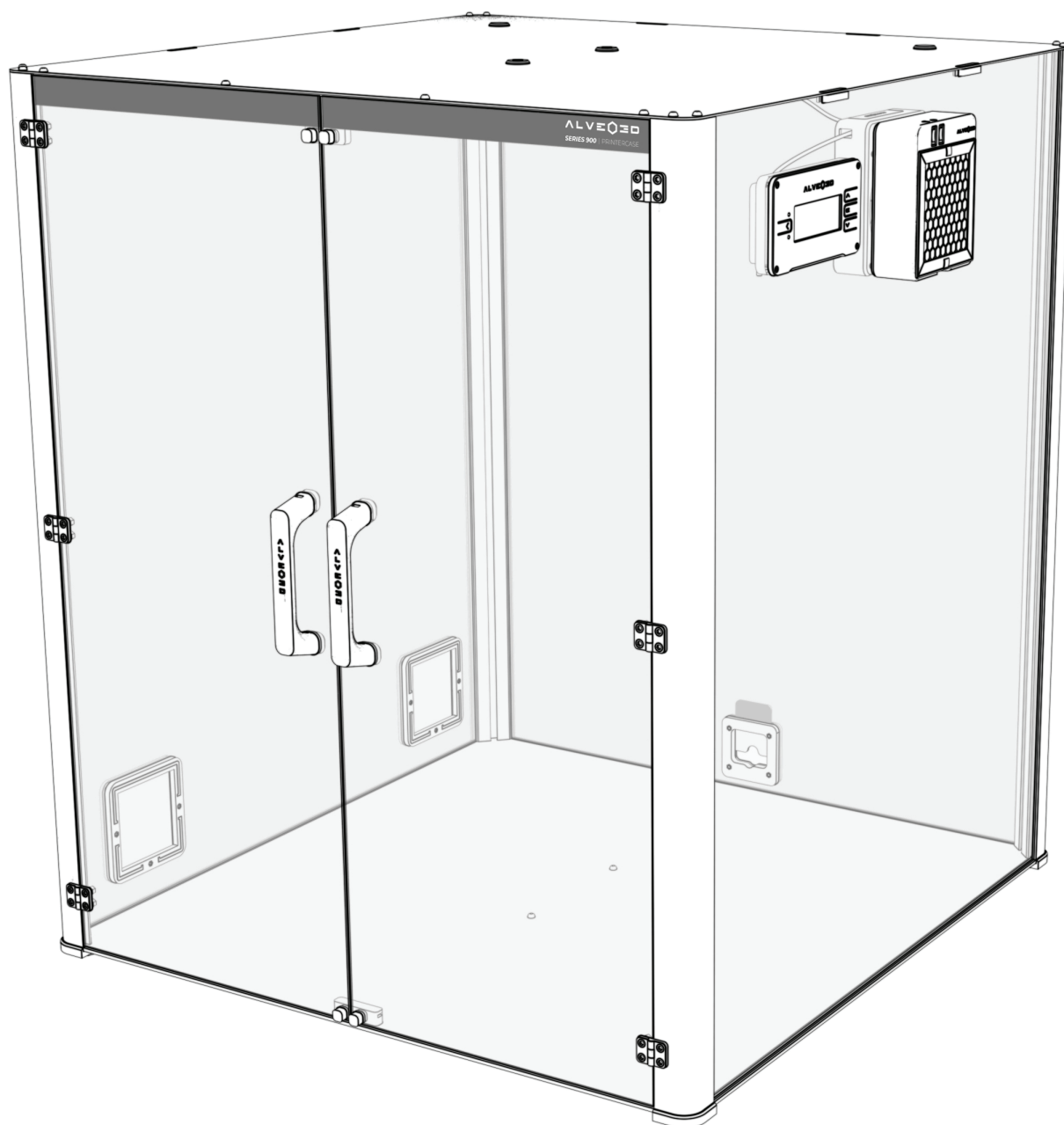


INSTRUCTION MANUAL

ALVEO3D

PRINTERCASE - SERIES : 900 - 800 - 600

Safety enclosure for 3D printer



Find the support page

www.alveo3d.com/en/assembly-printercase/

and the contents to download

www.alveo3d.com/en/download-printercase/

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Read the instructions before use

- The use of an enclosure helps to contain the pollutant emissions associated with the use of 3D printers. It is recommended to always use ventilation during the printing process.
- The filtration system uses a powerful fan. You should only turn it on after the device is completely assembled with the protective screw-on cover and filter. Failure to do so may result in injury.
- Please use the electrical voltages recommended during the assembly instructions to power the unit to avoid damage to the electronic components.
- Avoid contact with the electronic board during operation.
- Operating range of the filter 0-60°C max

ELEMENTS LIST

The elements supplied with the **PRINTERCASE SERIES 900 - 800 - 600 Aluminum enclosure**

1x main box Model 900 / Model 800 / Model 600

1x PMMA panel case
1x set of 5 panels 3mm thick

1x case Aluminium plates
1x bottom plate 4mm
1x top plate 2mm

1x carton tube
2x profiles with holes
2x profiles without holes
1x horizontal bar

2x accessory boxes 30x30x100

1x manual

1x power supply 24v angled

1x zip bag :
1x Allen key 2,5mm
1x Allen key 3mm
1x pipe wrench 7mm
1x screwdriver

1x v2 card - 1x short temperature probe - 1x cable clamp + self-adhesive base - 1x 4 wires 19cm

1x alveoZERO = shell fan / filter / grid + 1x gasket 120mm - 1x card V0 double switch + 1x fan H8

1x filtre P3D

1x LED 230cm Model 600 / 270cm Model 800 / 320cm Model 900)

1x LED installation template

1x bag :
Accessories
1x passageway cable
1x pair of grids
4x corner feet
2x central skids
1x magnet block (bottom)
1x magnet block (top)
2x wide magnets
2x handles
4x magnet screw covers
6x hinges Model 900 / Model 800
6x top panel block Model 900 / Model 800
4x top cap

4x cover caps square nuts M5
4x cover caps screws handles

4x hinges Model 600
3x top panel blocks Model 600

1x bag :
6x silicone gaskets Model 900 / Model 800 / Model 600
3x EPDM gaskets Model 900 / Model 800 / Model 600

Bag - Doors

12x M4x12 screws black countersunk
12x M4x8 screws black countersunk
12x M4 hexa nylstop nuts
4x M4x16 stainless steel cylinder screws
4x M4 square nuts
4x M5x12mm black countersunk screw
4x M5 square nut

Bag - Side panel 1

6x M3 hex nuts
6x M3x10 black cylindrical screw

Bag - Side panel 2

8x M5x16 self-drilling screw
4x M3x14 cylindrical screw

Bag - Back panel

4x M3 hex nuts
4x M3x10 black cylindrical screw

Bag - Top panel

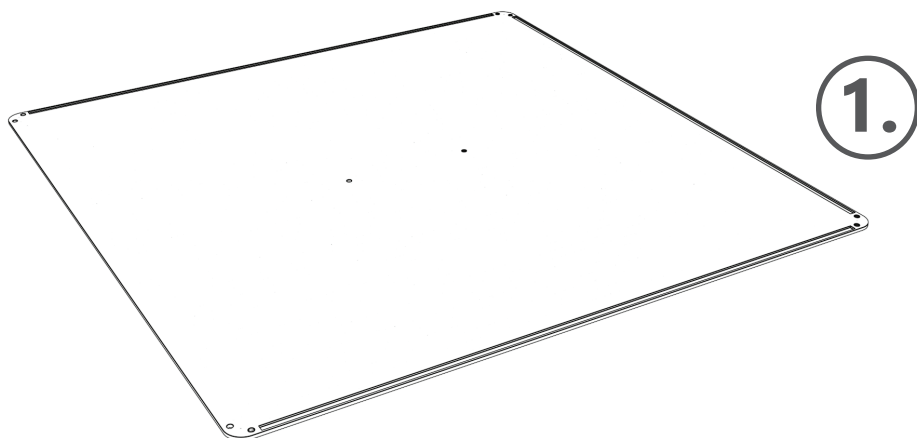
8x M5x20mm screw black domed
4x M5x12 screw black domed
2x M5x10 screw black domed
1x base plate
1x cable clamp

Bag - Bottom panel

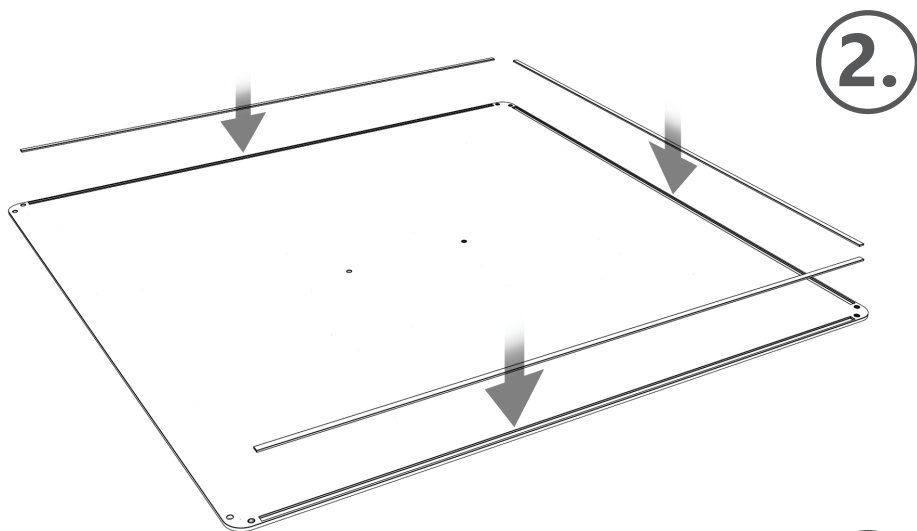
8x M5x20mm screws
2x screw M4x16 black oval
2x M4 square nuts
2x M5x10 screw black domed
2x M5 hex nuts
4x anti-skid adhesive pads

STEP 1. PREPARATION OF THE BOTTOM PANEL

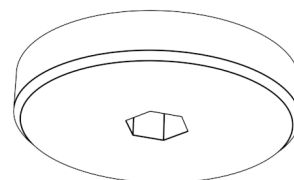
Start by mounting the accessories on the bottom 4mm aluminum panel.



1. Position the side with the 3 rails of the enclosure upwards (the side facing inwards).

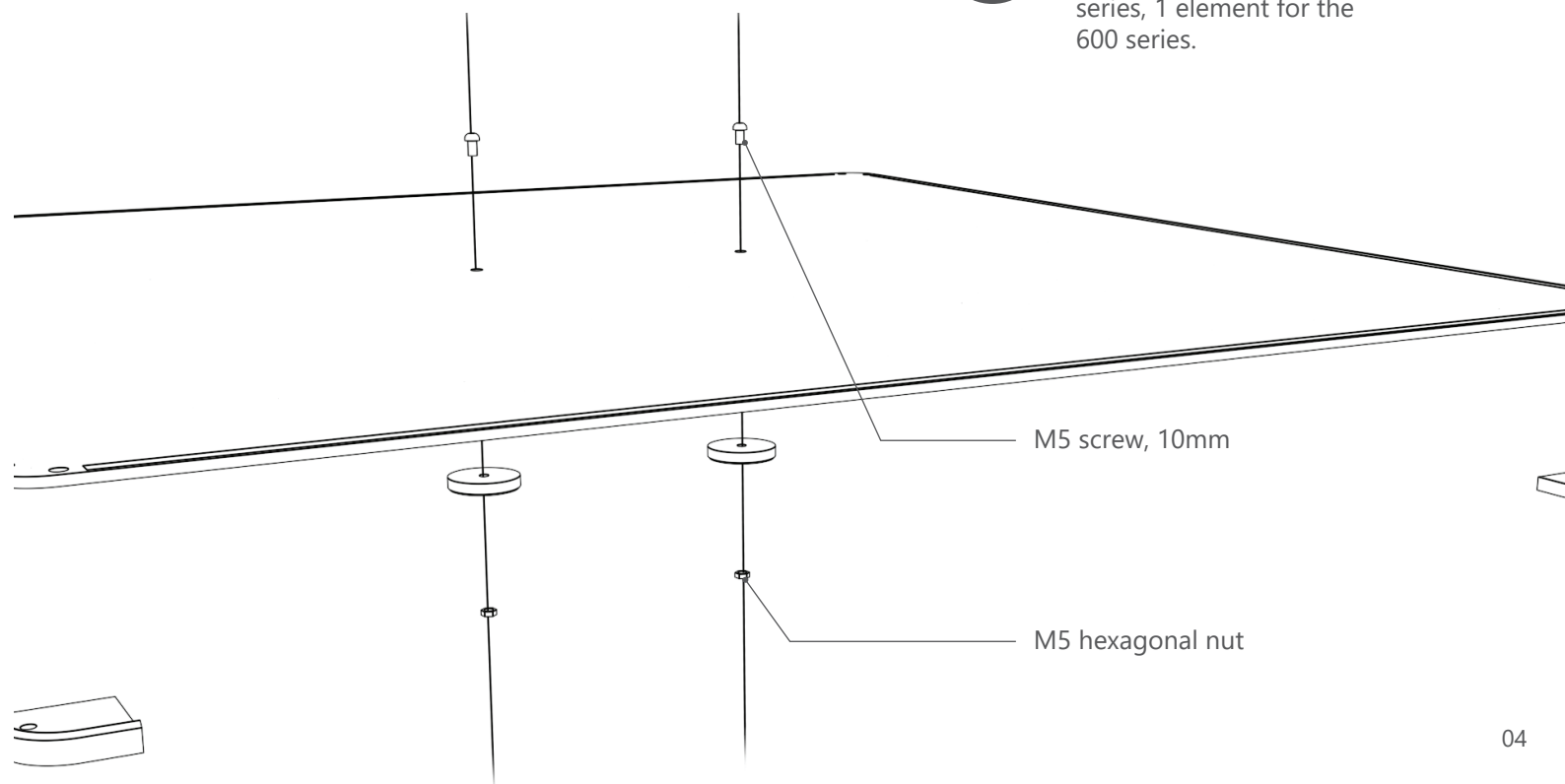


2. Insert the 2mm black EPDM foam gaskets into the rails. Peel off the sticker on the back of the gaskets and place the gasket without stretching it. Cut the excess length if necessary.



3.

3. Install the center feet : 2 elements for 900 and 800 series, 1 element for the 600 series.



M5 screw, 10mm

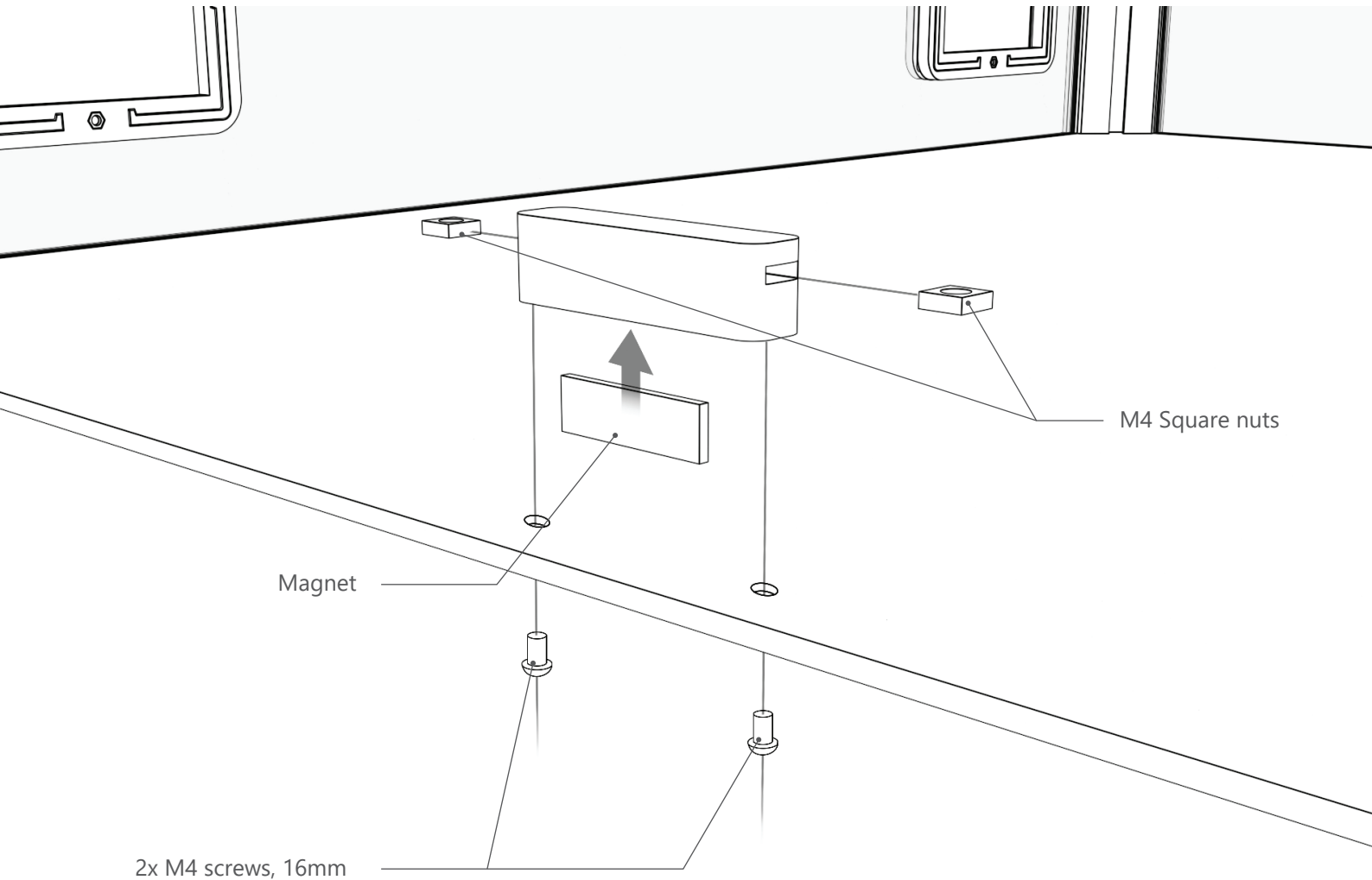
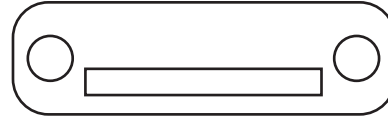
M5 hexagonal nut

STEP 2. BOTTOM MAGNETIC SYSTEM ASSEMBLY

Mount the magnetic locking system on the bottom plate. Insert one of the two magnets into the magnet holder. Insert the M4 square nuts into the slots on the bracket, then secure the bracket to the plate with the two 16mm M4 cap screws.

