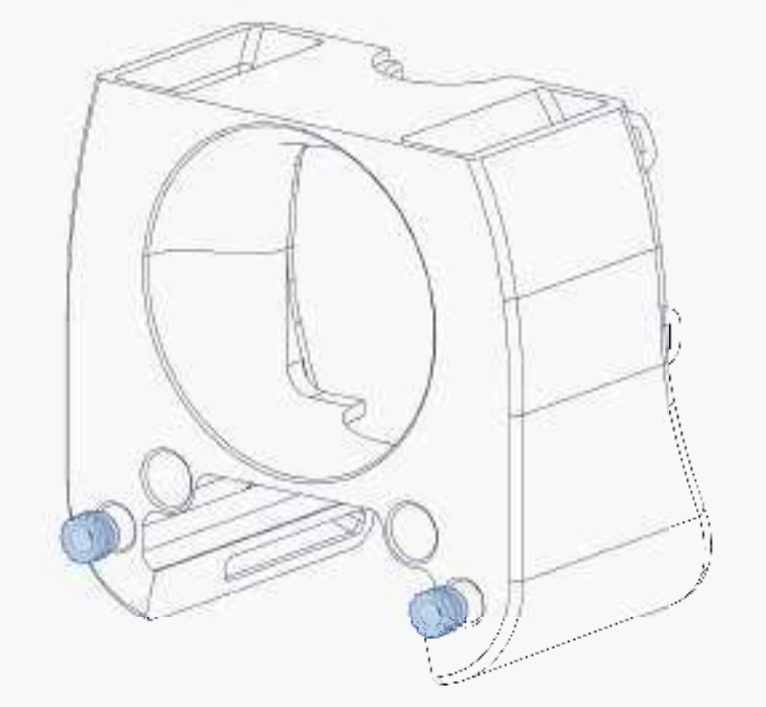
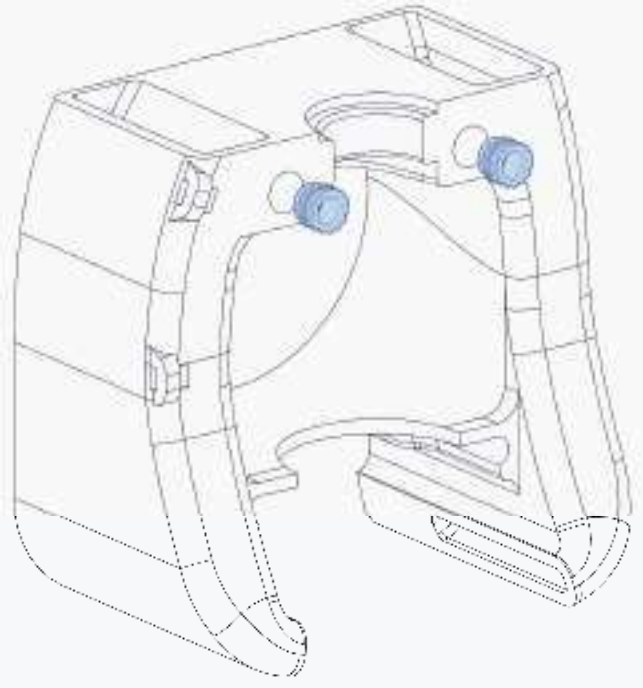


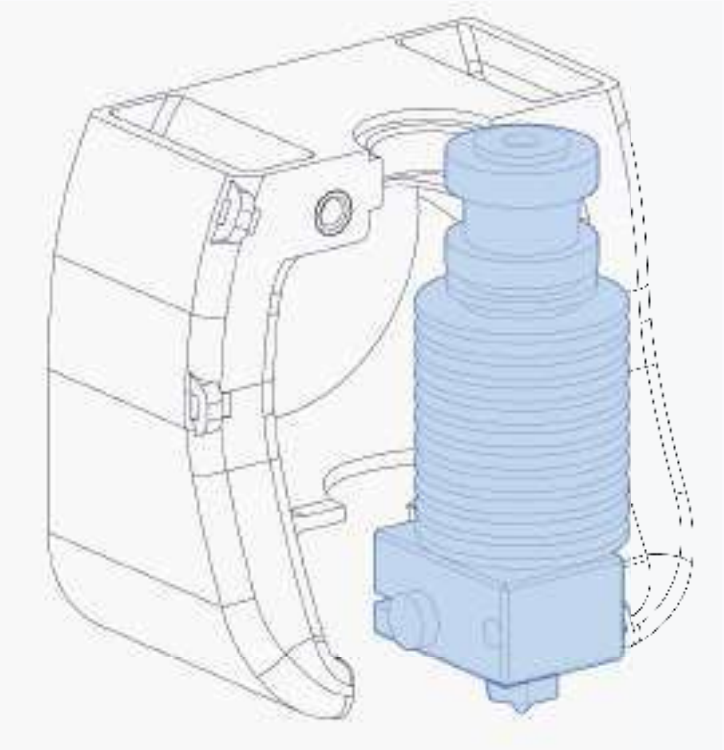
Heat Set Insert

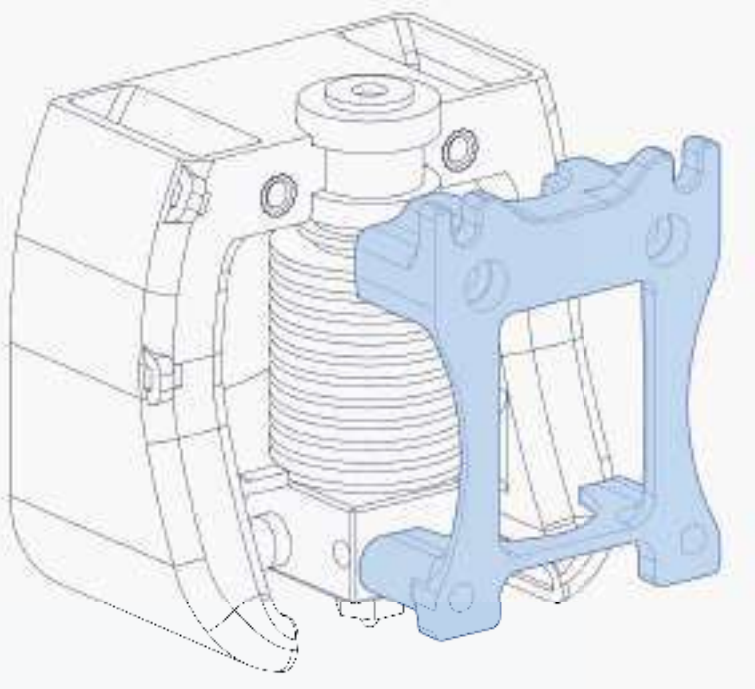


AVAILABLE MOUNTS

We also provide mounts for other hotends.

They are assembled in a similar manner.





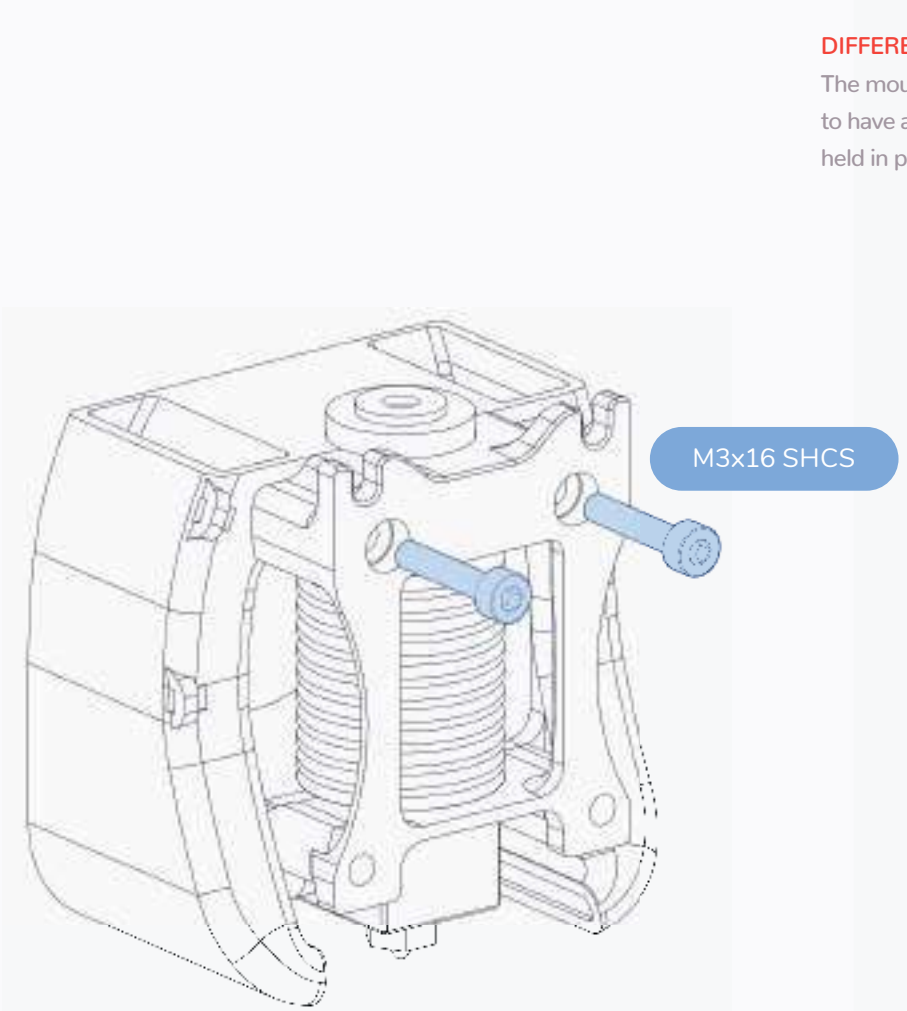
E3D V6 Hot End

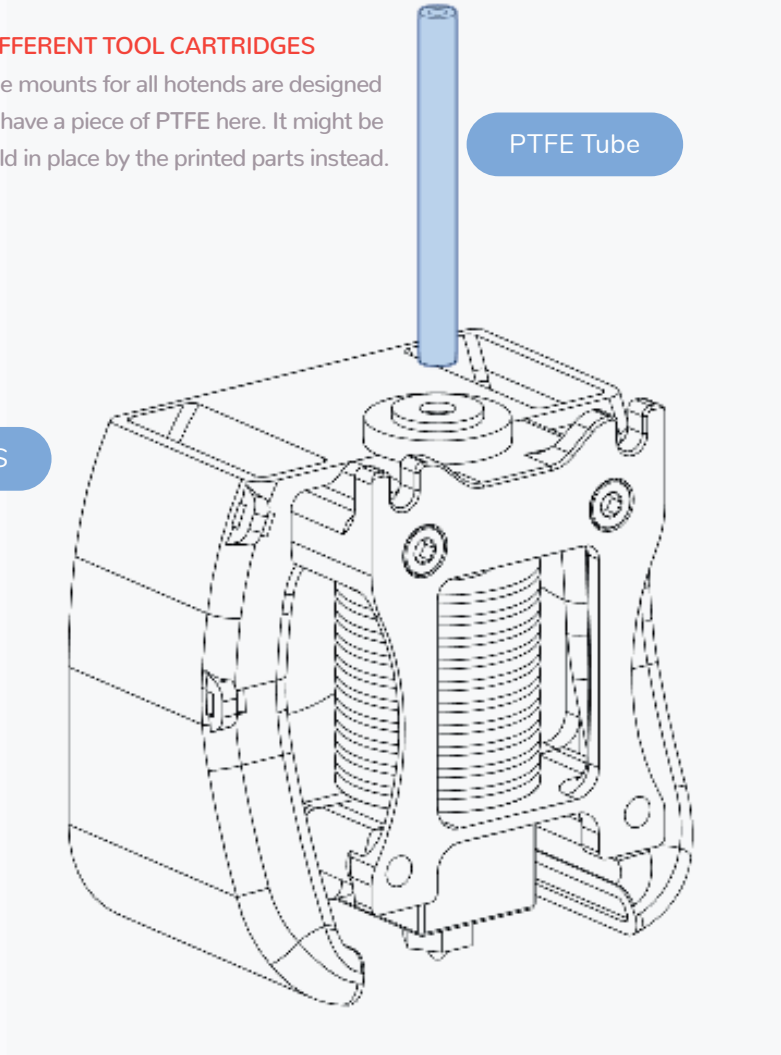
HEATER AND SENSOR

We do not show the heater and temperature sensor cartridge in the drawing. Install them prior to assembling the toolhead.

DIFFERENT TOOL CARTRIDGES

The mounts for all hotends are designed to have a piece of PTFE here. It might be held in place by the printed parts instead.

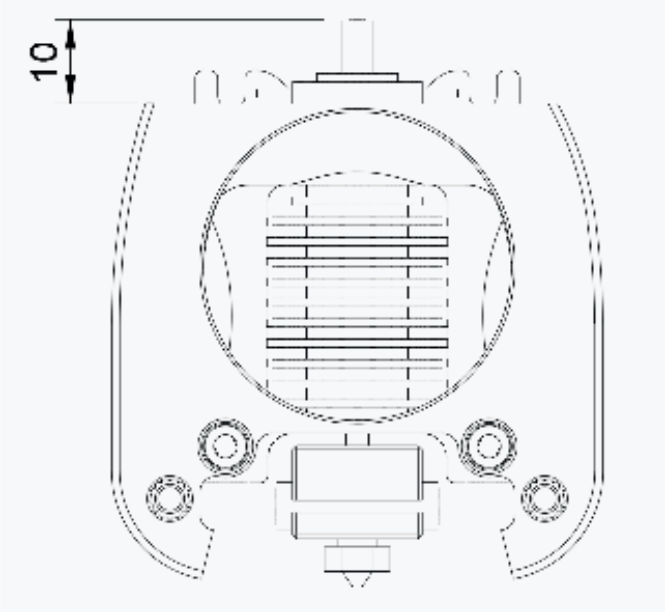


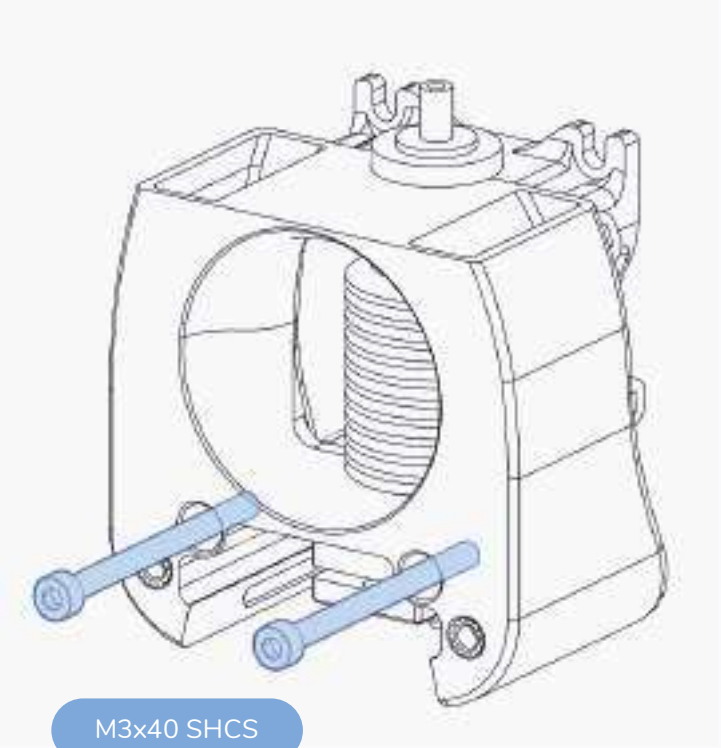


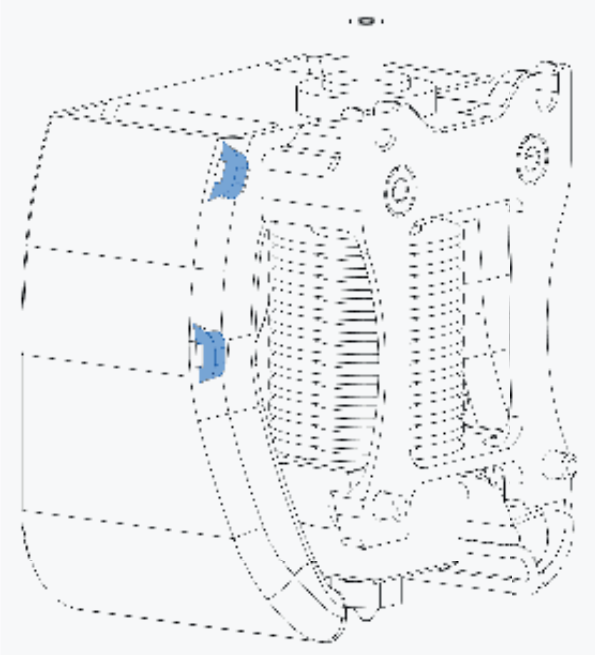
PTFE STICKOUT

The PTFE tube should end 10mm above the surface of the printed part.

The stick out length might vary if you use an extruder other than the Clockwork.

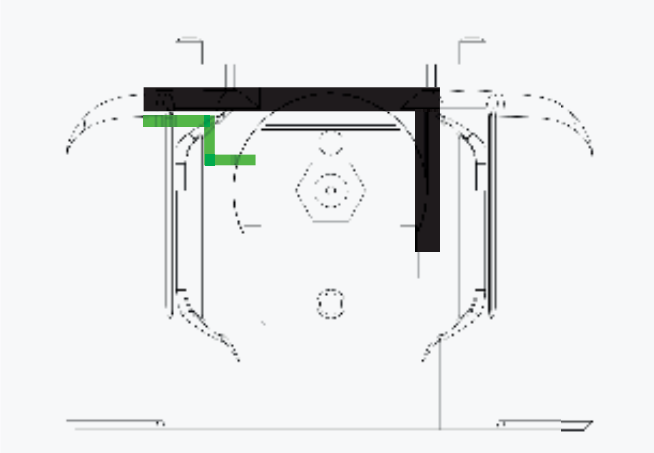






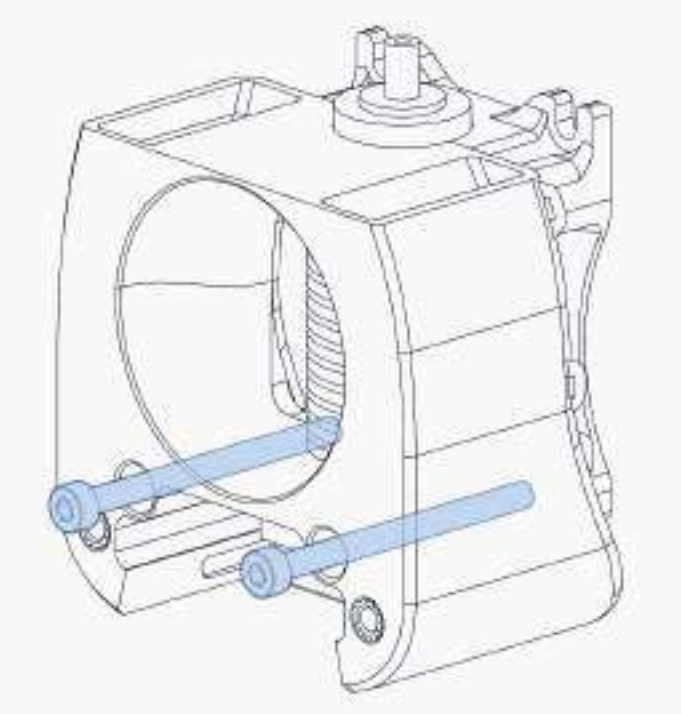
WIRING PATH

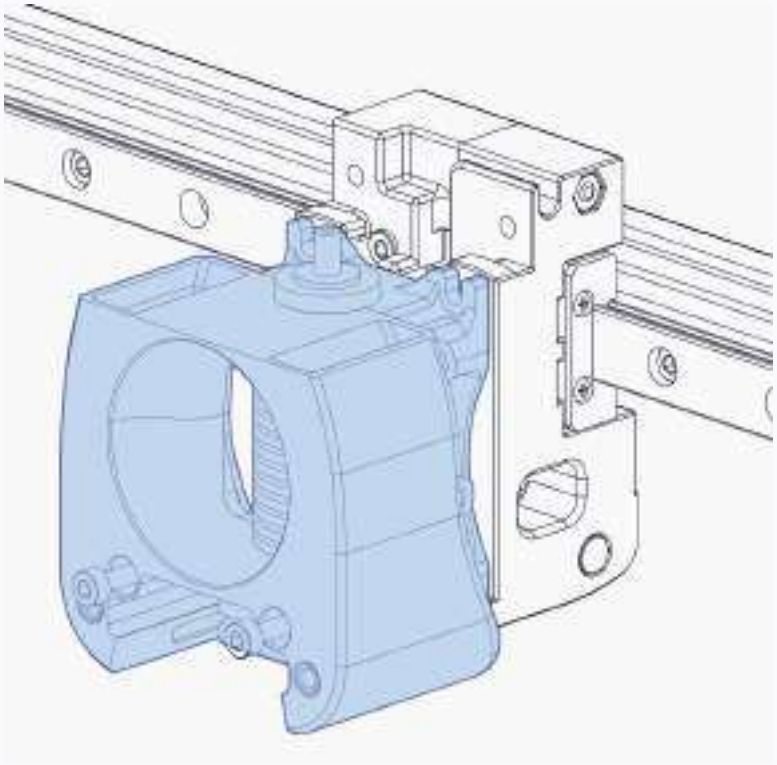
Guide the wires in the highlighted path.

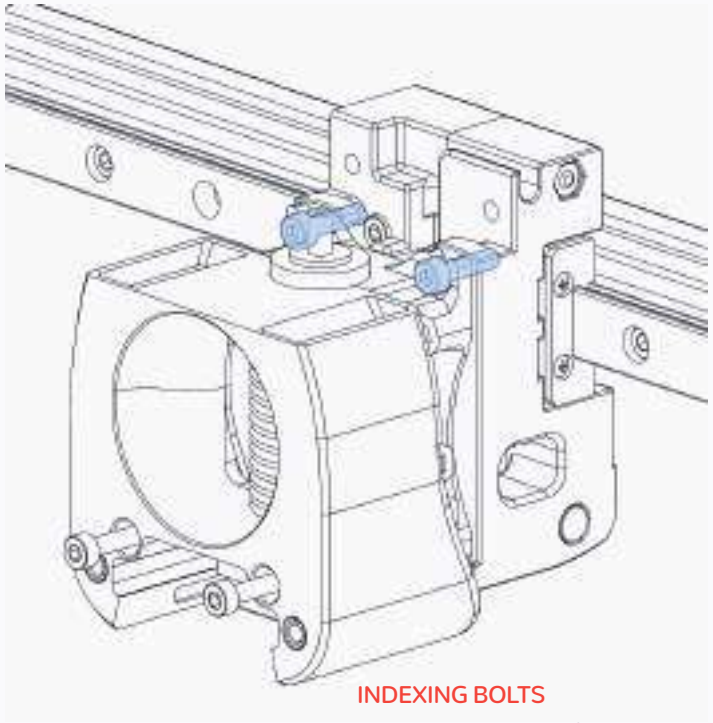


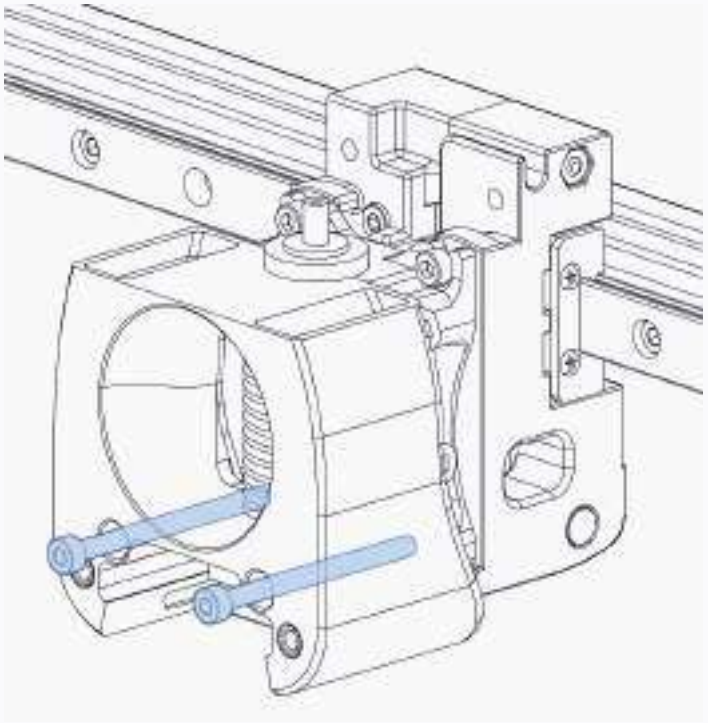
CHECK ORIENTATION

The heater block must point forwards.





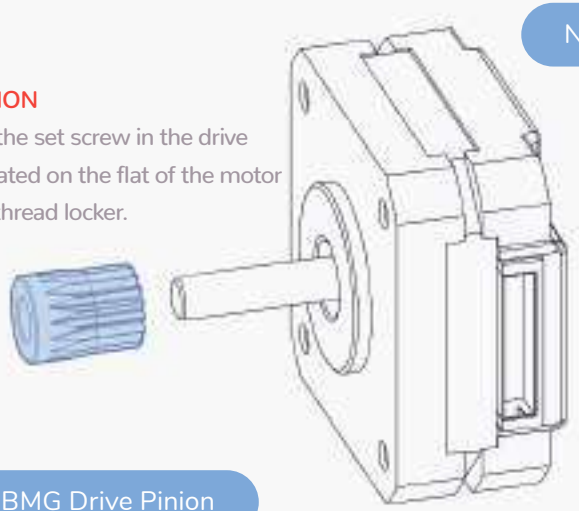




INDEXING BOLTS

The bolts are used to index the tool cartridge. Leave them slightly loose so that the cartridge can be slid out.

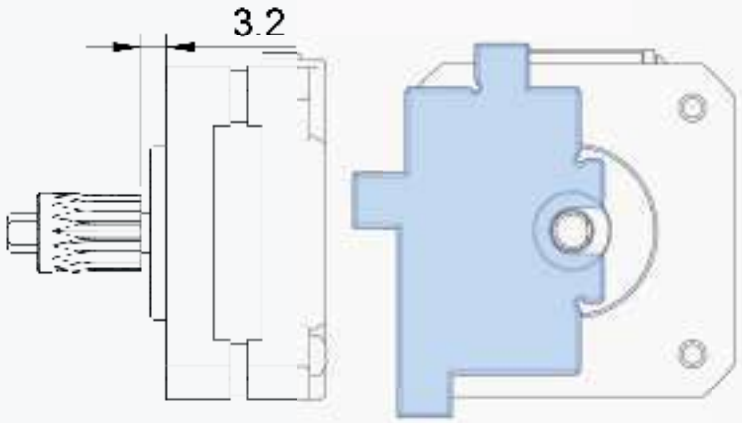
NEMA 17 Stepper

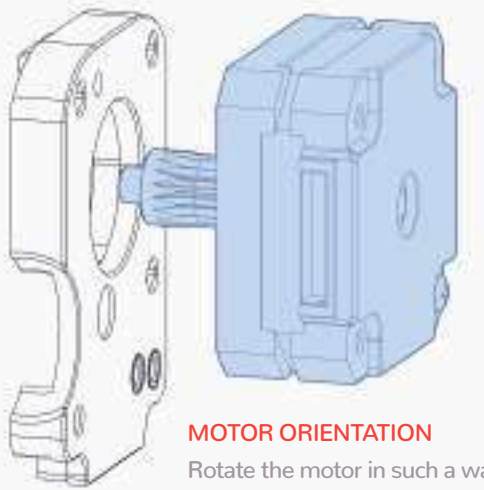


DRIVE PINION

Make sure the set screw in the drive pinion is seated on the flat of the motor shaft. Use thread locker.

BMG Drive Pinion



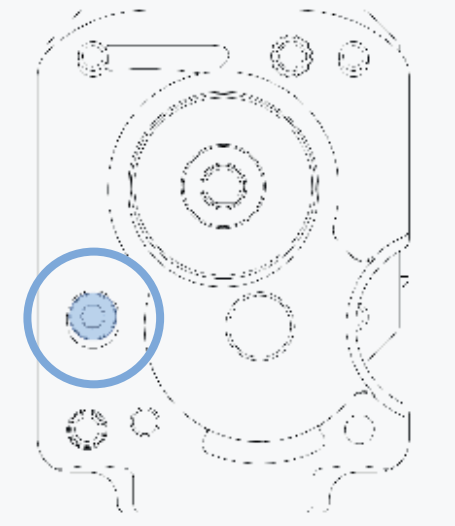


MOTOR ORIENTATION

Rotate the motor in such a way that the connector/wires are on the left side when looking at it from the back.

This side will be covered by the cable cover later.

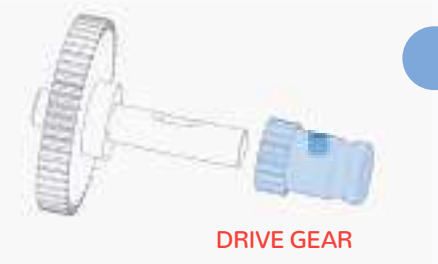
M3x8 SHCS



ADJUSTABLE MOTOR POSITION

The motor position is adjustable to allow for a proper meshing of the drive gears.

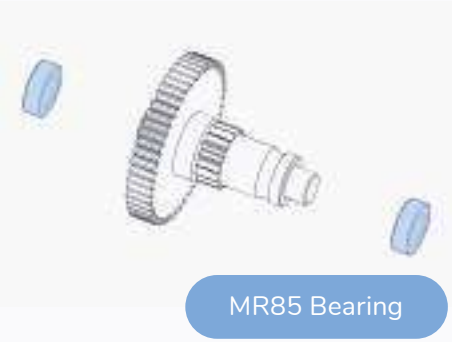
Start in the topmost position of the slot.



BMG Drive Gear

DRIVE GEAR

Make sure the set screw in the filament drive gear is seated against the notch in the shaft. Carefully tighten the set screw, the head is easy to strip.

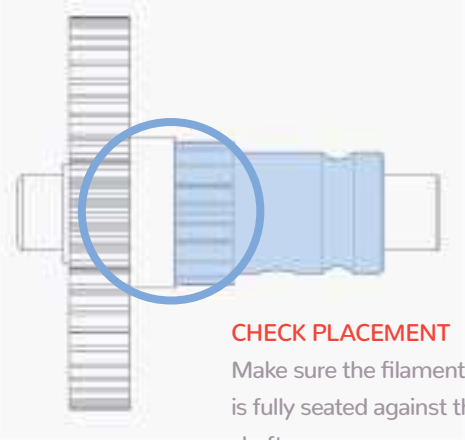


MR85 Bearing

CHECK BEARING FIT

The bearings must slip on and off the shaft easily to allow the gear to self-centre. Do not shim into position.

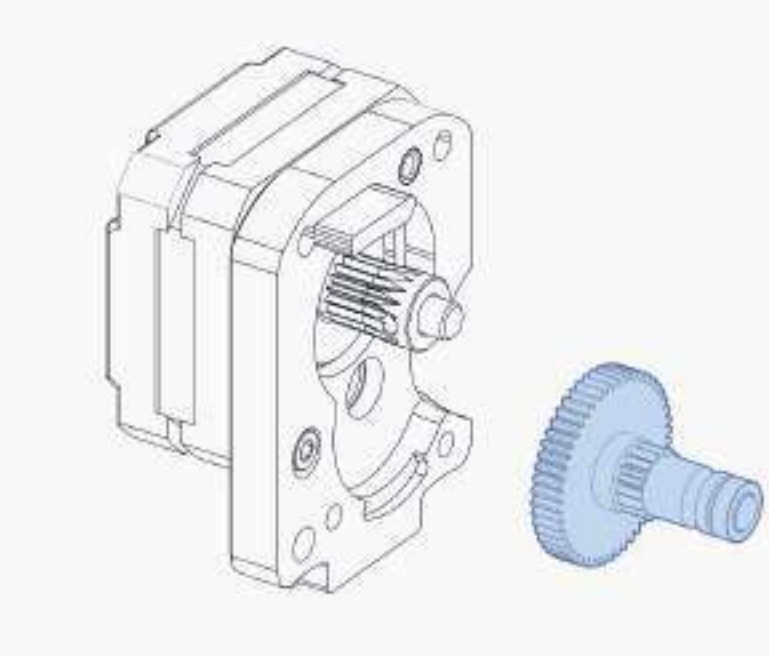
Pressing the bearings on the shaft will damage them.
Lightly sand the shaft if required.

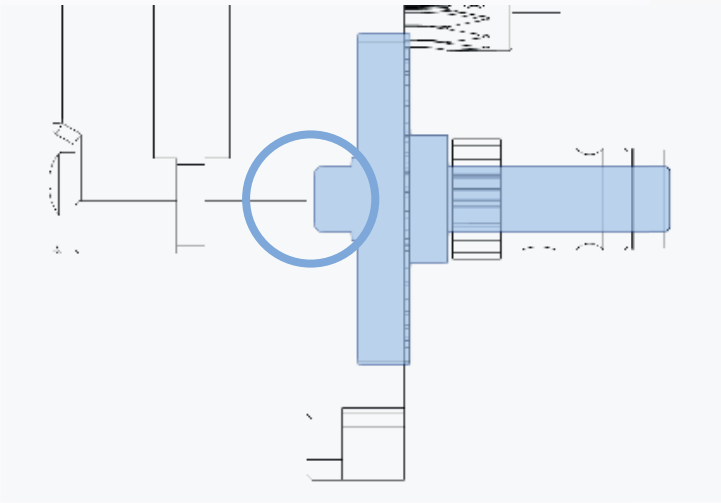


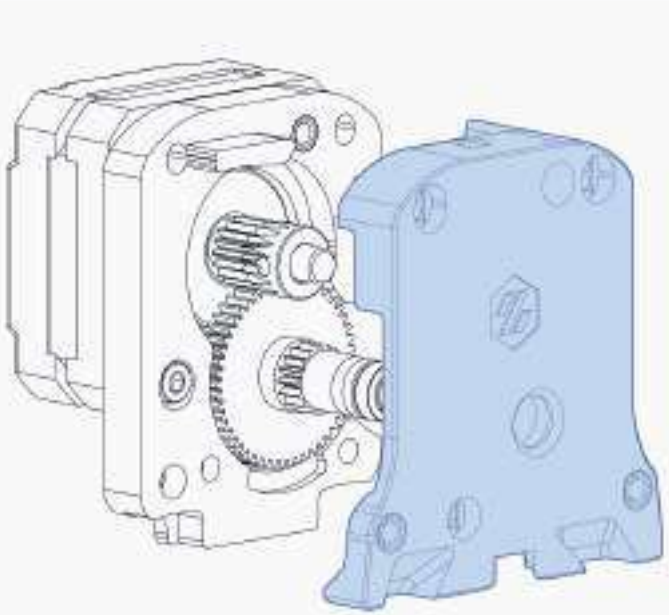
CHECK PLACEMENT

Make sure the filament drive gear is fully seated against the drive shaft gear.

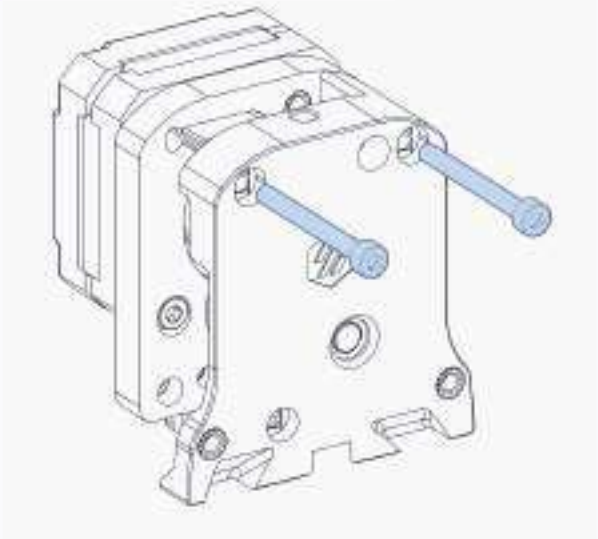
https://voron.link/p0xac5e







M3x30 SHCS

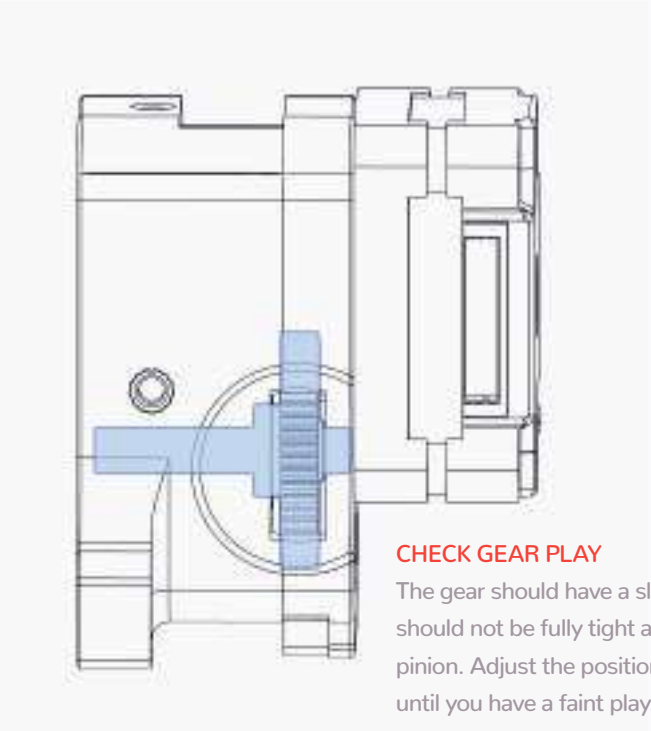


CHECK FOR CLEARANCE

The drive shaft must not touch the motor housing.

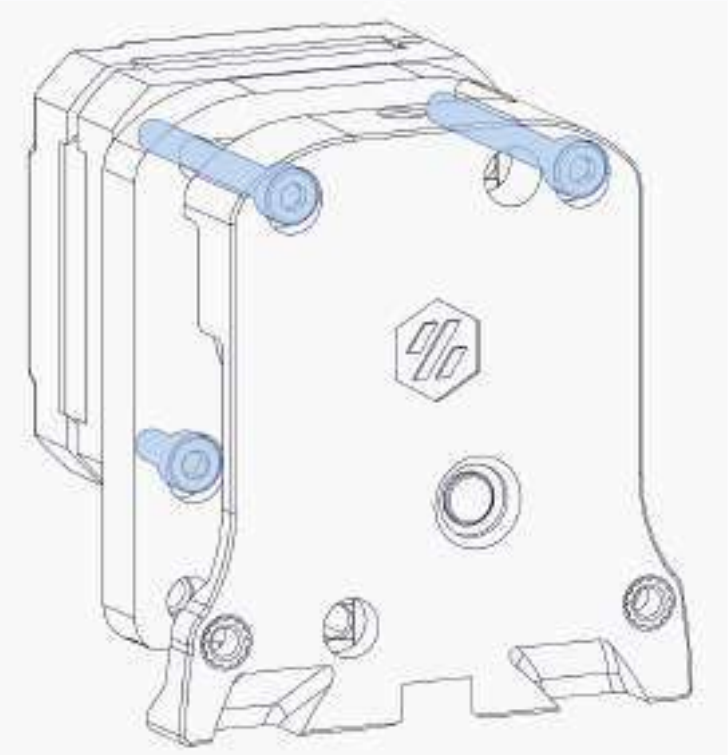
Check if the shaft has sufficient clearance when fully seated.

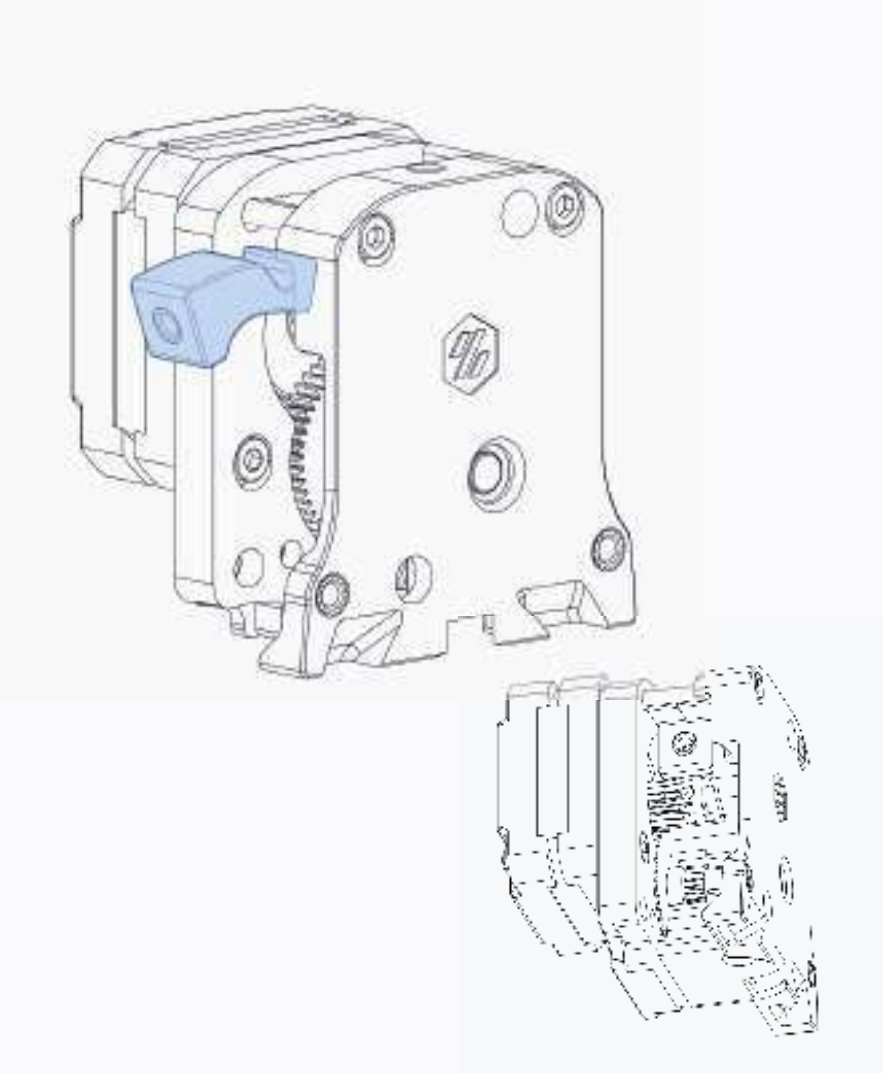
Sand the face of shaft if required.



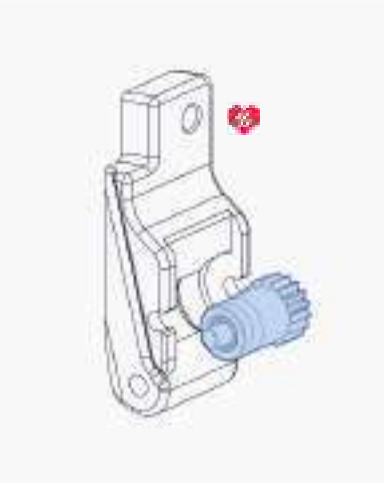
CHECK GEAR PLAY

The gear should have a slight play and should not be fully tight against the pinion. Adjust the position of the motor until you have a faint play.





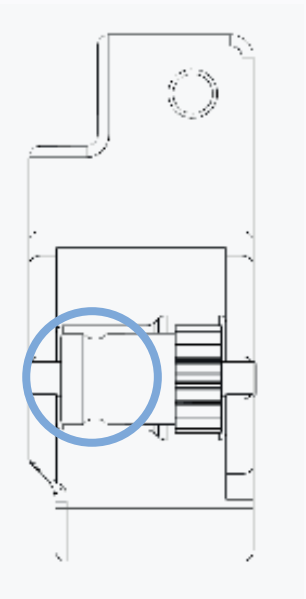
BMG Idler Assembly

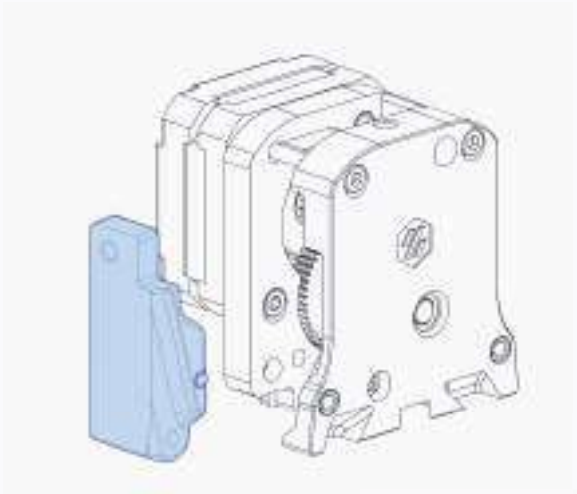


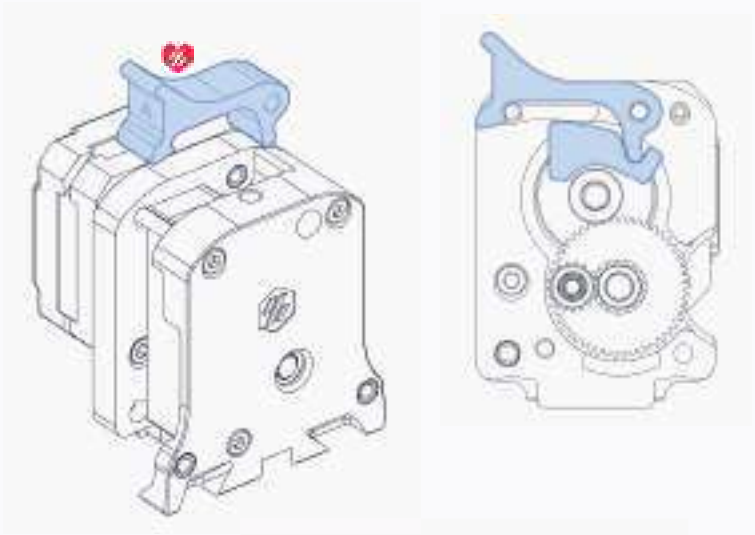
LUBRICATE BEARINGS

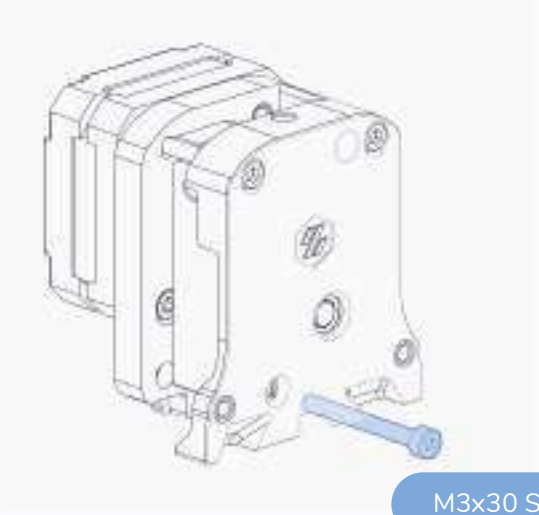
A lubrication film is required to ensure smooth operation and longevity.
Refer to the BOM for lubricant options - look for a “light grease”.

https://voron.link/dncvwdm





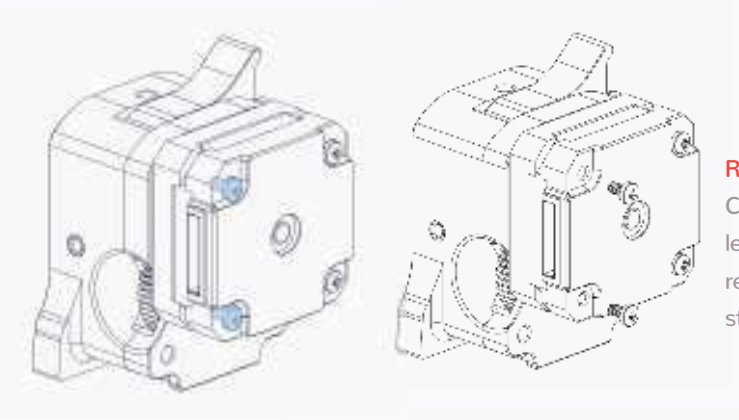




M3x30 SHCS

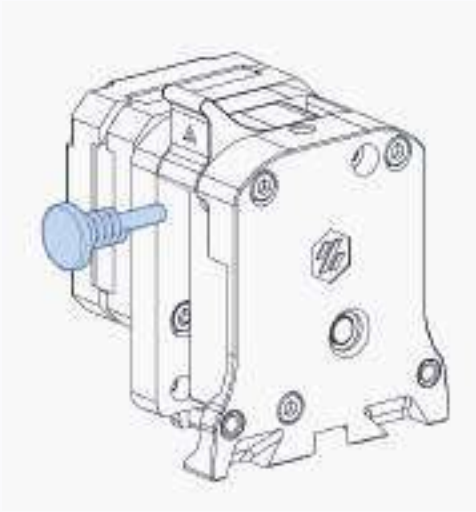
M3x20 SHCS

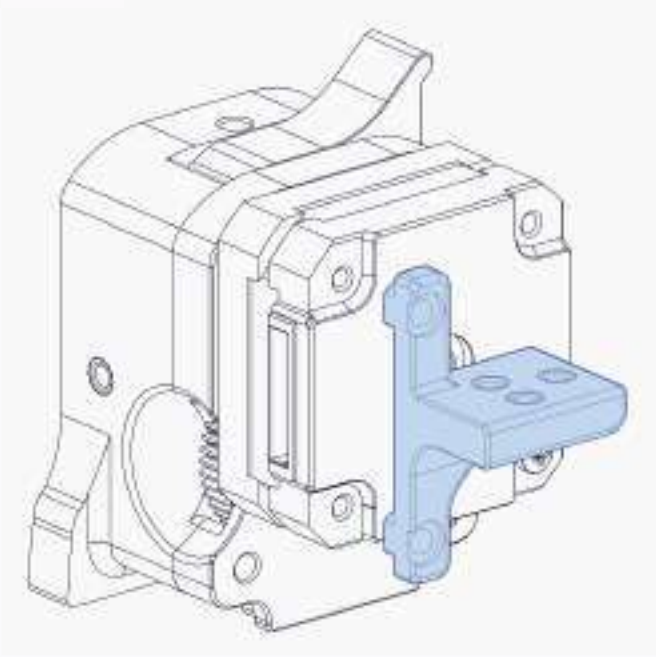
BMG Thumb Screw

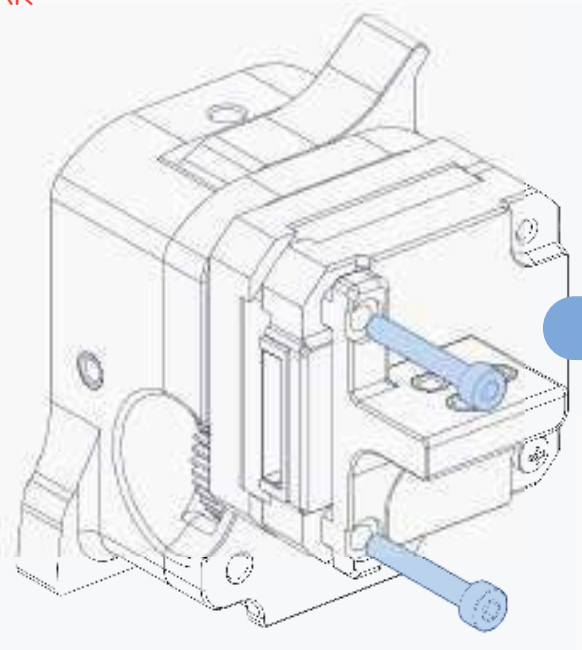


REMOVE SCREWS

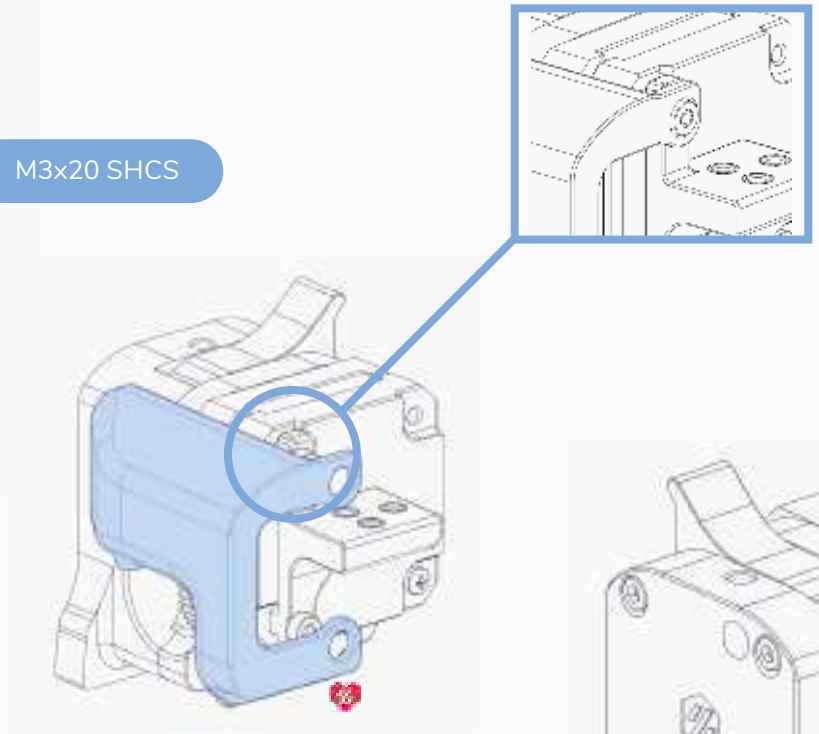
Carefully remove the screws from the left side of the motor. They will be replaced with new bolts in the next step.

