



SIBOOR BOOM ASSEMBLY

VERSION 2026/1/27

**Important Note:**

This assembly manual is exclusively designed for the SIBOOR BOOM kit.

To enhance user experience, SIBOOR has opted to create a new assembly guide from scratch, ensuring it closely matches the BOOM kit. The assembly logic and the presentation of most steps in this manual are inspired by the VORON 3d-printer manual.

Should you find an issue in the documentation or have a suggestion for an improvement please

consider opening an issue on GitHub
(<https://github.com/>).

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 feed-



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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 Siboor Users and we have a great community that can help you out if you get stuck.



Siboor Discord: <https://discord.gg/BMJD4puJf6>

Here are some portals for your convenience:

-SIBOOR DOCS: <https://docs.siboor.com>

PART PRINTING GUIDELINES

The Voron Team has provided the following print guidelines for you to follow in order to have the best chance at success with your parts. There are often questions about substituting materials or changing printing standards, but we recommend you follow these:

3D PRINTING PROCESS

Fused Deposition Modeling (FDM)

INFILL TYPE

Grid, Gyroid, Honeycomb, Triangle or Cubic

MATERIAL

ABS

INFILL PERCENTAGE

Recommended: 40%

LAYER HEIGHT

Recommended: 0.2mm

WALL COUNT

Recommended: 4

EXTRUSION WIDTH

Recommended: Forced 0.4mm

SOLID TOP/BOTTOM LAYERS

Recommended: 5

FILE NAMING

By this time you should have already downloaded our STL files from the Siboor GitHub. You might have noticed that we have used a unique naming convention for the files. This is how to use them.

PRIMARY COLOR

Example z_joint_lower_x4.stl

These files will have nothing at the start of the filename.

ACCENT COLOR

Example [a]_tensioner_left.stl

We have added “[a]” to the front of any STL file that is intended to be printed with accent color.

QUANTITY REQUIRED

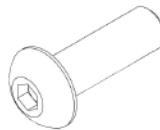
Example [a]_z_belt_clip_lower_x4.stl

If any file ends with “_x#”, that is telling you the quantity of that part required to build the machine.

*The prefix “[Two-color]” indicates that the STL file requires printing with two different colors of ABS filament.



In this manual, parts marked with a red star indicate they are ACCENT COLOR.



BUTTON HEAD CAP BOLT (BHCS)

Metric fastener with a domed shape head and hex drive. Most commonly found in locations where M5 fasteners are used.



FLAT HEAD COUNTERSUNK BOLT (FHCS)

Metric fastener with a cone shaped head and a flat top.



HEX NUT

Hex nuts couple with bolts to create a tight, secure joint. You'll see these used in both M3 and M5 variants throughout this guide.



POST INSTALL T-SLOT NUT (T-NUT)

Nut that can be inserted into the slot of an aluminium profile. Used in both M3 and M5 variants throughout this guide. Often also called "roll-in t-nut".



FLANGE NUT

A flange nut is a nut with a wide edge that increases contact area, distributes pressure, and prevents loosening.



SOCKET HEAD CAP BOLT (SHCS)

Metric fastener with a cylindrical head and hex drive. The most common fastener used on the Voron.



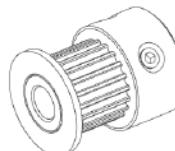
HEAT SET INSERT

Heat inserts with a soldering tip so that they melt the plastic when installed. As the plastic cools, it solidifies around the knurls and ridges on the insert for excellent resistance to both torque and pull-out.



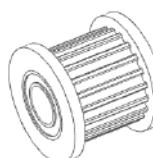
F695 BEARING

A ball bearing with a flange used in various gantry locations.



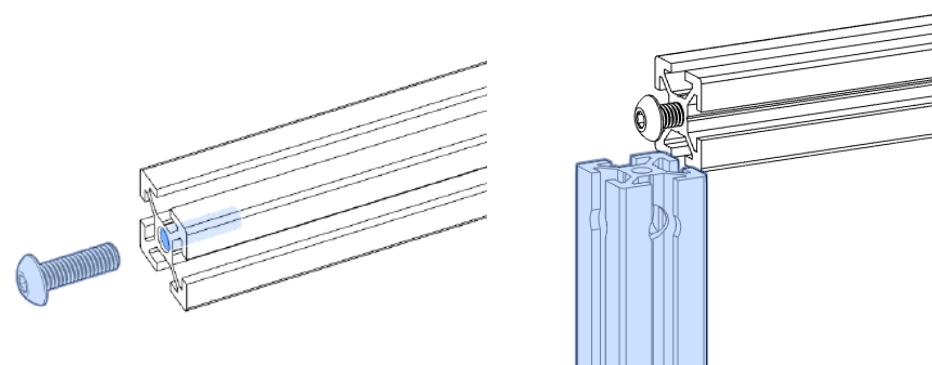
PULLEY

GT2 pulley used on the motion system of the Voron.



IDLER

GT2 idler used on the motion system of the Voron.

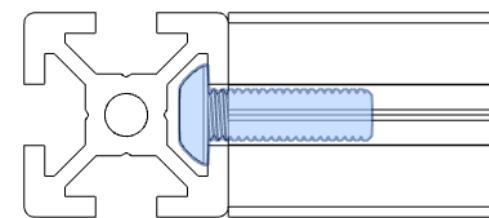
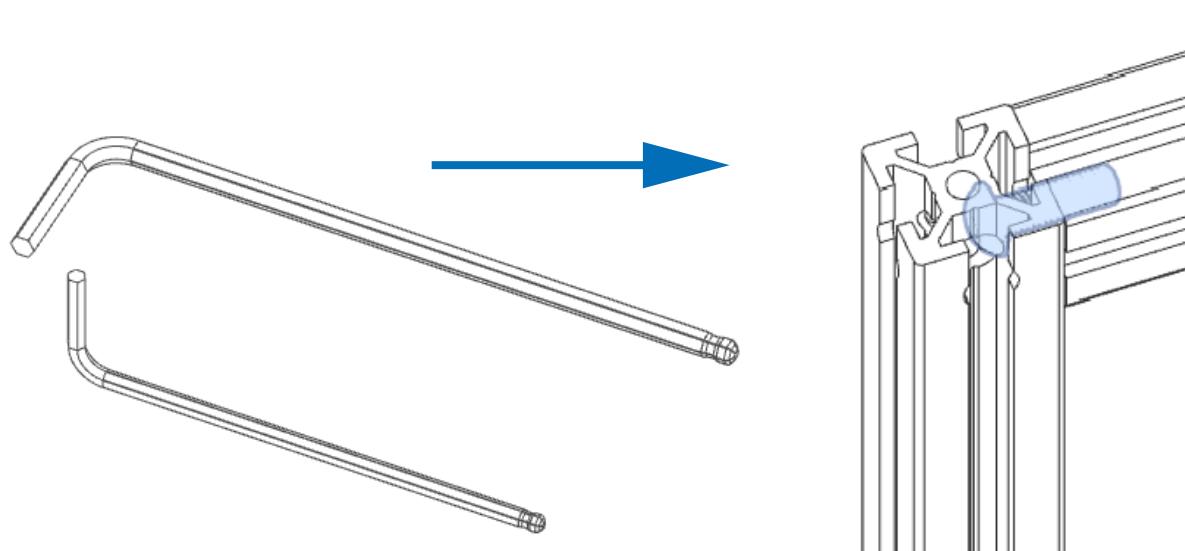


BLIND JOINT BASICS

Blind Joints provide a cost effective and rigid assembly method

The head of the BHCS is slid into the channel of another extrusion and securely fastened through a small access hole in the extrusion.

If you've never assembled one before we recommend you watch the linked guide.



<https://voron.link/onjwmcd>



SORT SHAFTS

Collect your shaft and sort them by threaded or not.

B Shaft x2



M5x0.8 6H

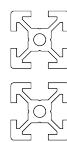


A Shaft x2

M5x0.8 6H



C Extrusion x2



D Extrusion x1



A Extrusion x2



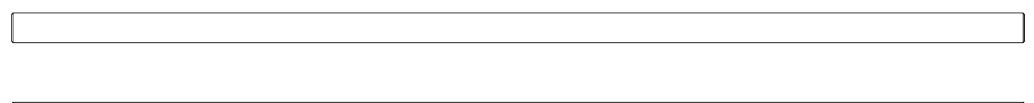
E Extrusion x1



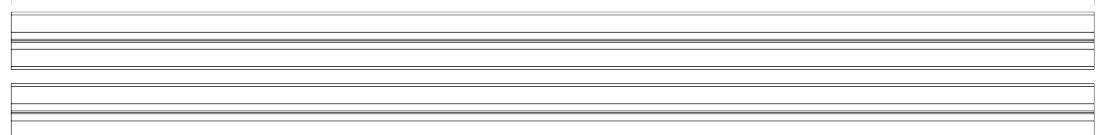
B Extrusion x2



350



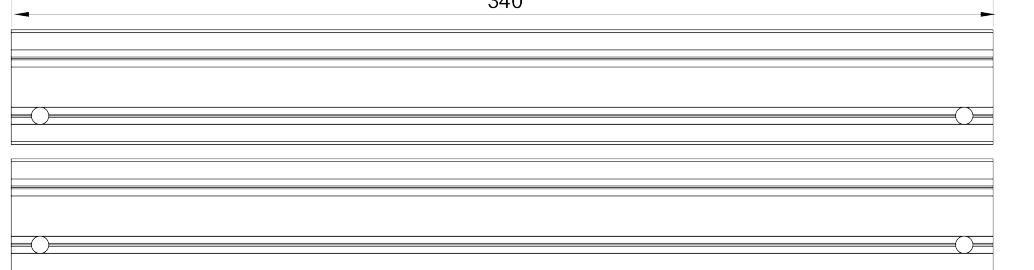
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350



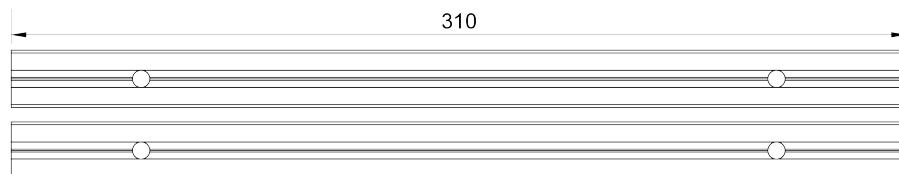
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330



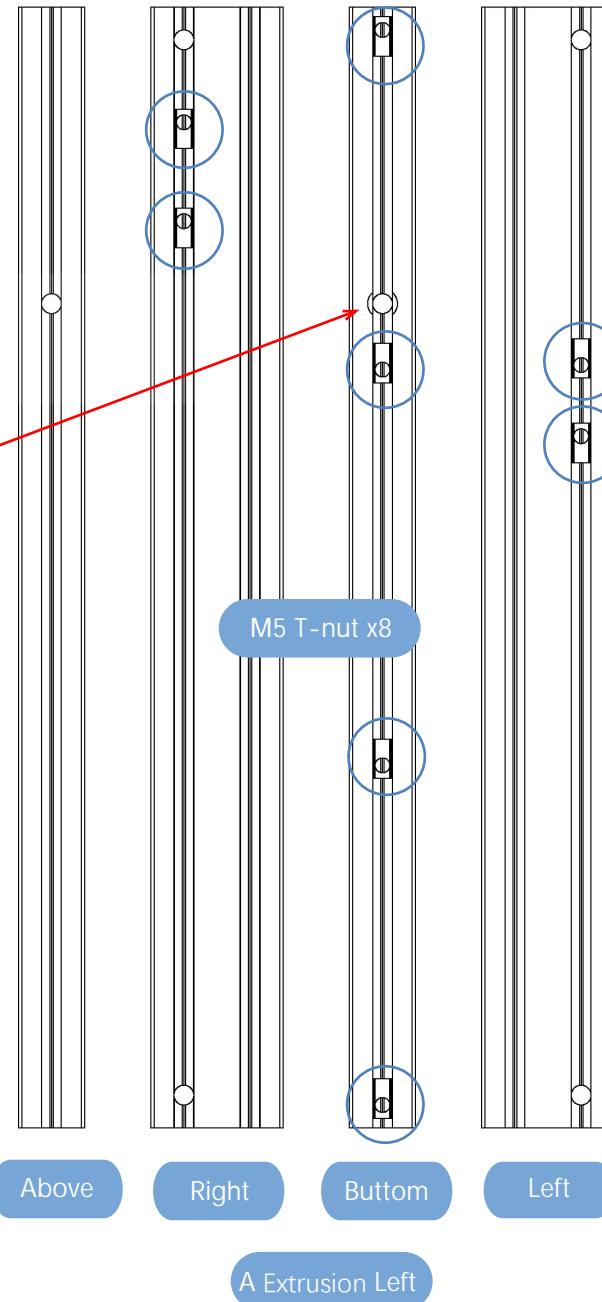
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EXTRUSIONS PRE-PLANT_T-Nut

The T-Nut locations and on all four faces of the profile will be displayed on this page clockwise.
Last Chance to plant before assembling the LOWER .

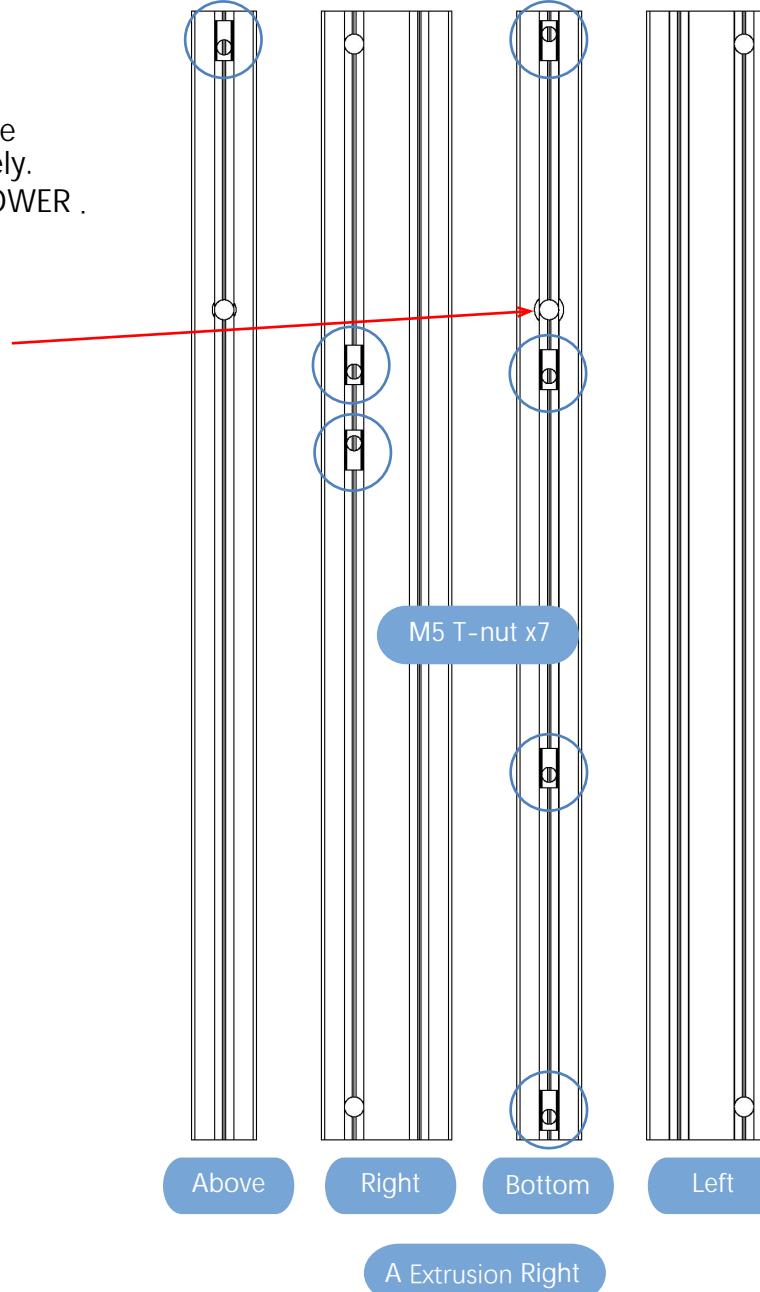
Polarization Feature The Counterbore
face on A Extrusions are the bottom face.



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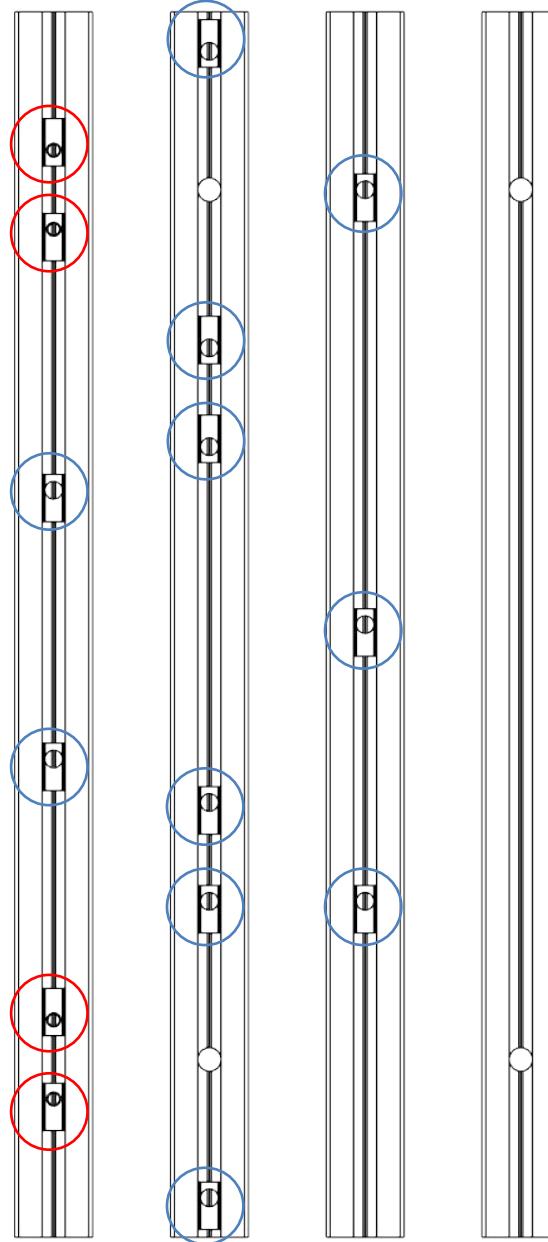


Symmetrical layout

The other B Extrusion has a mirrored layout and installation . It will be omitted here

B Extrusion

M3 T-Nut x4



M5 T-Nut x11

B Extrusion Front

Above

Front

Buttom

Rear

B Extrusion Rear

Above

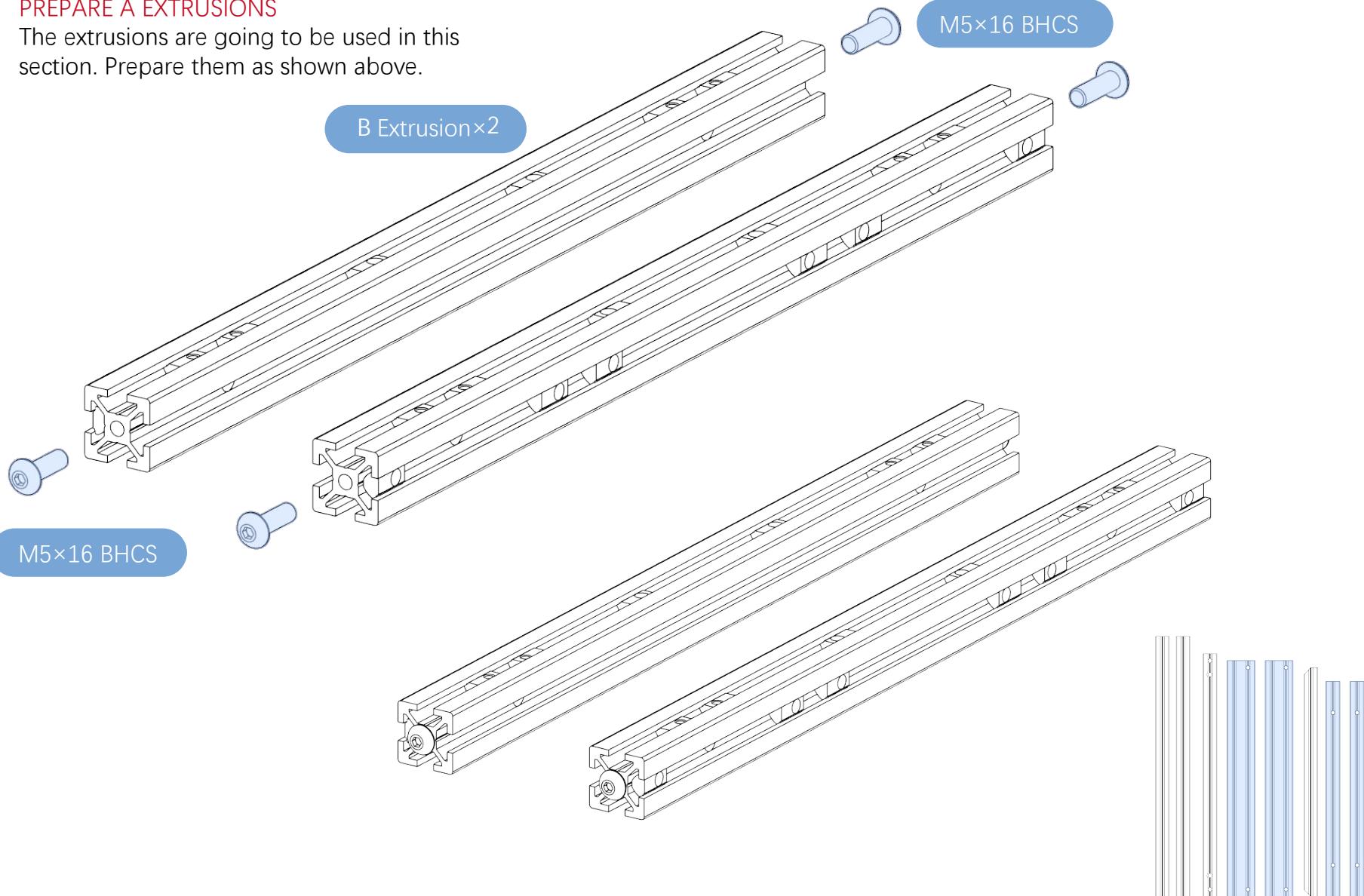
Rear

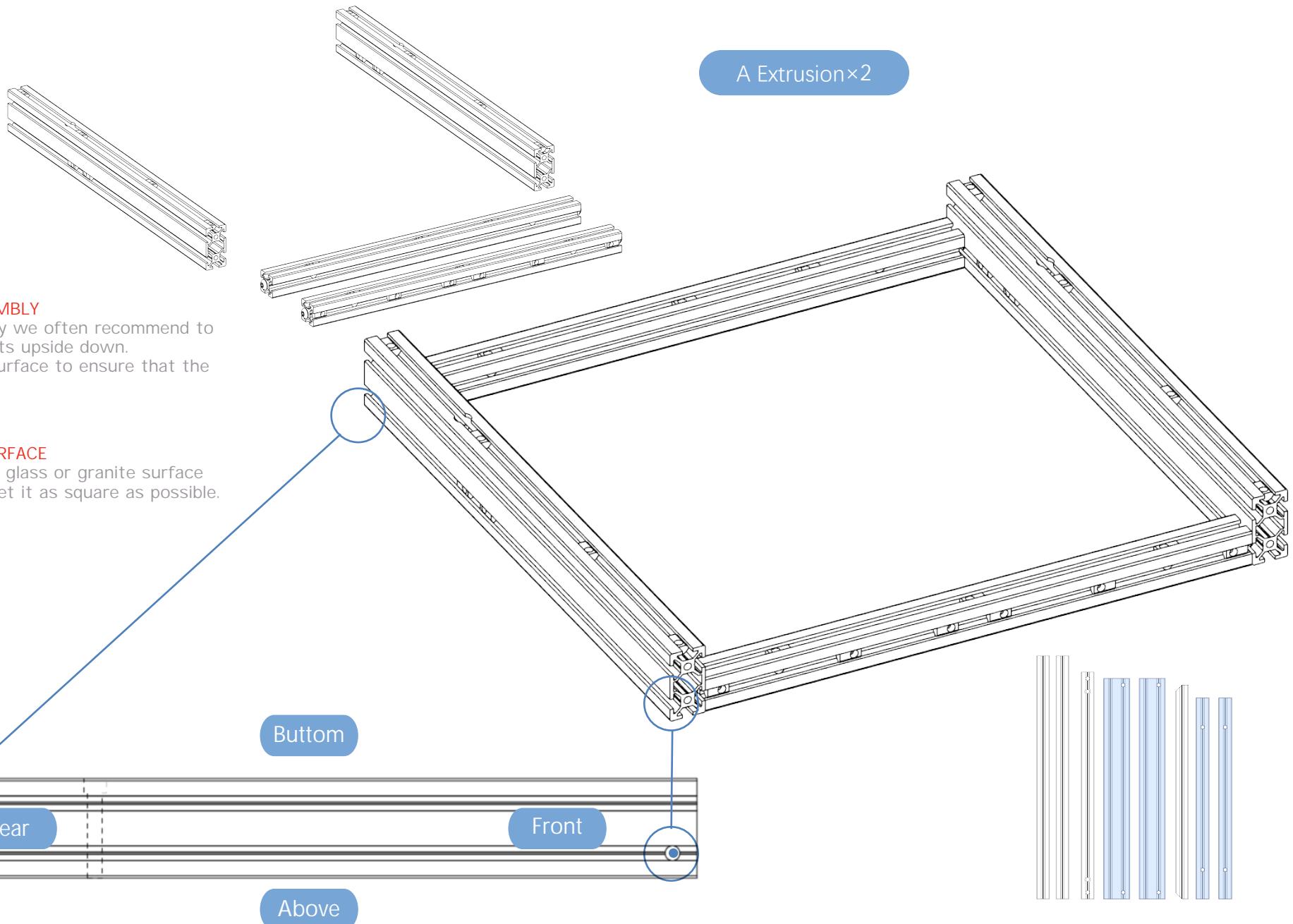
Buttom

Front

PREPARE A EXTRUSIONS

The extrusions are going to be used in this section. Prepare them as shown above.



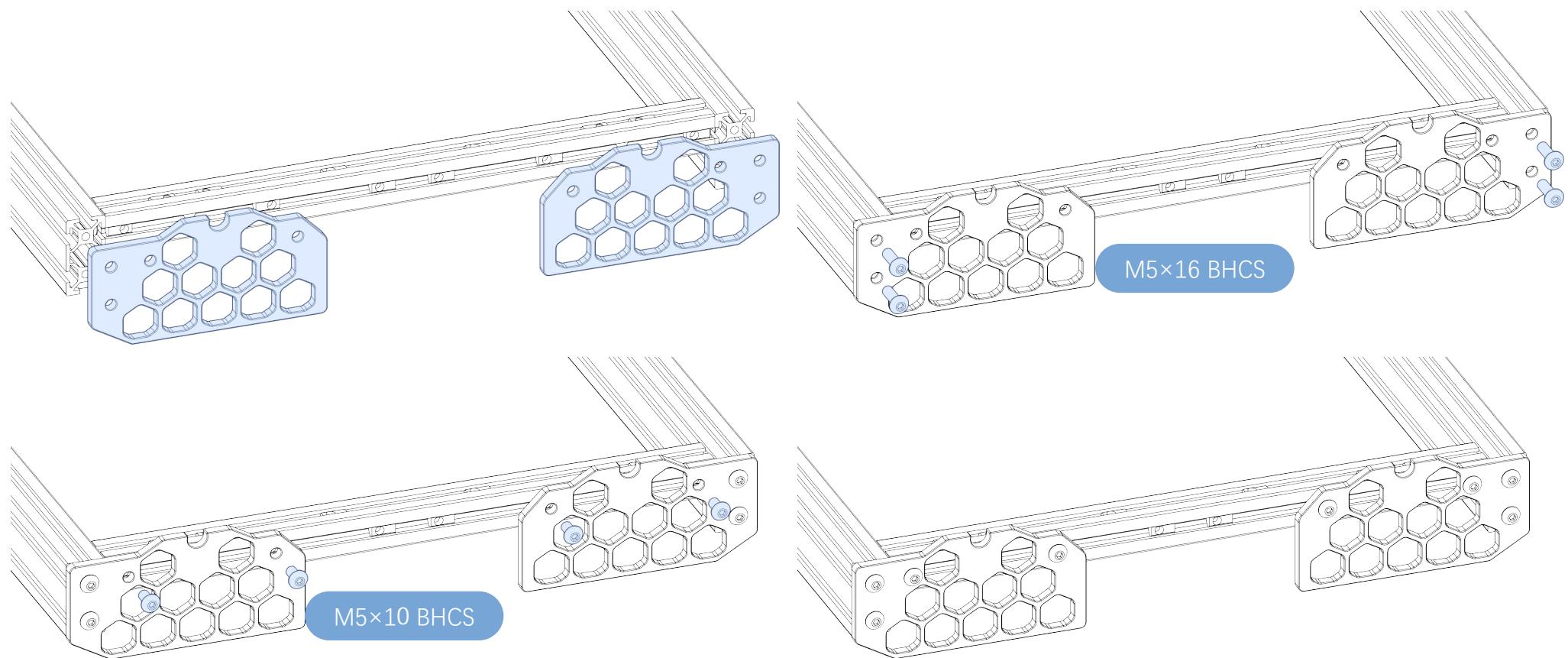
**UPSIDE DOWN ASSEMBLY**

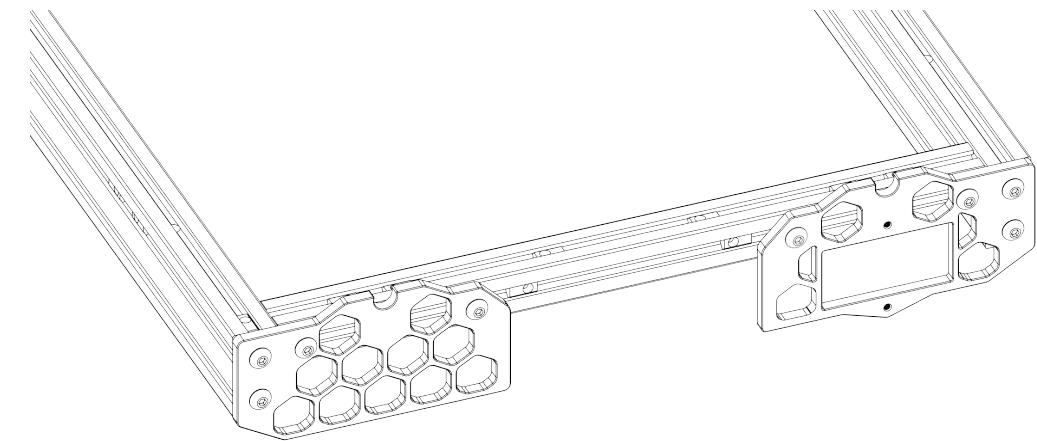
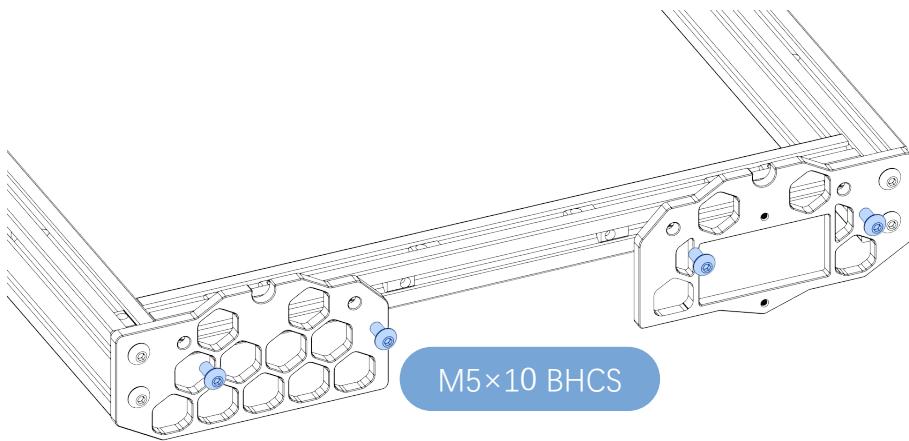
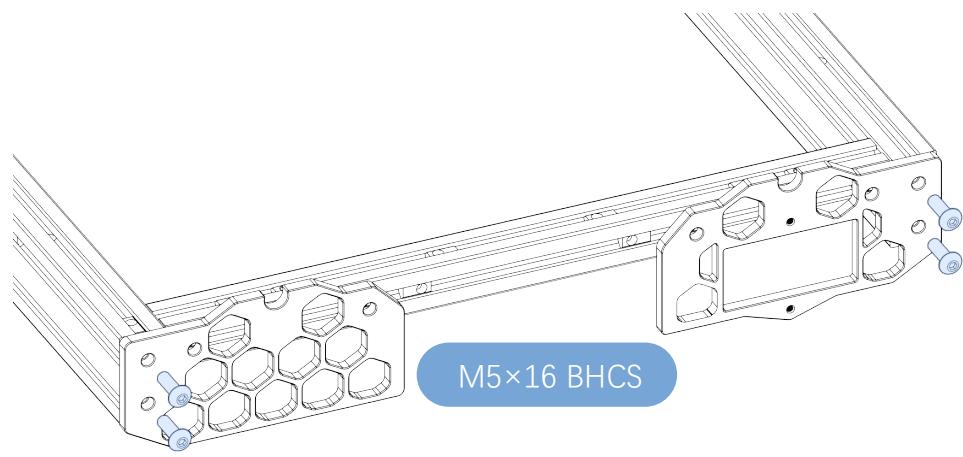
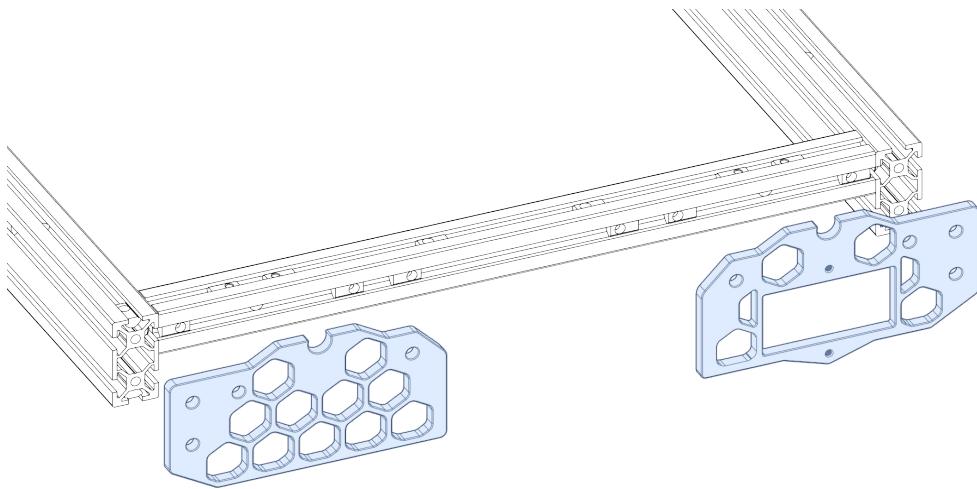
For ease of assembly we often recommend to assemble components upside down.
Assemble on a flat surface to ensure that the base is square.