1.

Orient the magnet holder so that the thinner wall faces the doors.

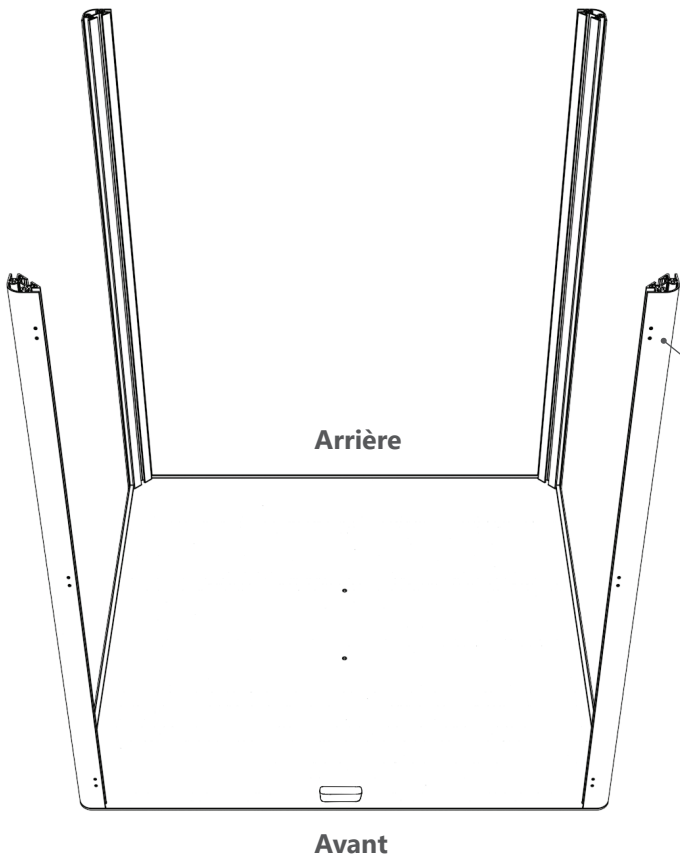


STEP 3. MOUNTING THE BOTTOM PANEL

The bottom panel is mounted using 8 M5 screws with a 20 mm domed head. They are screwed directly into the ends of the aluminum profiles by taking the bottom plate and the corner feet.



Be careful to screw in the first few threads by hand and then using the 3mm Allen wrench provided with the kit. Make sure the screws fit the threads before tightening.

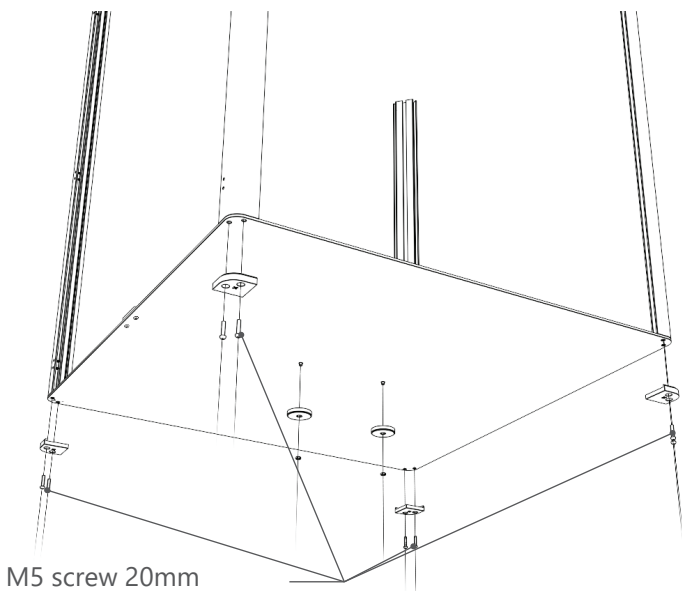
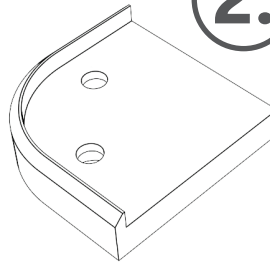


1.

The profiles do not have an up/down direction. However, it is necessary to position the threaded profiles for the door hinges towards the front.

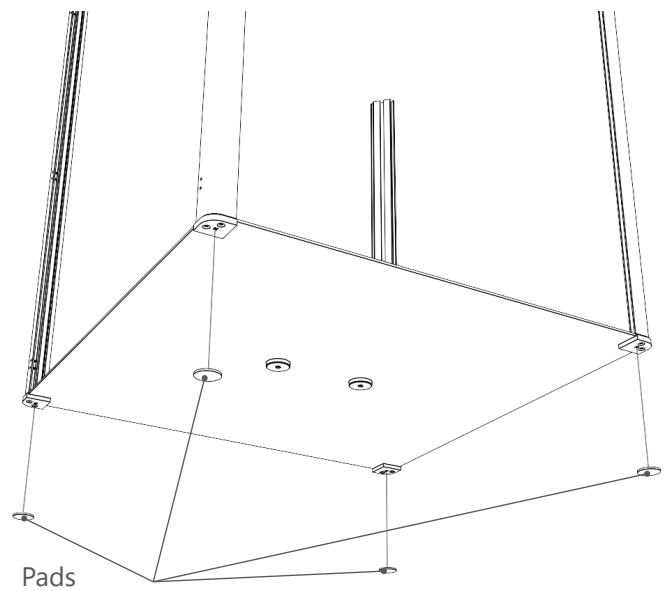
2.

Prepare the 4 corner feet



3.

Attach the corner feet to the panel and the profile with the M5 screws with 20mm head. The head of the screw must not protrude from the plastic part.



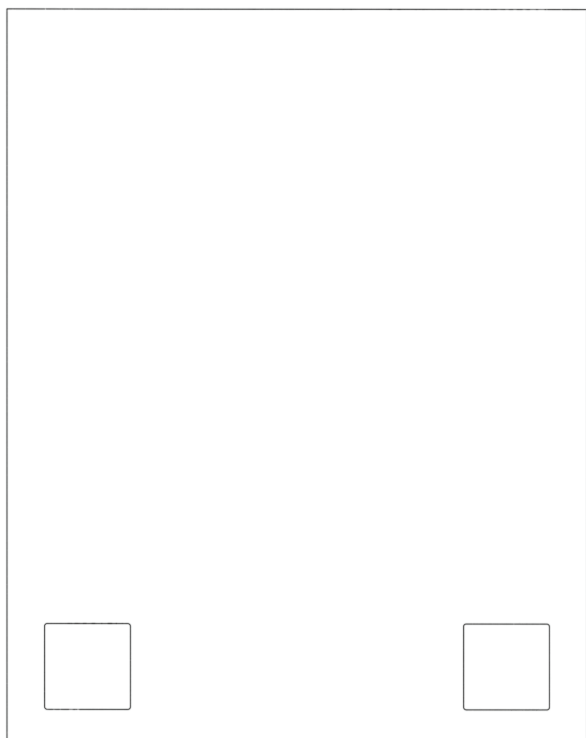
4.

Place the 4 self adhesive anti-slip pads on the feet.

STEP 4. MOUNTING THE AIR INLET GRILLES

On the panel with the two square cut-outs, mount the grilles before installation in the aluminum structure. The assembly is done with the 6 M3 cylindrical screws 10 mm and 6 M3 hexagonal nuts.

The air intake grilles are supplied pre-assembled. The micro perforated nylon grille is already positioned as well as the hexagon nuts in the clamping ring.

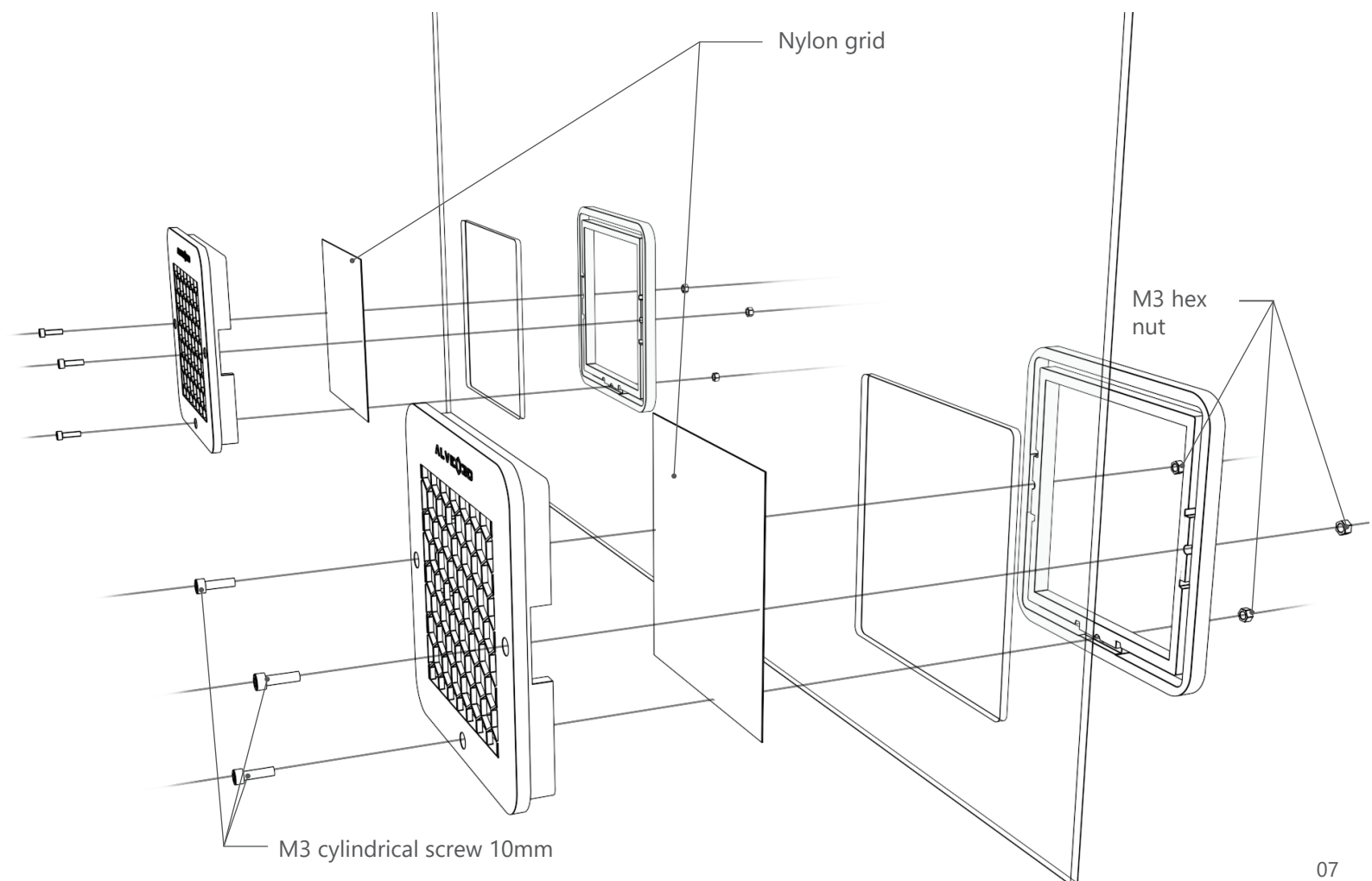


1.

Remove the protective film partially for the installation of the accessories on the panel.

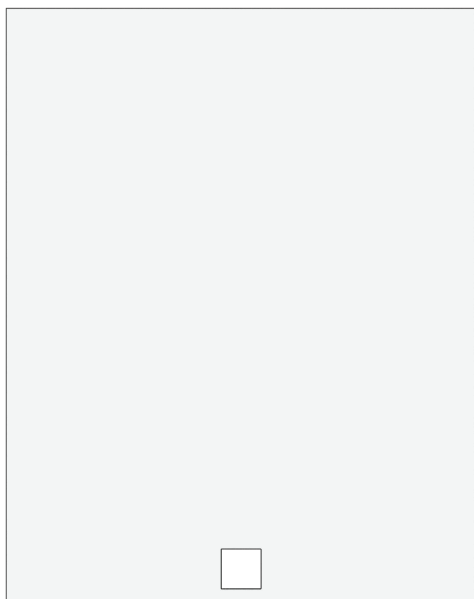
2.

Screw the elements of the friezes on both sides of the panel.



STEP 5. MOUNTING THE CABLE ENTRY

The cable entry is mounted on the rear panel with 4 x 10mm M3 cylindrical screws and 4 x M3 hex nuts. Put the nuts in their places, before tightening the screw. Once the assembly on the panel is completed, slide the knife into the slot of the part on the screw side.

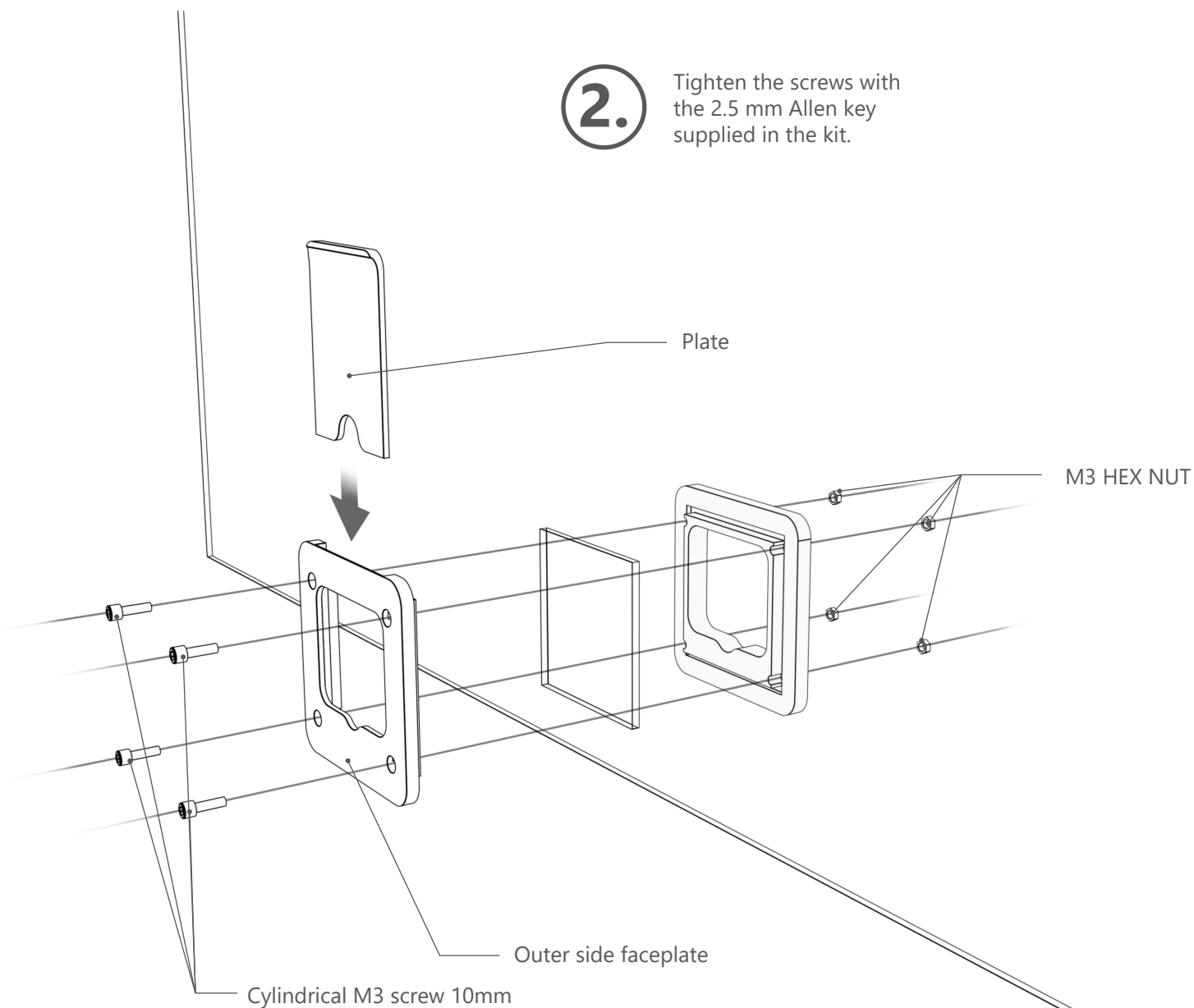


1.