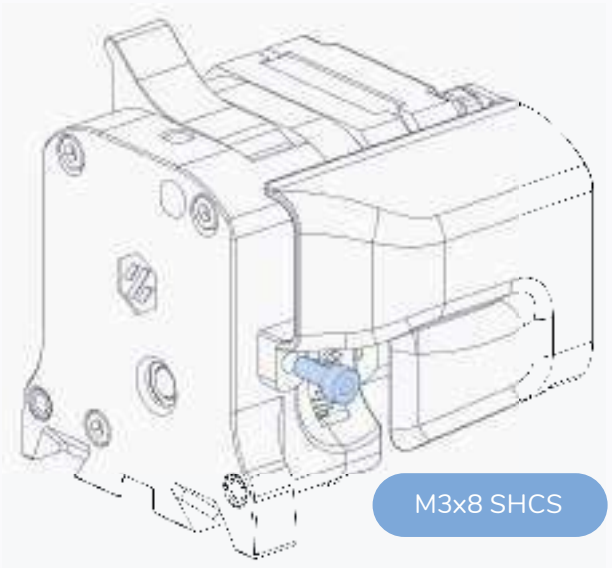






M3x20 SHCS

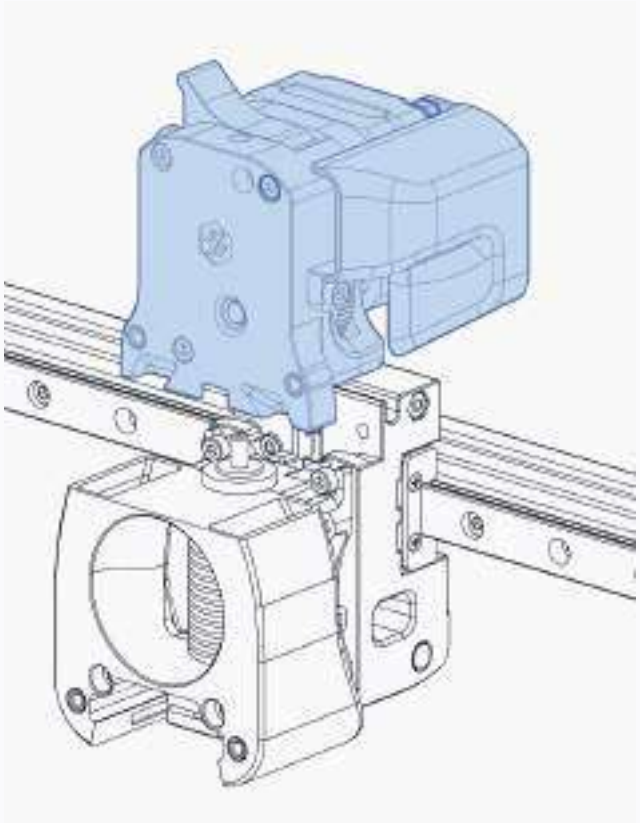


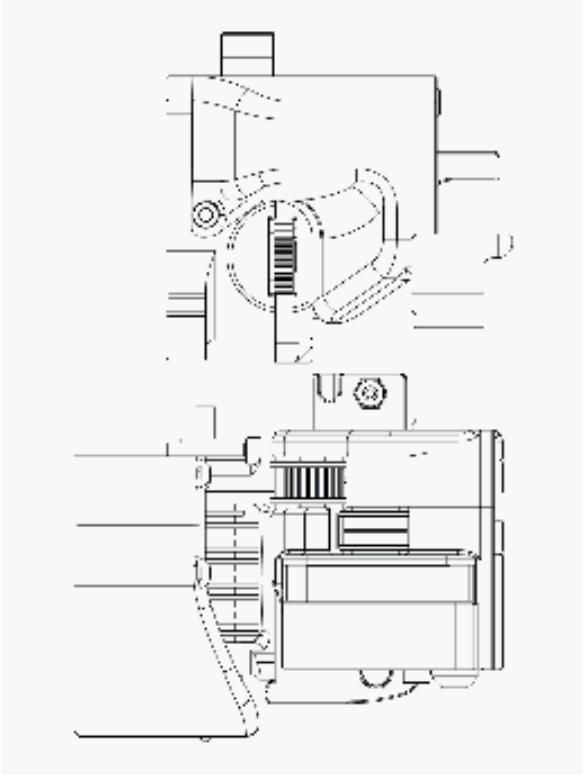


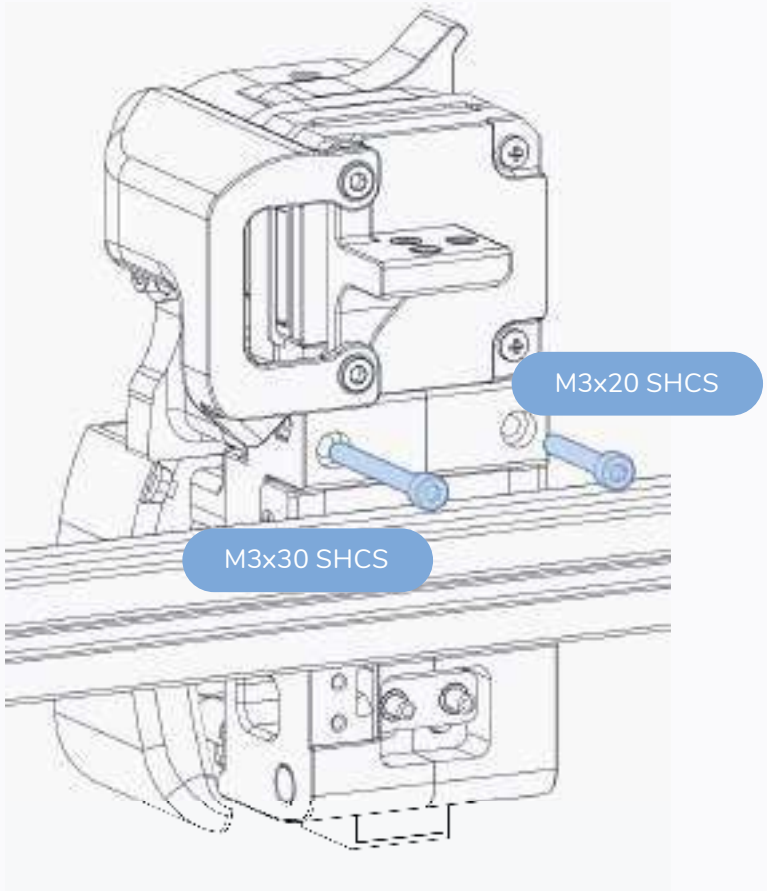
M3x8 SHCS

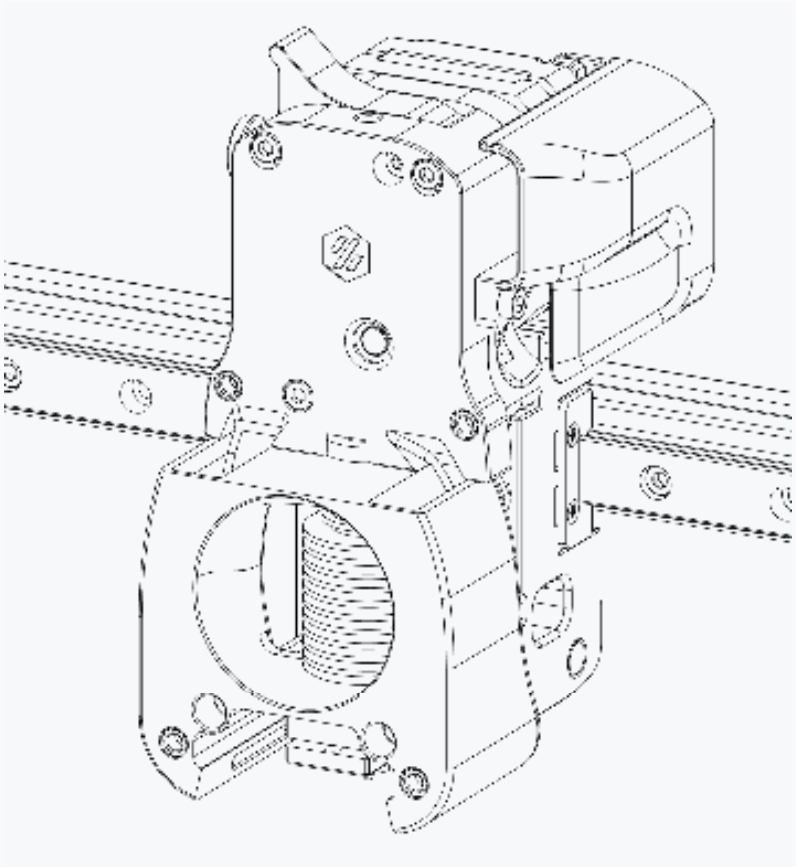
OPTION: TOOLHEAD PCB

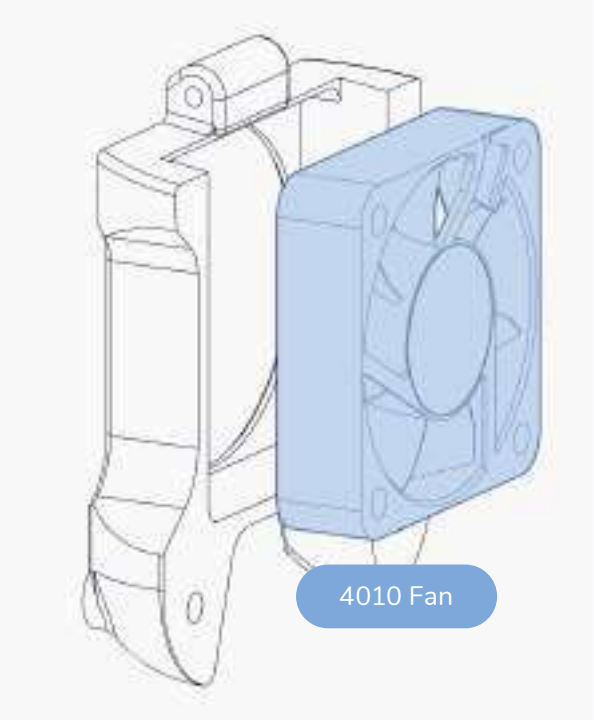
If you opted to use a toolhead PCB, skip the wire cover and follow the instructions on page 174.

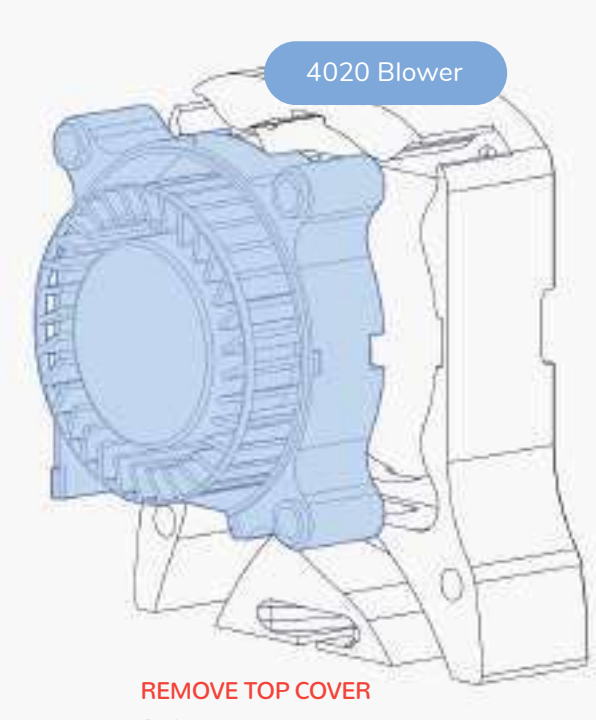








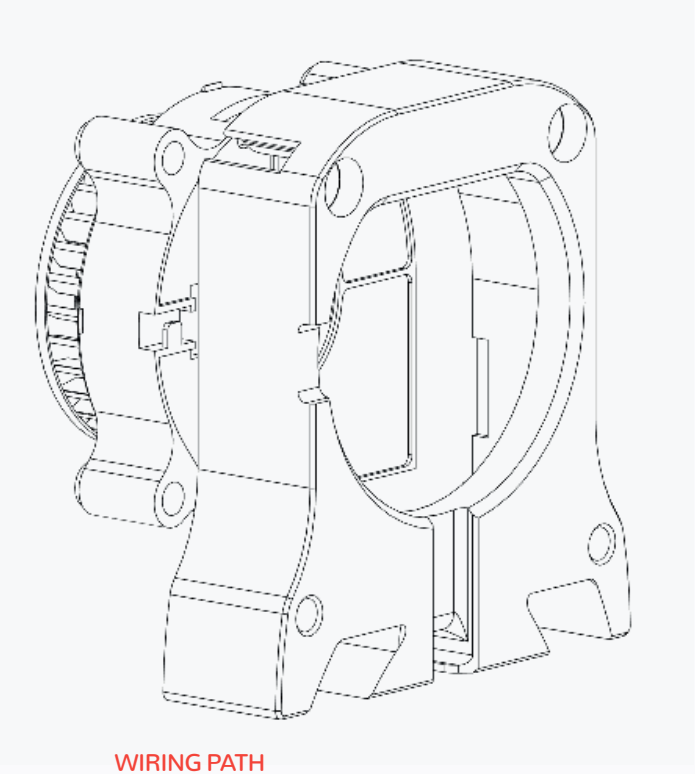




REMOVE TOP COVER

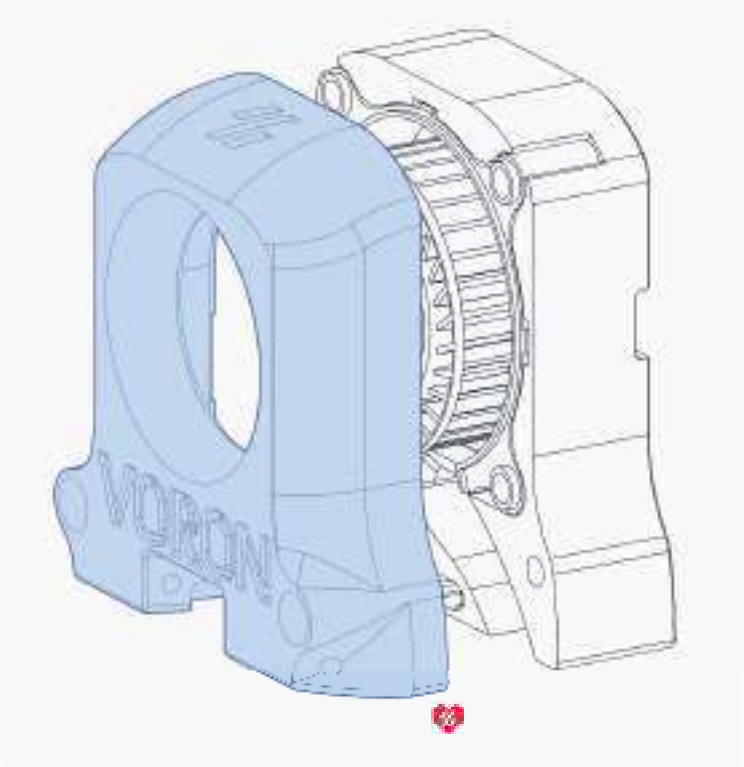
Split the fan open by bending the tabs on the side.

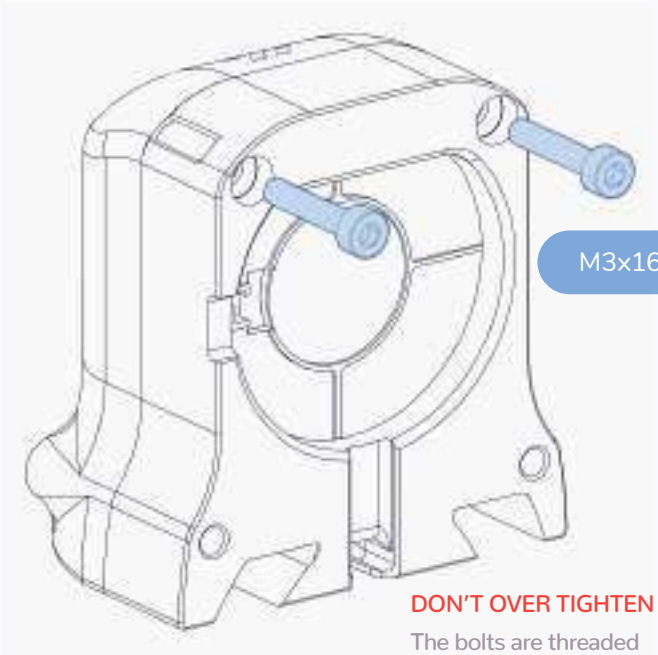
https://voron.link/vyvtcpa



WIRING PATH

Route the wires through the large opening in the back.

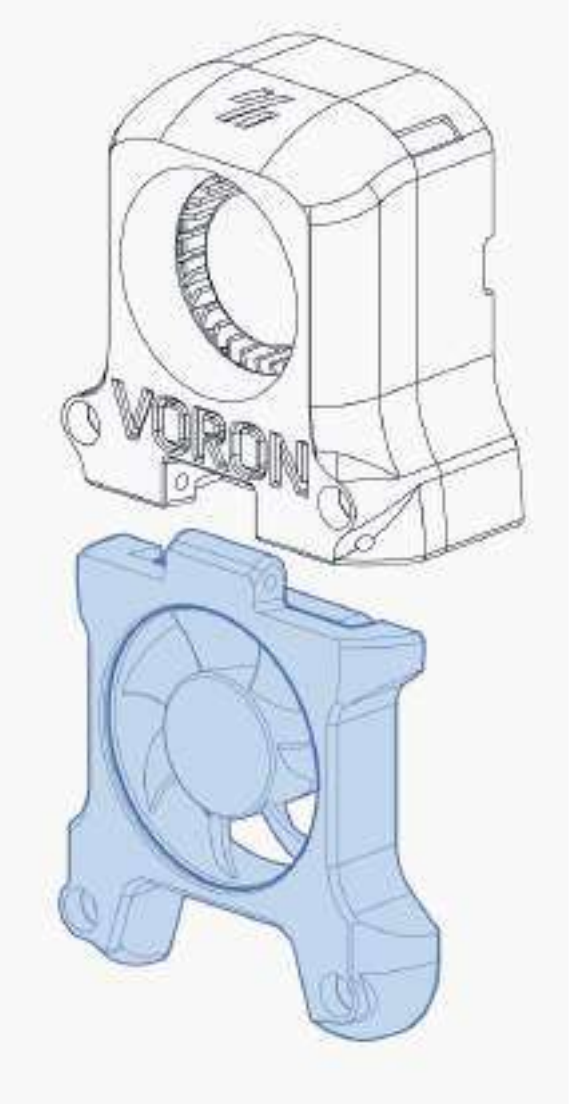


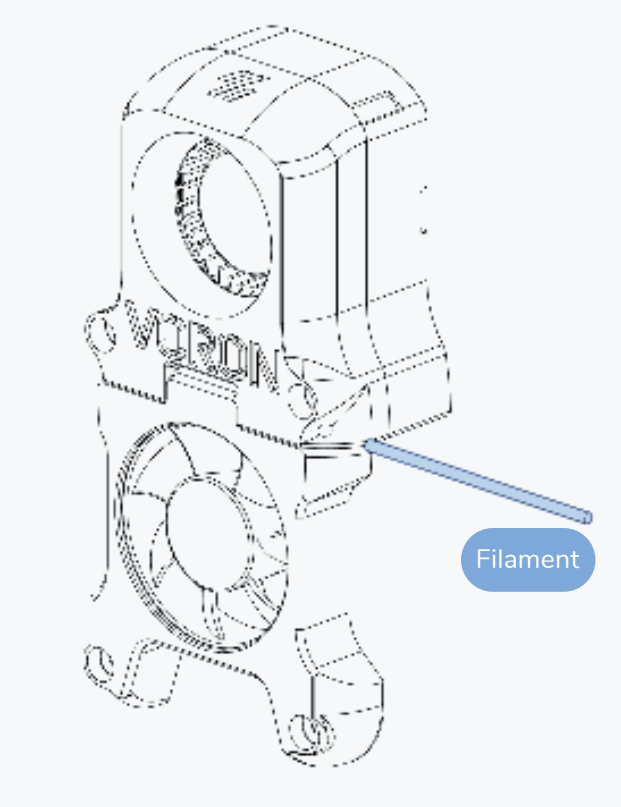


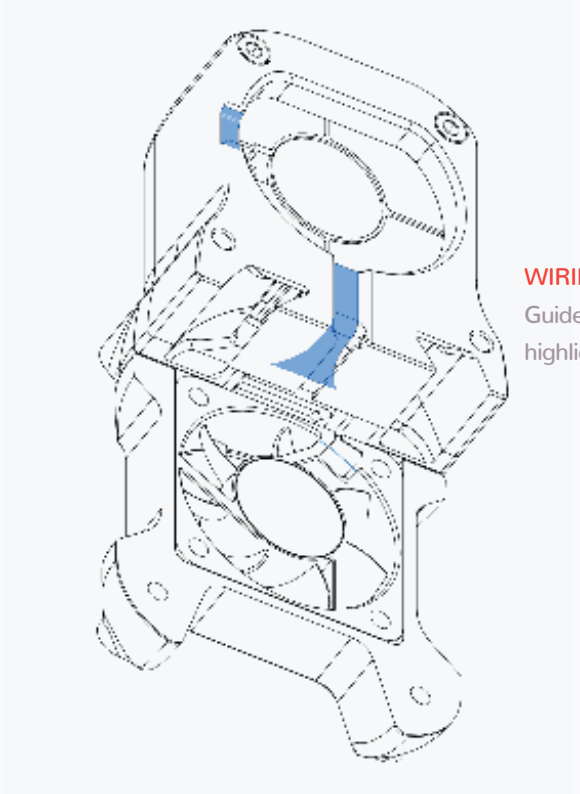
M3x16 SHCS

DON'T OVER TIGHTEN

The bolts are threaded directly into plastic.

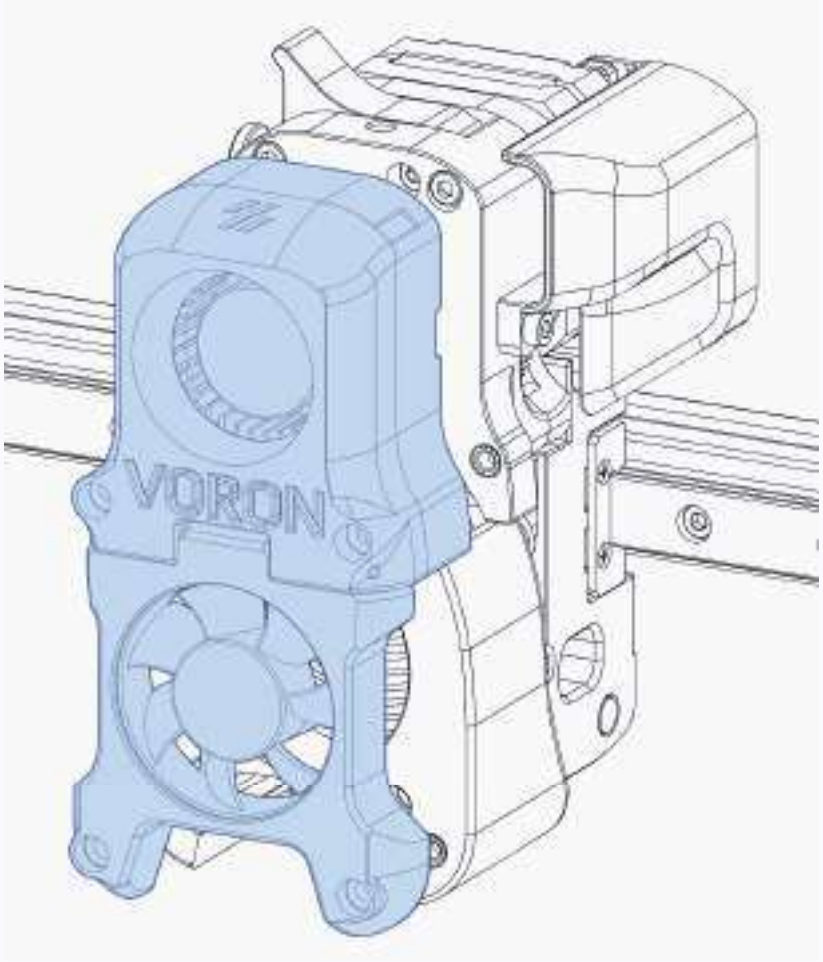


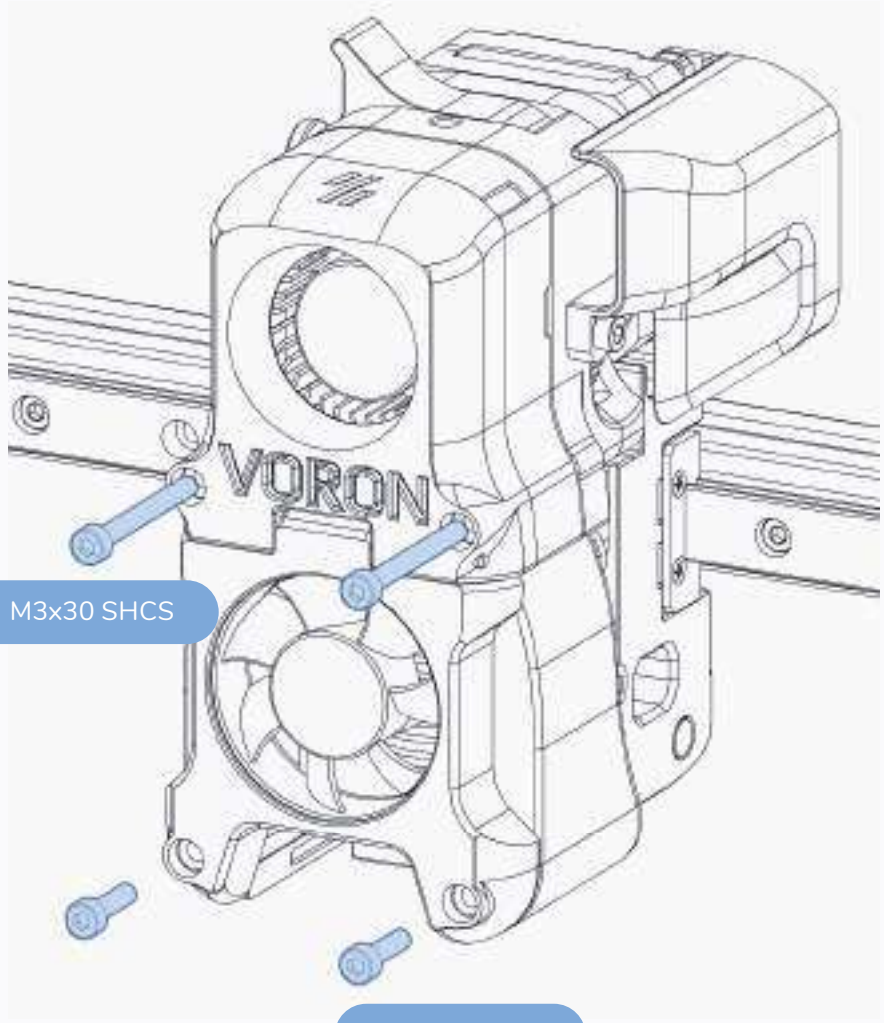




WIRING PATH

Guide the wires in the highlighted path.

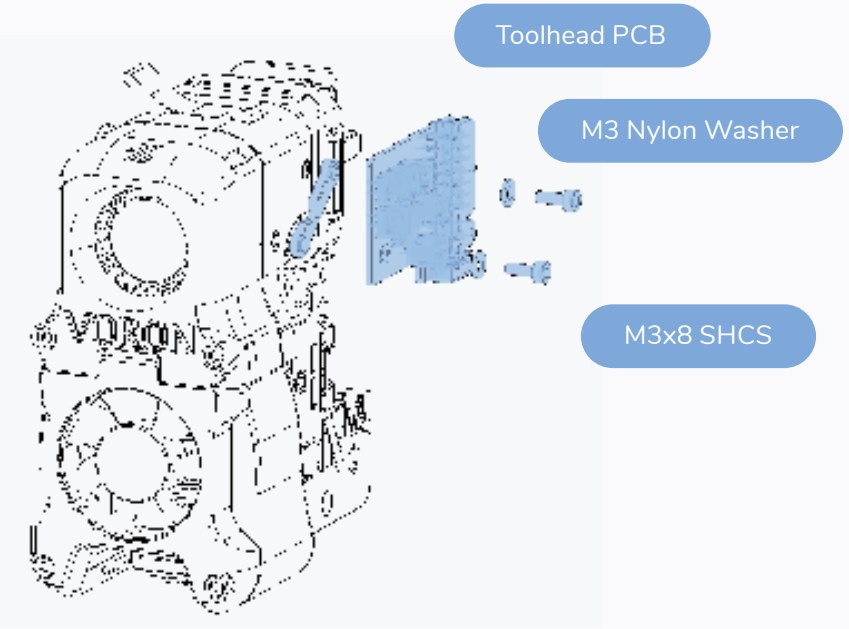




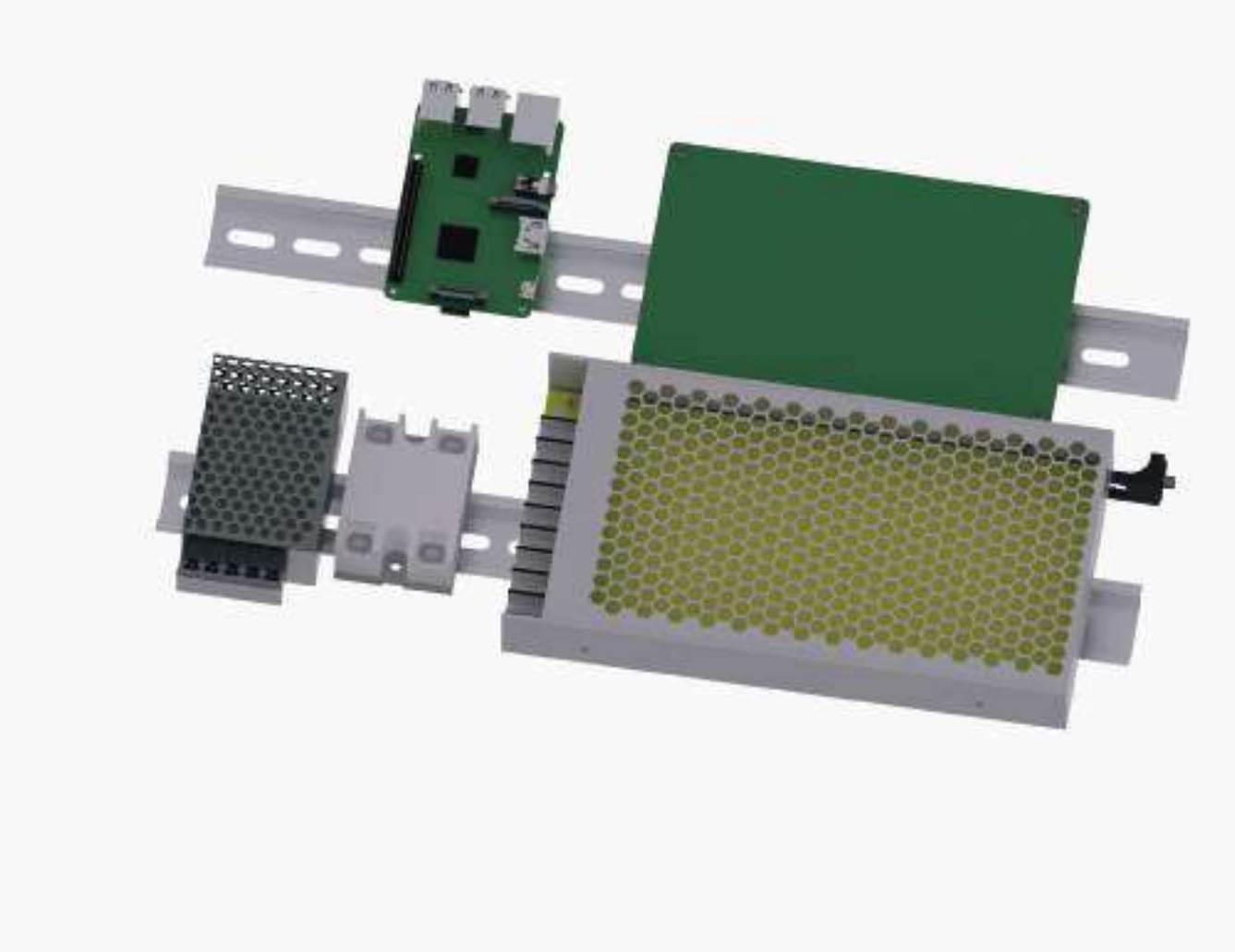
OPTION: TOOLHEAD PCB

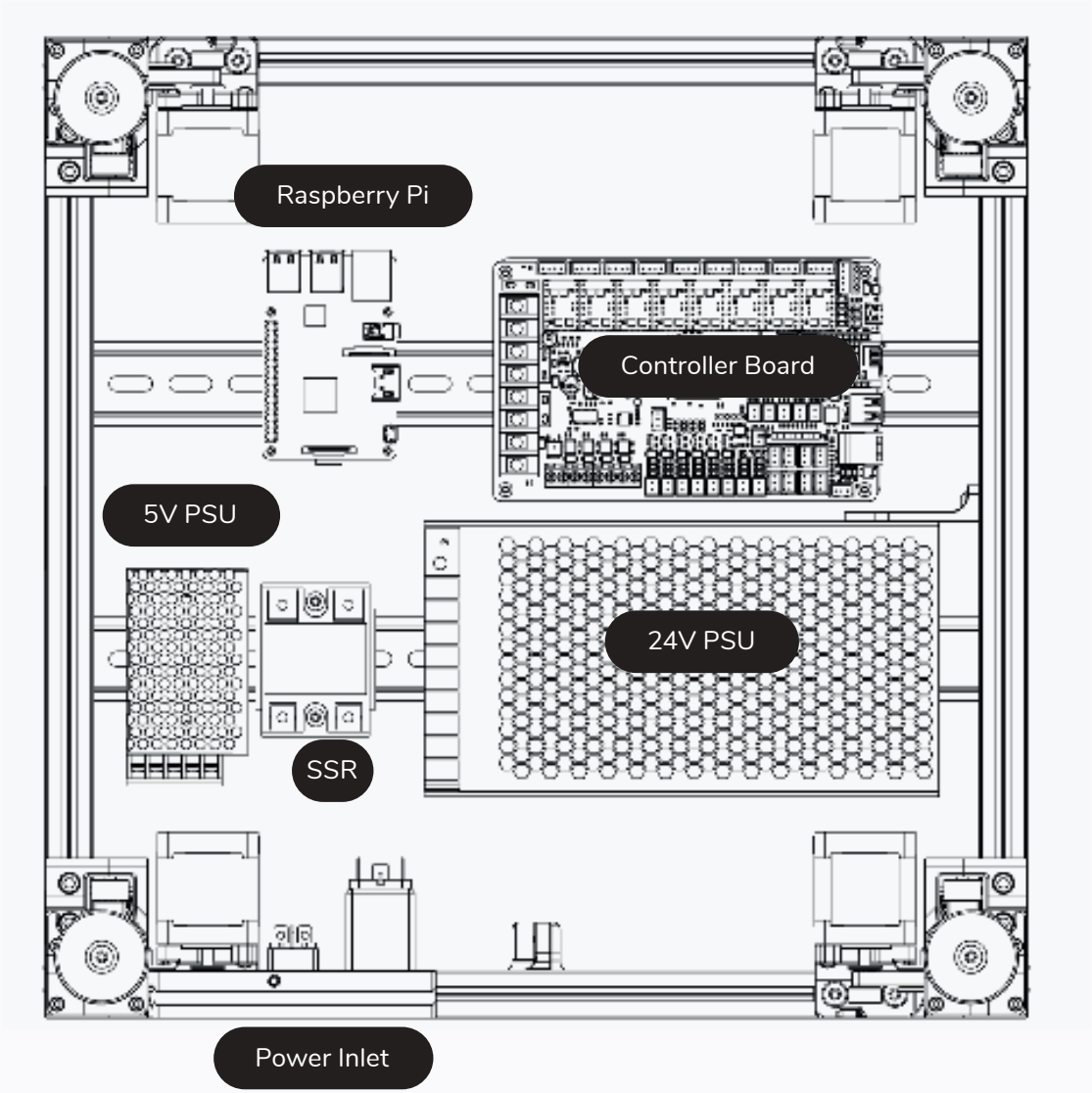
If you opted to use a toolhead PCB, install it instead of the cable cover.

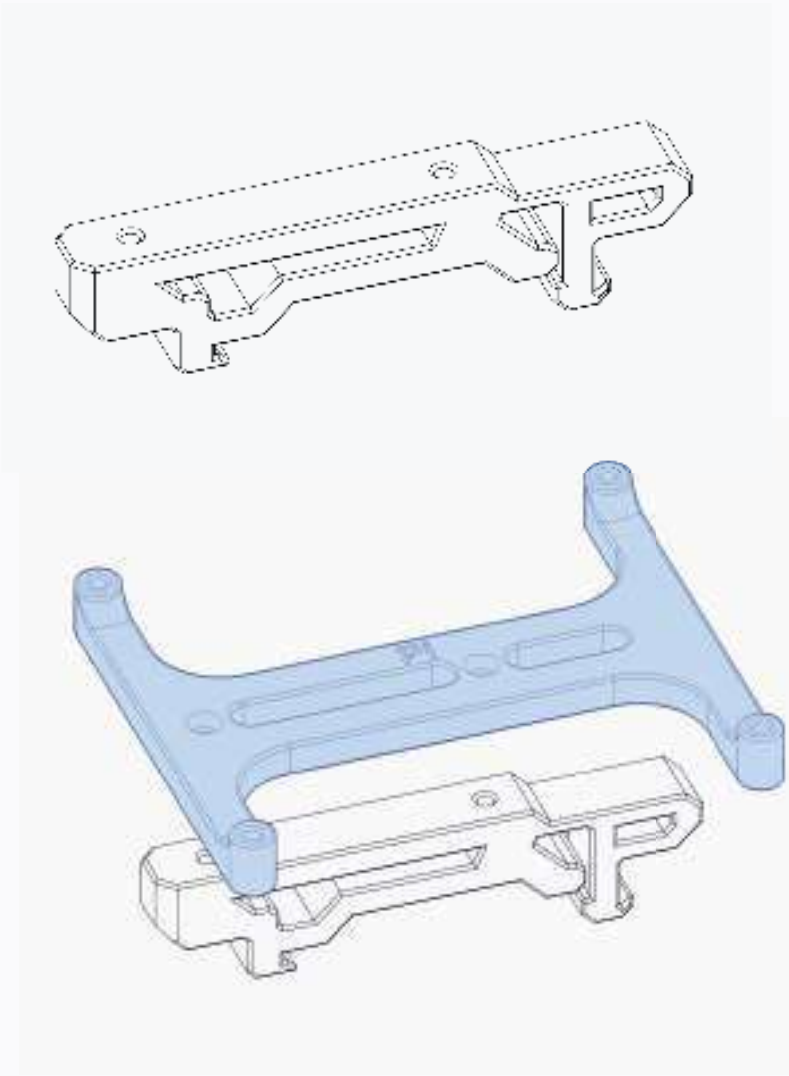
While not strictly required the use of plastic (e.g. nylon) washers is recommended.

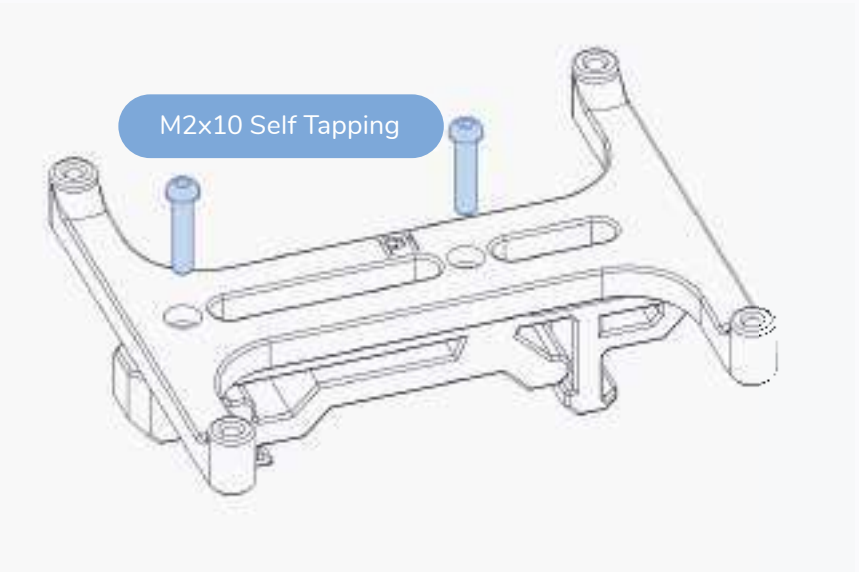


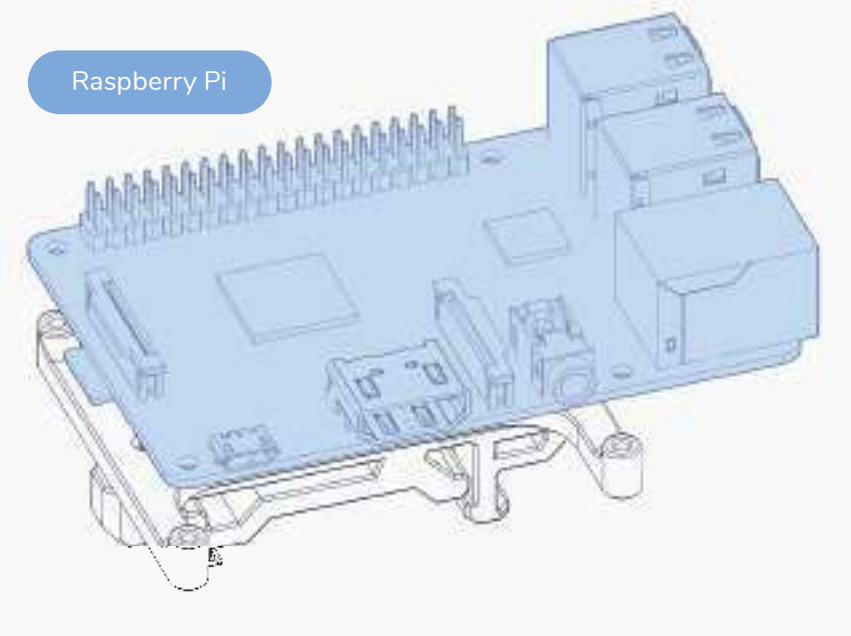
Voron2.1 was released on November 5 2018.

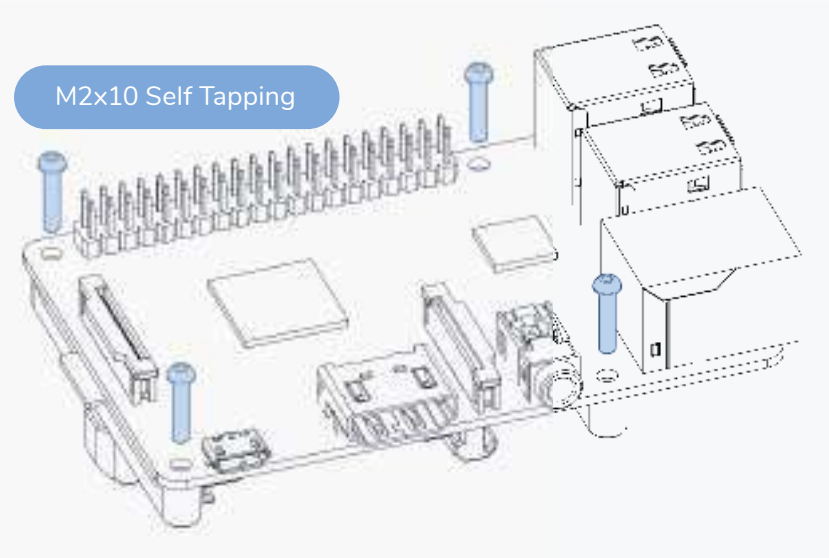


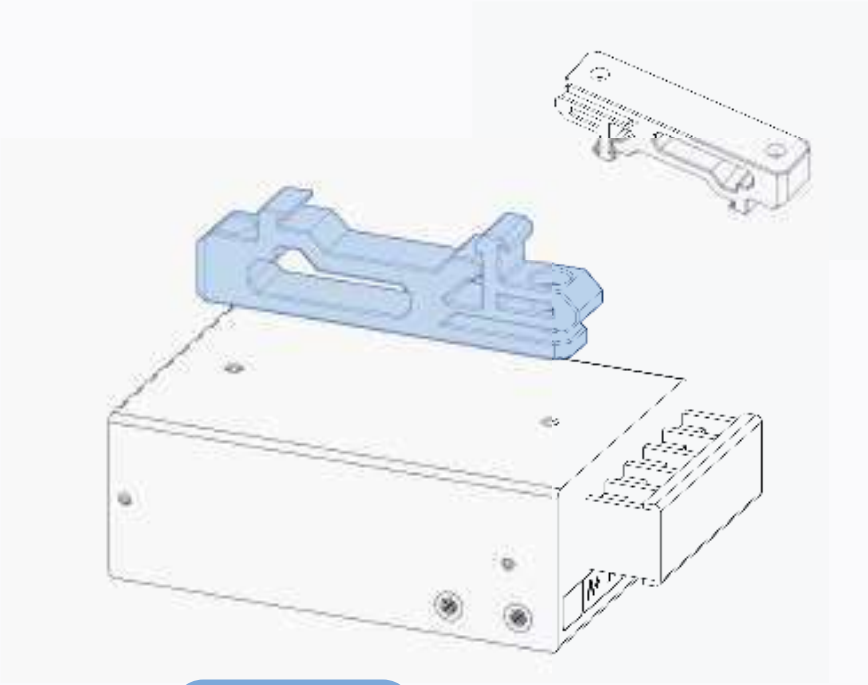




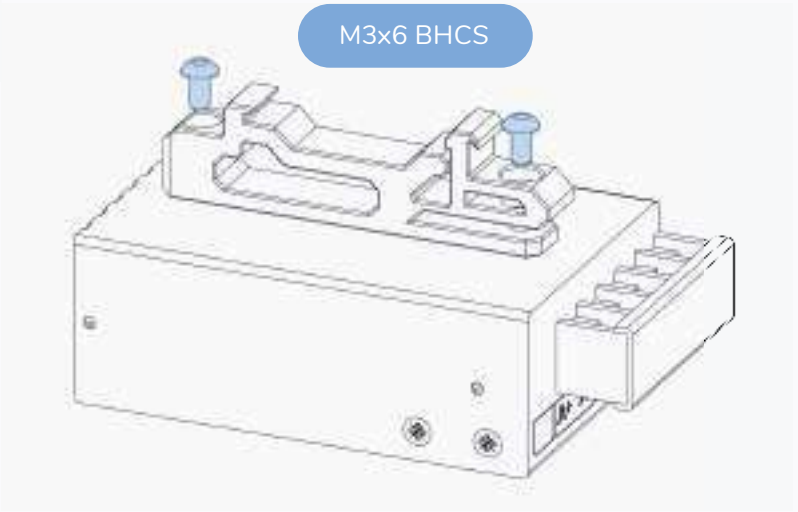


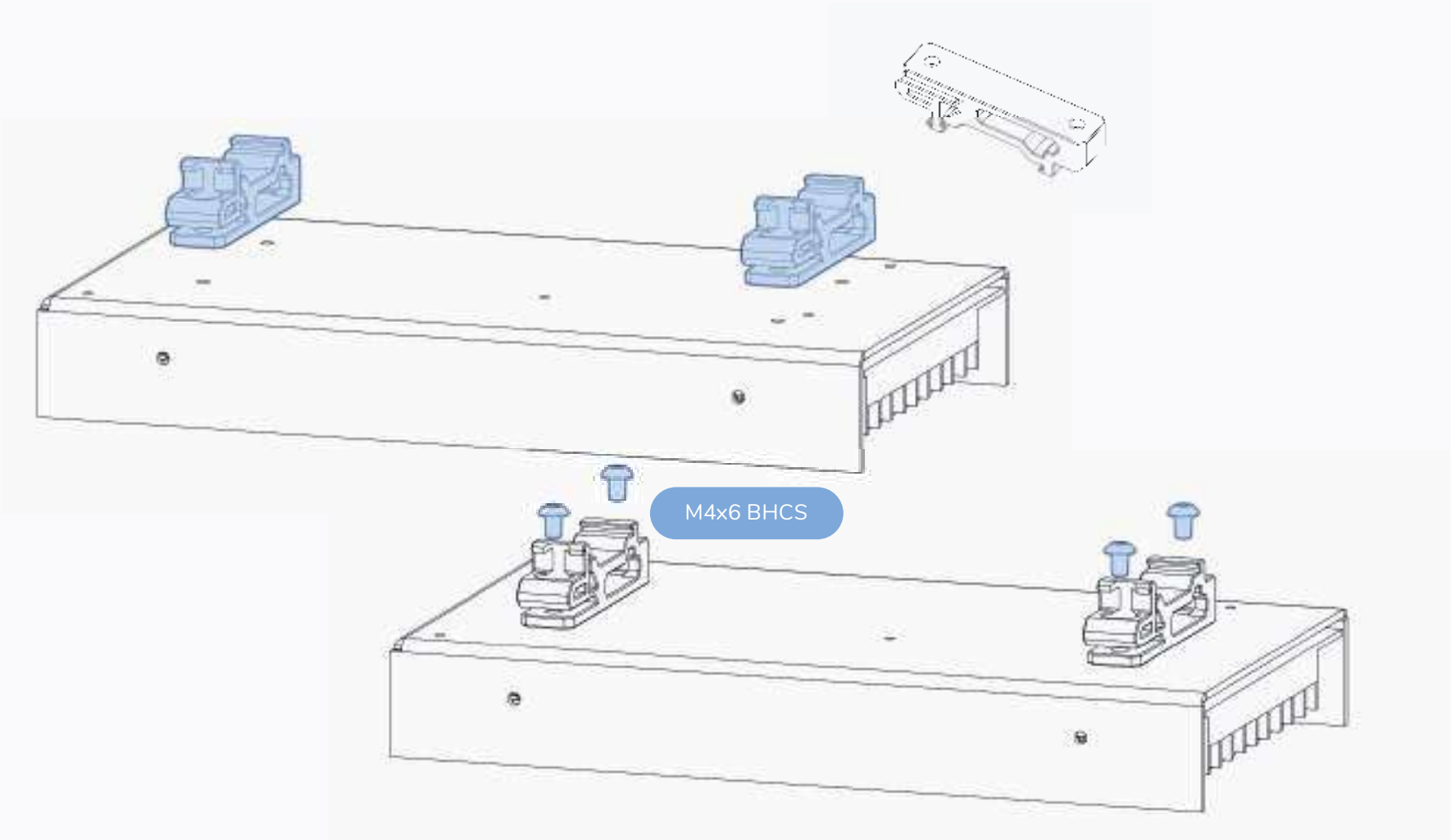


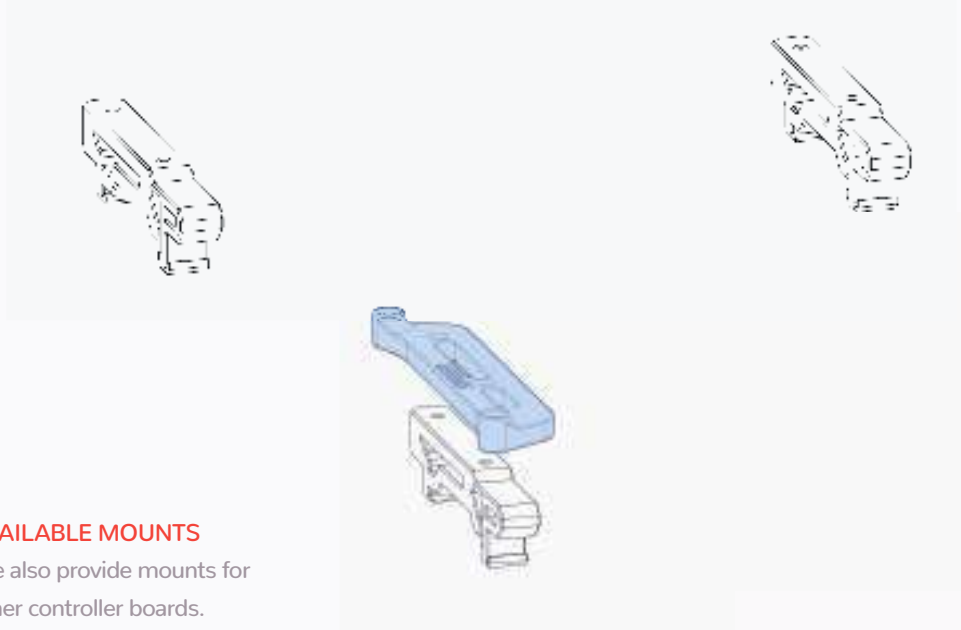




RS25-5 PSU

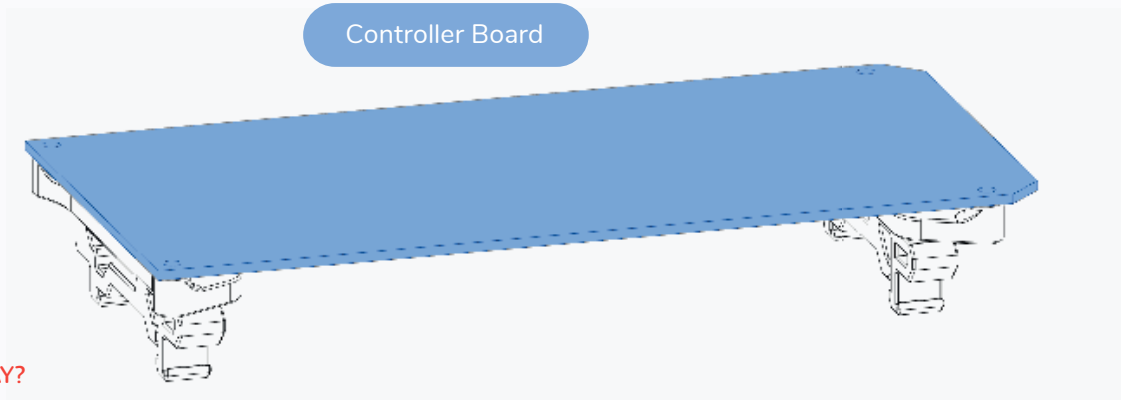






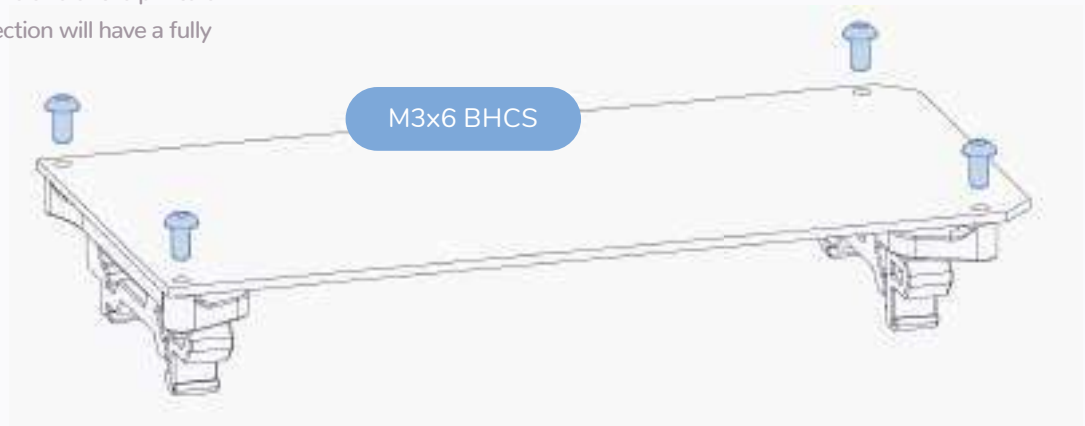
AVAILABLE MOUNTS

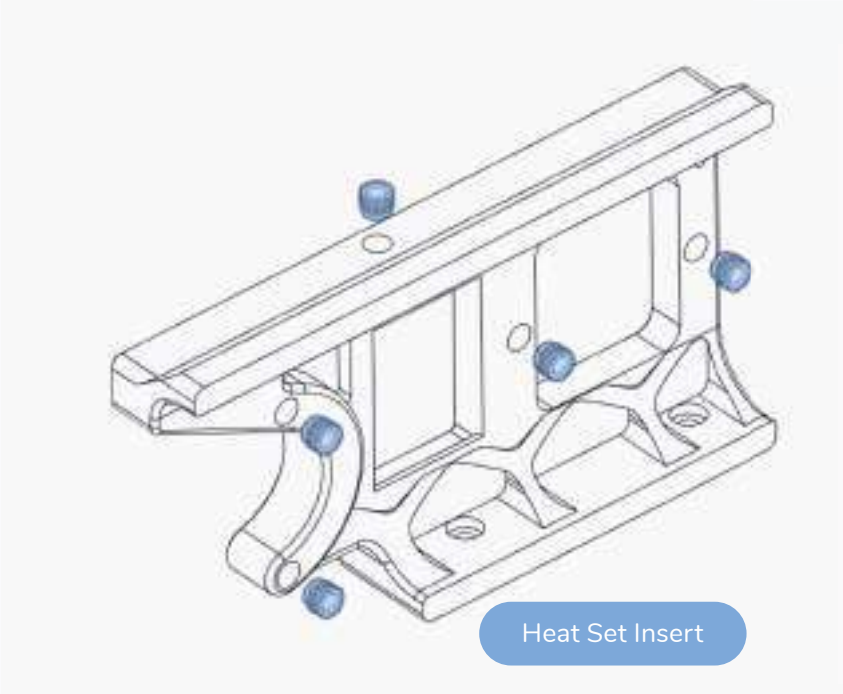
We also provide mounts for other controller boards. They are assembled in a similar manner.