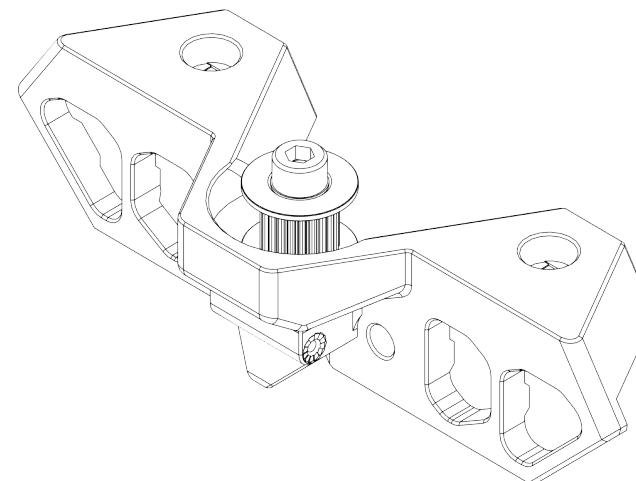
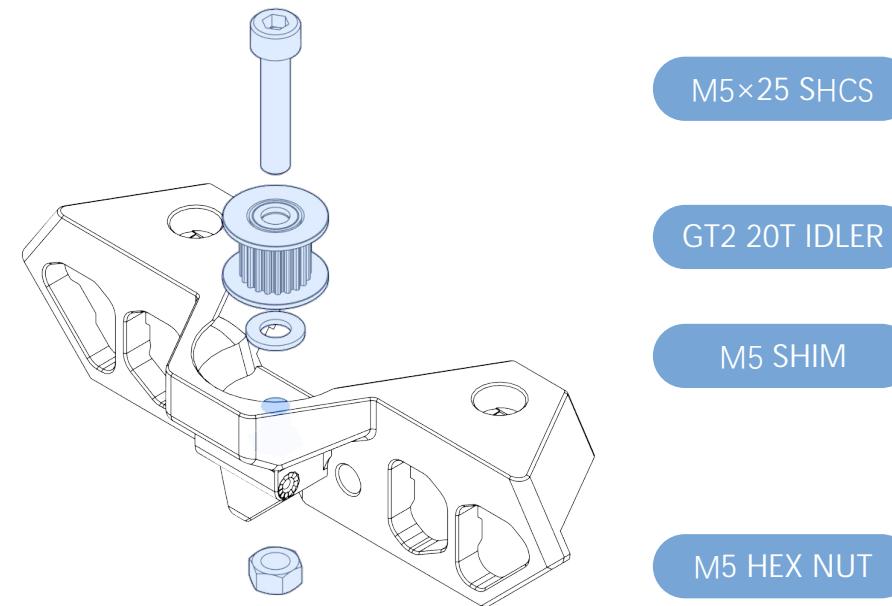
BUILD ON A FLAT SURFACE

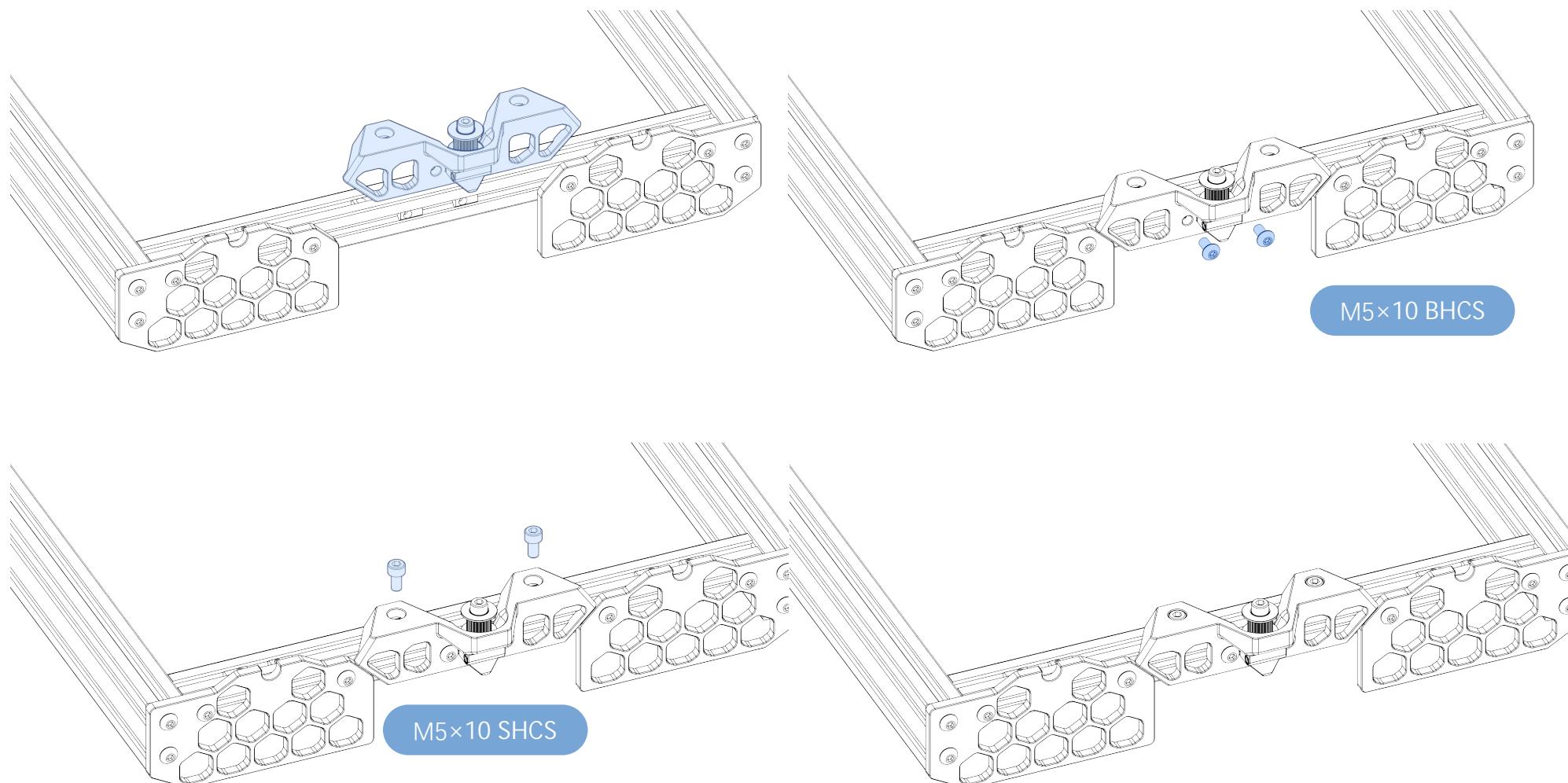
Build the frame on a glass or granite surface to ensure you can get it as square as possible.

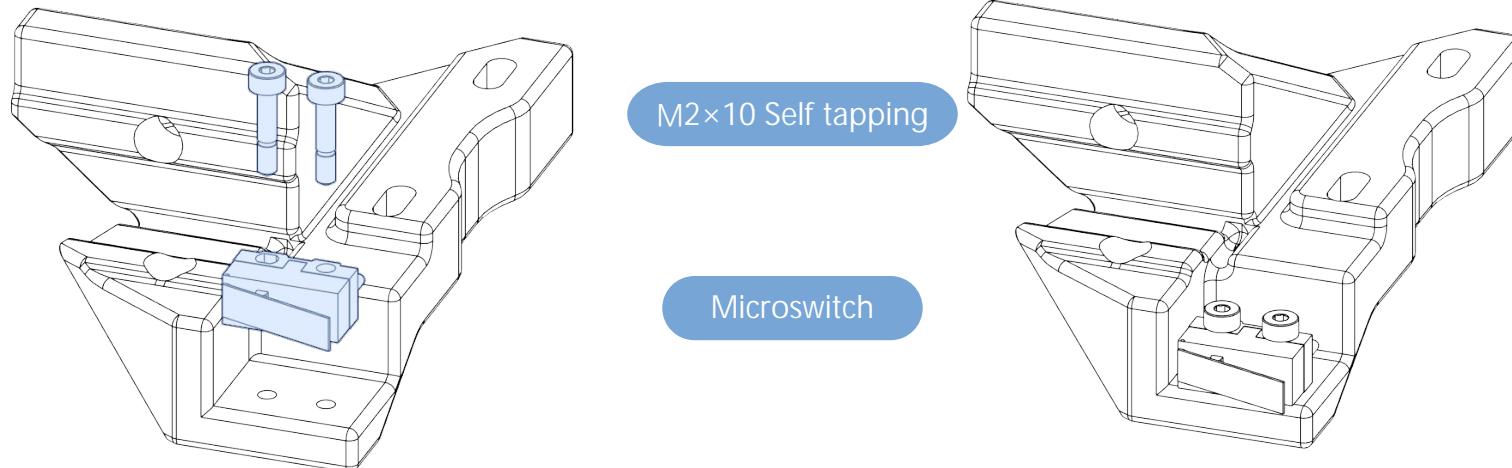


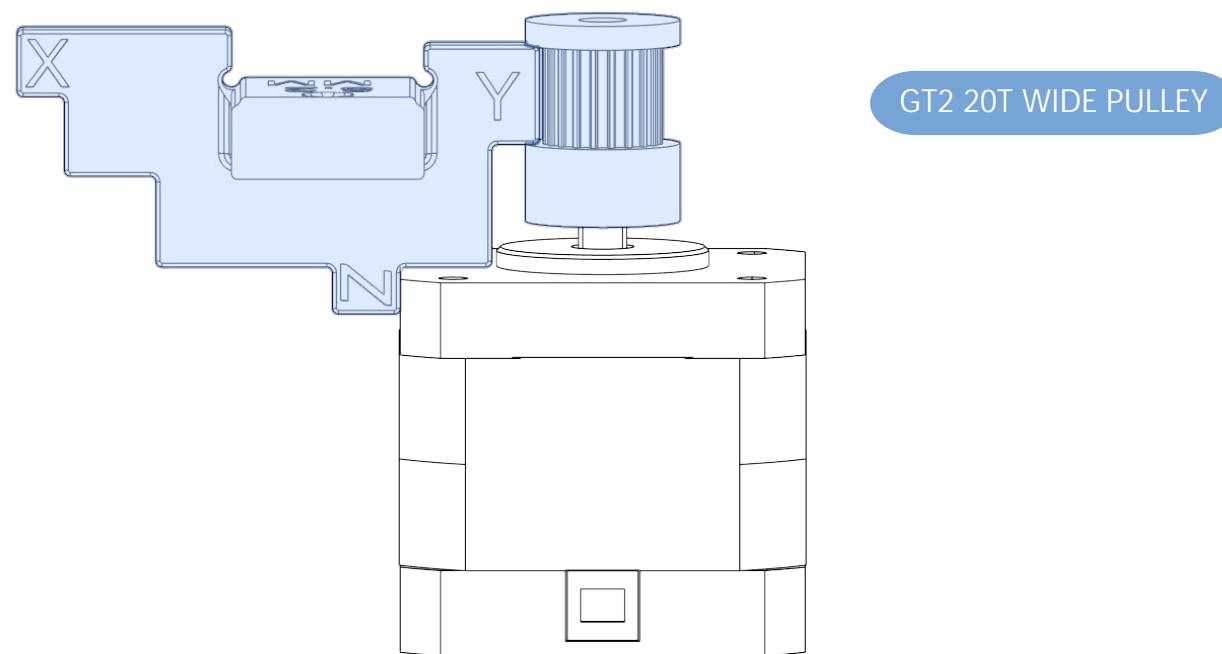


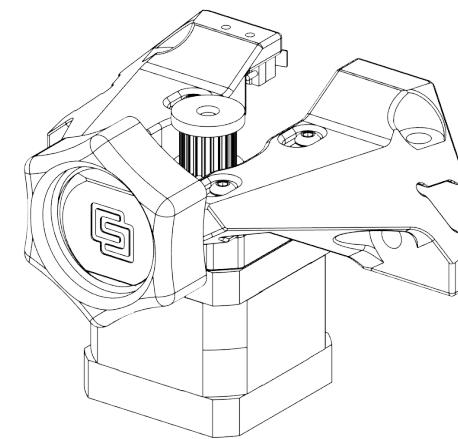
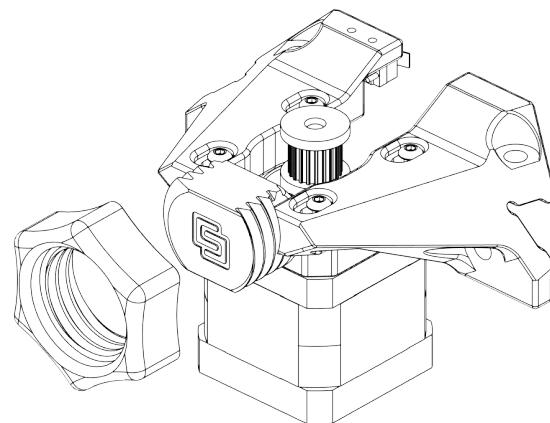
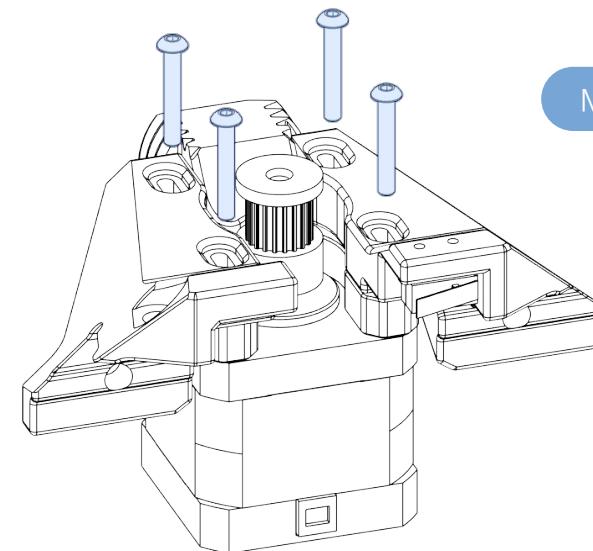
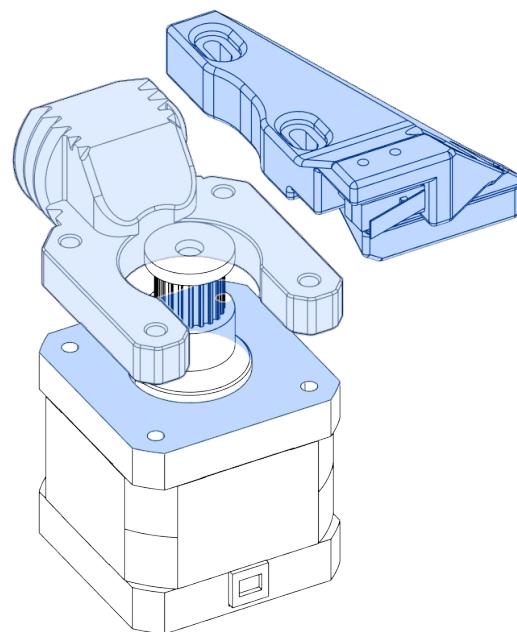


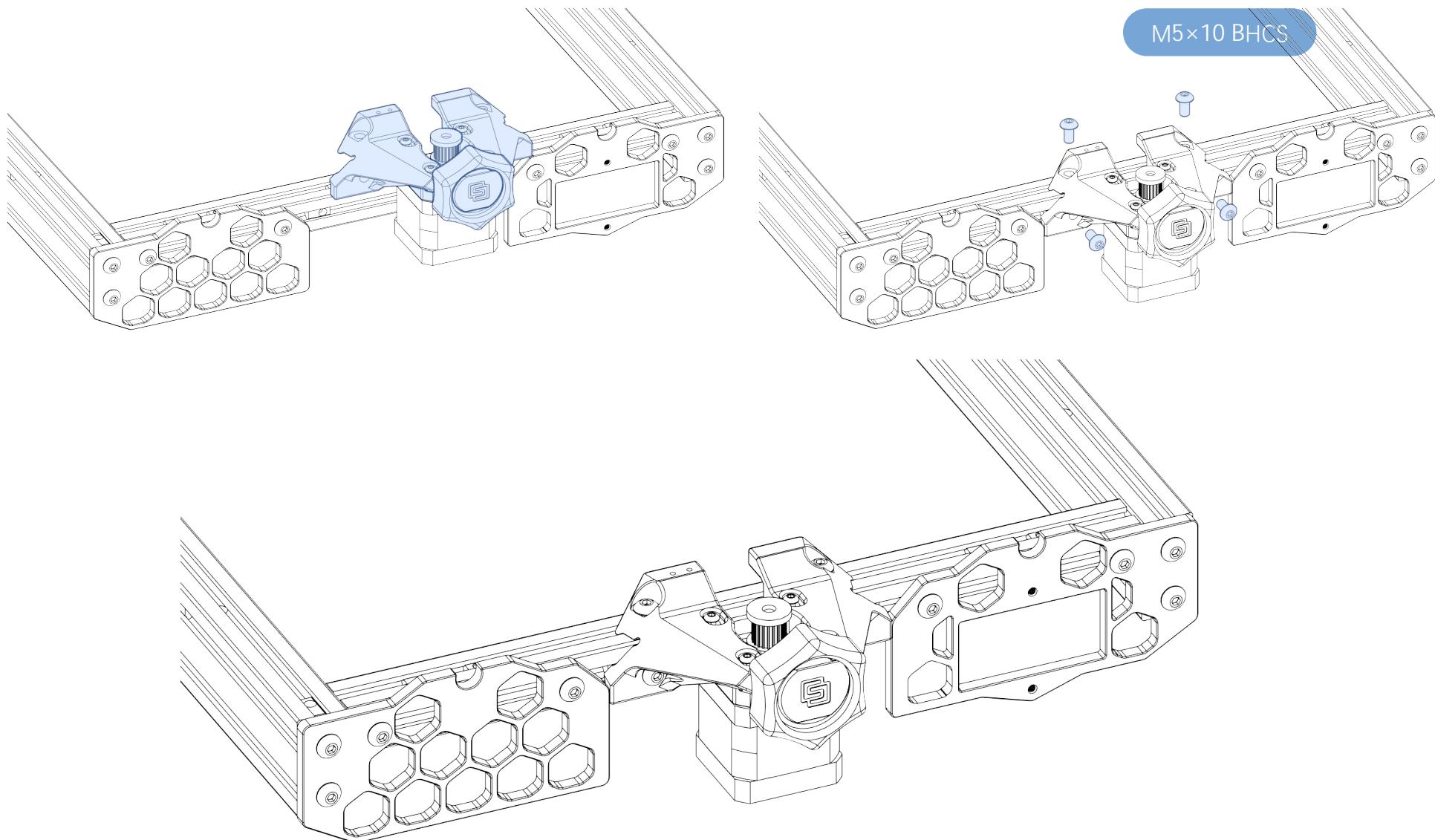


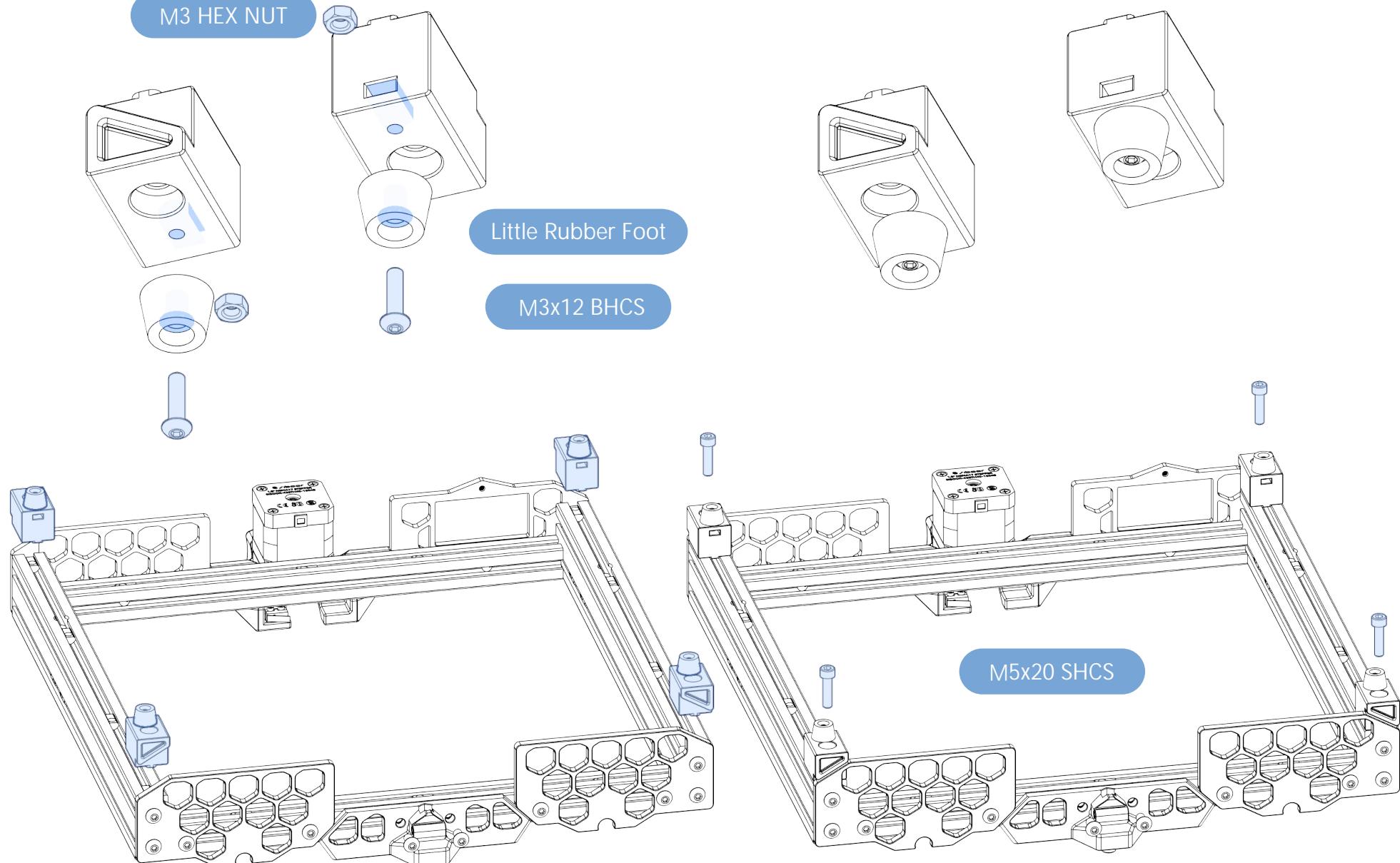


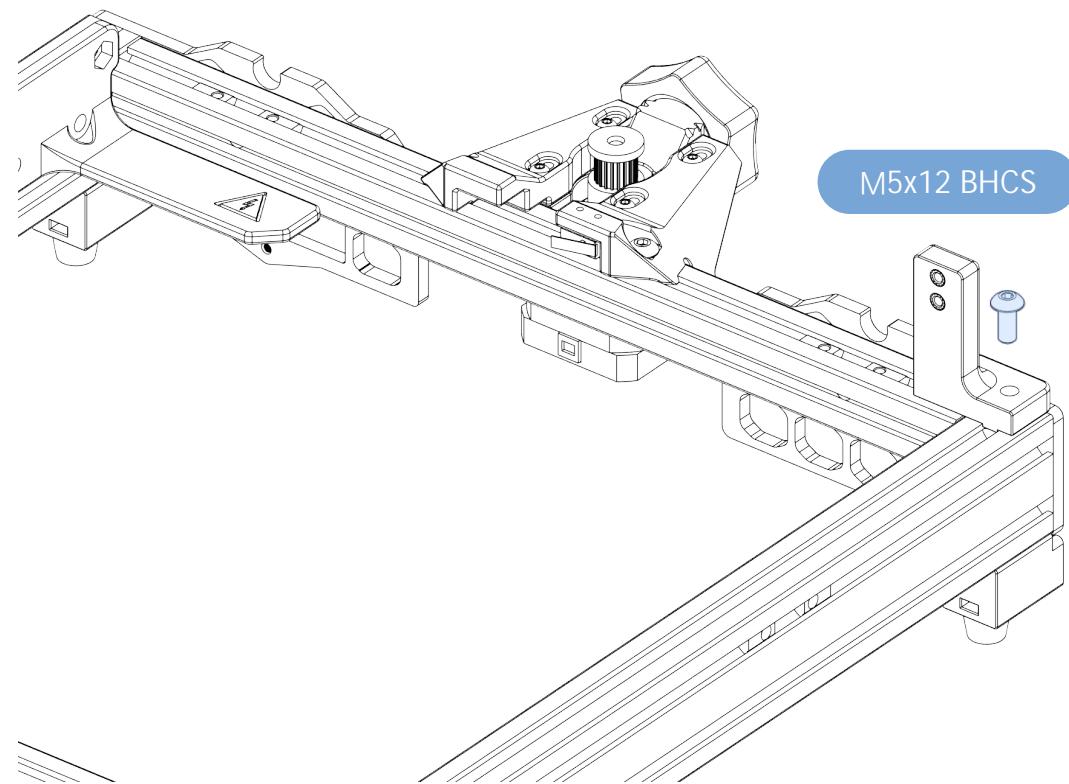
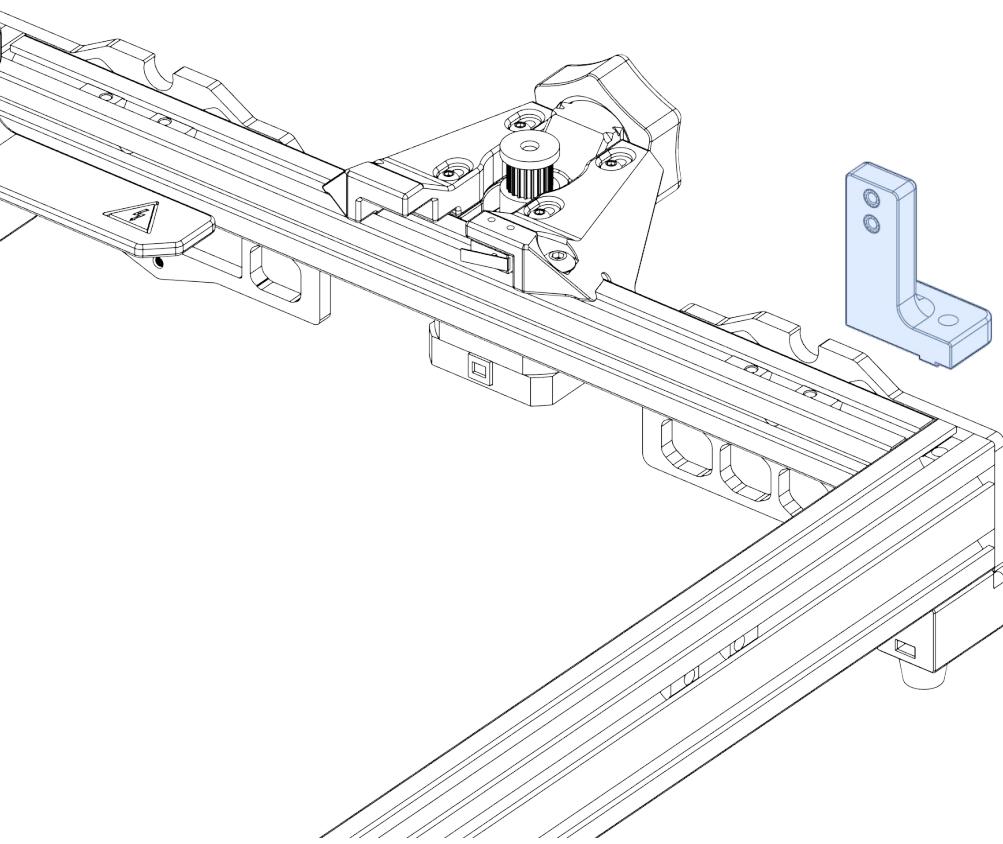