Partially remove the protective film from the panel before assembly.

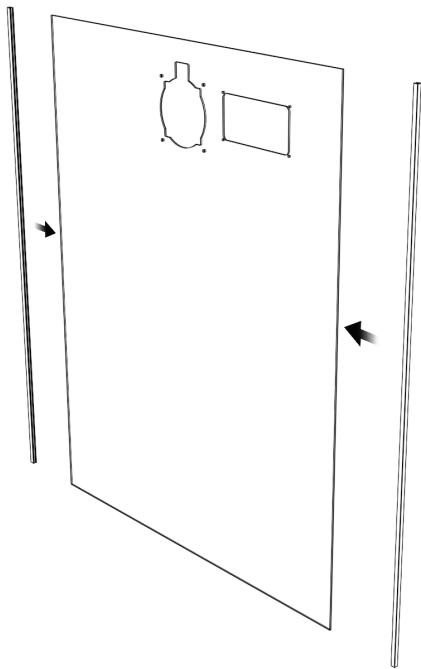
2.

Tighten the screws with the 2.5 mm Allen key supplied in the kit.



STEP 6. GASKET ASSEMBLY AND PANEL ASSEMBLY

The silicon gaskets are mounted on the rear panel (cable entry) and the side panels (air inlet and filtration system grilles). Remove the protective film from the sides of the panels. Install the silicone gasket in a U shape. The lengths of the gaskets are cut to the right size, install the gaskets without stretching them.

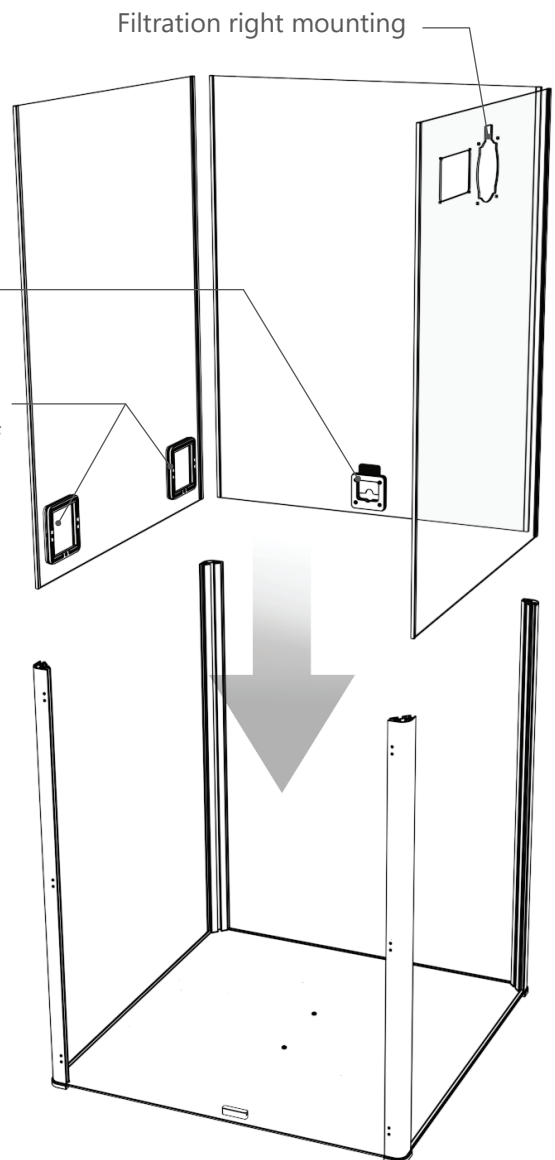
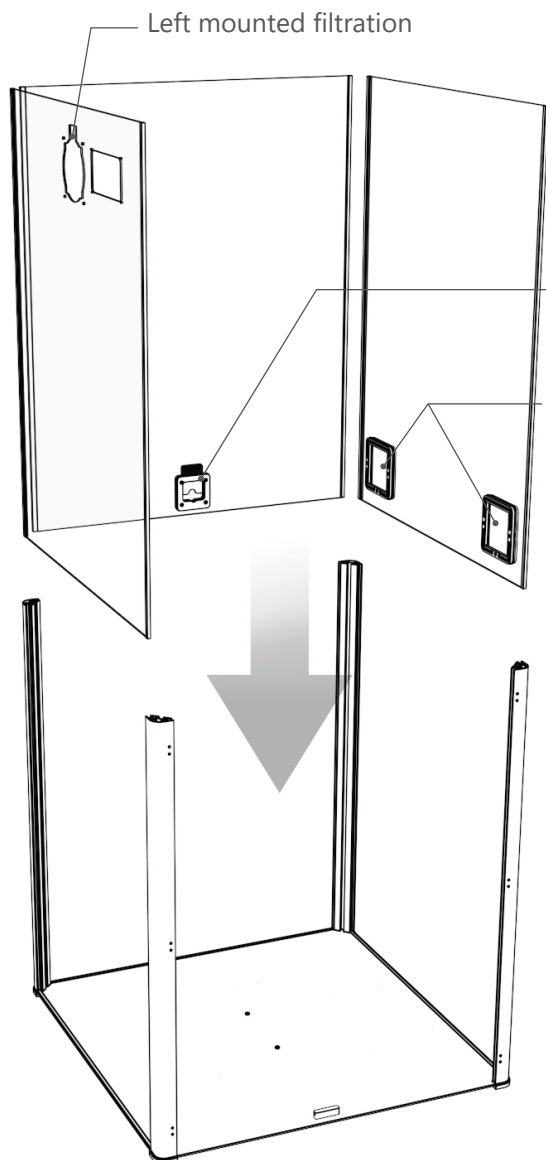


1.

Put the silicone gaskets on the panels.
Remove the protective film.

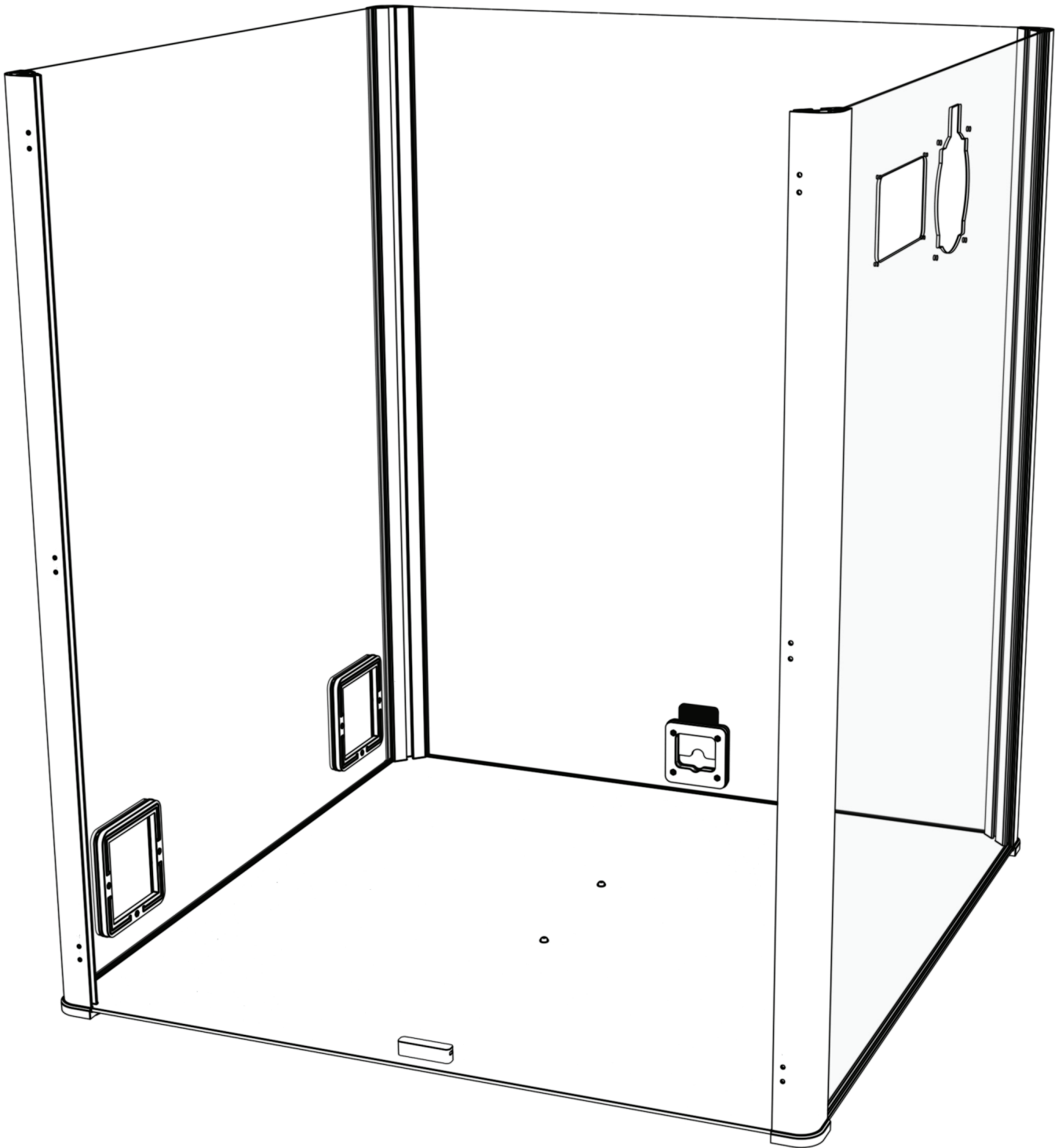
2.

Slide the panels with the gaskets on
both sides into the profile rails.



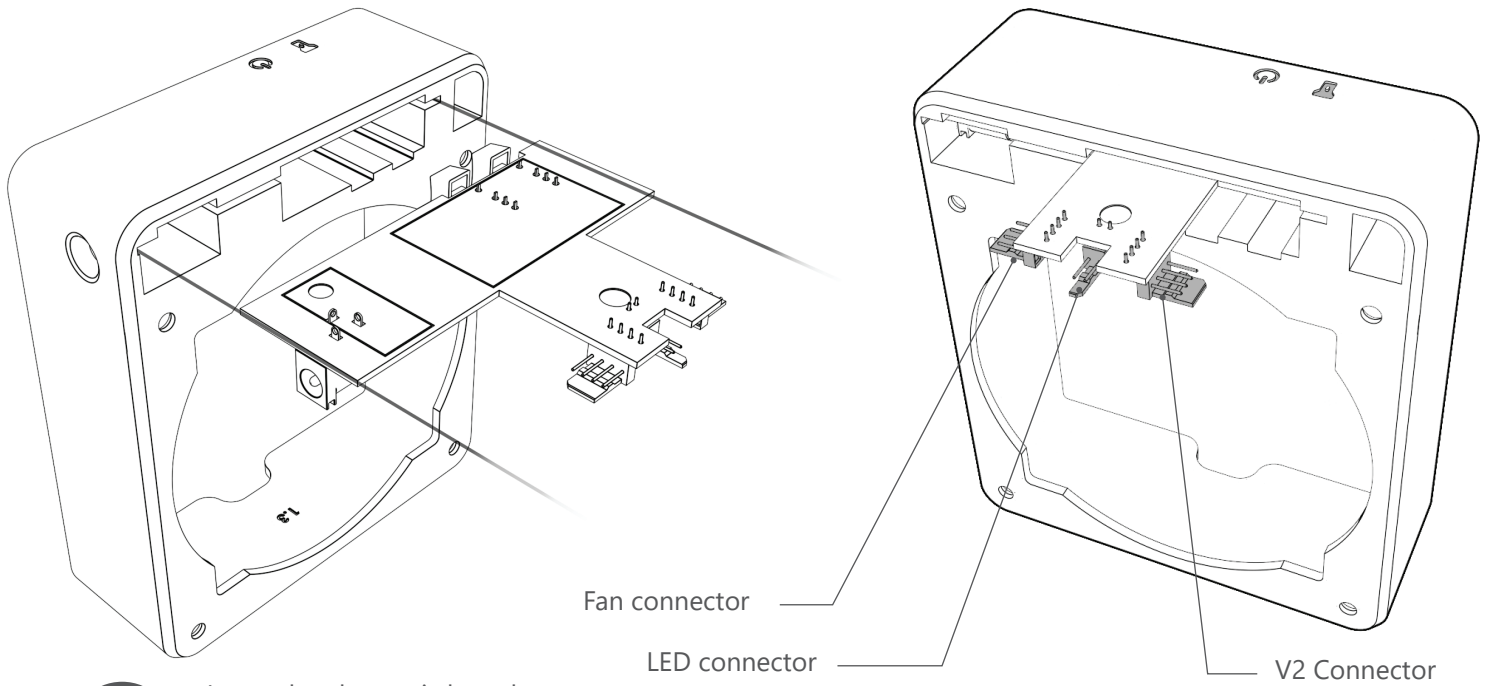
STEP 7. ILLUSTRATION OF MOUNTED STRUCTURE BOX

In this step, the bottom aluminum panel, profiles, PMMA panels are mounted, as well as the accessories on the panels, air inlet grilles and cable passage.



STEP 8. ASSEMBLY OF THE FILTRATION SYSTEM

The filtration system is mounted on the front of the unit on either side of the transparent panel.

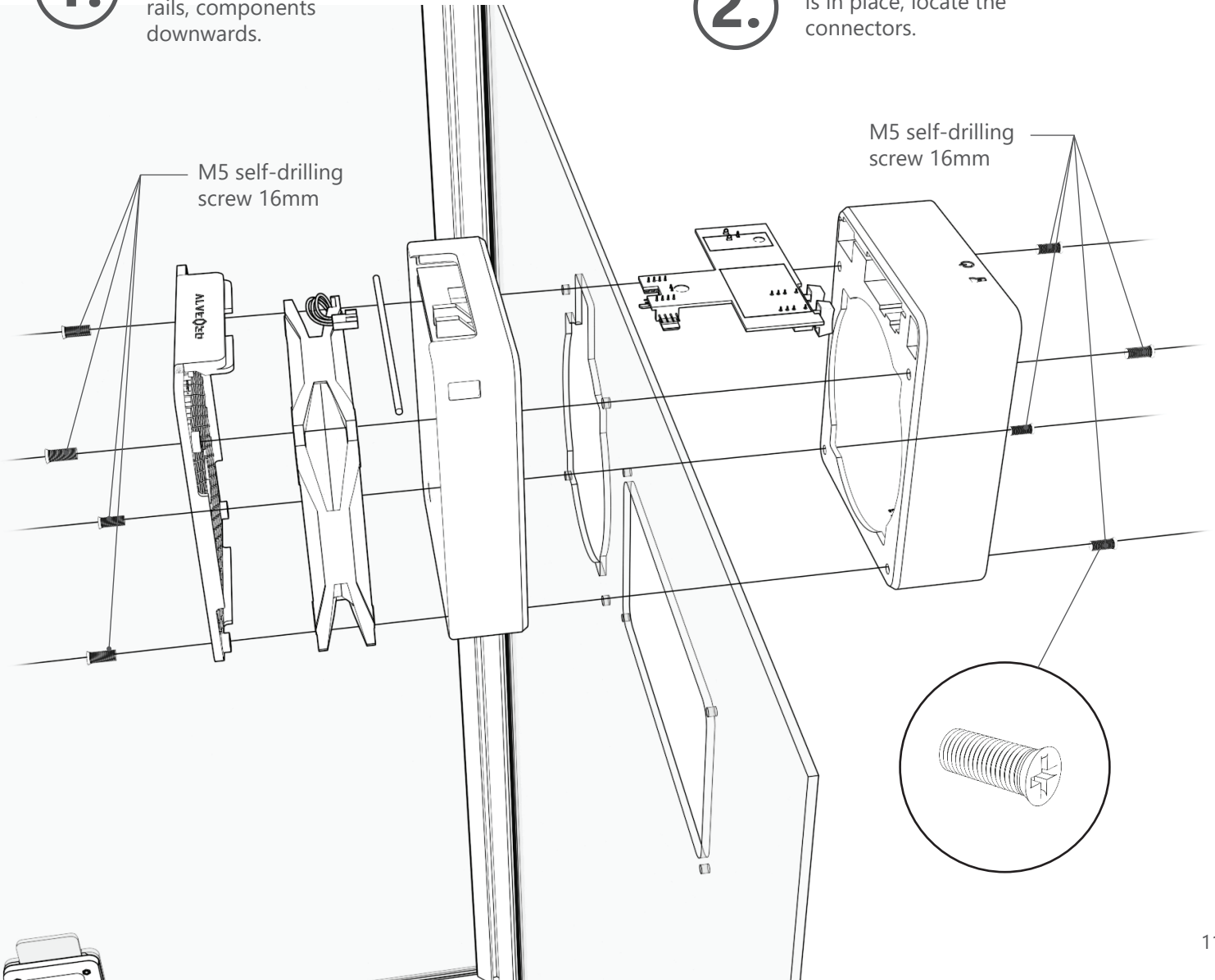


1.