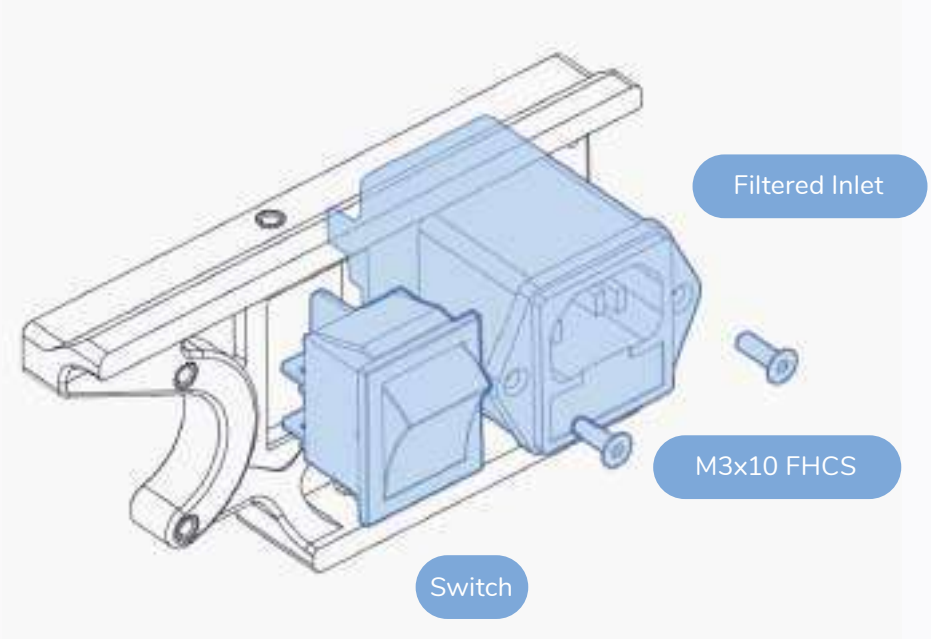


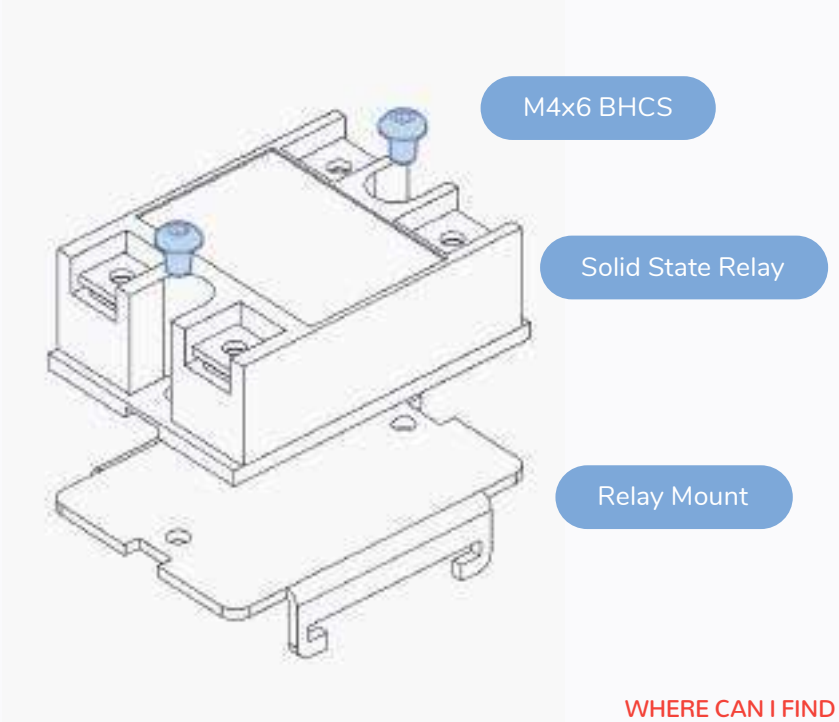
WHY DOES IT LOOK THAT WAY?

We used a dummy to keep the file size of the printers CAD manageable. The wiring section will have a fully featured image.





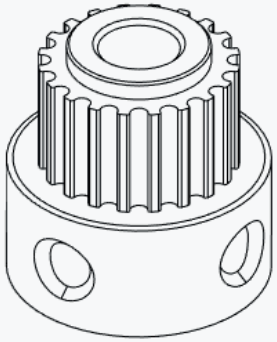




WHERE CAN I FIND THE RELAY MOUNT?

The SSR mount is an off the shelf part. Look for a metal bracket in your pile of parts.
There is no printed mount.

GT2 20 Tooth Pulley



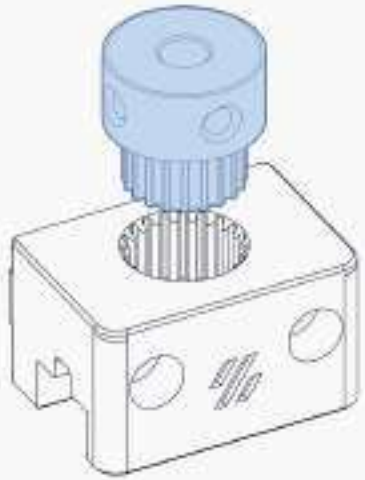
REMOVE FLANGE & SET SCREWS

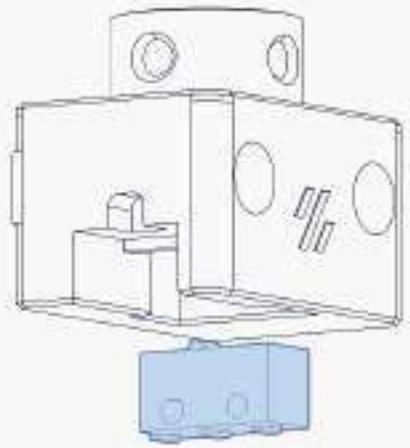
Use a bottle opener or some pliers to remove the top flange.

https://voron.link/ict0j6x

PRESS FIT

Apply the required force to fully seat the pulley in the printed part.



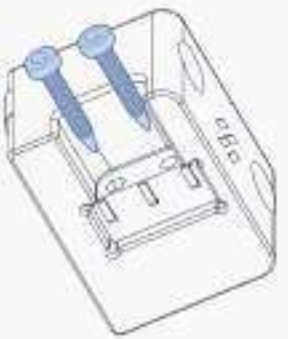


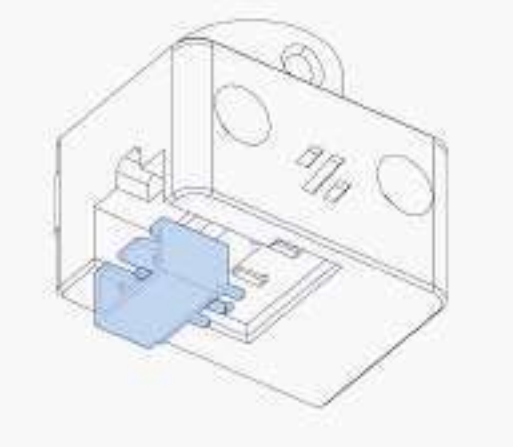
Microswitch

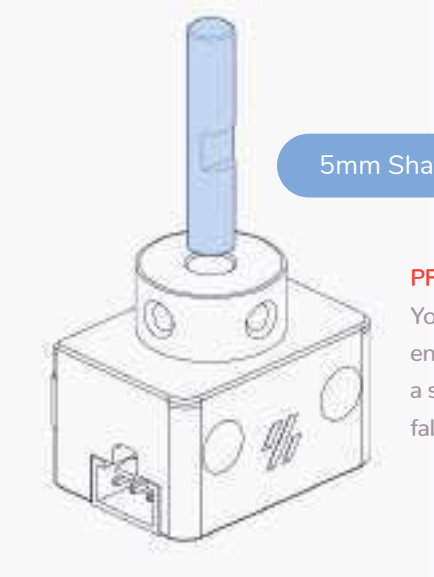
SWITCH W/OUT LEVER

This part requires a switch without lever to be installed in the shown orientation.
You can remove the lever from microswitches by gently pressing on the lever's hinge point.

M2x10 Self Tapping

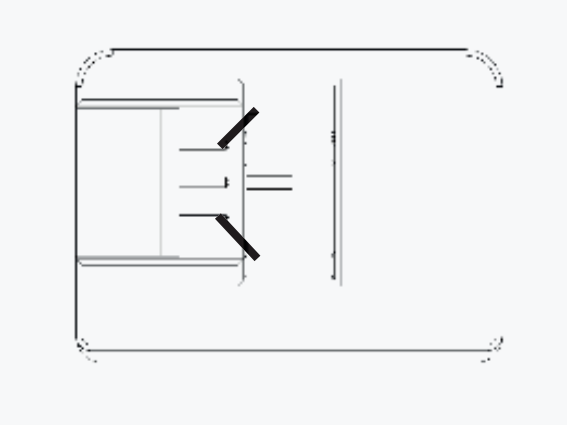






PREVENTING MISHAPS

You can add a notch to the Z endstop point and capture it with a set screw to prevent it from falling out.

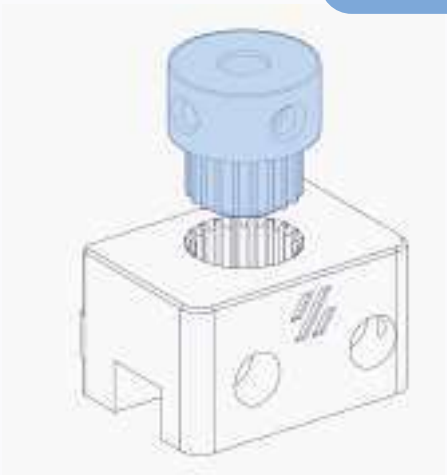


SOLDER CONNECTOR

Solder a connection from the outer two terminals of the microswitch
to the connector.

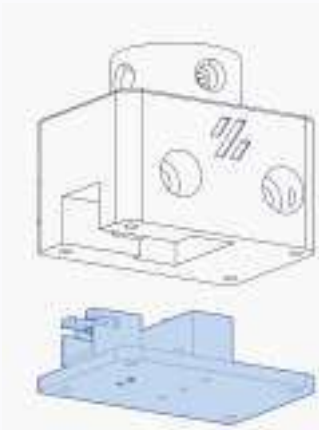
OPTION: Z ENDSTOP BOARD

GT2 20 Tooth Pulley

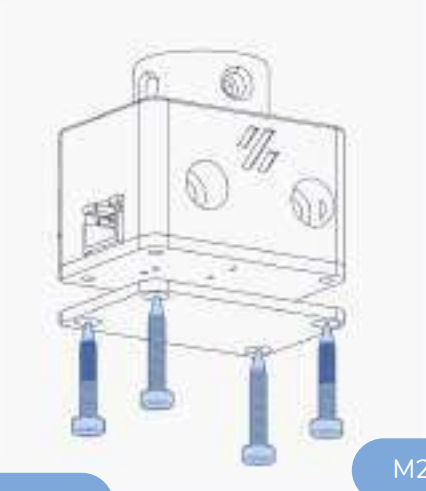


PRESS FIT

Apply the required force to fully seat the pulley in the printed part.



Microswitch Z Endstop Board



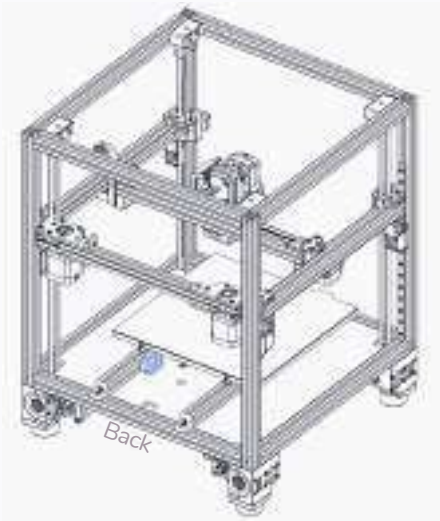
M2x10 Self Tapping

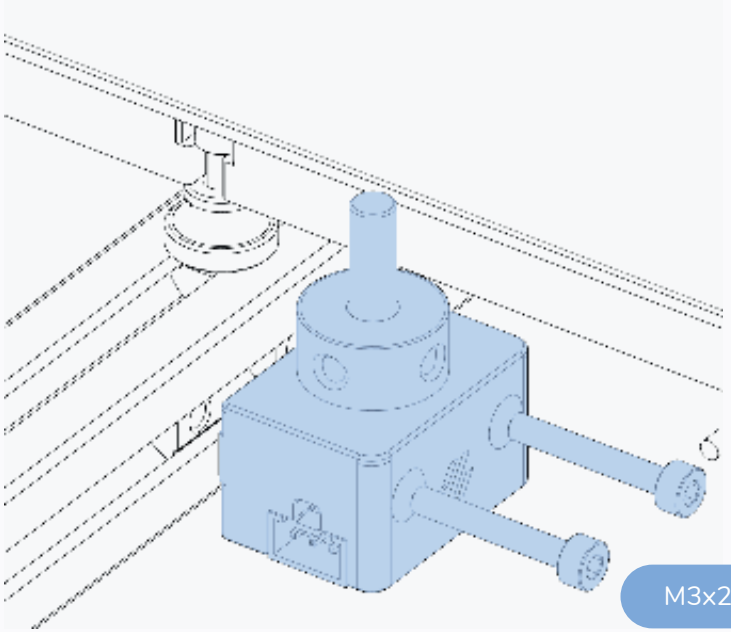
5mm Shaft

ADDITIONAL INFORMATION

Visit voron.link/3bwwnqy for design files and BOM.

M3 T-Nut

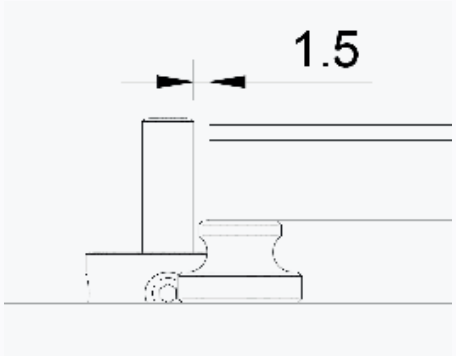


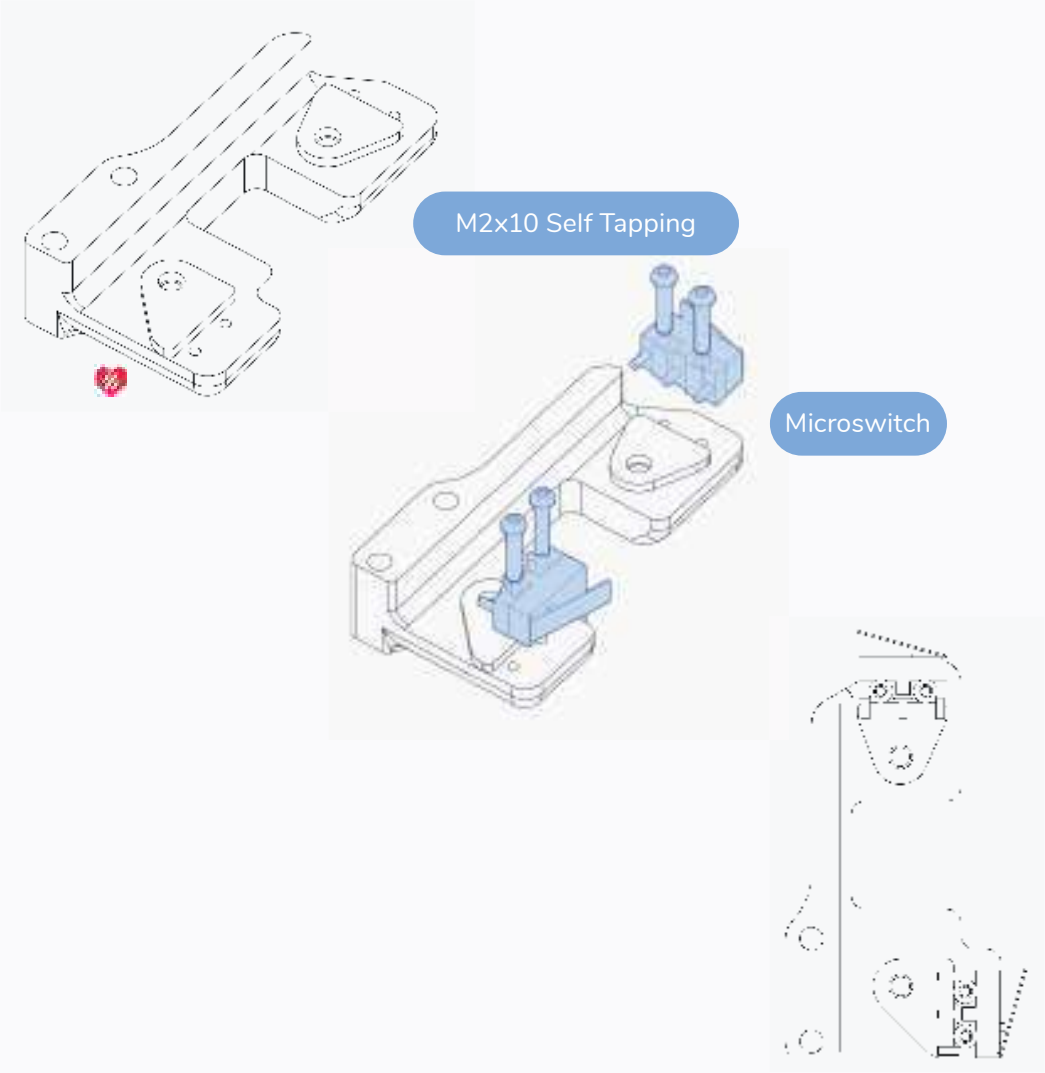


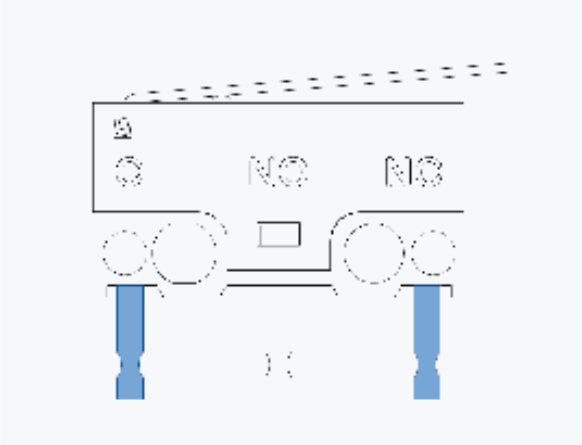
M3x20 SHCS

ADJUST Z ENDSTOP POSITION

The shaft of the Z Endstop must not touch the print bed.
Adjust the position if required.





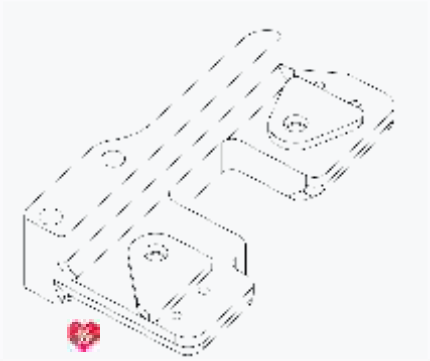


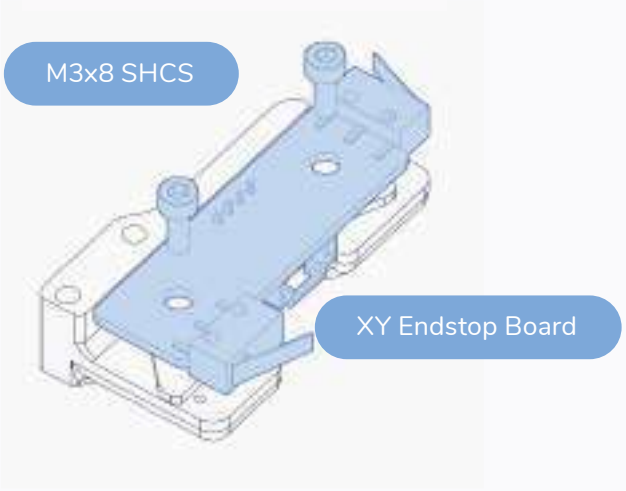
END-STOP SWITCHES FOR X AND Y

End-stops are wired in a “Normally Closed” configuration. On microswitches those are the 2 outer terminals indicated by C and NC.

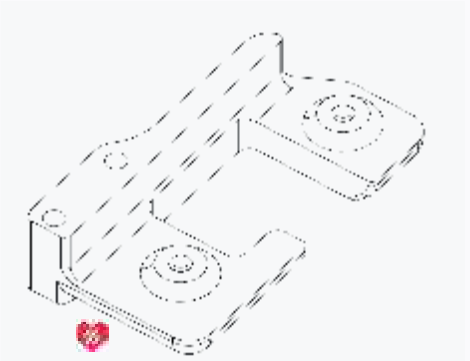
Prepare the switches for X and Y by soldering 150mm of wire to each of the outer terminals.

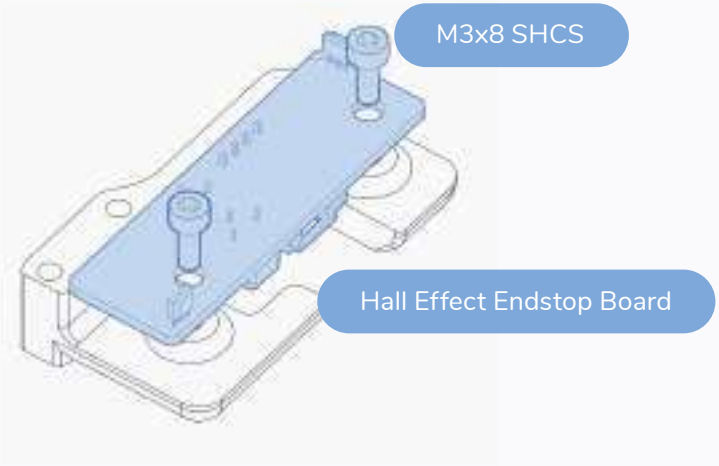
OPTION: XY ENDSTOP BOARD

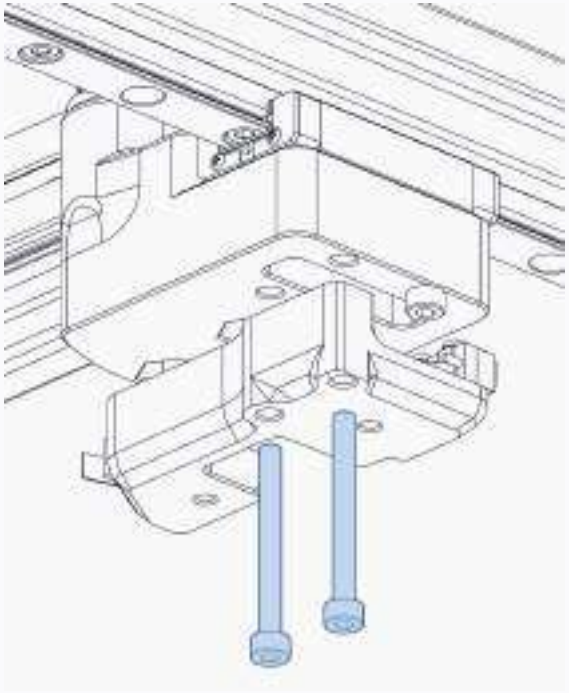




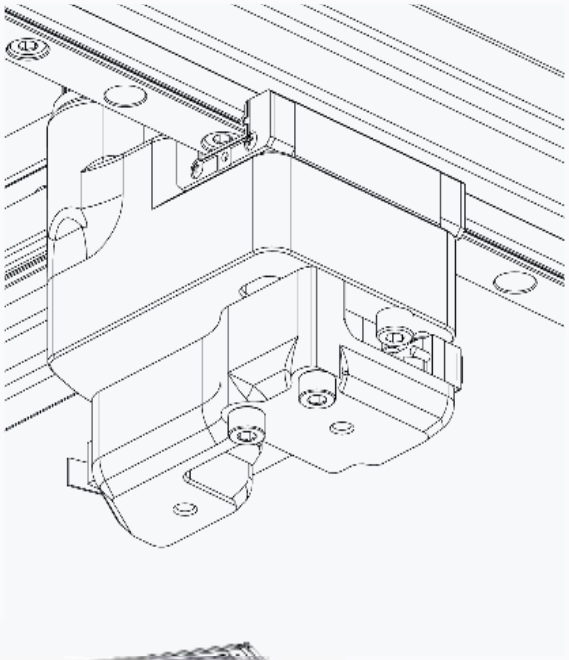
OPTION: HALL EFFECT ENDSTOP BOARD

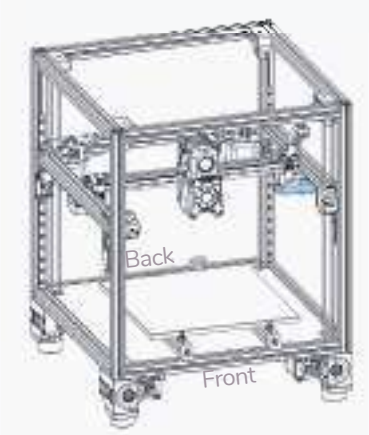




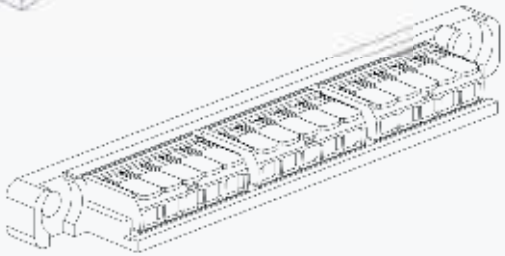


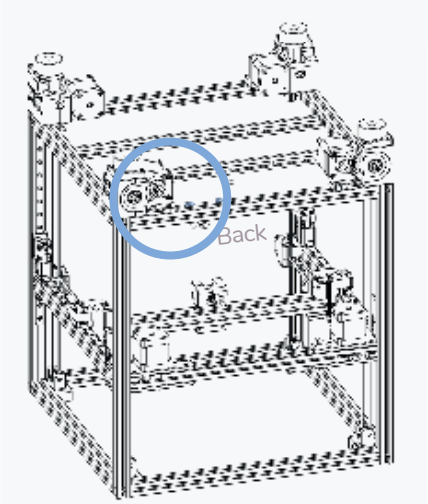
M3x30 SHCS

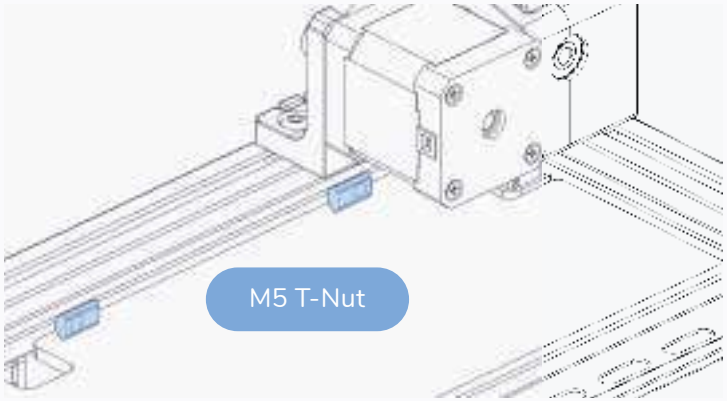




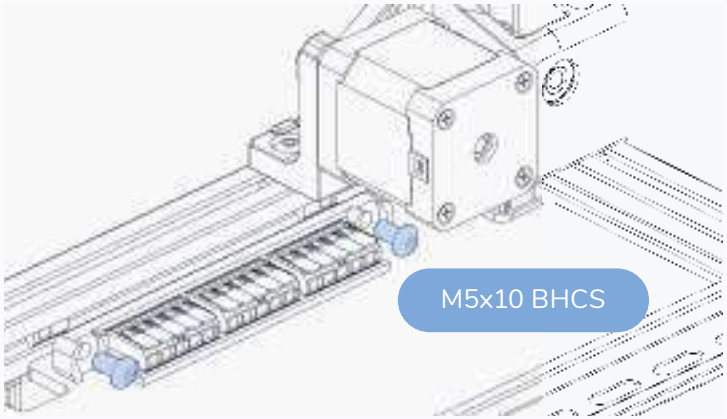
WAGO 221 415 Clamps







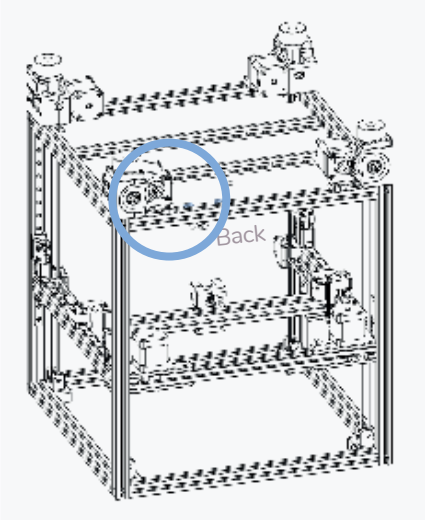
M5 T-Nut

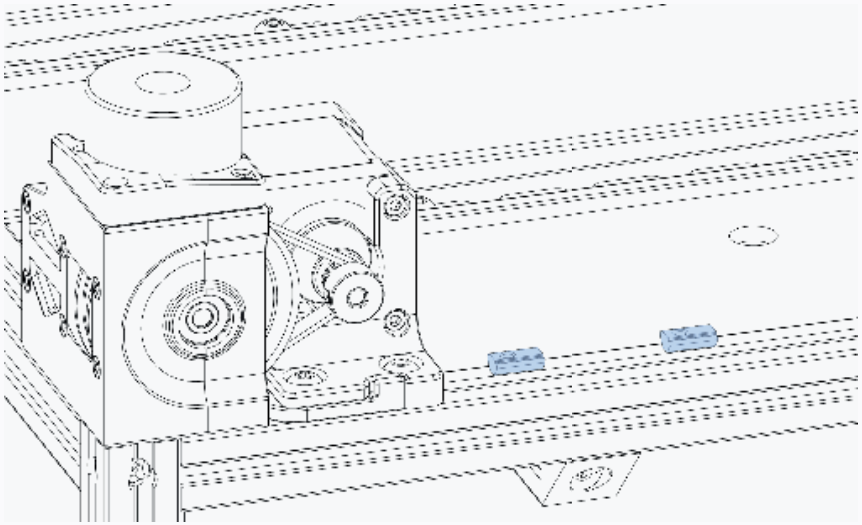


M5x10 BHCS

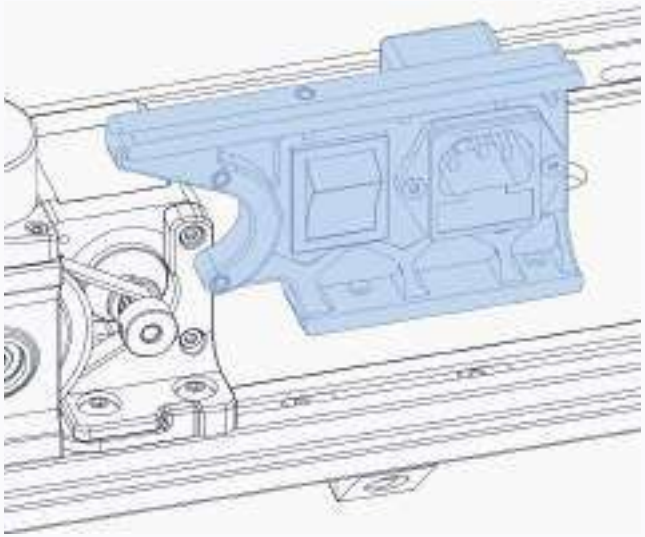
UPSIDE DOWN ASSEMBLY

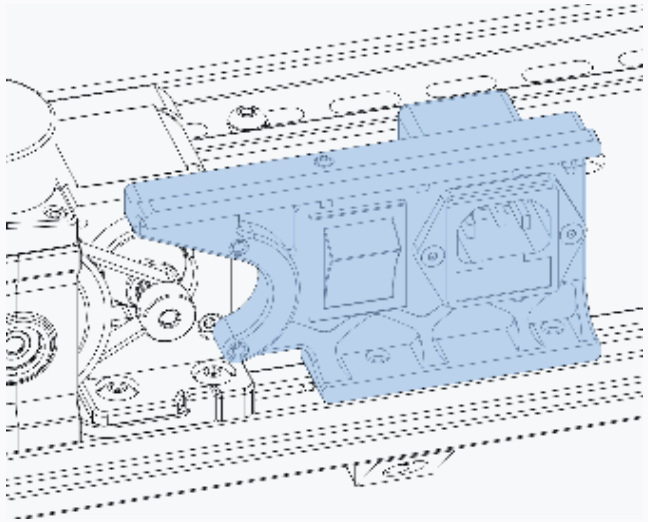
For ease of assembly we recommend to flip the printer on its head for the next steps. Hope you don't regret building a 350.

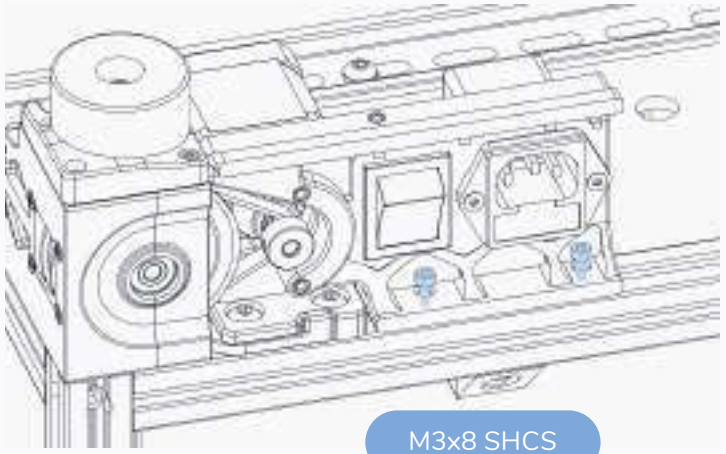


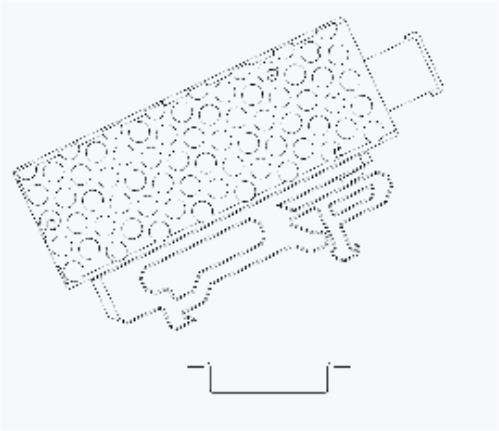


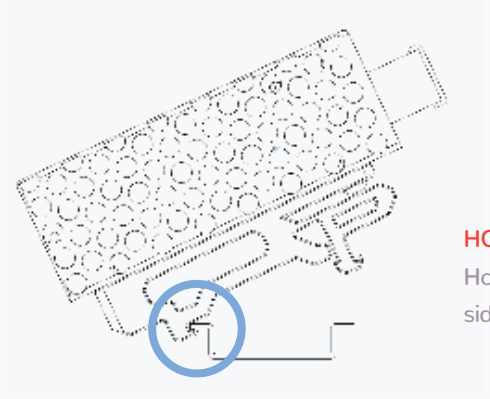
M3 T-Nut





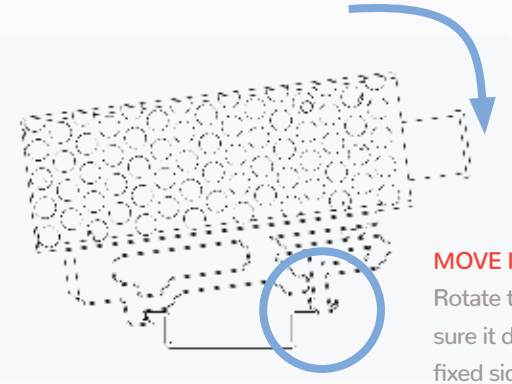






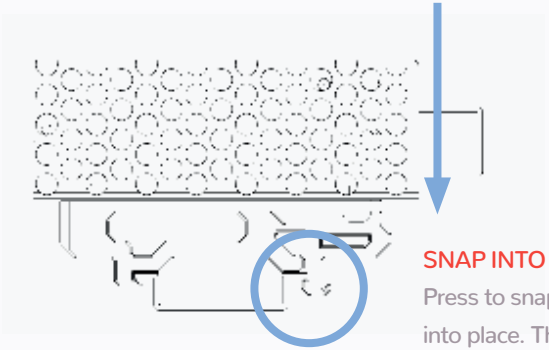
HOOK FIXED SIDE

Hook the fixed side of the printed mount on side of DIN rail.



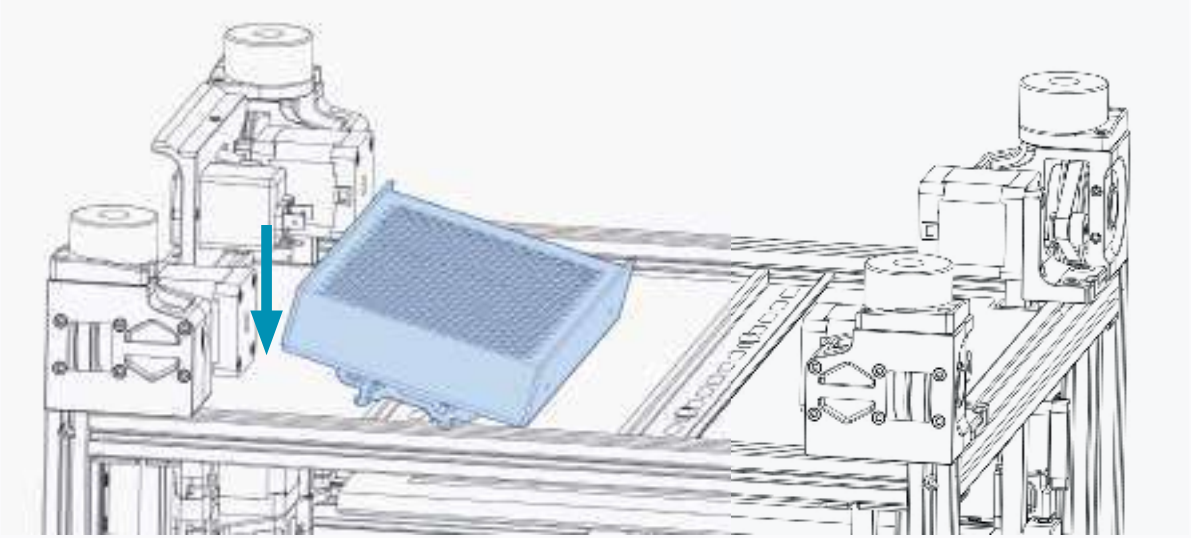
MOVE INTO POSITION

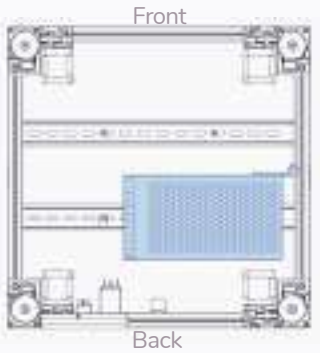
Rotate the part into place, make sure it does not unhook from the fixed side.

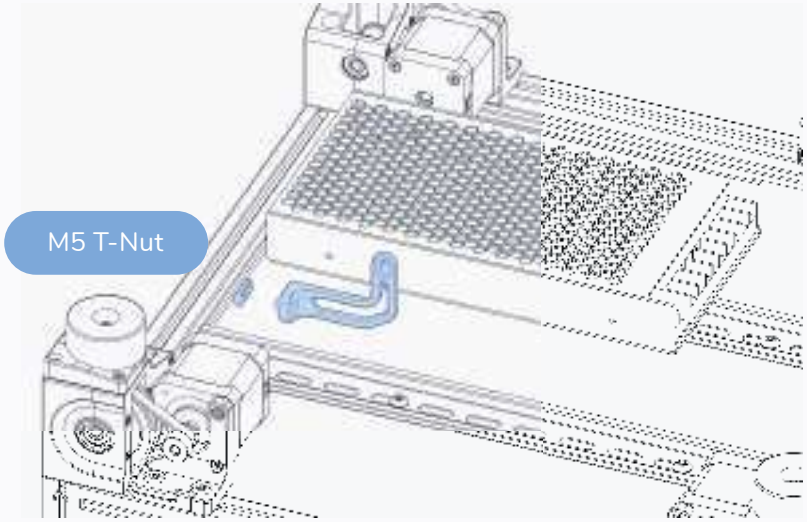


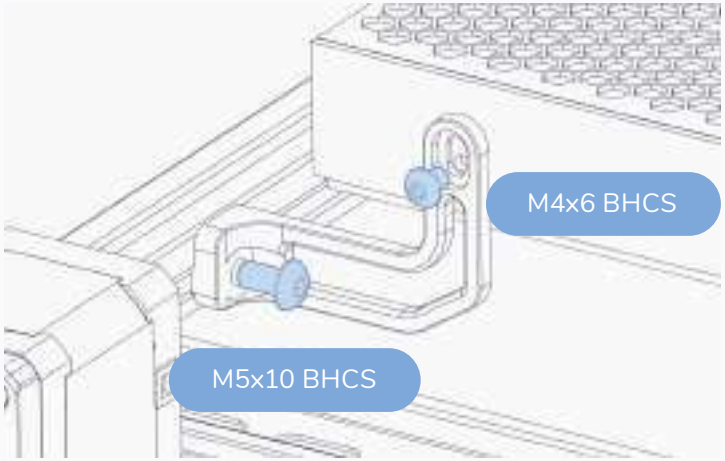
SNAP INTO PLACE

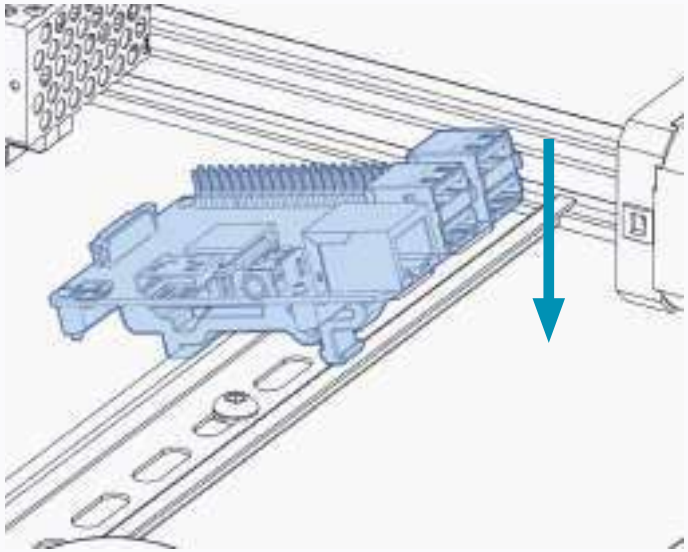
Press to snap the free side into place. The part should now sit securely on the DIN rail.

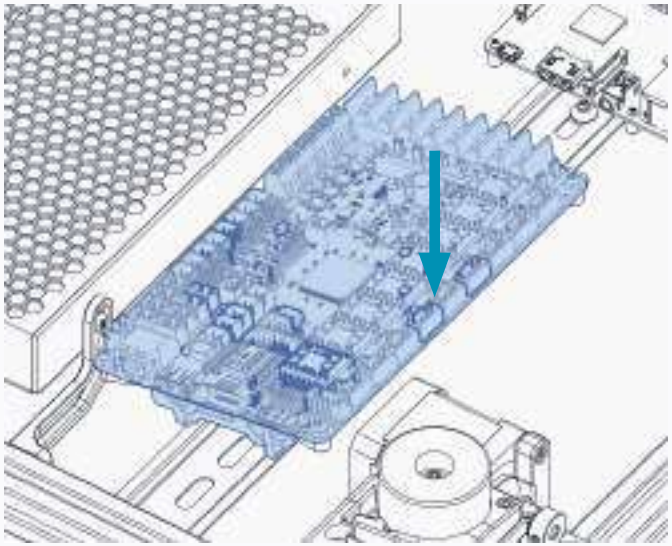


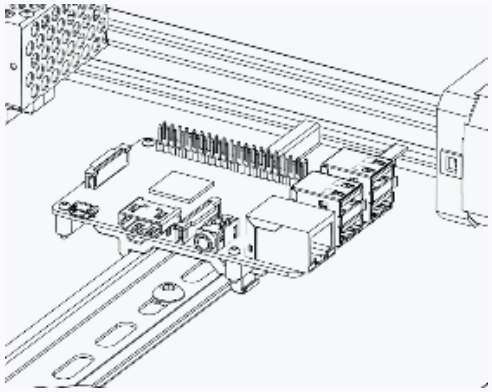


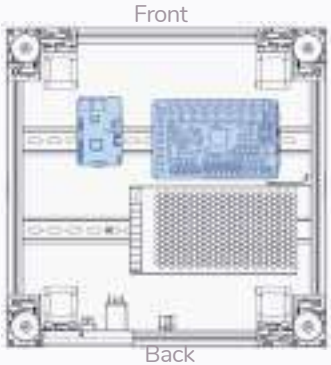


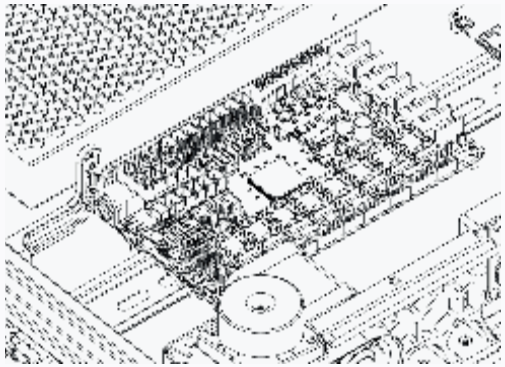


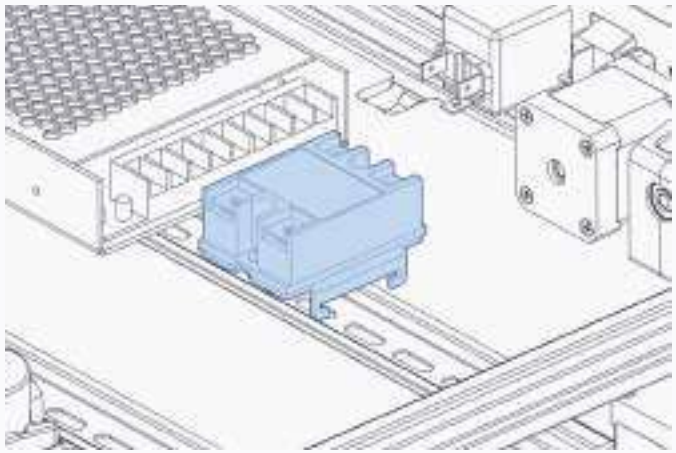


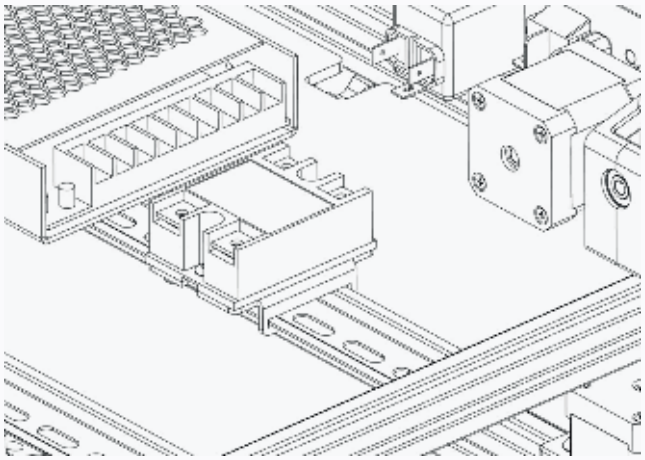


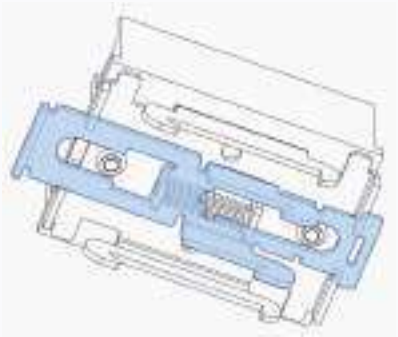










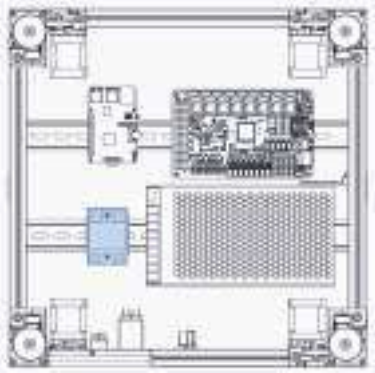


SPRING-LOADED

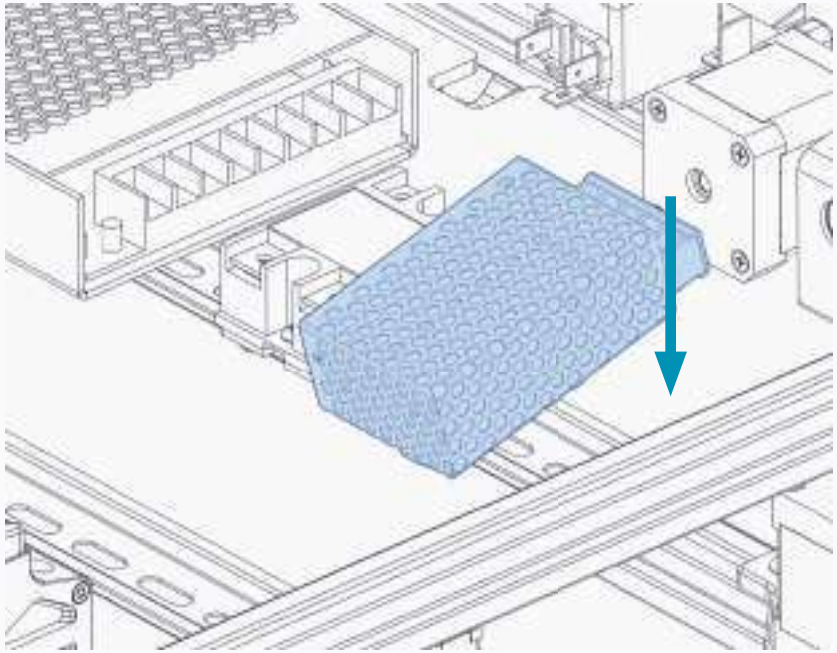
Use a flat head screw driver to pull the latch open. It will lock open.

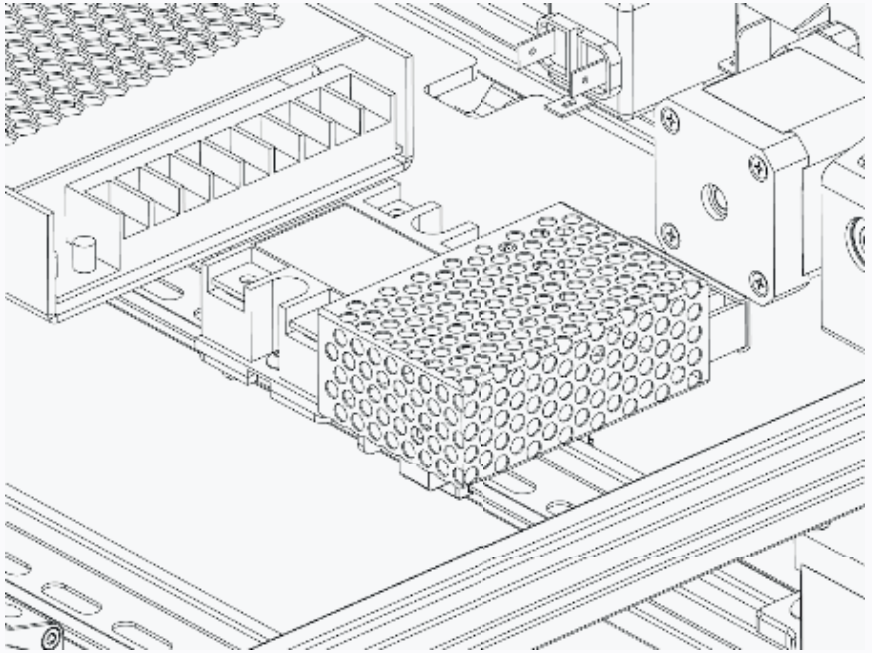
Be careful when releasing the latch, it will snap back into place. Mind your fingers.

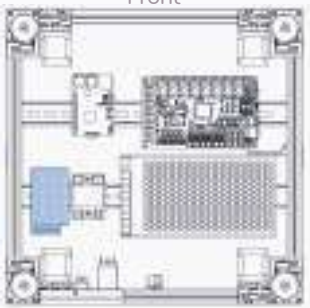
Front



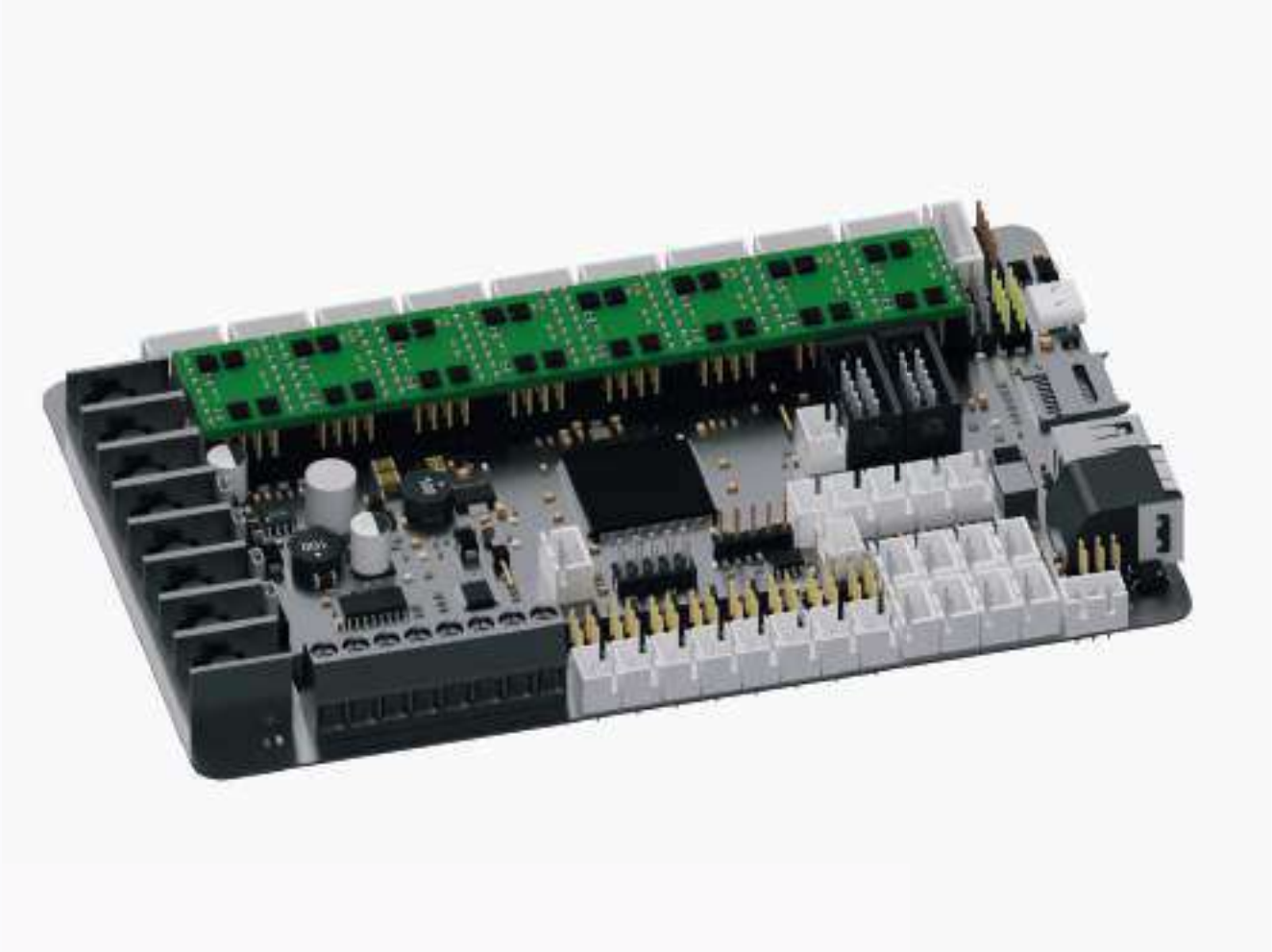
Back







By Feburary 2019 over 100 Voron2 printers had been built and serialized.



CONTROLLER BOARD

The assembly manual will outline the wiring for a Bigtreetech Octopus V1.1 board. You can find additional documentation and alternative configurations on docs.vorondesign.com

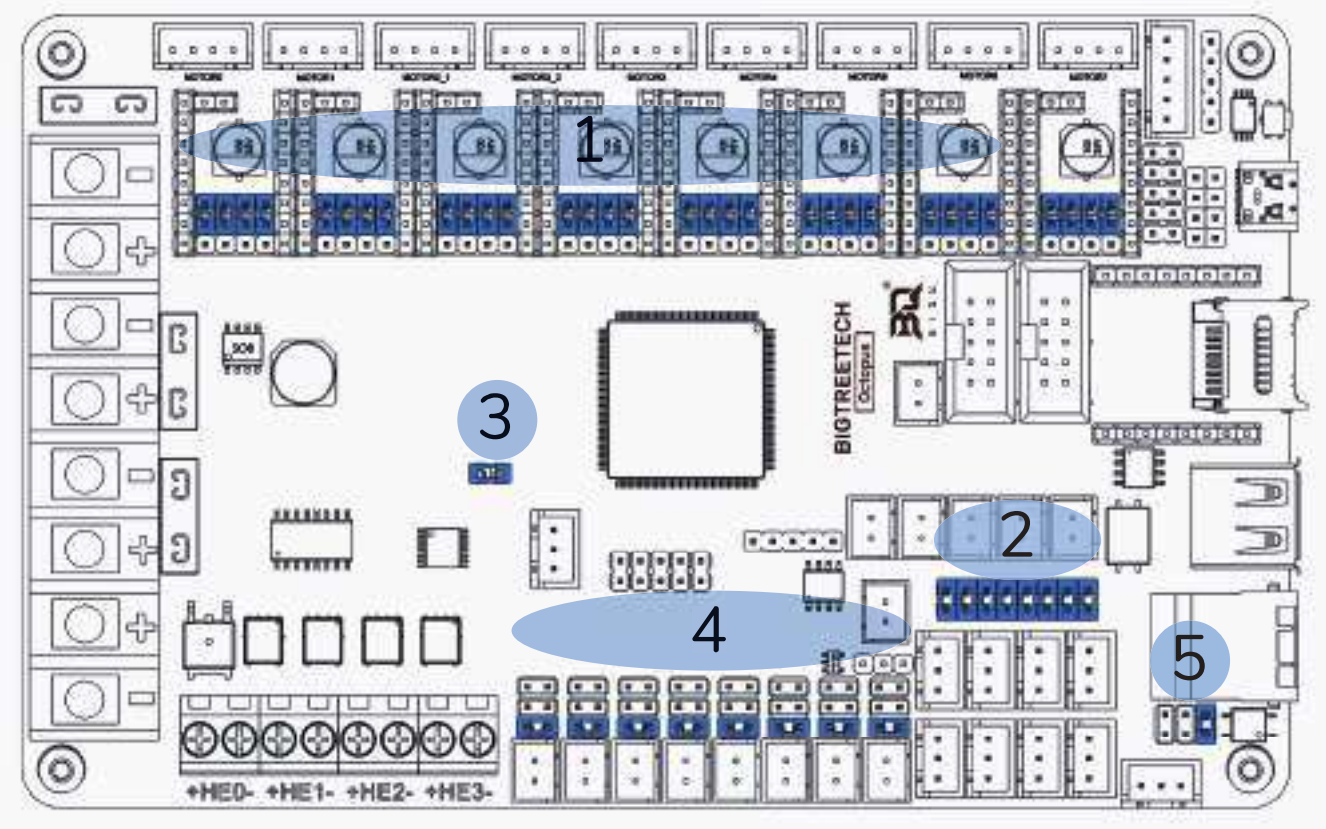
JUMPERS

Several jumpers need to be configured on the controller board. We will begin by removing all the JUMPERS from the controller board (MCU).