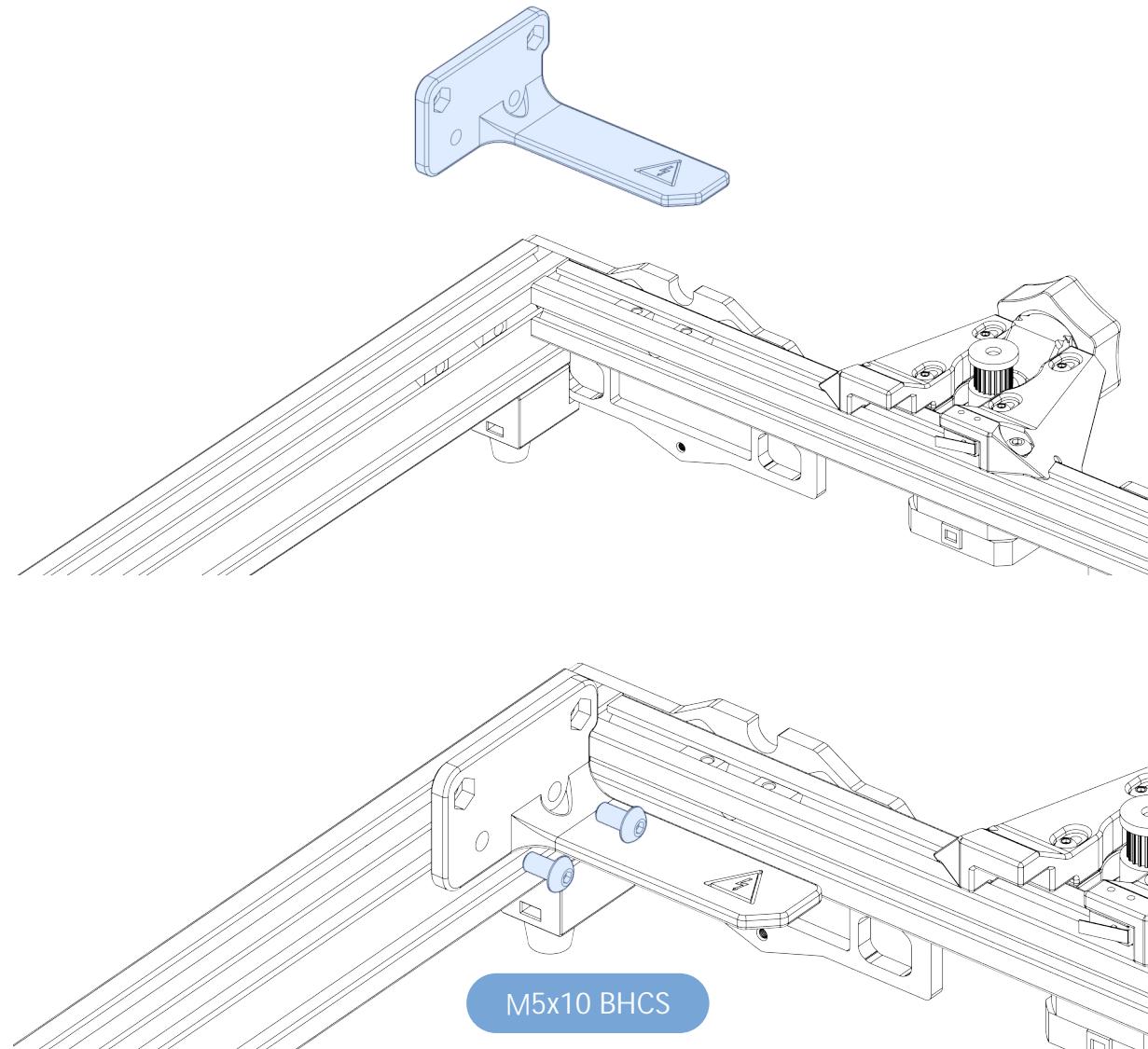






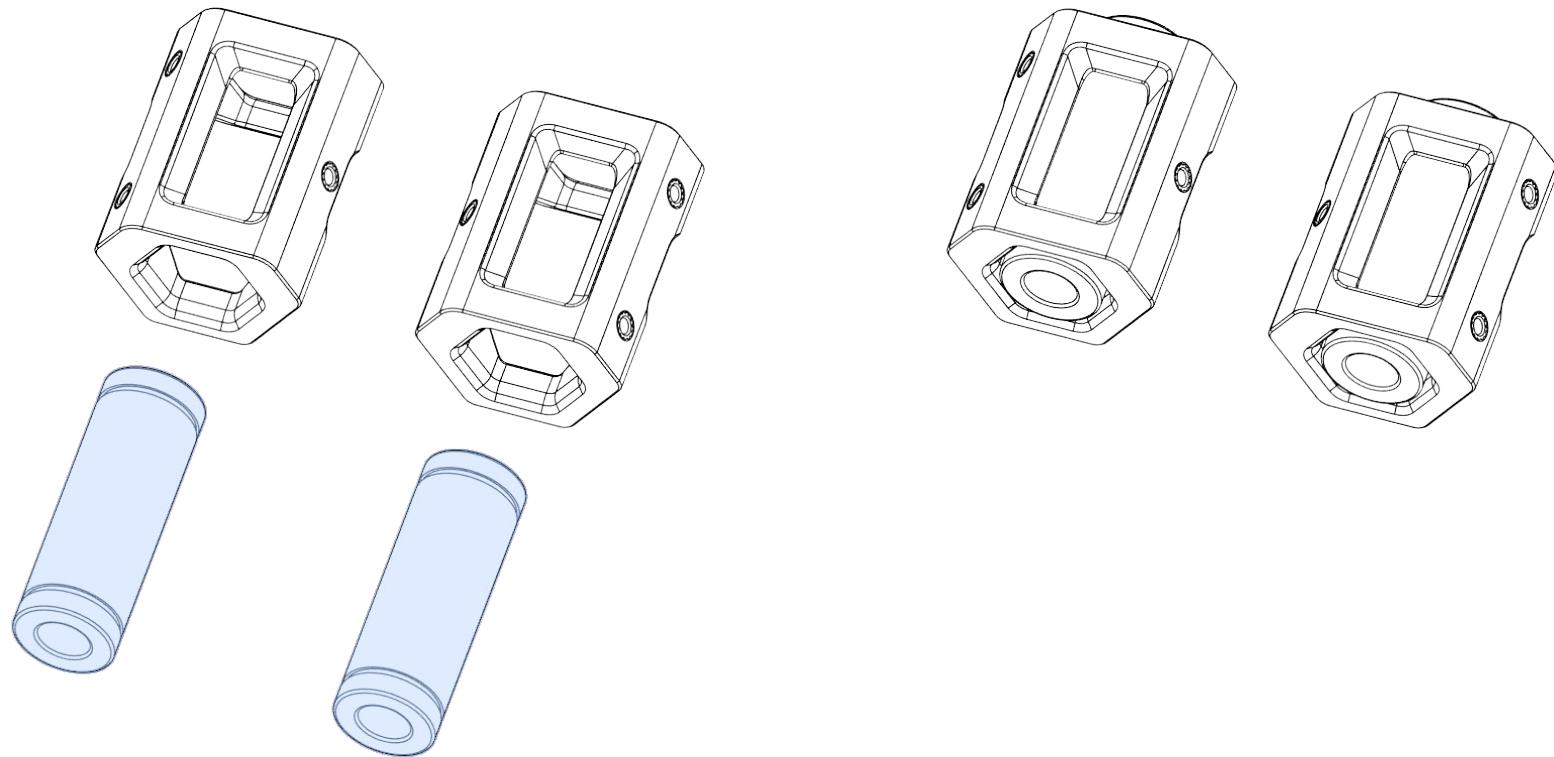




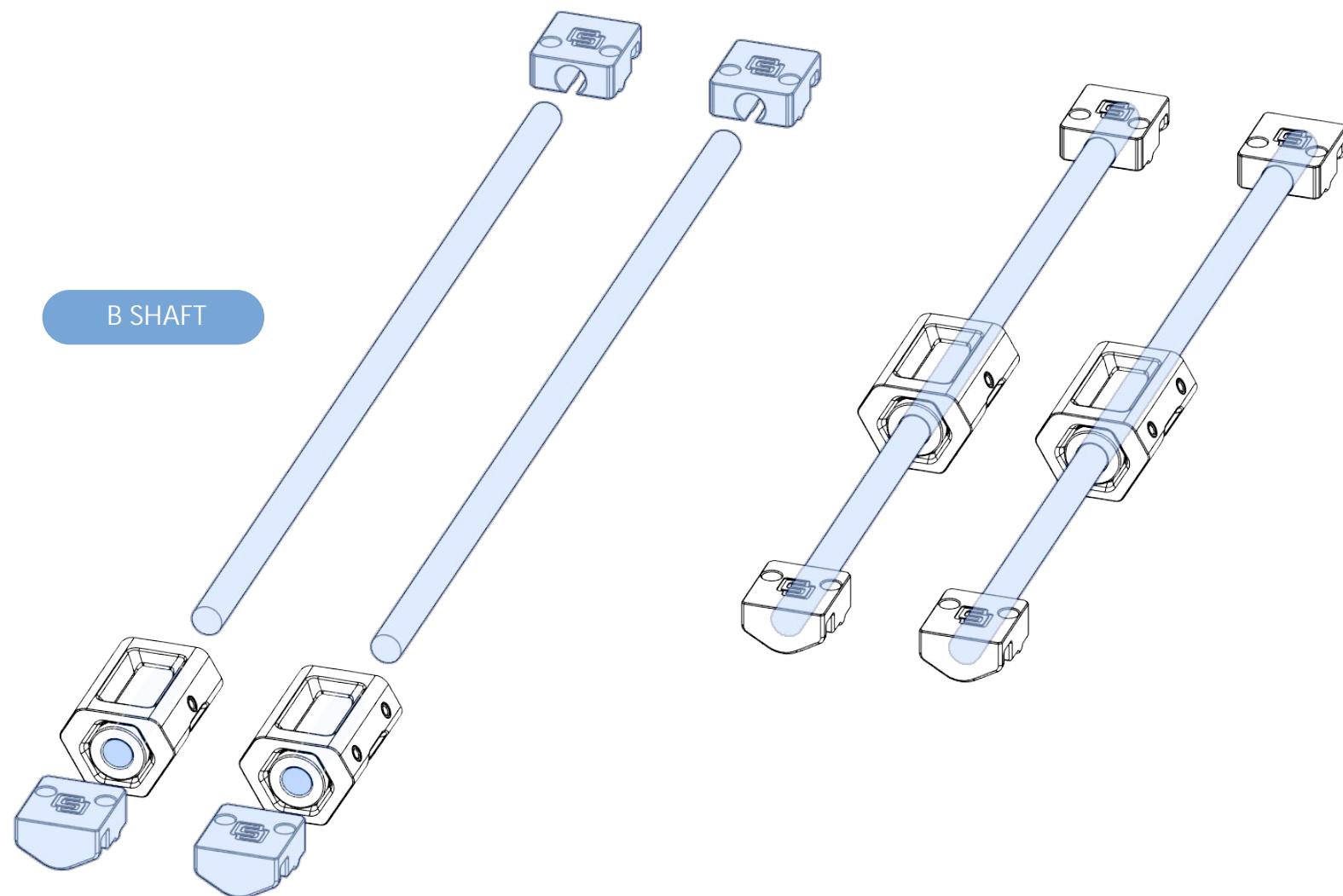


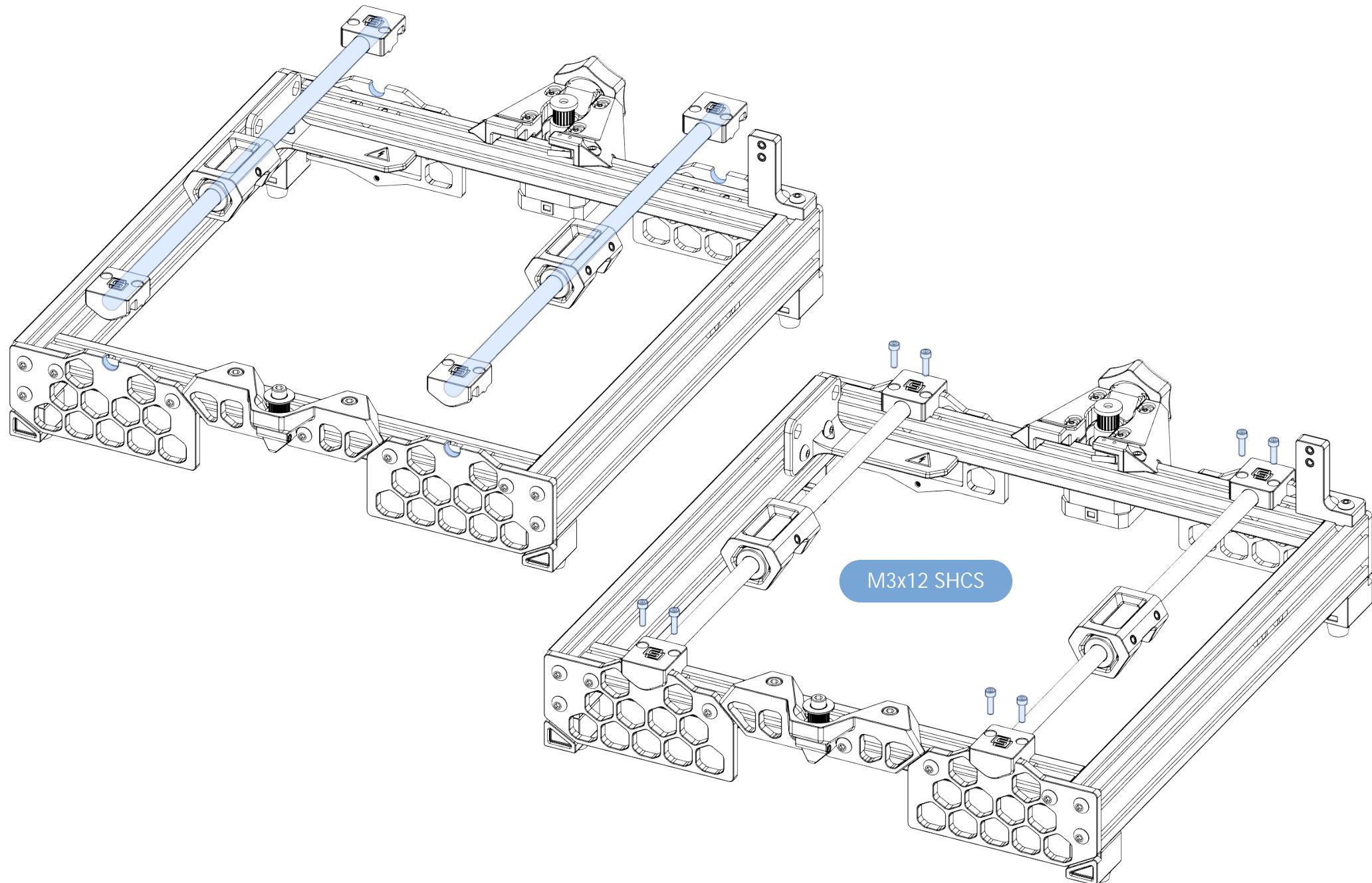
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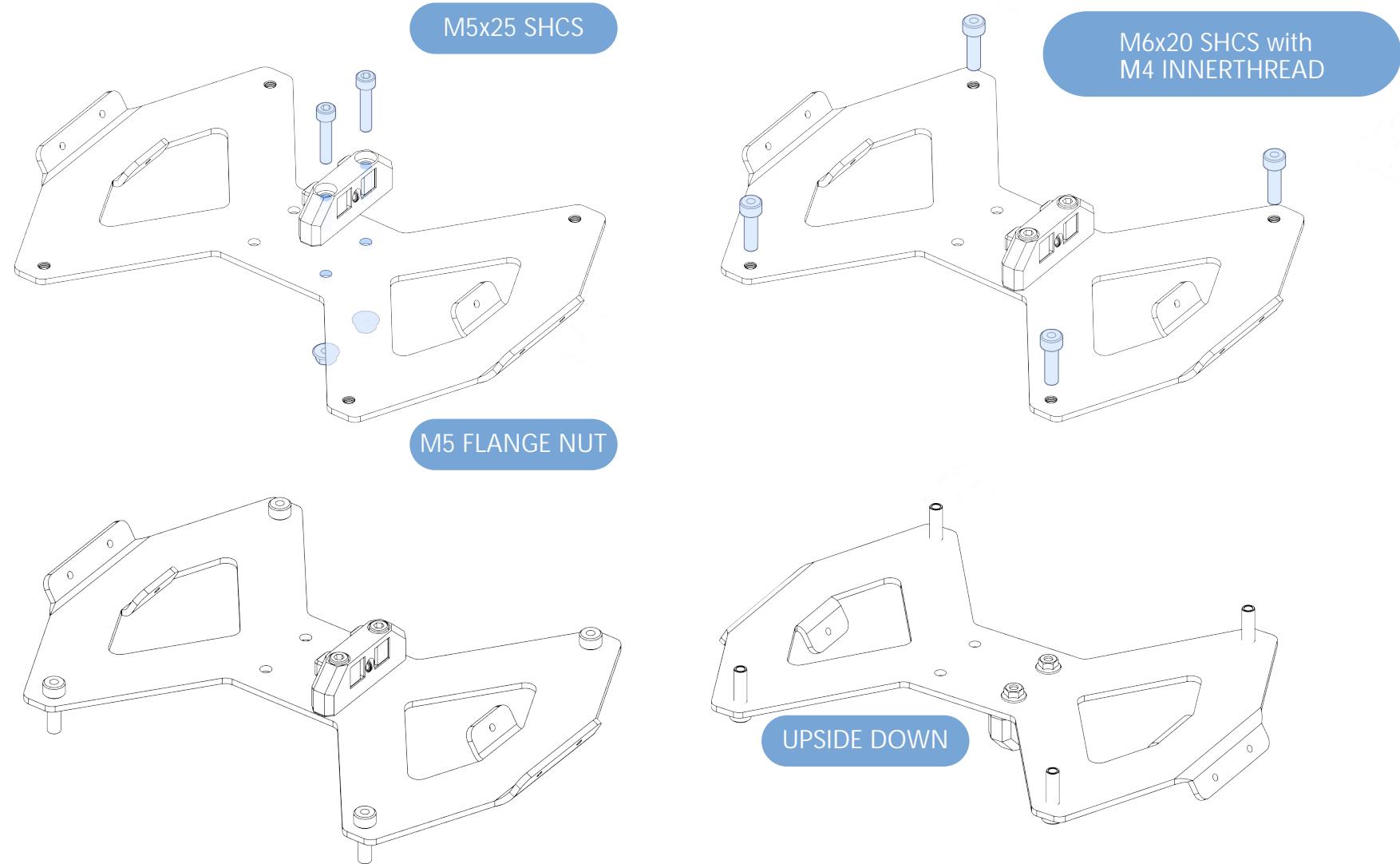


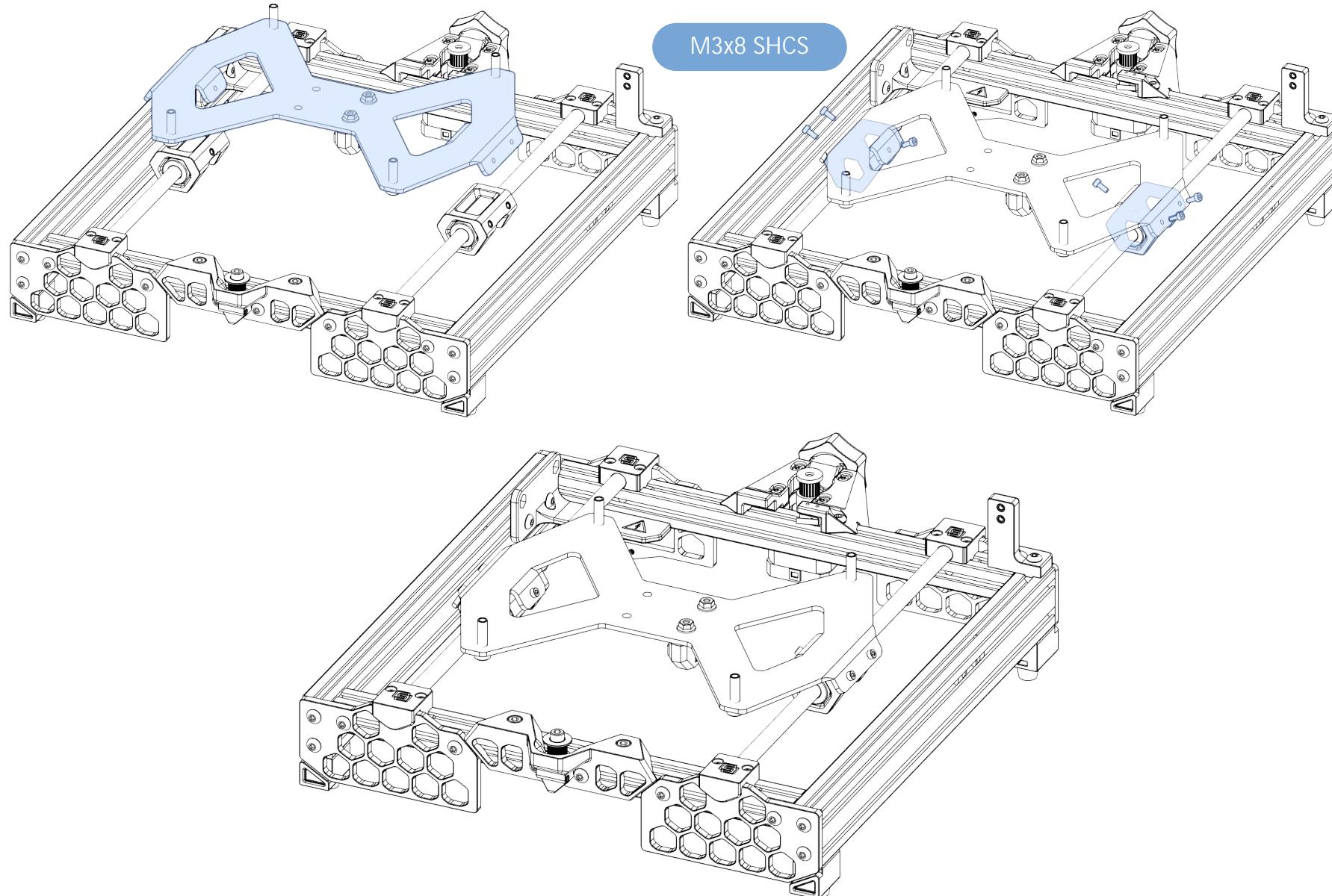


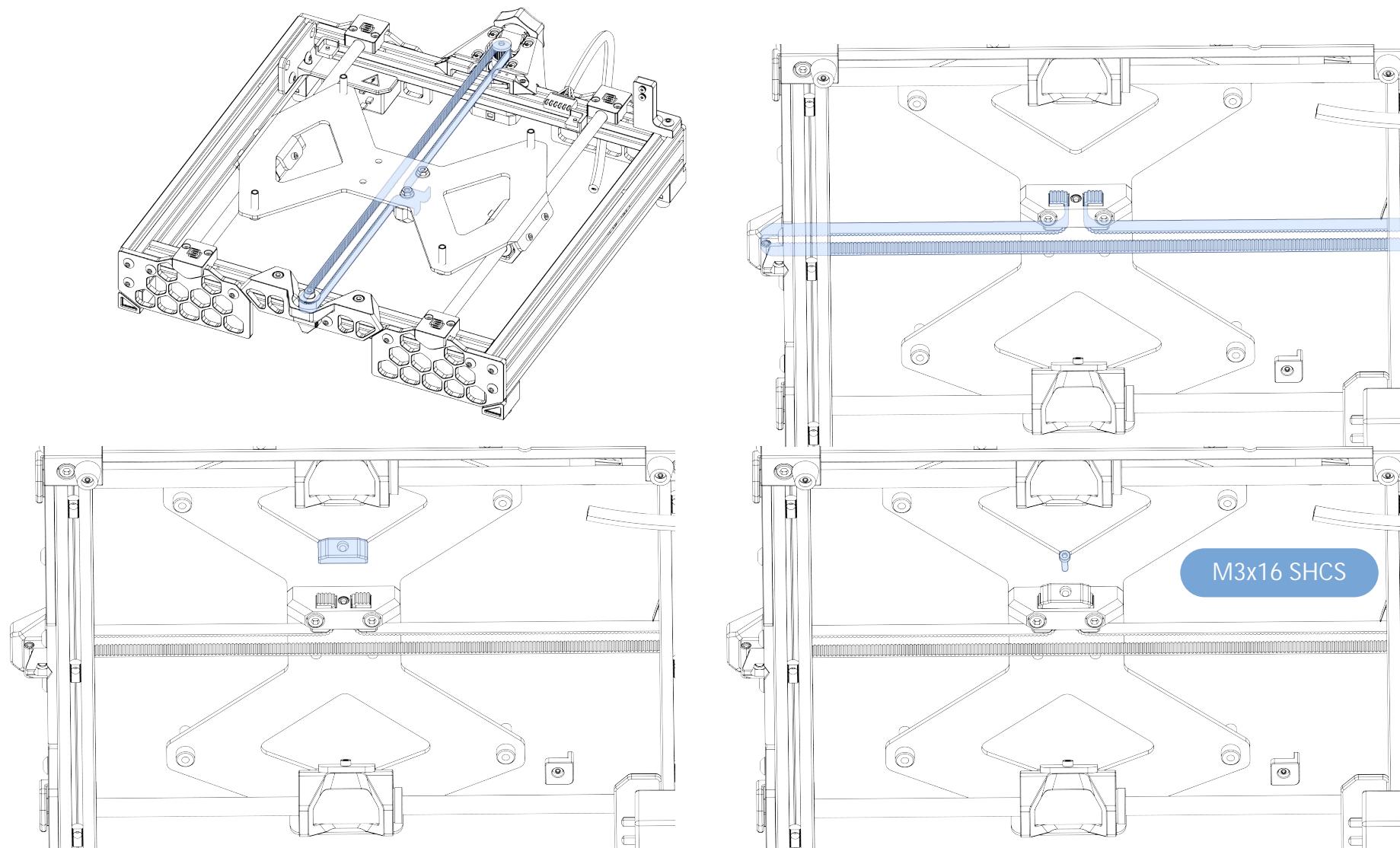
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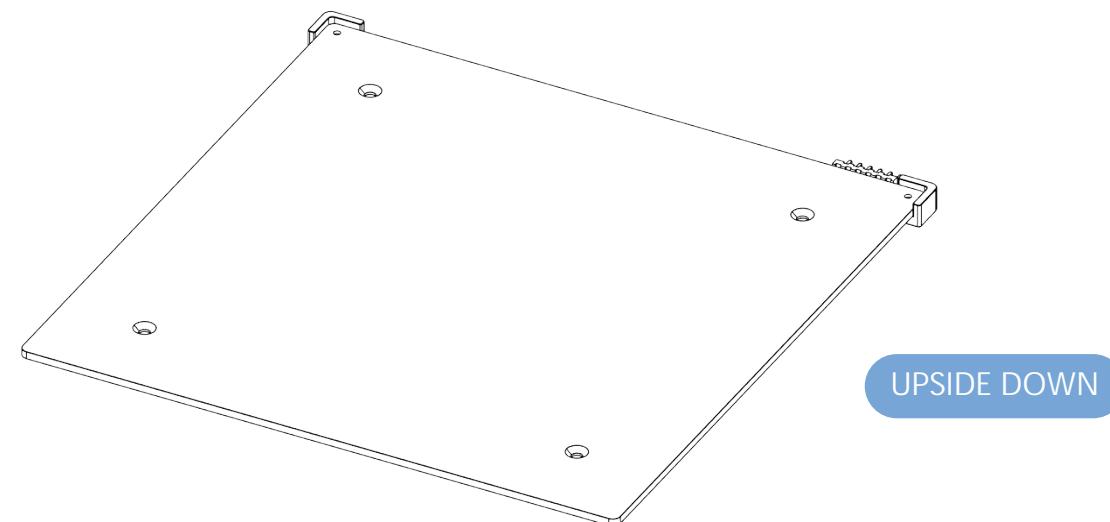
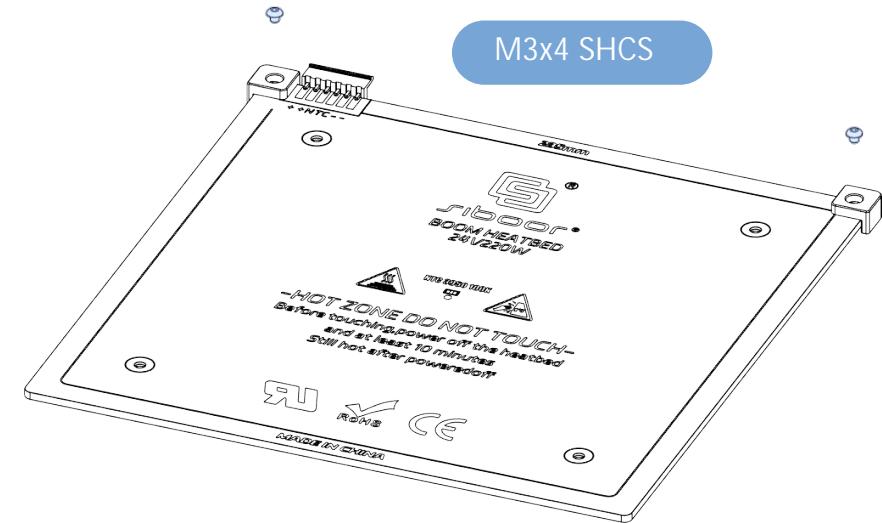
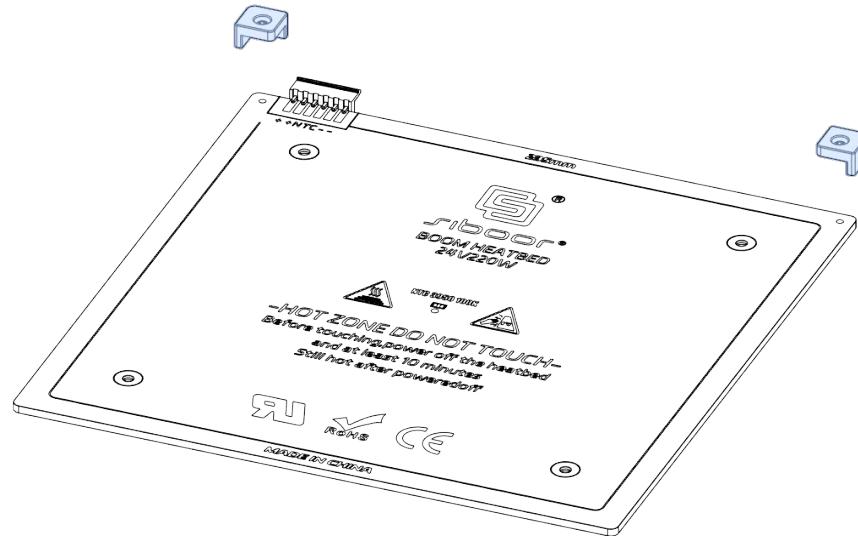


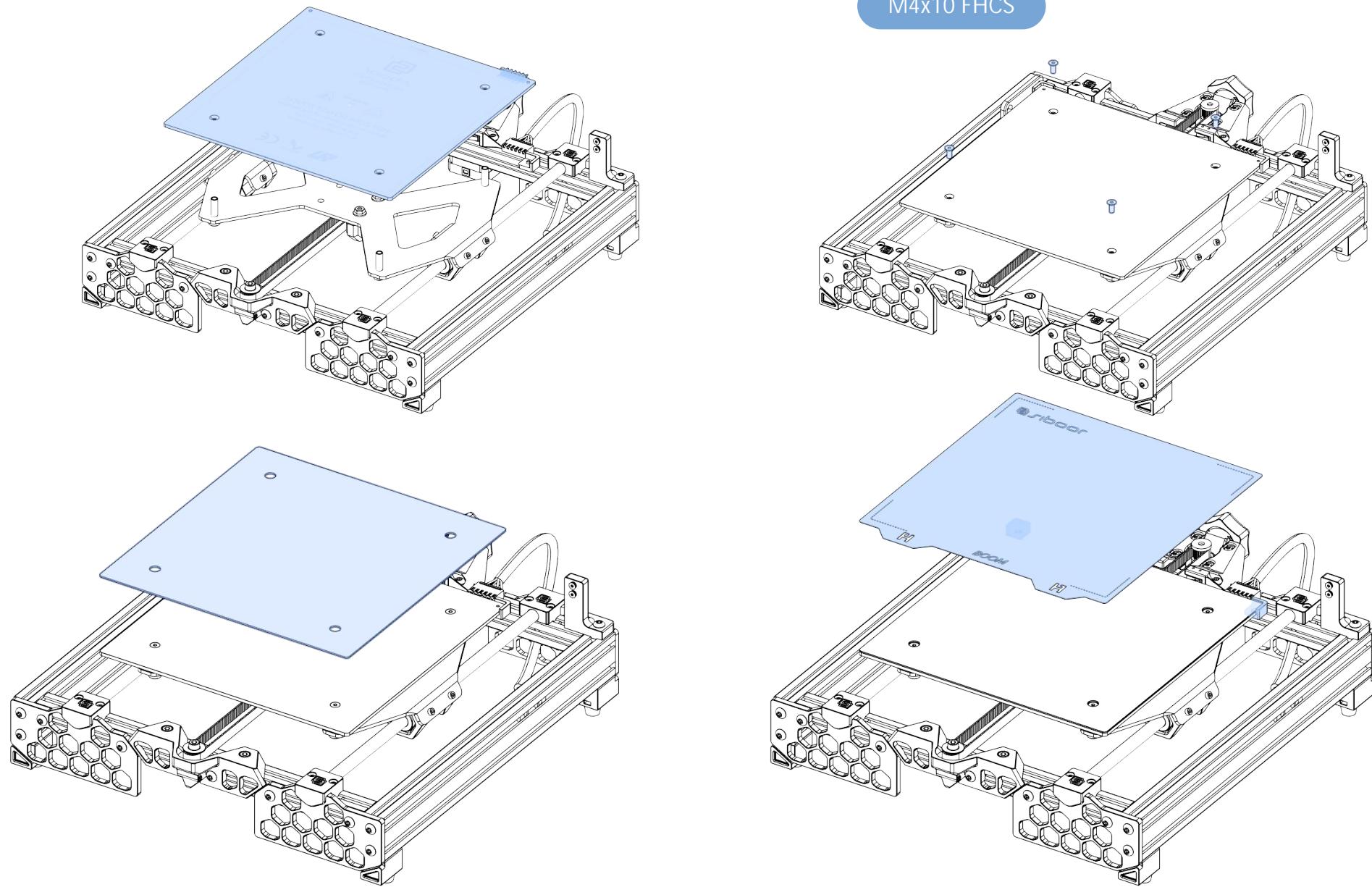












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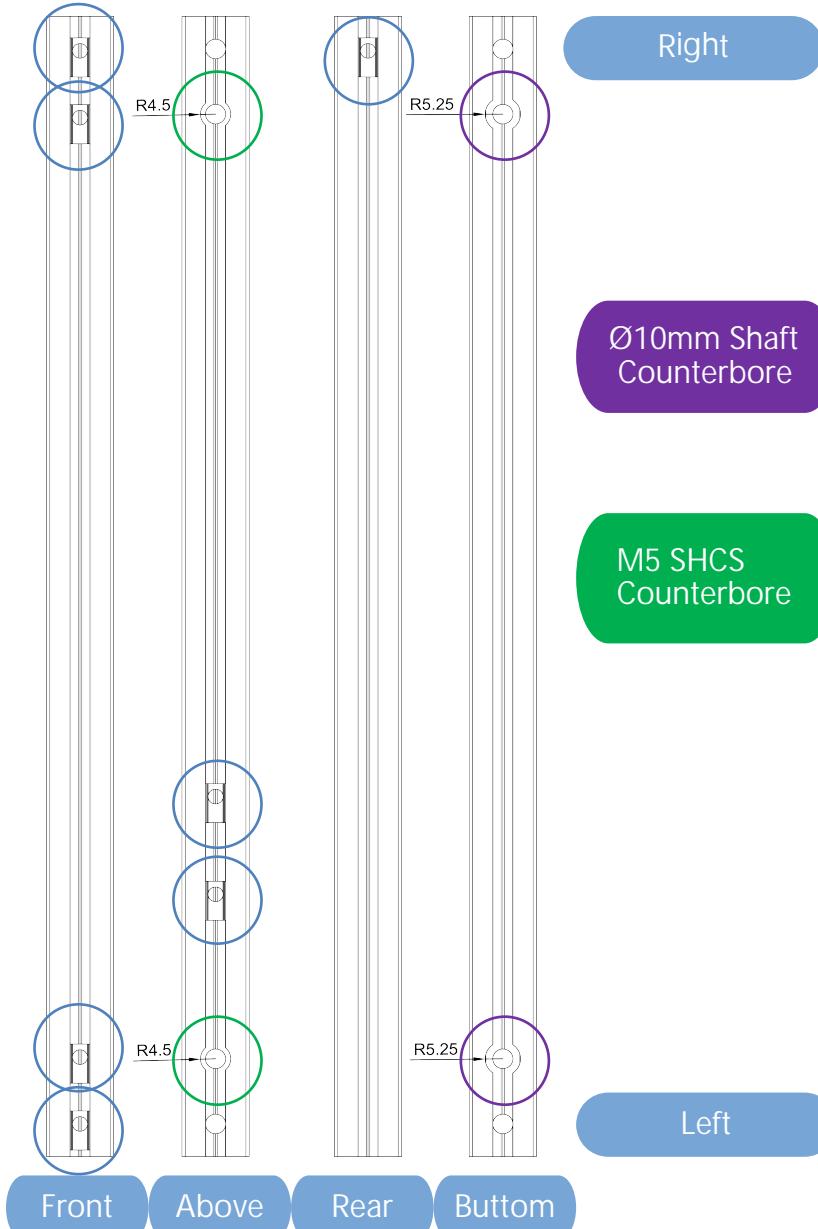
EXTRUSIONS PRE-PLANT_T-Nut

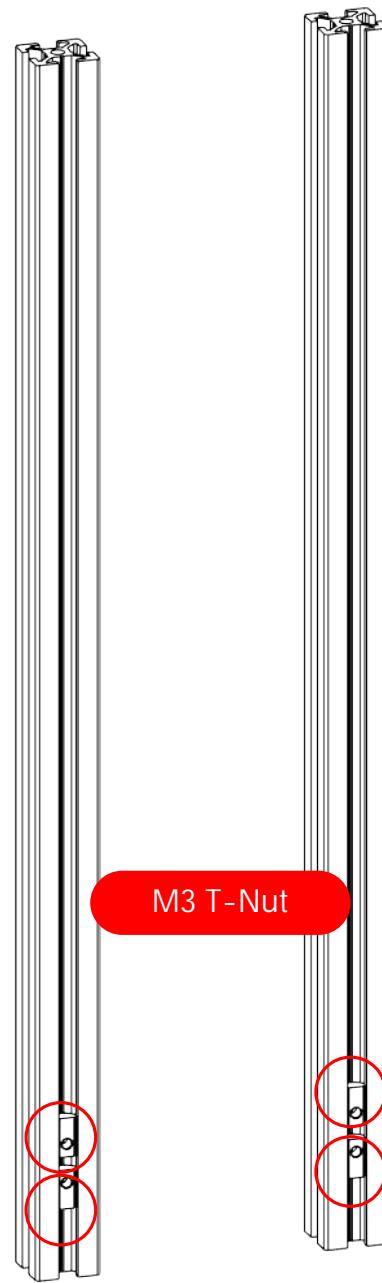
The T-Nut locations and on all four faces of the profile will be displayed on this page clockwise.
Last Chance to plant before assembling the GANTRY

M5 T-Nut

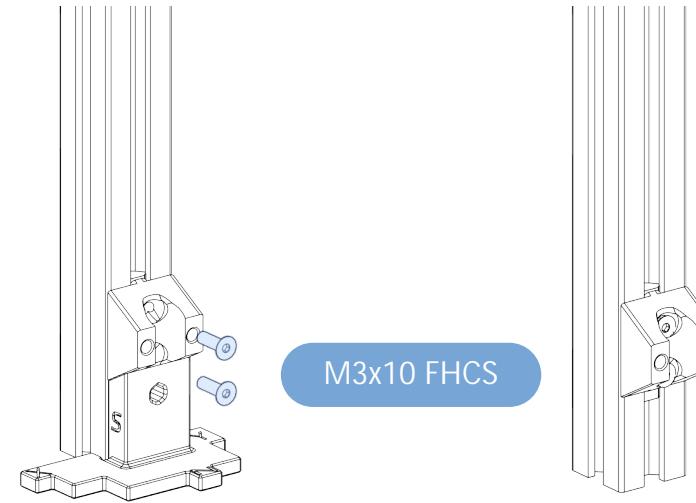
D Extrusion

Counterbore on both sides of D Extrusion:
wider side for Ø10mm shaft , face to bottom,
narrower side for M5x20 SHCS , face to Above.
Do not reverse installation.