Insert the electronic board into its slot following the rails, components downwards.

2.

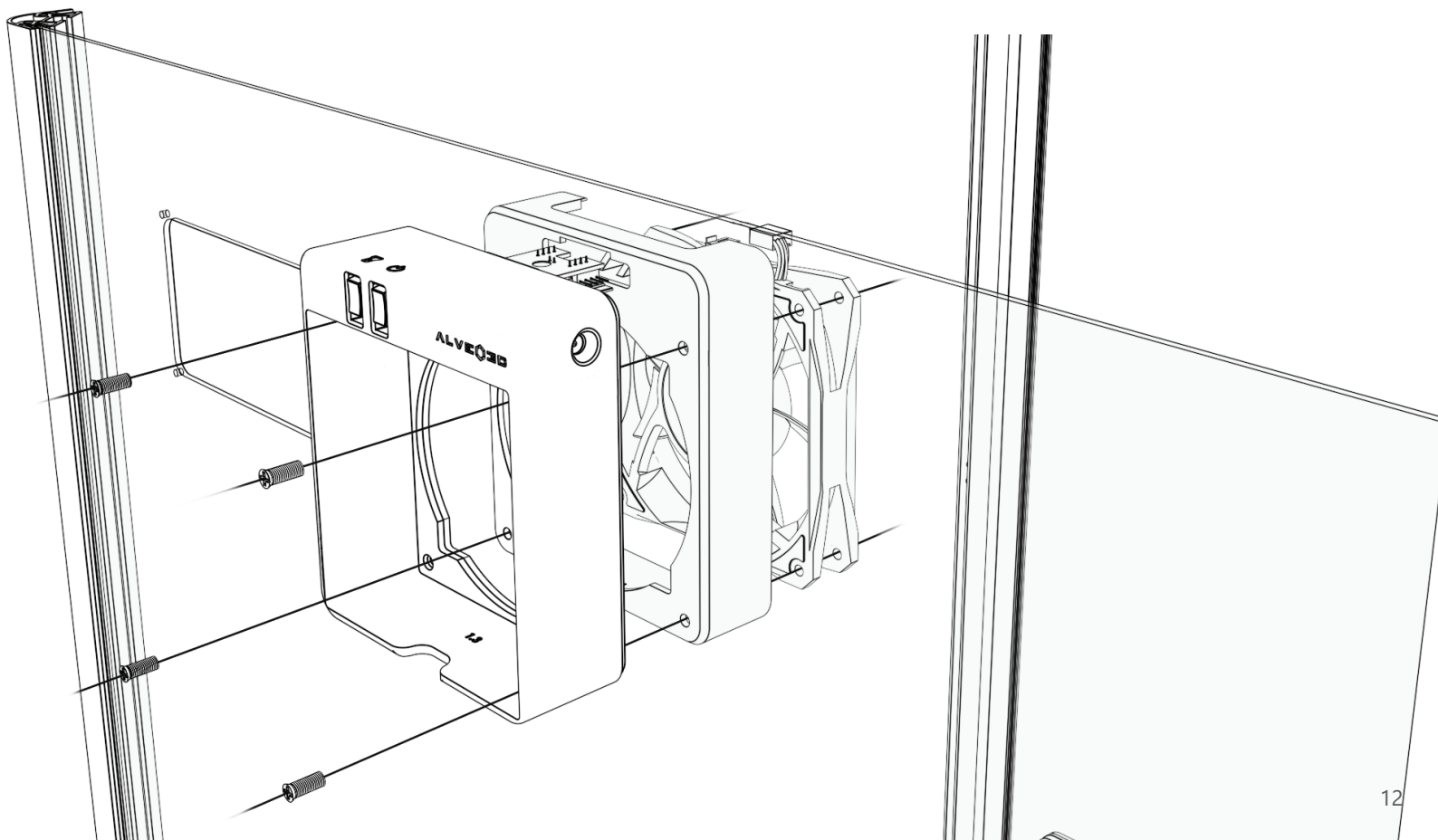
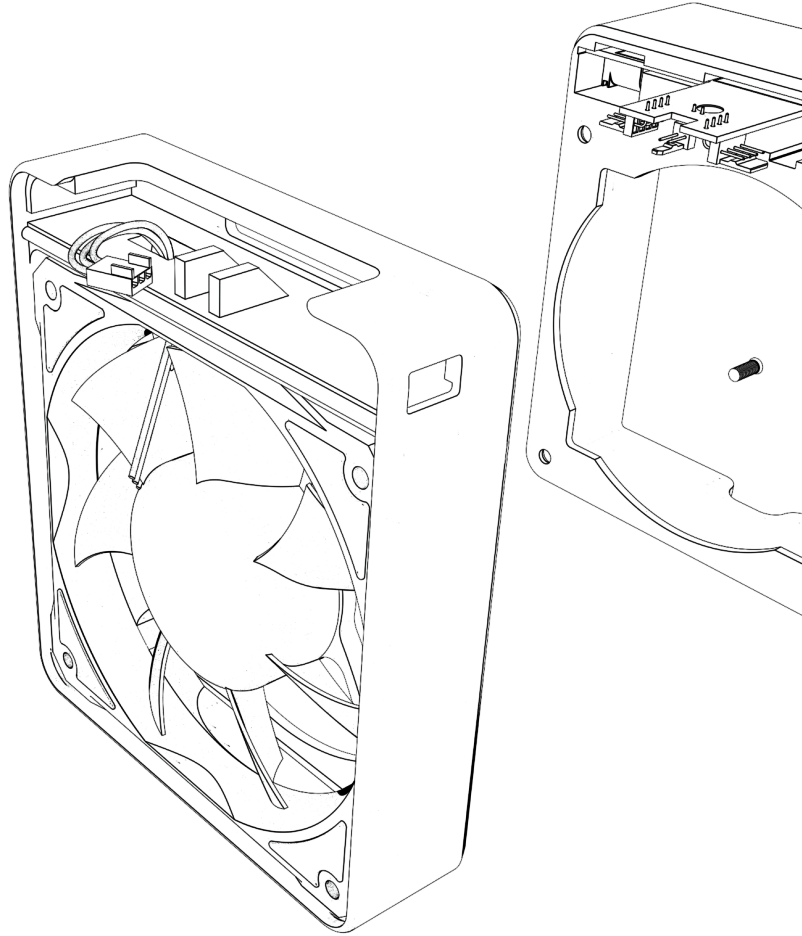
Once the electronic board is in place, locate the connectors.



STEP 9. PANEL MOUNTING THE FILTER SYSTEM

Panel mounting is done with 4 M5 self-drilling screws from the housing side of the filter location through the panel to the fan. Screw directly into the plastic of the fan.

- 1.** Place the fan in its place, the label facing panel transparent.
- 2.** Pull the fan wires through the slot provided.
- 3.** Pass the electronic board through the hole in the panel cut-out (from the bottom to the top). Avoid shocks between the electronic board and the panel.
- 4.** Screw the 2 parts together with the 4 self-drilling screws M5 x16mm. The panel is sandwiched between the 2 plastic parts.

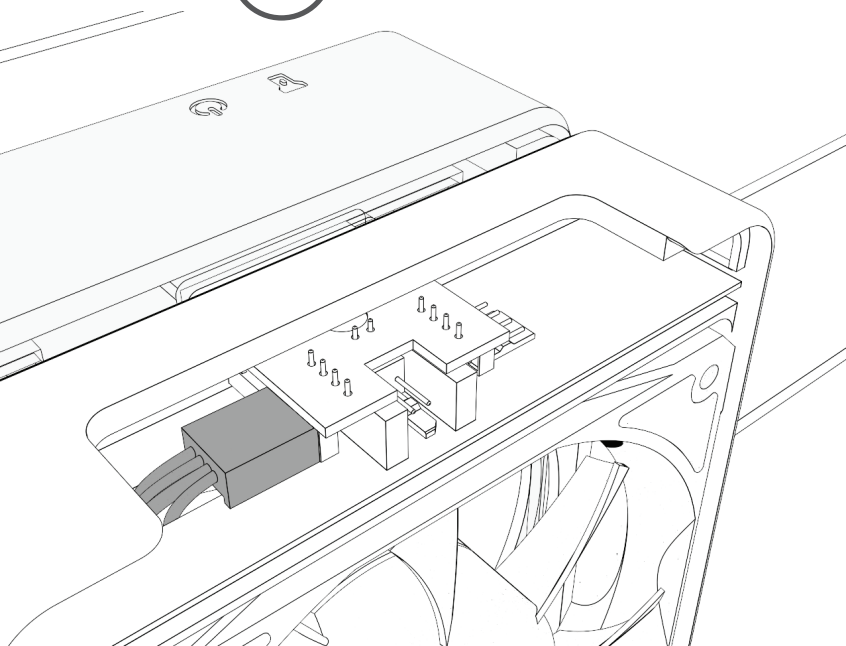


STEP 10. CLOSING THE FILTER SYSTEM

Connect the cables and close the rear protection grid.

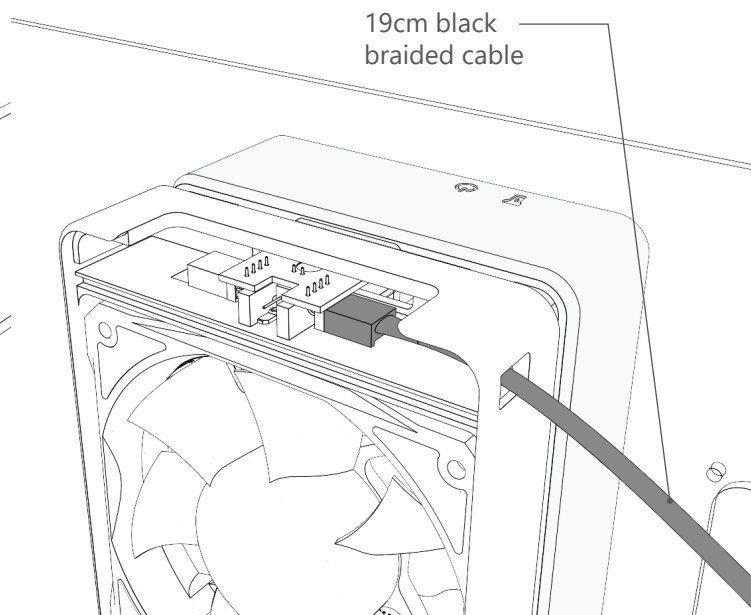
1.

Connect the fan connector.



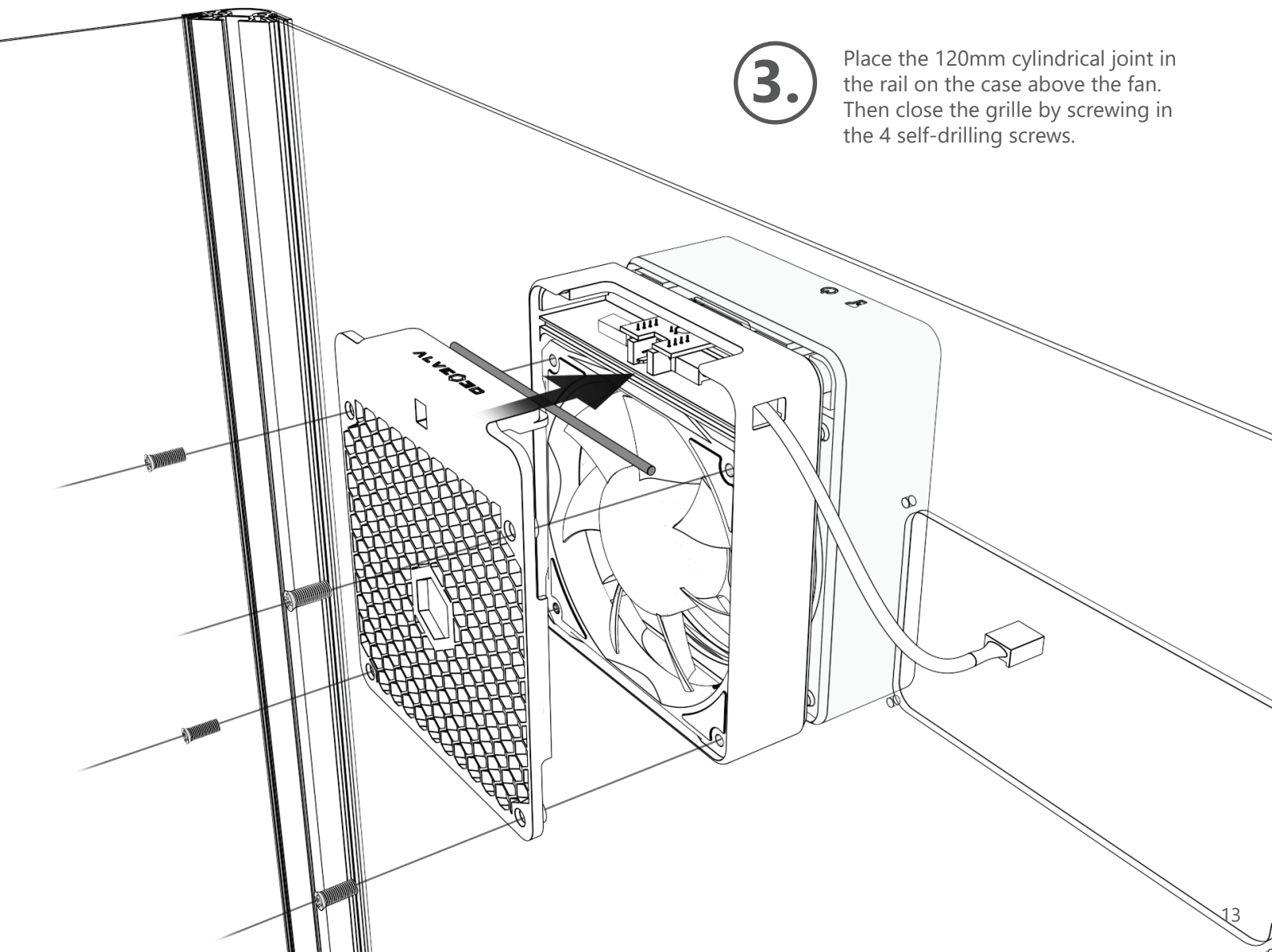
2.

Pass the power cable of the V2 board through the hole on the side of the housing.