1) Remove the jumpers in the "driver sockets".

2) Remove all the jumpers in the "DIAG" header when using microswitch or Hall Effect endstops.

3) Remove the "USB 5V power supply" jumper to avoid the interaction between the USB 5V of Raspberry Pi and the 5V of the MCU.



4) Remove all the jumpers on the "Fan Voltage Selection" headers so that you can set the correct supply voltage.

5) Remove the jumper in "Probe Voltage Selection" header so that you can set it to the correct supply voltage.

Diagram courtesy of @GadgetAngel

JUMPERS

Several jumpers need to be set on the MCU.

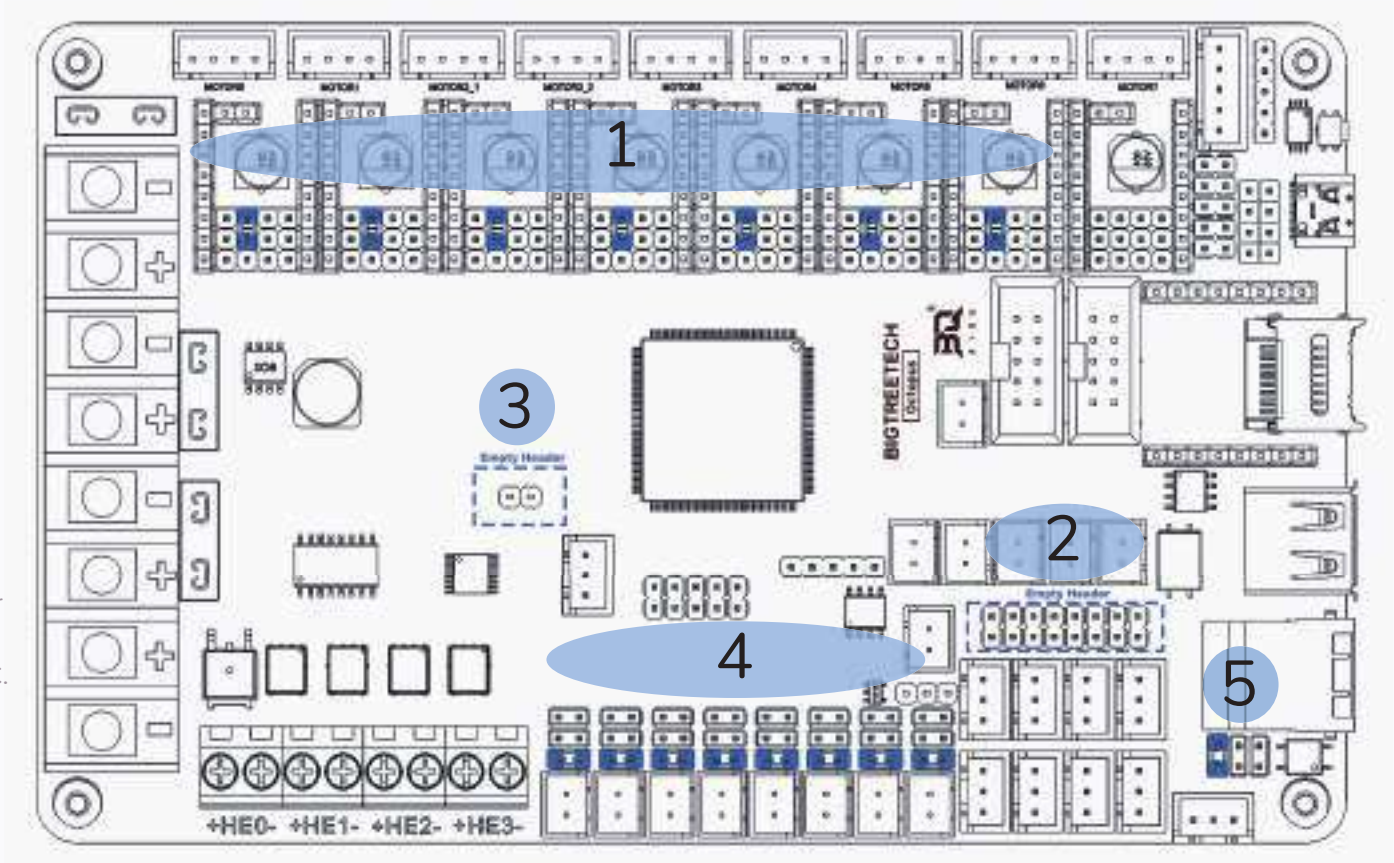
Add the following JUMPERS to the controller board (MCU).

1) Set the jumpers in the "driver sockets" as shown to set TMC2209 UART mode.

2) Ensure all the jumpers in the "DIAG" header are removed.

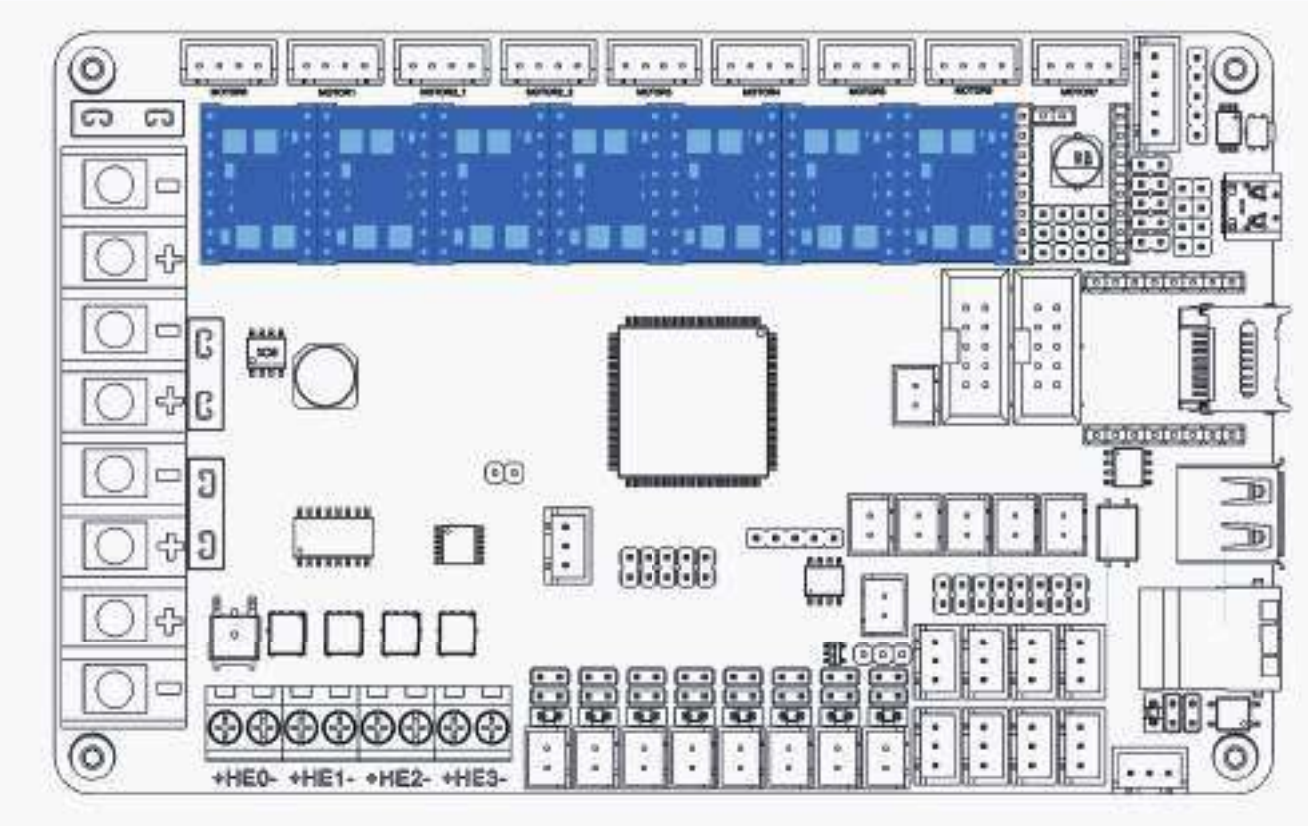
3) Ensure the Power Selection header is empty.

4) Set the Jumpers for the "Fan Voltage Selection" header so they match your fan's voltage. Shown here are the settings for 24VDC.



5) Set the jumper in "Probe Voltage Selection" header to 24VDC.

Diagram courtesy of @GadgetAngel



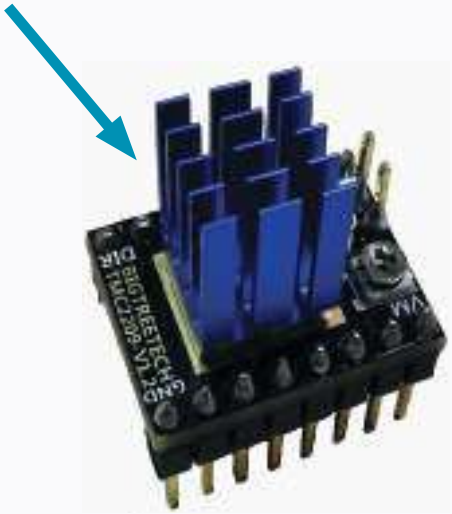
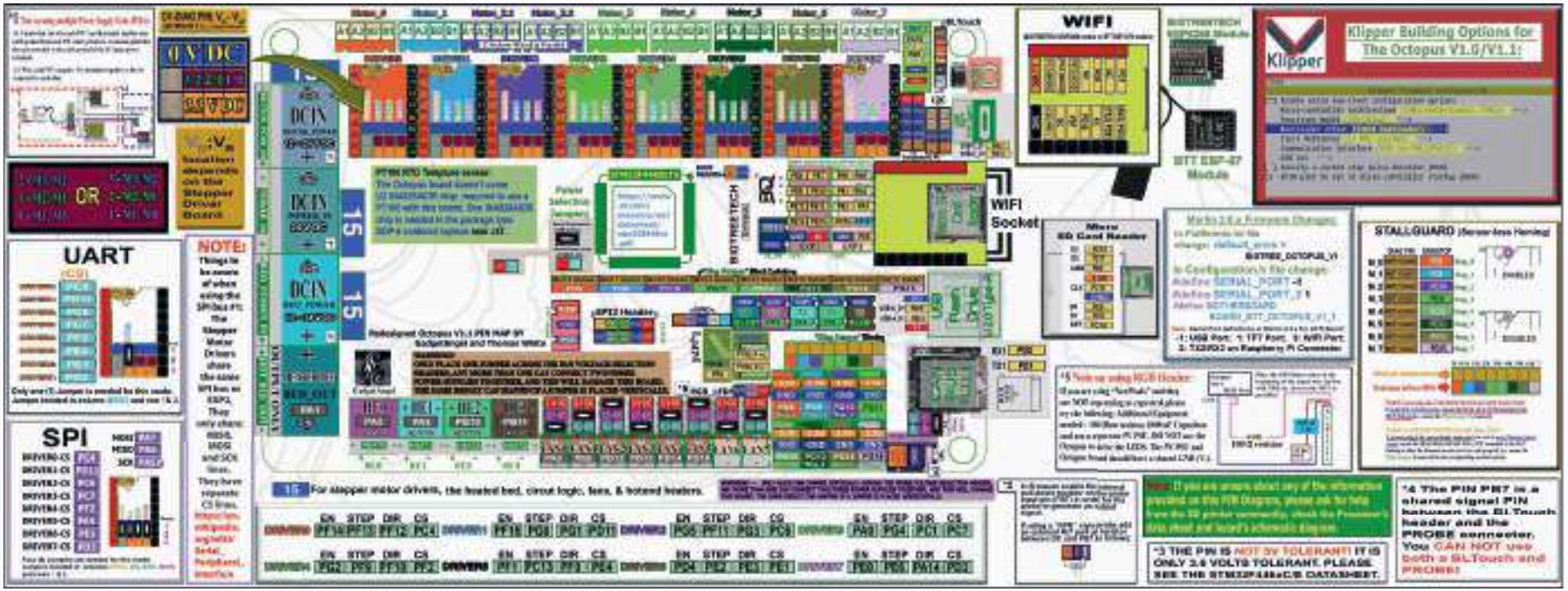


Diagram courtesy of @GadgetAngel

OCTOPUS PINOUT REFERENCE

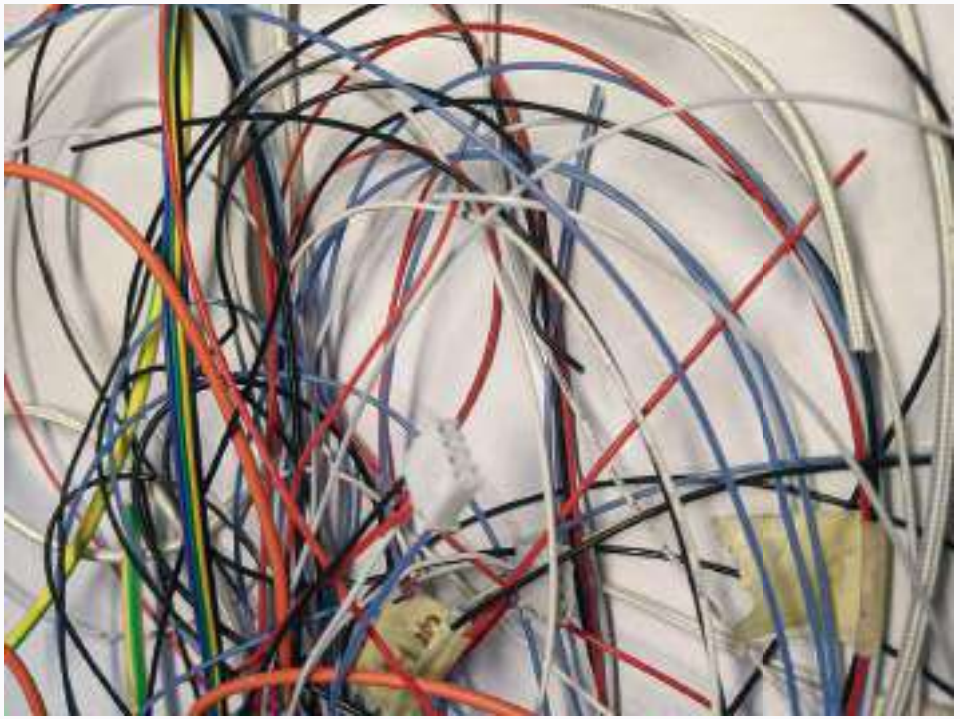
This Coloured PIN diagram can be found on GadgetAngel's GitHub repository for the Octopus V1.1

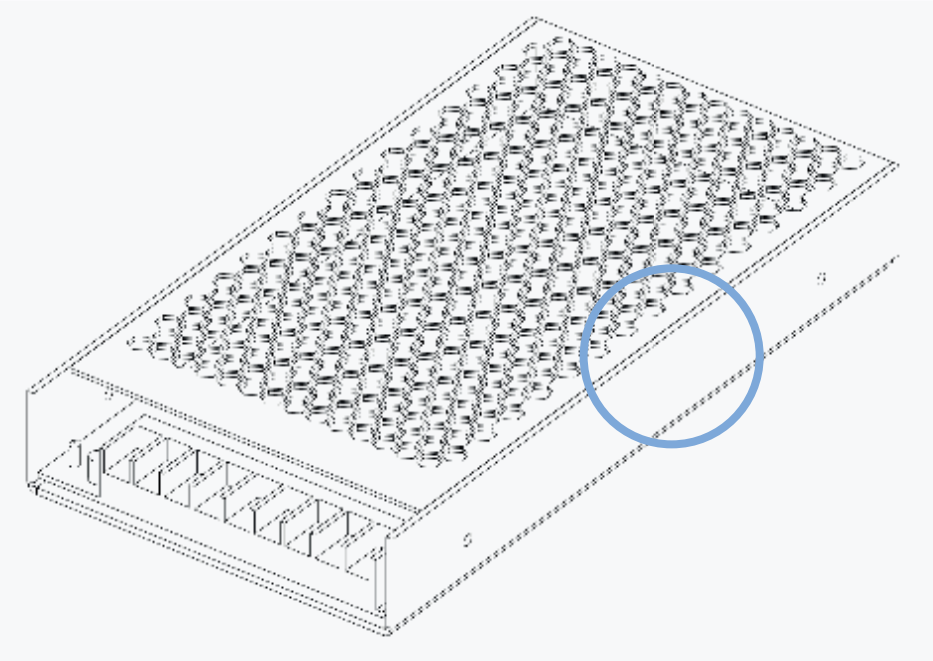


The original PIN diagram can be found on Bigtreetech's GitHub repository for Octopus V1.1 (preview friendly version)

Diagram courtesy of @GadgetAngel

A year later this figure grew to 350 Voron2 printers.

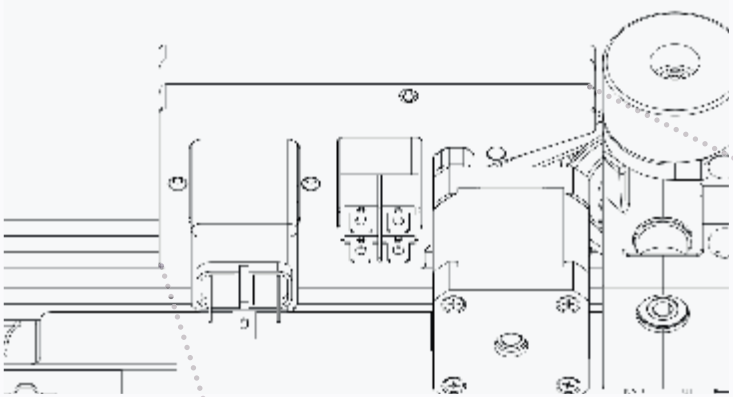




INPUT VOLTAGE SWITCH

Check the input voltage switch of the power supply. It is located in the highlighted area.

Make sure the selection matches your local mains voltage. Refer to the Mean Well LRS-200 datasheet for possible settings (voron.link/e0szdyh).



ATTACH 250MM OF WIRE

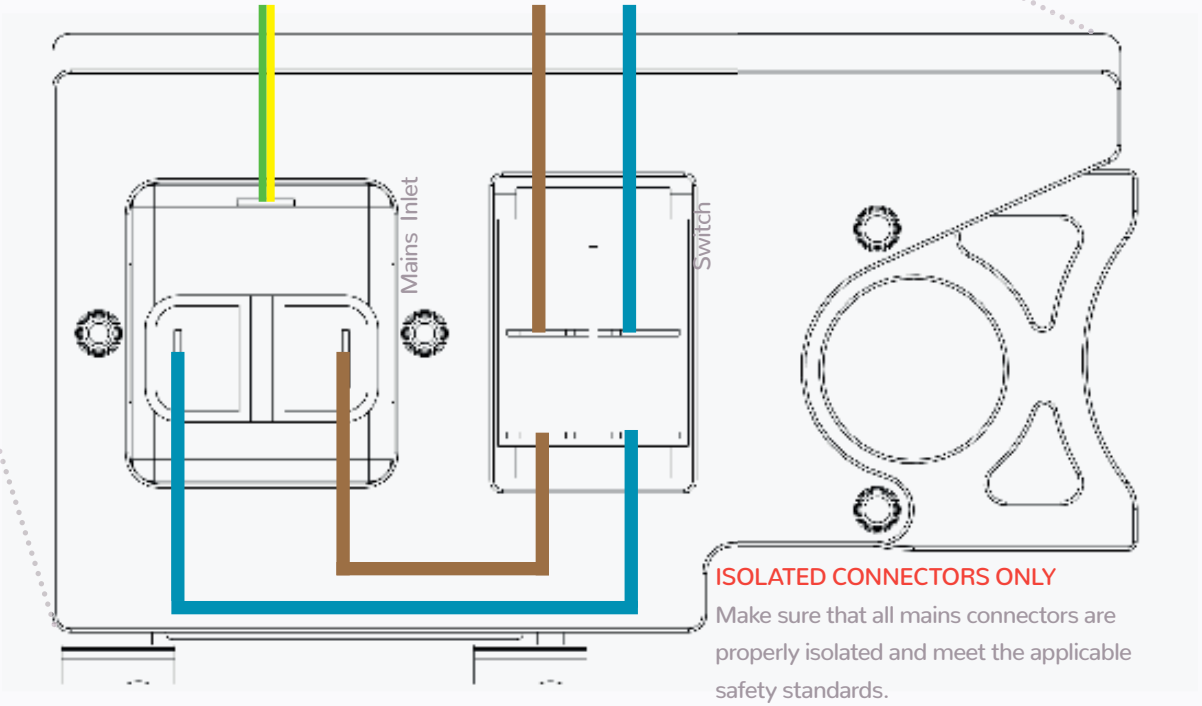
Cables should be at least 1mm² (AWG18) or thicker depending on local regulations.

MAINS INLET WIRING

We show the wiring in the IEC colour scheme. Depending on your region the colour scheme and wiring standards will differ.

Mains wiring should only be done by qualified personnel trained in local regulations and safety standards. Depending on your local regulations you may be forbidden from wiring the mains side and/or putting the printer into operation; seek professional assistance.

Failure to observe those could result in bodily harm.



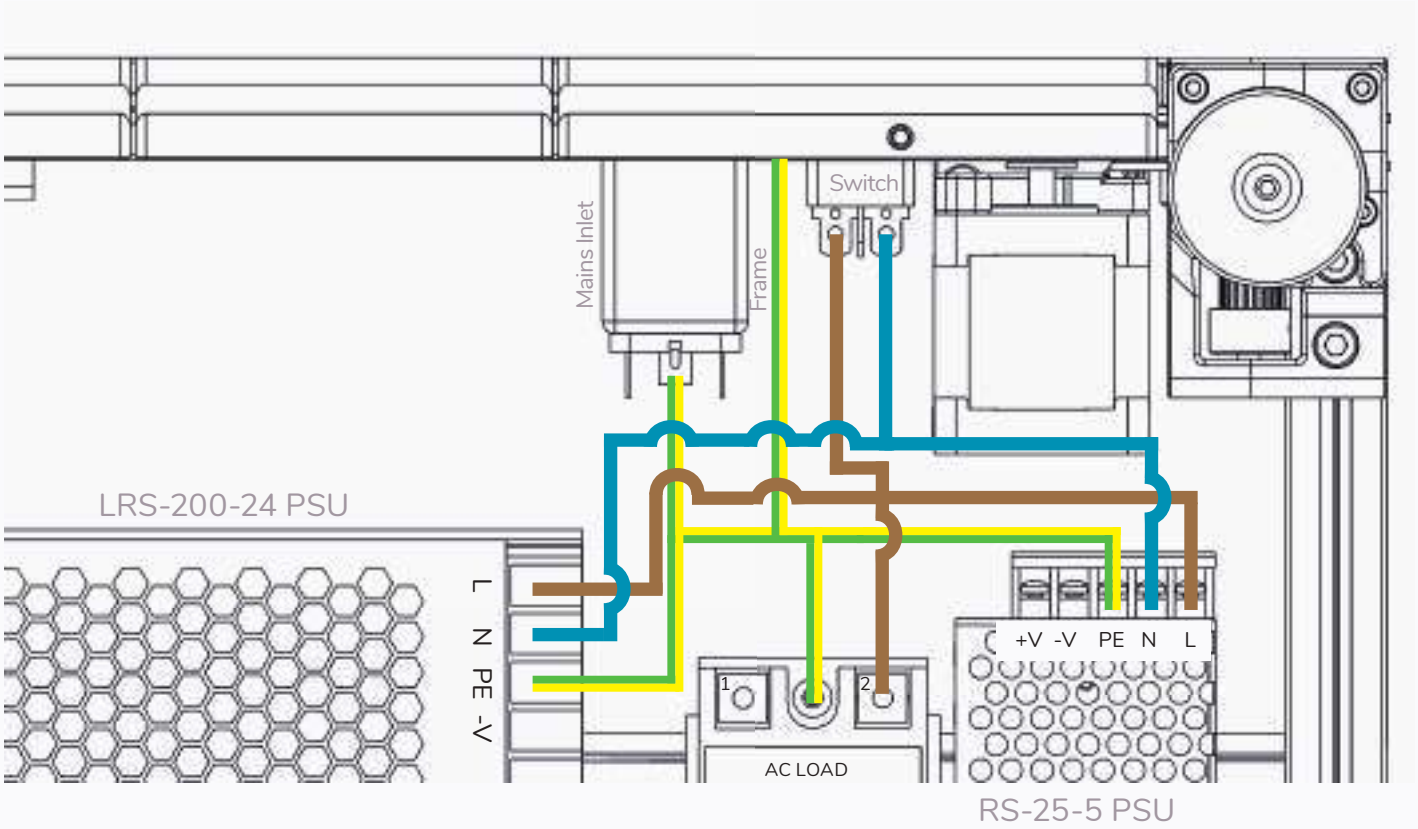
ISOLATED CONNECTORS ONLY

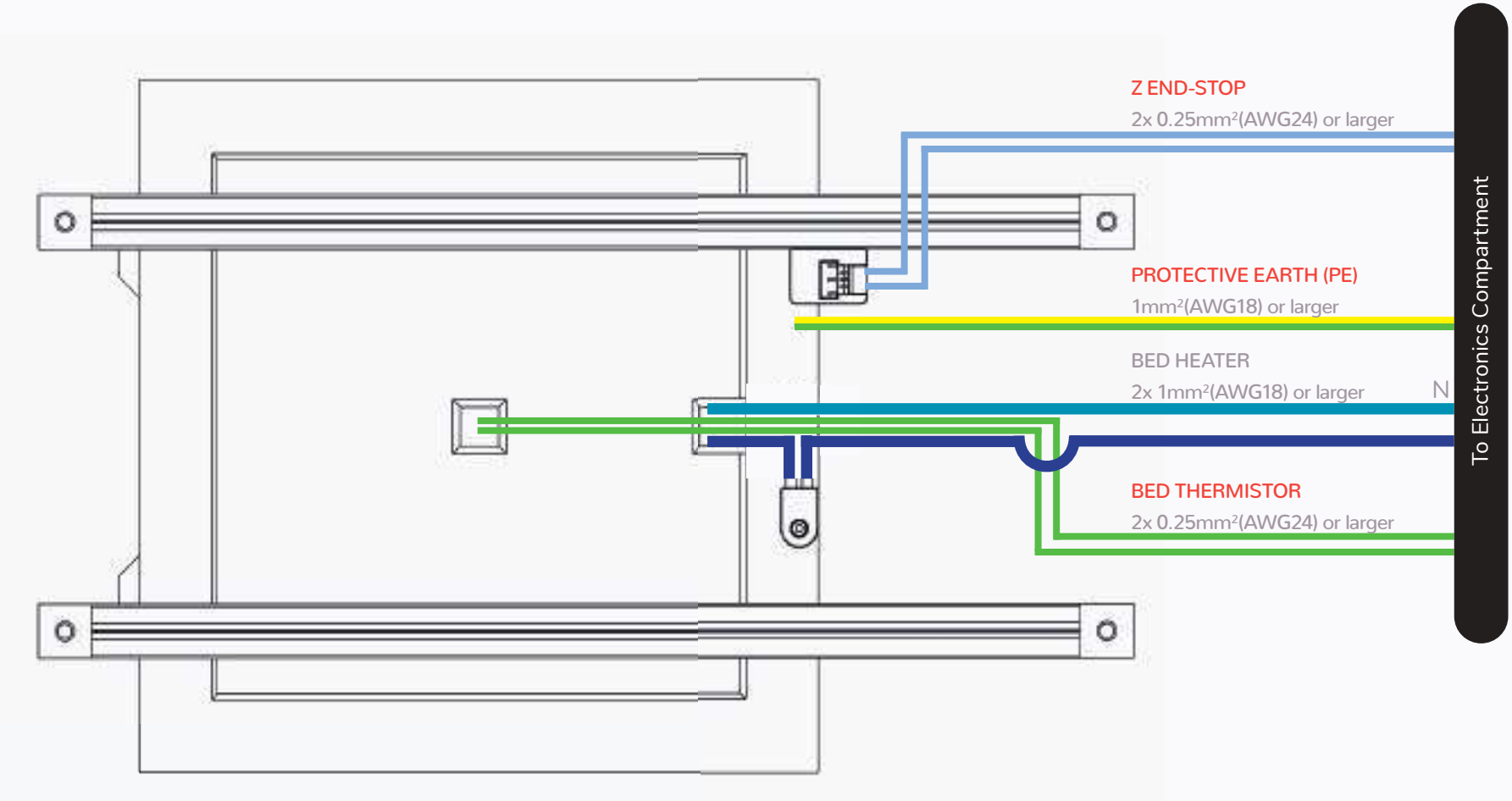
Make sure that all mains connectors are properly isolated and meet the applicable safety standards.

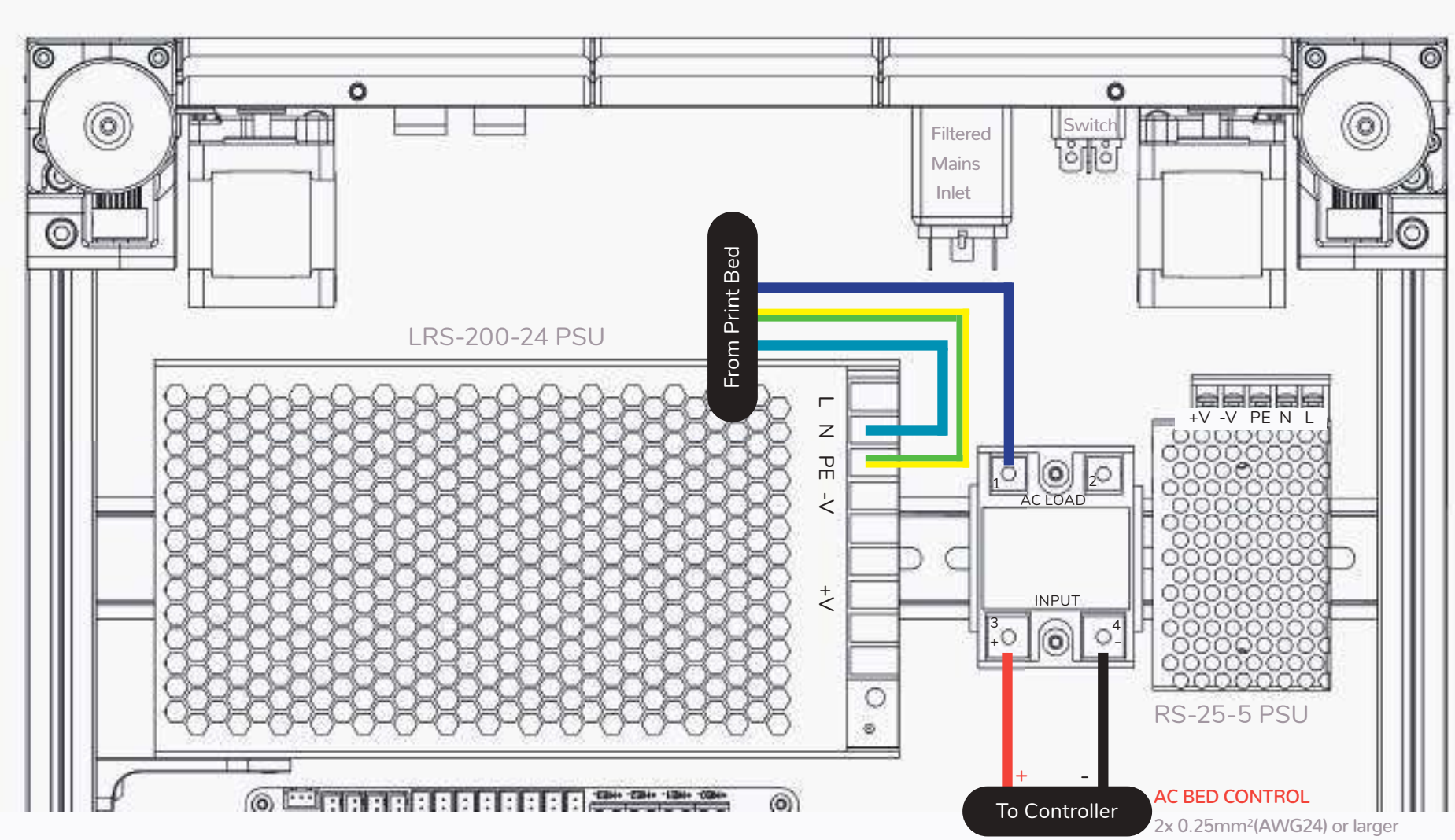
MAINS WIRING CONTINUED

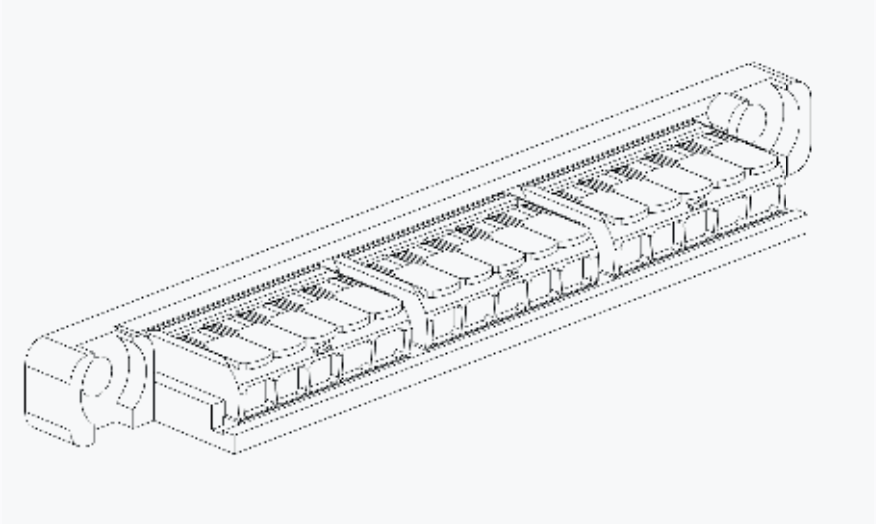
Secure the wires with cable clips / cable tie anchors.

The bed heater is powered by AC voltage and receives its PE in a later step.
Observe your local regulations in regards to the Protective Earth connections for the frame/other components.





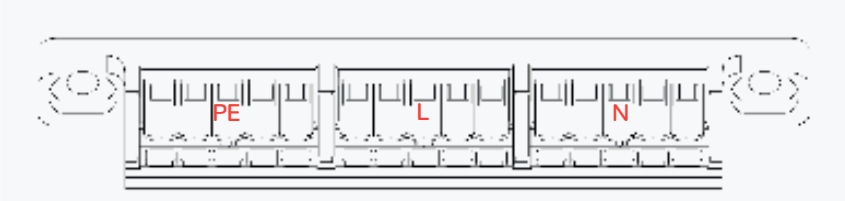


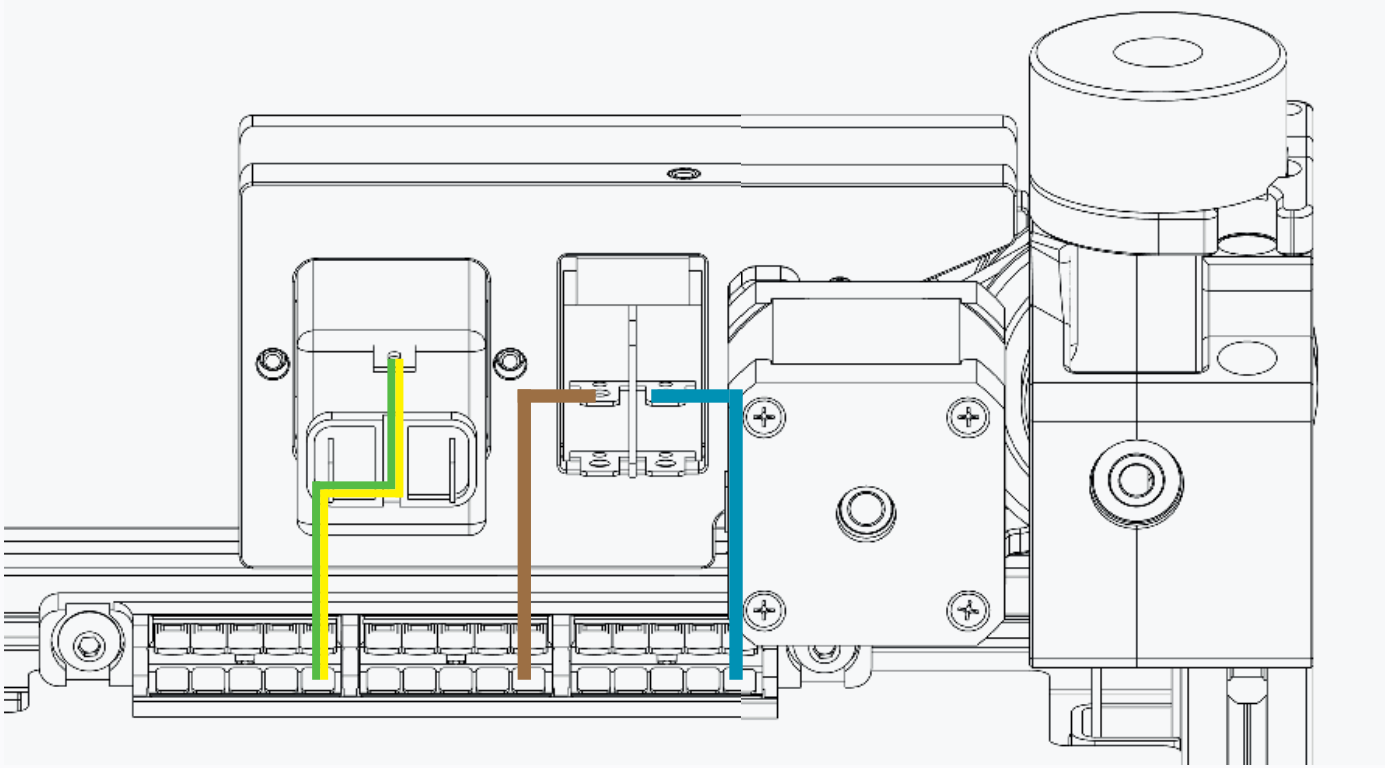


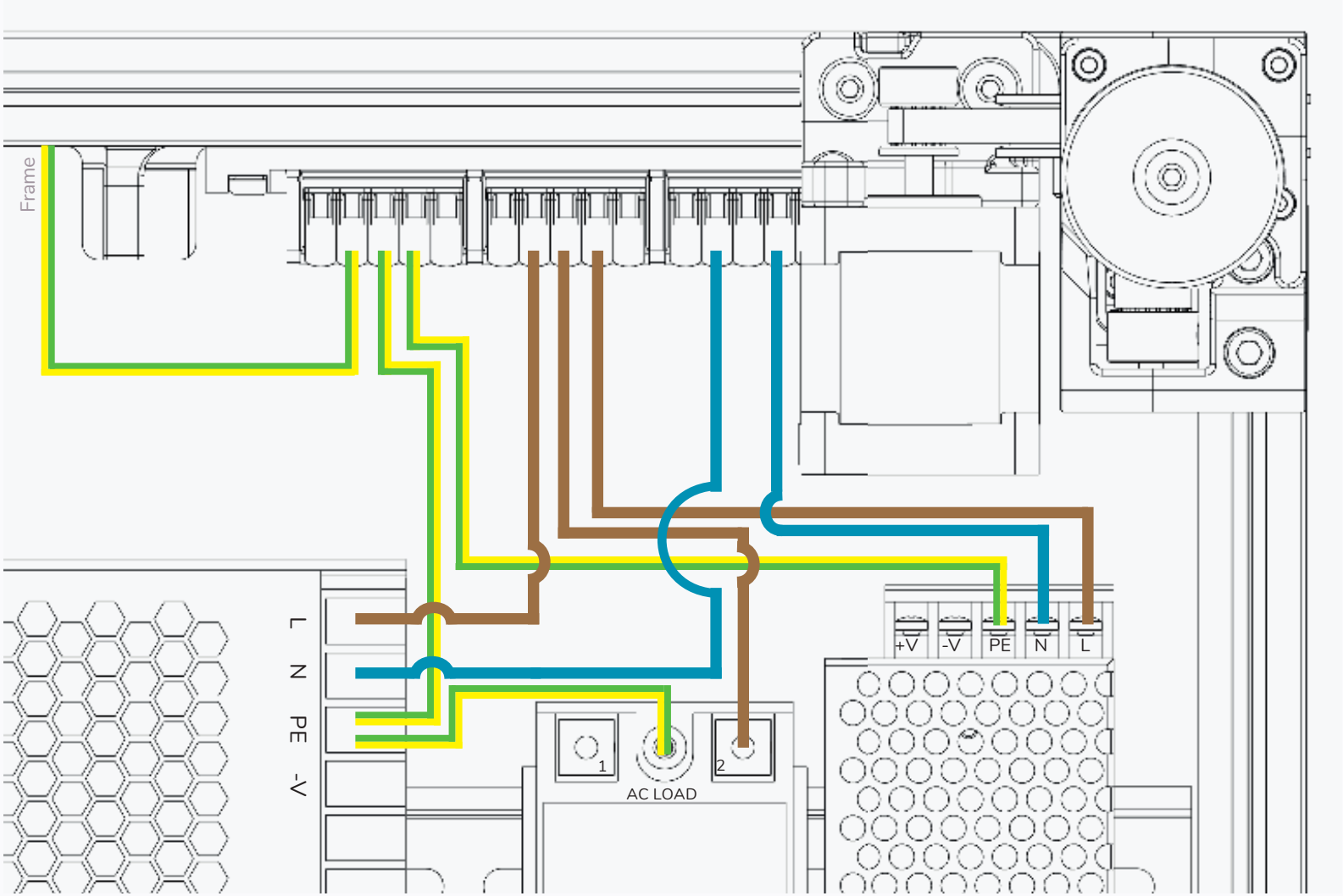
OPTION: WAGO CLAMPS FOR MAINS

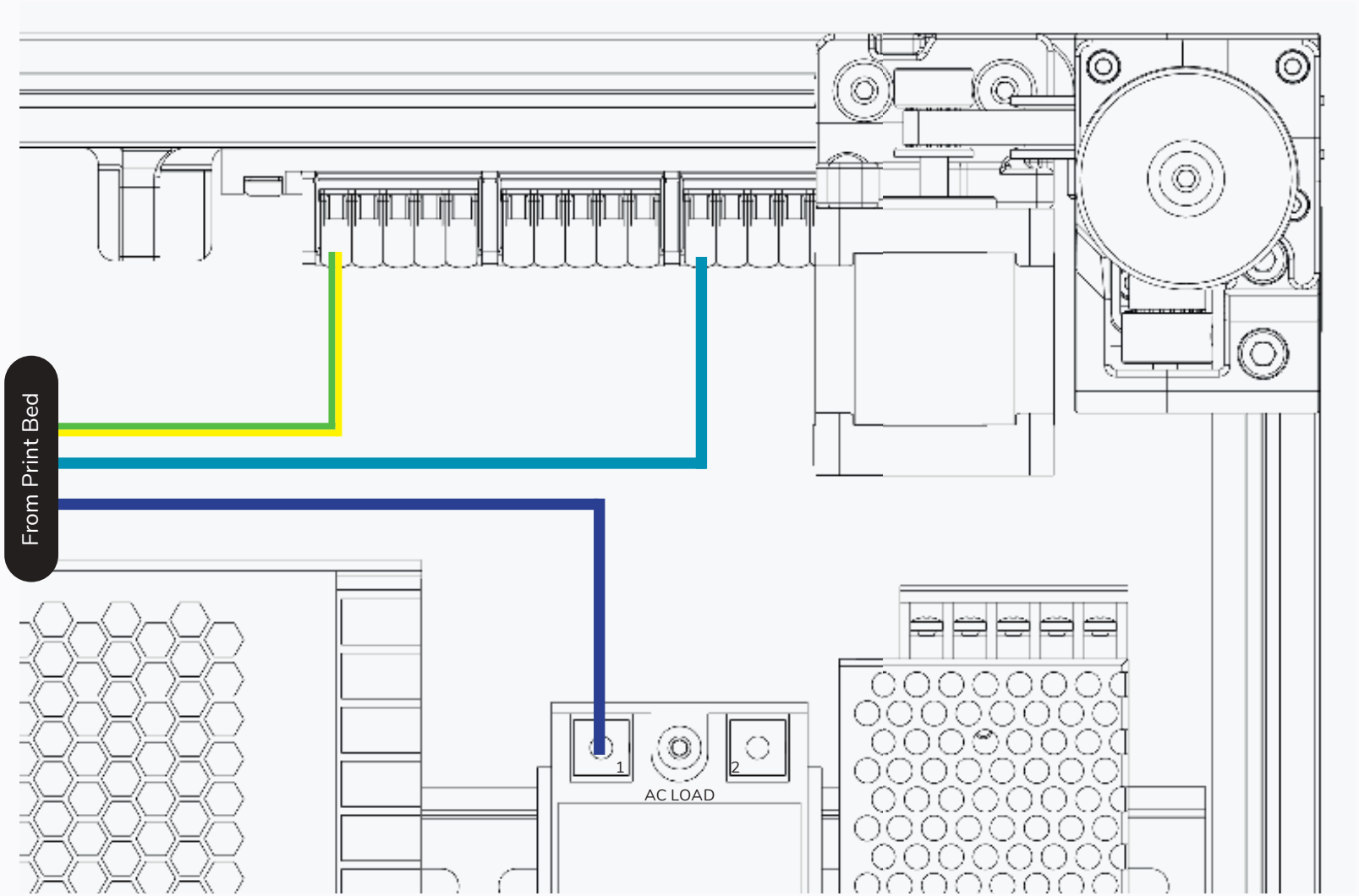
WAGO wire clamps allow for a clean and easy wiring of the mains side.

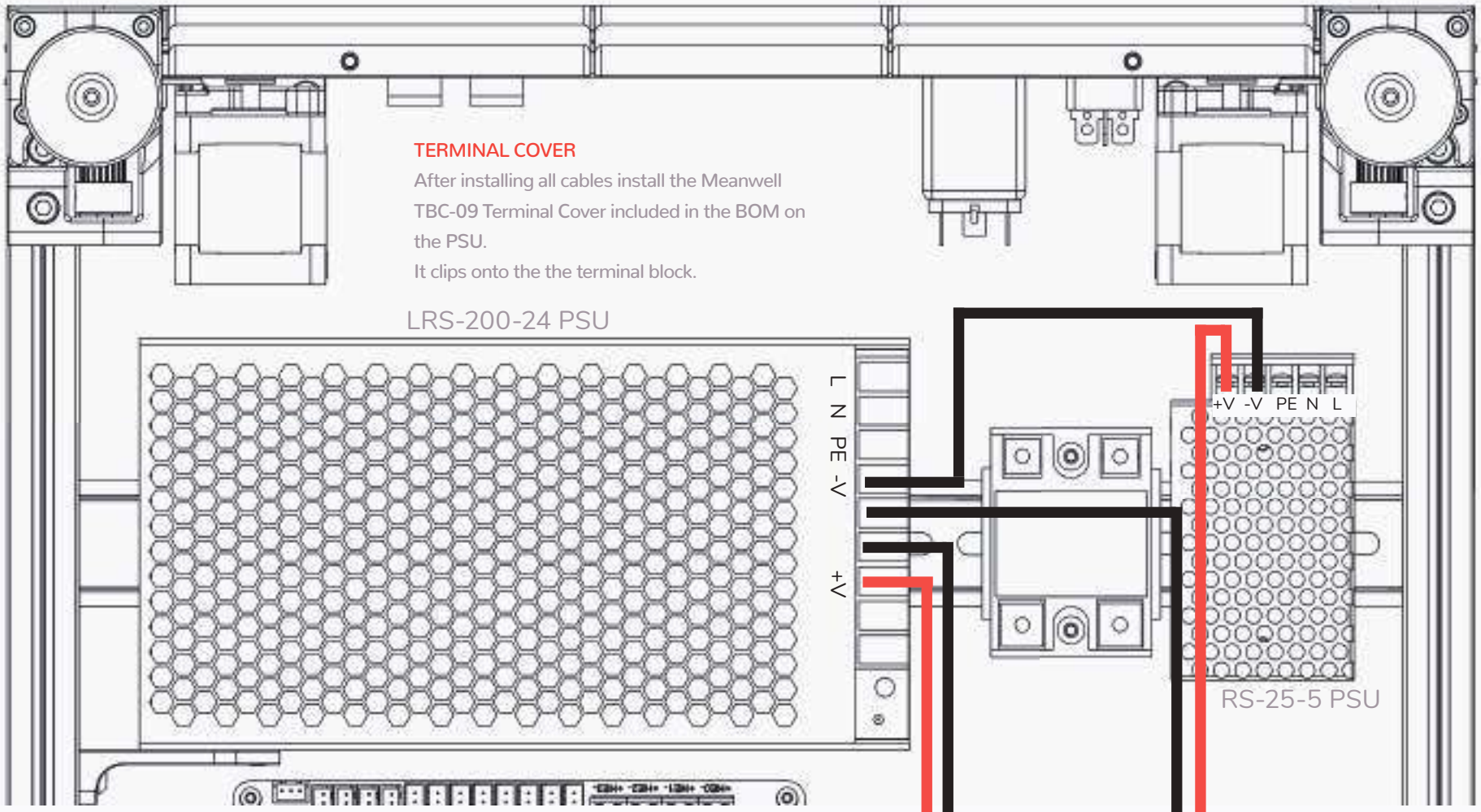
You may want to label your clamps as shown below.











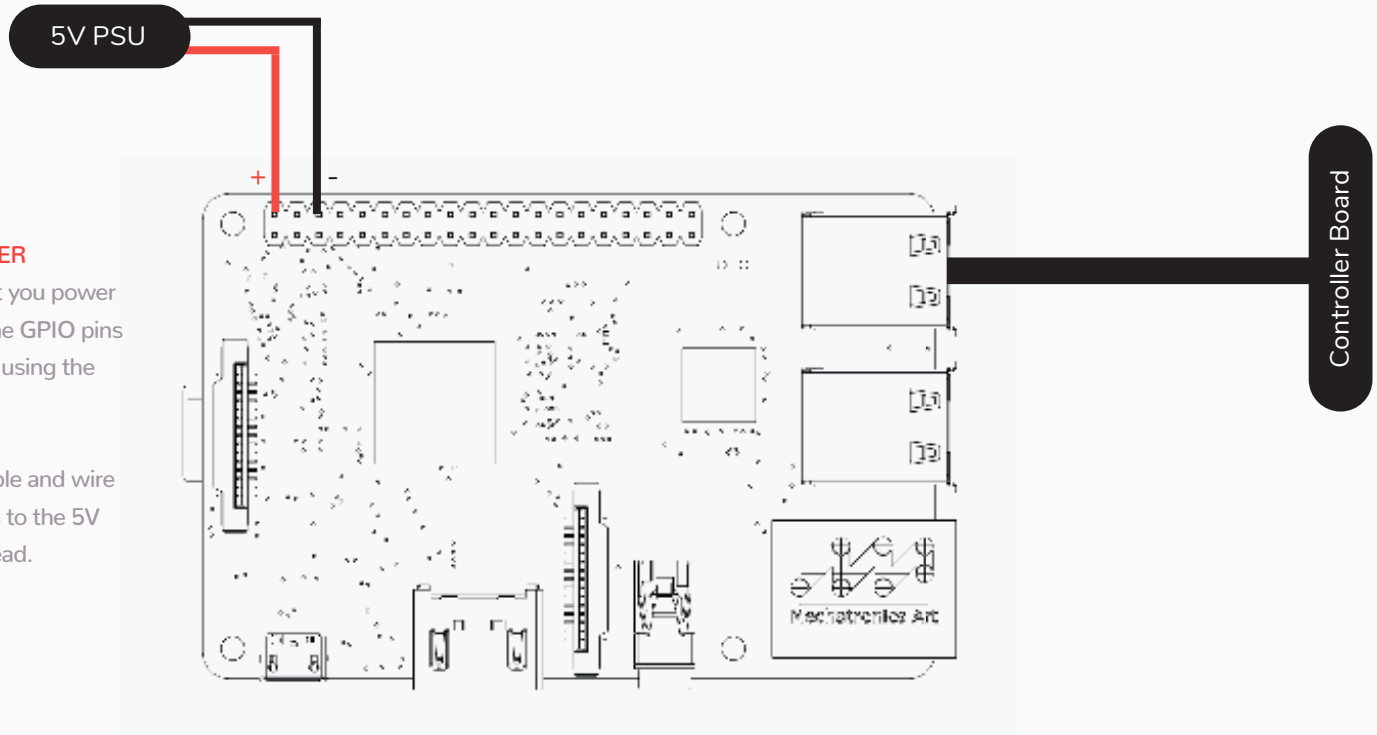
TERMINAL COVER

After installing all cables install the Meanwell TBC-09 Terminal Cover included in the BOM on the PSU.
It clips onto the the terminal block.

CABLE CROSS SECTION

Cables to the controller board should be 1mm² (AWG18) or larger.

0.5mm² (AWG20) is sufficient for the connection to the Raspberry Pi.



RASPBERRY PI POWER

While we suggest that you power the Raspberry Pi via the GPIO pins you may also power it using the "Power-In" USB port.

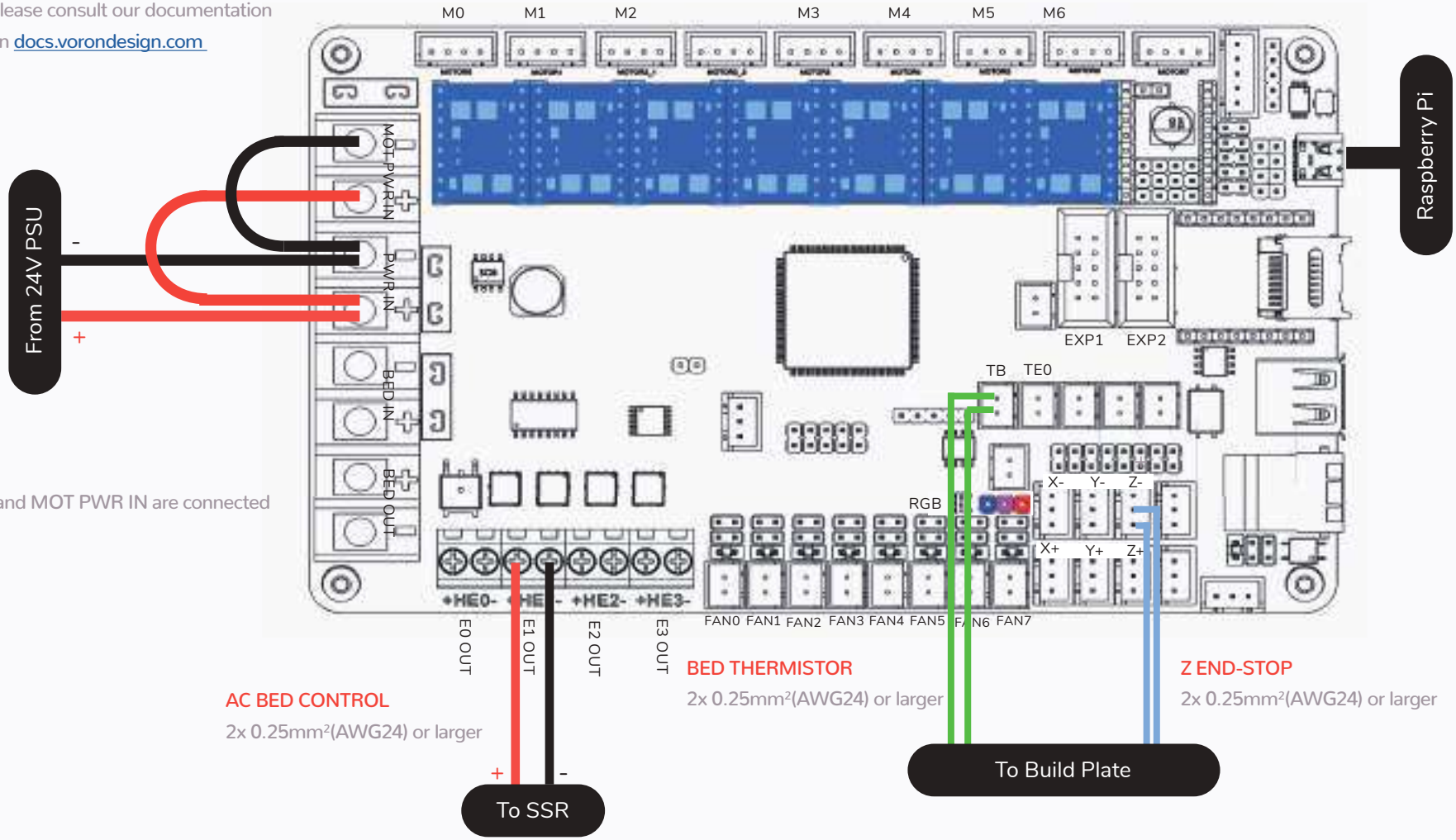
Cut a suitable USB cable and wire the + and ground lines to the 5V DC/DC converter instead.