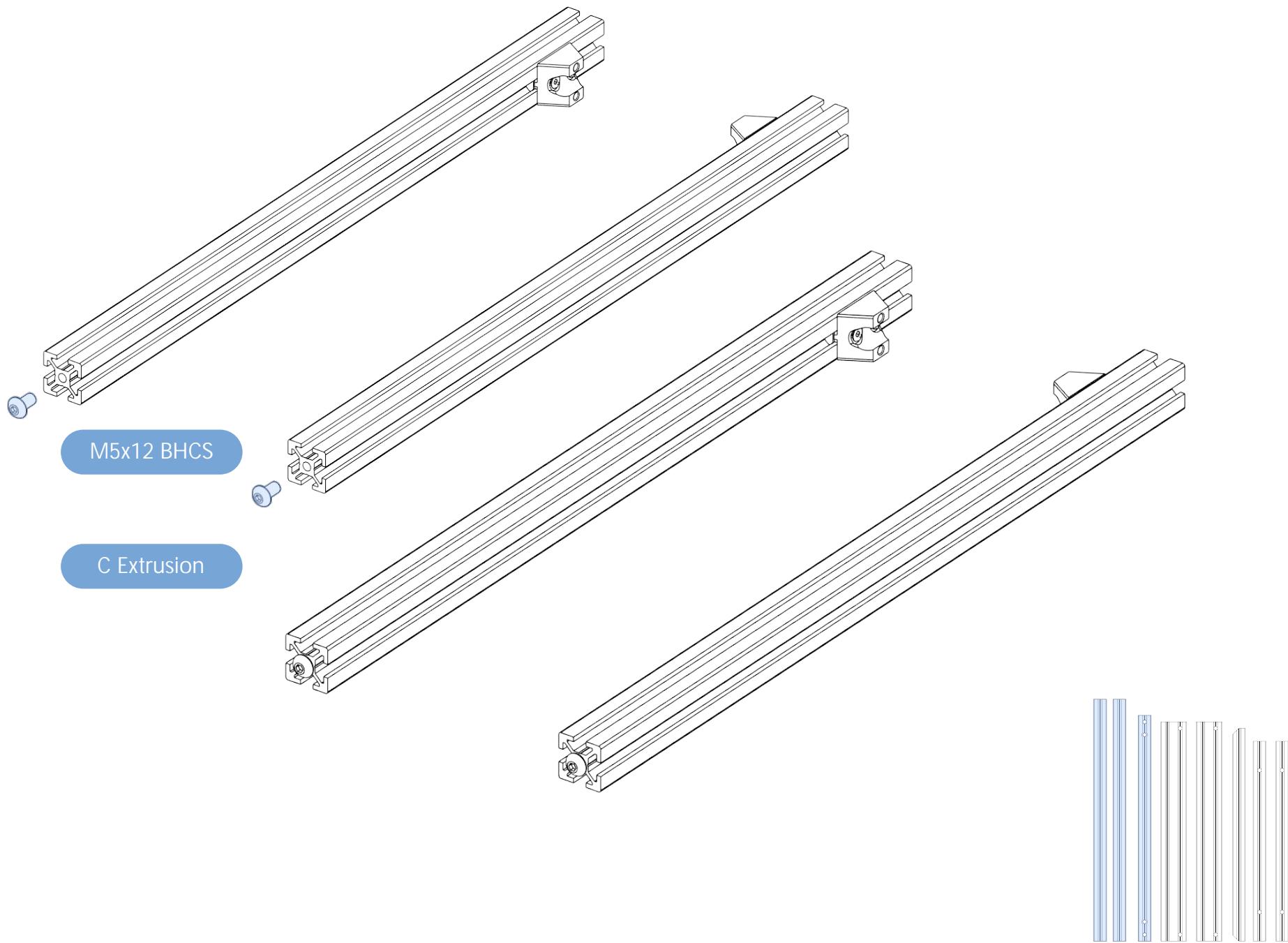


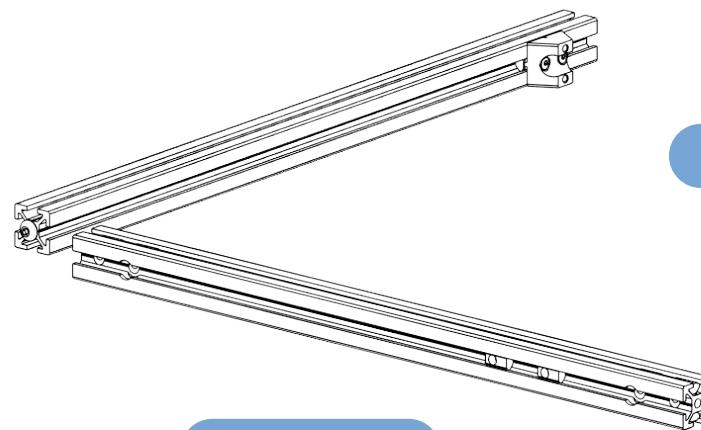


C Extrusion

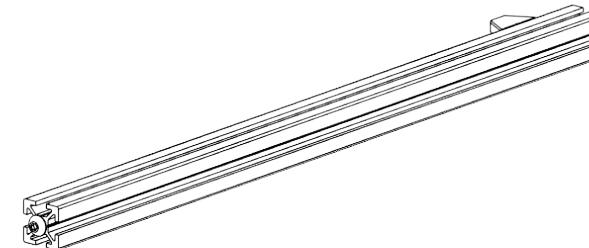


M3x10 FHCS

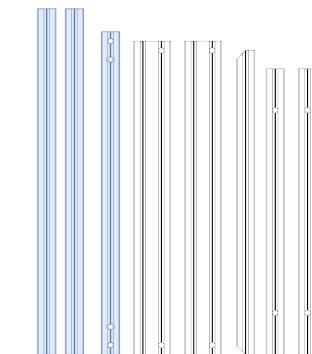
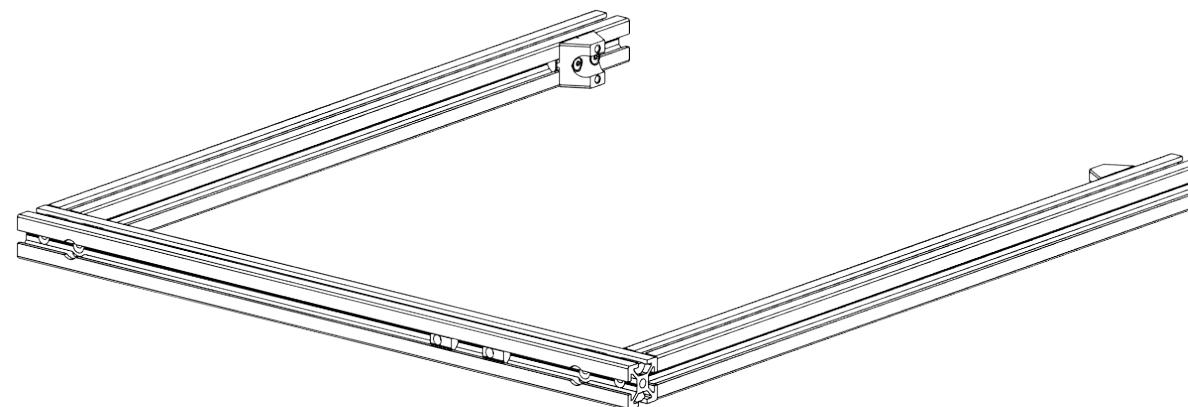




C Extrusion

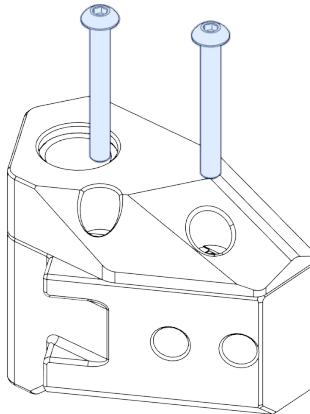
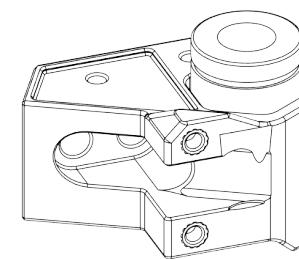
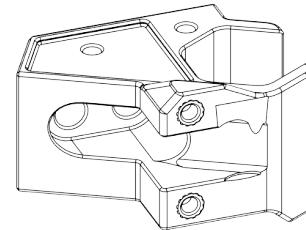
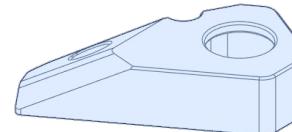


D Extrusion

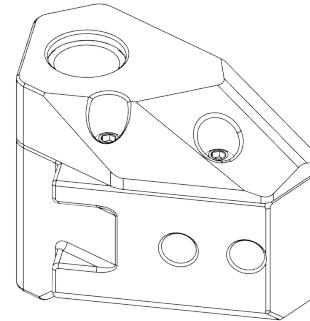




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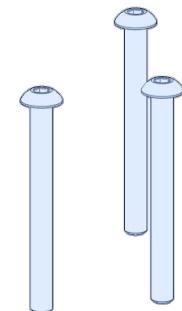
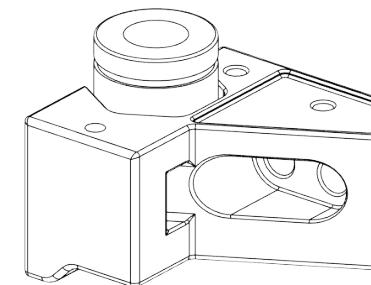
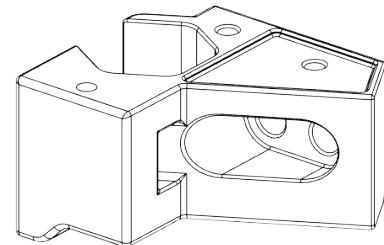
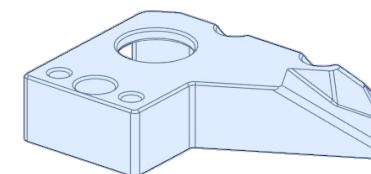


M3x25 BHCS

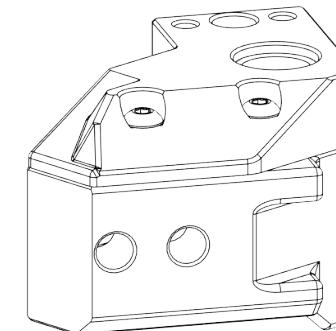
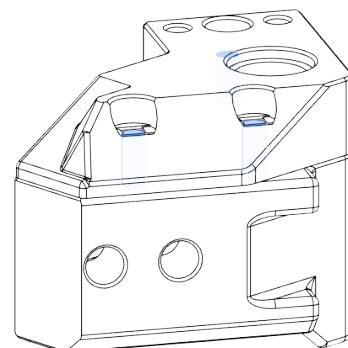


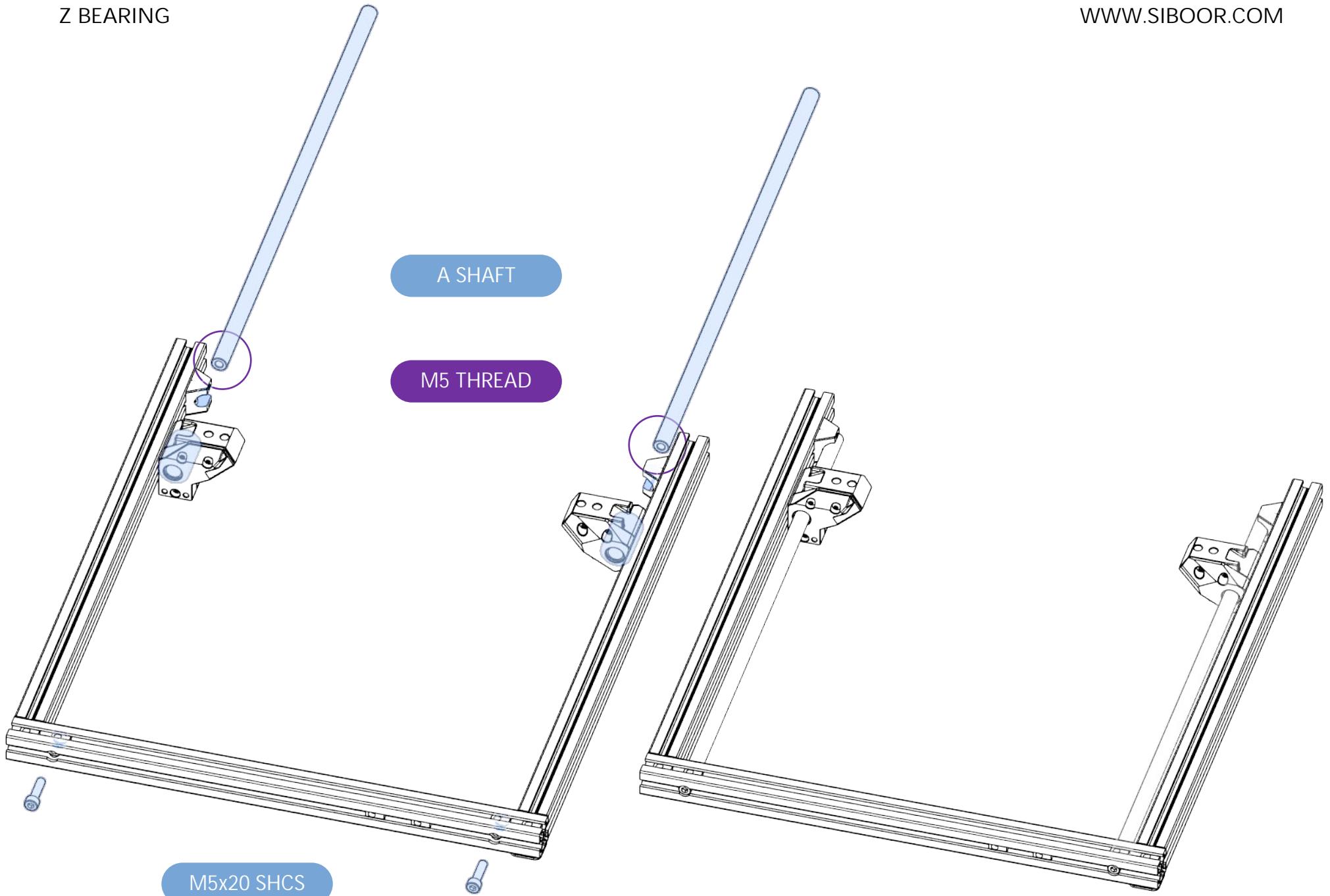


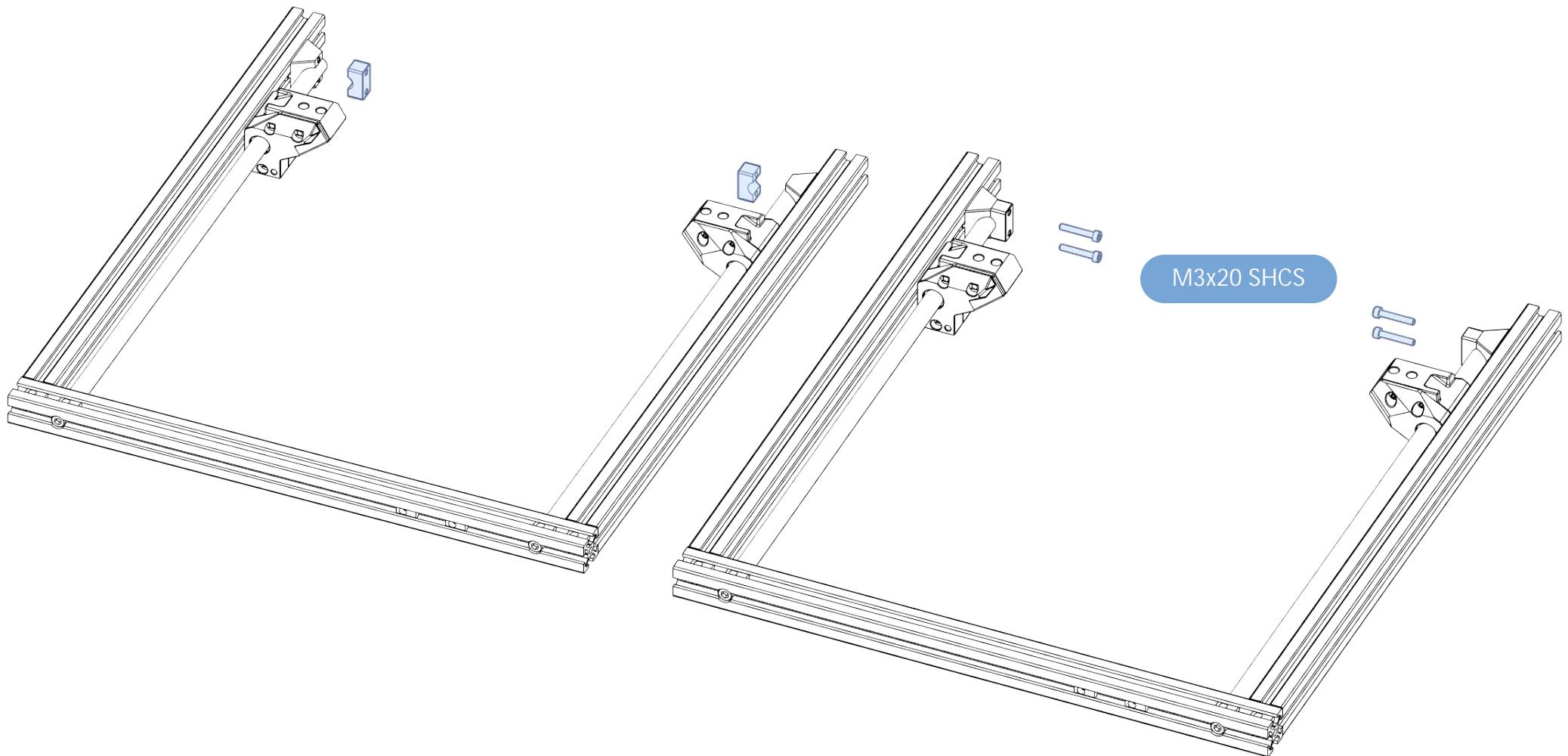
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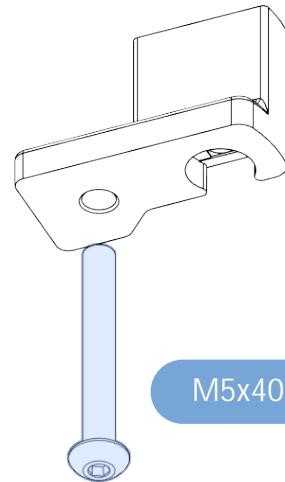


M3x30 BHCS



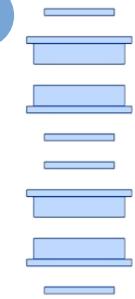




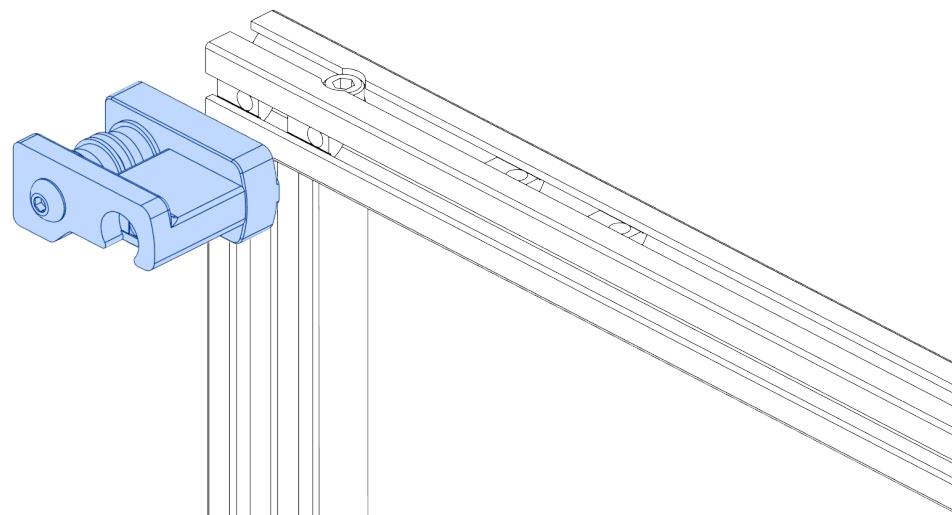
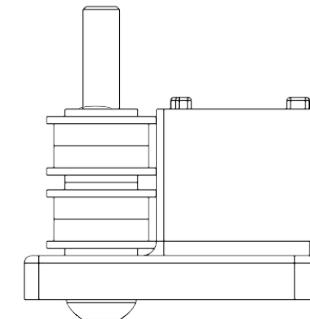
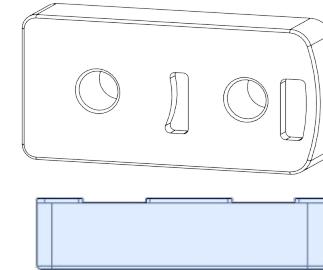
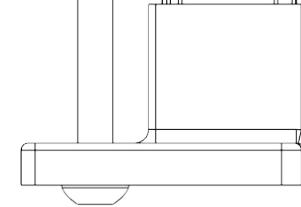


M5 SHIM

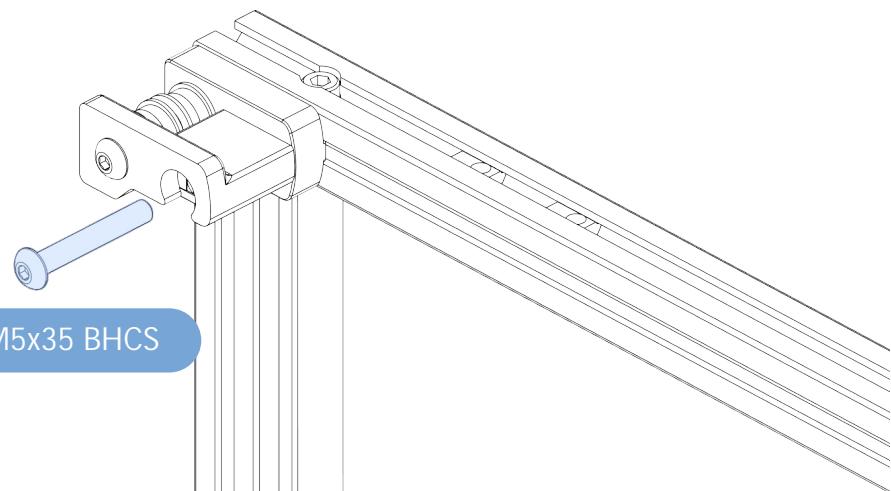
F695 BEARING

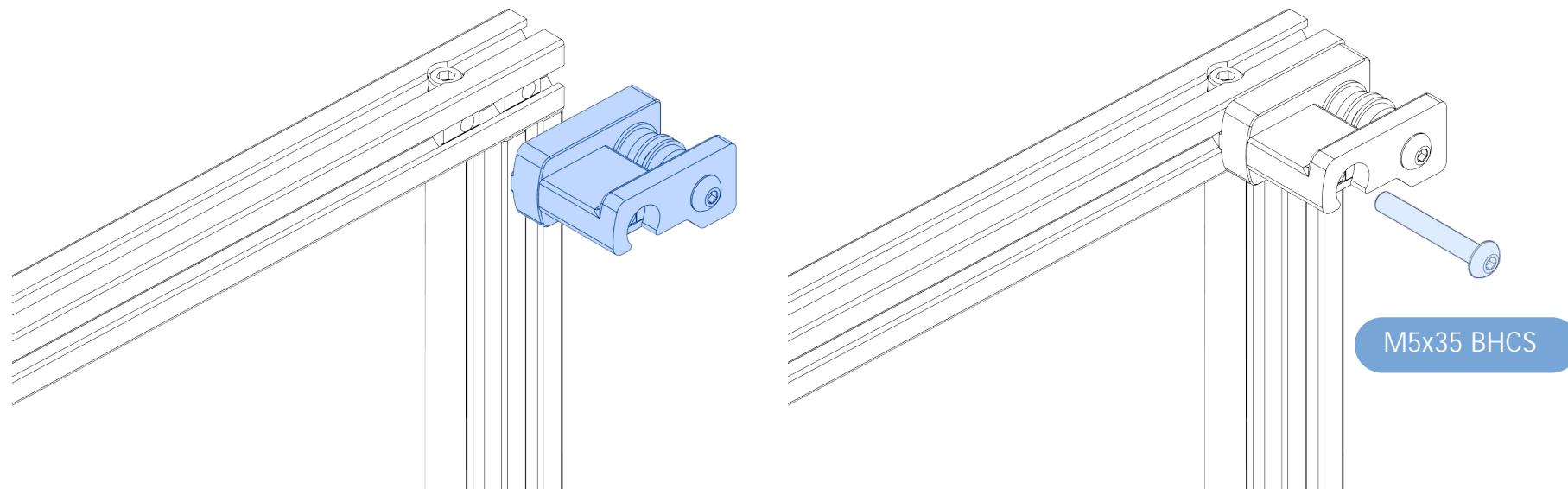
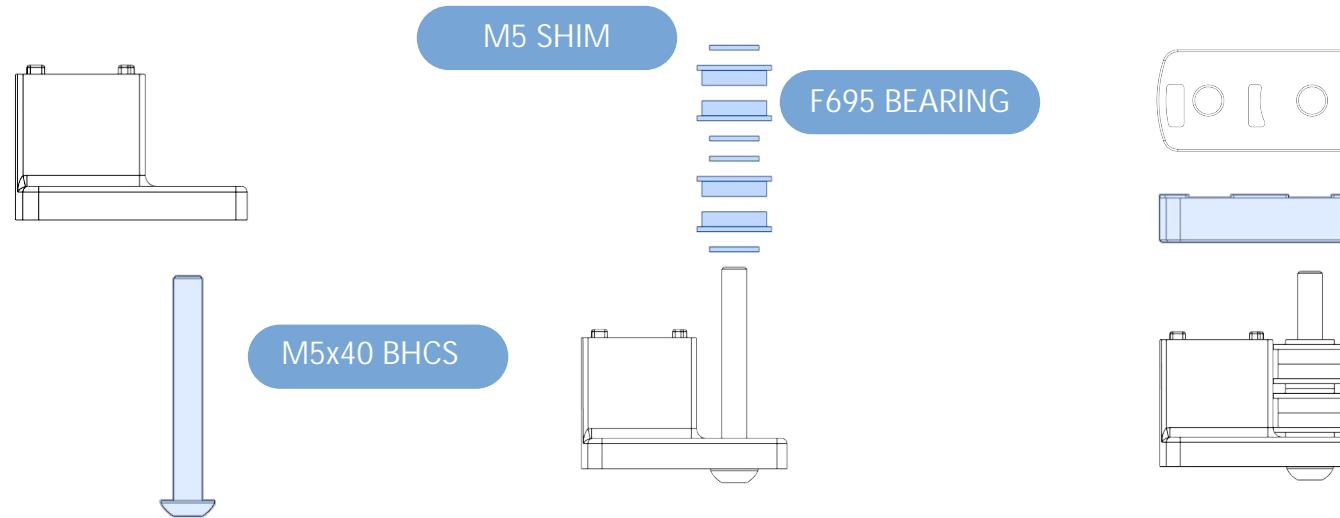


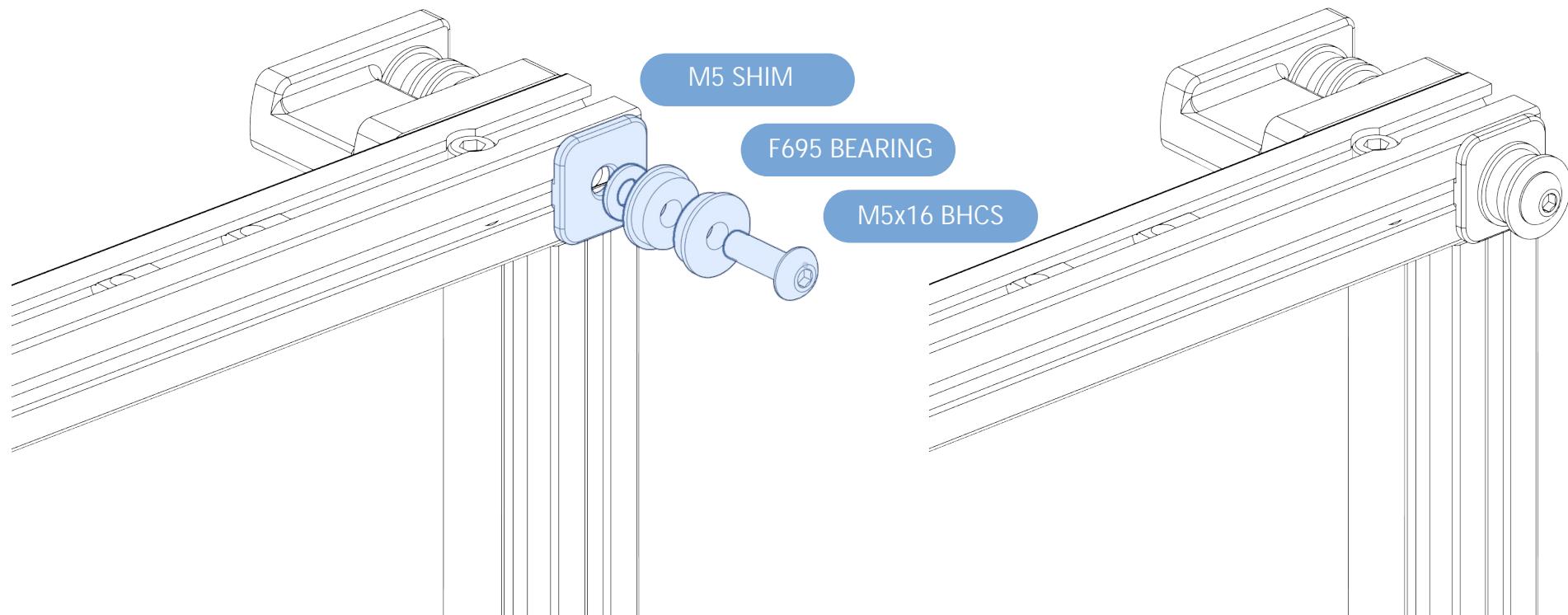
M5x40 BHCS



M5x35 BHCS







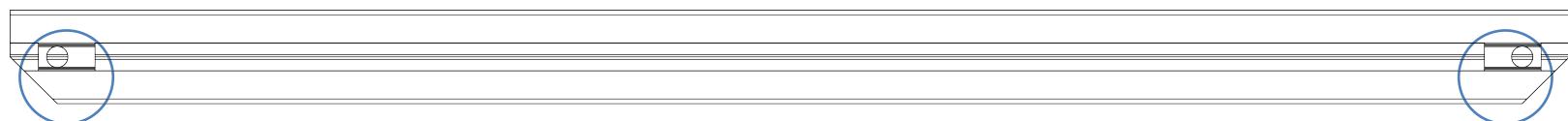
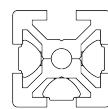
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EXTRUSIONS PRE-PLANT_T-Nut

The T-Nut locations and on all four faces of the profile will be displayed on this page clockwise.
Last Chance to plant before assembling the LOWER .