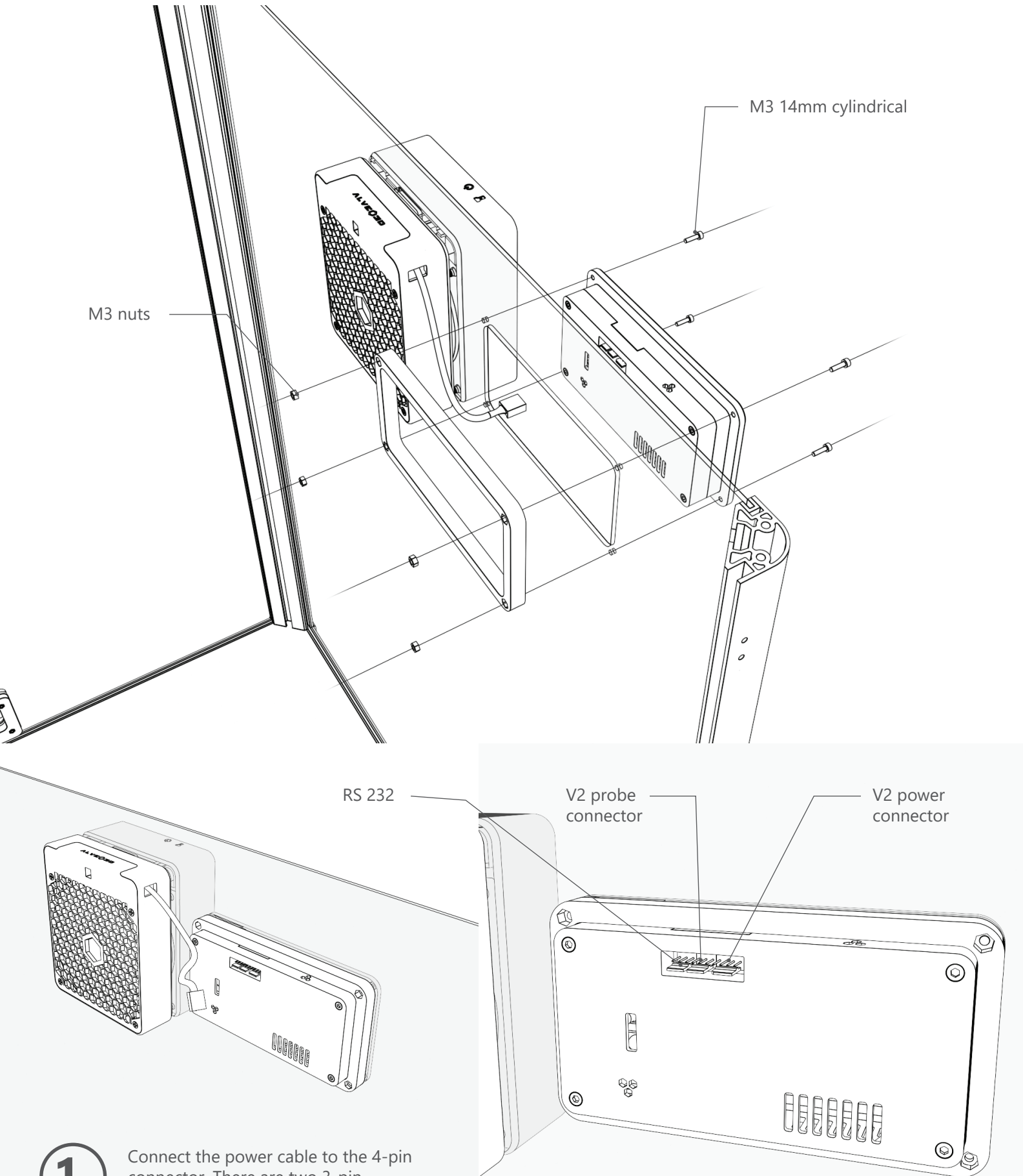
3.

Place the 120mm cylindrical joint in the rail on the case above the fan. Then close the grille by screwing in the 4 self-drilling screws.



STEP 11. ASSEMBLY OF THE V2 BOARD

The V2 board is supplied pre-assembled. Mount the V2 board in its slot on the panel and use the clamp ring to secure the board to the panel with the 4 M3 14mm cylindrical screws and 4 M3 hex nuts.



1.

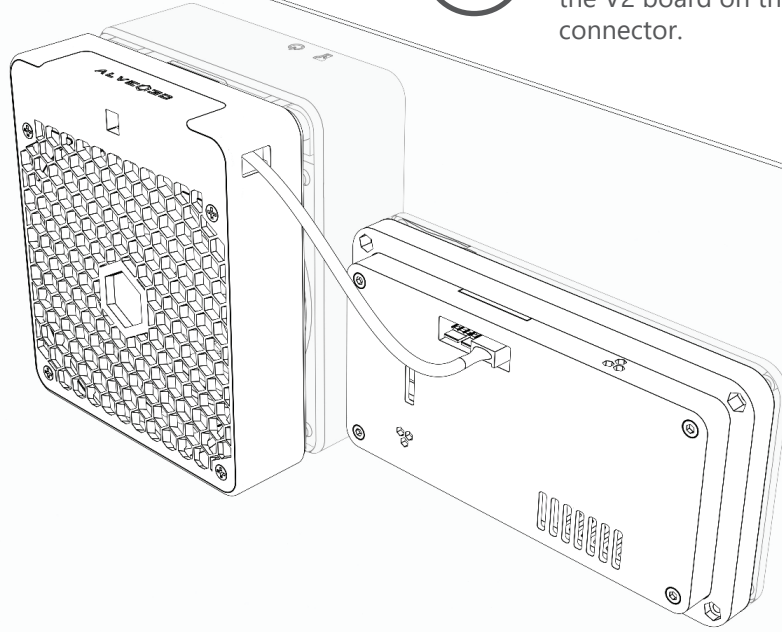
Connect the power cable to the 4-pin connector. There are two 3-pin connectors and one 4-pin connector.

STEP 12. CONNECTING THE V2 PROBE

The V2 probe is connected to the middle 3-pin connector on the V2 board. After connecting the cables, use the self-adhesive base and cable clamp for the probe on the back of the V2 board if necessary.

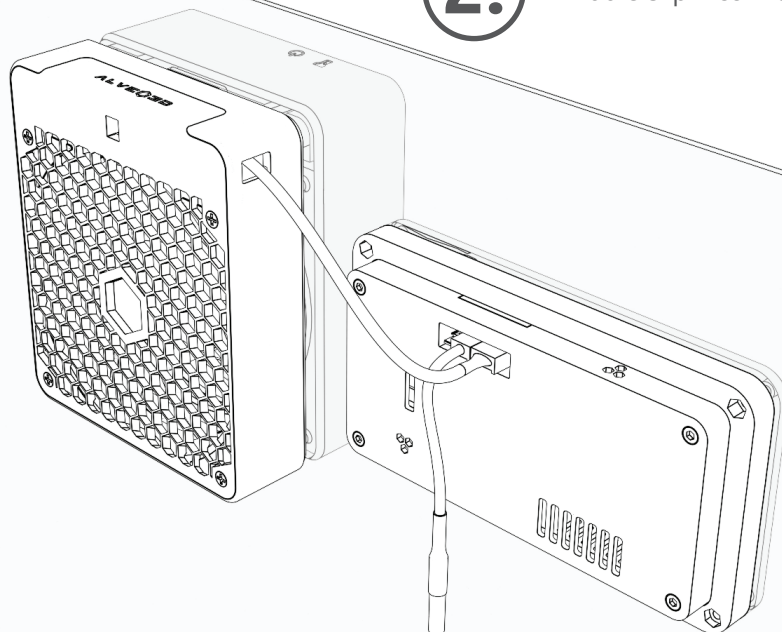
1.

Connect the cable from the electronic board of the filter box to the V2 board on the 4-pin connector.



2.

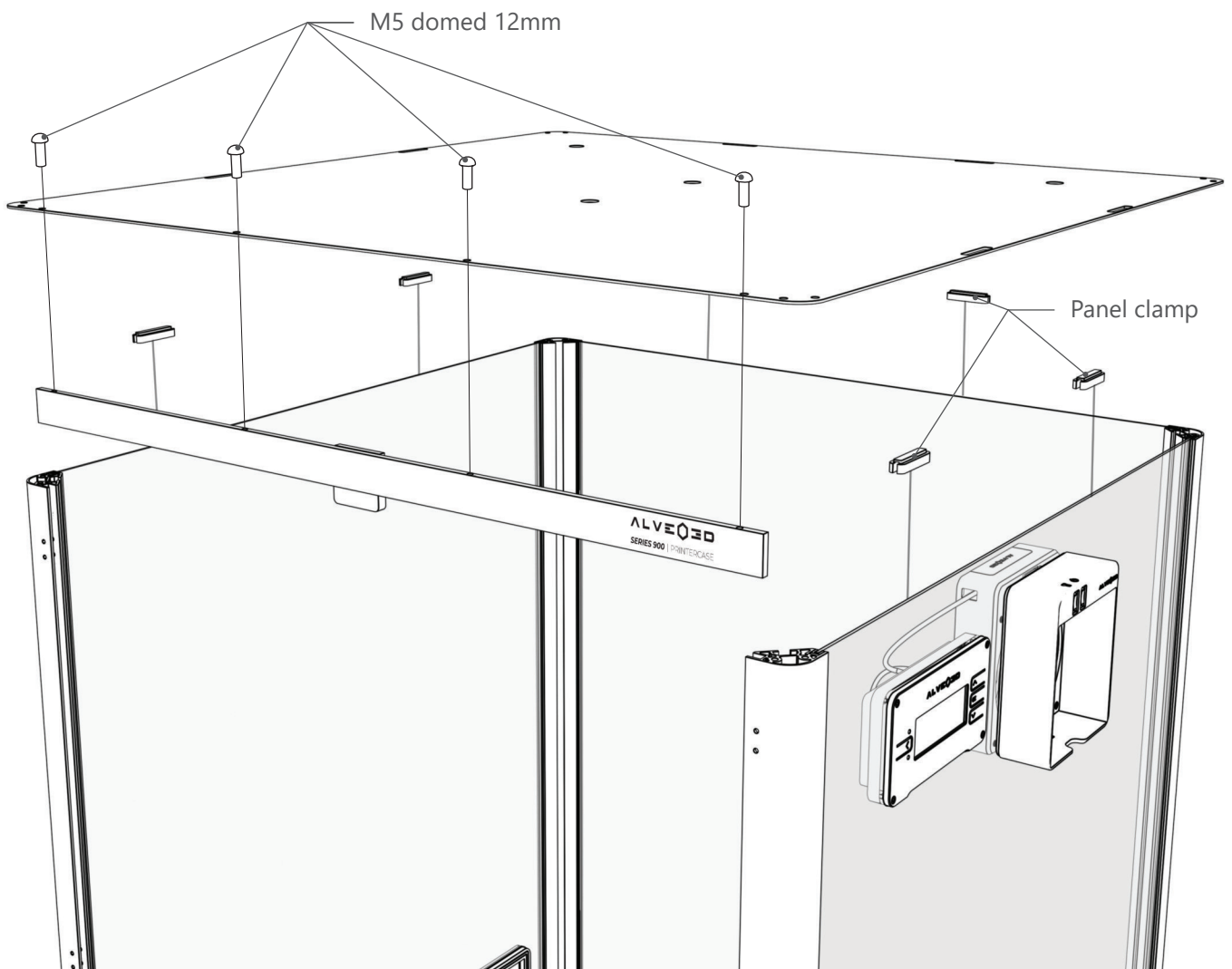
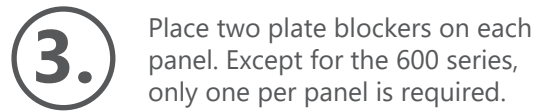
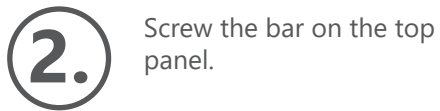
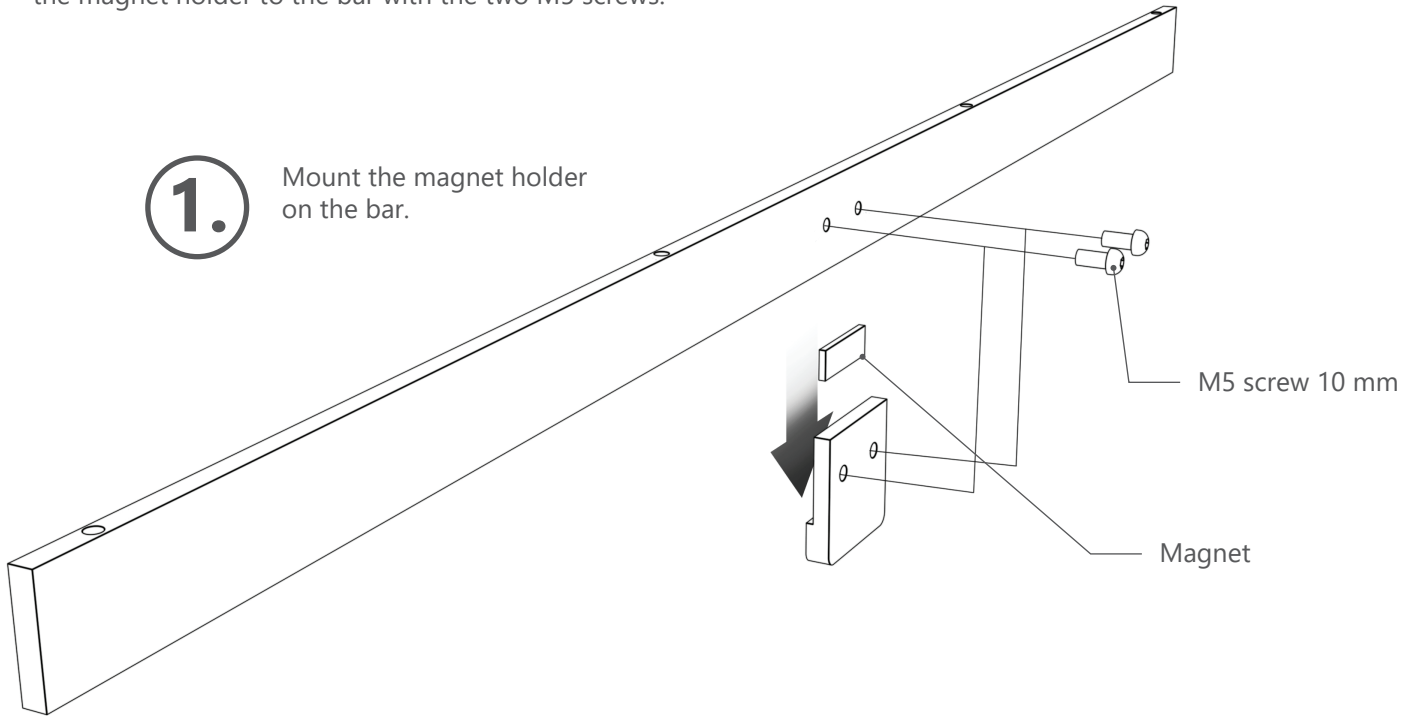
Connect the V2 probe to the middle 3-pin connector.



Connect the V2 probe to the middle 3-pin connector.

STEP 13. PREPARING THE TOP PANEL

Mount the magnetic locking system on the support bar. Insert one of the two magnets into the magnet holder slot. Then fix the magnet holder to the bar with the two M5 screws.



STEP 14. MOUNTING THE TOP PANEL

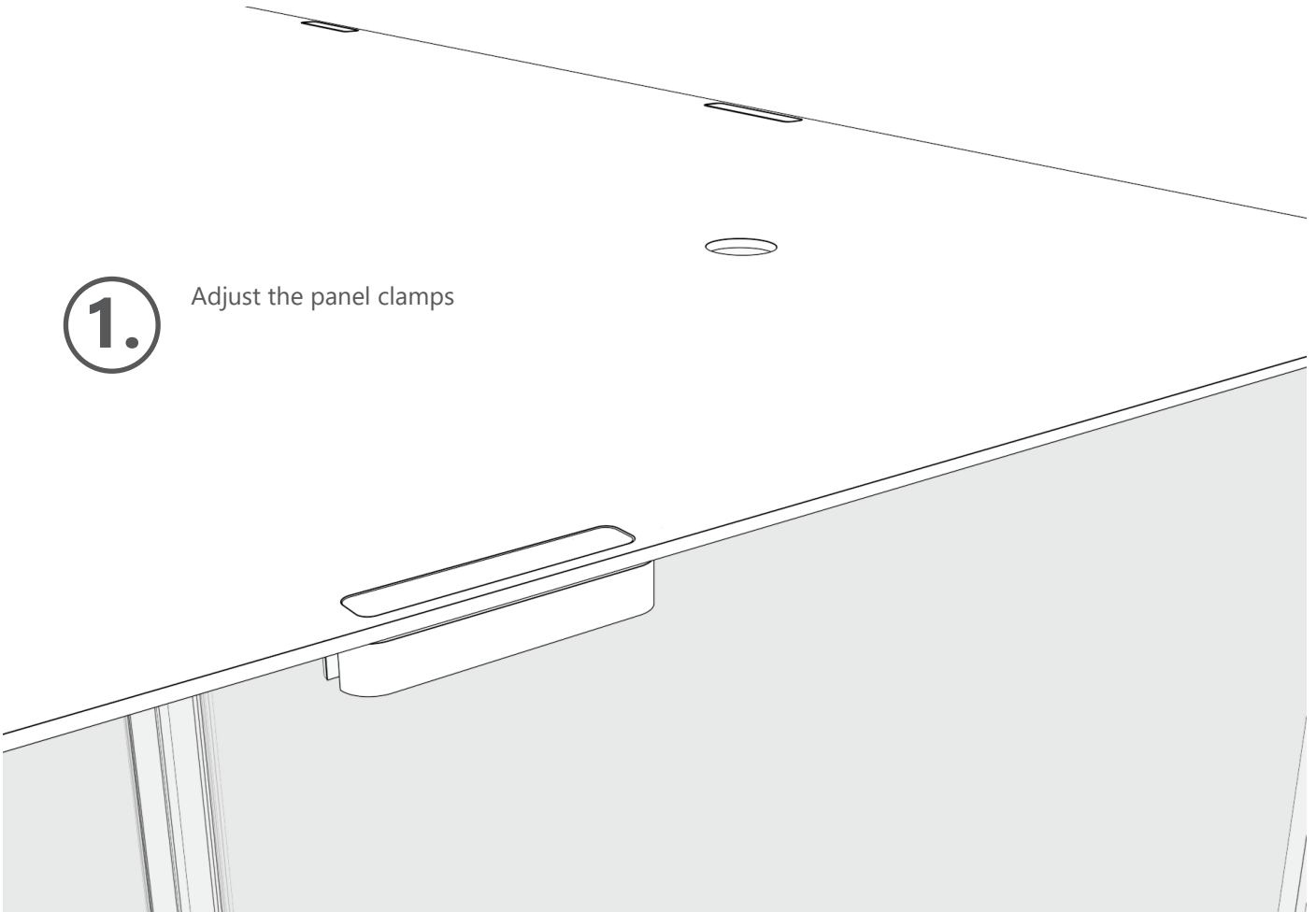
The panel is mounted by screwing the 8 M5 screws (20mm) into the profiles.



