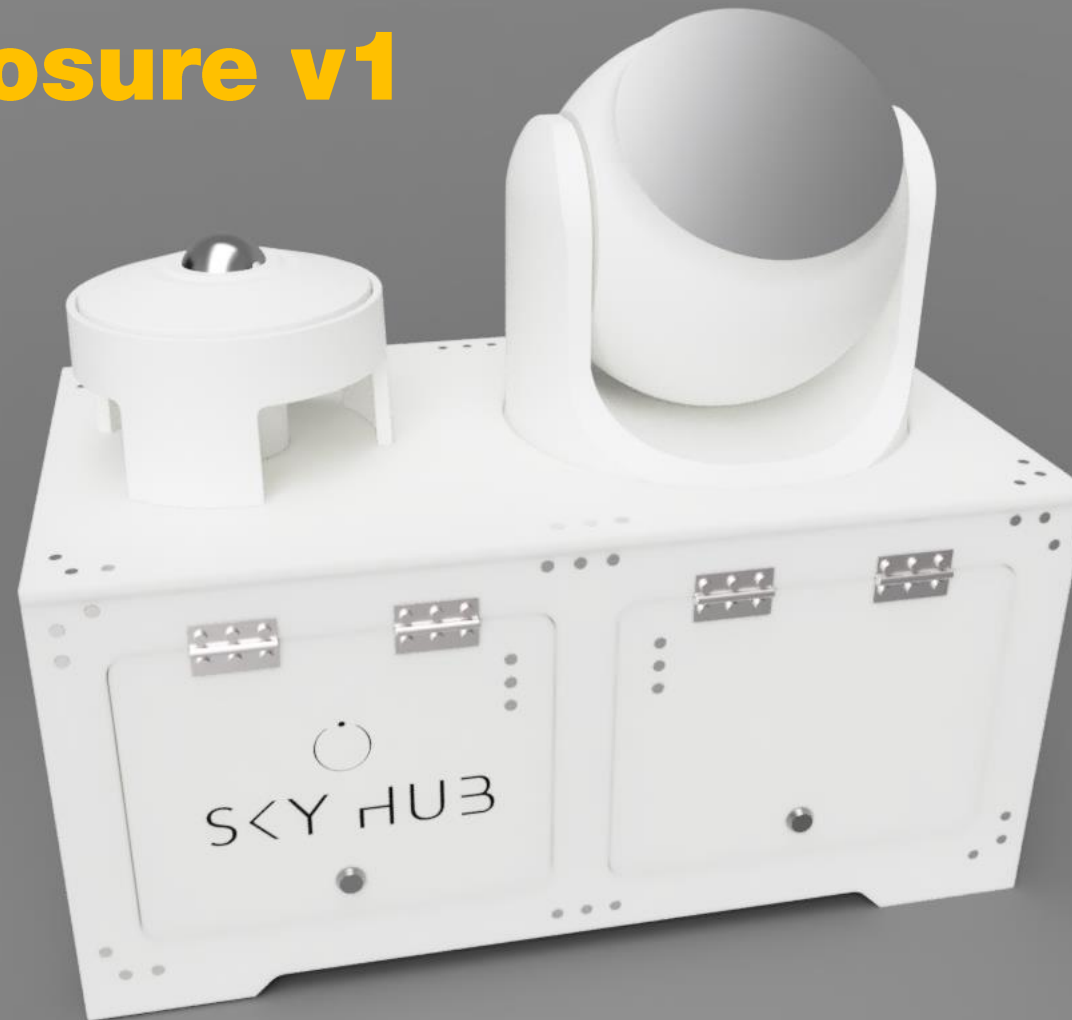
Place the Fisheye cameras mounting plate onto the Fisheye Tower and fix with 3 M4x16mm screws.

Take the Fisheye camera, funnel the cabling through the inner tube and turn the camera until locked on the plate.



SkyHub Enclosure v1

with closed doors



SkyHub Enclosure v1

with open doors