FRONT



ABOVE

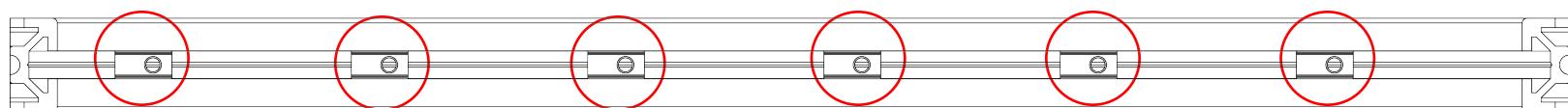


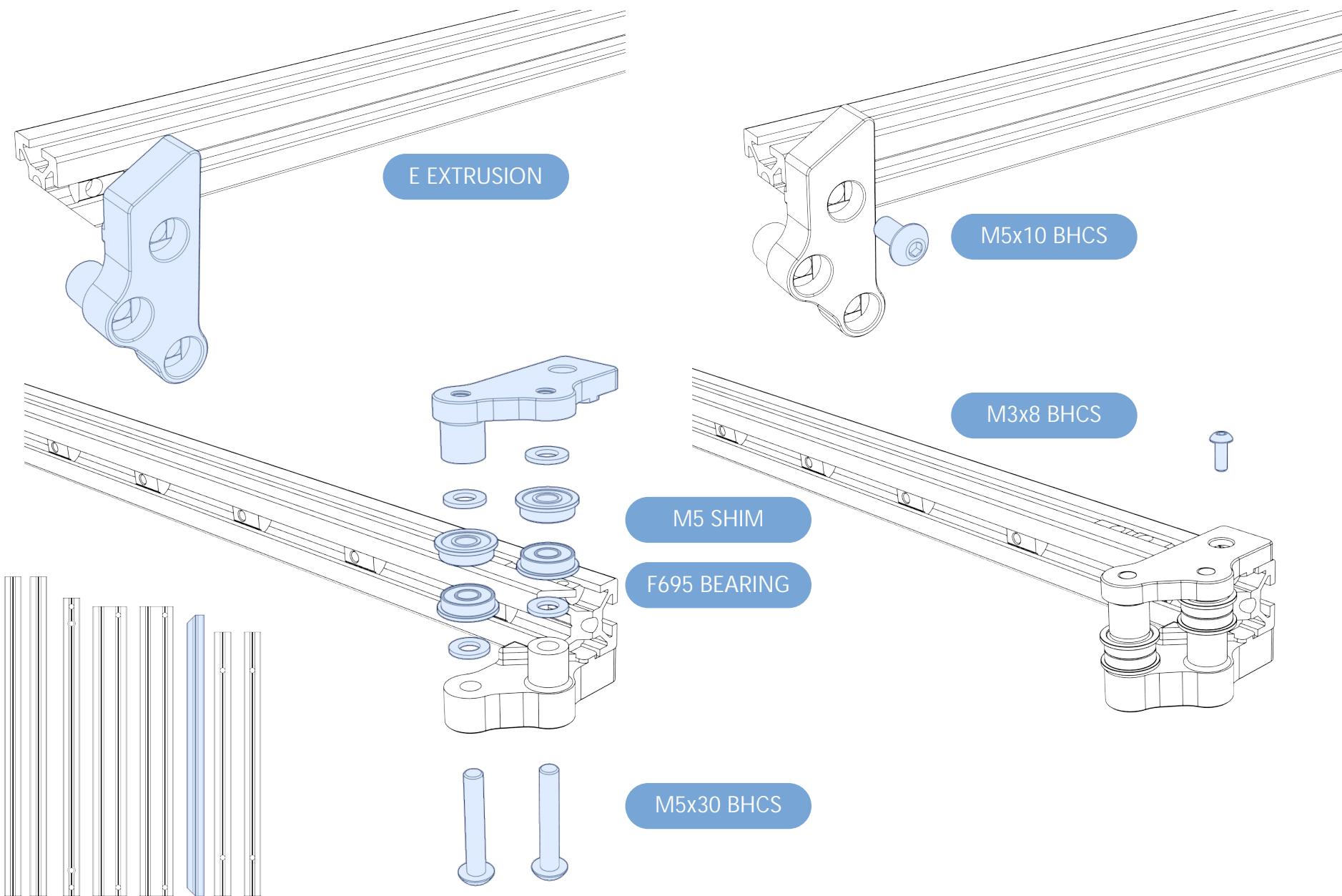
M3 T-NUT

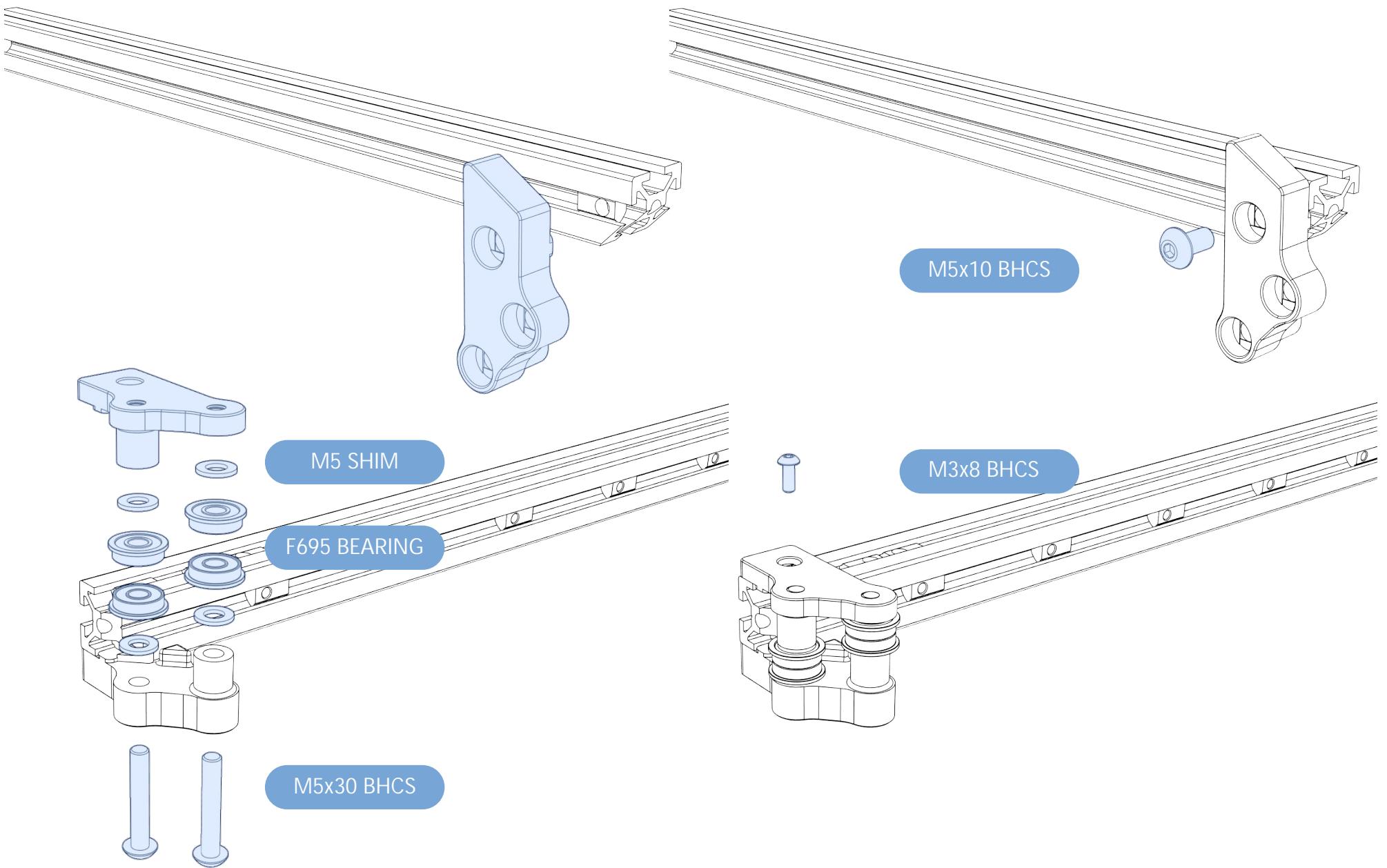
REAR

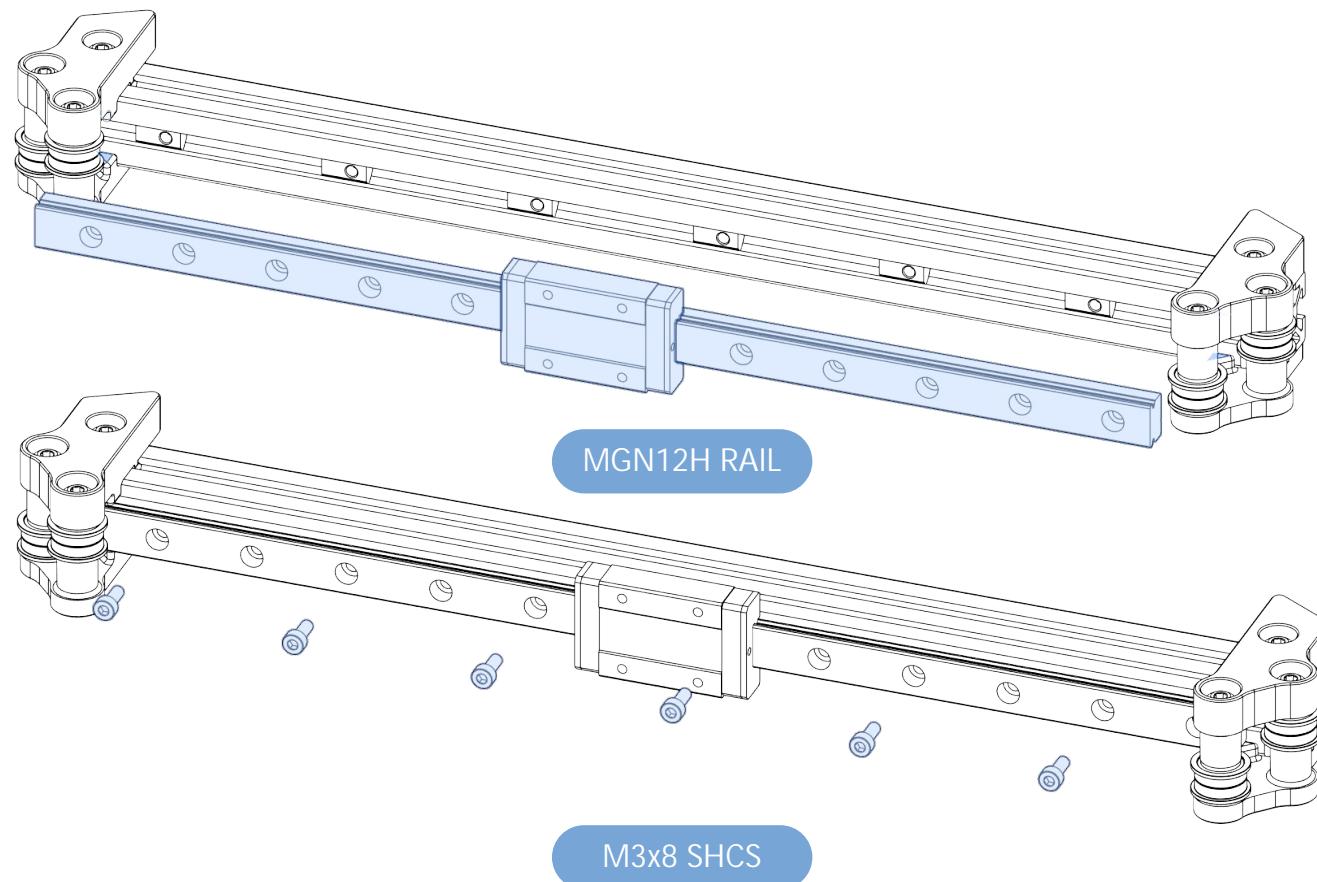


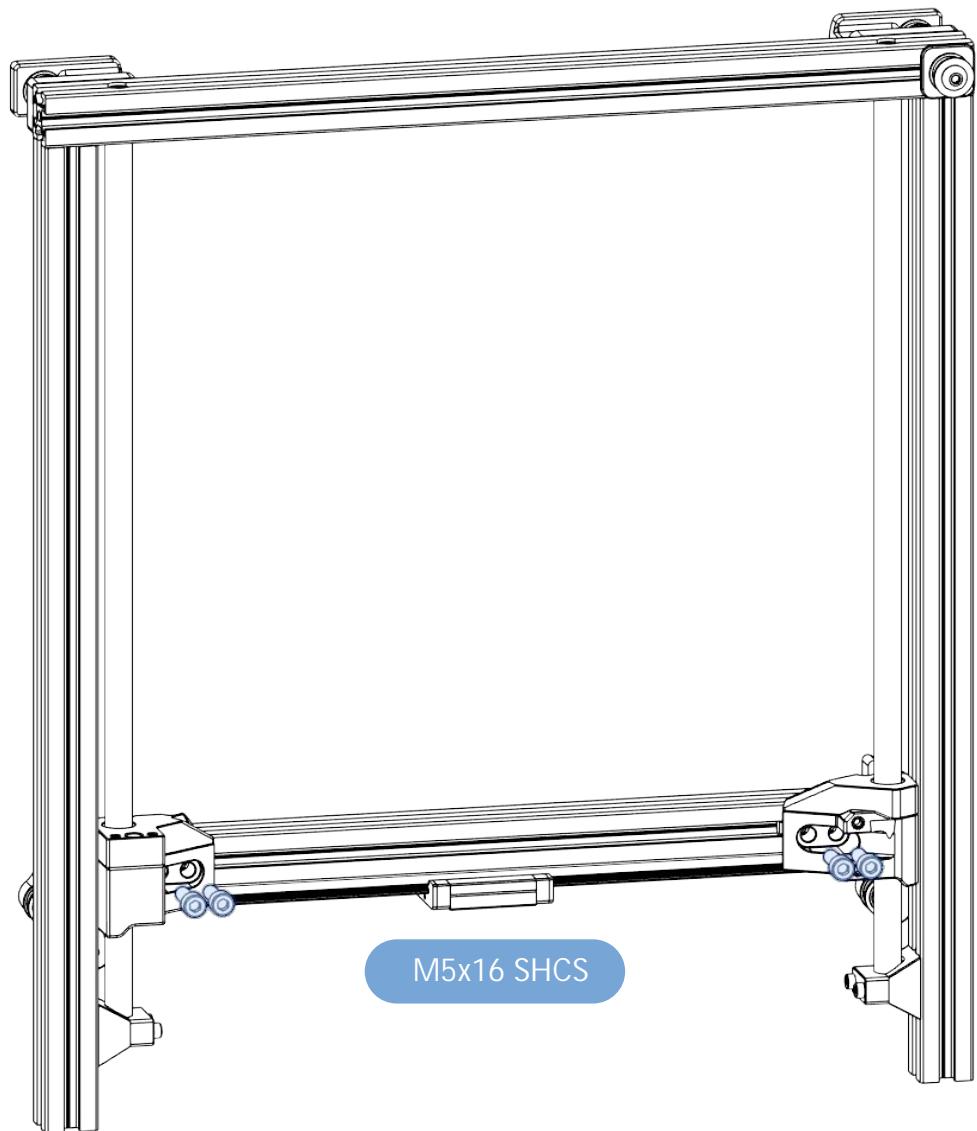
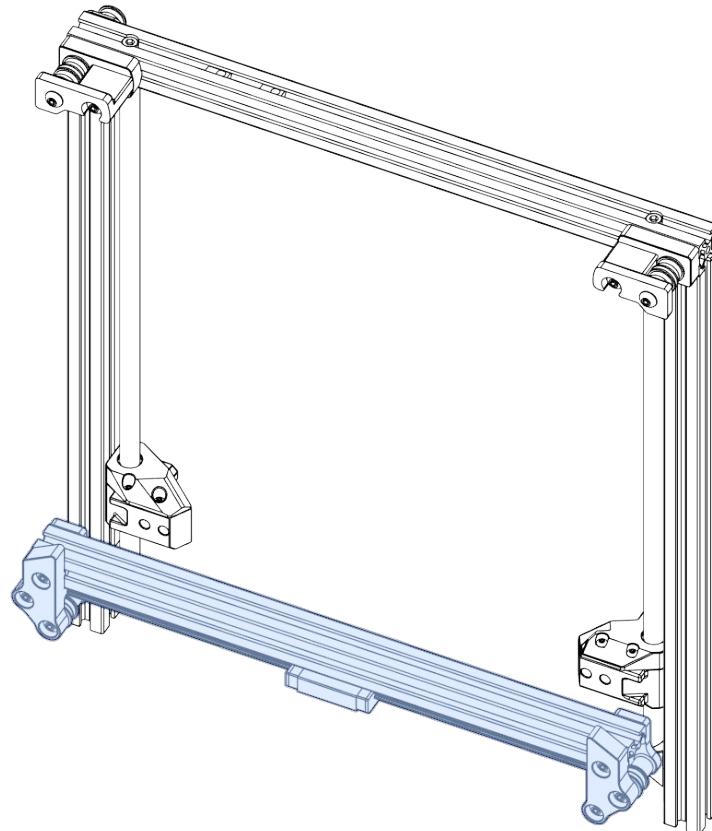
BOTTOM

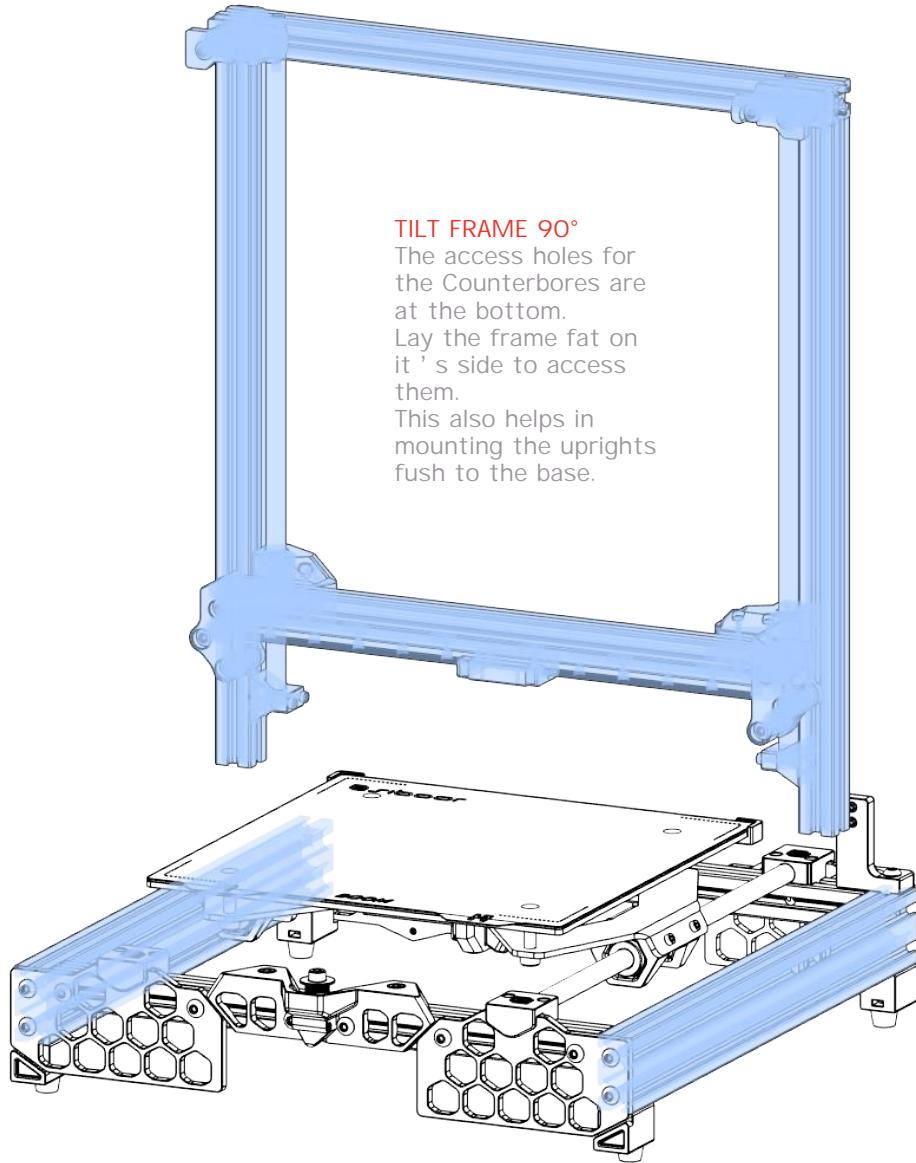




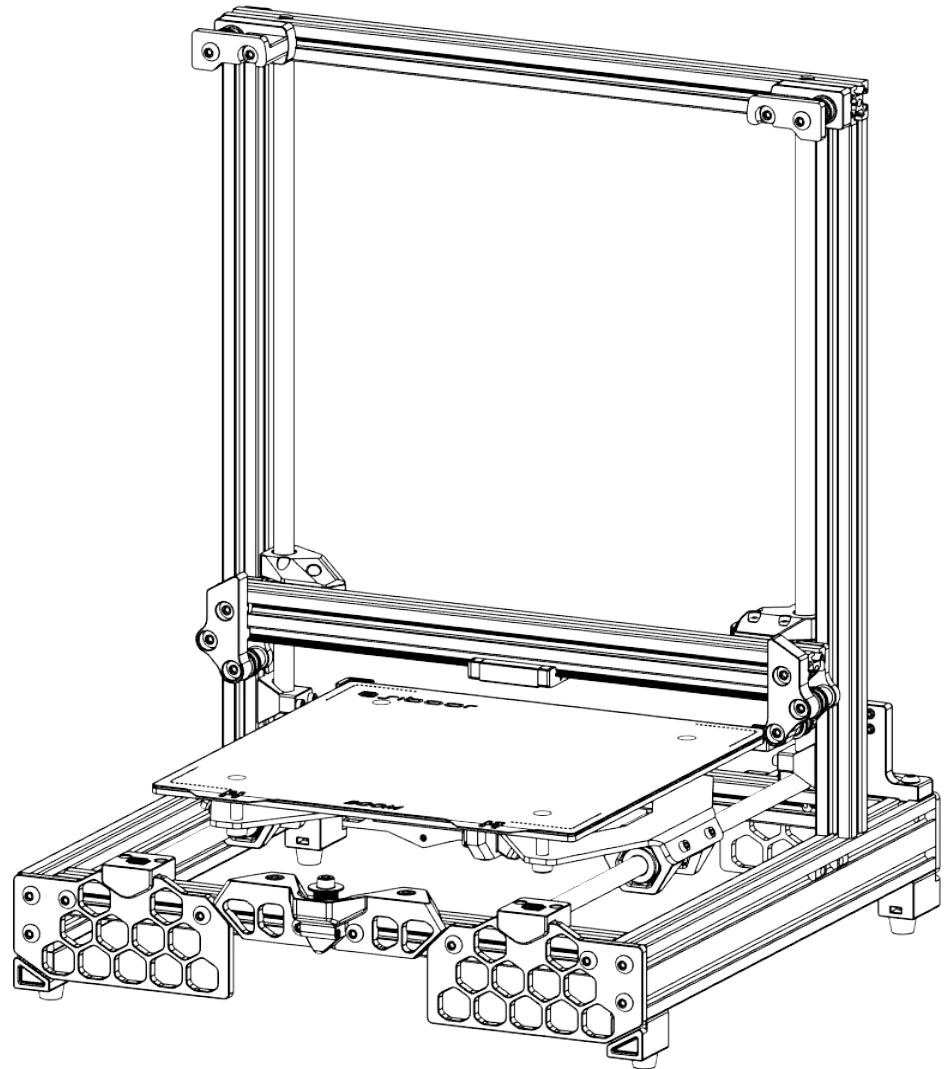


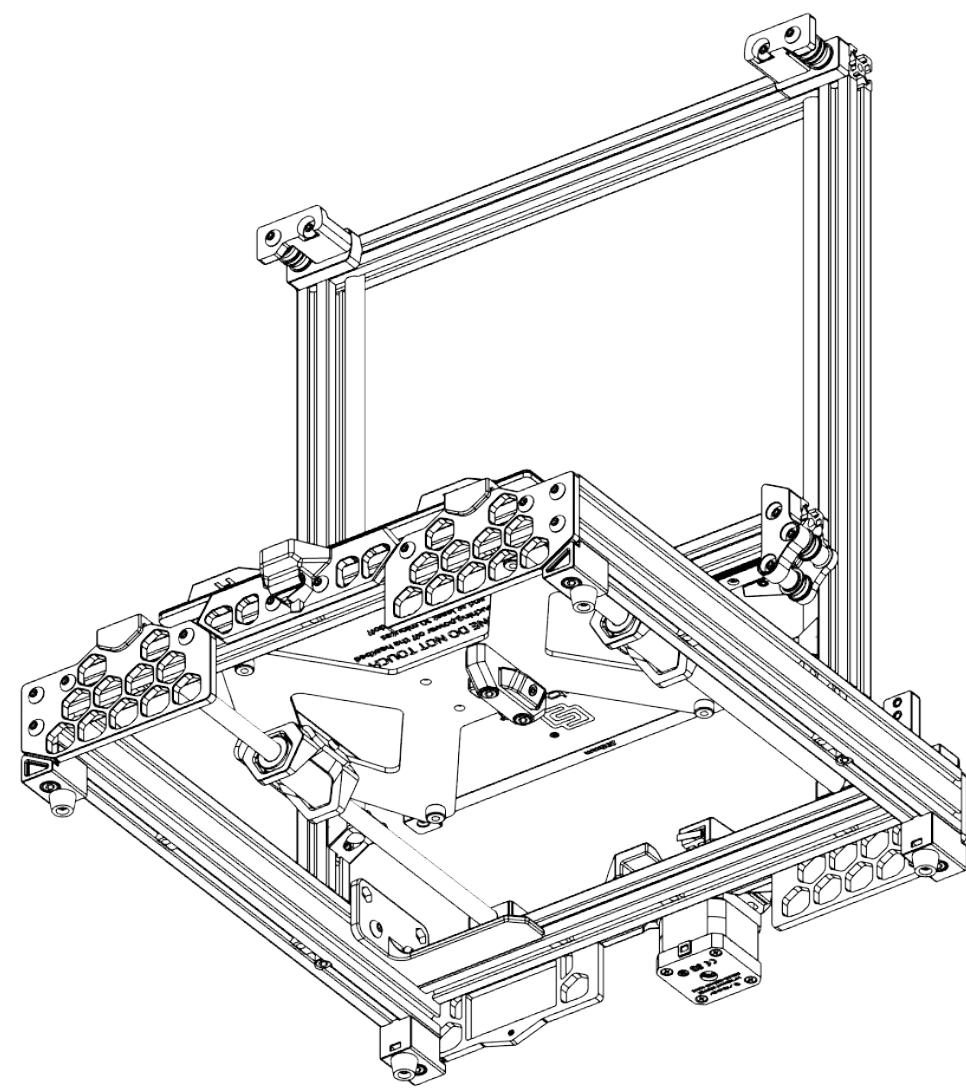
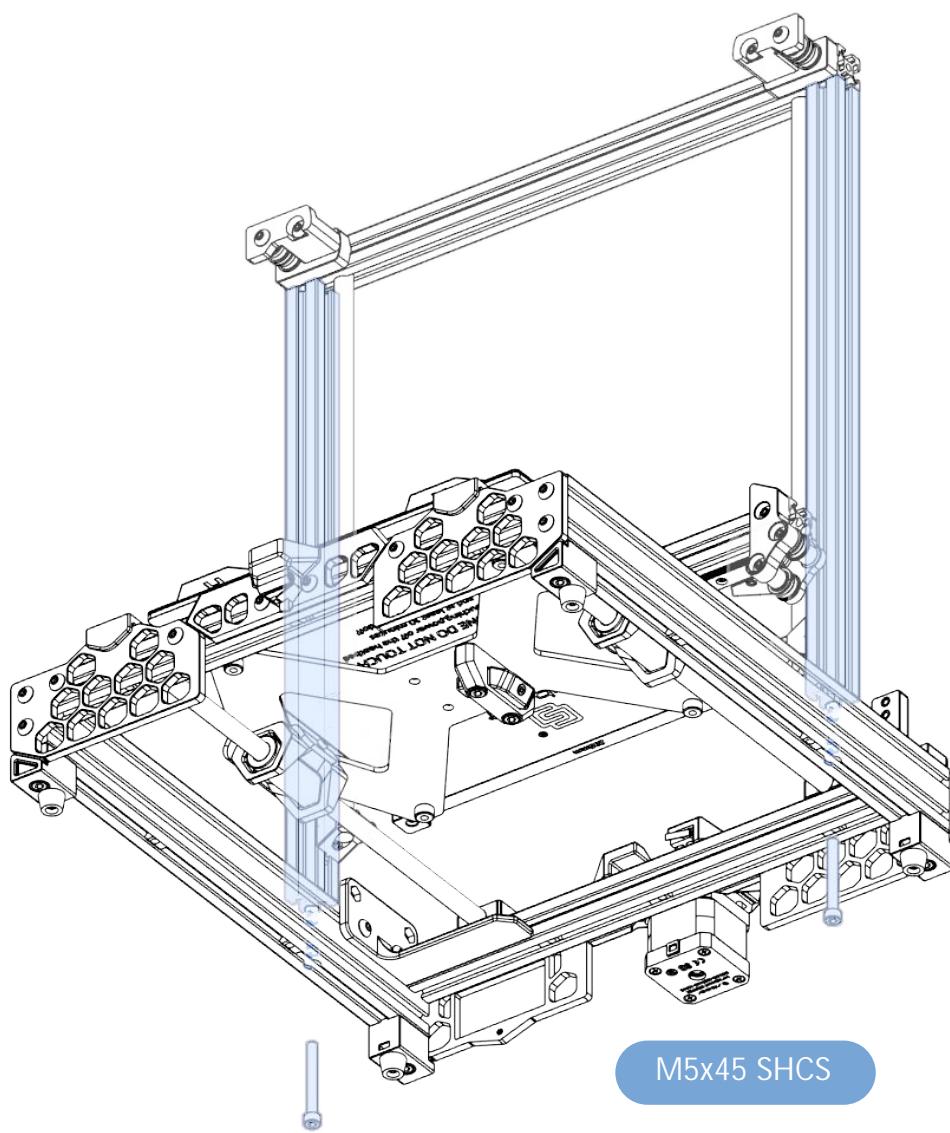


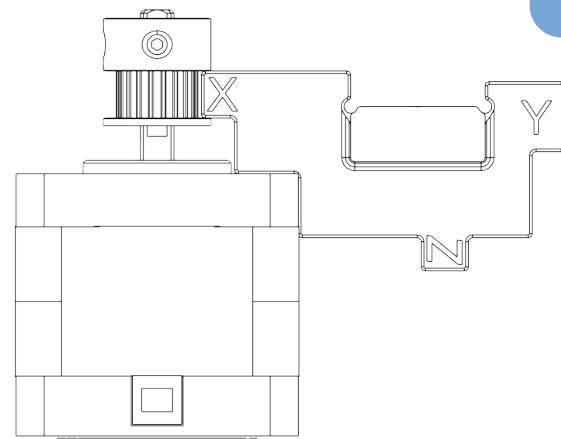
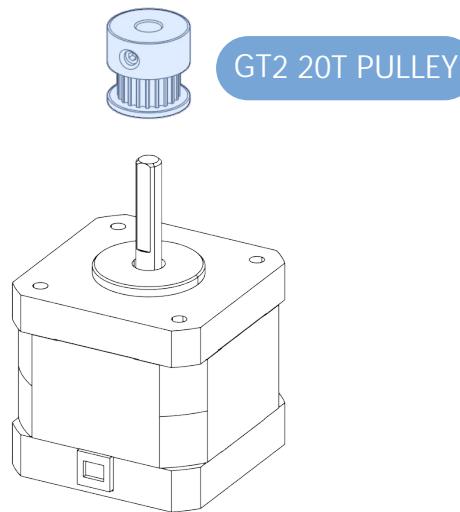




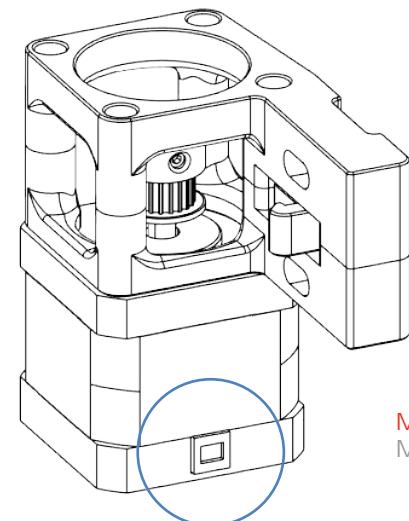
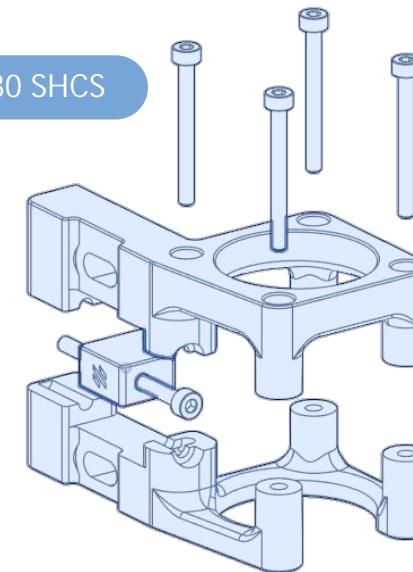
TILT FRAME 90°
The access holes for
the Counterbores are
at the bottom.
Lay the frame flat on
it's side to access
them.
This also helps in
mounting the uprights
flush to the base.





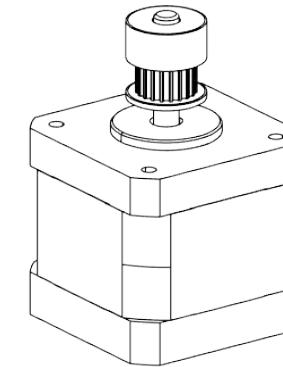


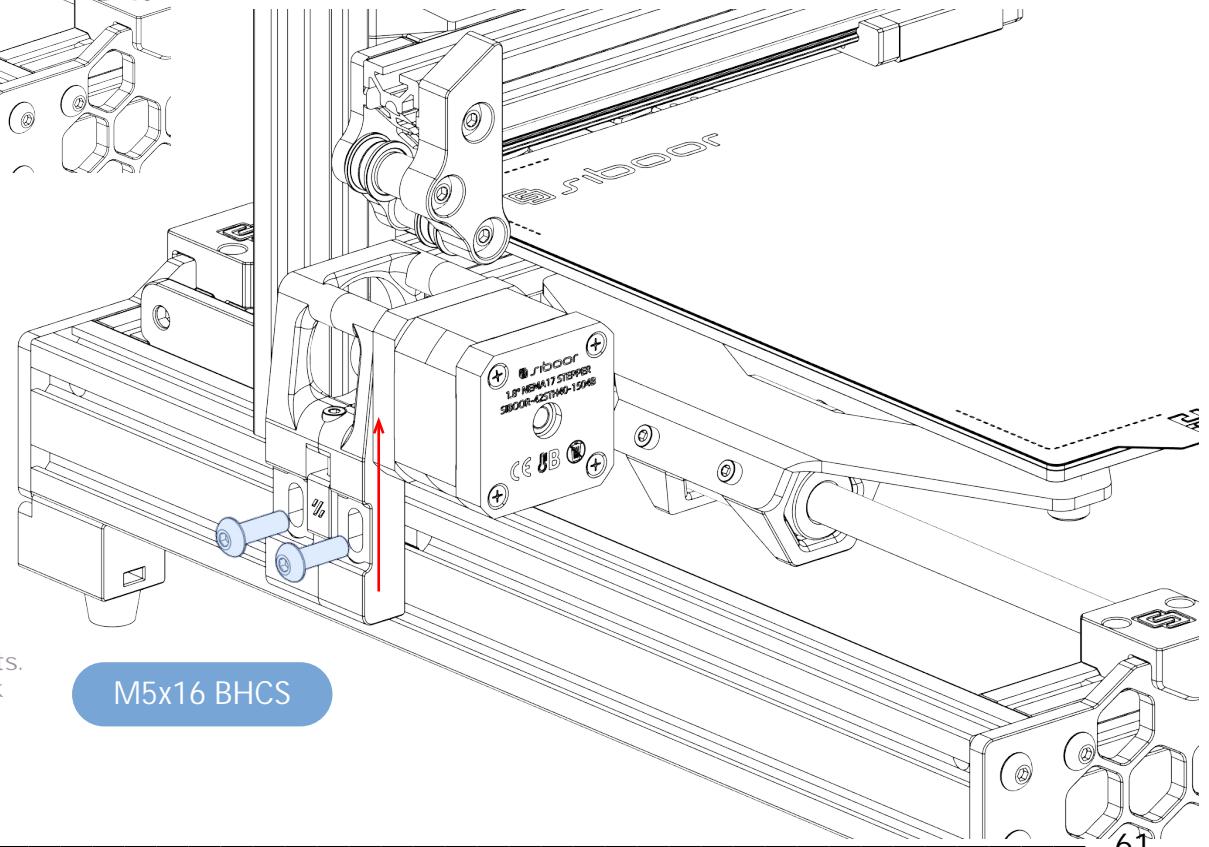
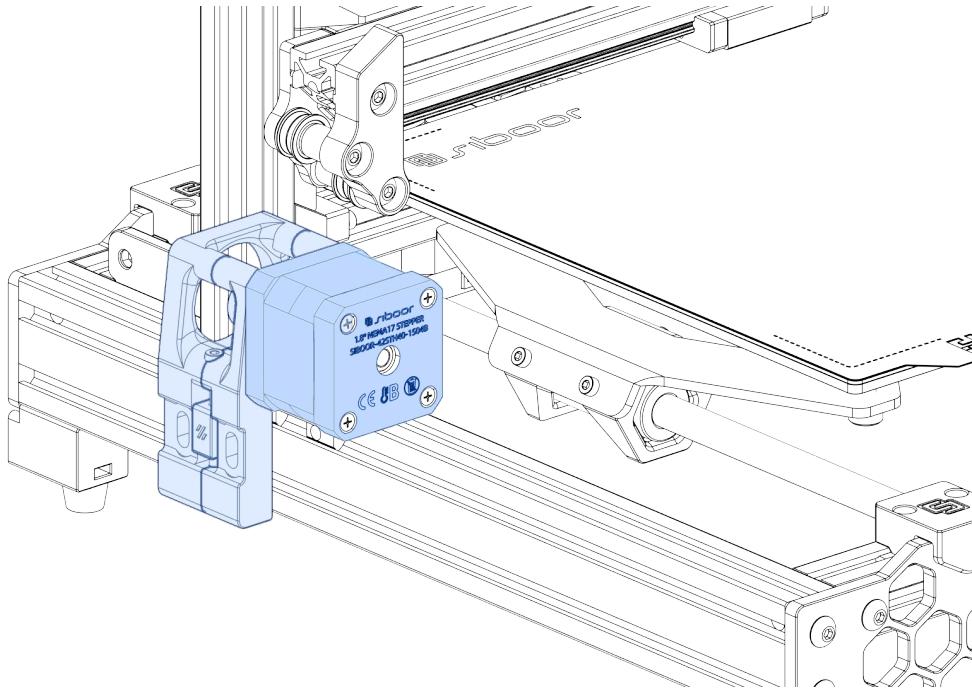
M3x30 SHCS



MOTOR ORIENTATION

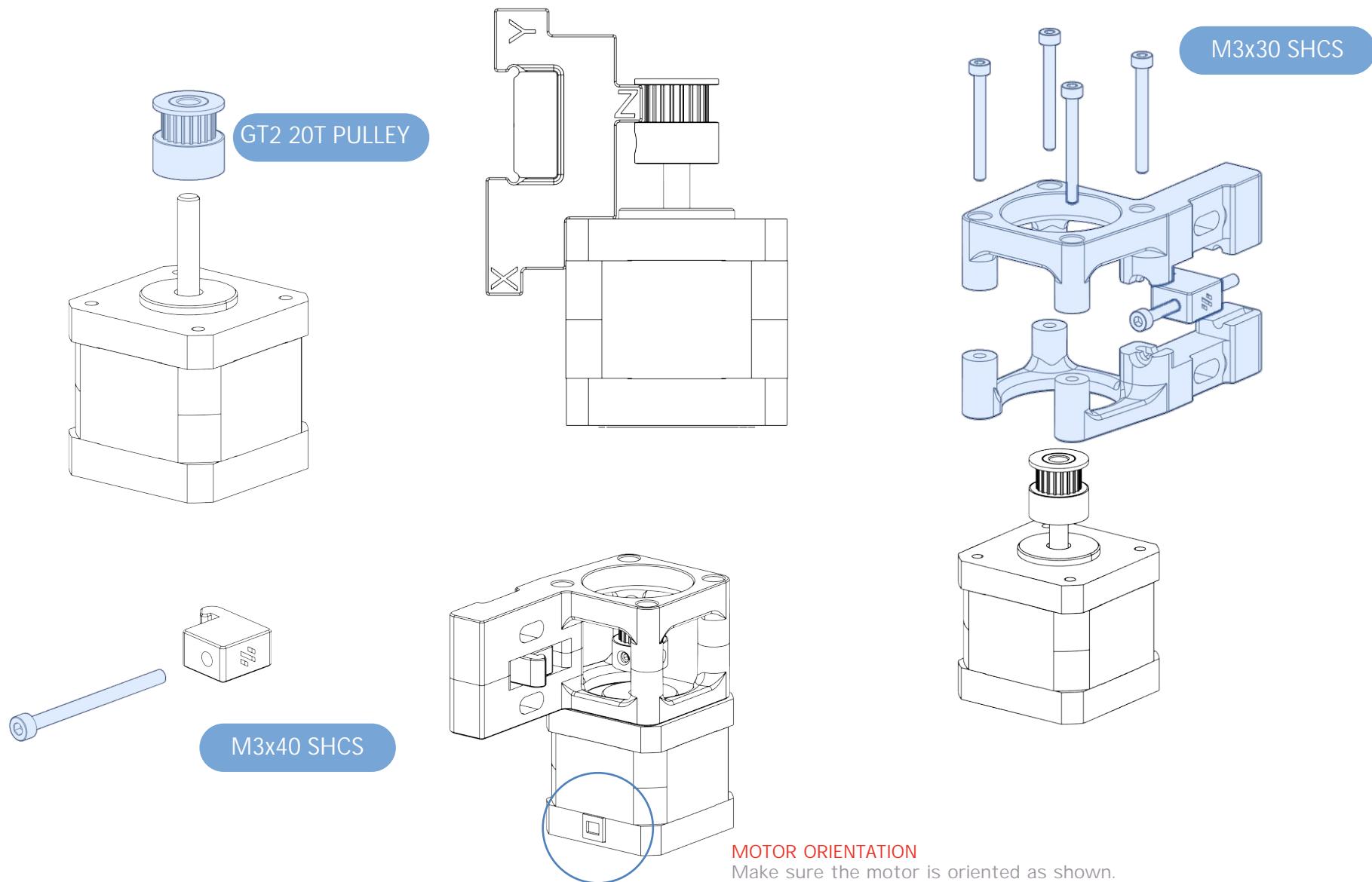
Make sure the motor is oriented as shown.