JUMPERS

Several jumpers may need to be configured on the controller board. Please consult our documentation on docs.vorondesign.com

CONTROLLER BOARD

The assembly manual will outline the wiring for a Bigtreetech Octopus V1.1. You can find additional documentation and alternative configurations on docs.vorondesign.com



PWR IN

PWR IN and MOT PWR IN are connected to 24V.

AC BED CONTROL

2x 0.25mm²(AWG24) or larger

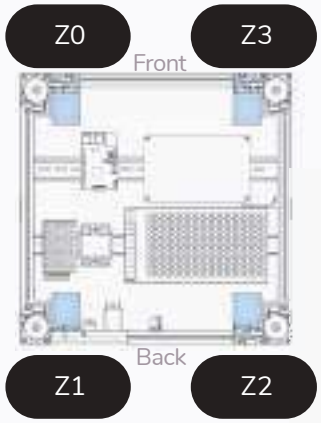
BED THERMISTOR

2x 0.25mm²(AWG24) or larger

Z END-STOP

2x 0.25mm²(AWG24) or larger

CONTROLLER BOARD

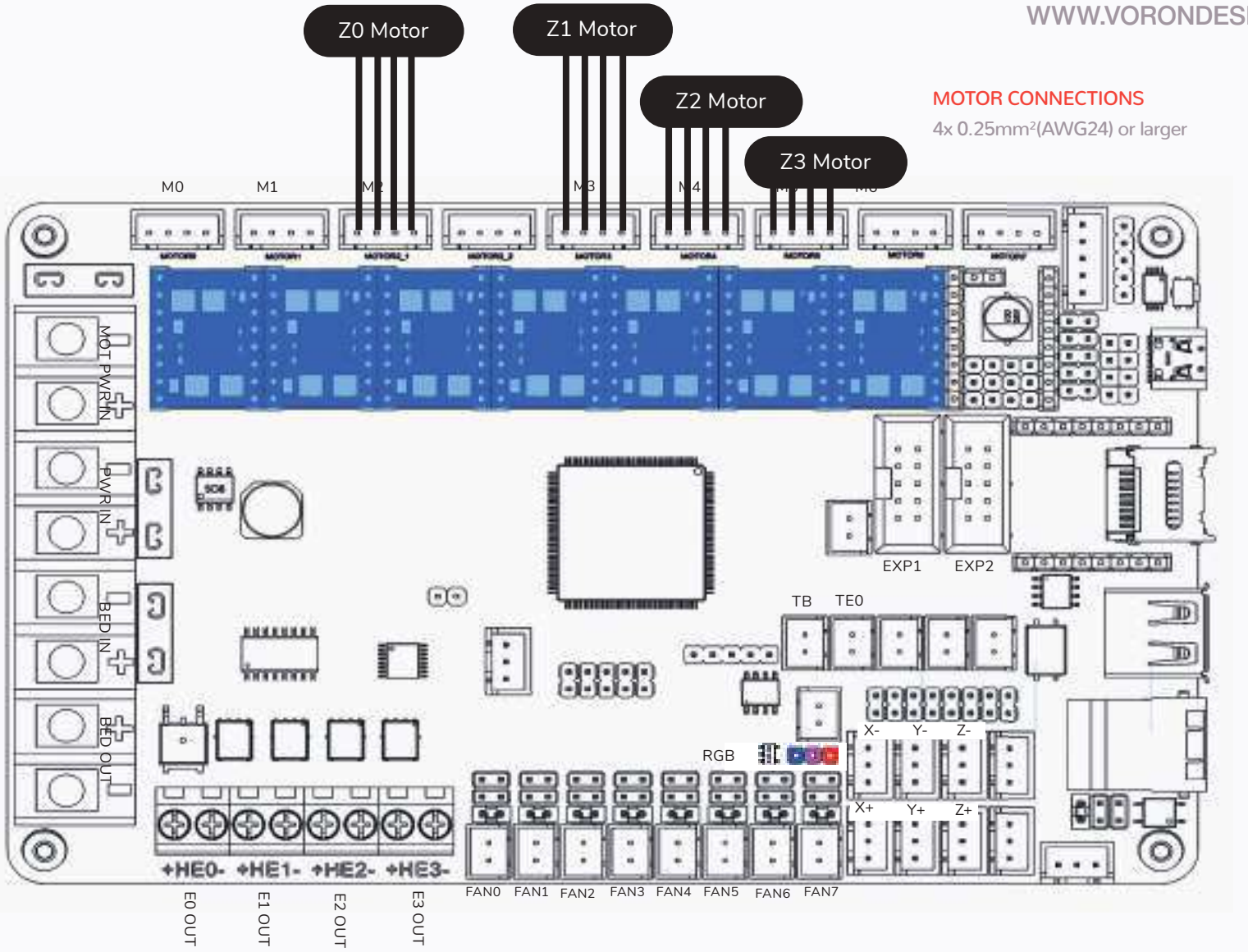


BLACK MOTOR WIRES?

There is no standardized stepper wire colouring scheme. Each manufacturer implements their wires colours slightly different.

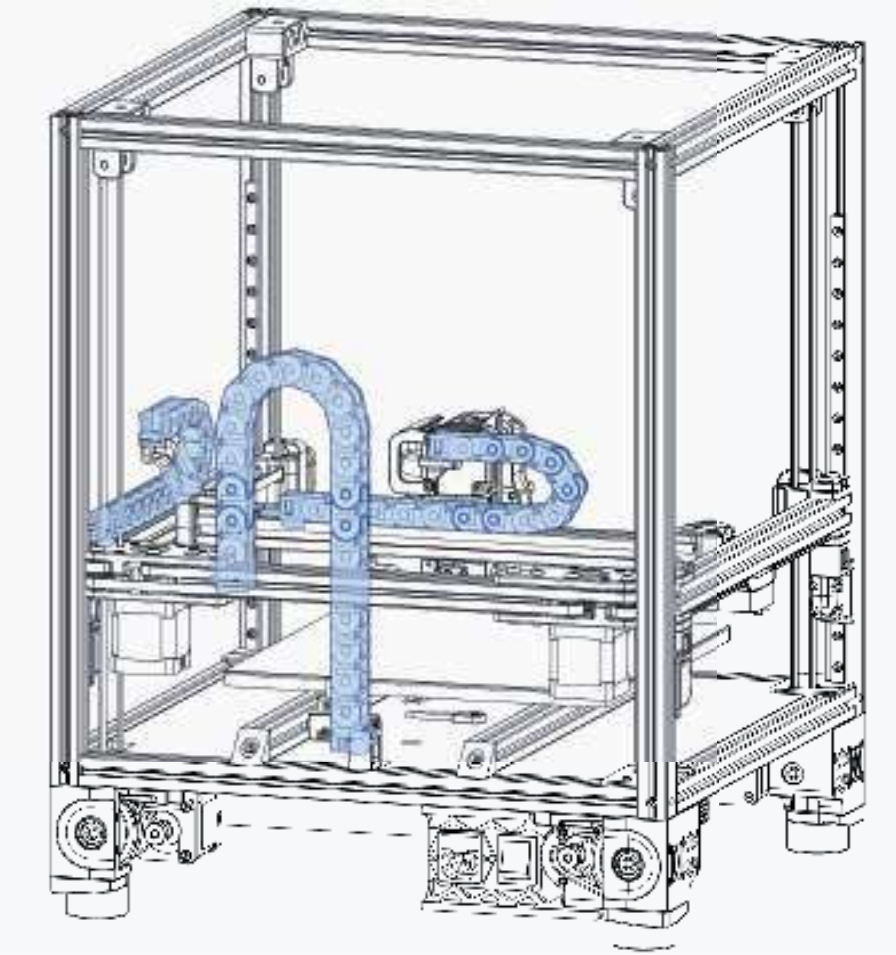
Please consult the datasheet of your stepper motors for the correct order.

If your motors came with plugs it's usually safe to assume that this order is correct.



MOTOR CONNECTIONS

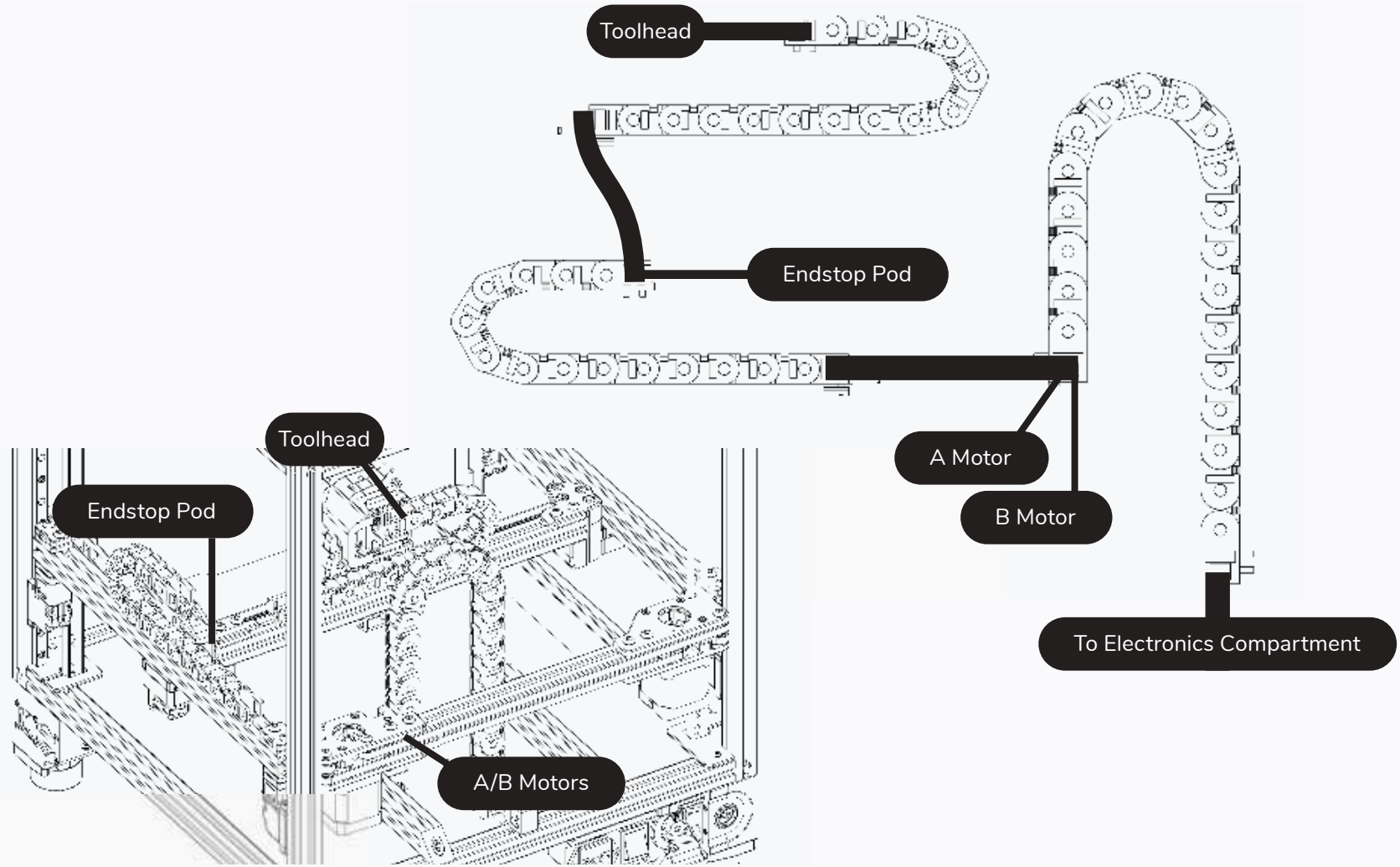
4x 0.25mm²(AWG24) or larger

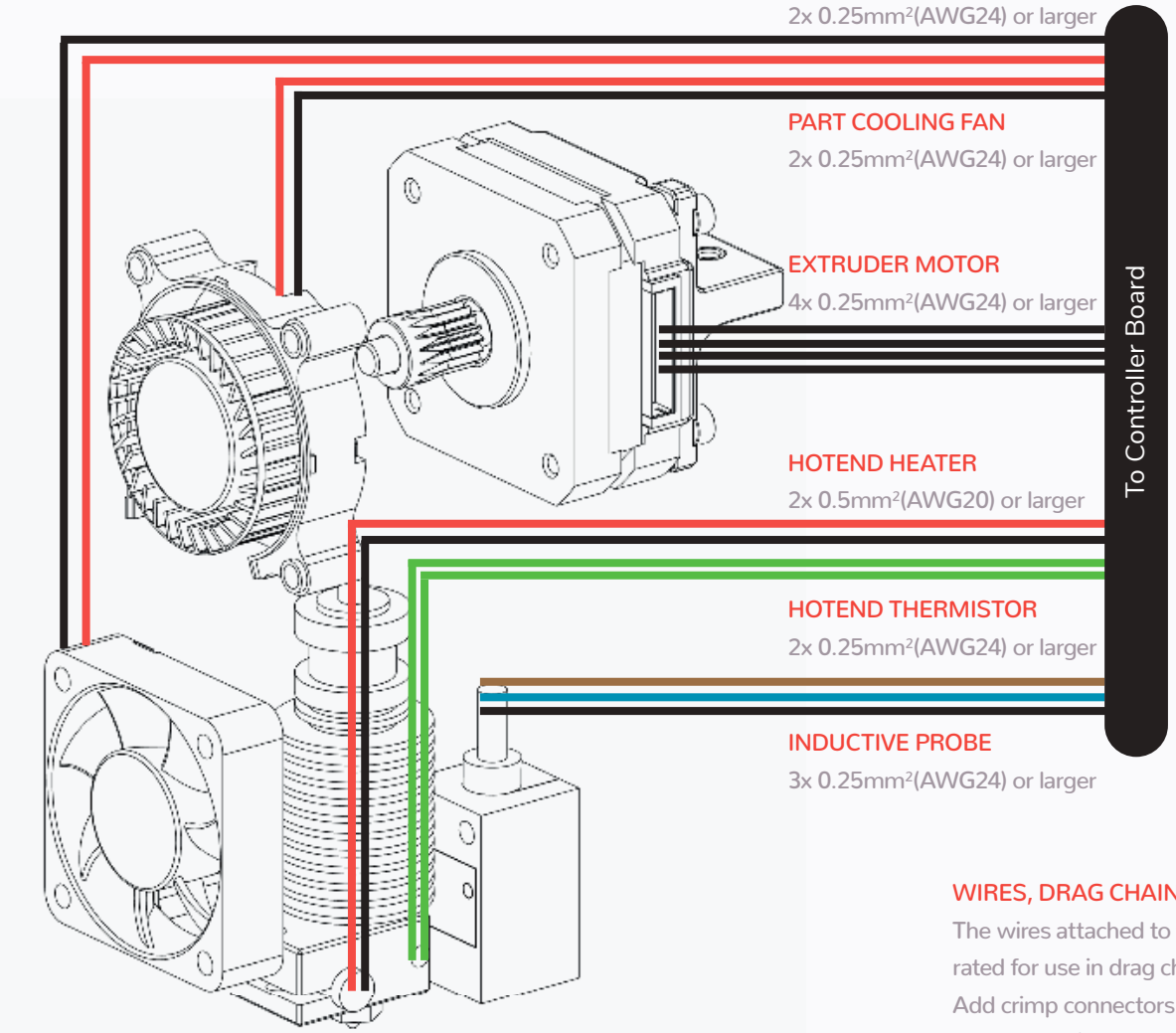


CABLE CHAINS INSTALL

You can opt to install the chains now and fish the wires through the chains or build the complete harness outside of the printer and install it in one go. Either approach does work.

If you sourced a pre-built wire harness completing the harness outside of the printer is recommended.

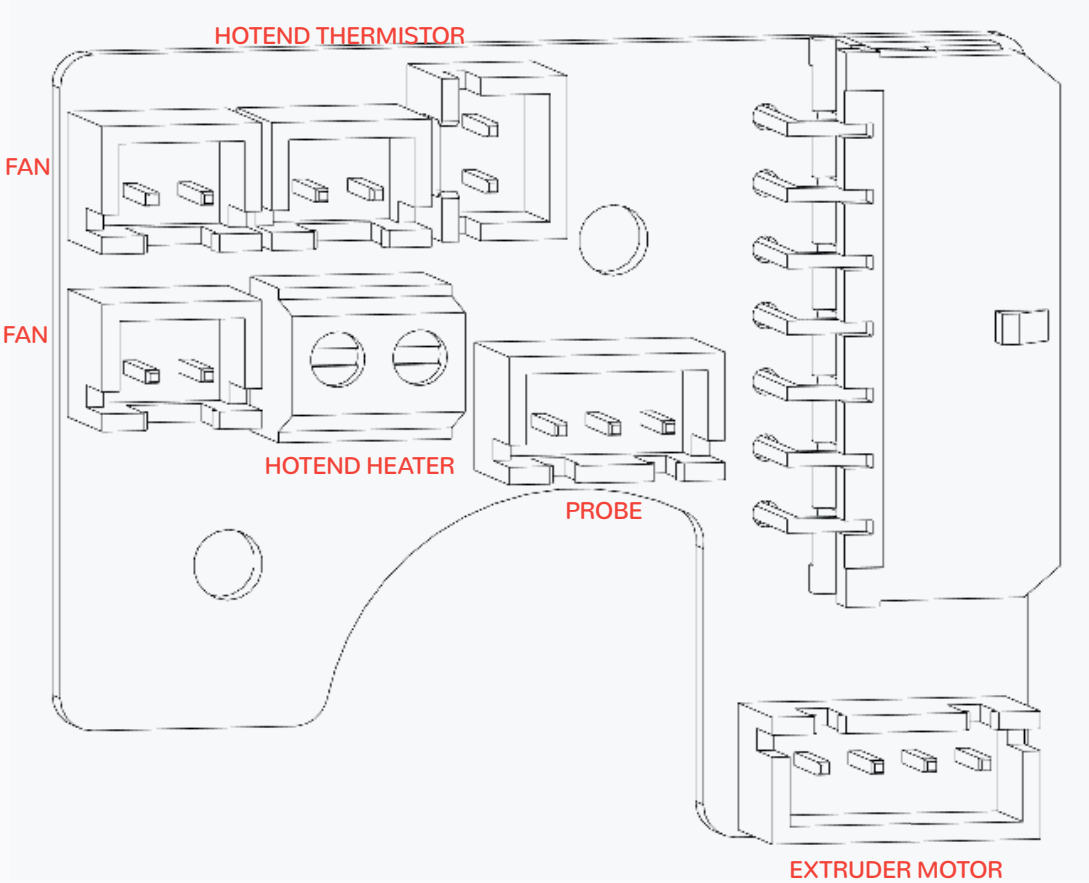




WIRES, DRAG CHAINS AND CRIMPS

The wires attached to the probe, fans, heater, etc. are usually not rated for use in drag chains.

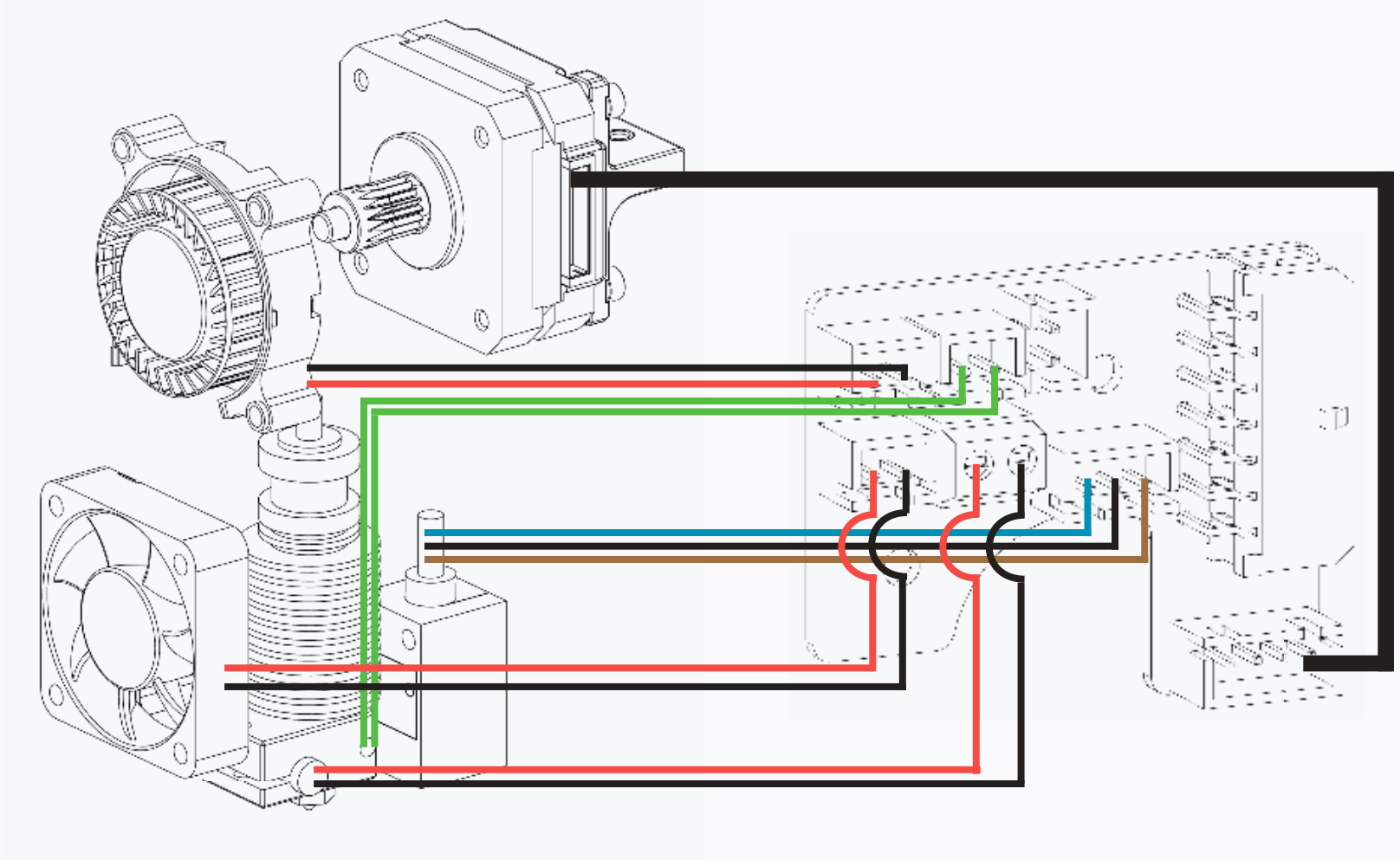
Add crimp connectors at the toolhead and run suitable wire down the drag chains. Refer to the sourcing guide for options.

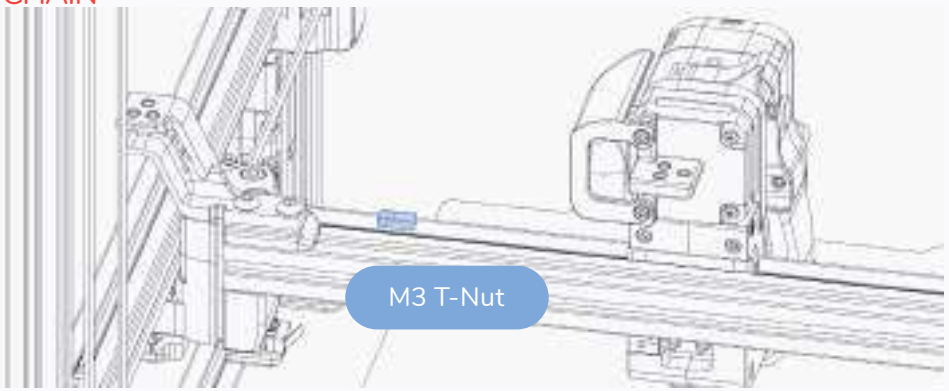


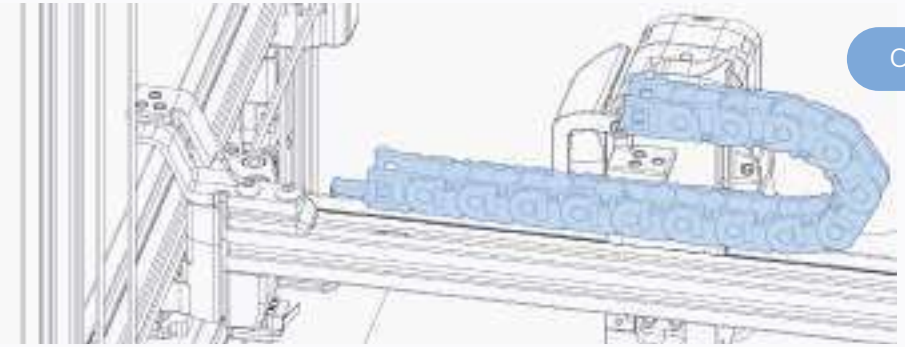
OPTION: TOOLHEAD PCB

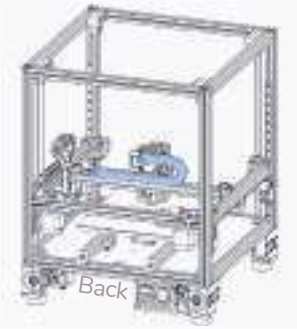
The layout of the toolhead pcb changed over the versions. For a full breakdown visit the link below.

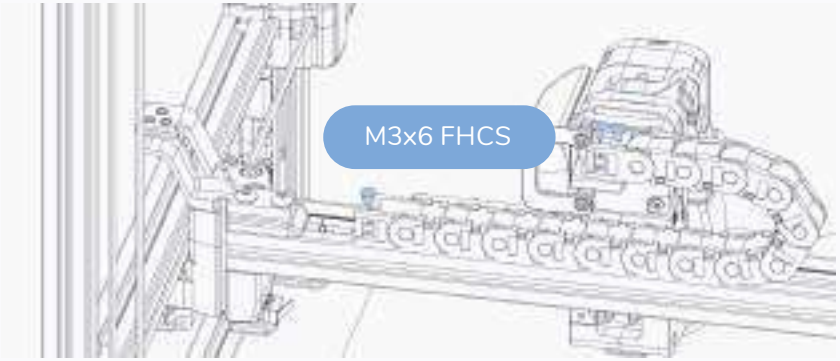
https://voron.link/zopduze

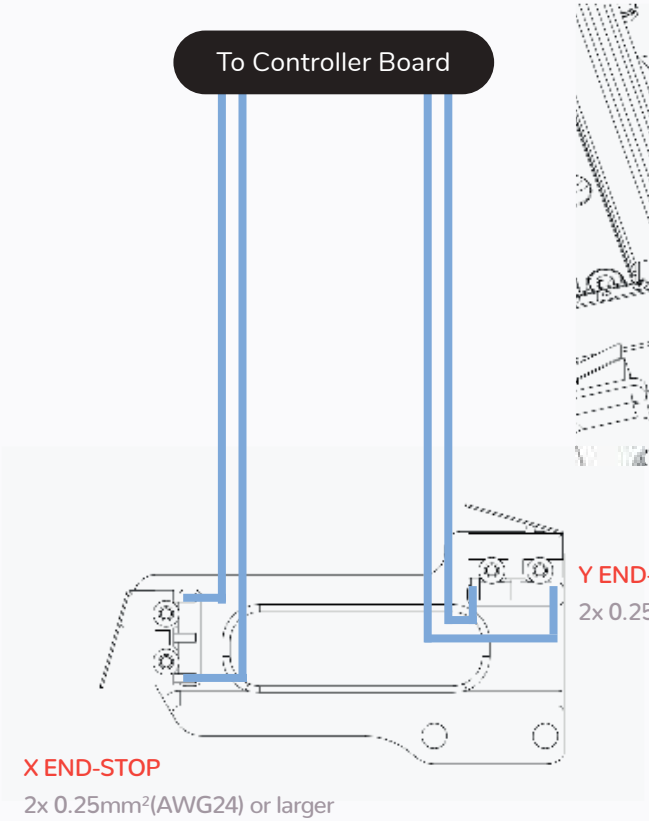


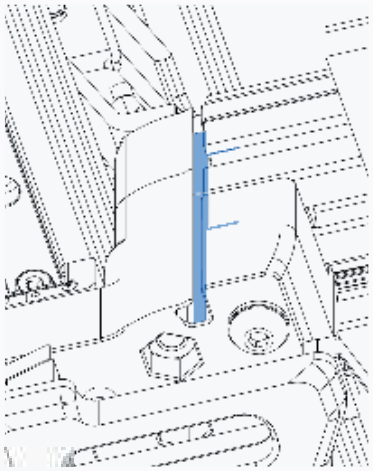










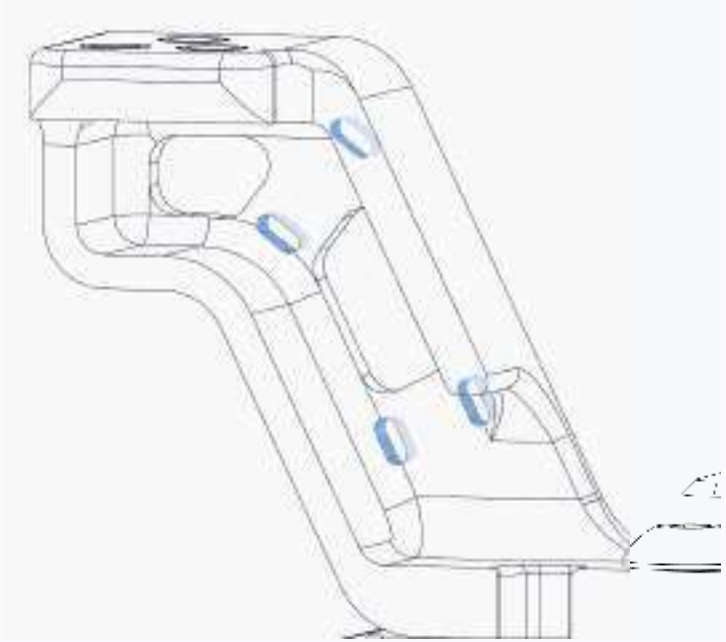


Y END-STOP

2x 0.25mm²(AWG24) or larger

X END-STOP

2x 0.25mm²(AWG24) or larger

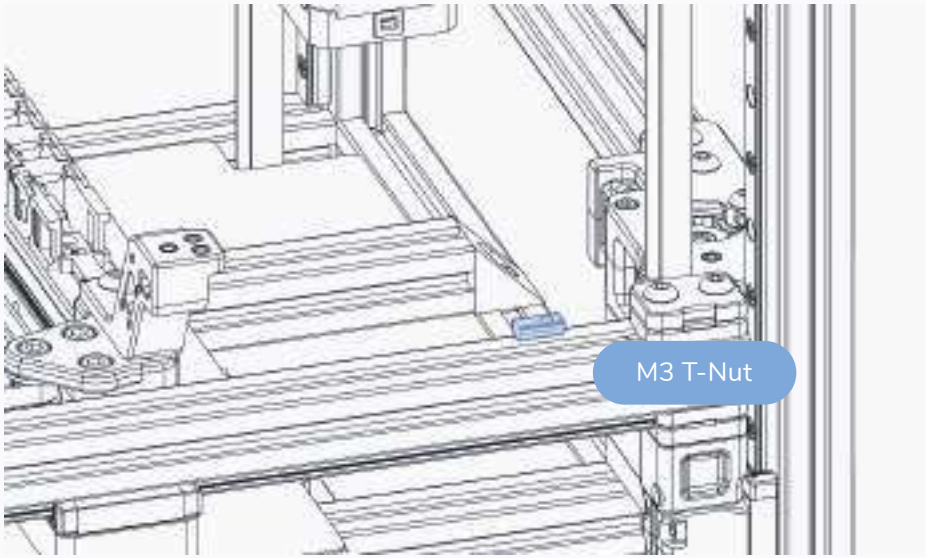


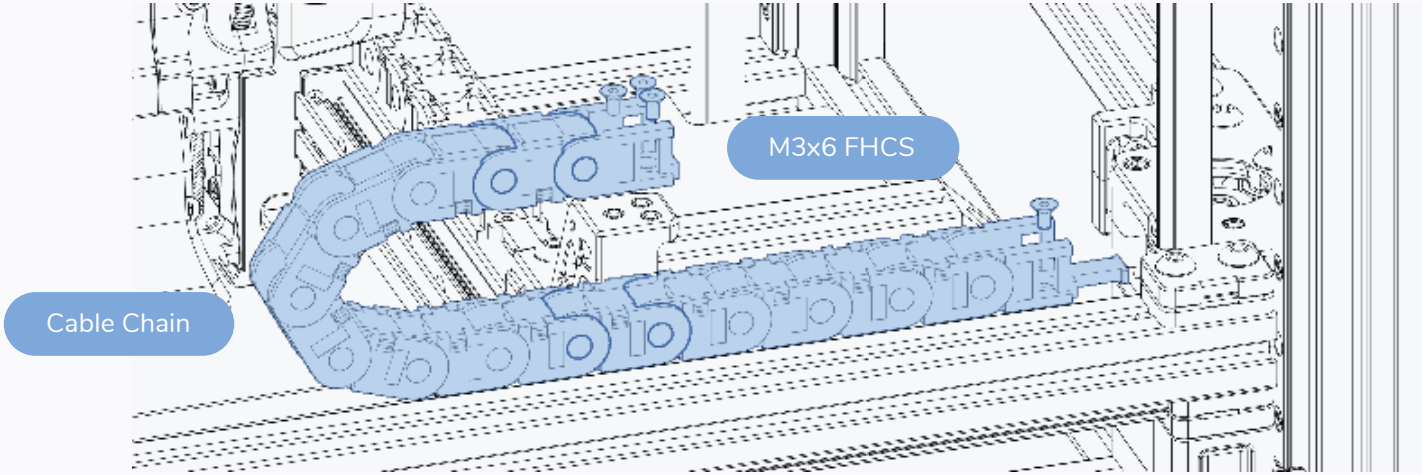
ZIP TIE LOOPS

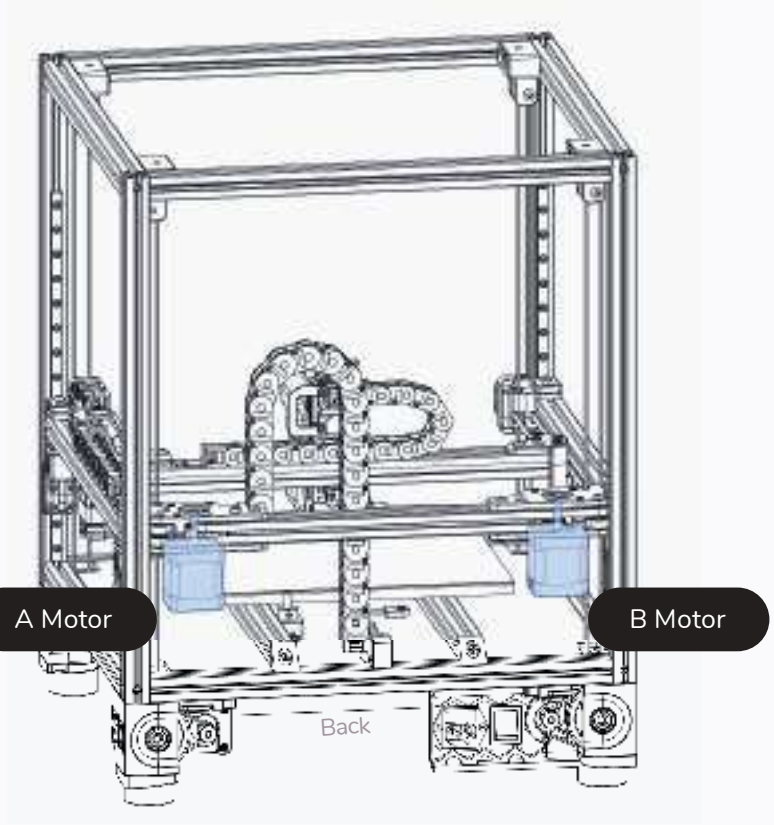
Secure the wire bundle to the strain relief using small zip ties.

OPTION: ENDSTOP BOARD/HALL EFFECT BOARD

Those boards utilize a 4 pin connector instead. Please refer to https://voron.link/djhyygu and https://voron.link/d6qb7o6 for details.

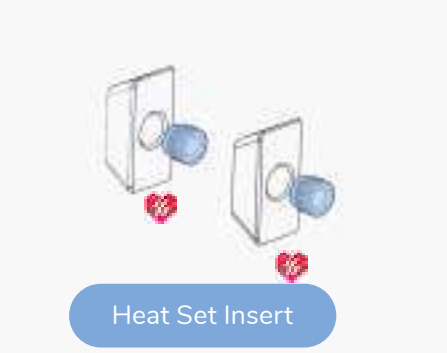


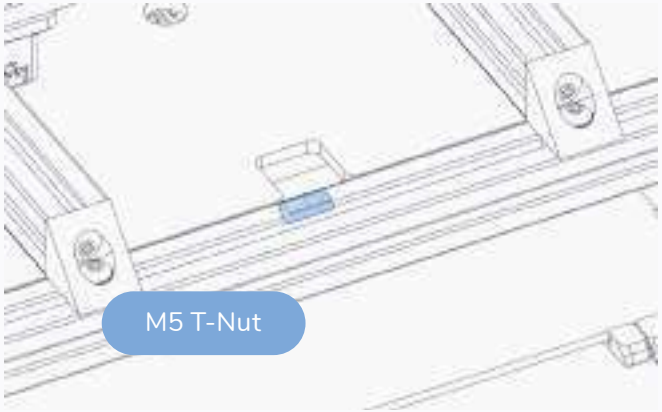


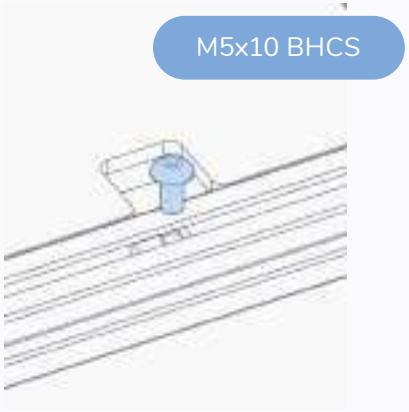


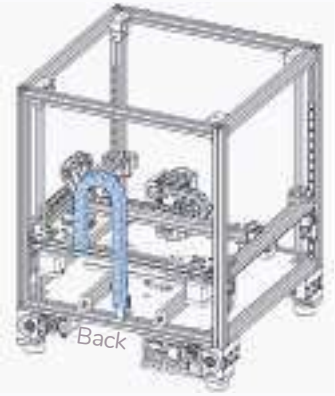
SECURING MOTOR CABLES

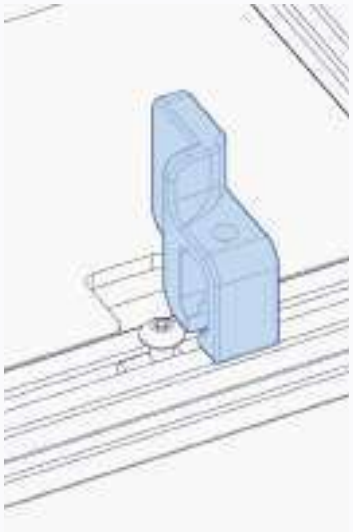
Secure the wire bundles along the small extrusion that sits between the drives with small zip ties.

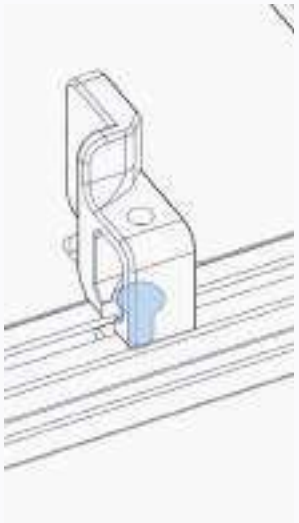


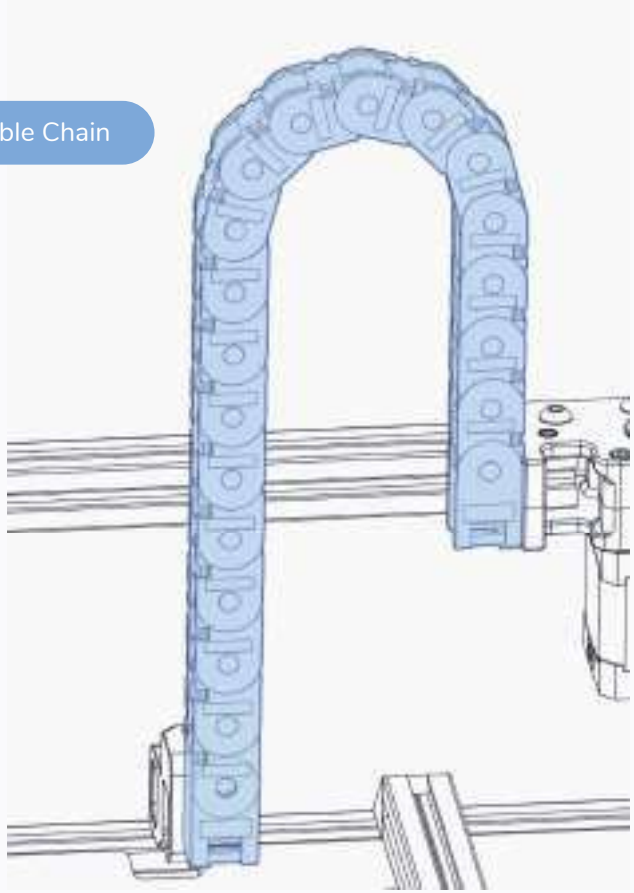


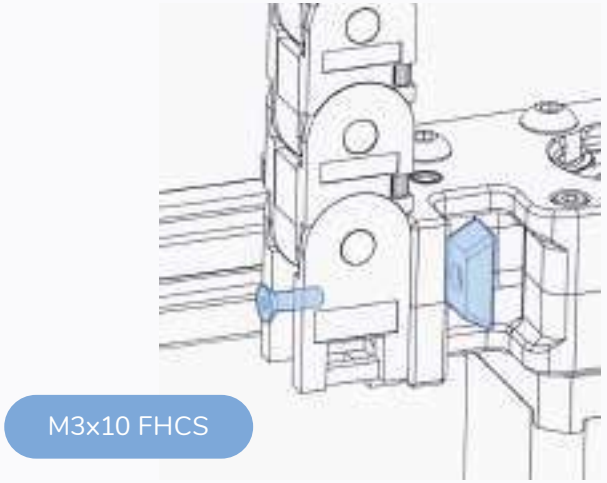


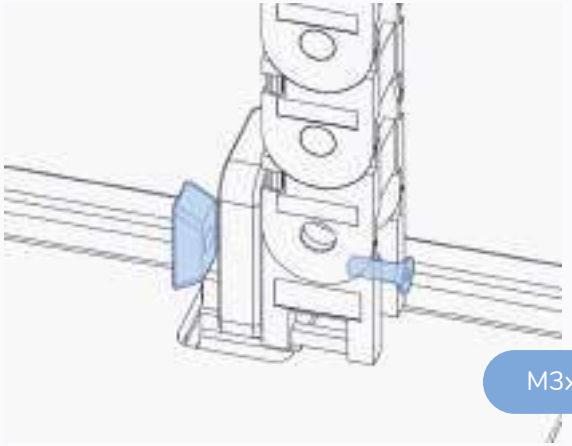


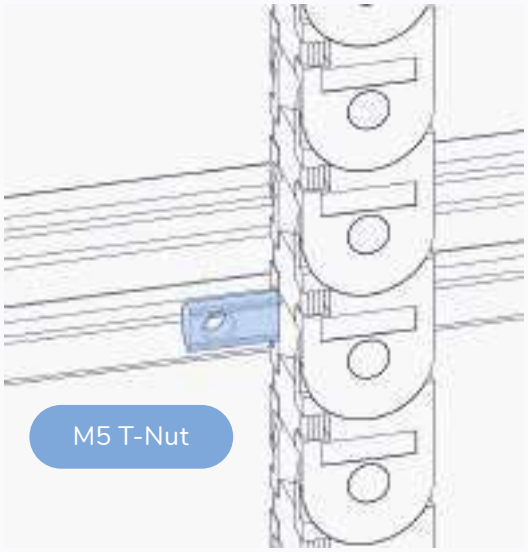


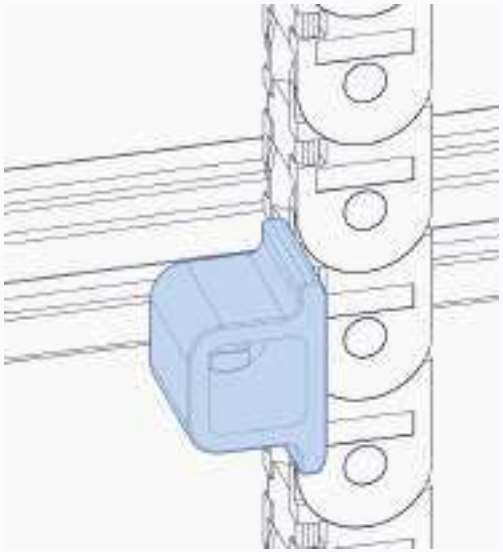


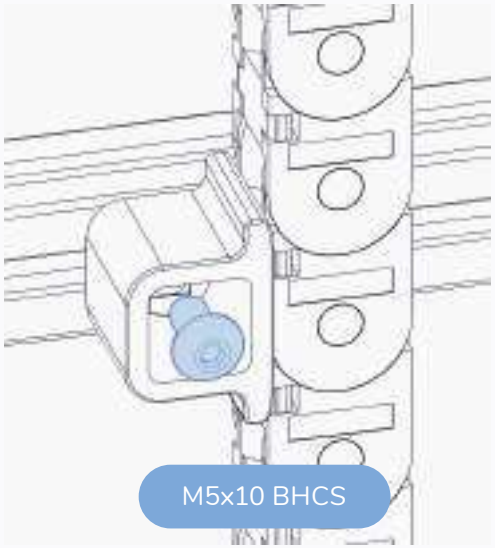


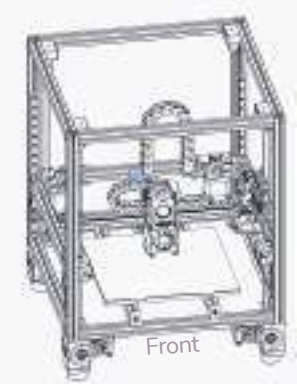


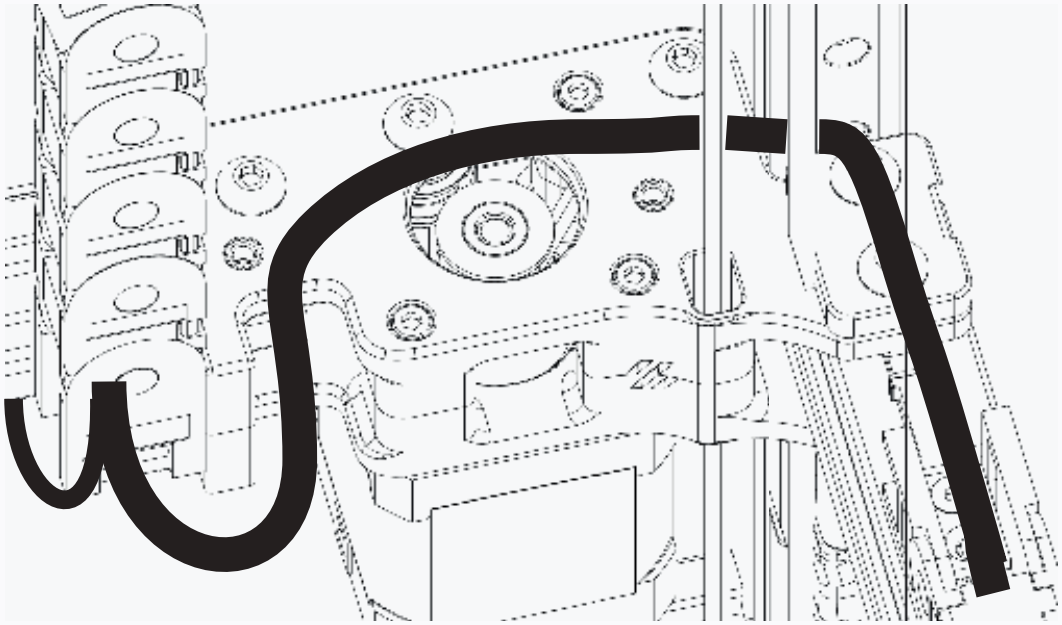


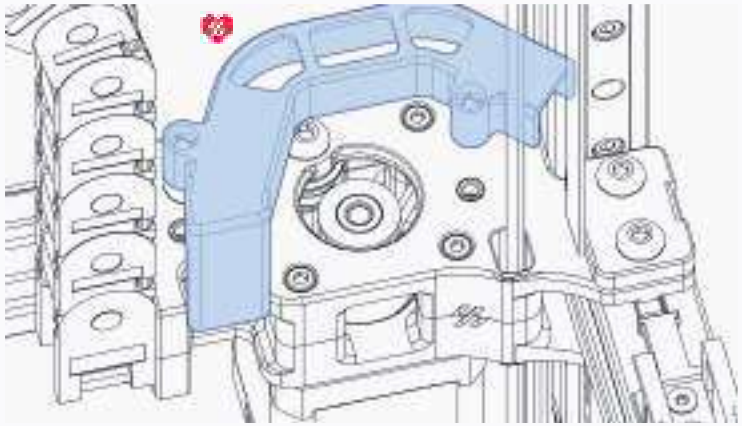




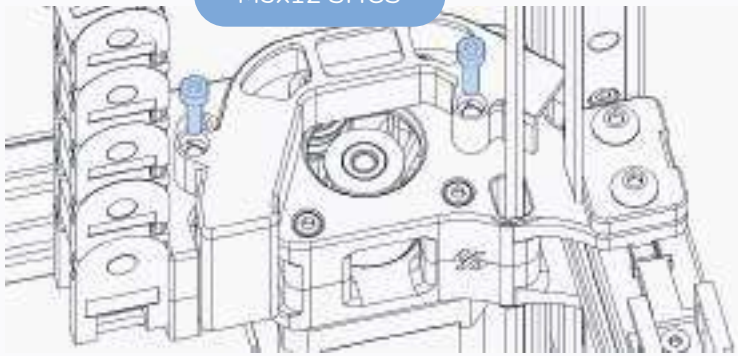








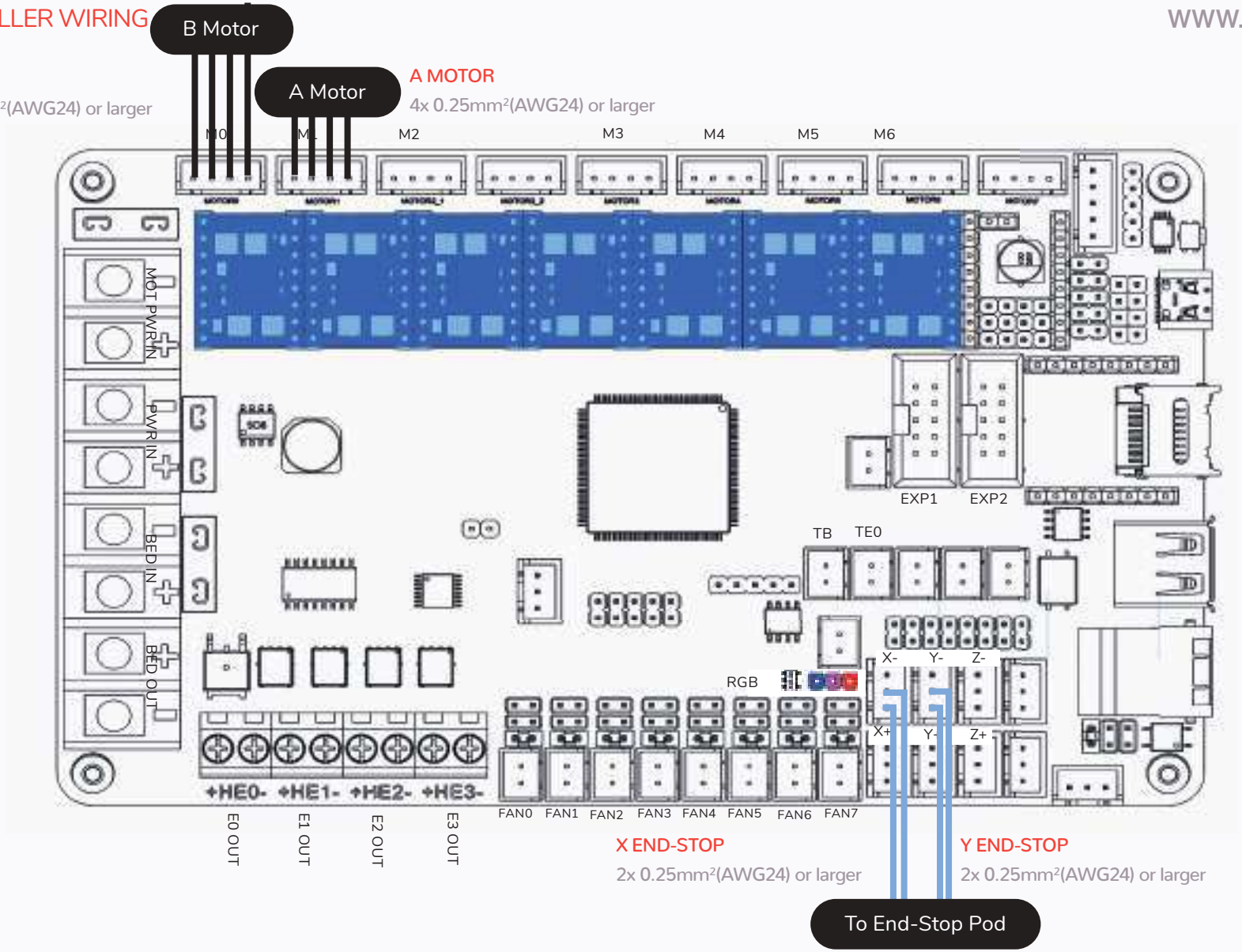
M3x12 SHCS



WIRE PATH

Guide the wire bundle behind the Z belt and over the A drive as shown above. Secure it with zip ties on the strain relief of the cable chains.