Screw by hand on the first threads and then with the 3mm Allen key supplied with the kit. Make sure that the screws fit the threads before tightening.

1.

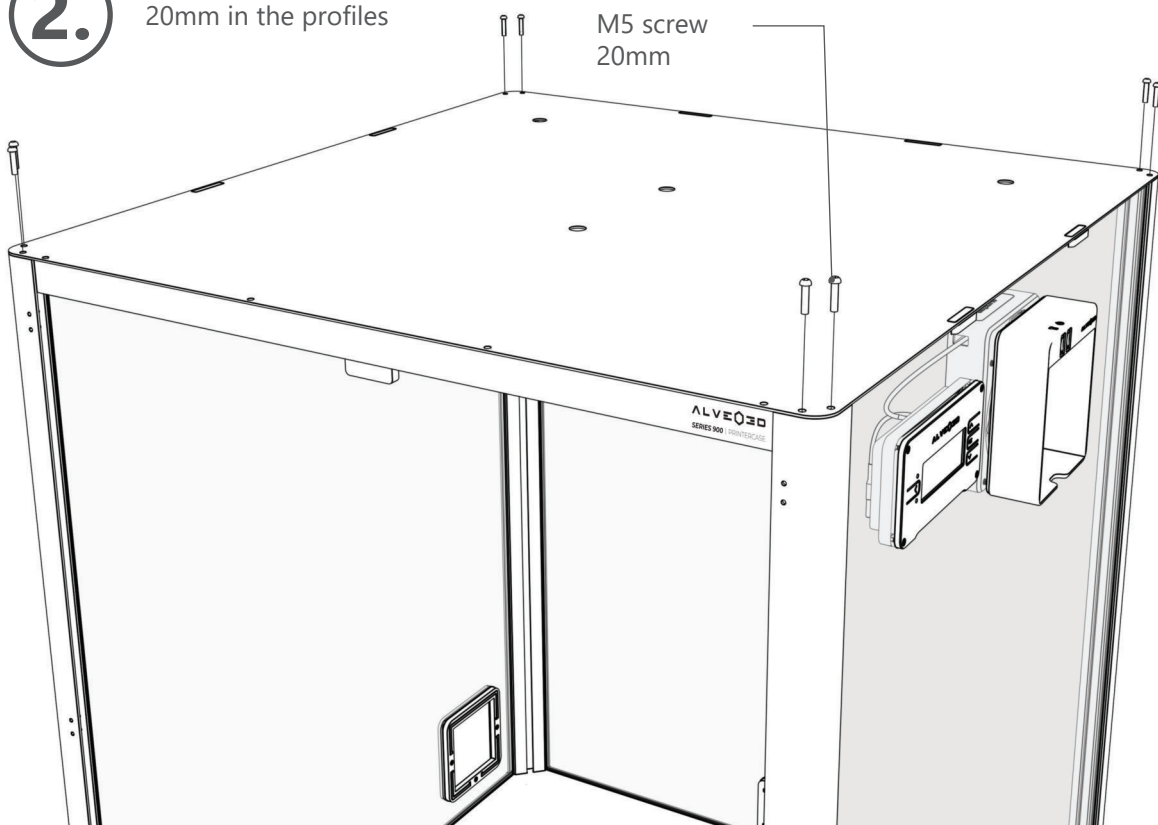
Adjust the panel clamps



2.

Screw the 8 M5 screws
20mm in the profiles

M5 screw
20mm

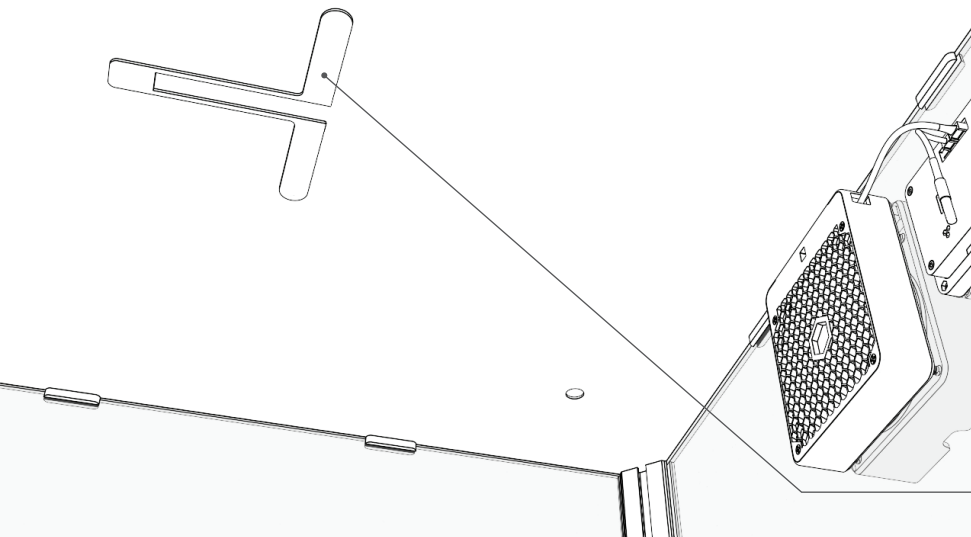


STEP 15. MOUNTING LED STRIP

The first step is to glue the LED strip on the 2mm aluminum panel (the top panel).



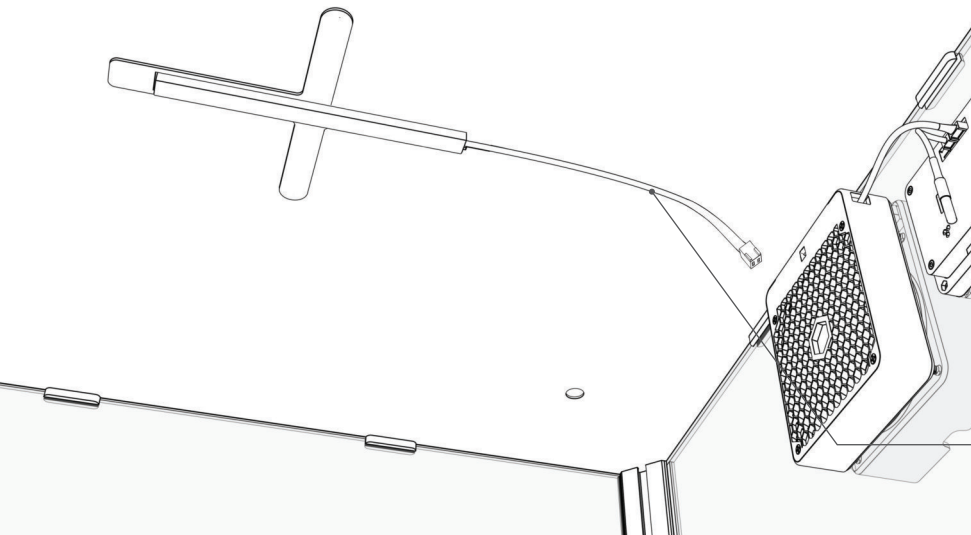
Be careful once glued, it is very difficult to remove and reposition the LED strip.



1.

Position the light installation template in the center of the panel, align it with the two pins to put in the holes of the panel.

Light installation template

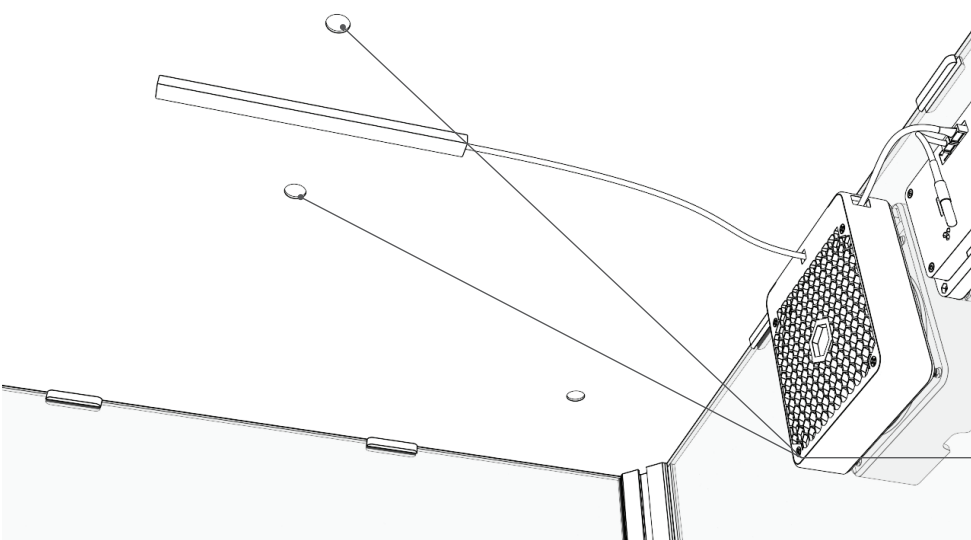


2.

Glue the LED strip



The wire of the LED strip towards the side of the filtration system.



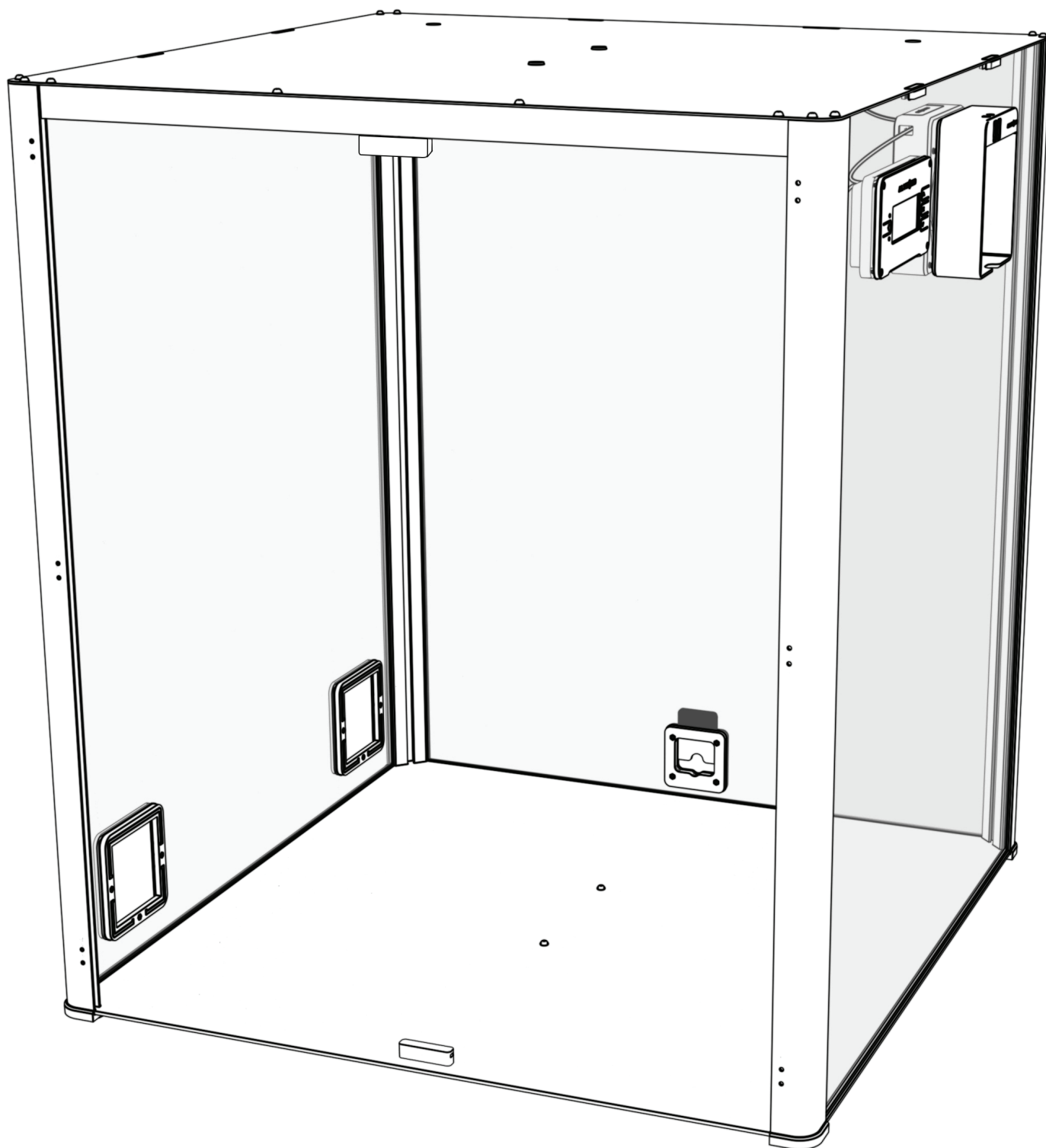
3.

Remove the installation template

Holes of the top panel

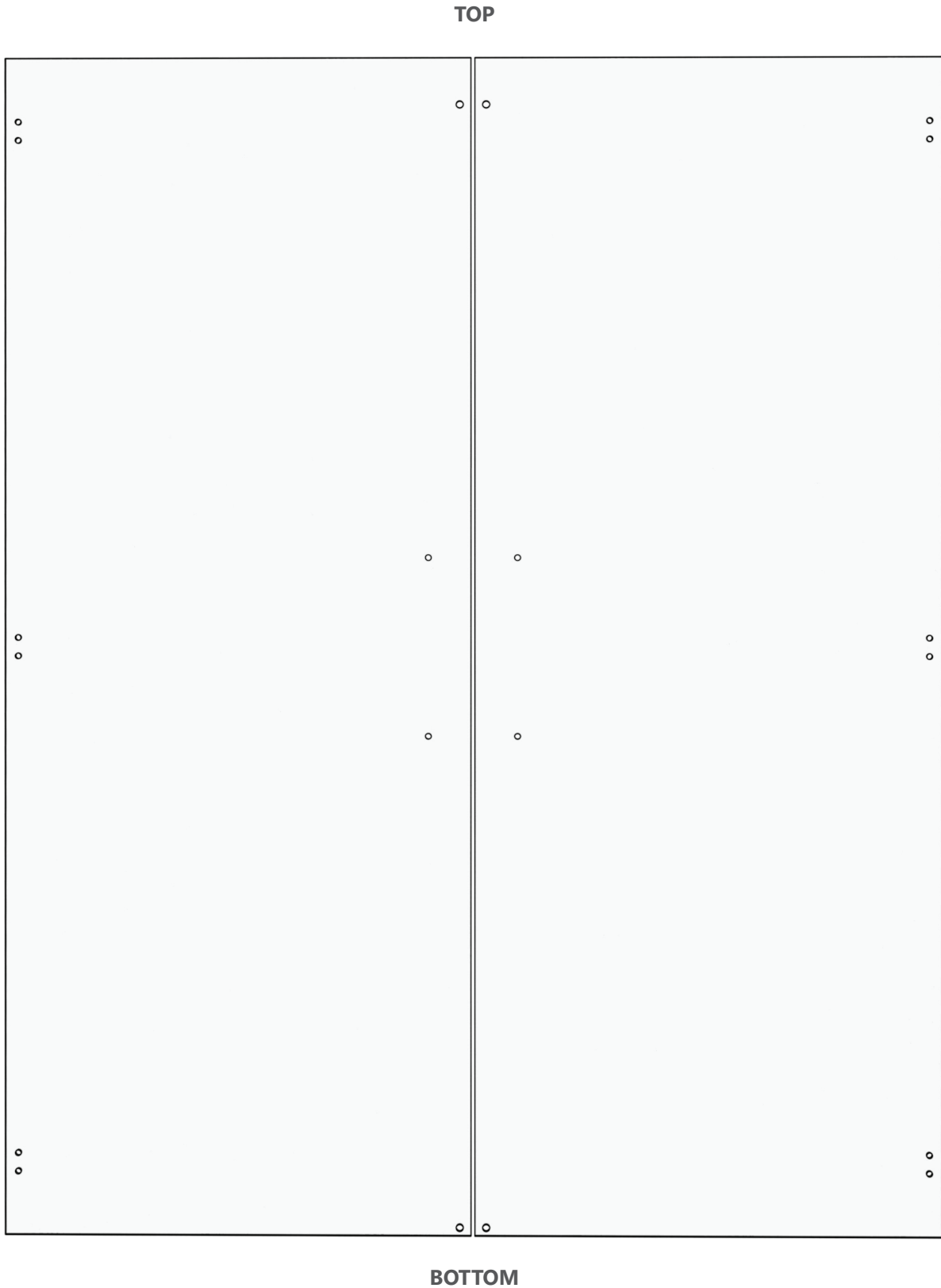
STEP 16. ILLUSTRATION OF THE ASSEMBLED STRUCTURE 2

Assembly is almost complete!