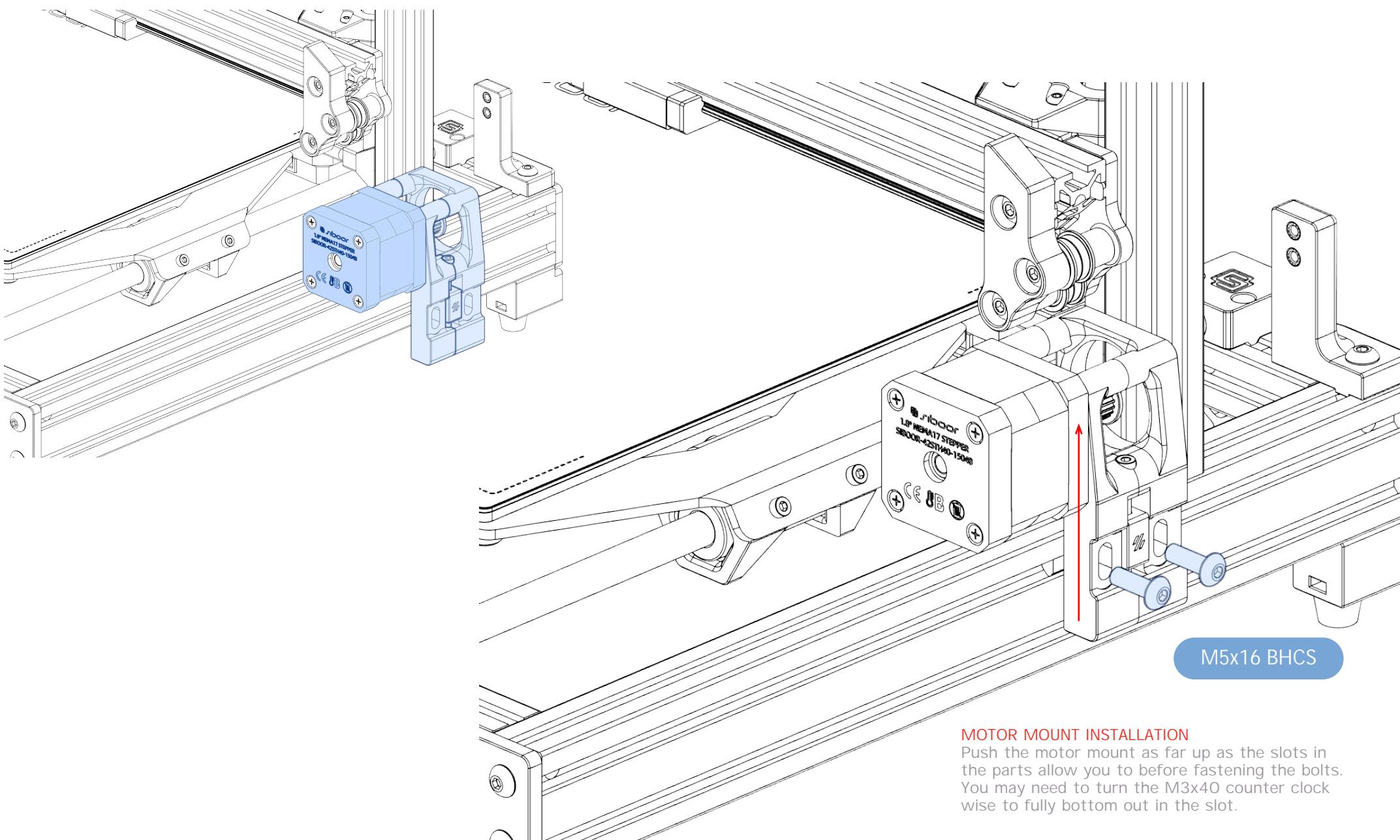


**MOTOR MOUNT INSTALLATION**

Push the motor mount as far up as the slots in the parts allow you to before fastening the bolts. You may need to turn the M3x40 counter clockwise to fully bottom out in the slot.

M5x16 BHCS





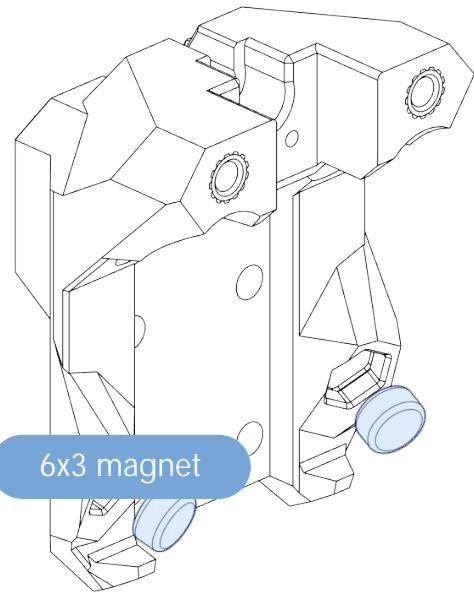
M5x16 BHCS

MOTOR MOUNT INSTALLATION

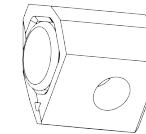
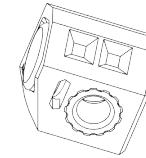
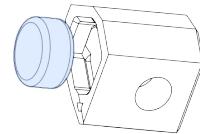
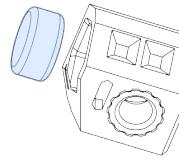
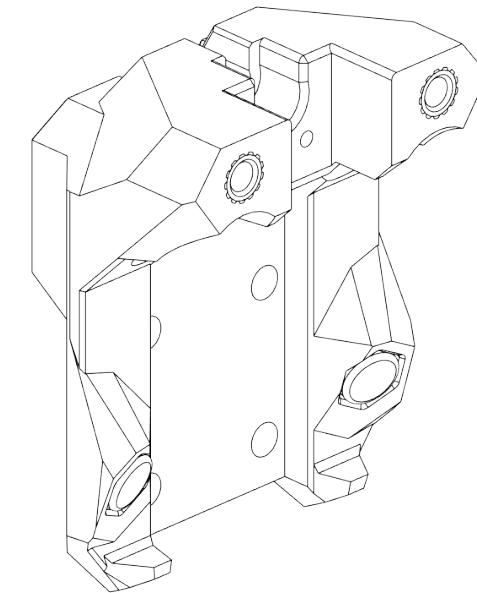
Push the motor mount as far up as the slots in the parts allow you to before fastening the bolts. You may need to turn the M3x40 counter clockwise to fully bottom out in the slot.

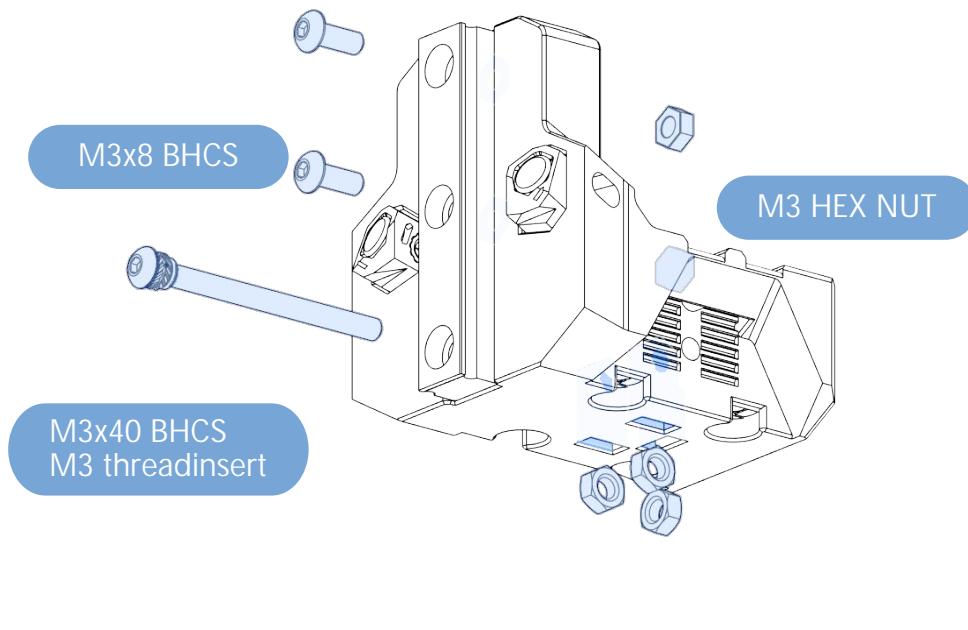
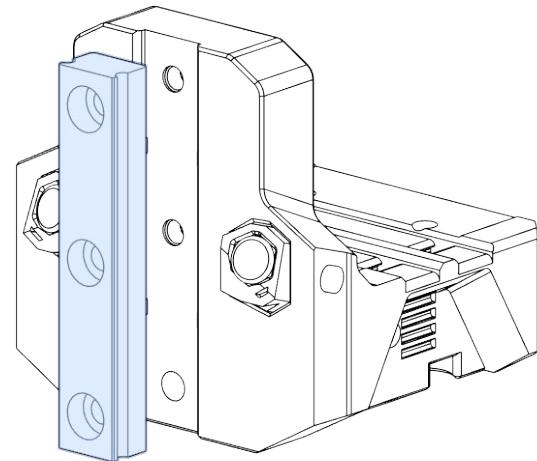
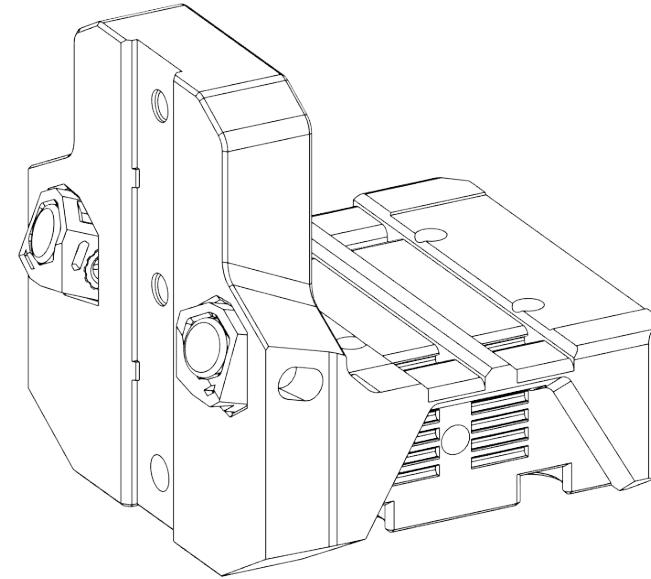
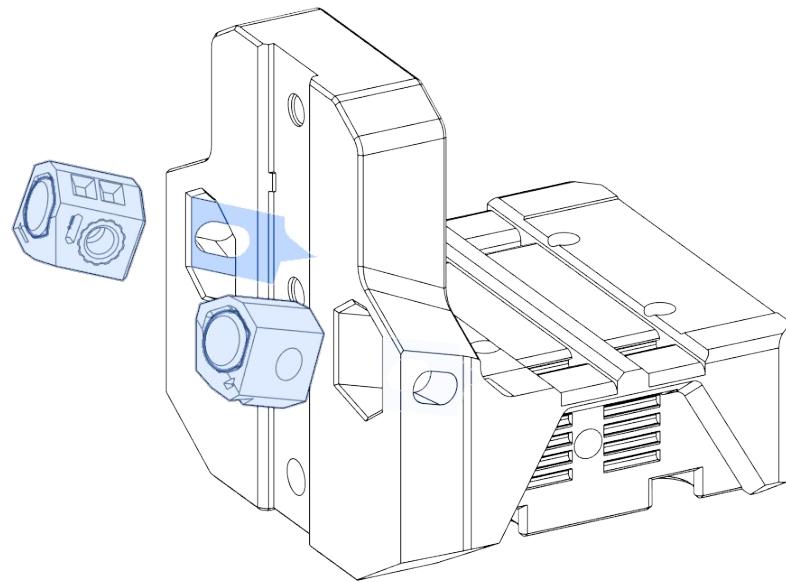
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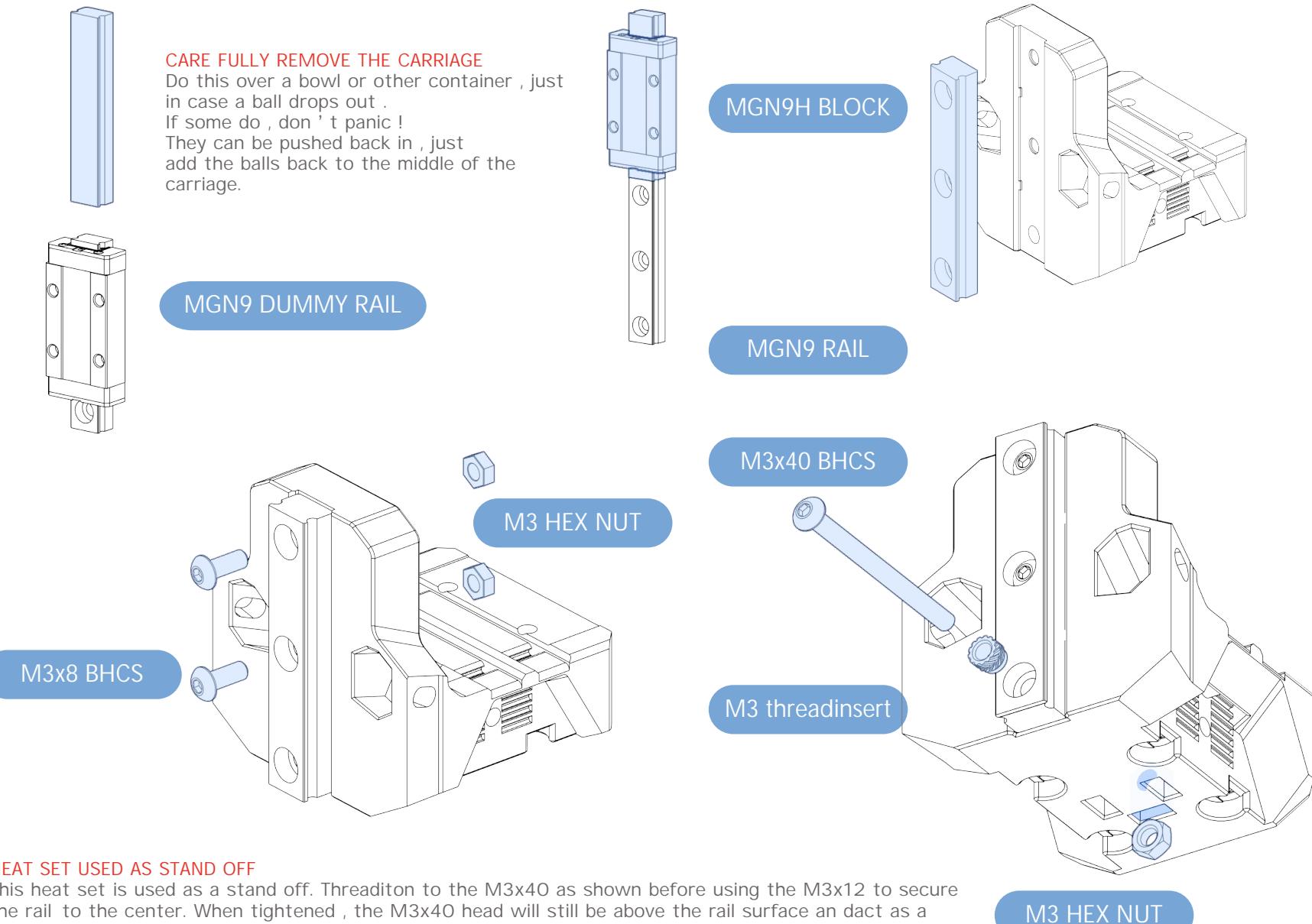


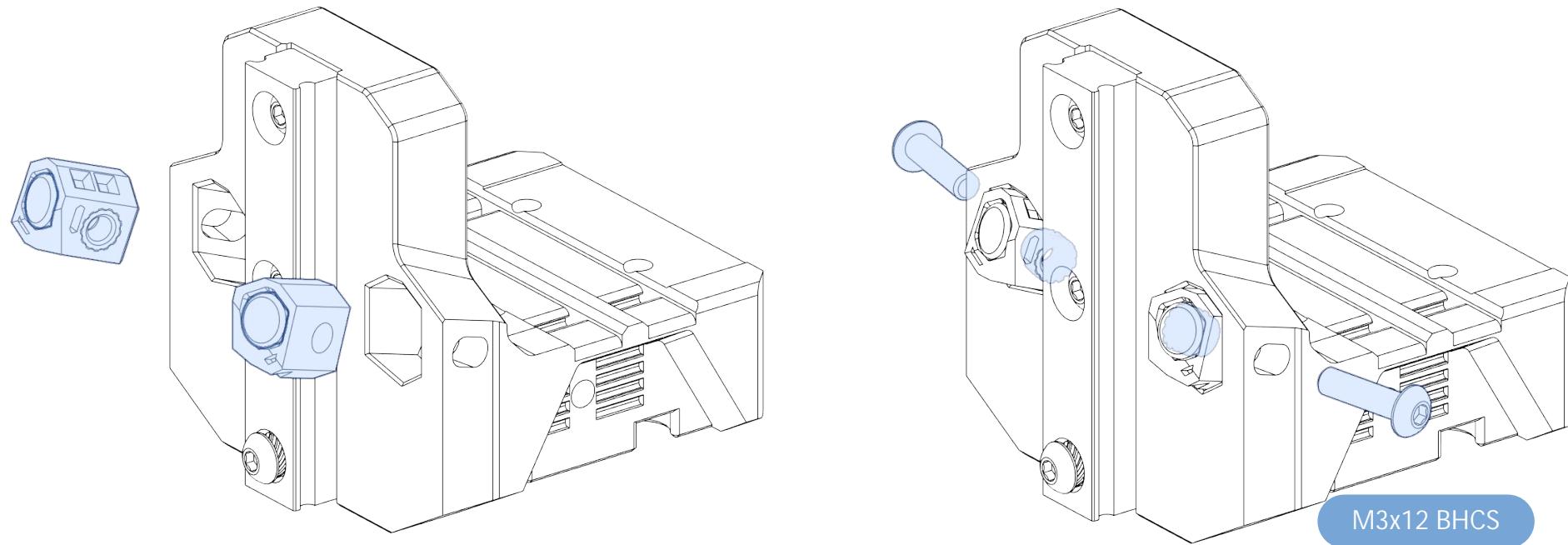
**ROUNDMAGNET,HEXHOLE**

The magnet seats here hold much better than aroundhole.The seats have been carefully designed and tested to maximize holding power.

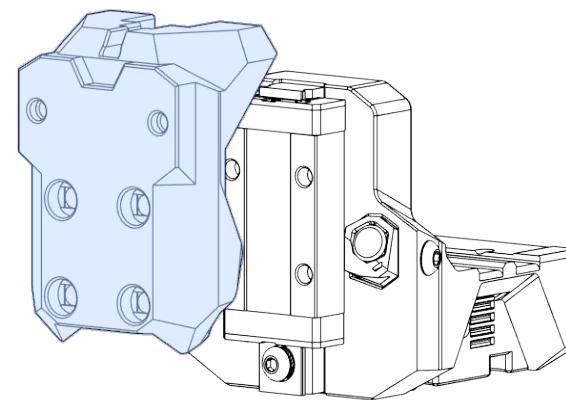
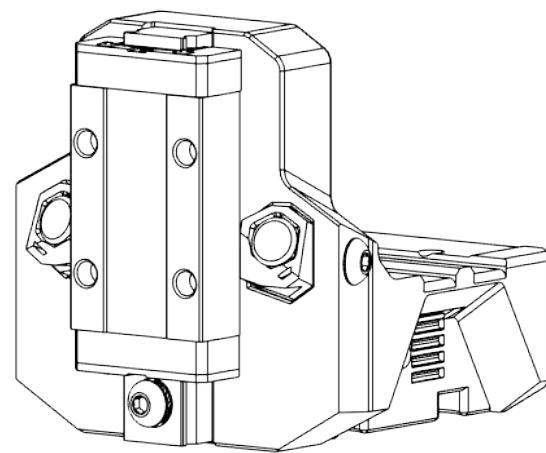
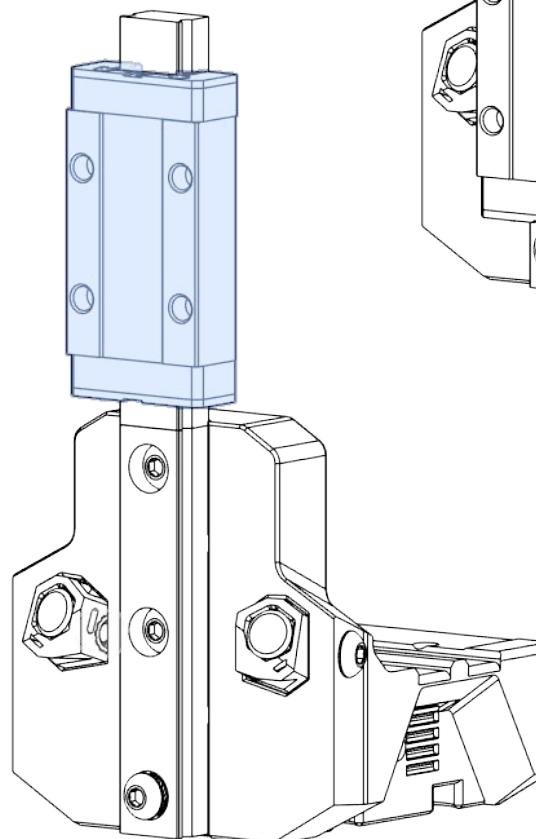




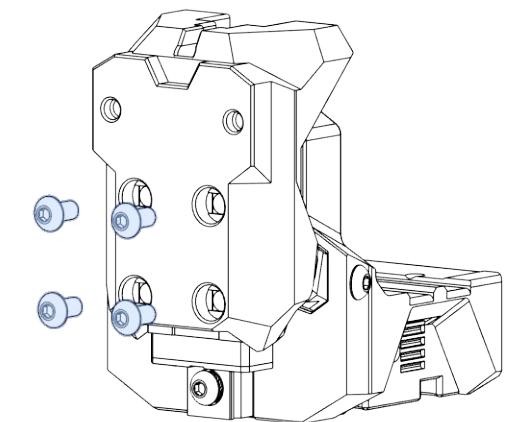


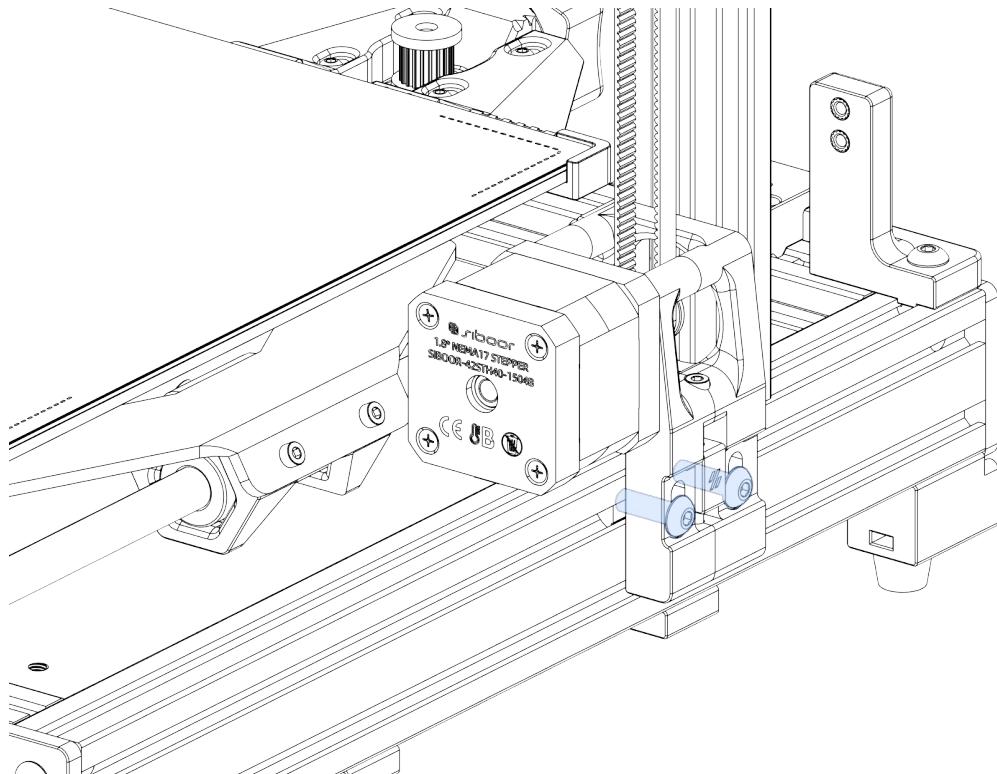


MGN9H BLOCK

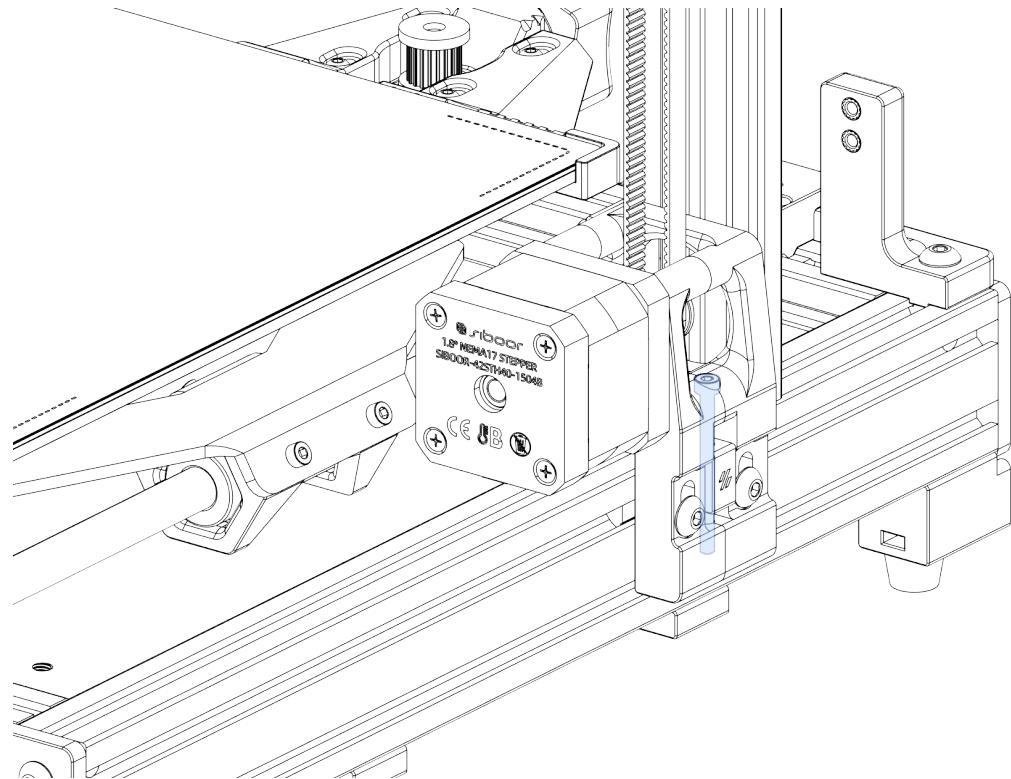


M3x6 BHCS

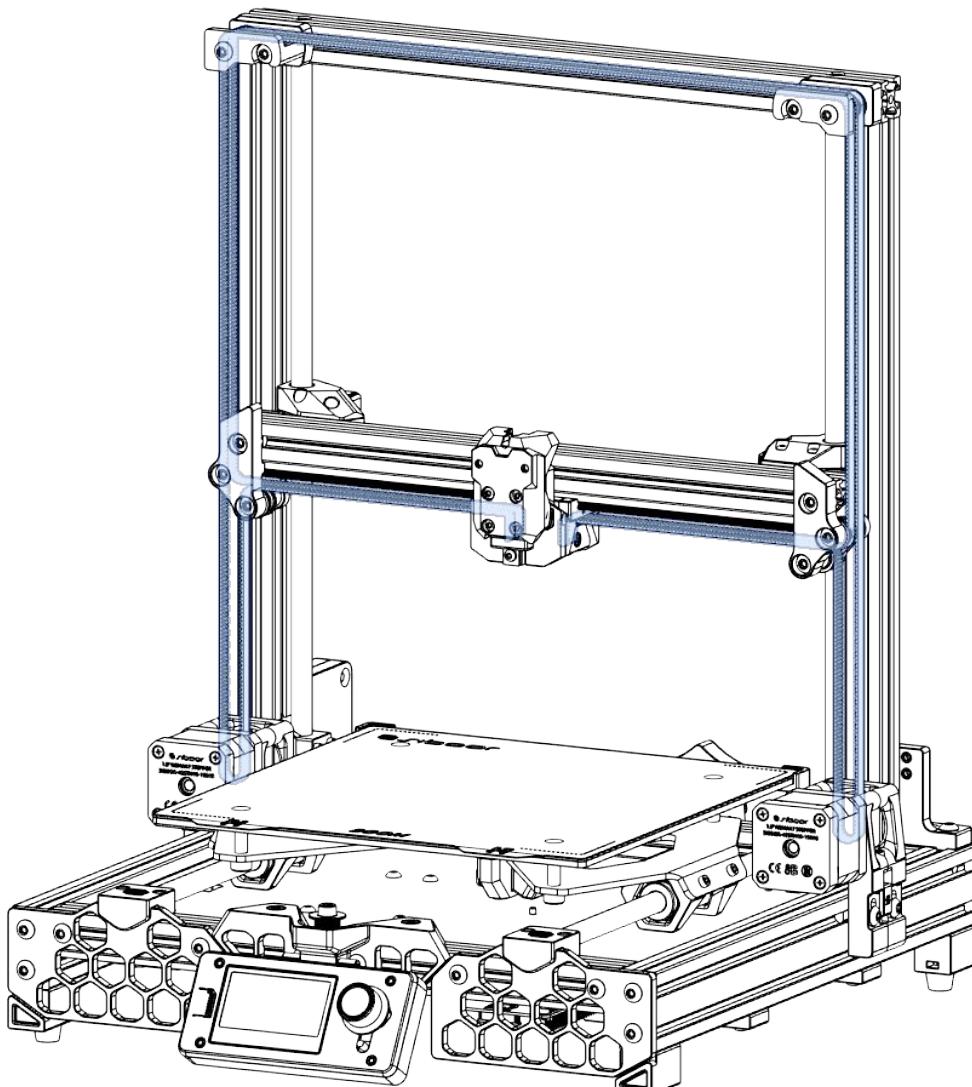


**LOCK SCREWS**

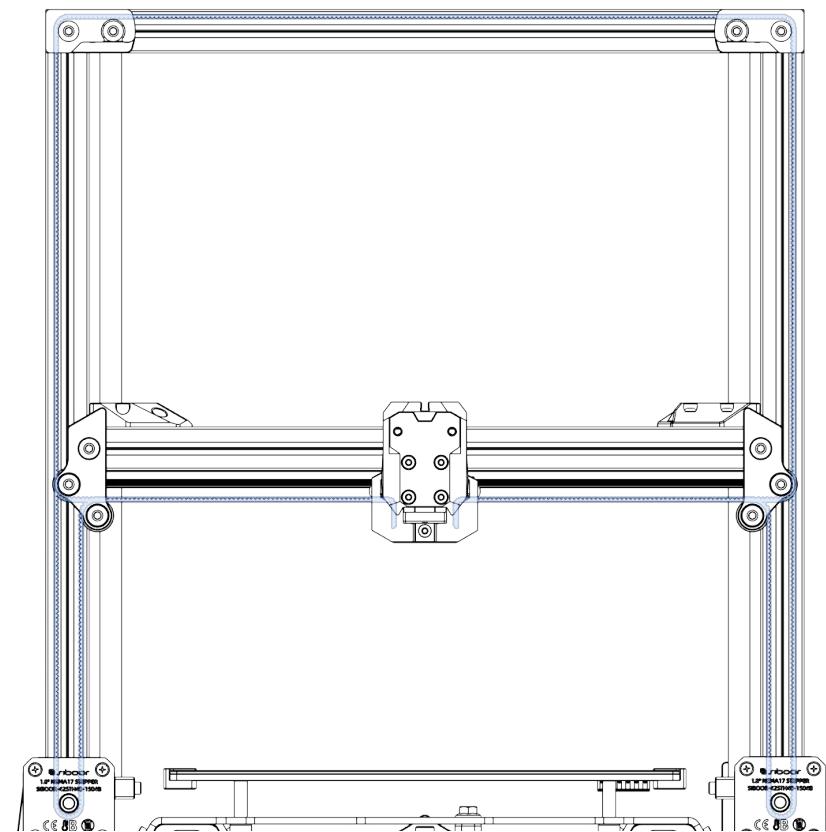
Slightly loosen these screws before adjusting the belt tension. Fasten them again after adjusting the tension.

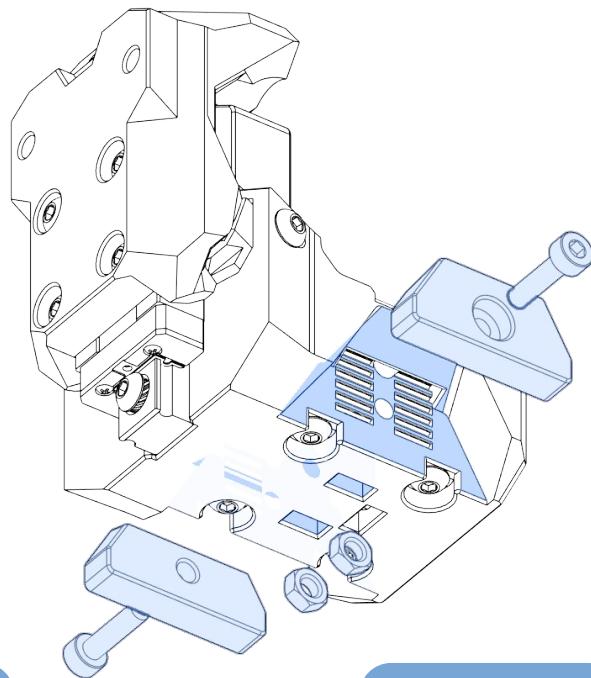
**ADJUSTMENT SCREW**

Turn the screw clockwise to pull a higher tension on the belt.

**BELT PATH**

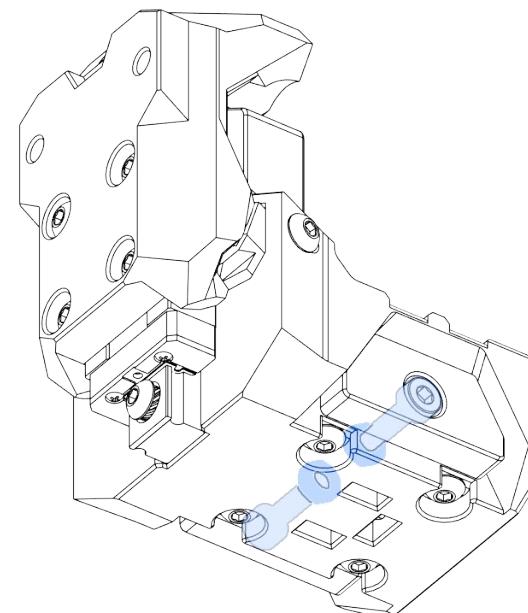
Take your time and make sure your belt routing is as intended.
Belts should never rub on plastic parts.