CONTROLLER WIRING



B MOTOR

4x 0.25mm²(AWG24) or larger

A MOTOR

4x 0.25mm²(AWG24) or larger

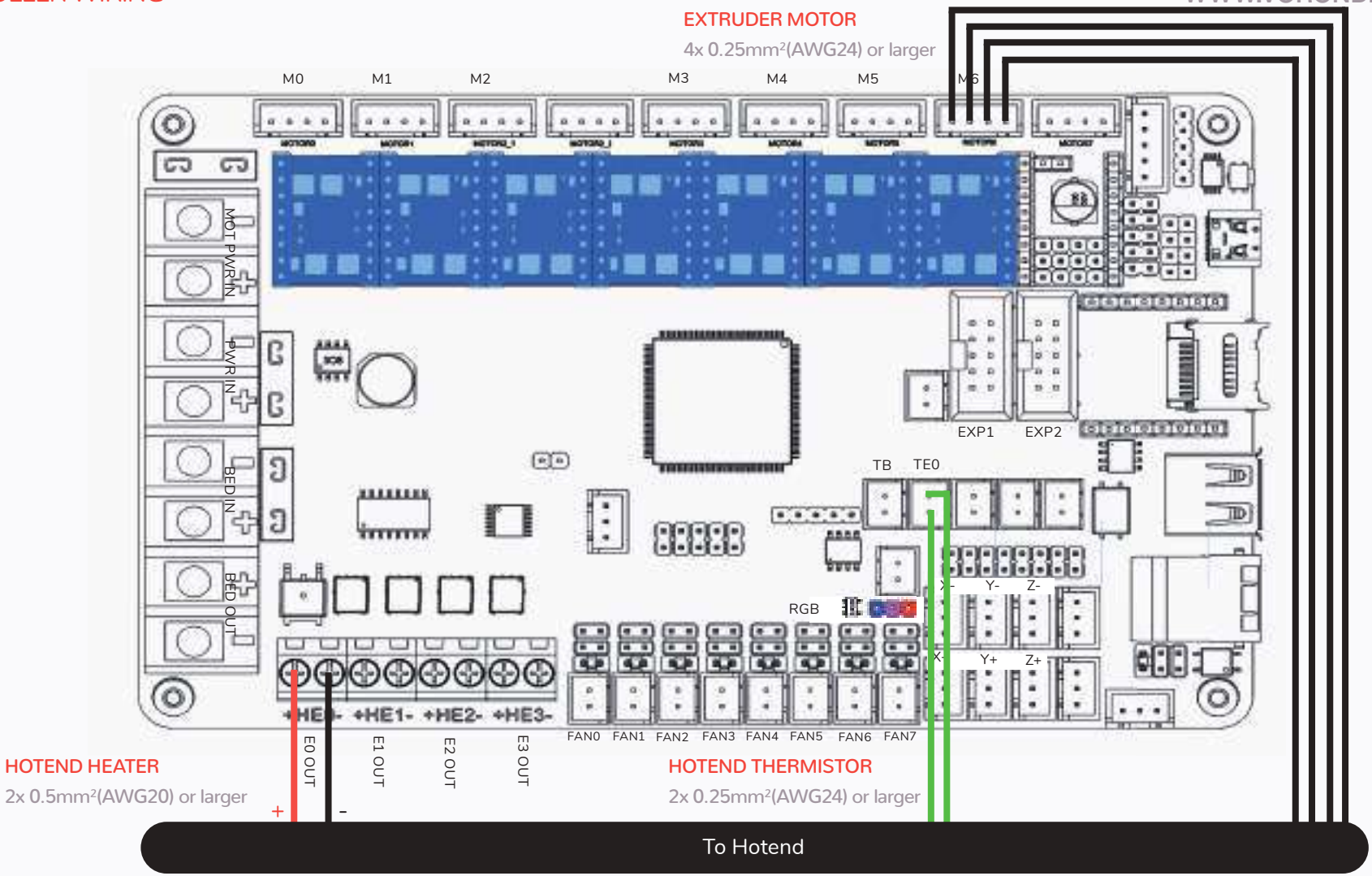
X END-STOP

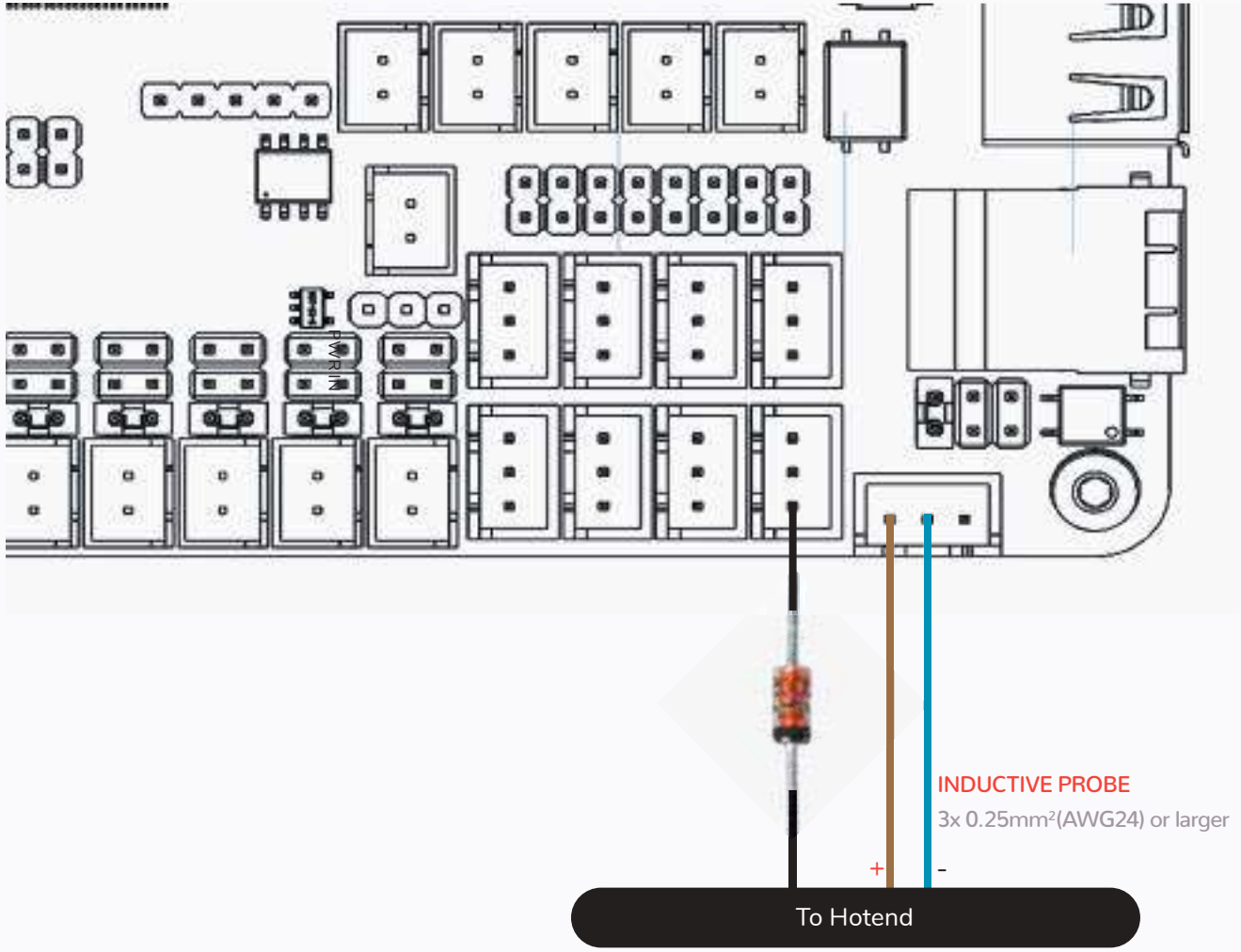
2x 0.25mm²(AWG24) or larger

Y END-STOP

2x 0.25mm²(AWG24) or larger

To End-Stop Pod



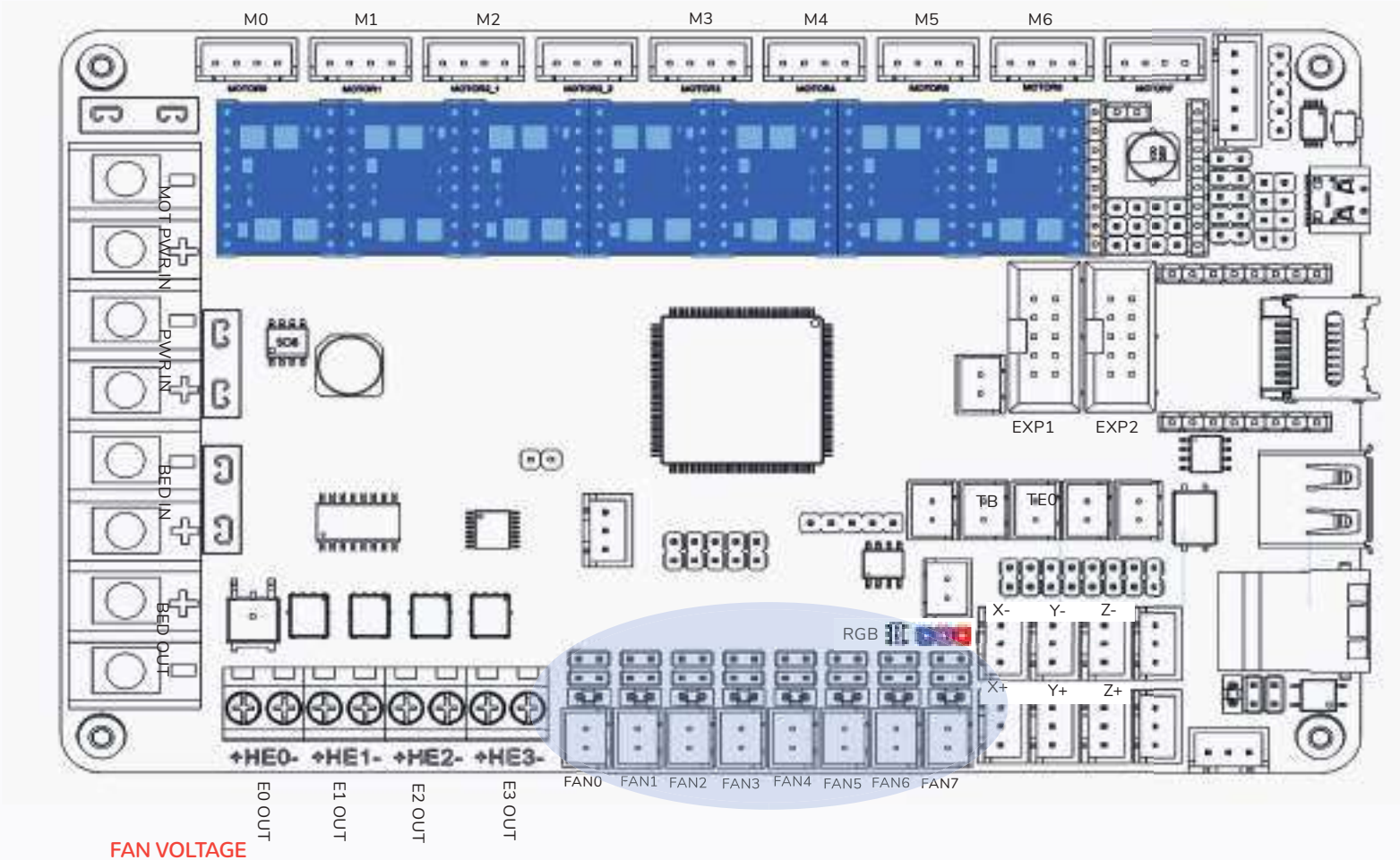


PROBE HOOKUP

Instead of using the dedicated probe input of the BTT Octopus we recommend wiring the probe's signal line to an endstop input using a BAT85 diode as protection.

The black ring on the diode "points" toward the toolhead.

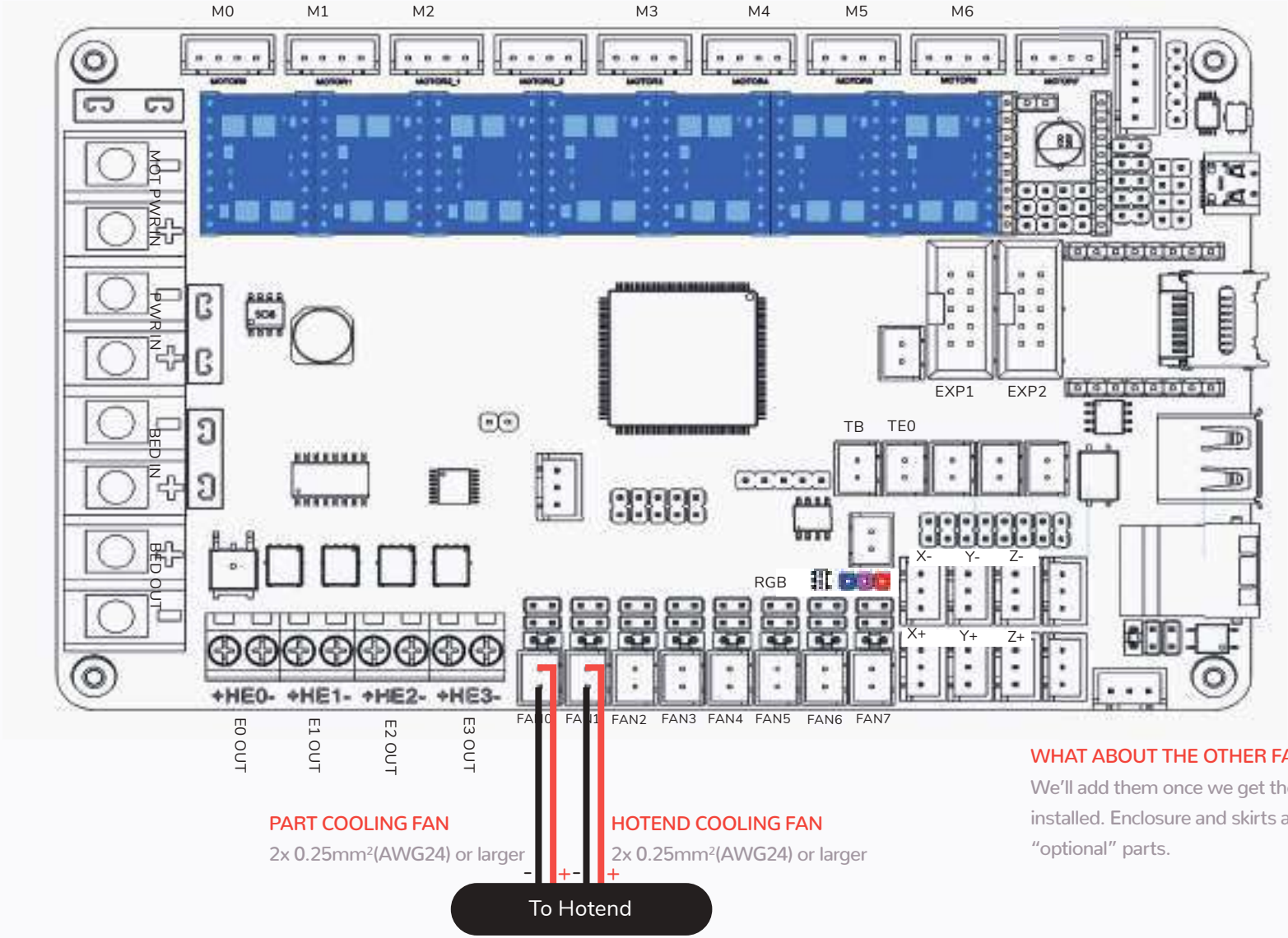
For technical details please refer to https://voron.link/n9i7lss.



FAN VOLTAGE

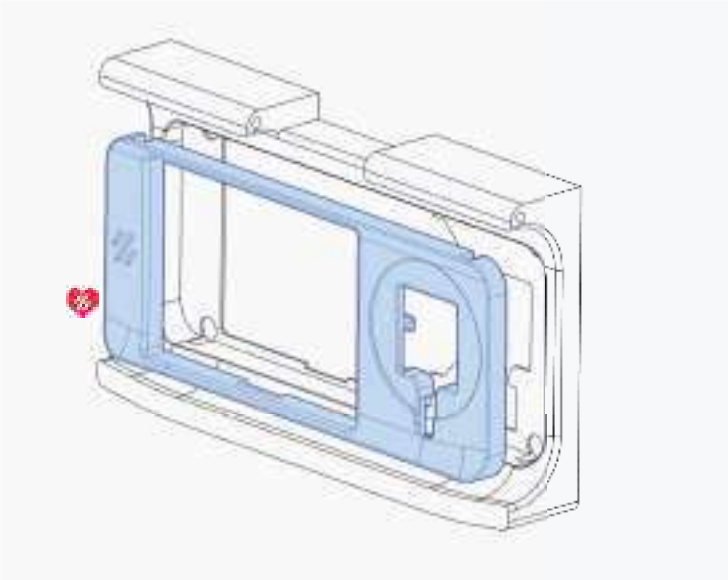
The fans recommended in the sourcing guide are 24V fans.

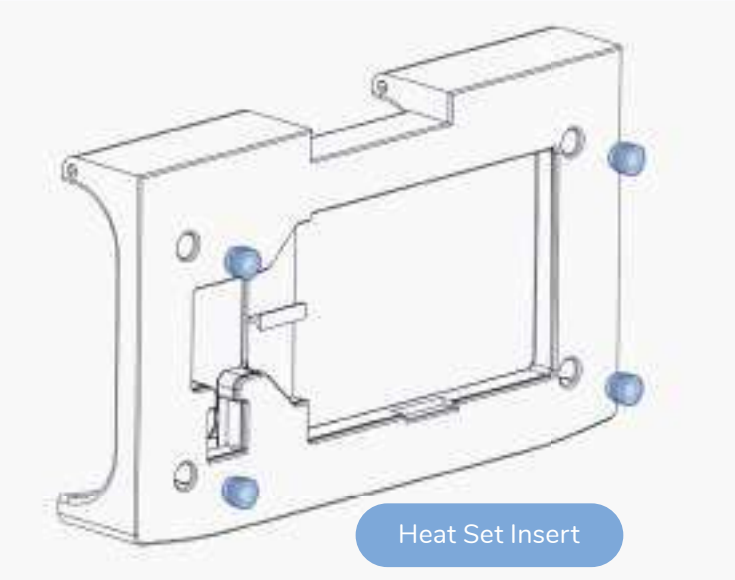
Please check your hotend cooling (40x40x10 axial), part cooling (40x40x20 blower) and exhaust/electronics (60x60x20 axial) fans for their voltage rating and jumper the voltage selection accordingly. Refer to the Bigtreetech Octopus V1.1 manual for possible settings.



WHAT ABOUT THE OTHER FANS?

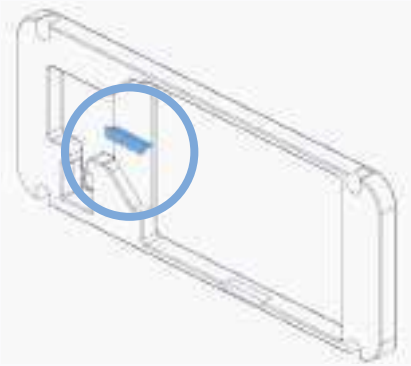
We'll add them once we get them installed. Enclosure and skirts are "optional" parts.





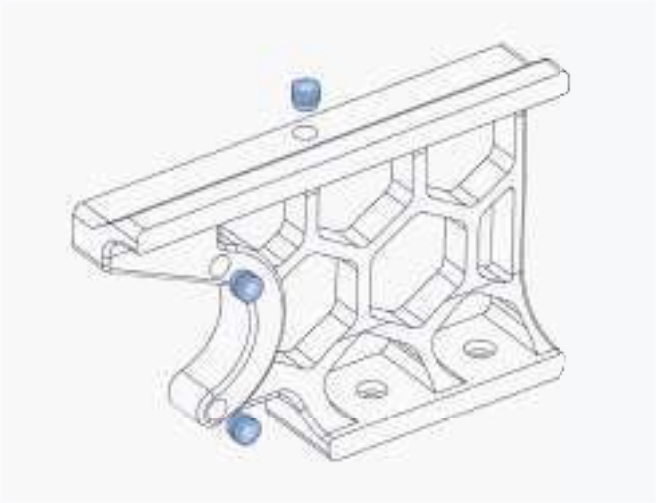
FRONT COVER

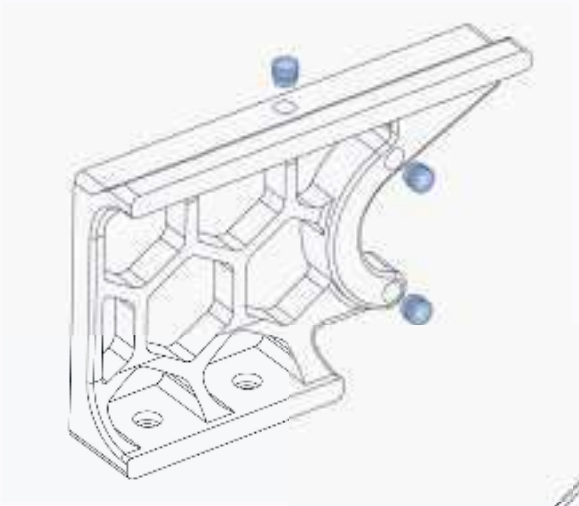
The front cover is held in place by the heat set inserts. Hold the front face firmly in place while inserting the heat set inserts.



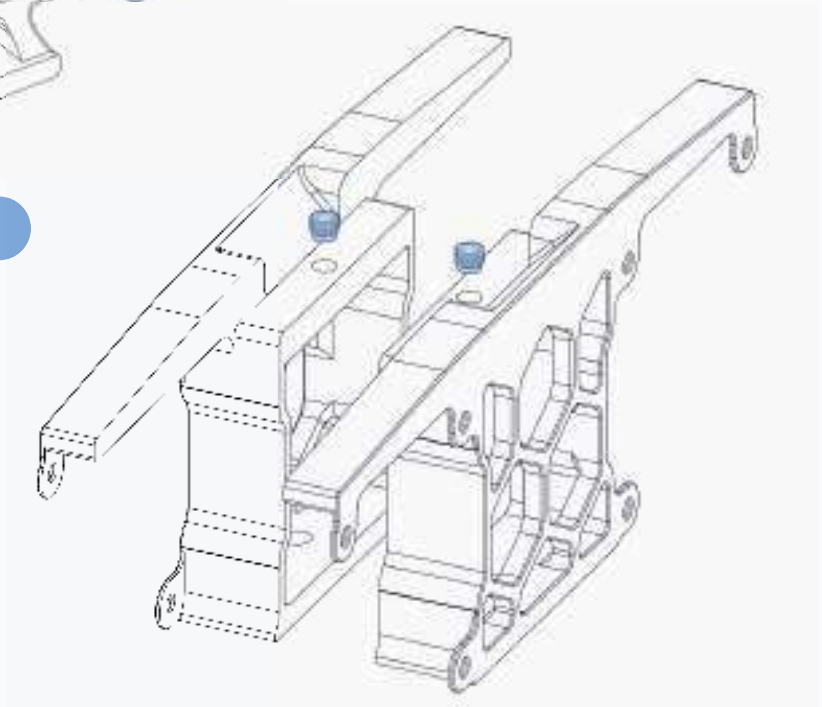
BUILT-IN SUPPORT

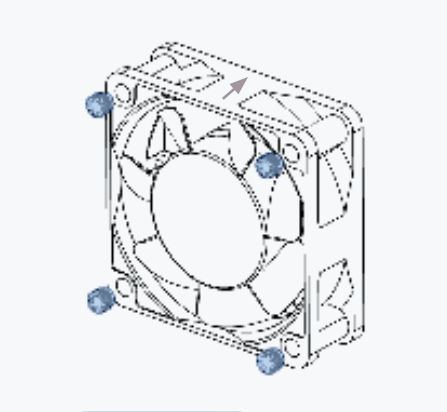
Remove the highlighted section. It's a built-in support for printability.



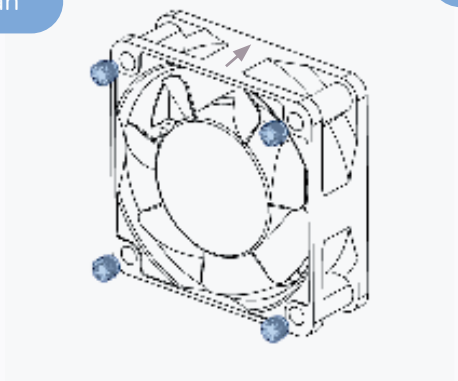


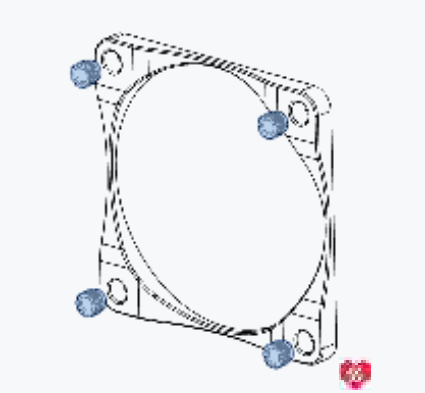
Heat Set Insert



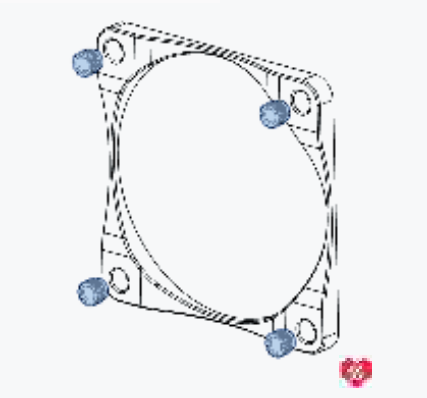


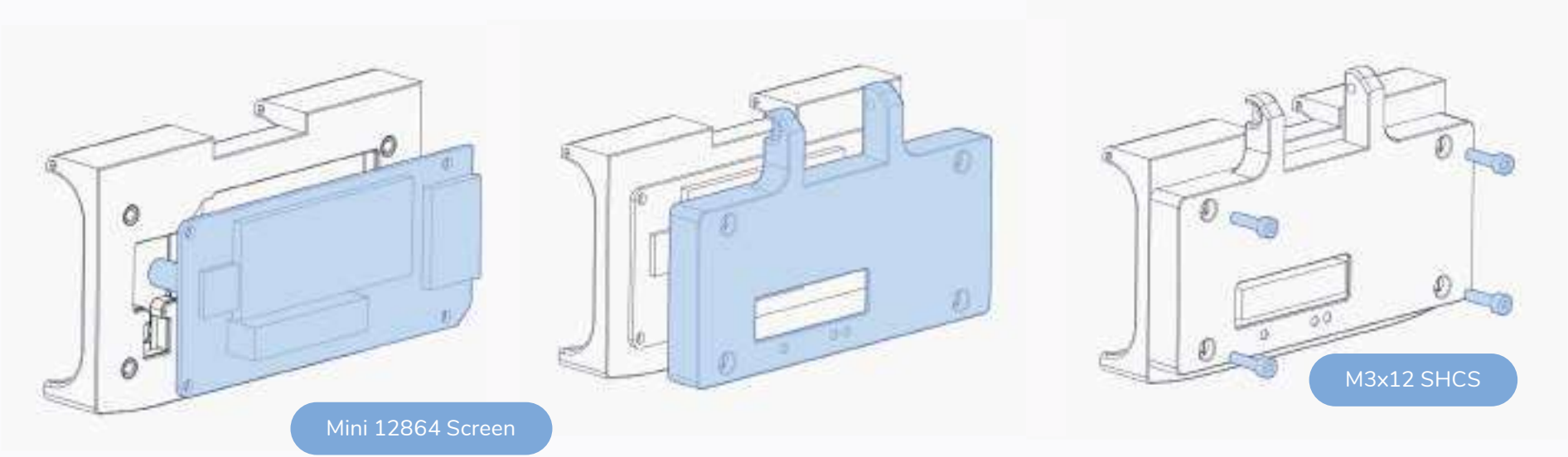
60x20 Fan

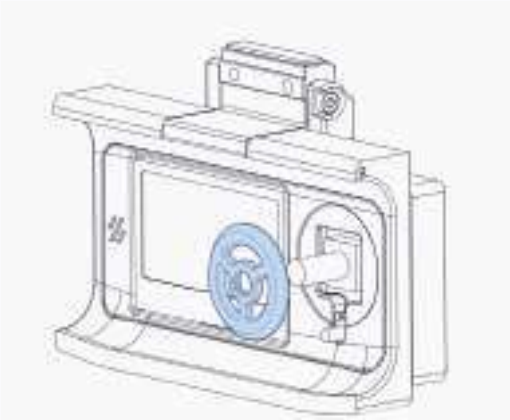


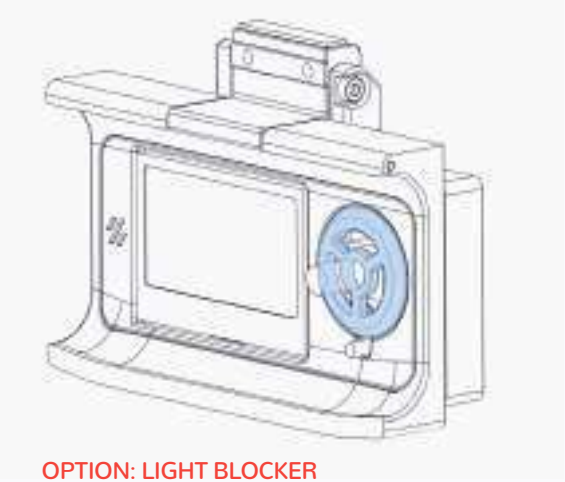


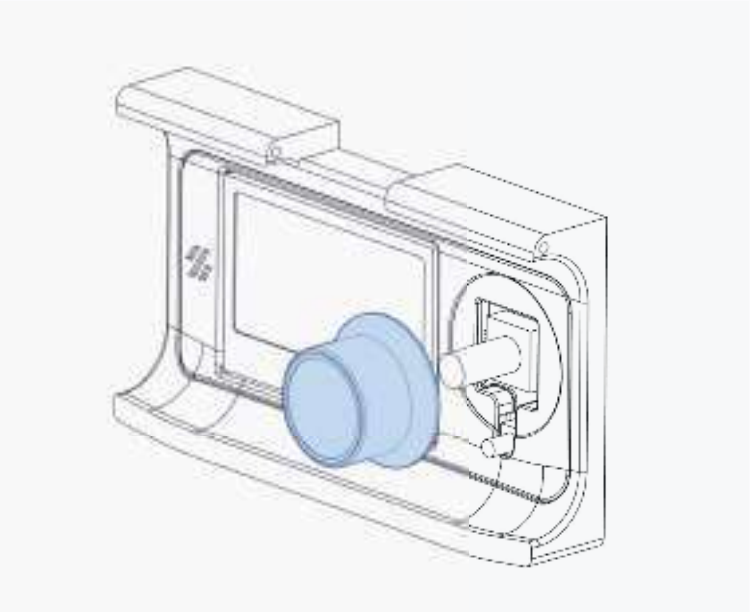
Heat Set Insert





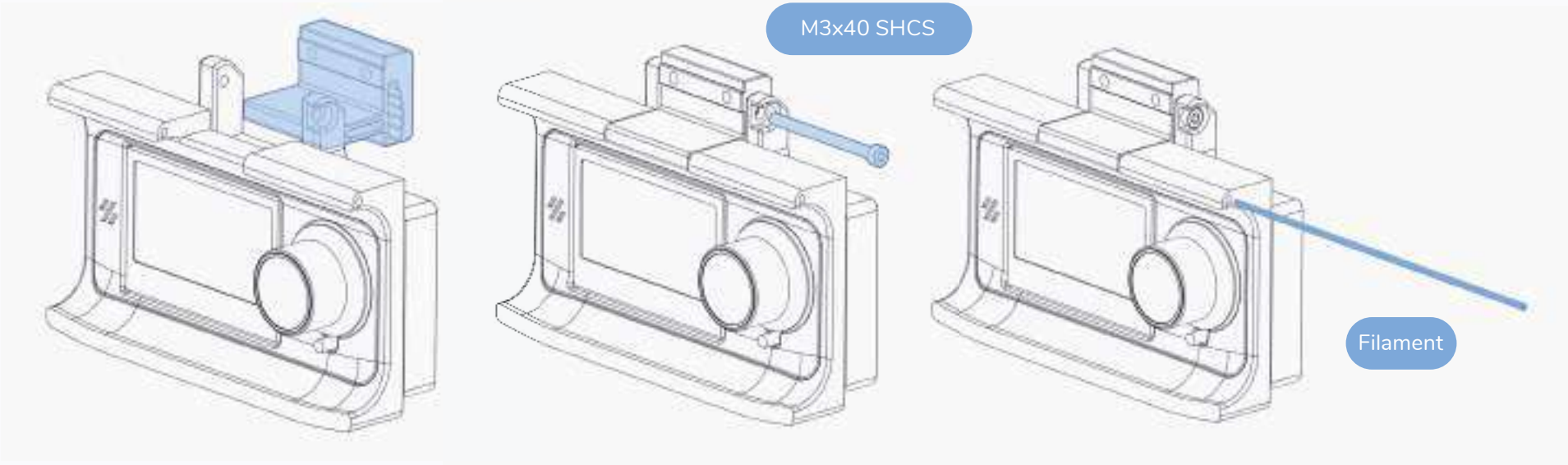


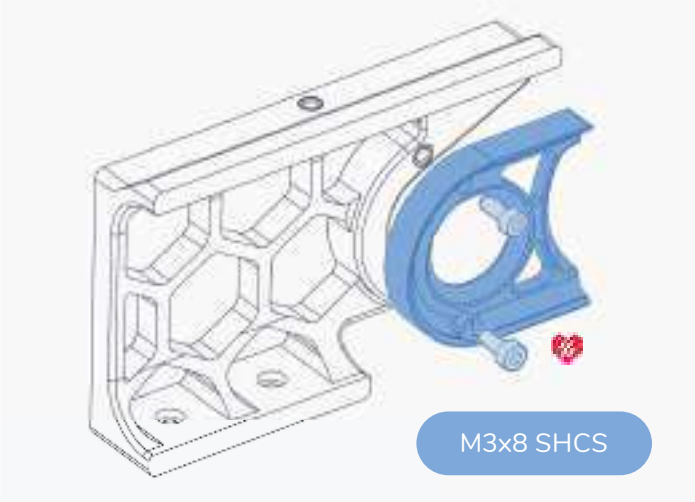


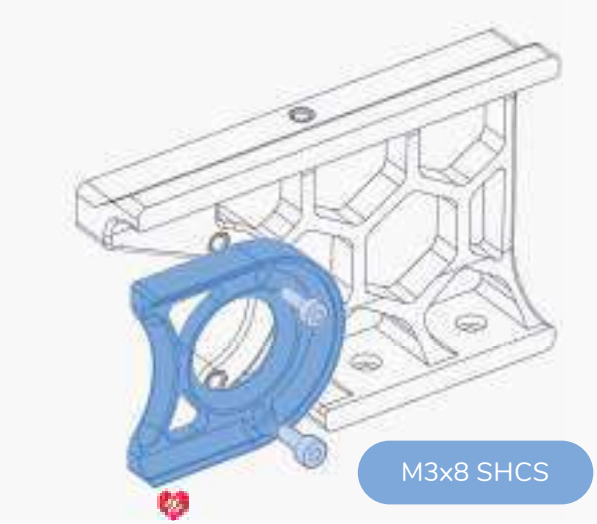


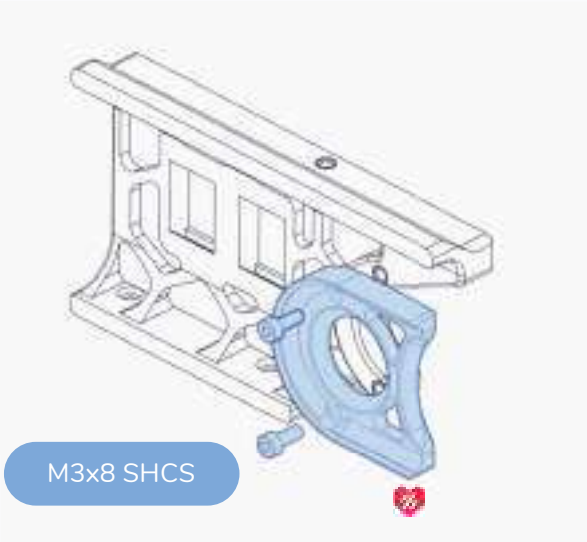
OPTION: LIGHT BLOCKER

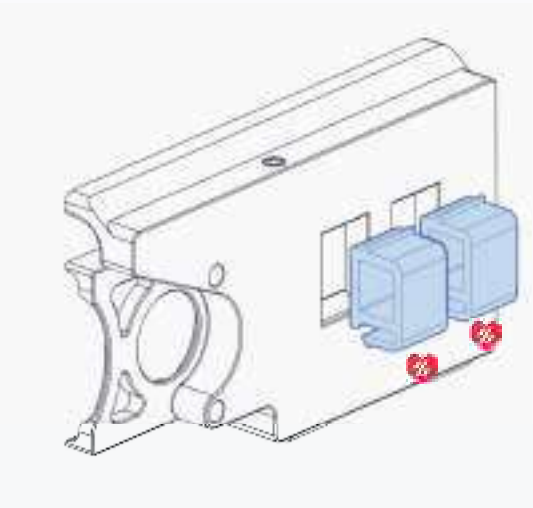
Some LCDs come with a smaller encoder knob. This extra piece prevents excess light bleed. Threads onto the encoder before the knob is pressed on.







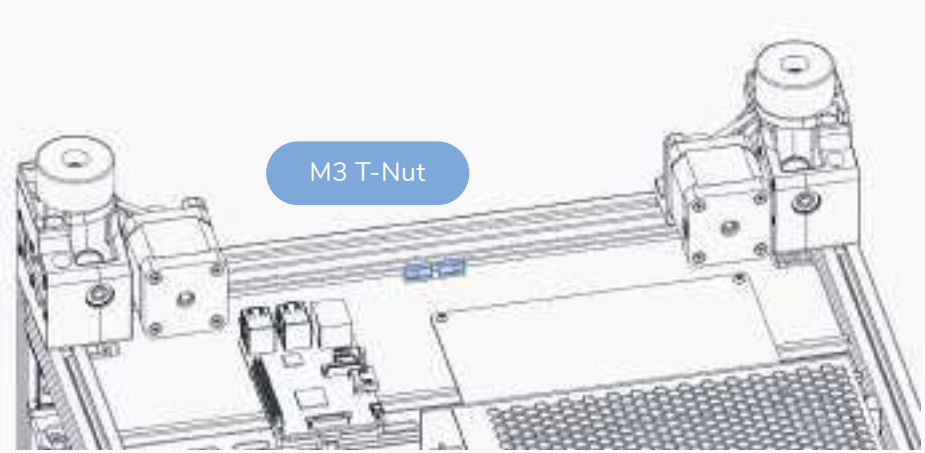


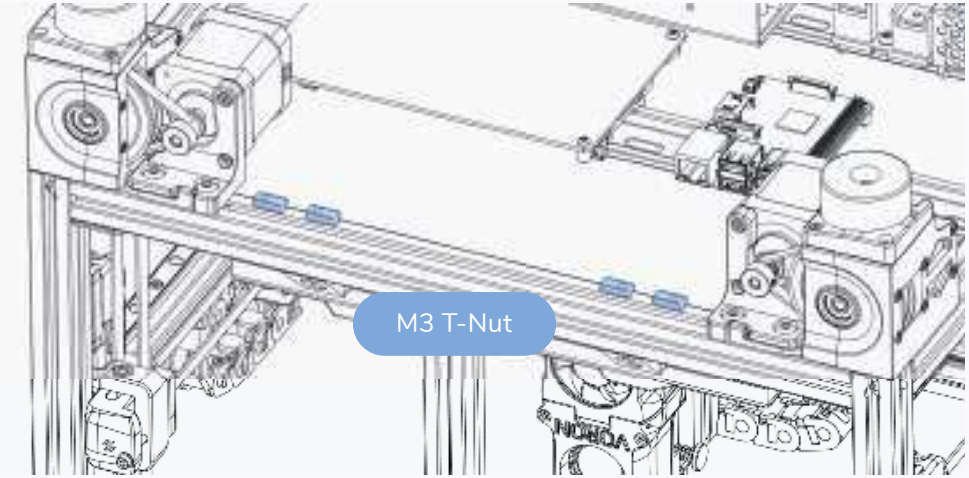


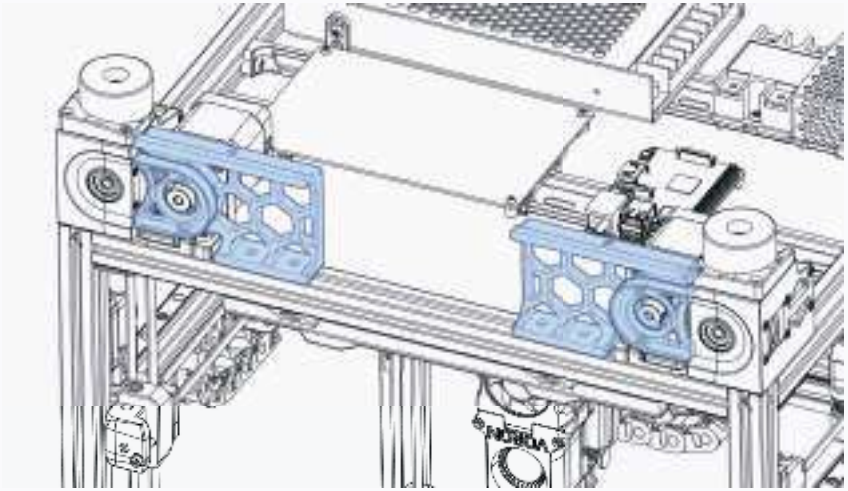
OPTION: KEYSTONE INSERTS

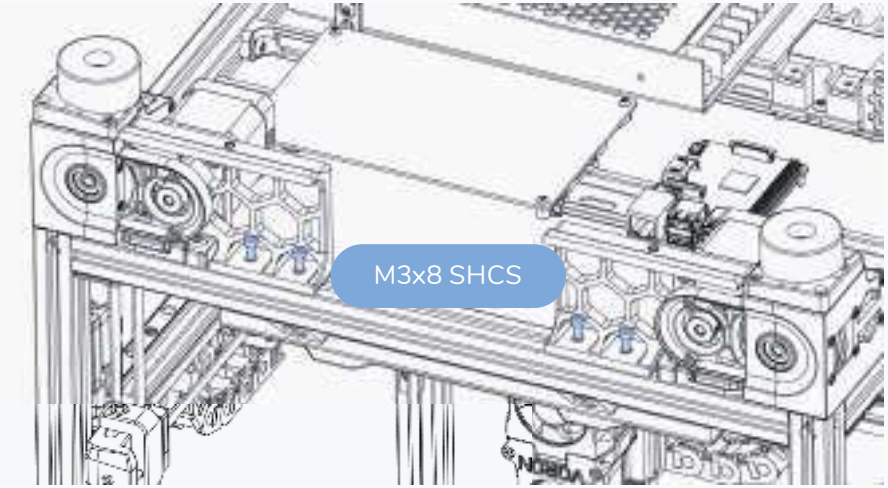
The picture is showing blanks for the keystone slots.

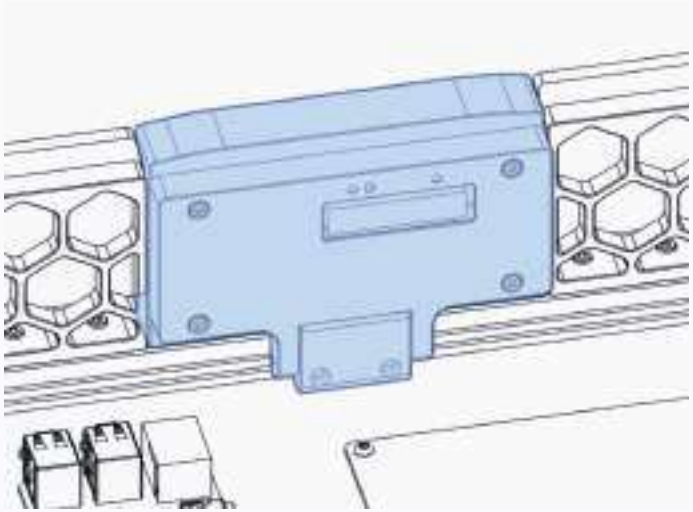
Alternatively you can add modules for USB or ethernet and expose ports of the Raspberry PI on the back of the printer.

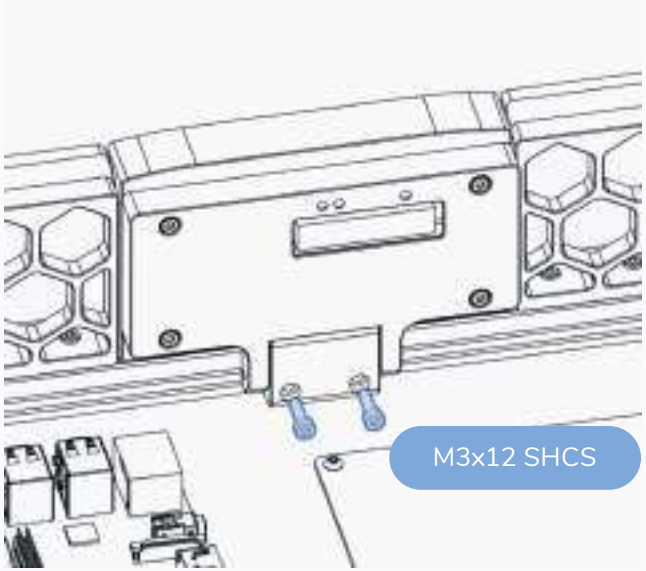


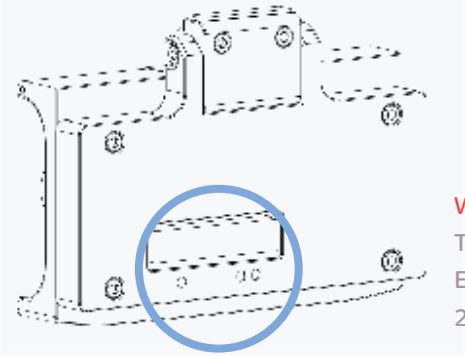






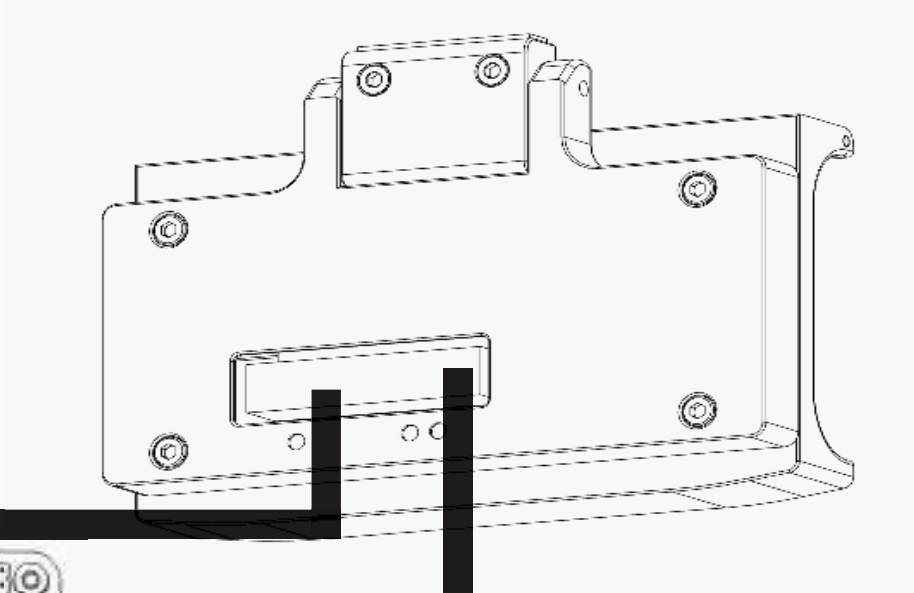


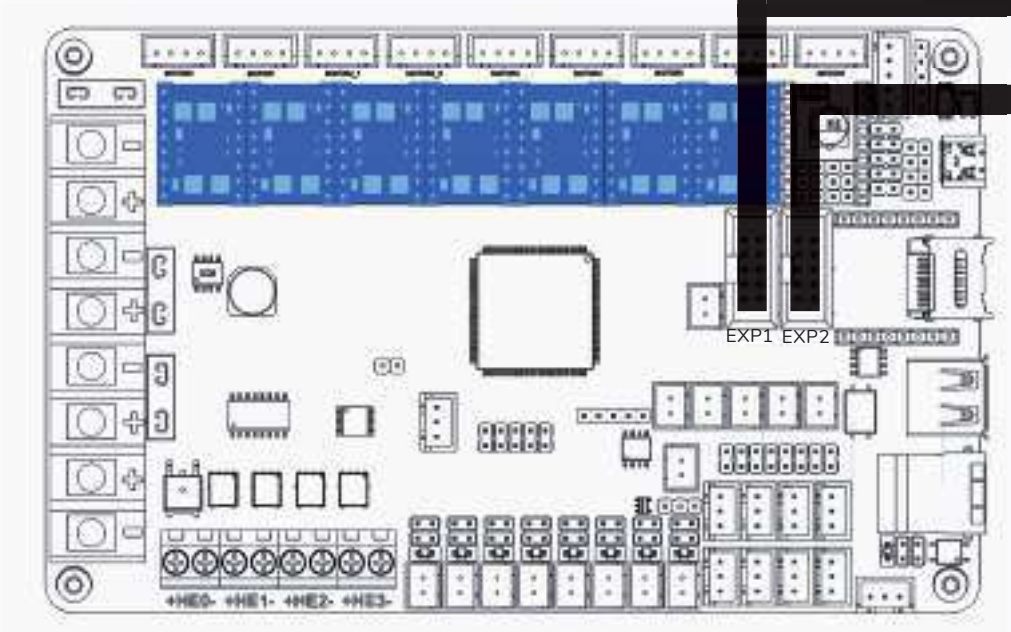




WHICH IS WHICH?

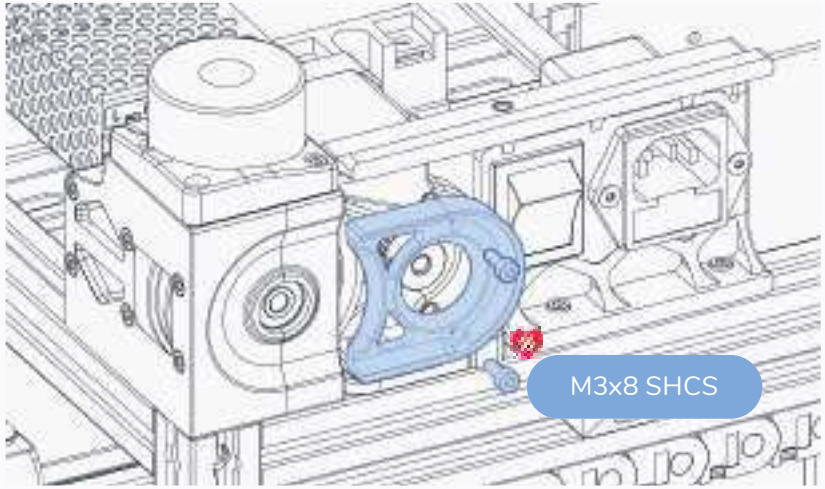
The socket with 1 dot below it is EXP1 and the socket with with 2 is EXP2.