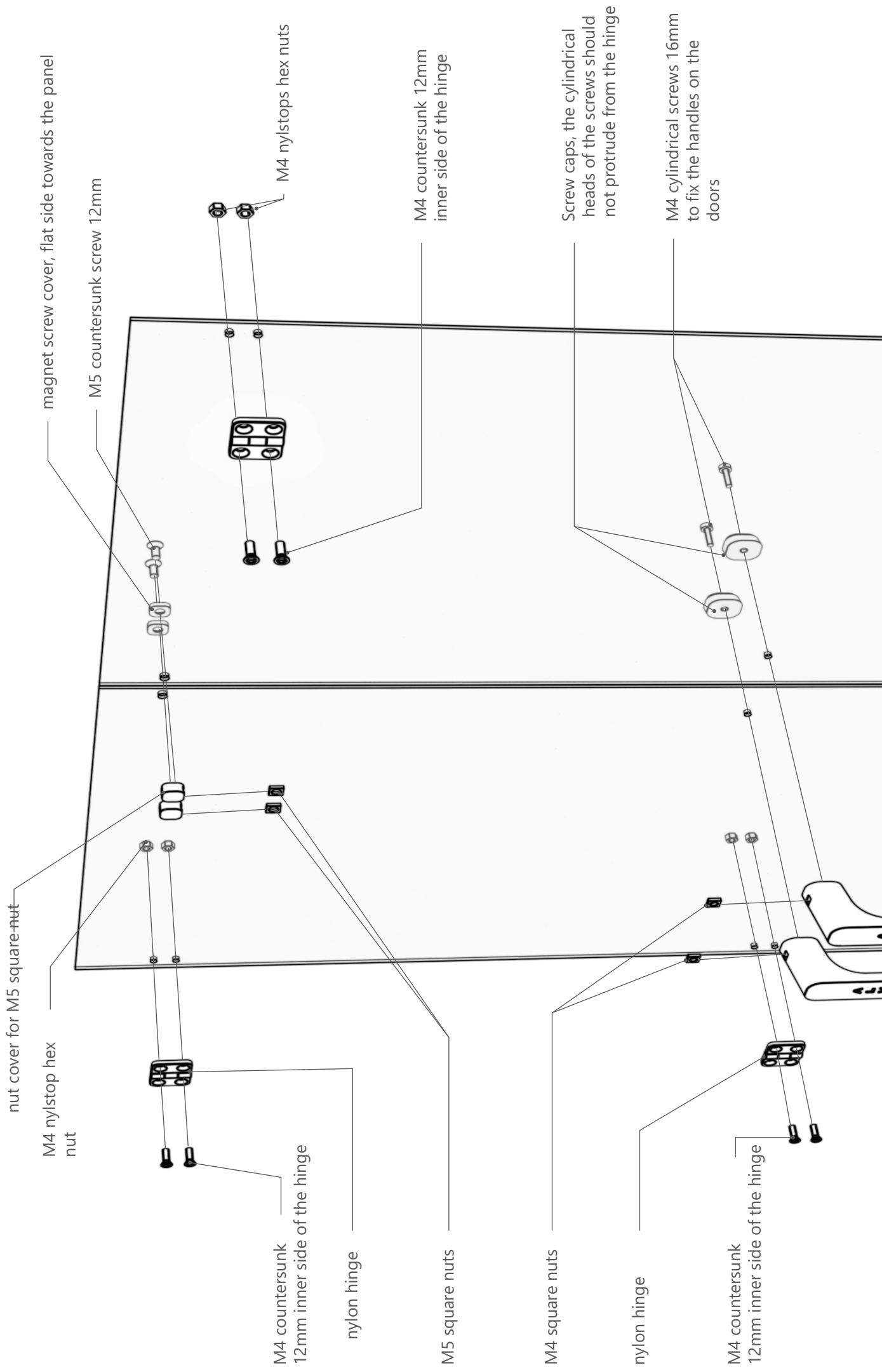


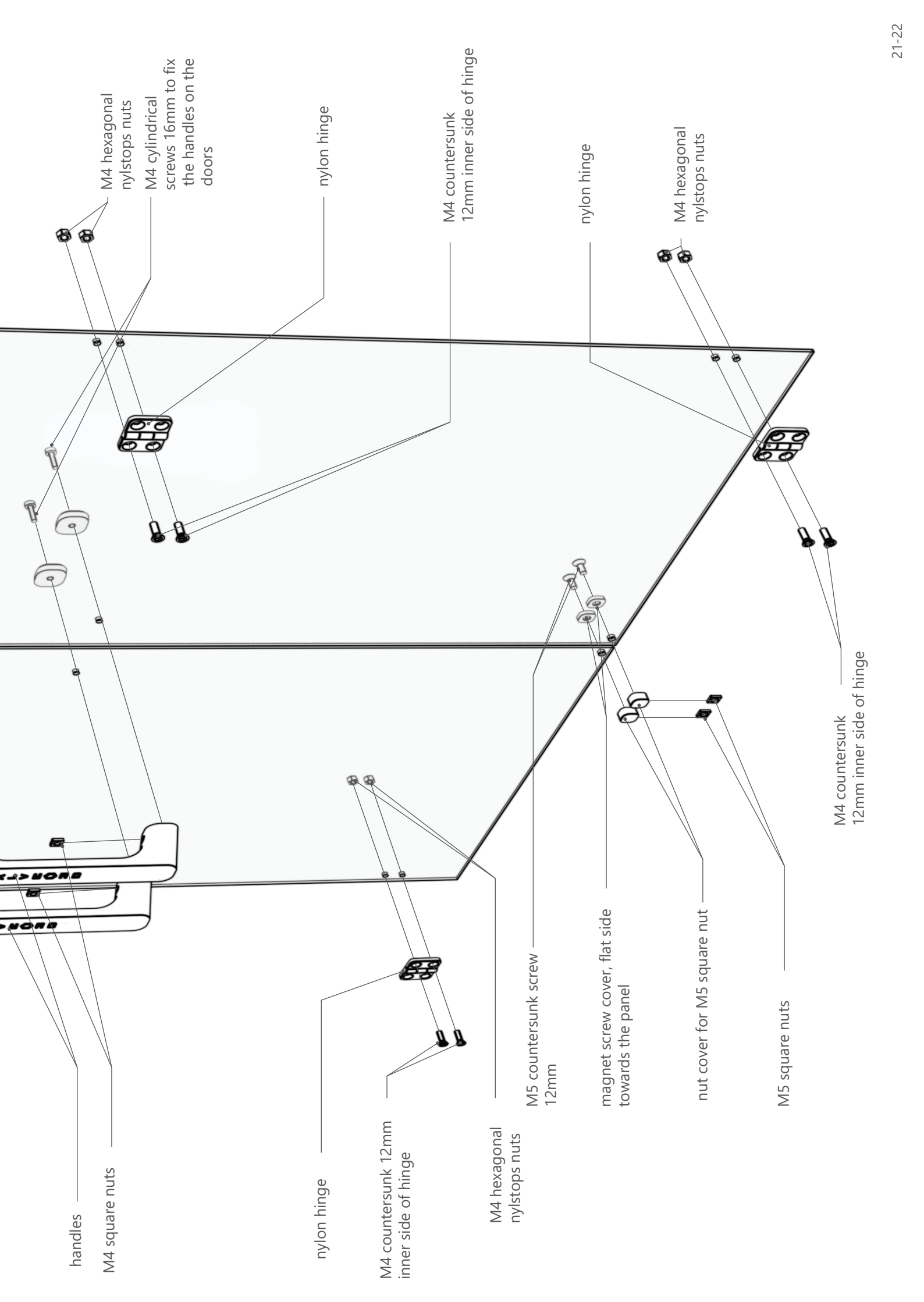
STEP 17. ORIENTATION OF THE DOORS

The door panels must be oriented in the correct top/bottom direction.
The 600 series has only two hinges per door.



STEP 18. MOUNTING ACCESSORIES ON DOORS 1/2

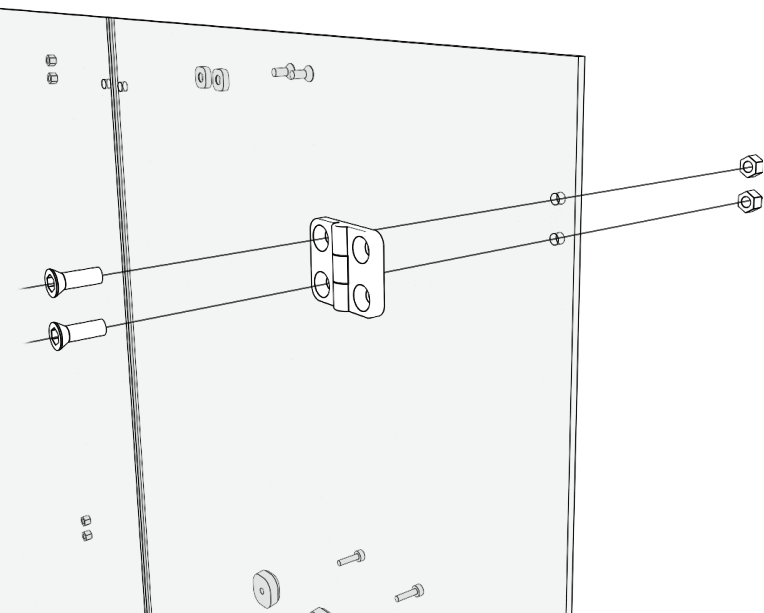




STEP 19. MOUNTING ACCESSORIES ON 2/2 DOORS

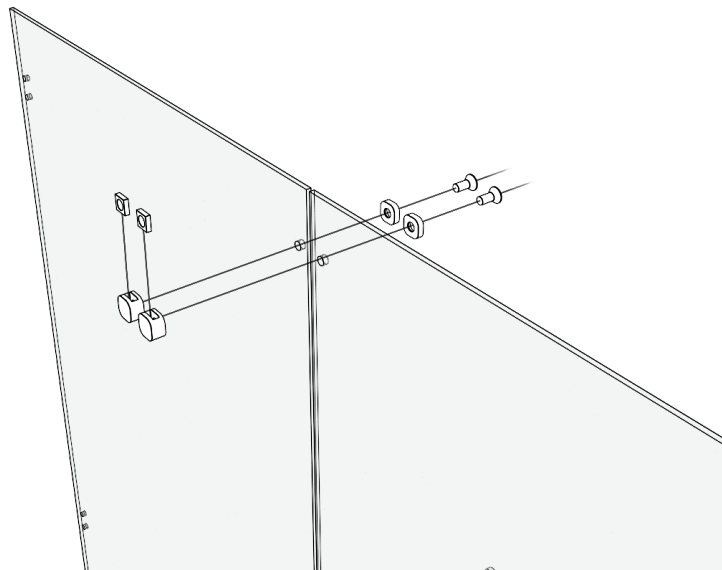
1.

Screw 2 M4 countersunk 12mm screws with 2 nylstop hex nuts through each hinge onto the panels.



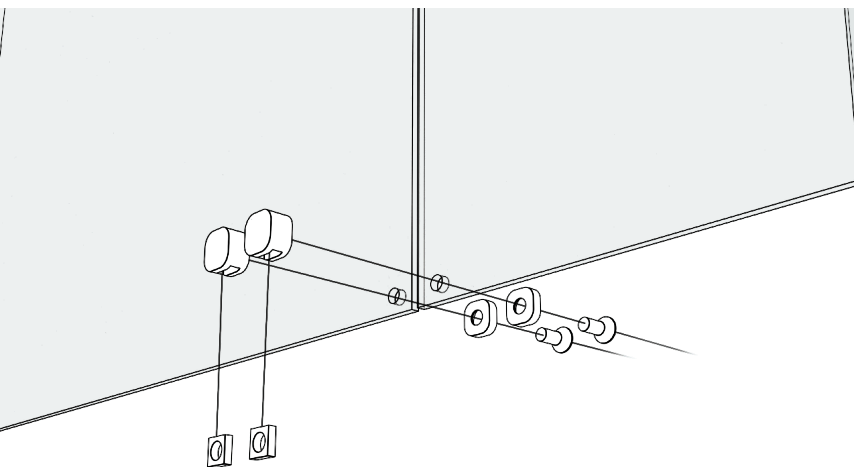
2.

Insert the M5 square nuts into the nut covers and then screw the M5 countersunk 12 mm screws into the magnet screw covers to hold everything together.



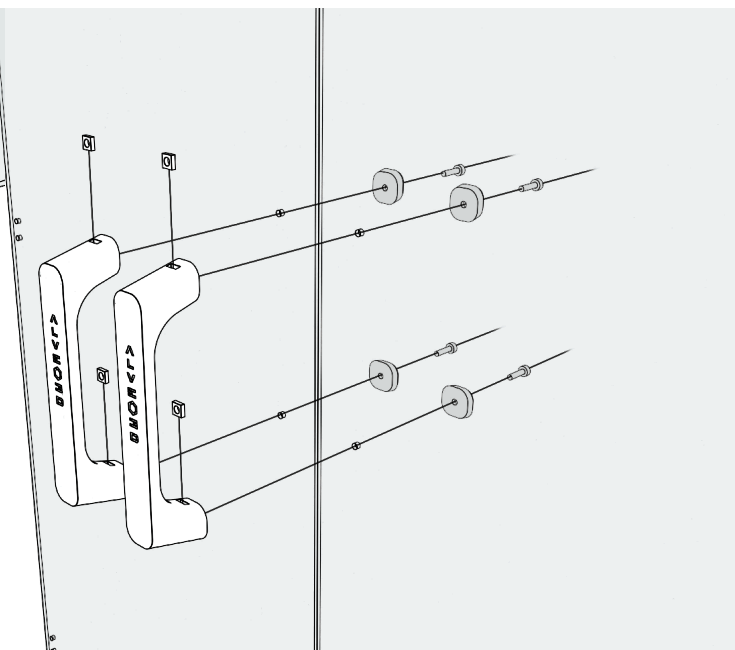
3.

Repeat step 2 for the bottom magnet covers.



4.

Insert the square nuts into the handles and screw the handles to the panels with the 16mm cylinder screws.