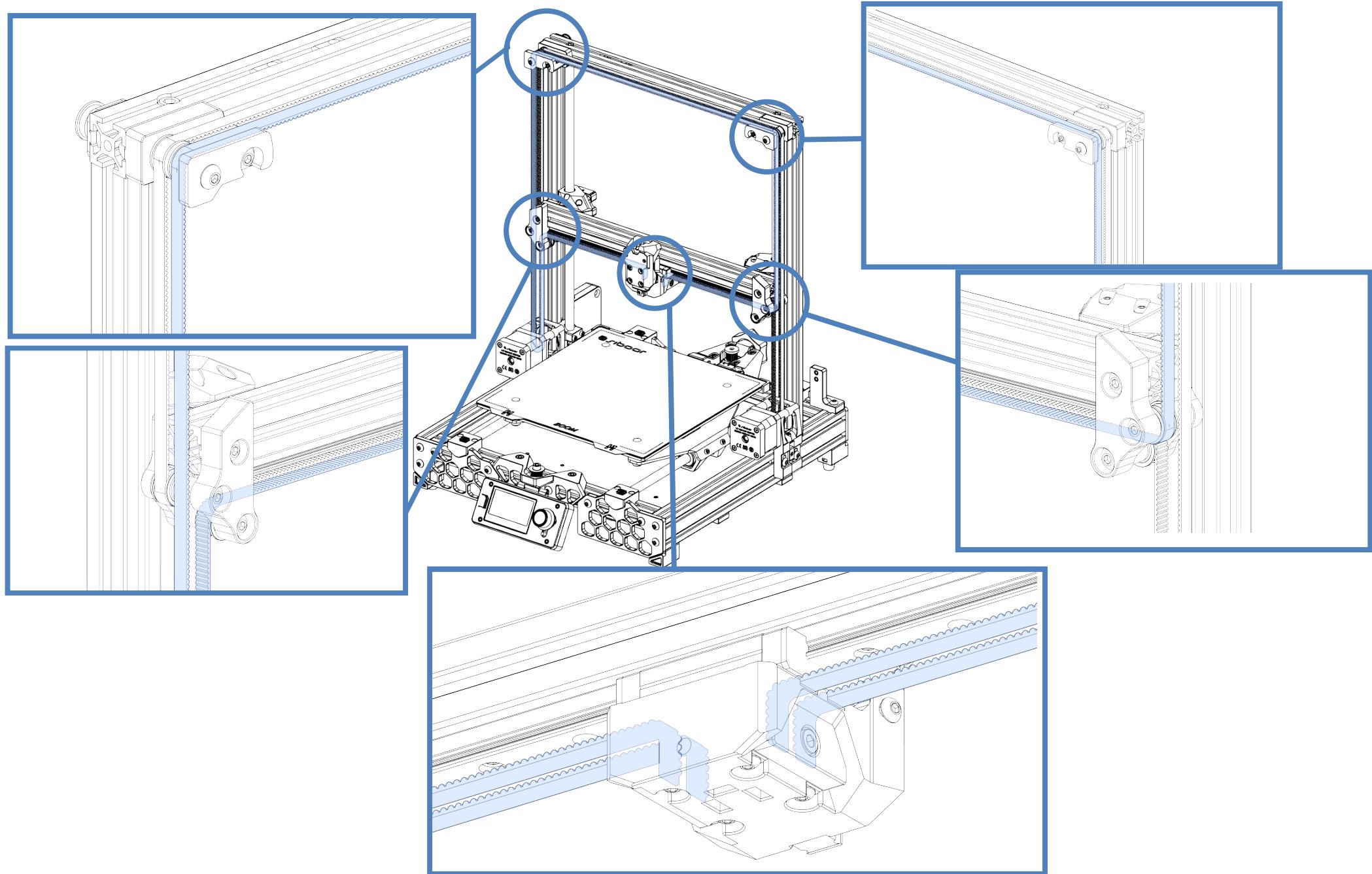


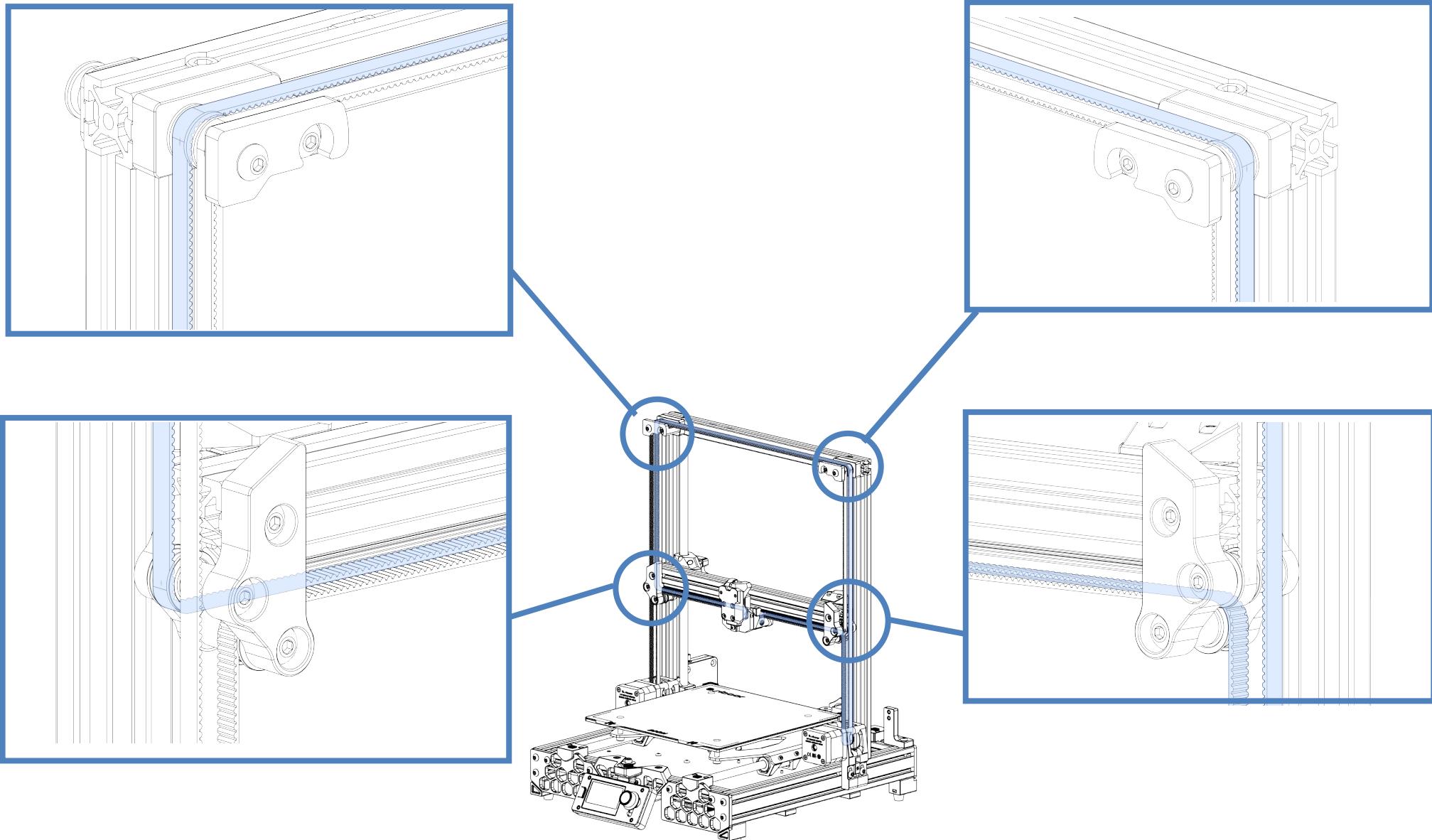


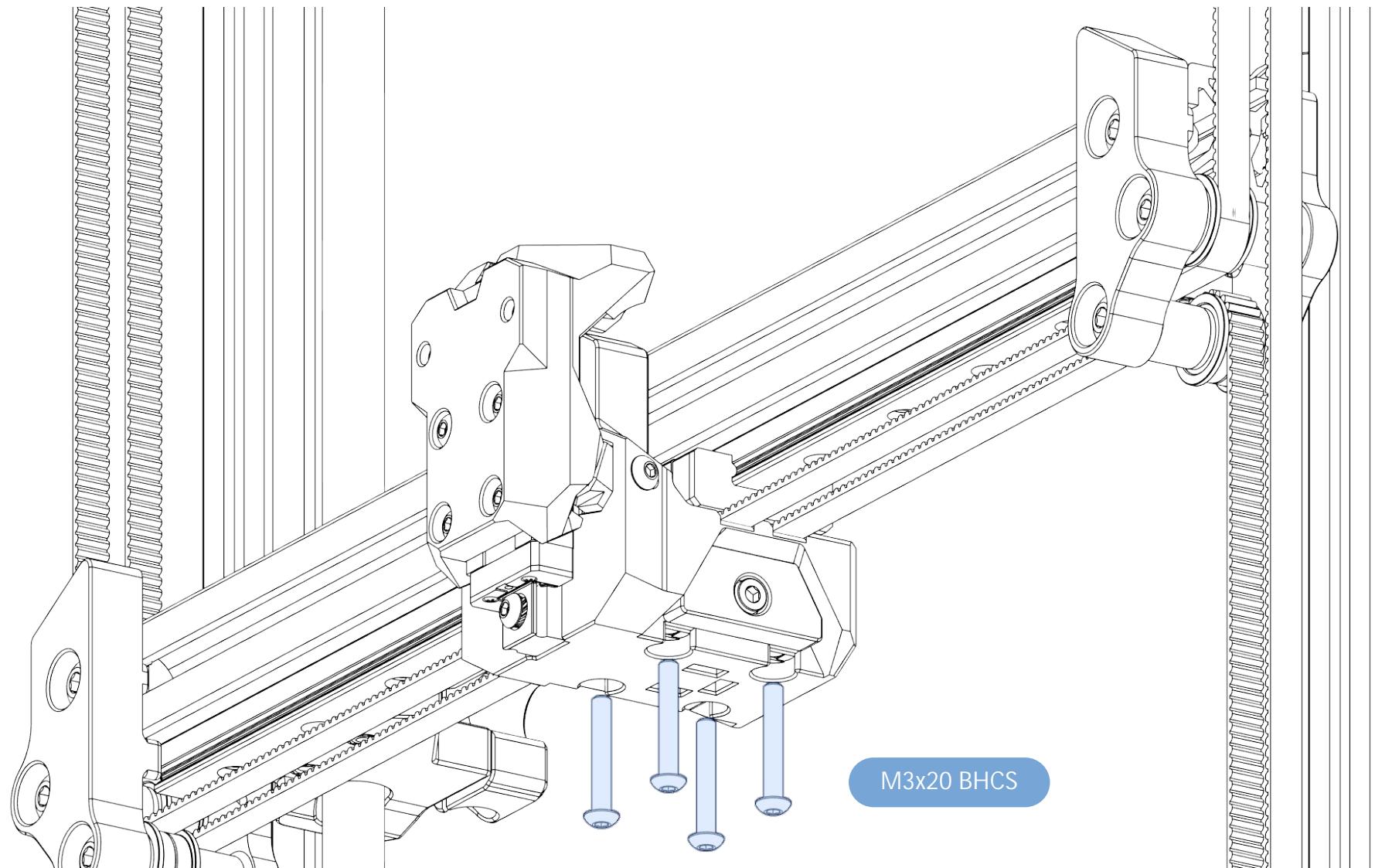
M3x12 SHCS

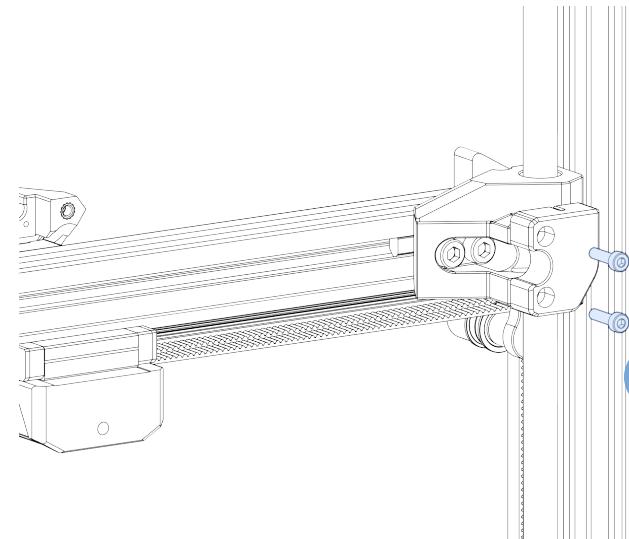
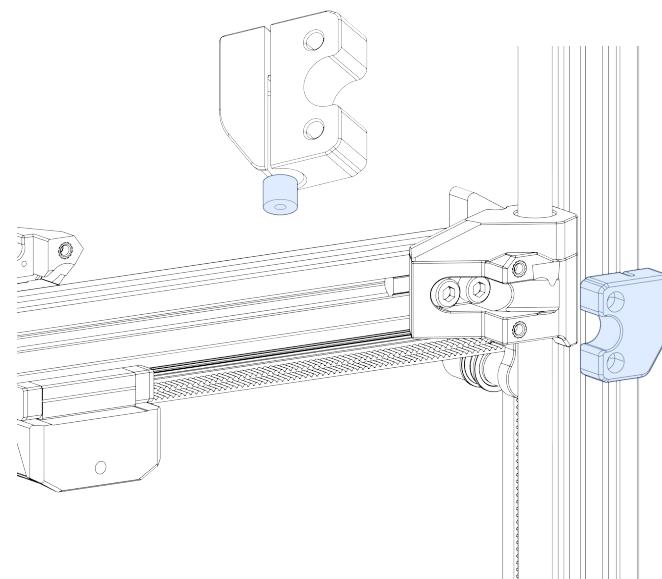
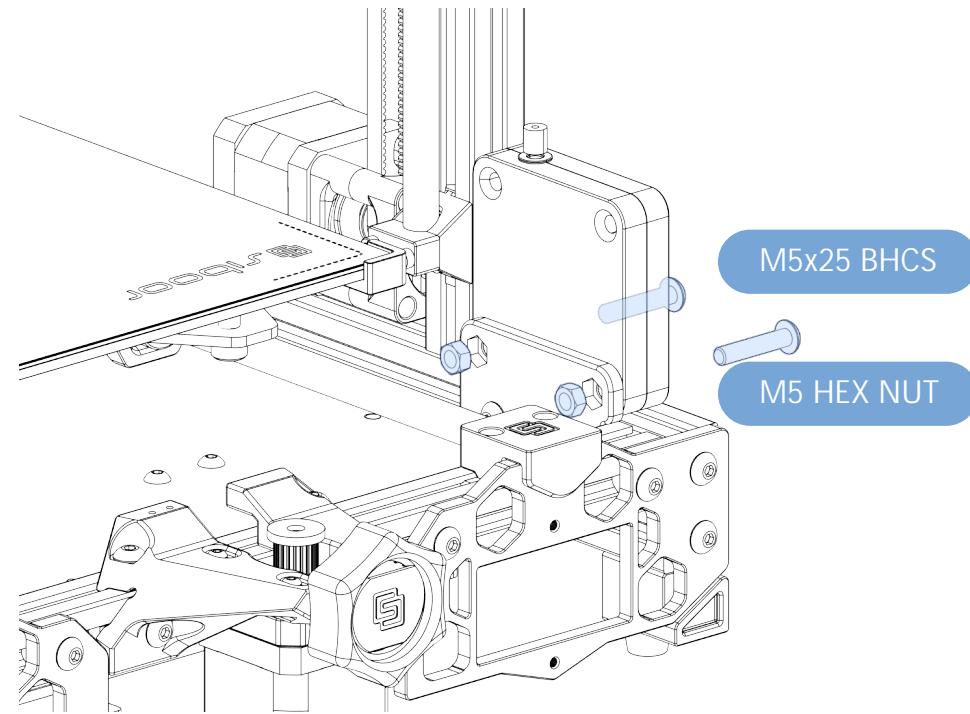
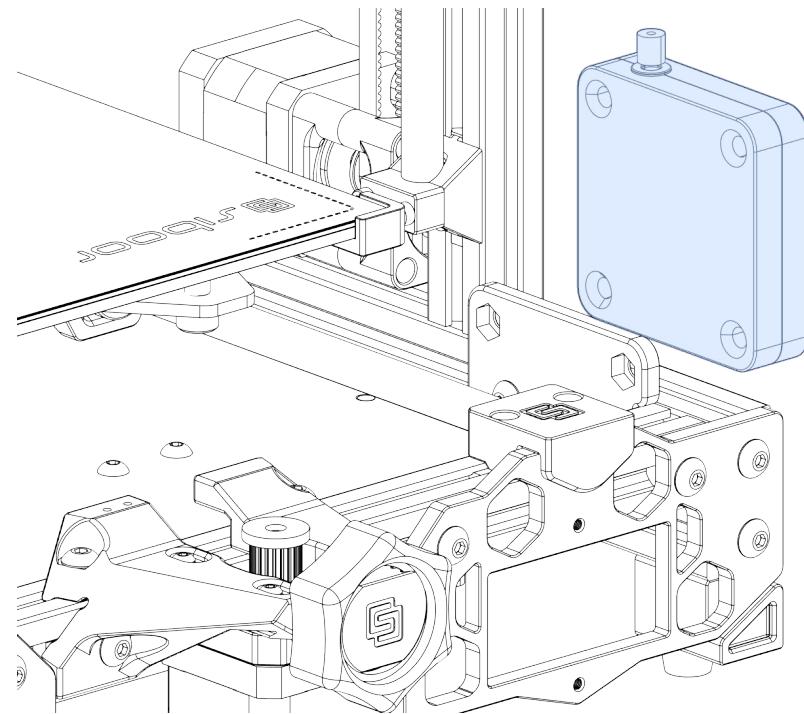
M3 HEX NUT





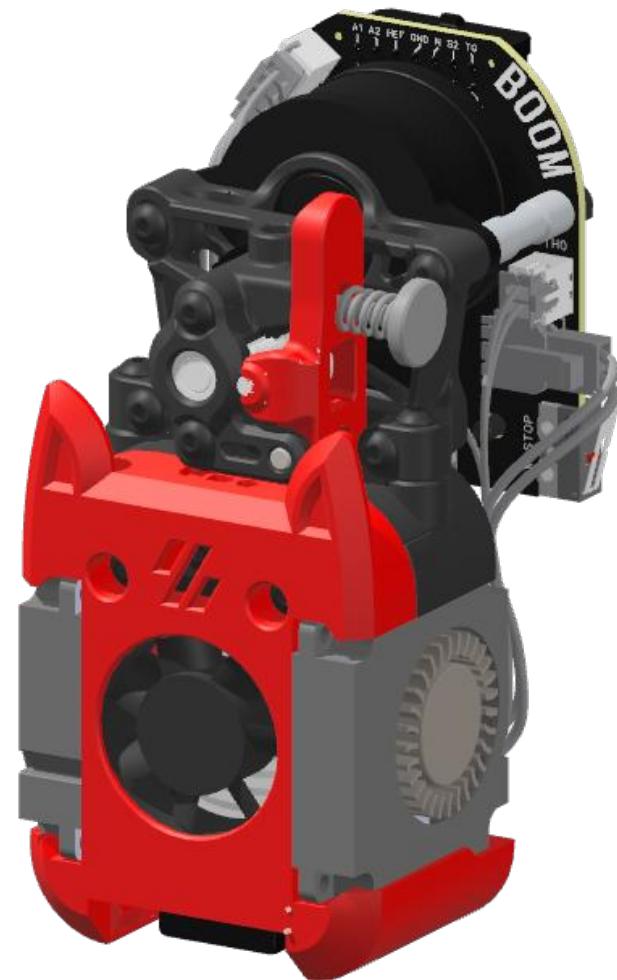


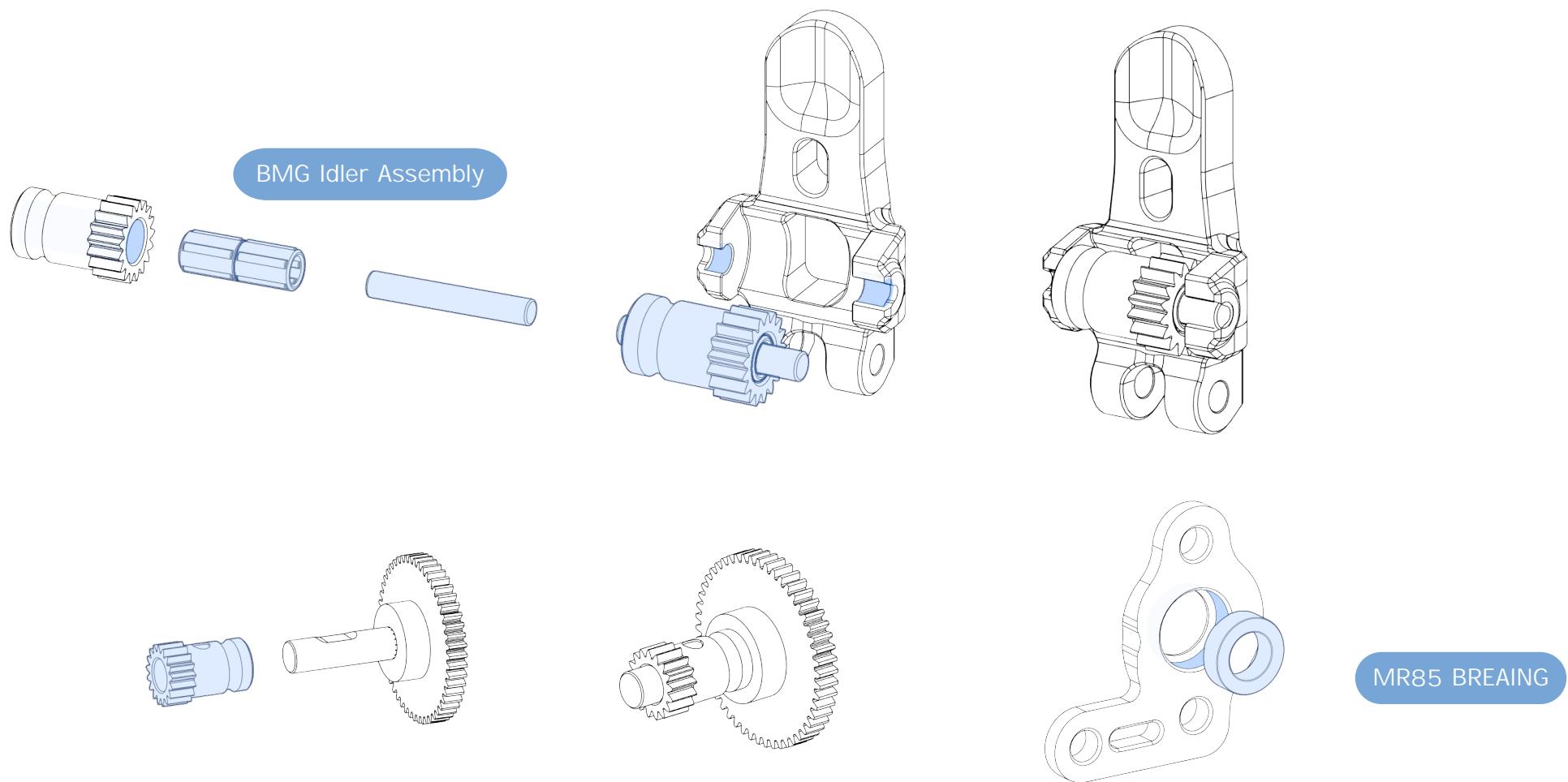


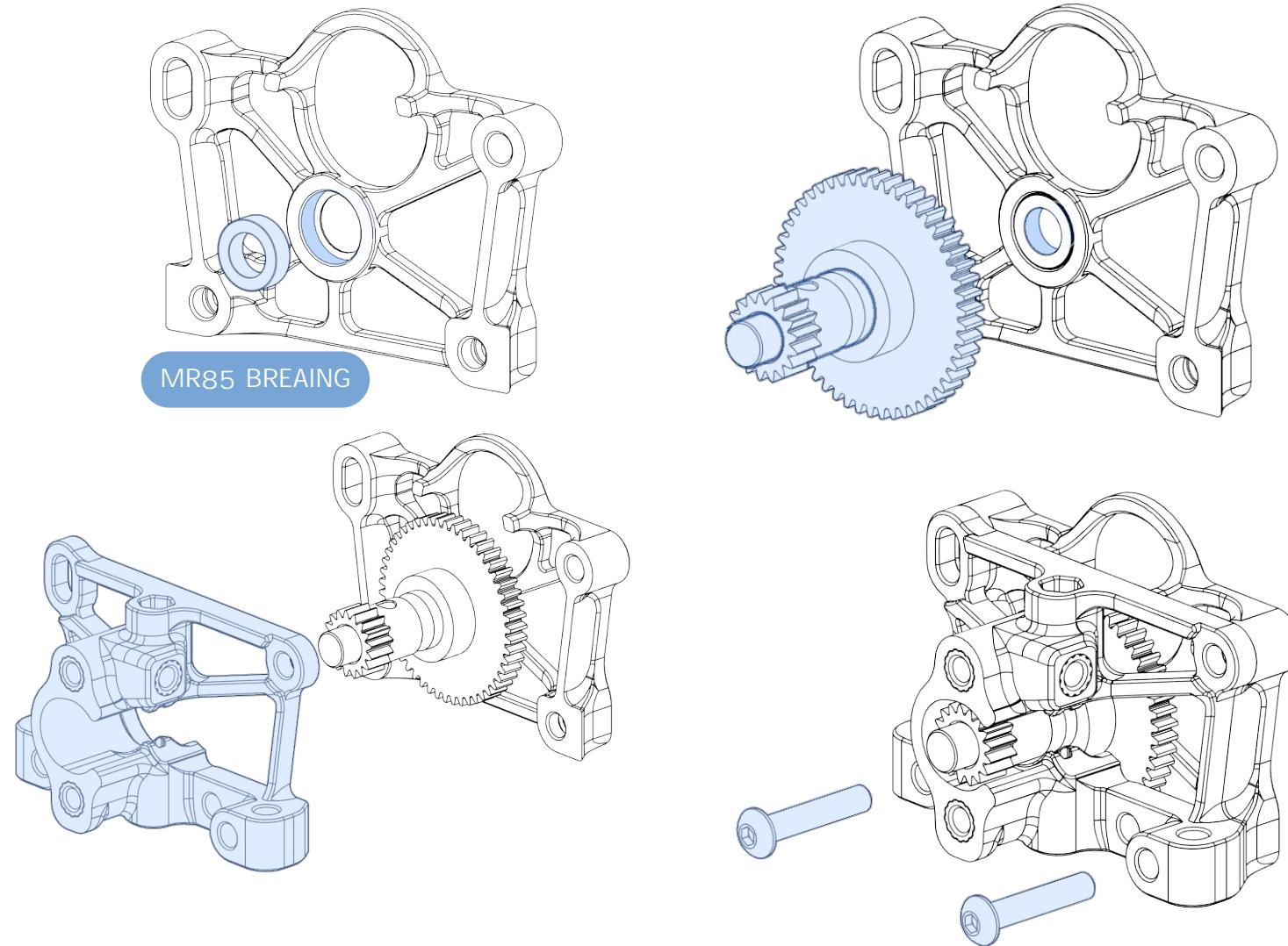


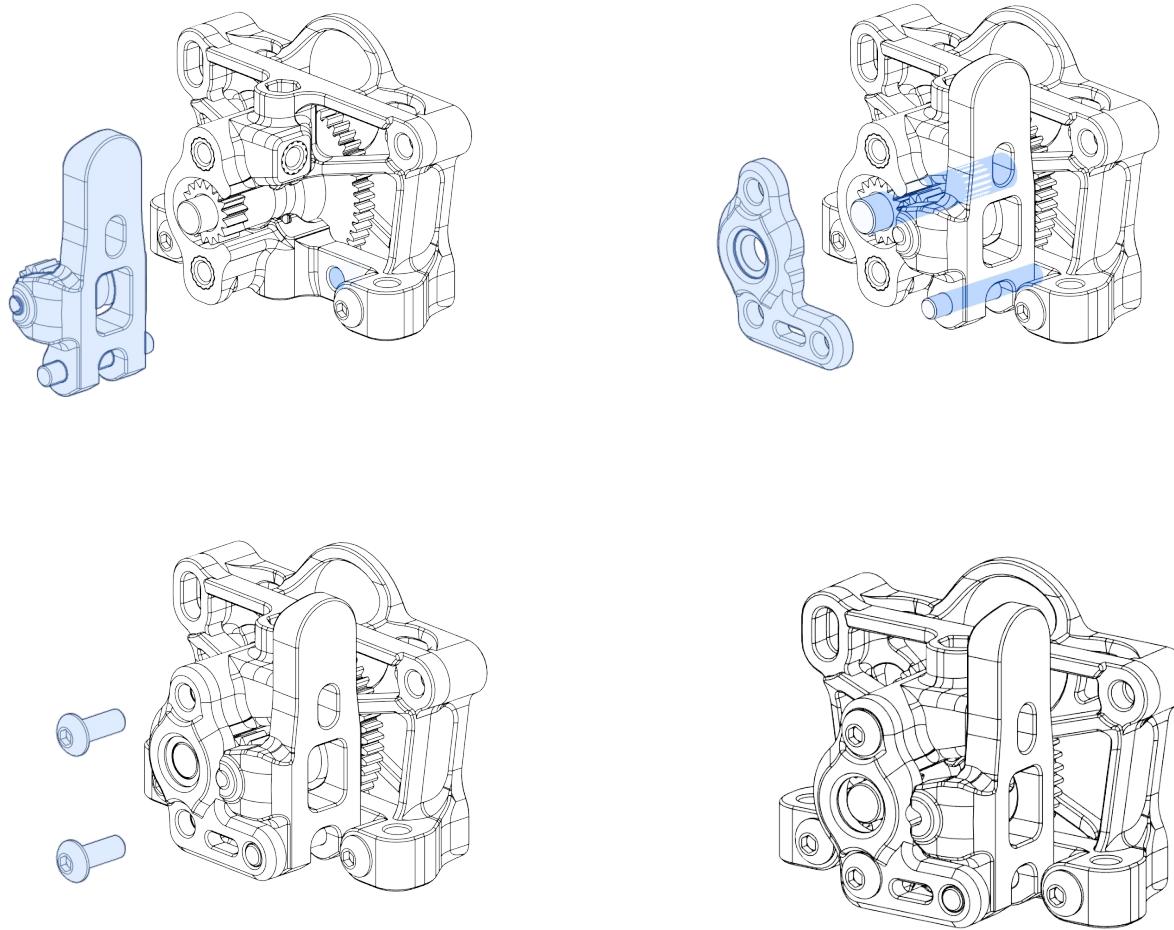
M3x12 SHCS

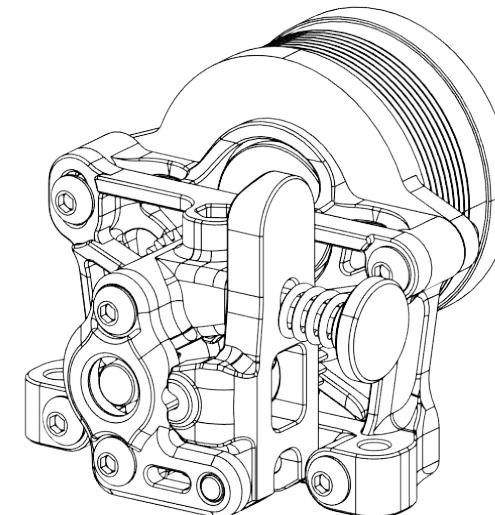
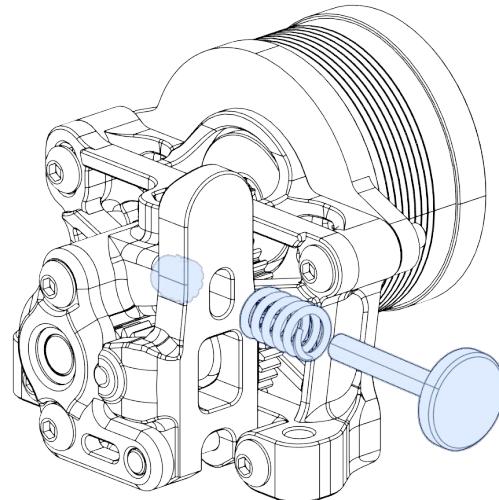
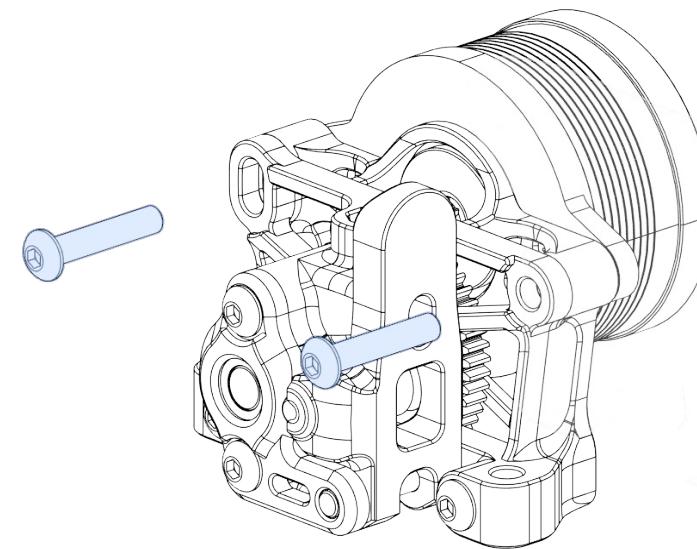
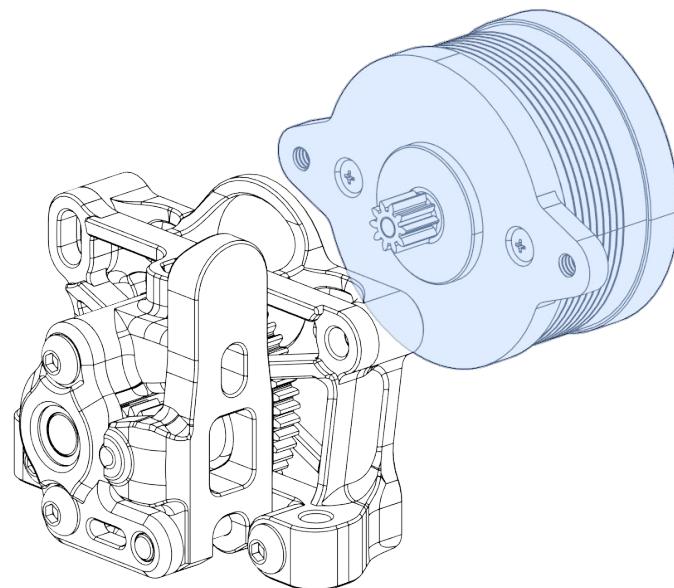
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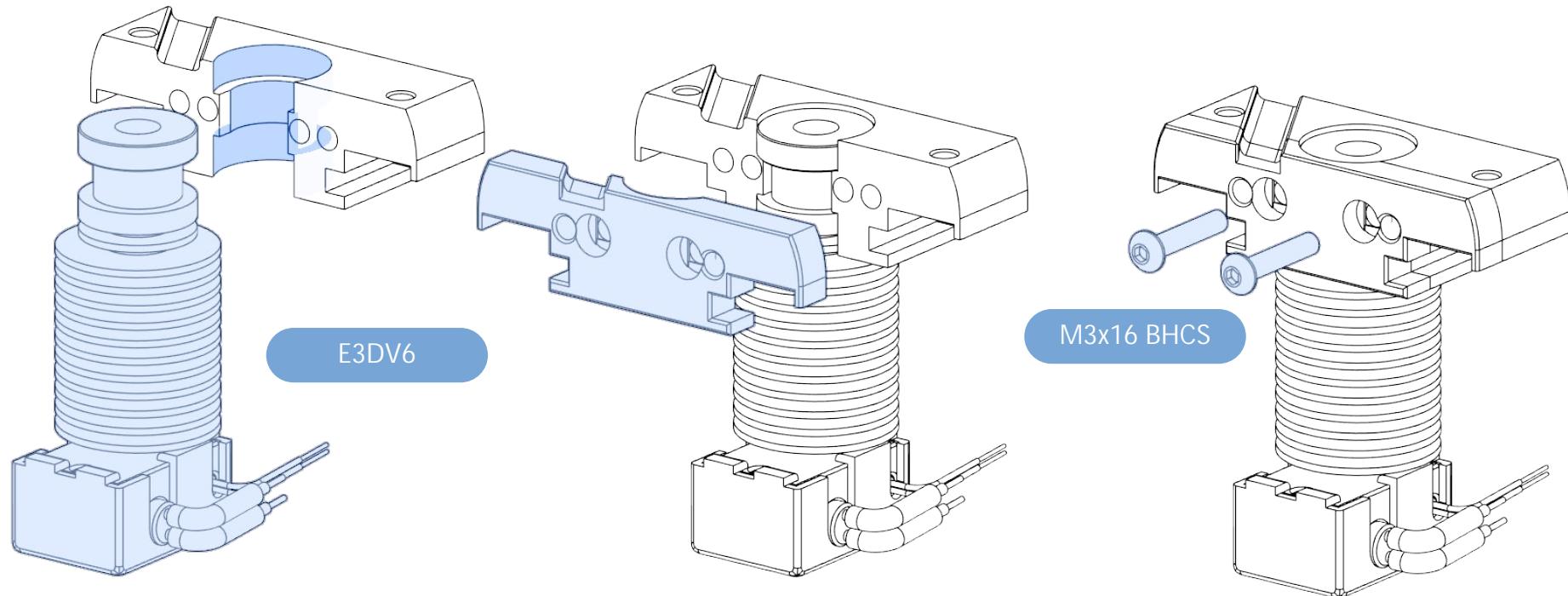