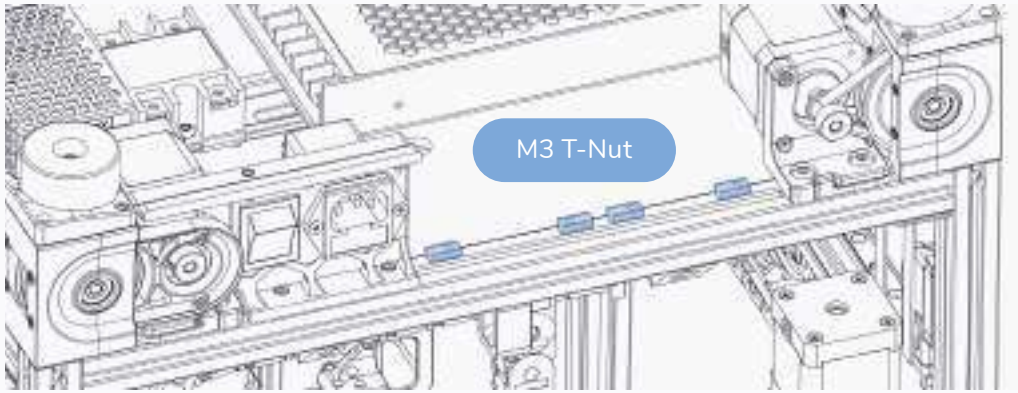


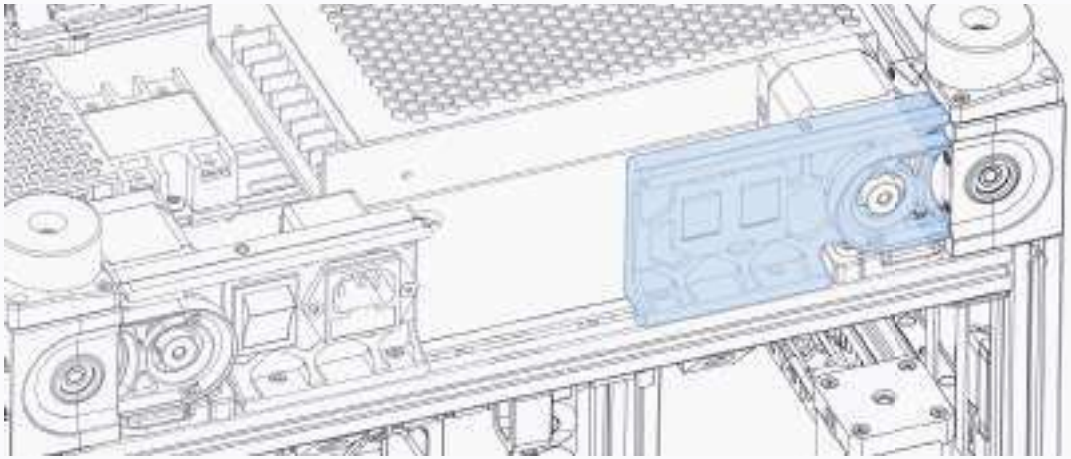


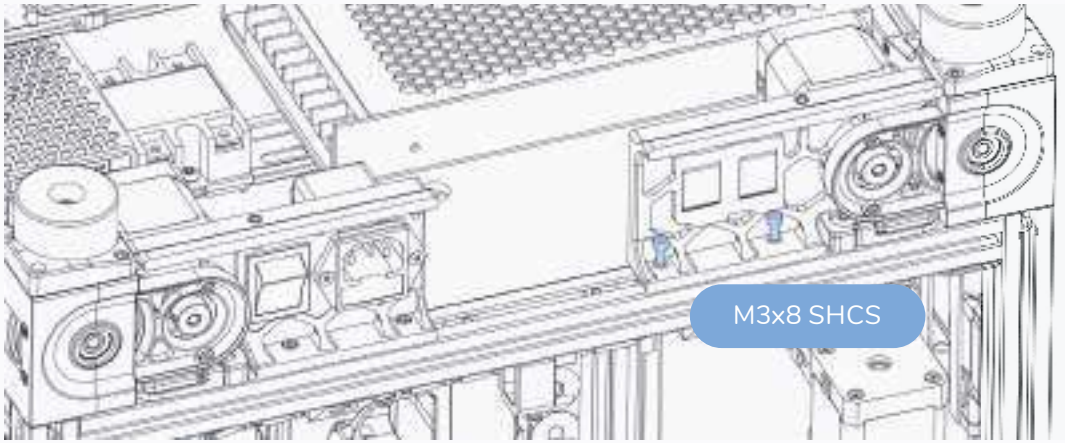
LCD

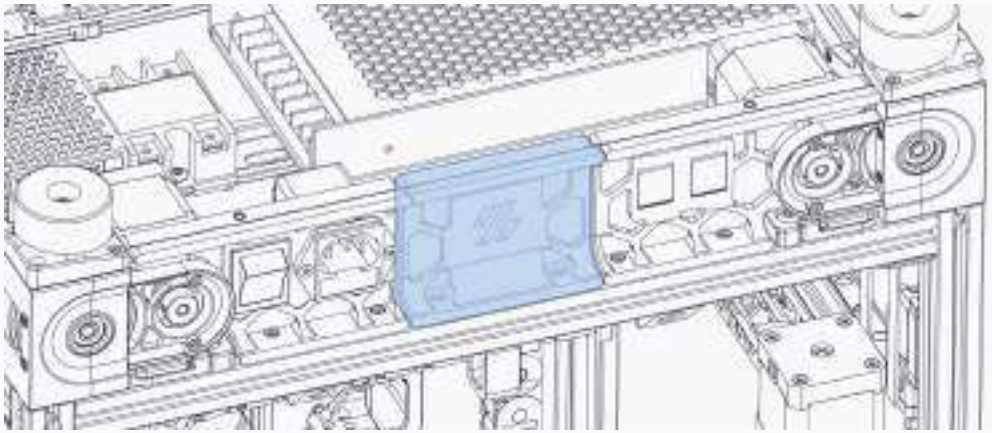
2x Flat Ribbon Cable

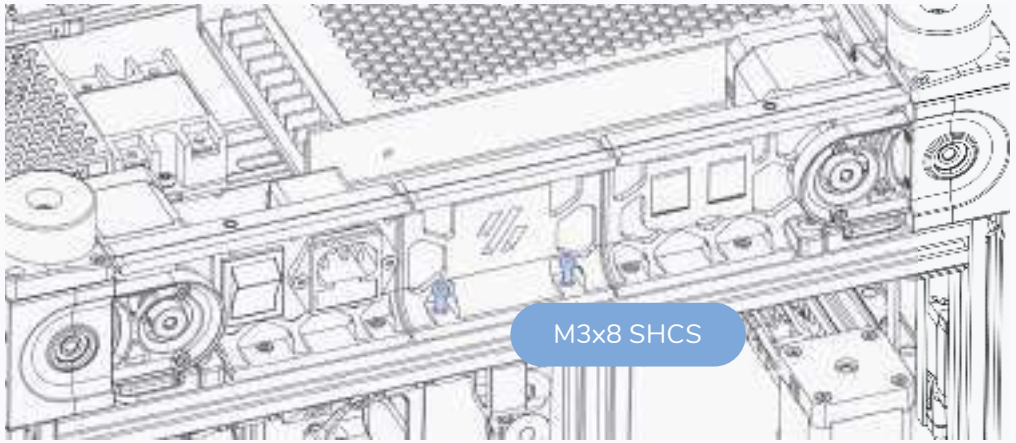


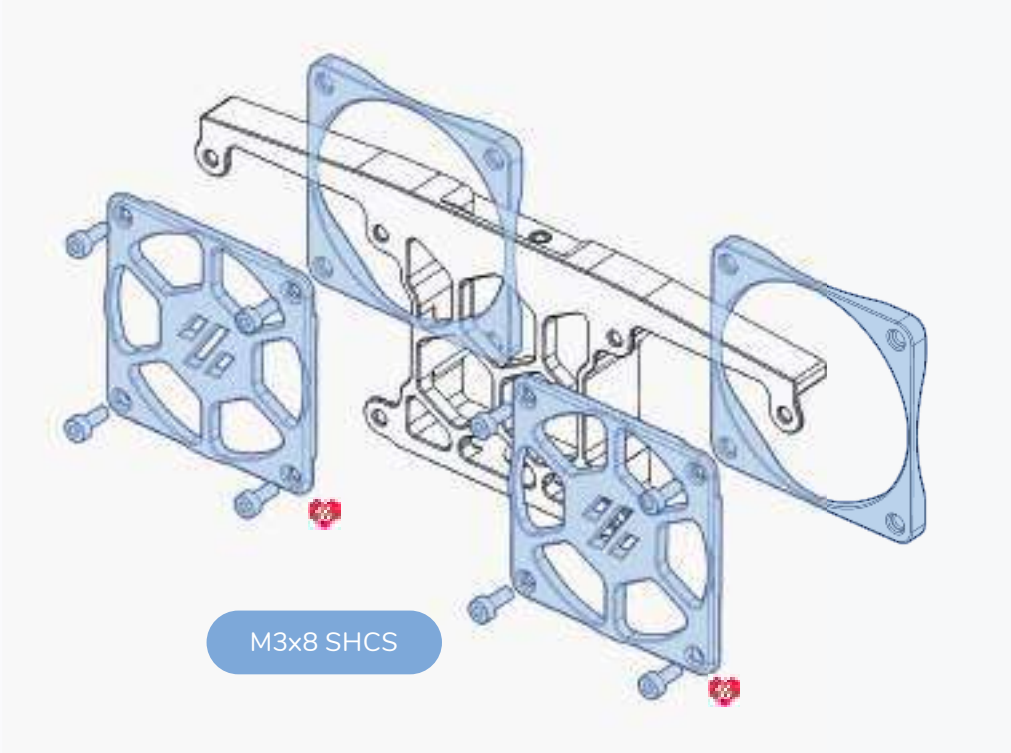


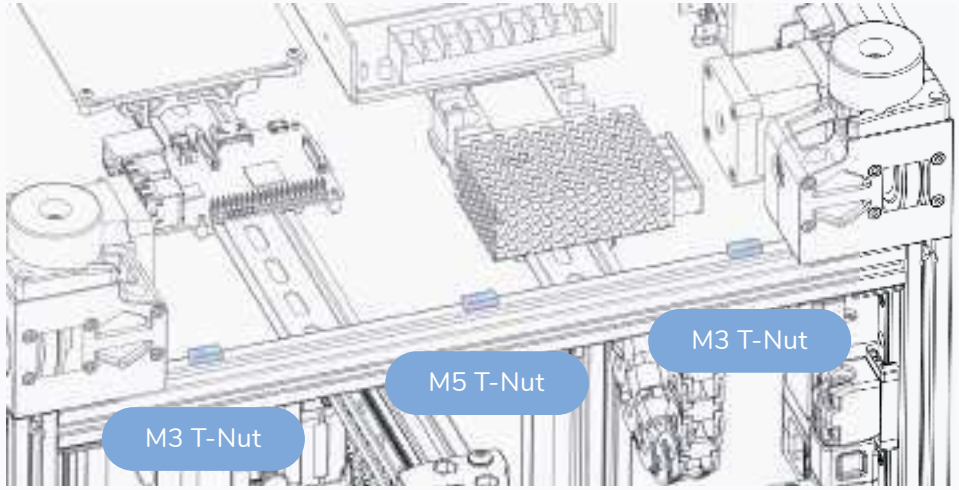


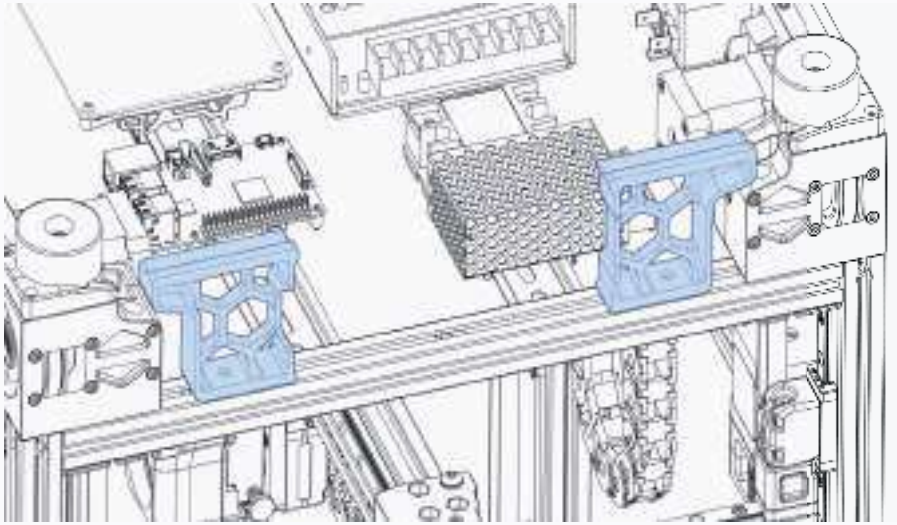


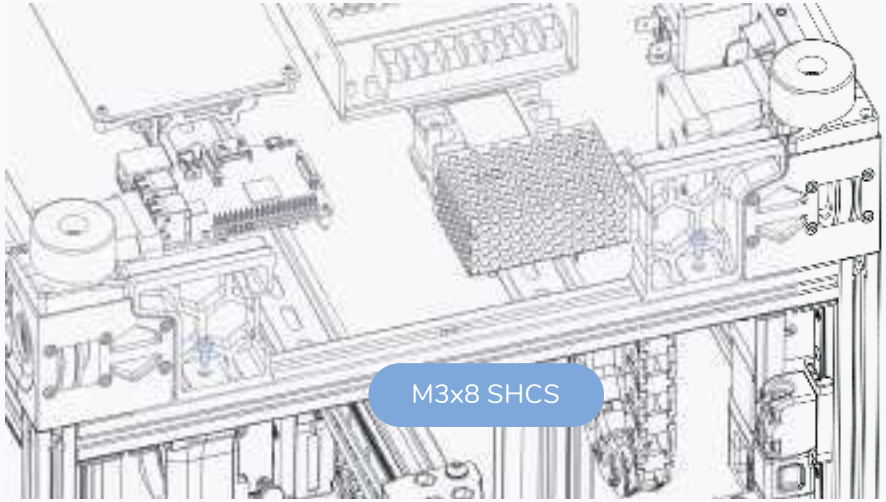


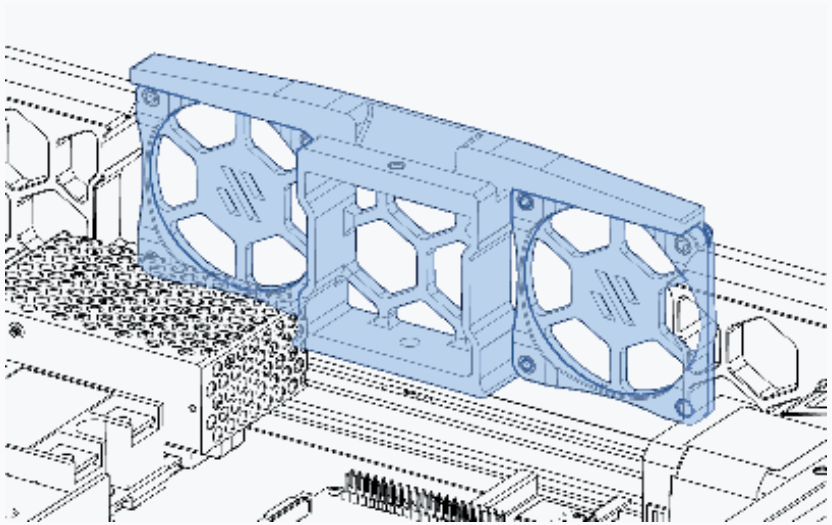


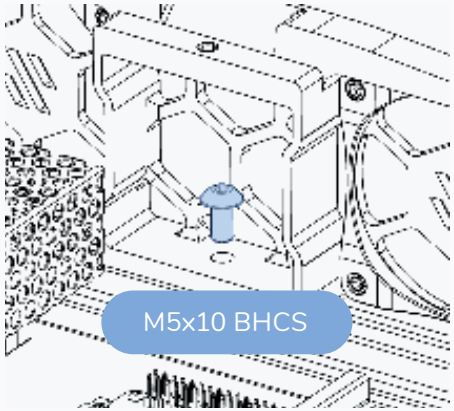


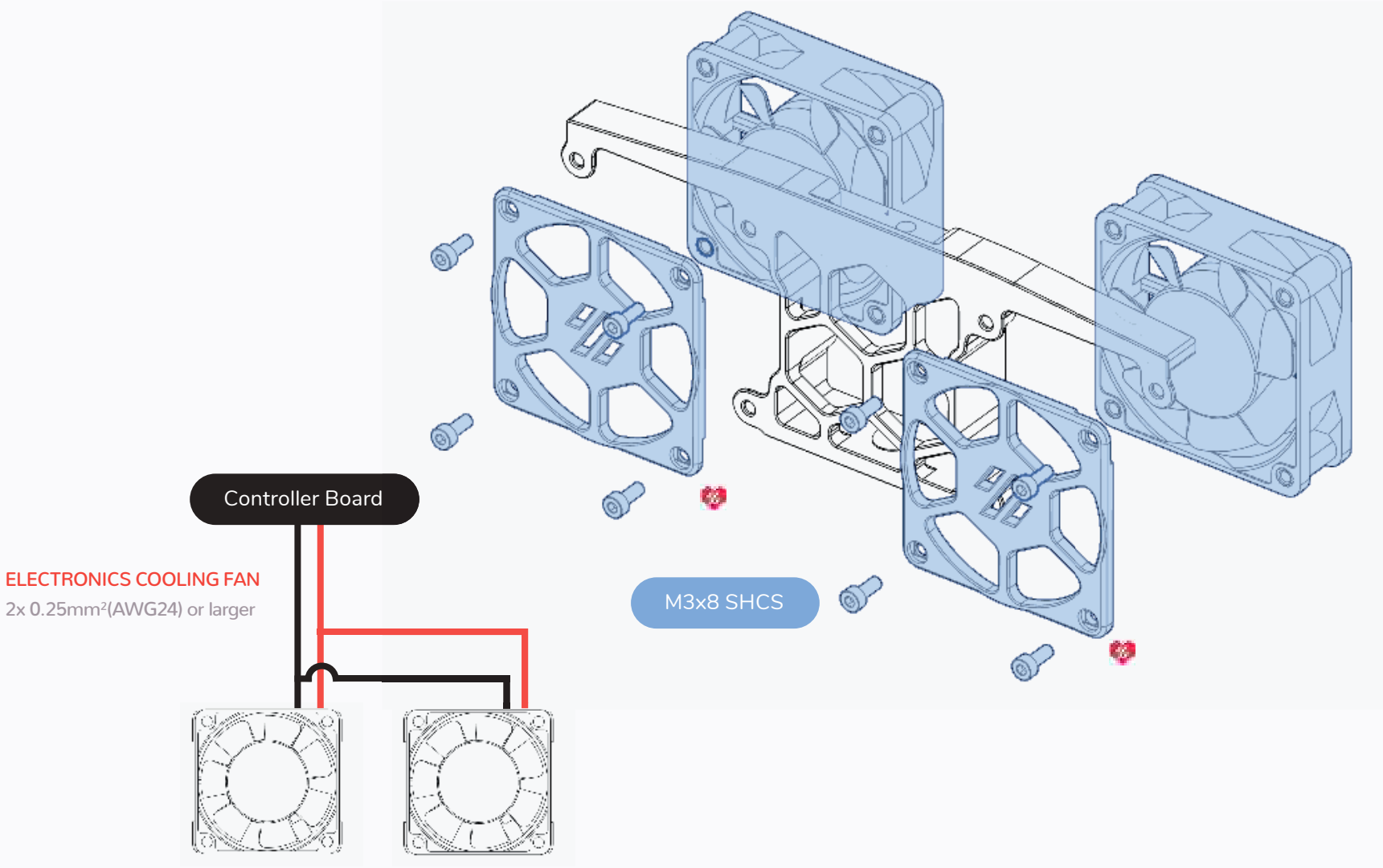


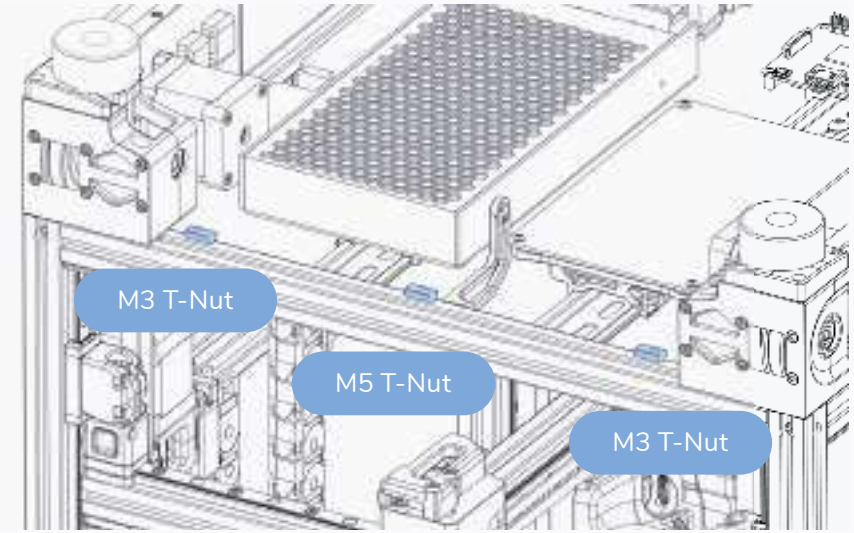


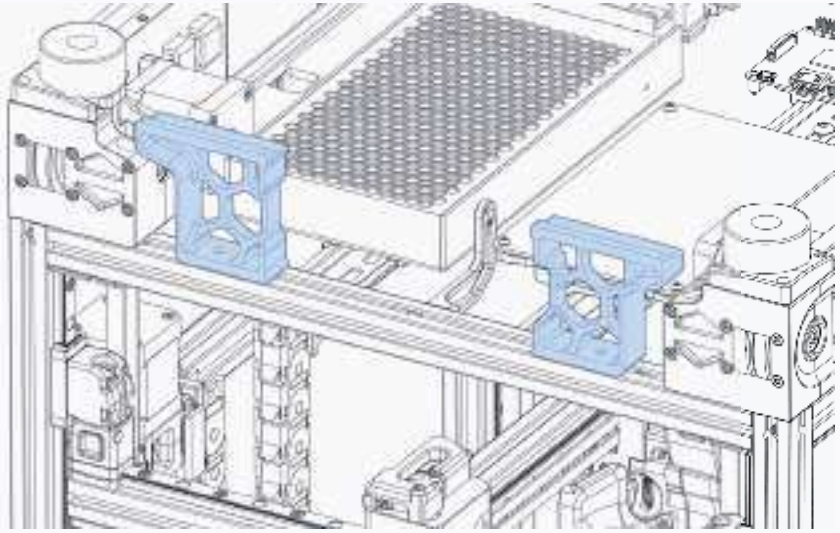


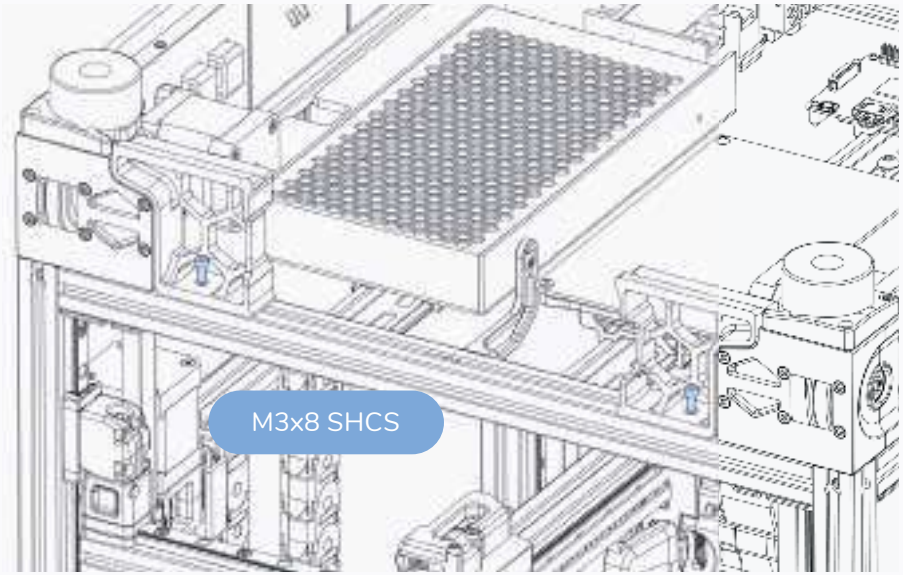


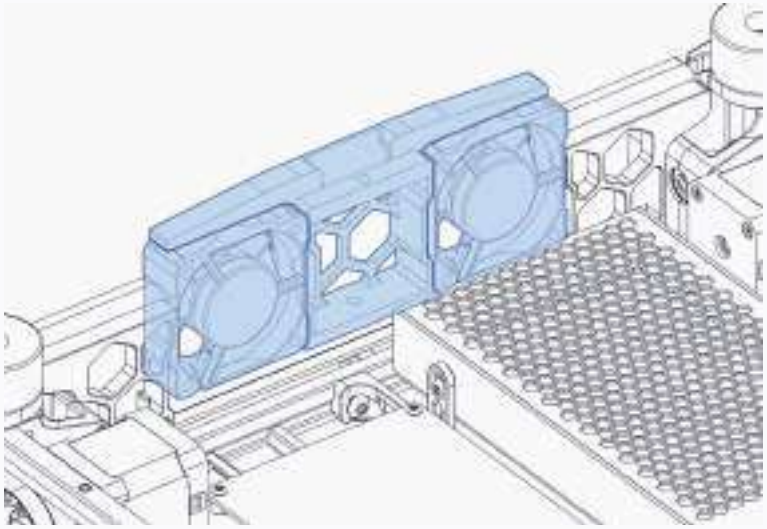


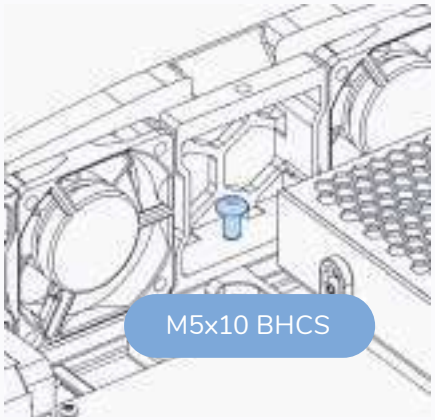


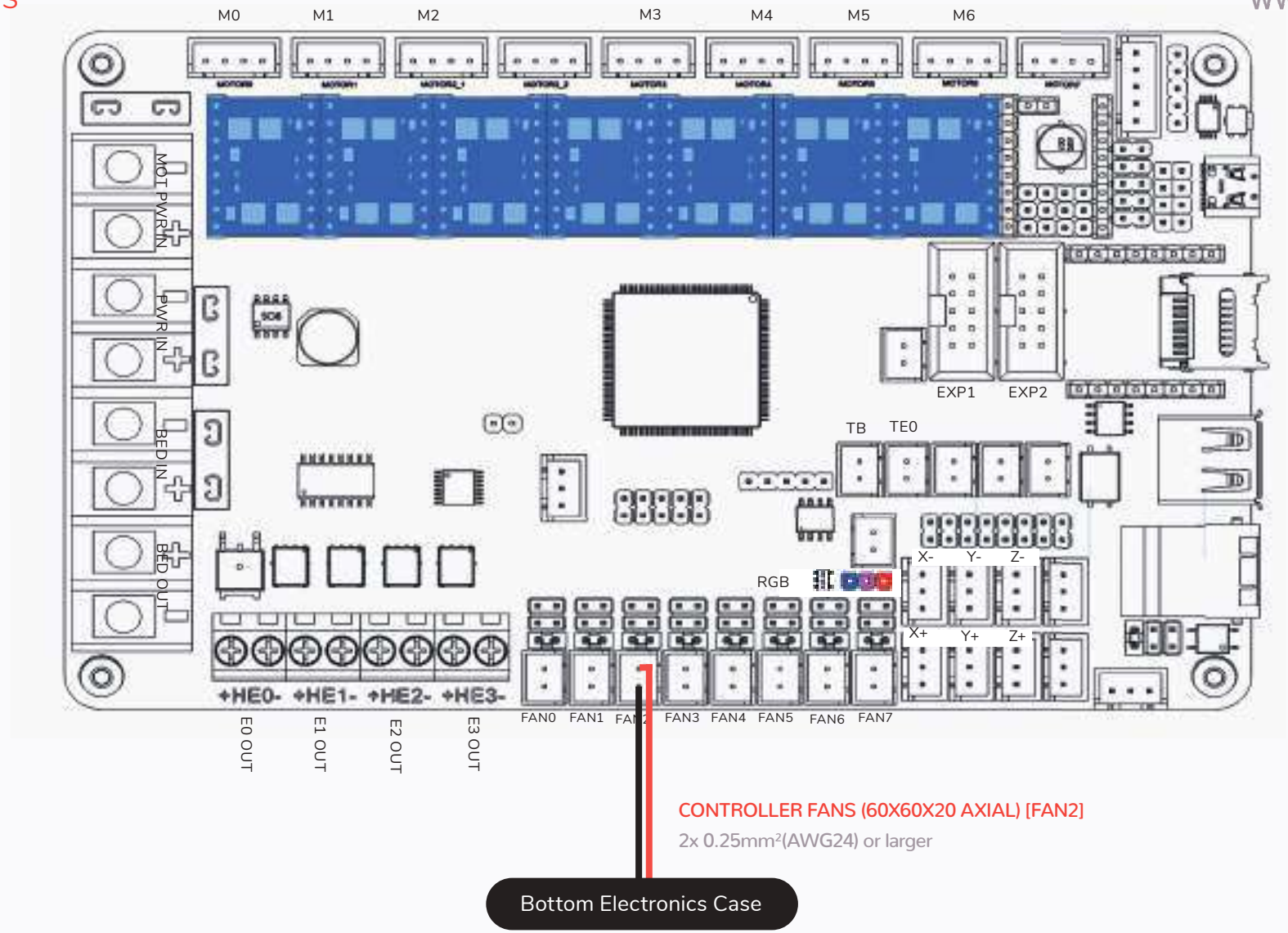






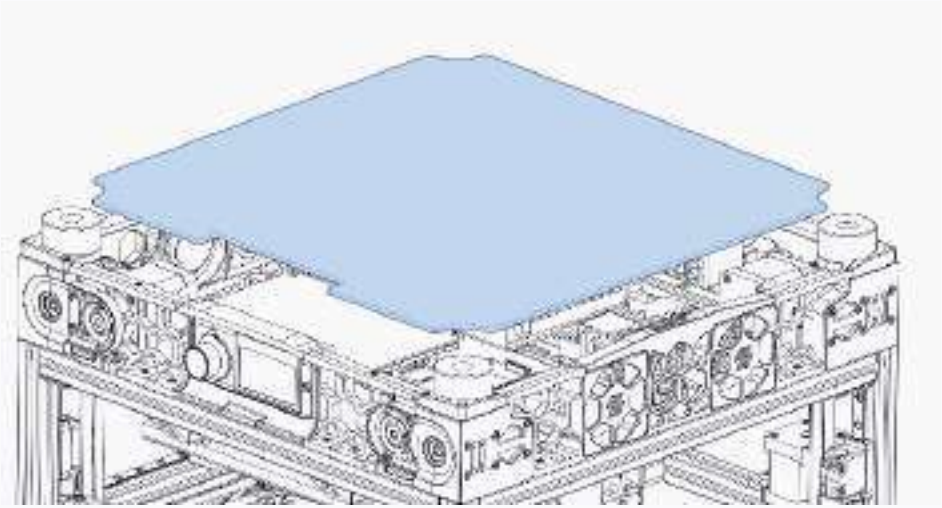


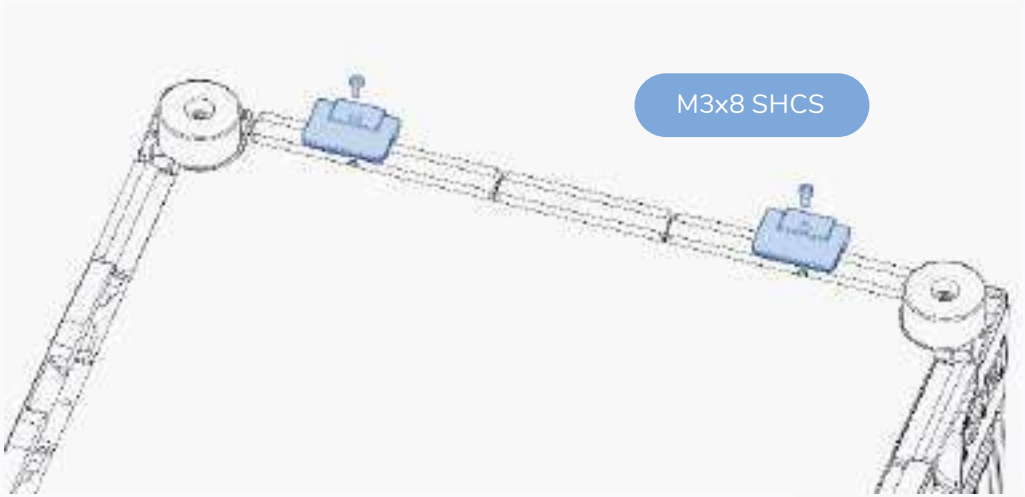


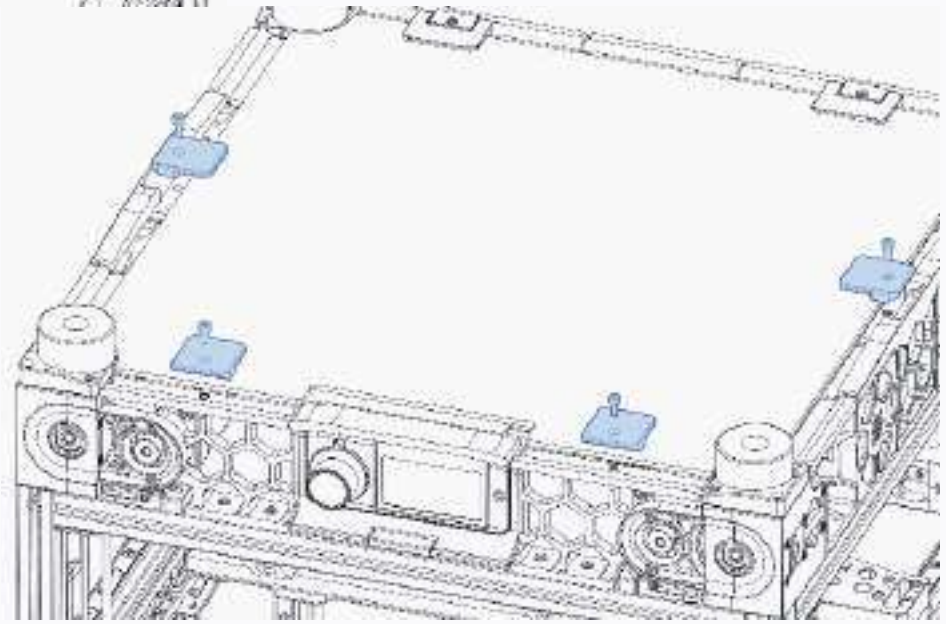


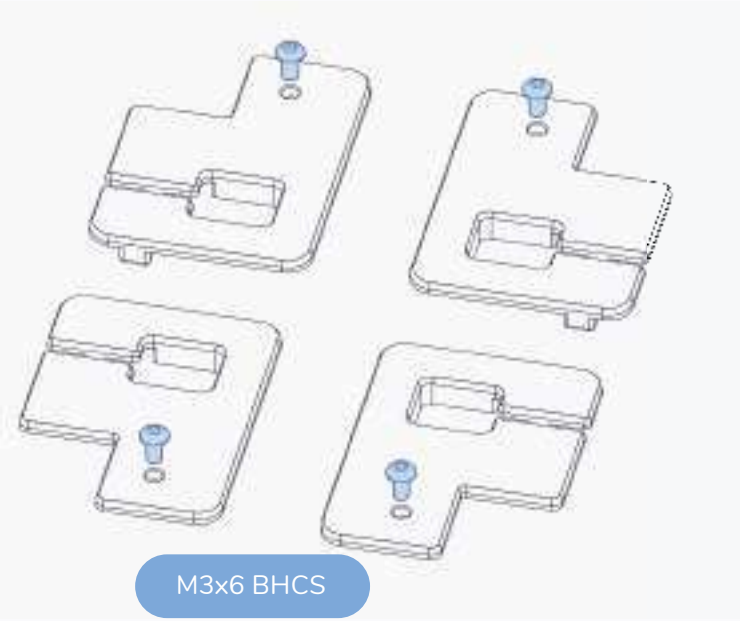
APPLY VHB TAPE

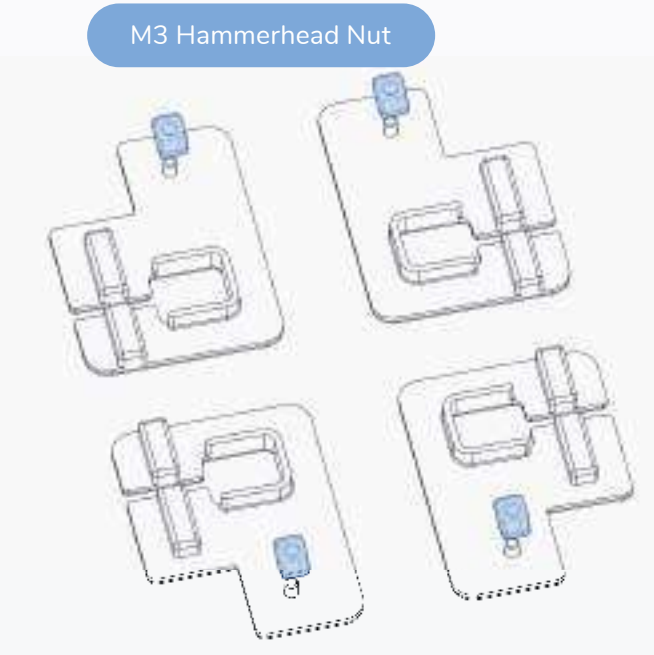
VHB Tape is a double sided adhesive tape.

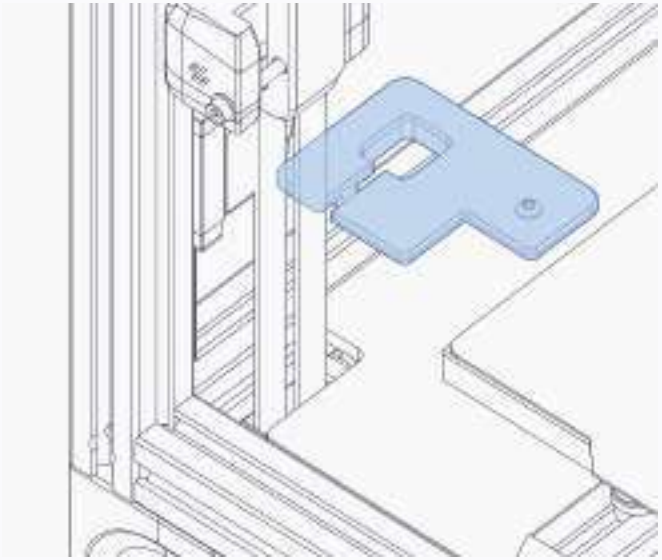


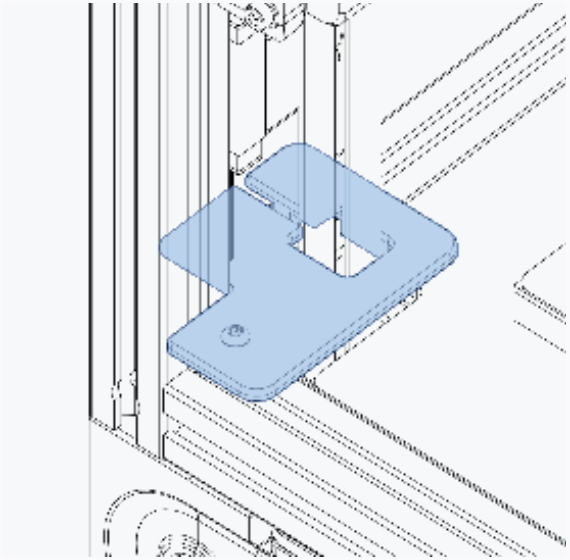


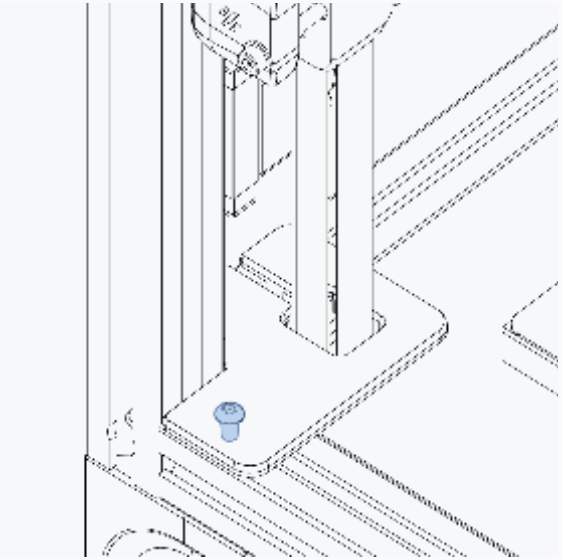










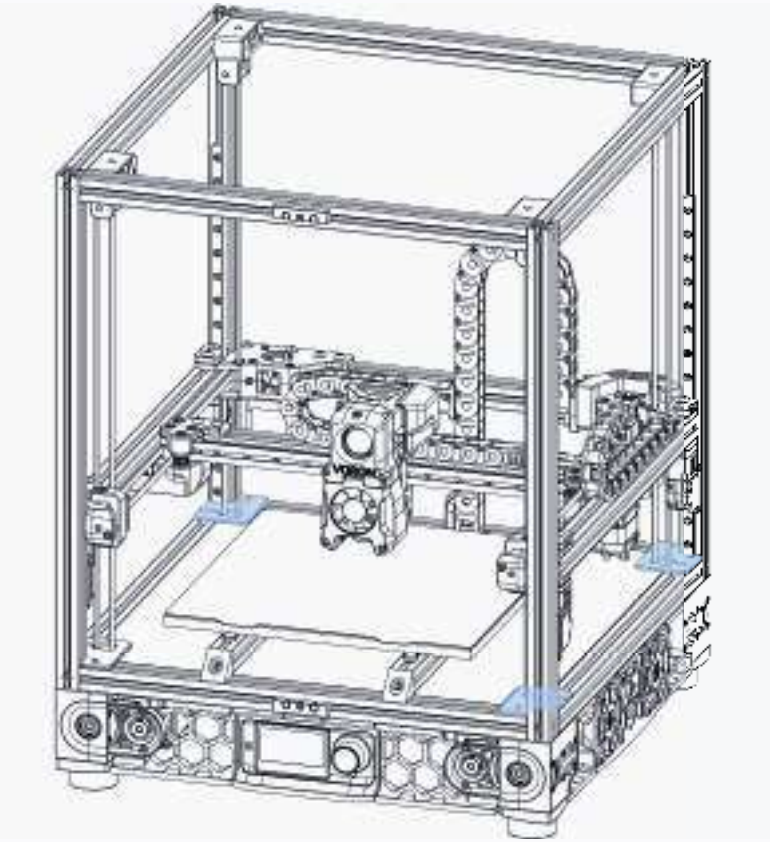


PINCH BELT

Pinch the Z belt loop flat and slide the cover in place.

TURN TO FASTEN

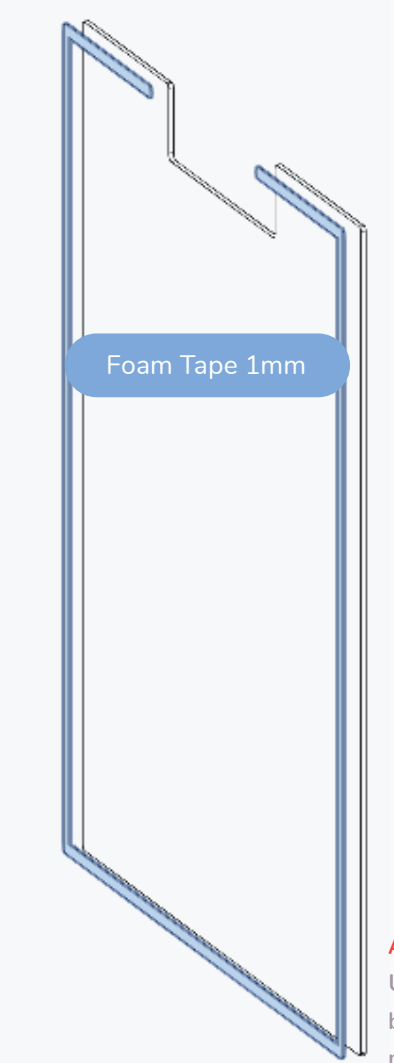
The hammerhead nut will rotate and lock into place when you fasten the screw. At least that's the theory.



REPEAT FOR REMAINING COVERS

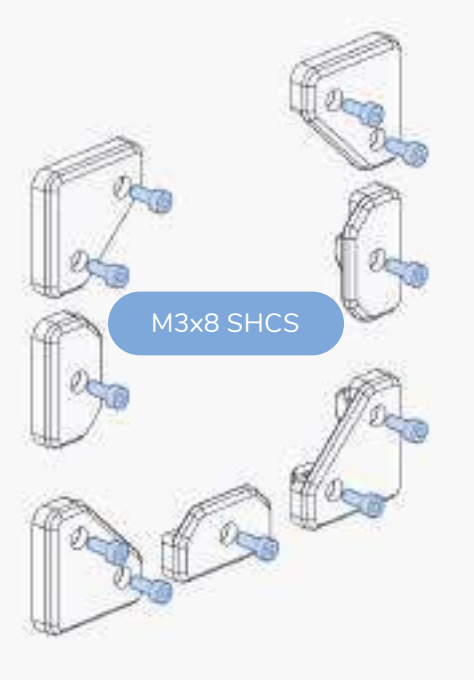
Repeat the assembly steps and install the remaining 3 covers.

Voron2.4 was released on May 13 2020. Between the releases of 2.4 and 2.4R2 over 2500 Voron2 printers have been build and serialized.



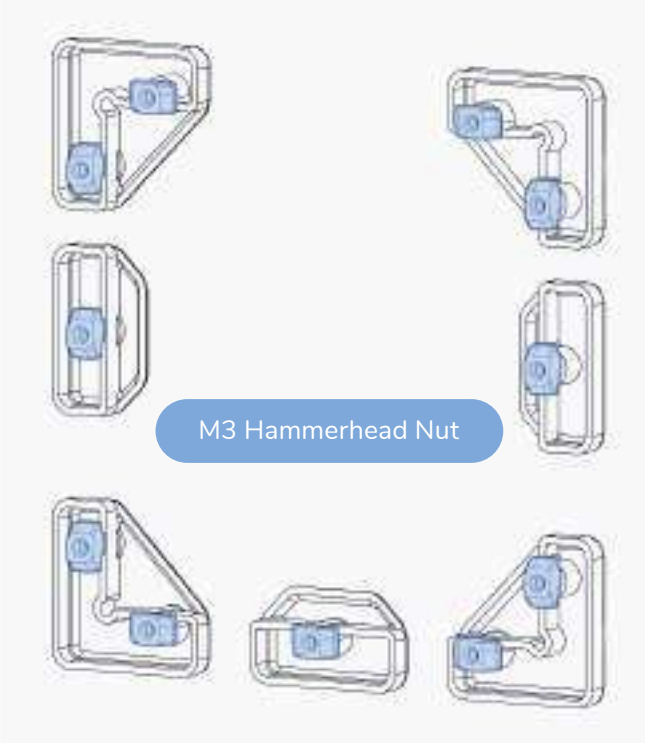
APPLY FOAM TAPE

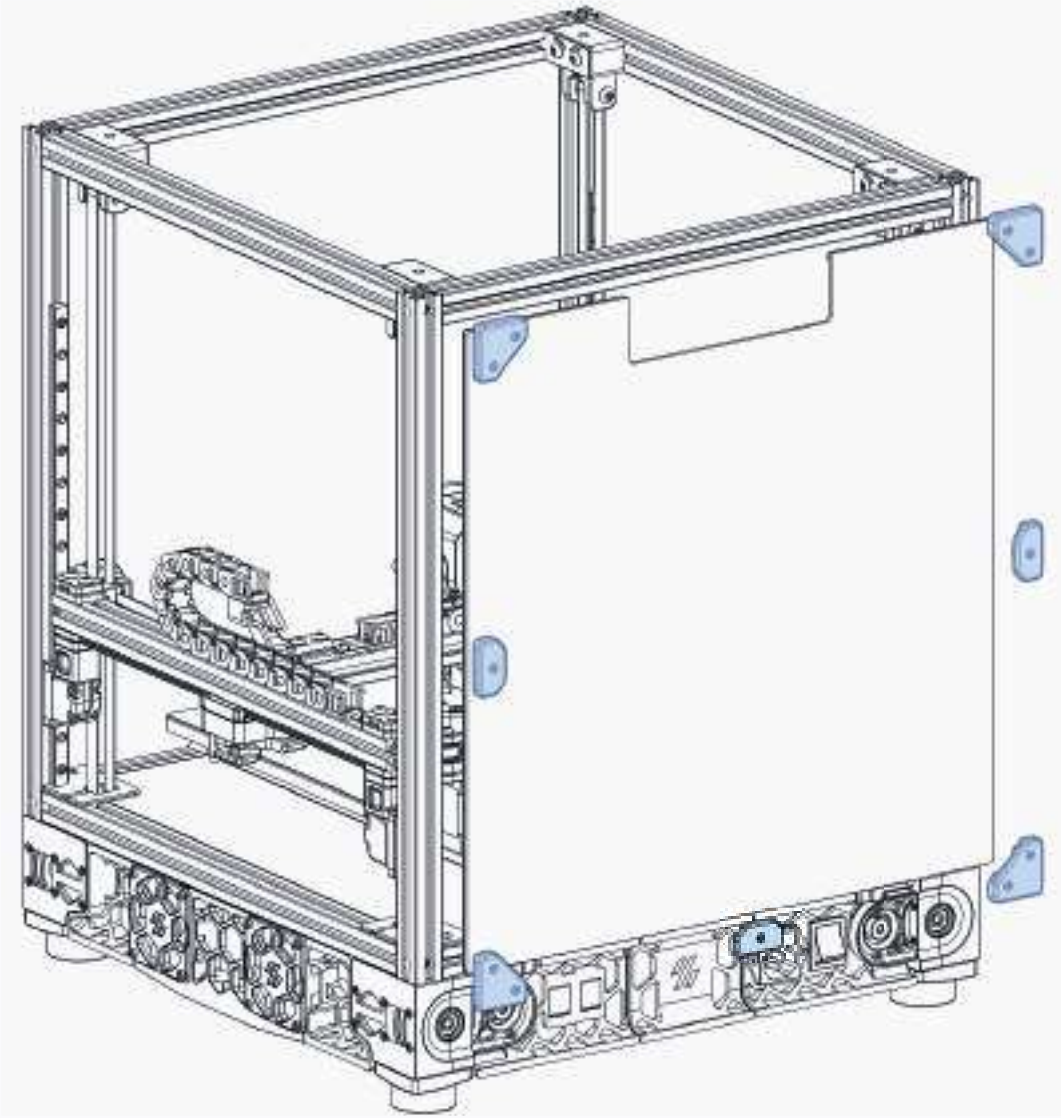
Use foam tape on the contact areas between the panels and the frame to mitigate noise from vibrations.

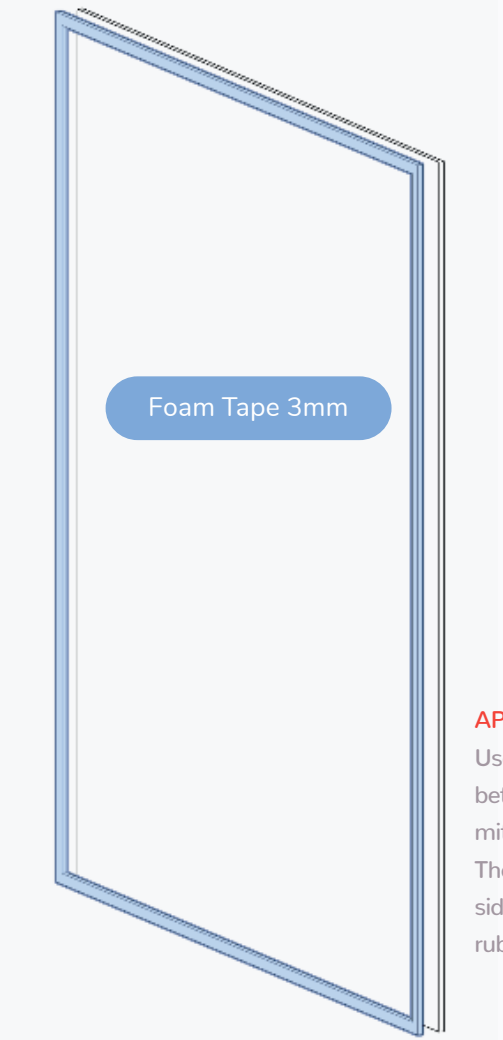


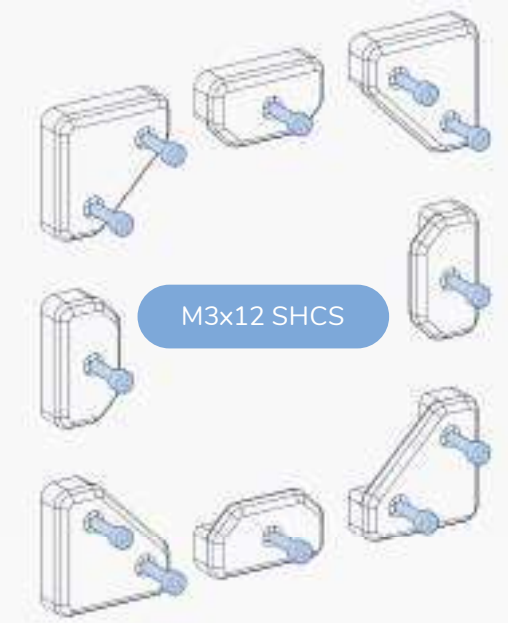
HAMMERHEAD NUTS?

A drop of thread locker will turn the hammerhead nuts into a 1/4 turn quick release for the panels. Best done once the assembly is finished.



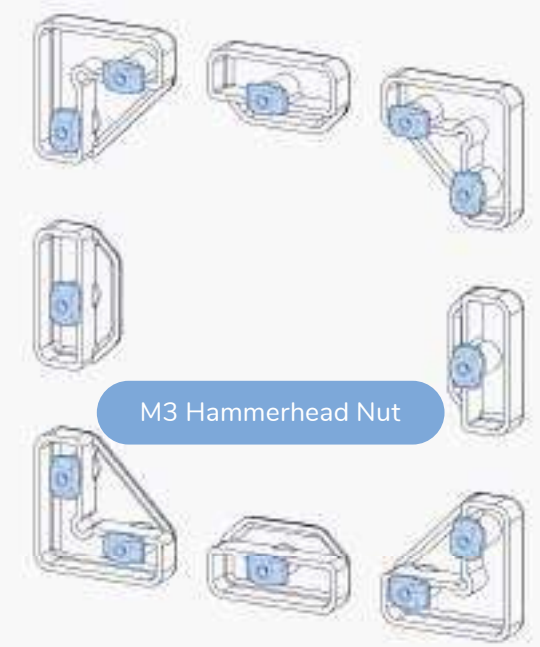


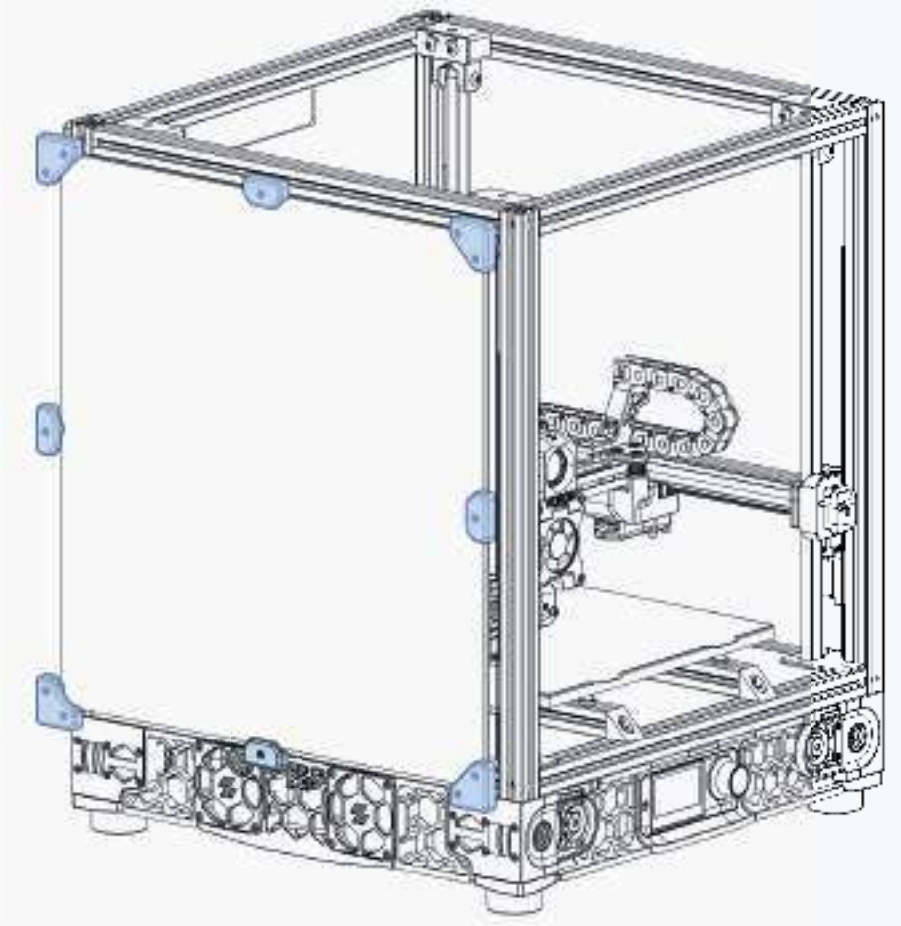


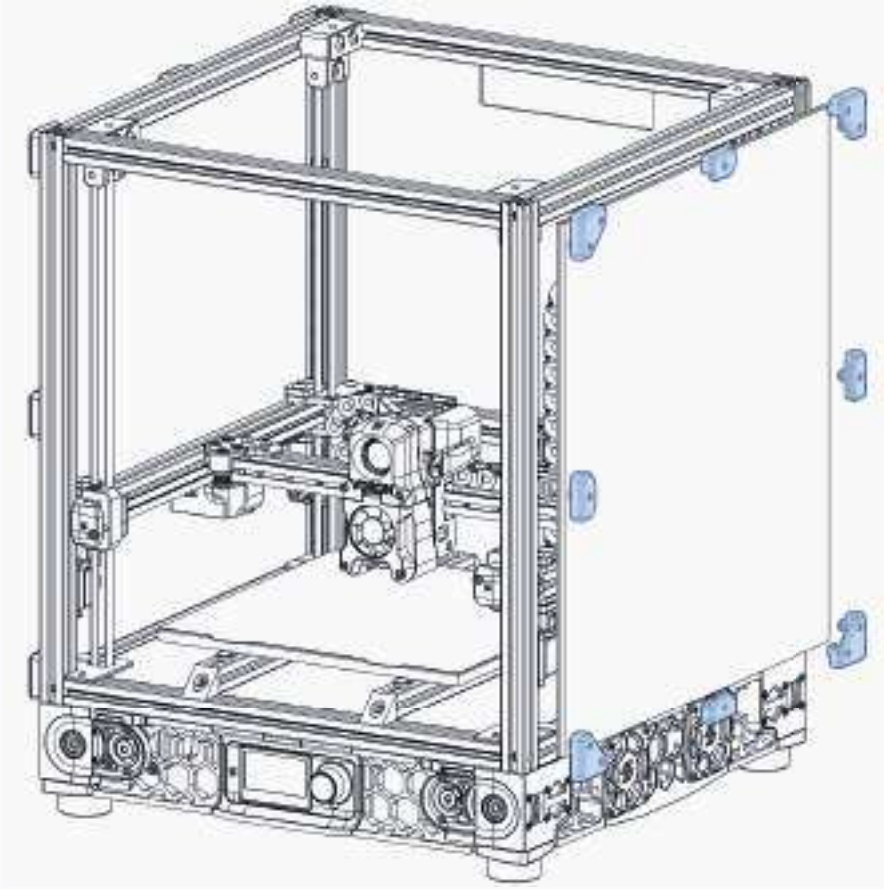


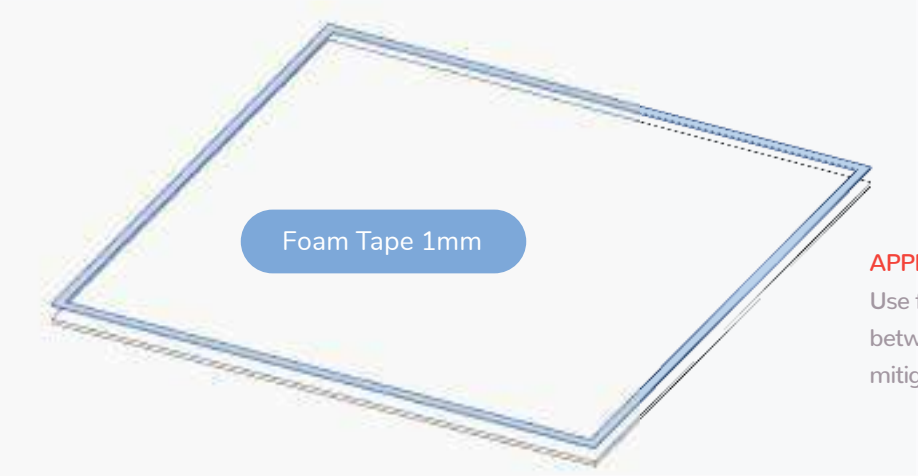
APPLY 3MM FOAM TAPE

Use foam tape on the contact areas between the panels and the frame to mitigate noise from vibrations.
The 3mm foam tape is used on the side panels to prevent the gantry from rubbing on the panels.