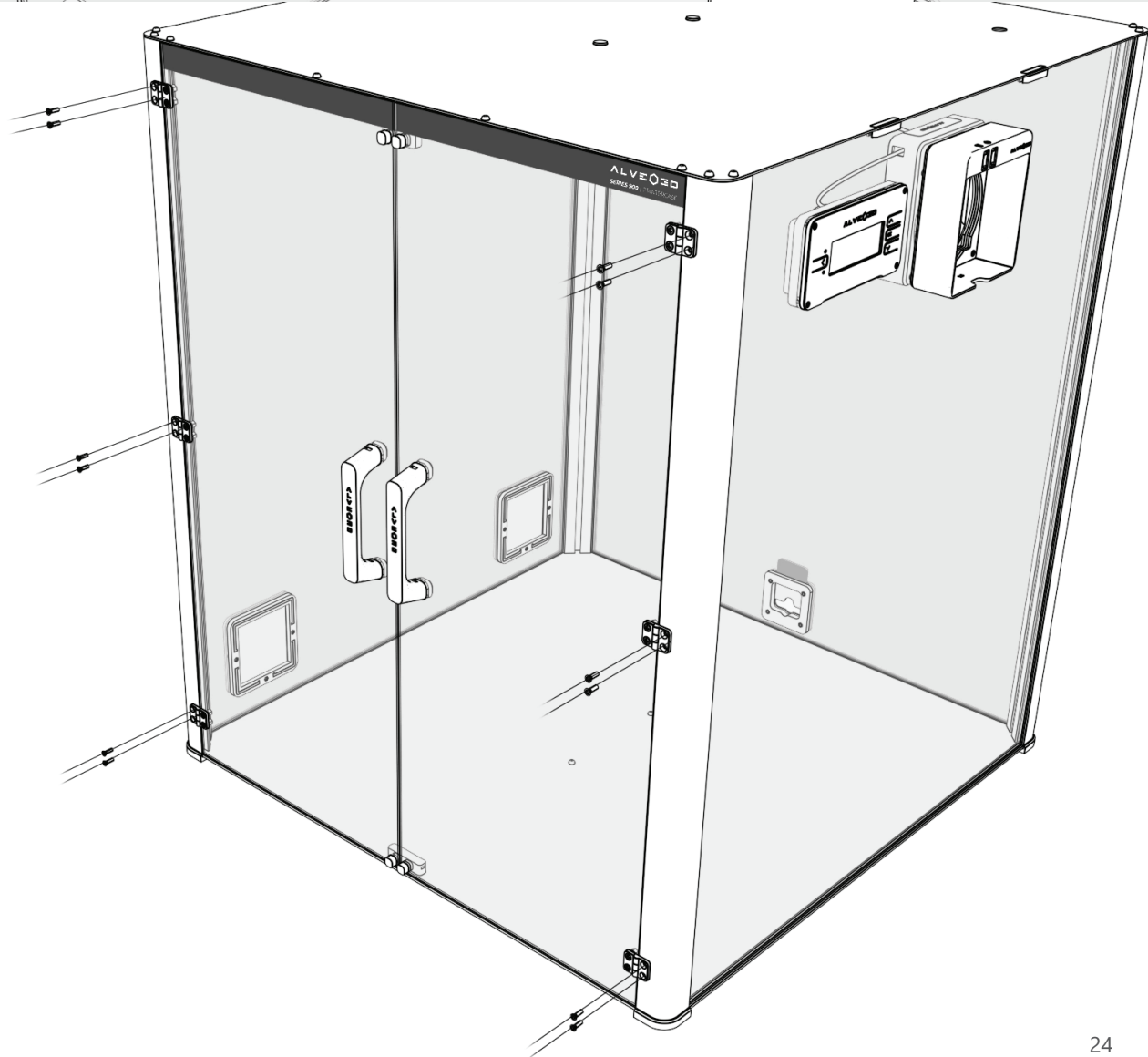
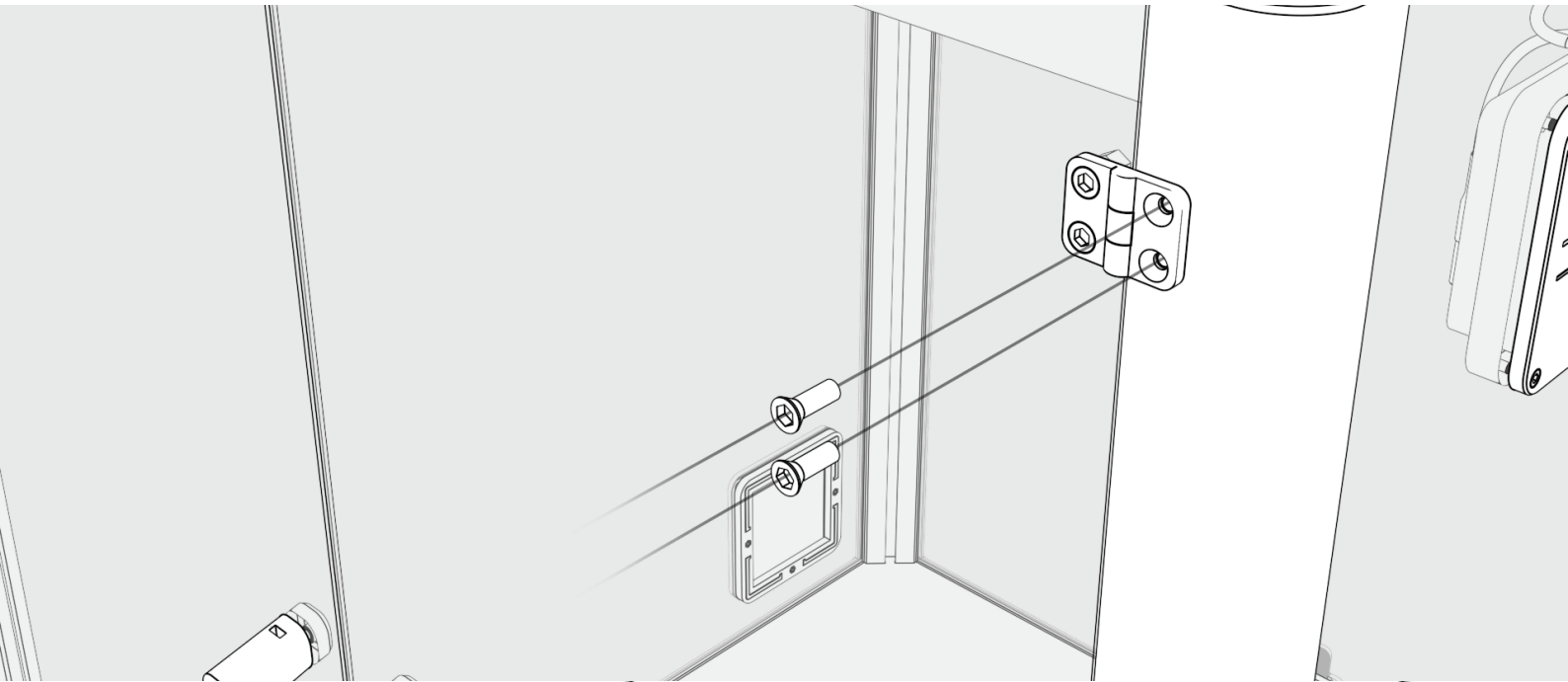


STEP 20. MOUNTING THE DOORS ON THE PROFILES

To mount the doors on the profiles, use the M4 countersunk screws 8 mm, to be screwed directly into the thread of the profiles.

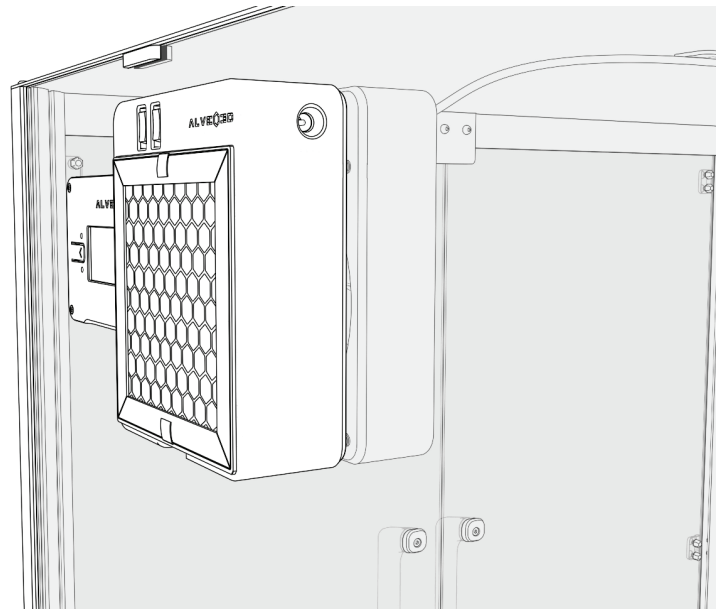
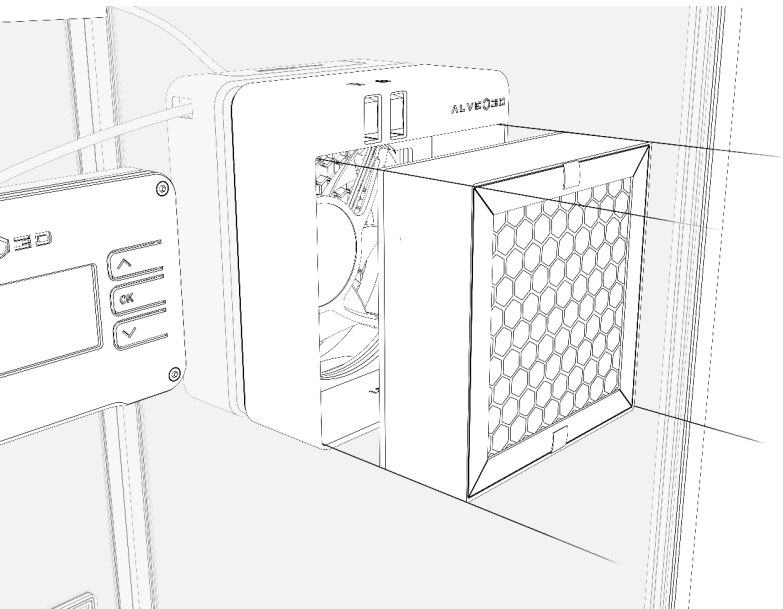
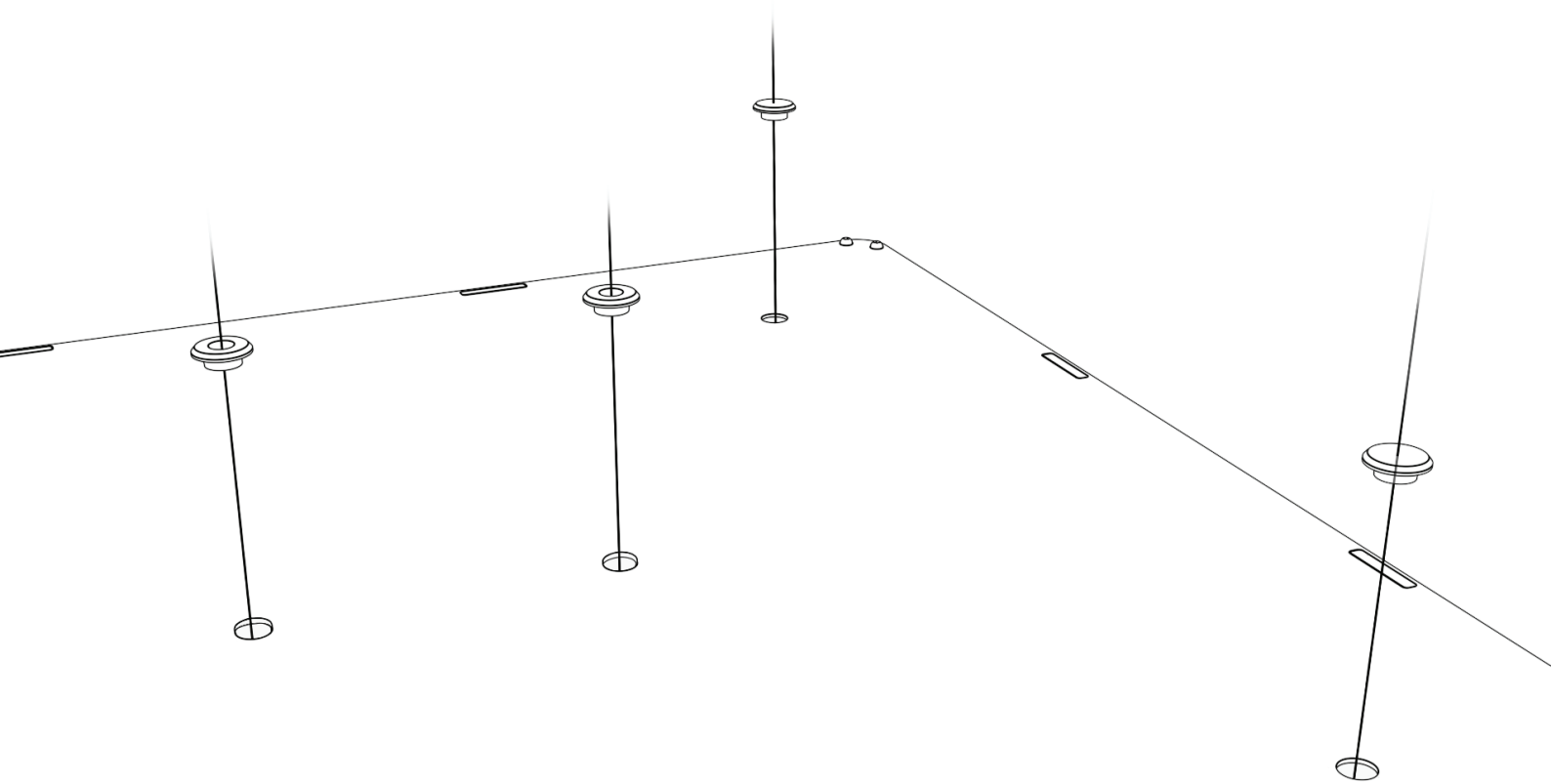


Be careful, screw with the 2.5mm Allen key supplied with the kit. Make sure that the screws fit the thread before tightening.



STEP 21. ACCESSORY ASSEMBLY

On the top panel, insert the plugs and/or filament passages if you have the filament spools placed outside the enclosure.



1.

Insert the filter into its slot. Push it in as far as it will go. The activated carbon side must remain visible. The black tabs will be used to remove the filter.

2.

Connect the power supply to the side connector.

End of the installation: Please use the V2 manual for the first start-up of the system.

Filter life

The life of a filter is linked to many factors such as: the type of plastic used for printing, the melting temperature, the concentration of nanoparticles and volatile organic compounds, the humidity level...

We recommend replacing the filter according to the table below :

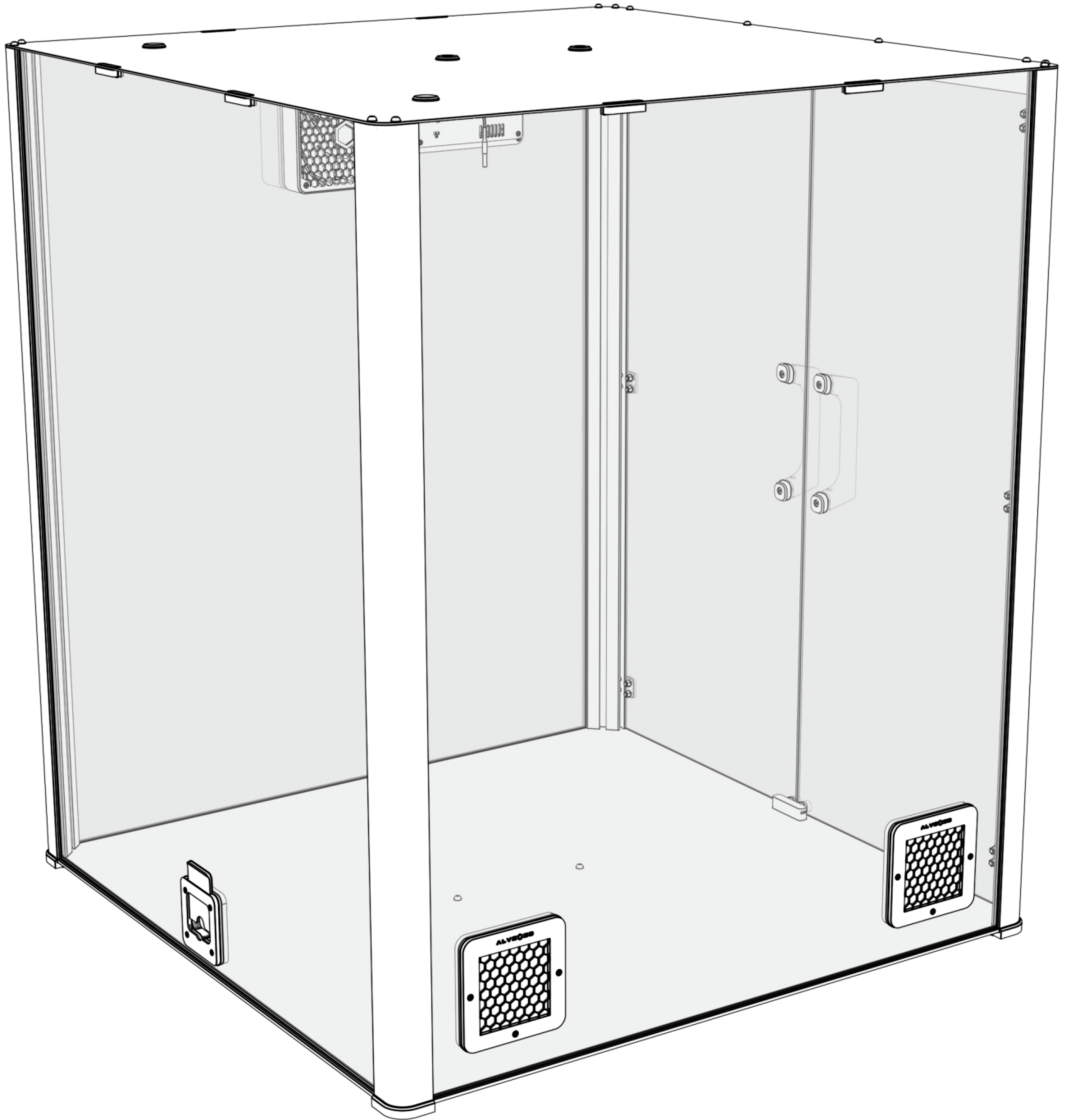
Filter replacement	Intensive use	Occasional use
	3 months	6 months

We recommend not exceeding 600 hours of use per filter.

Filter replacement follow-up :

	Date
Filter replacement follow-up :	
Replacement 1	
Replacement 2	
Replacement 3	
Replacement 4	
Replacement 5	
Replacement 6	
Replacement 7	
Replacement 8	
Replacement 9	
Replacement 10	

Breathe! You are filtering!



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