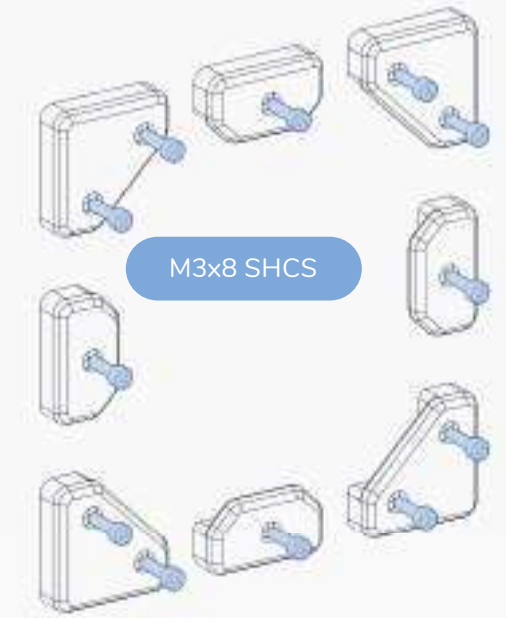


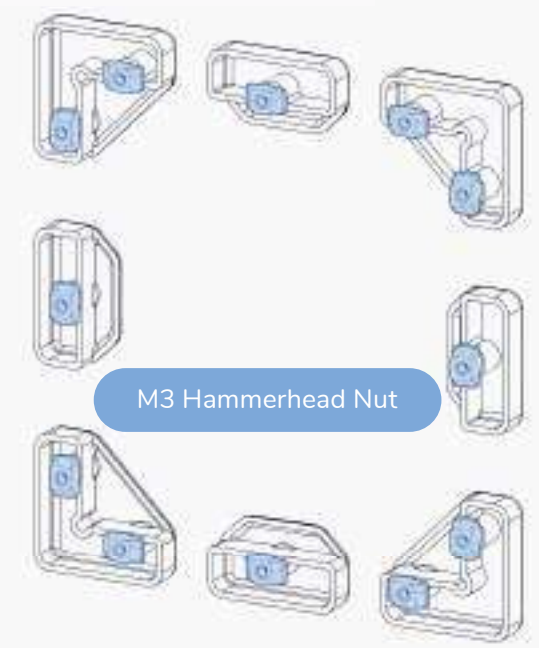


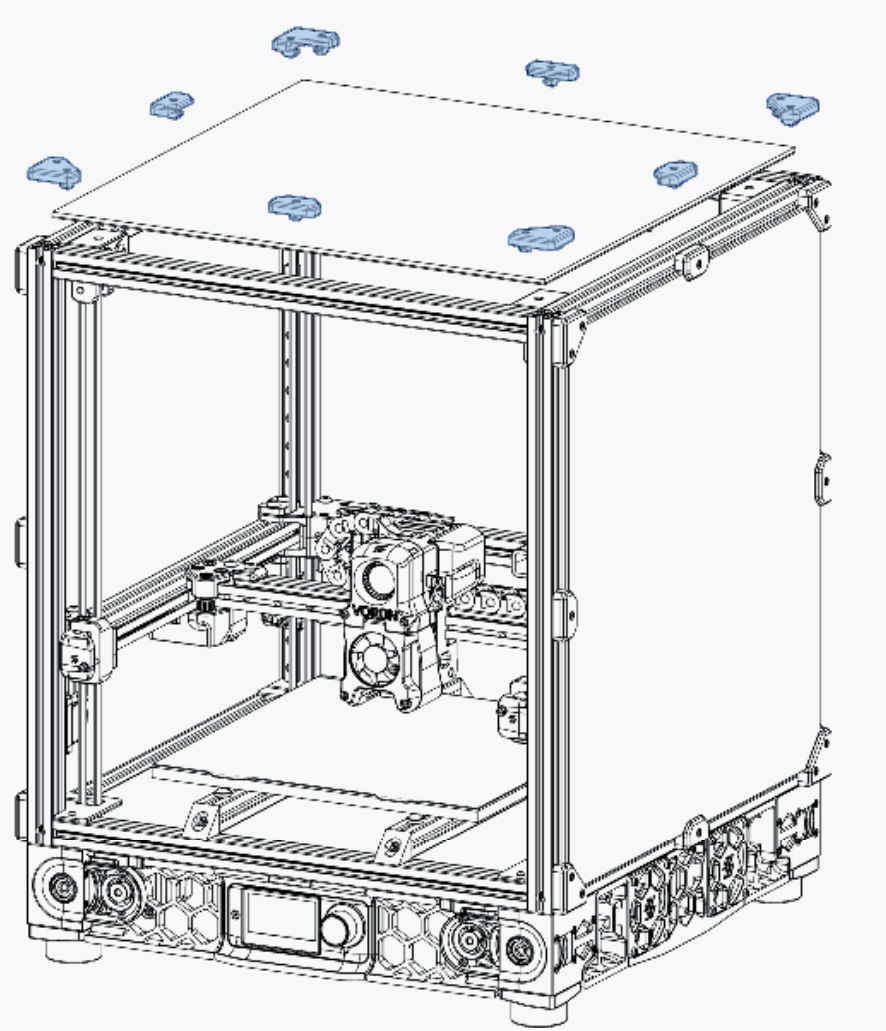


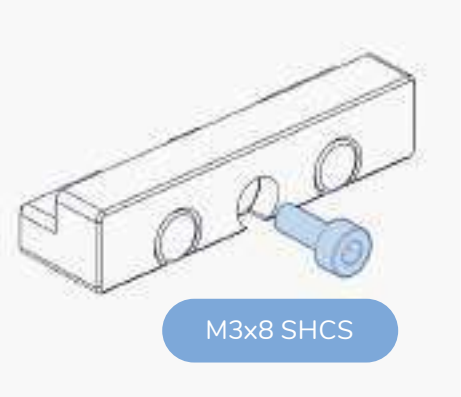
APPLY FOAM TAPE

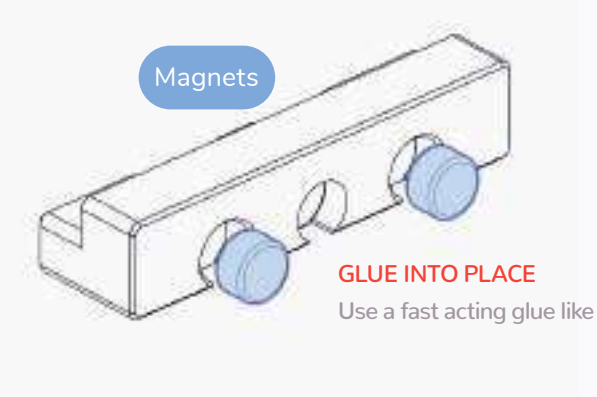
Use foam tape on the contact areas between the panels and the frame to mitigate noise from vibrations.





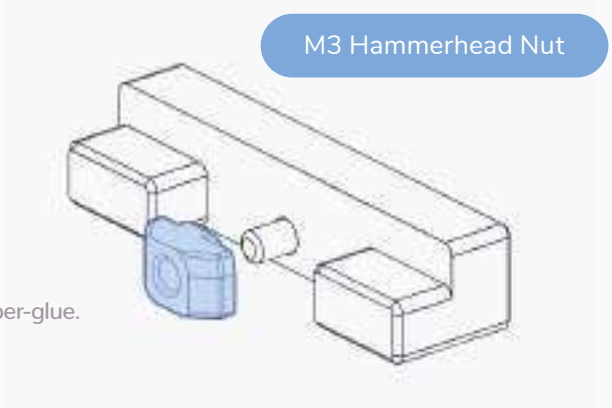


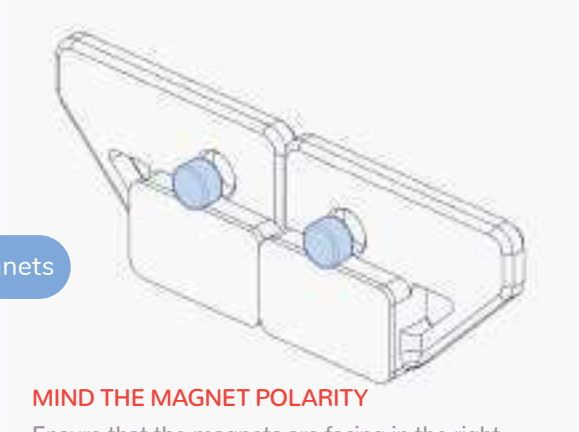




GLUE INTO PLACE

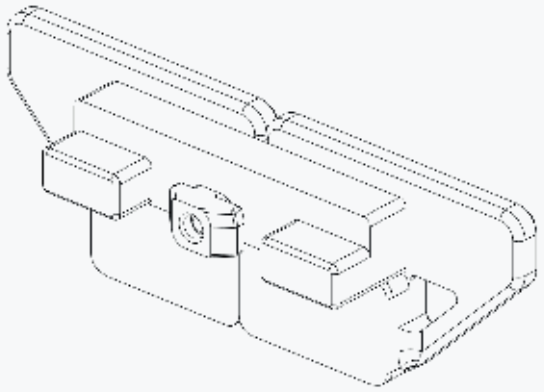
Use a fast acting glue like super-glue.

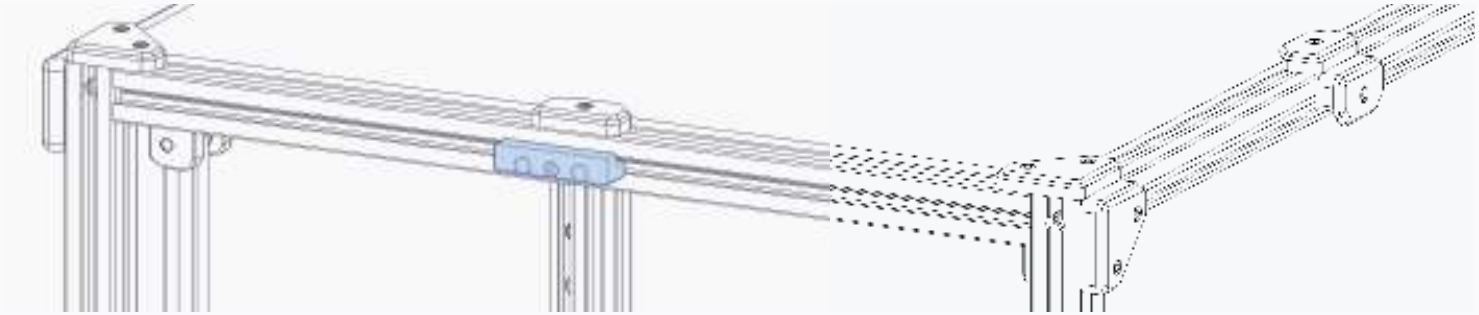


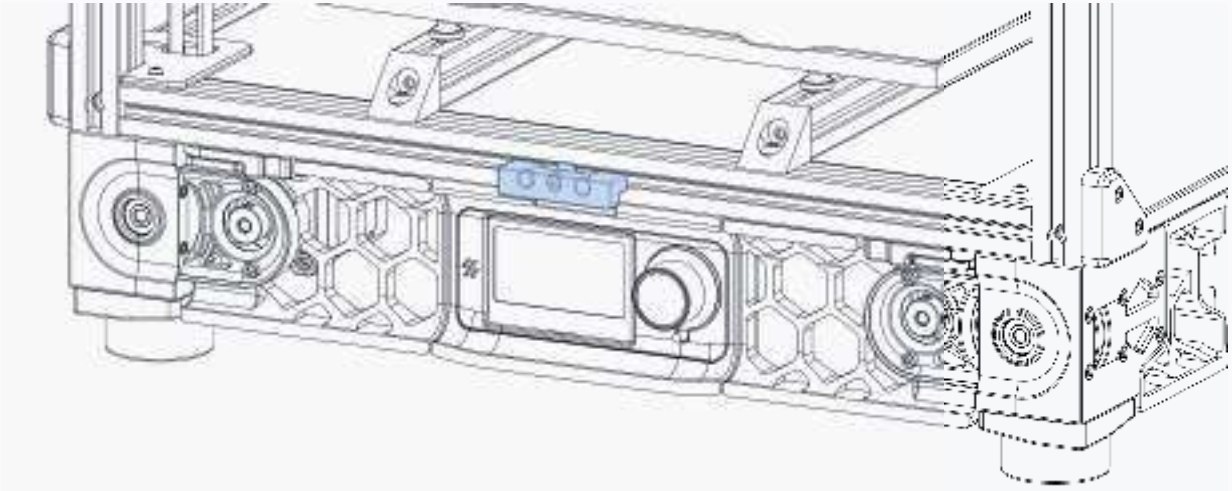


MIND THE MAGNET POLARITY

Ensure that the magnets are facing in the right direction prior to gluing them into place.

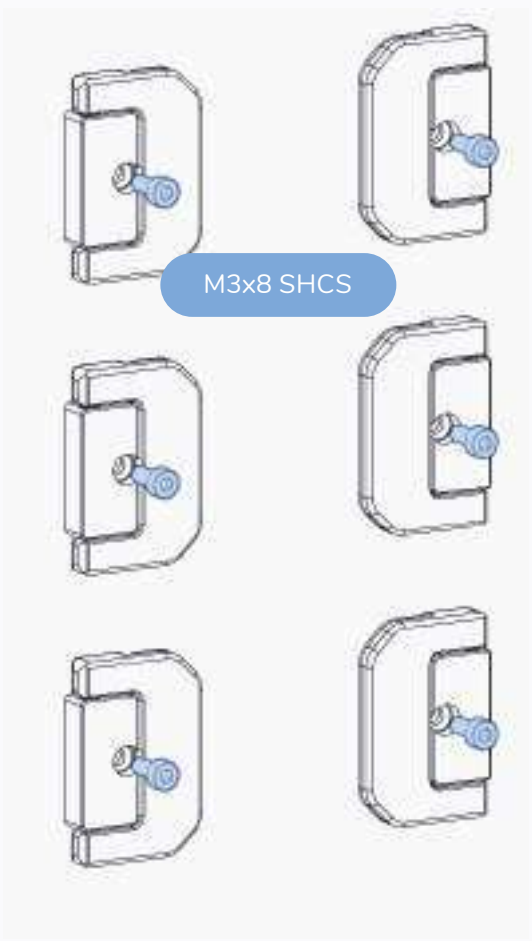


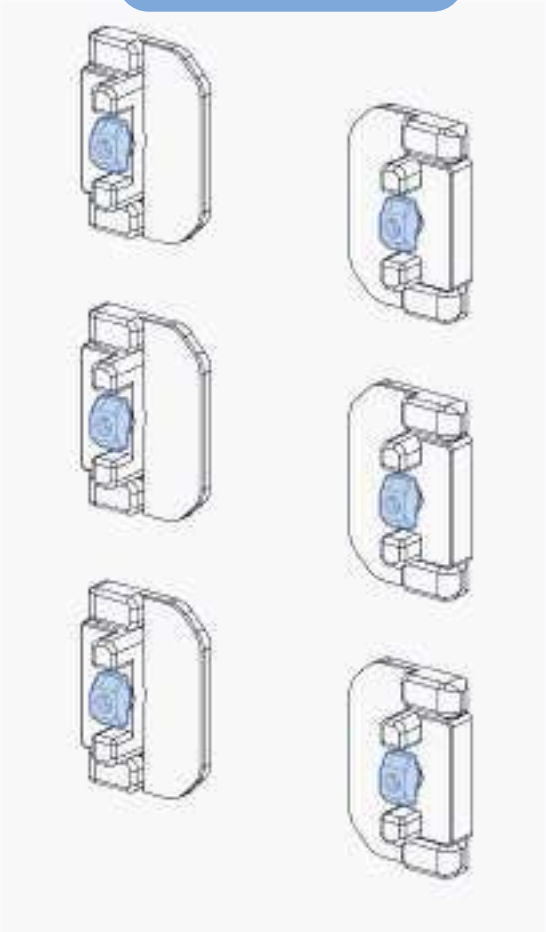


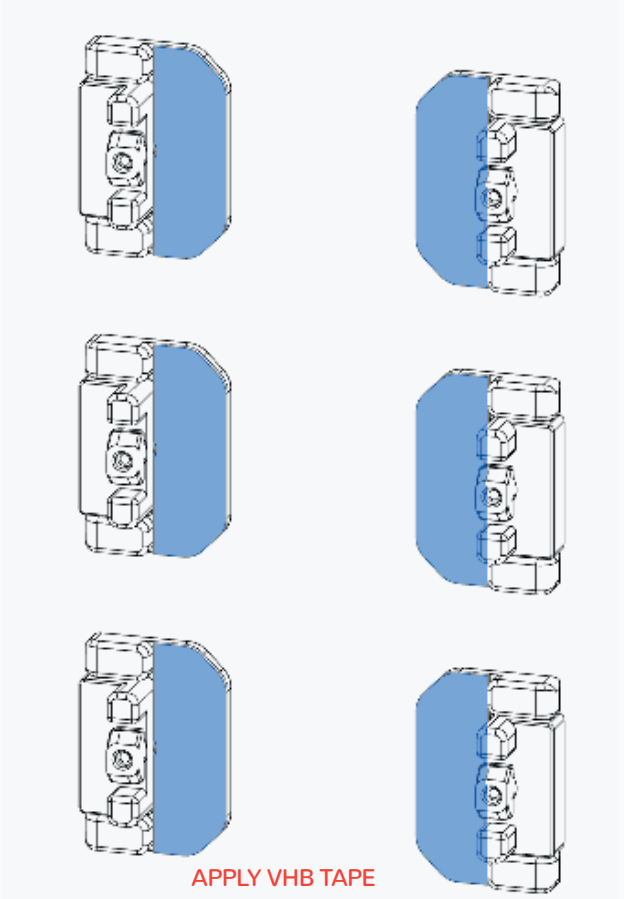


M3 Hammerhead Nut

M3x8 SHCS

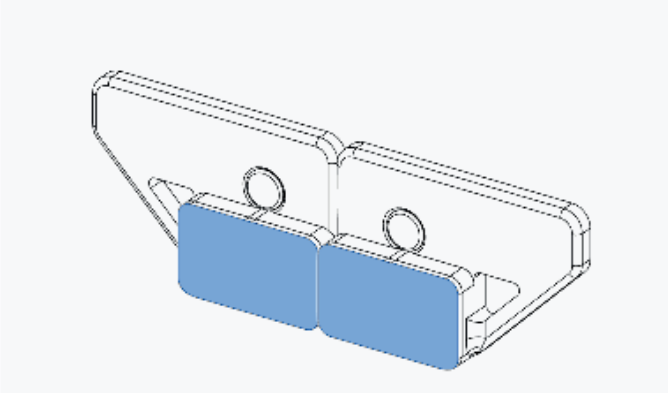






APPLY VHB TAPE

VHB Tape is a double sided adhesive tape.



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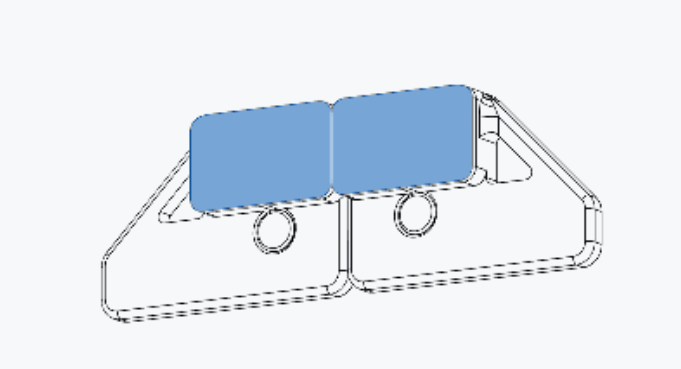
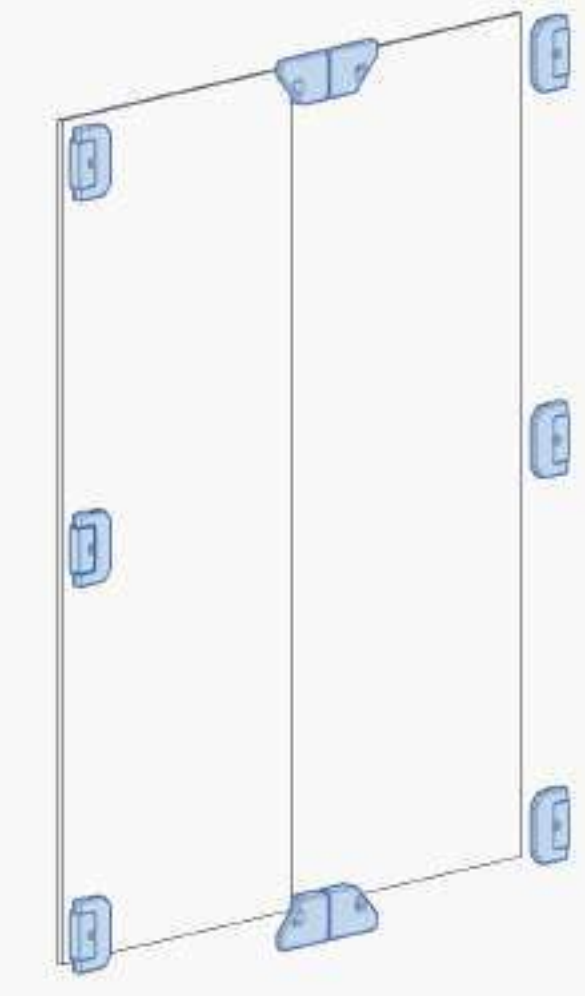
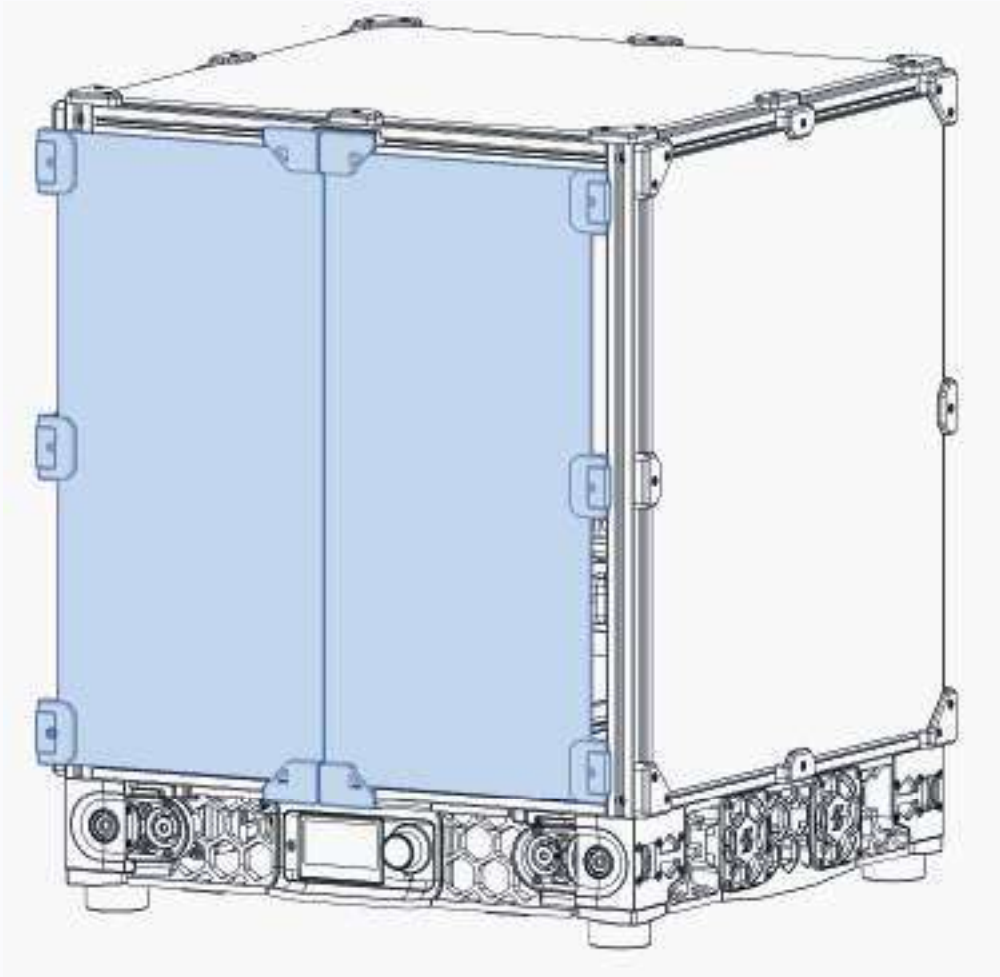
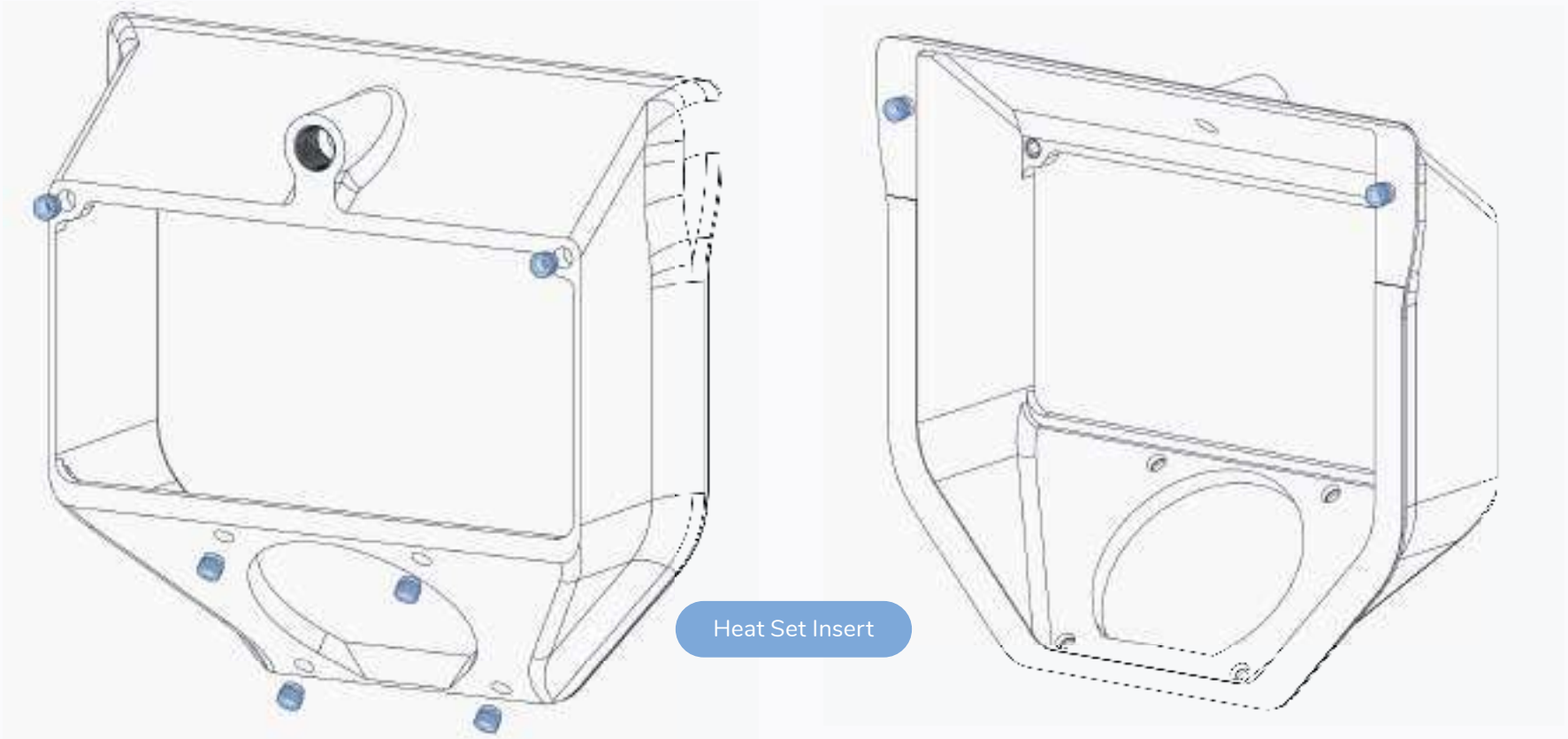




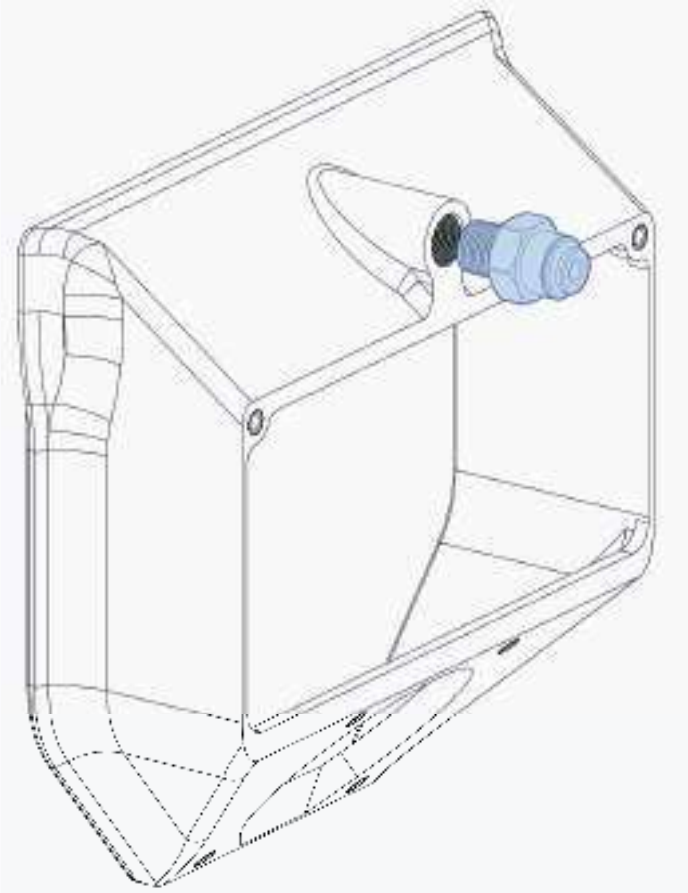


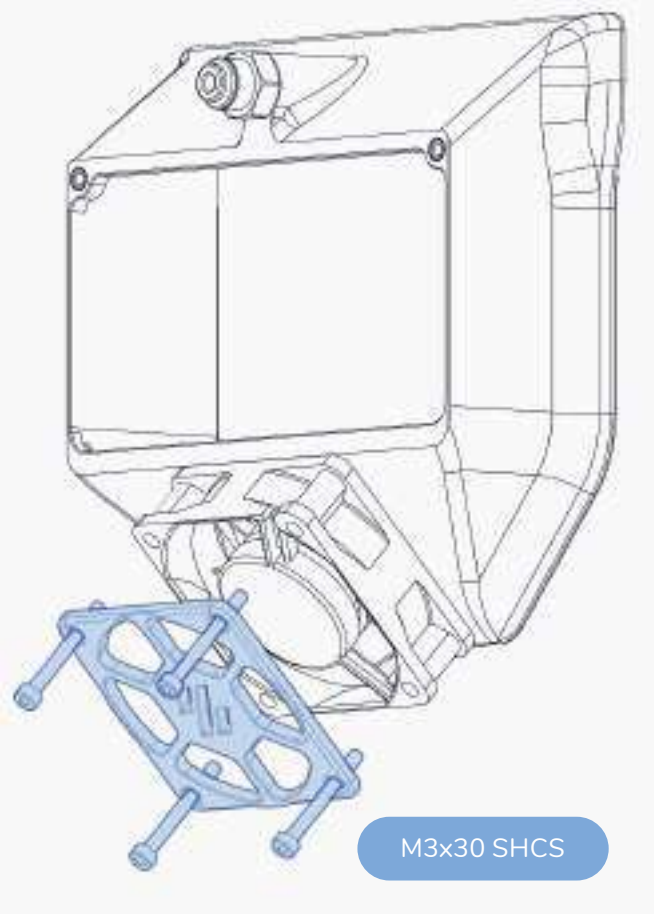


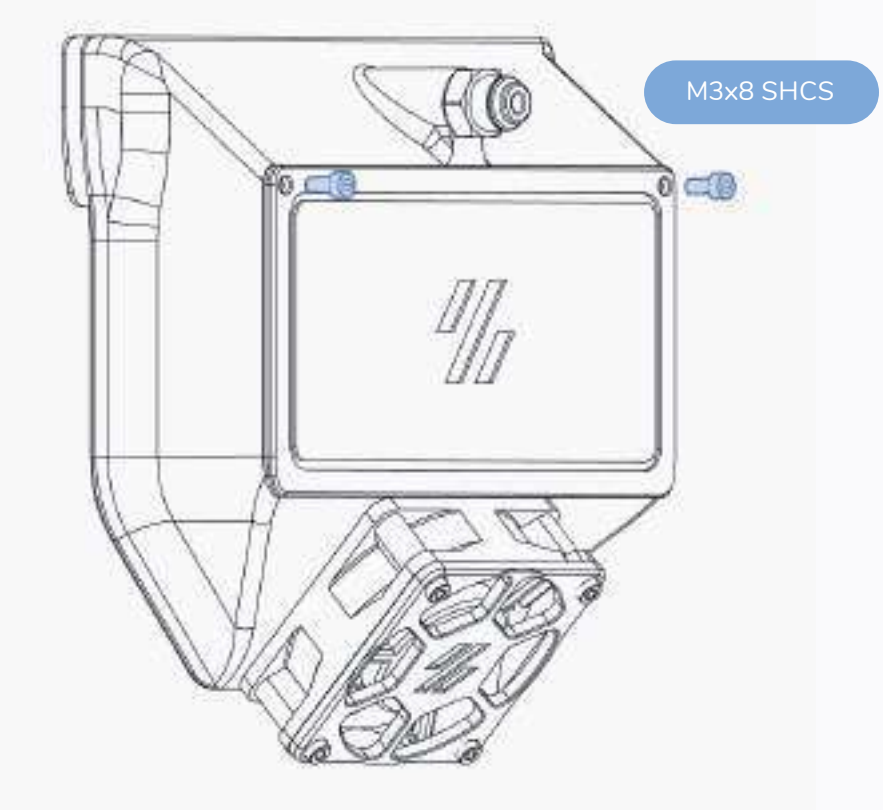
BSPP ADAPTER

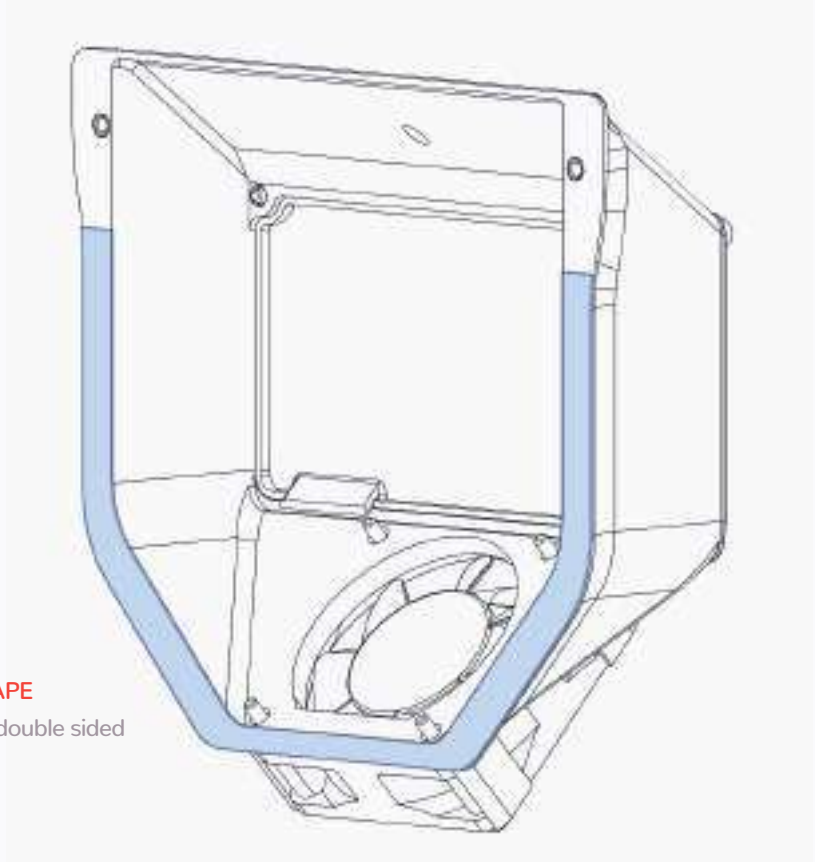
Some adapters have a small lip that prevents the PTFE tube from passing through.

Inspect the adapter and if necessary use a drill to carefully remove the lip.









APPLY VHB TAPE

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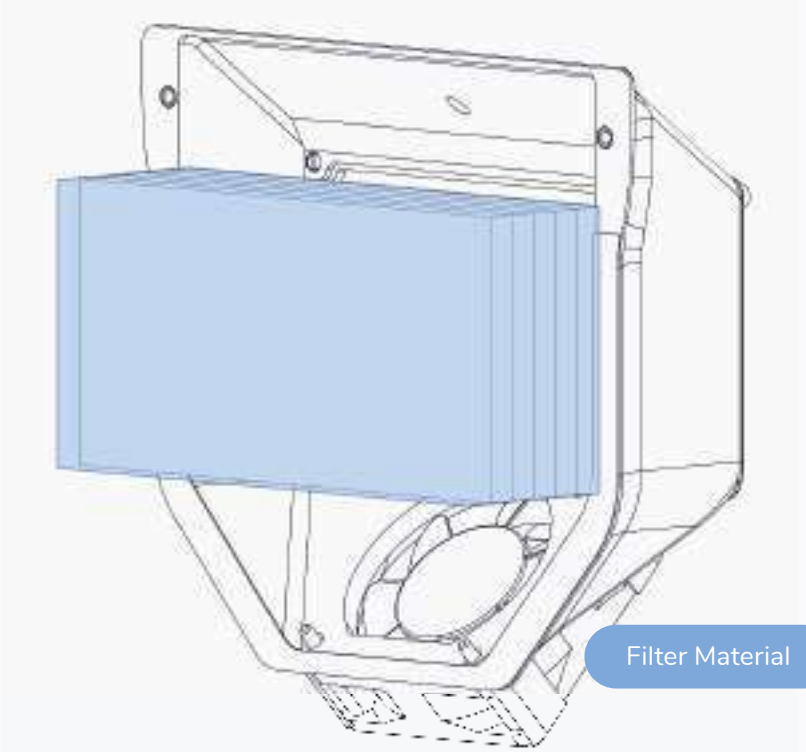
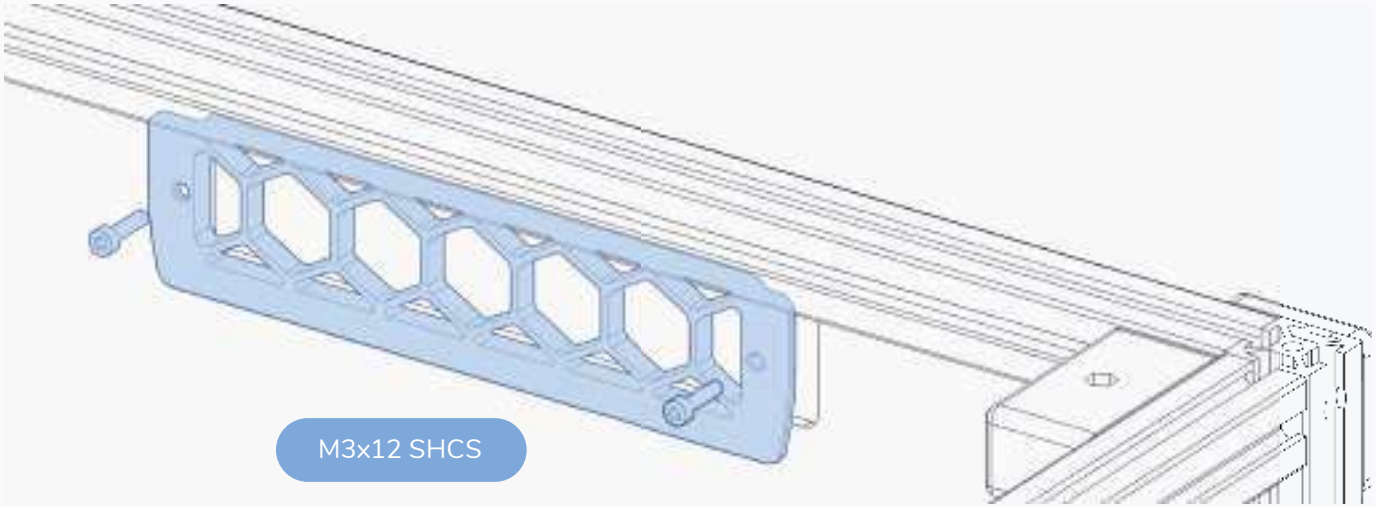
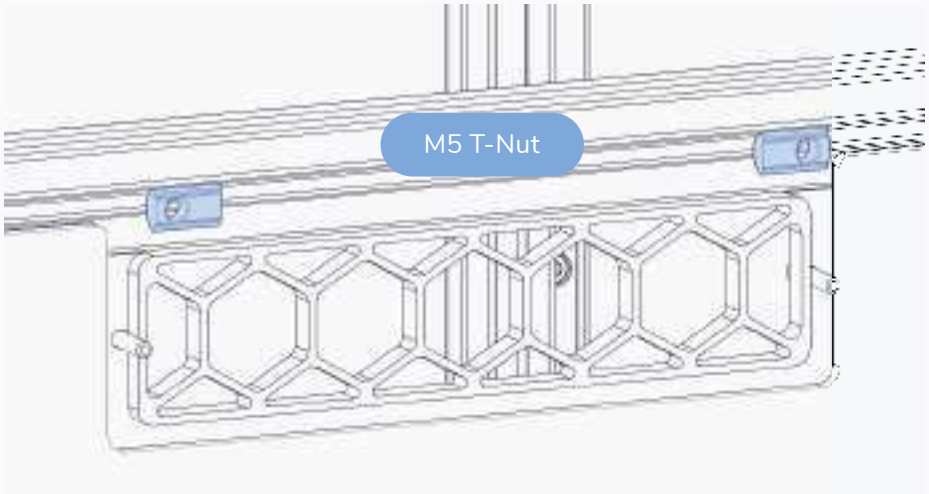
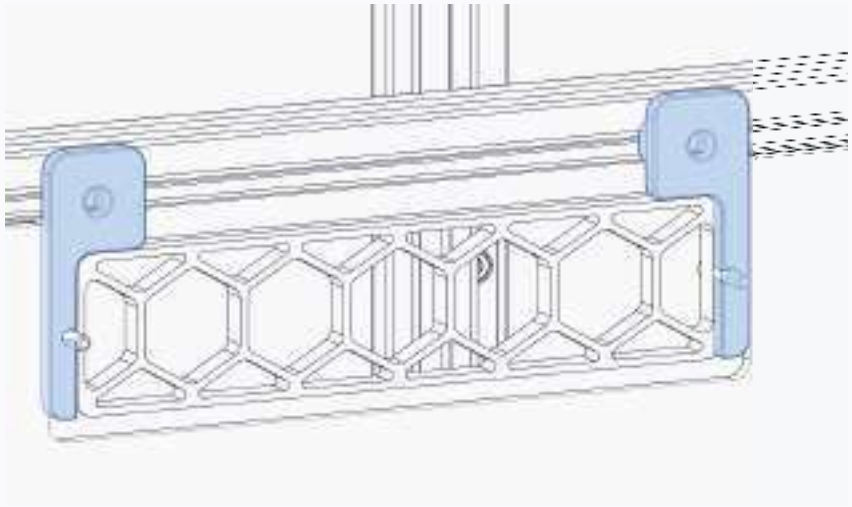
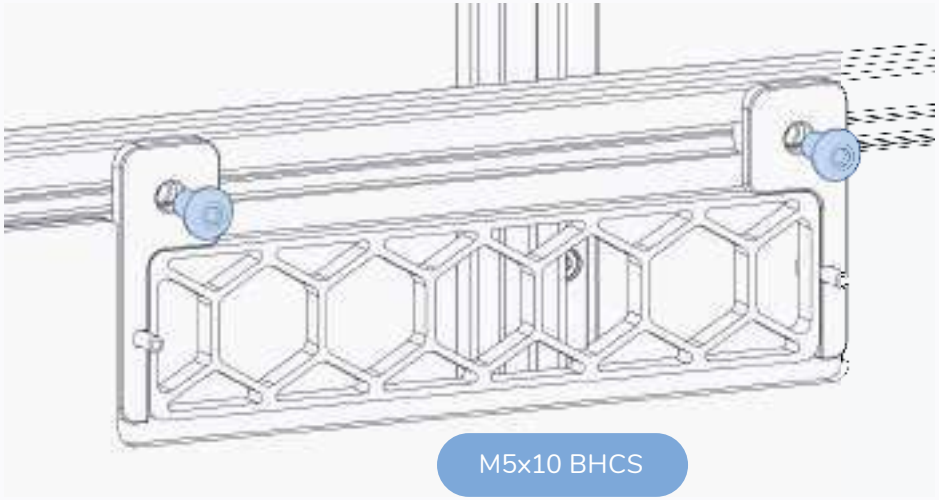
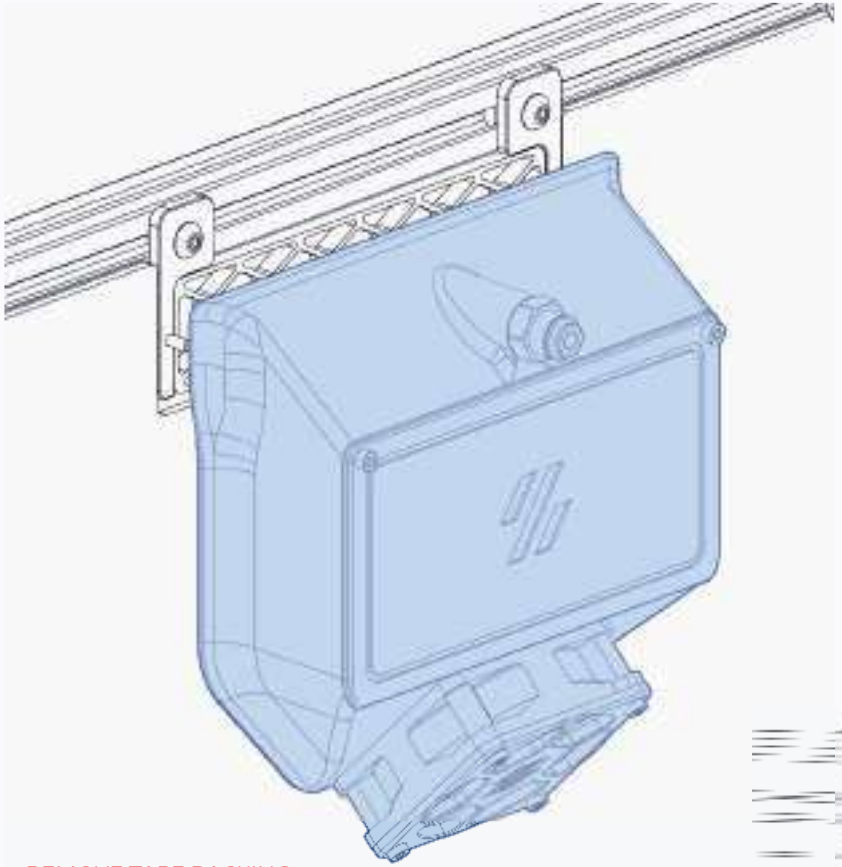








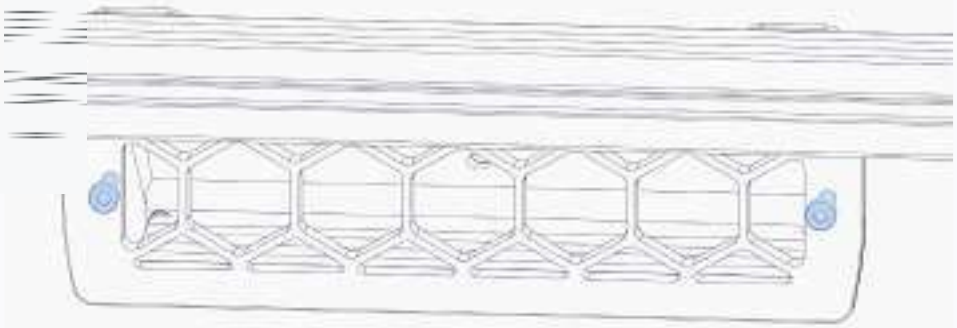




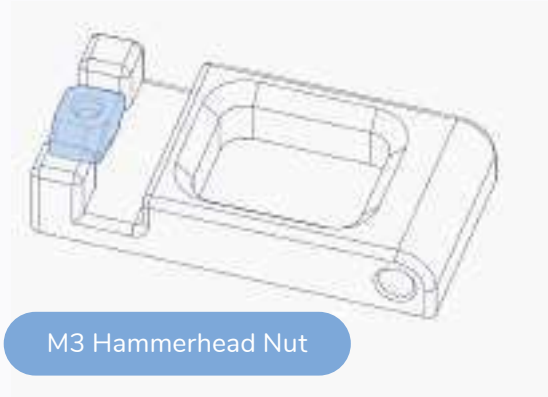
REMOVE TAPE BACKING

Attach the exhaust assembly to the back panel and secure it with the bolts on the other side of the exhaust gril.

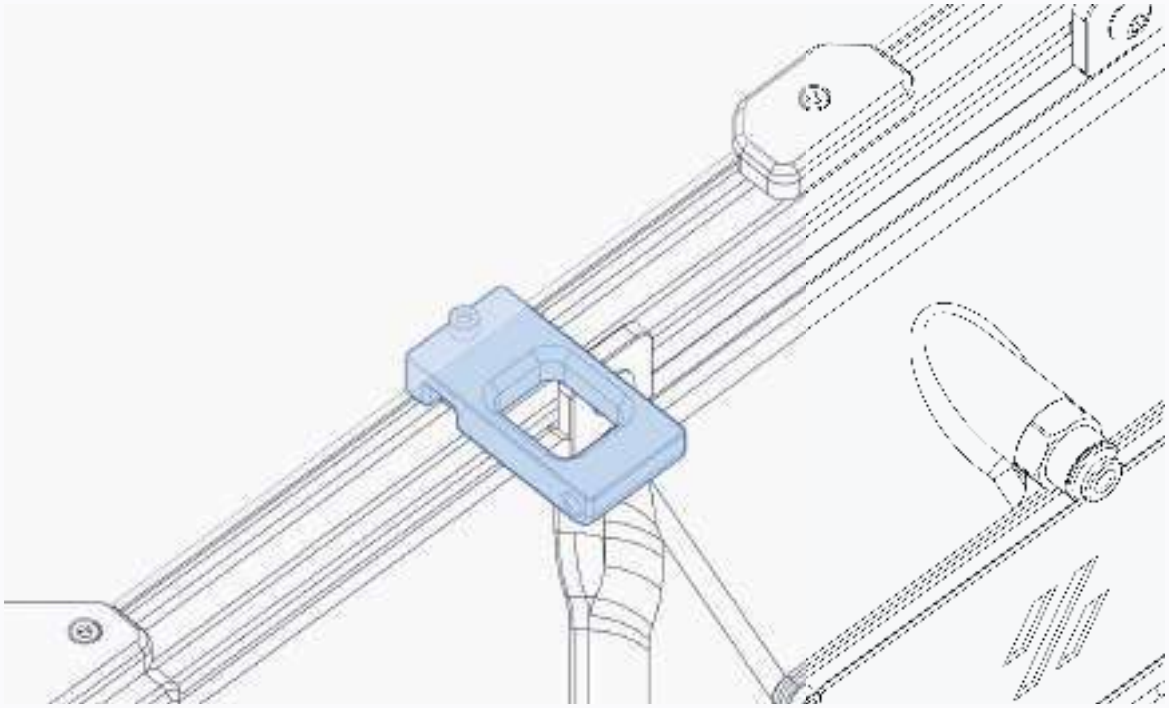
TIGHTEN BOLTS

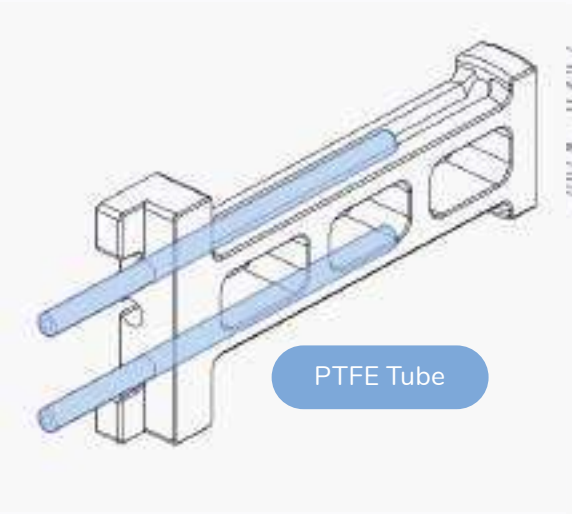


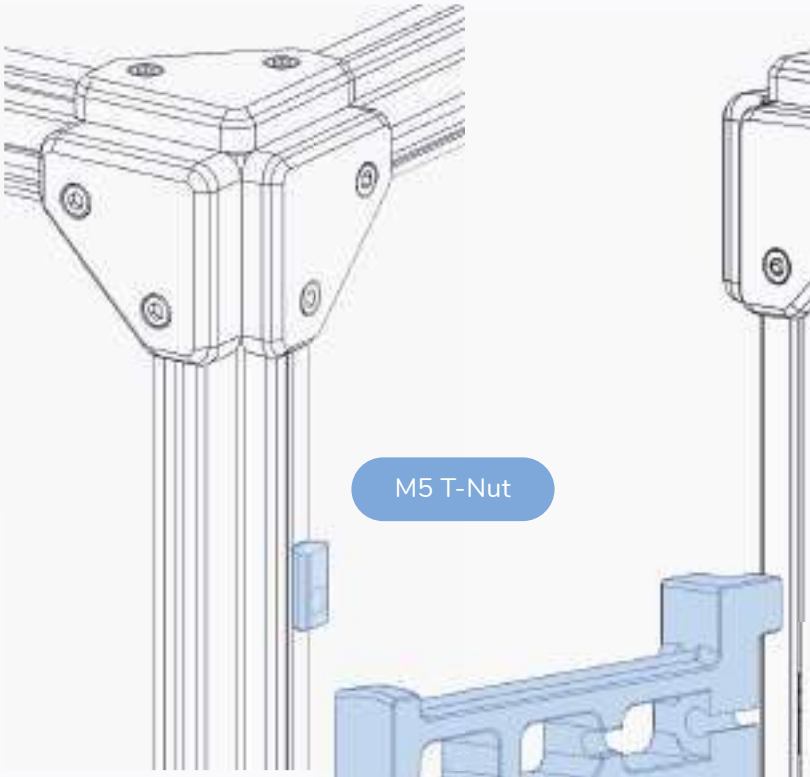
M3x8 SHCS

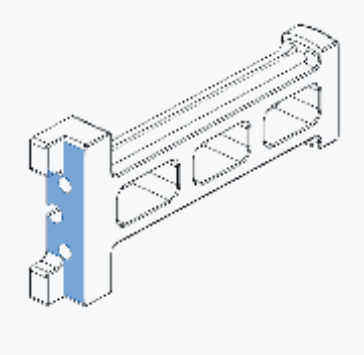


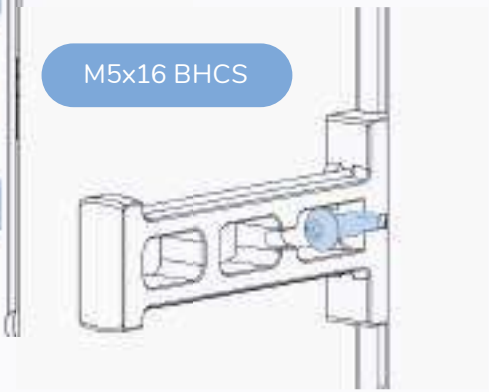
M3 Hammerhead Nut











ASSEMBLY COMPLETED! ... NEXT STEP: SETUP & CALIBRATION

This manual is designed to be a reference manual for the build process of a Voron2 printer. Additional details about the build and background on advanced topics can be found on our documentation page linked below.

The software setup and other initial setup steps with your new printer can also be found on our documentation page. We recommend starting here.

https://docs.vorondesign.com/

https://github.com/VoronDesign/Voron-2

HOW TO GET HELP

If you need assistance with your build, we're here to help. Head on over to our Discord group and post your questions. This is our primary medium to help VORON Users and we have a great community that can help you out if you get stuck. Alternativly, you can use our subreddit.

https://discord.gg/voron

https://www.reddit.com/r/VORONDesign

REPORTING ISSUES

Should you find an issue in this document or have a suggestion for an improvement please consider opening an issue on GitHub (https://github.com/VoronDesign/Voron-2/issues).
When raising an issue please include the relevant page numbers and a short description; annotated screenshots are also very welcome.
We periodically update the manual based on the feedback we get.

Enjoy your printer.

VORON

Website
www.vorondesign.com

Github
github.com/vorondesign

Docs
docs.vorondesign.com

Discord
discord.gg/voron