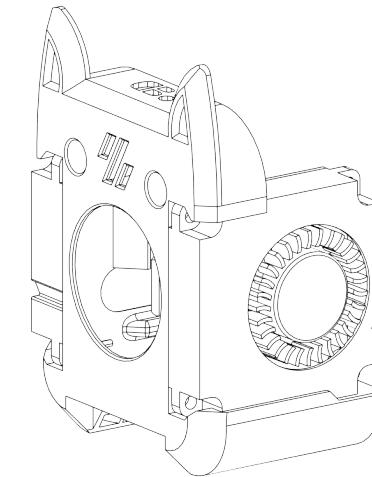
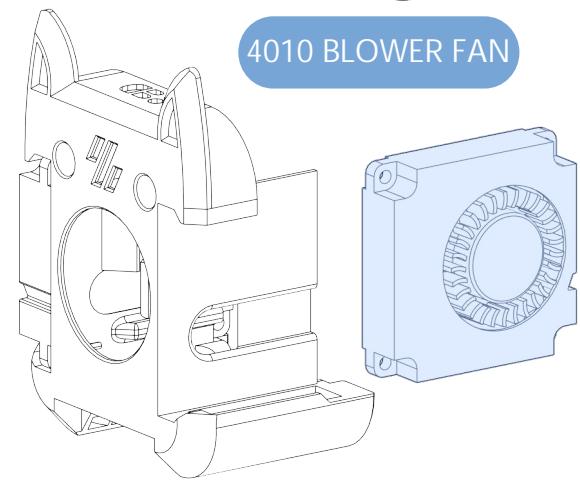
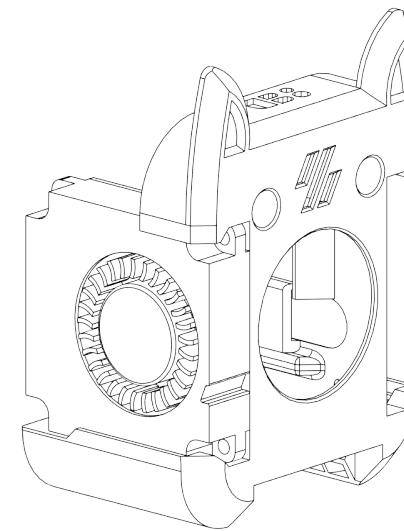
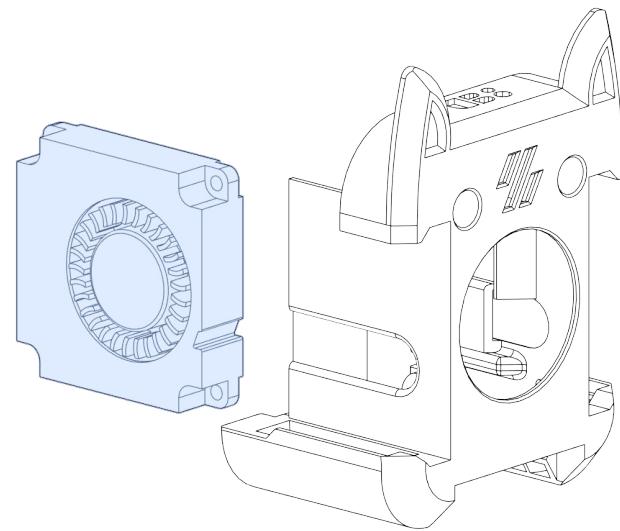


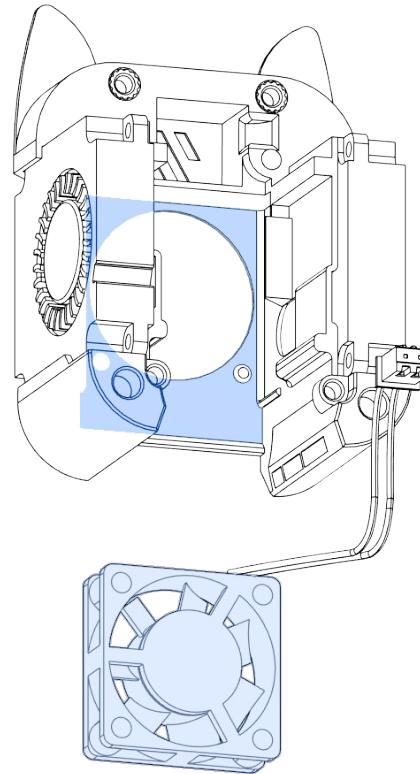




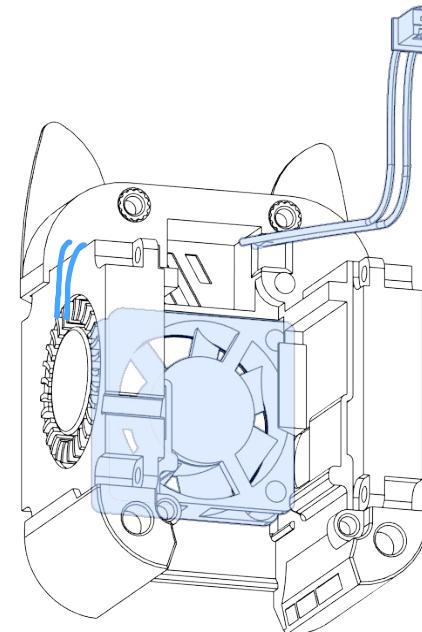


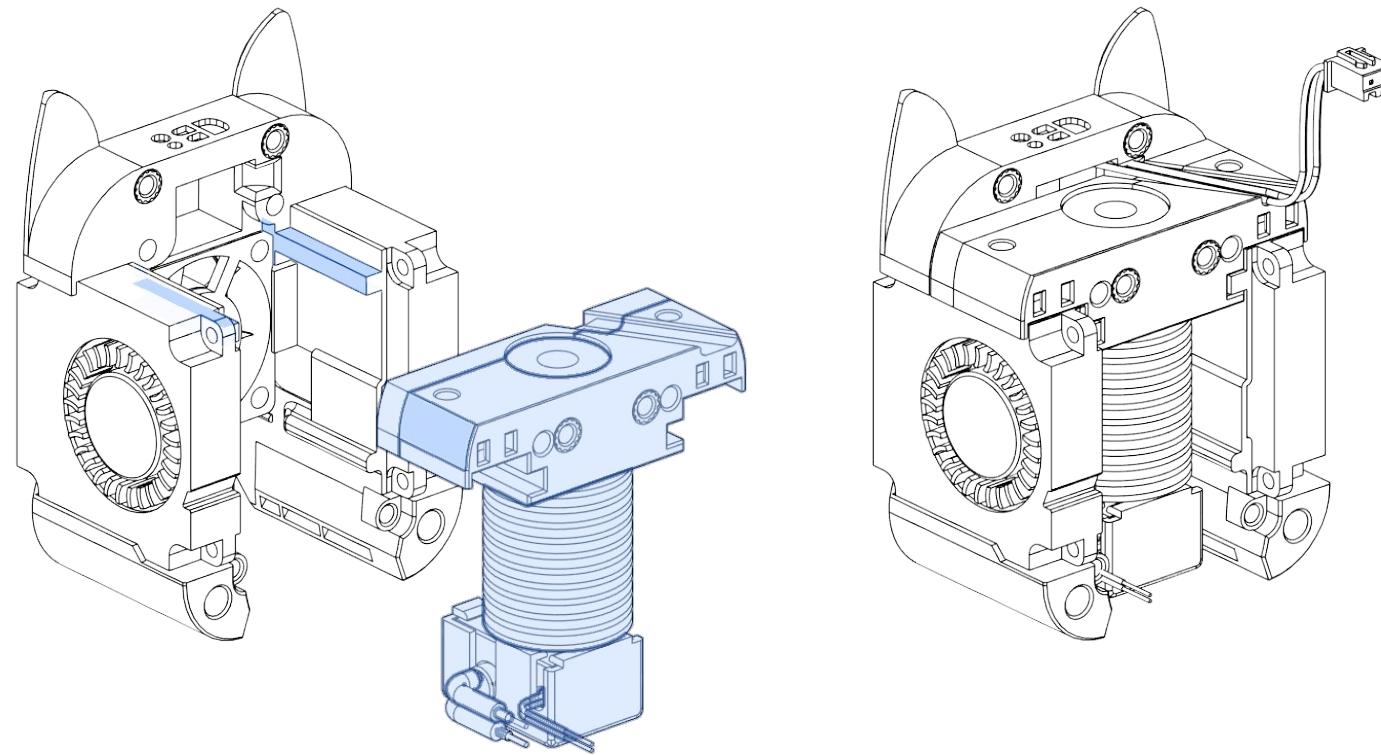


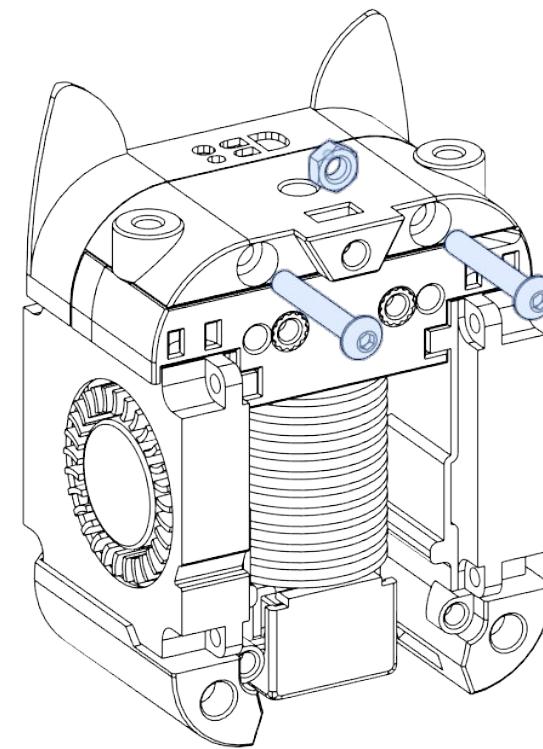
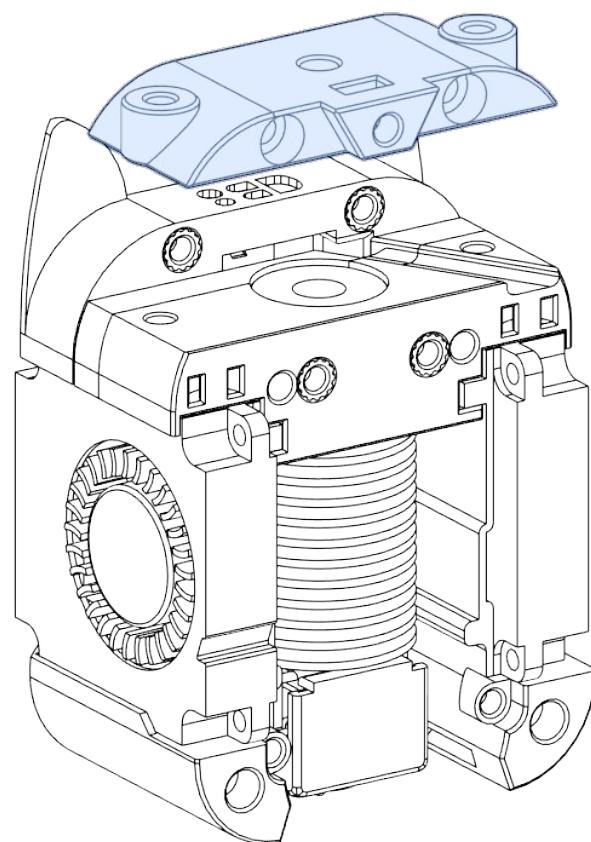


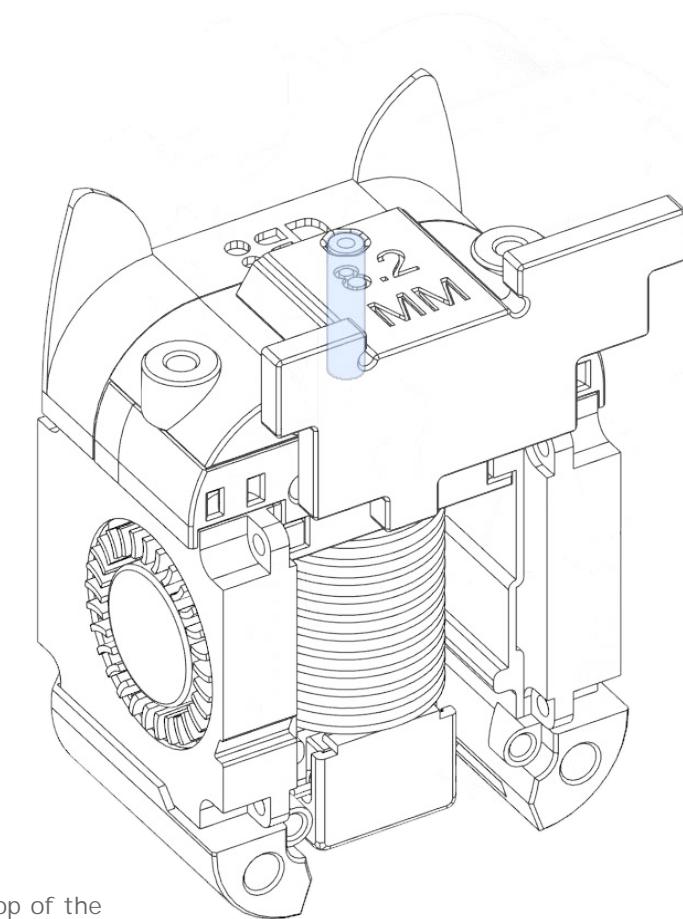
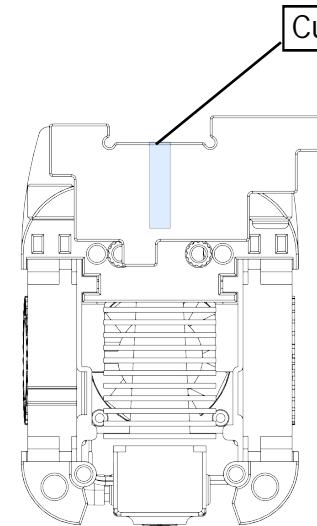
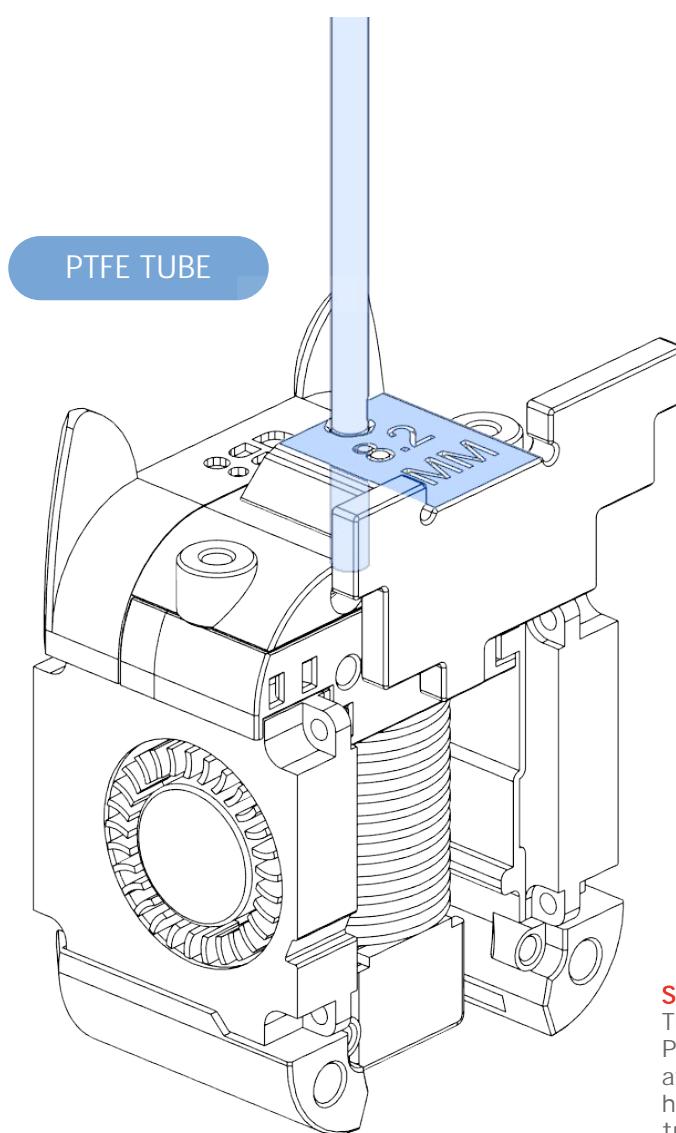


3010 COOLING FAN

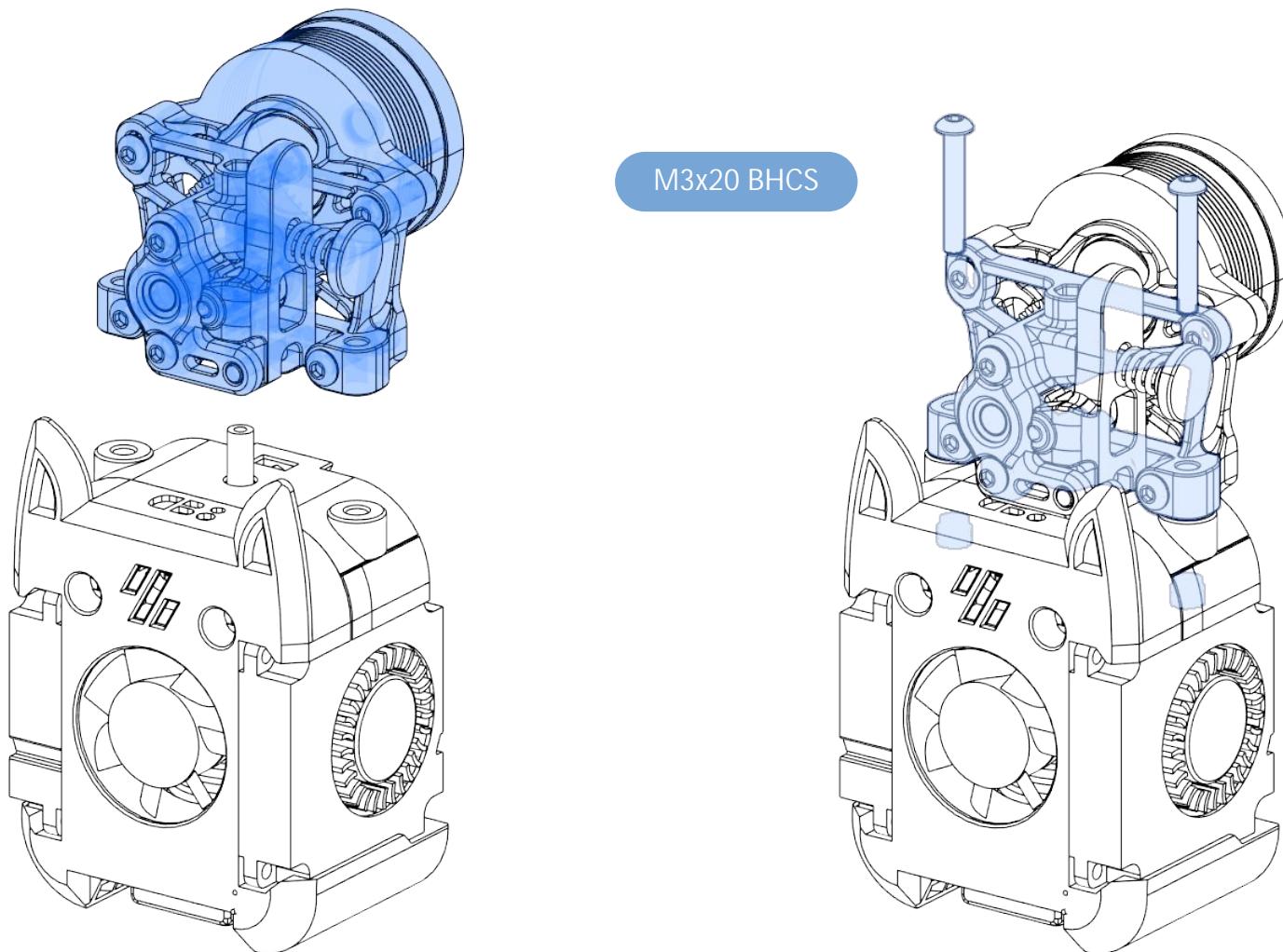


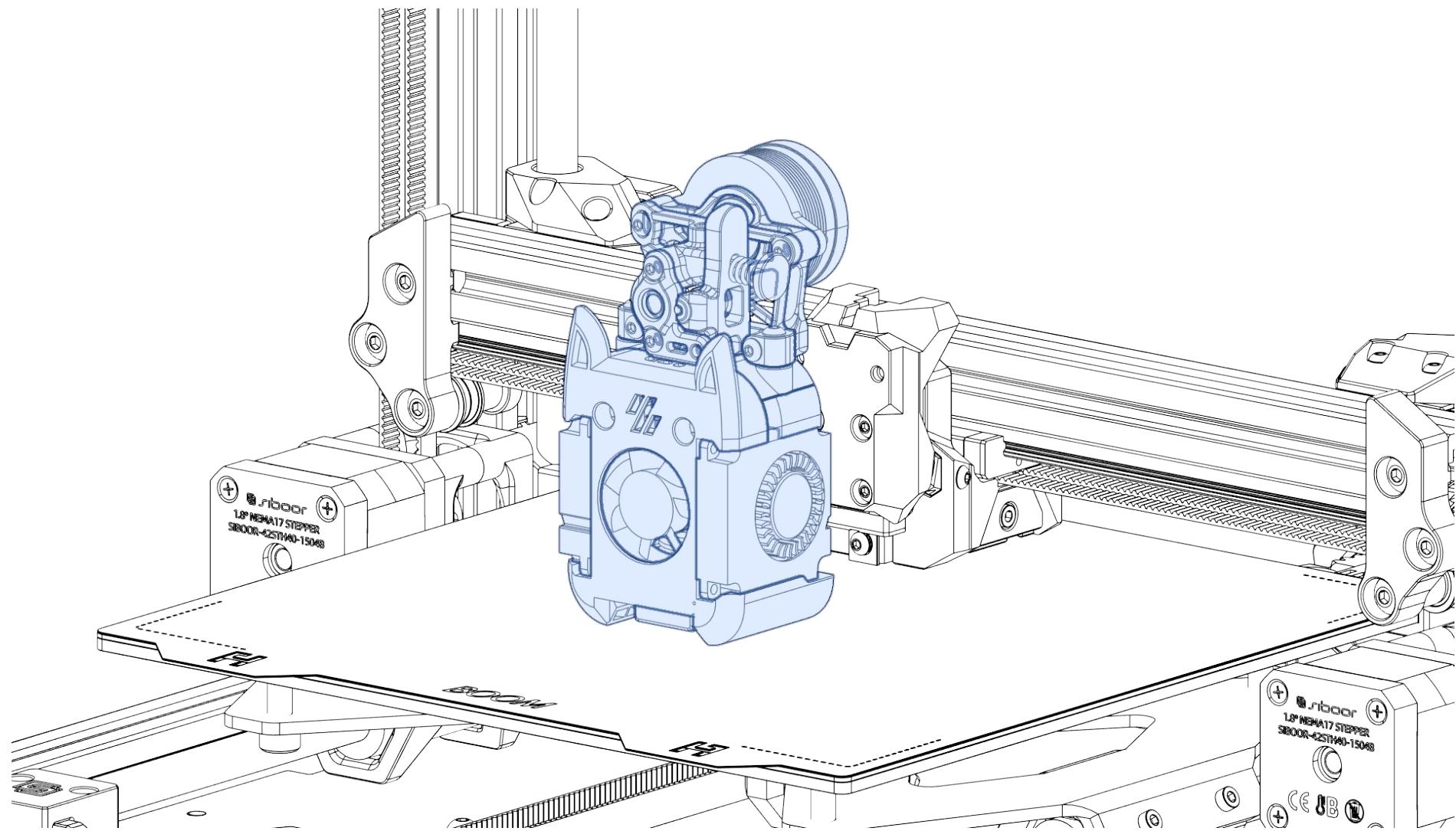


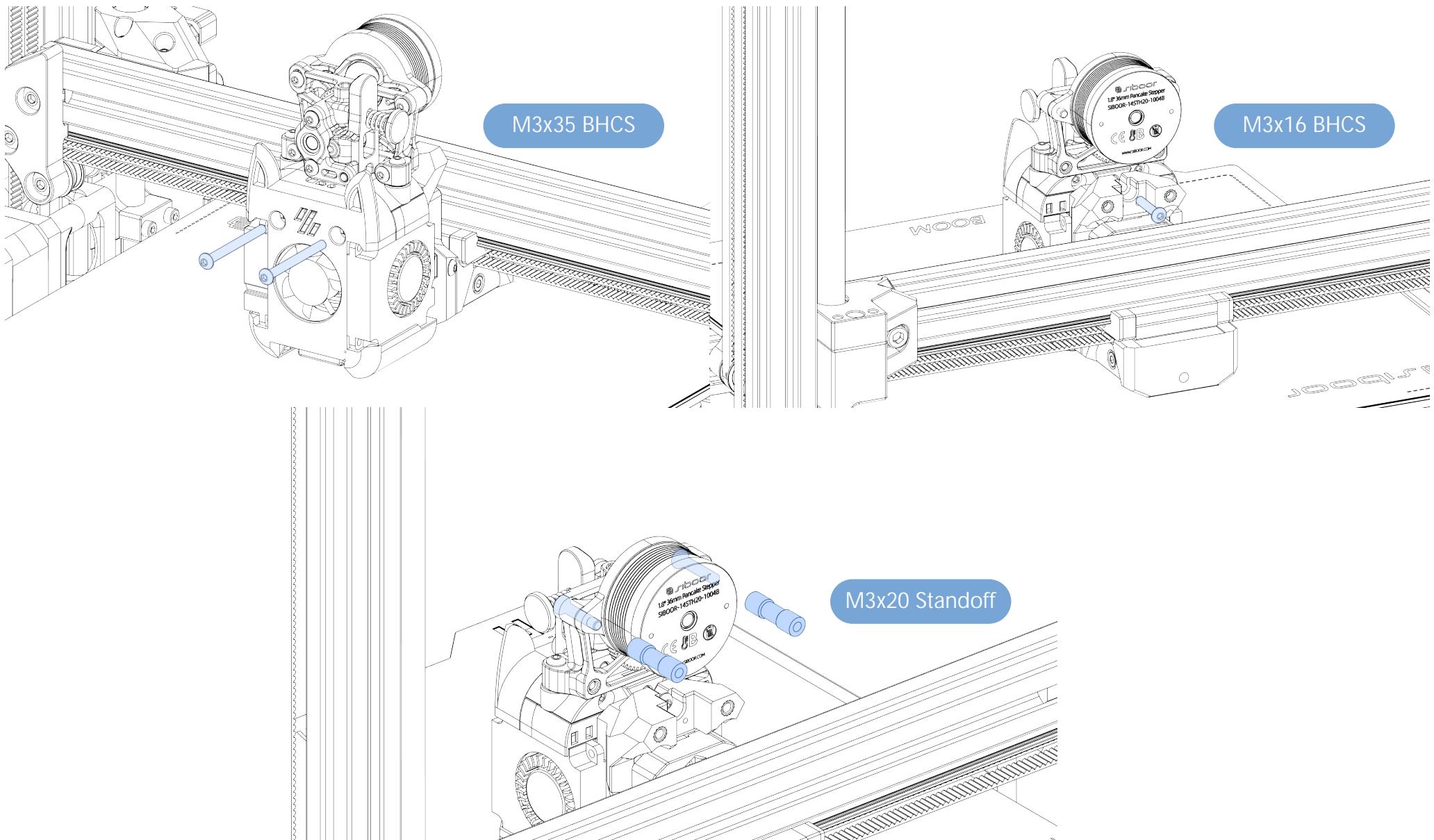


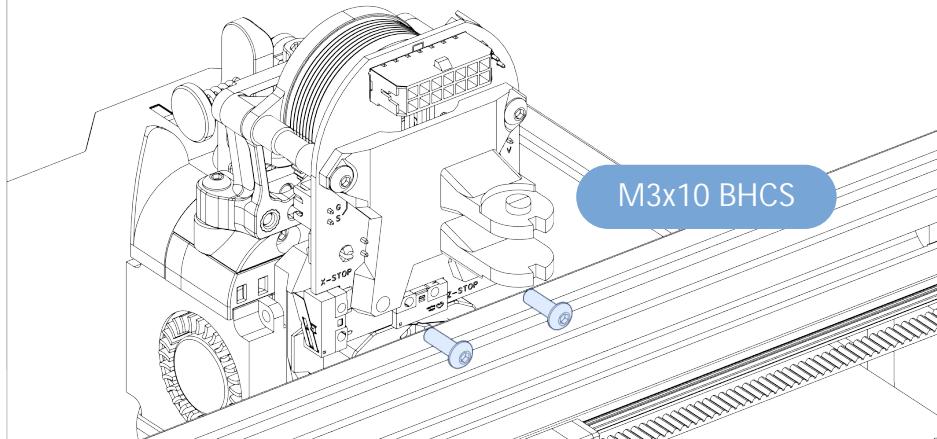
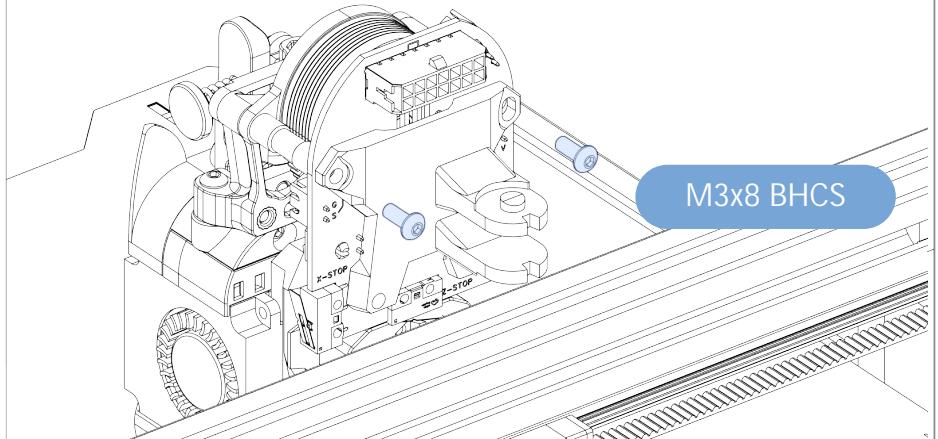
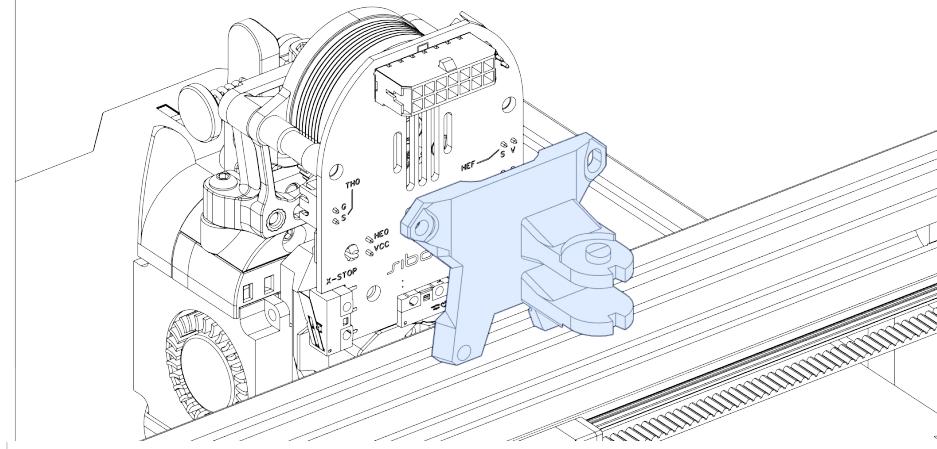
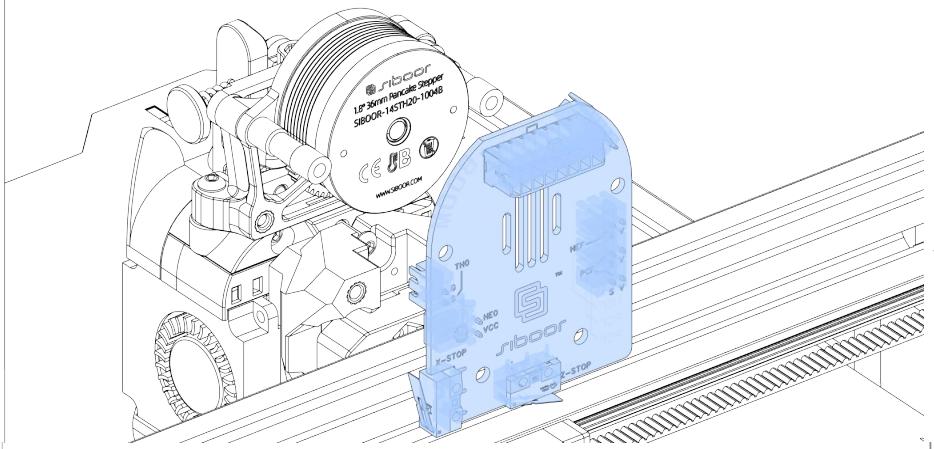
**SWISS ARMY JIG**

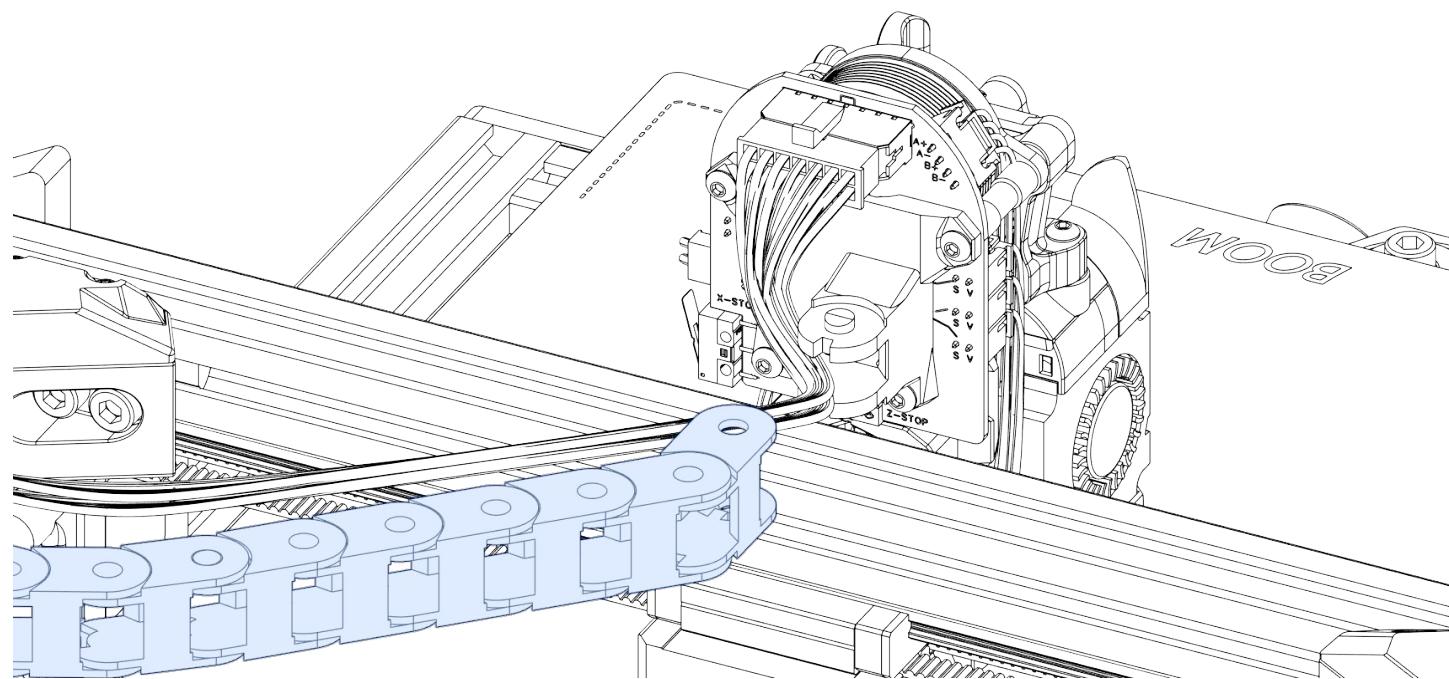
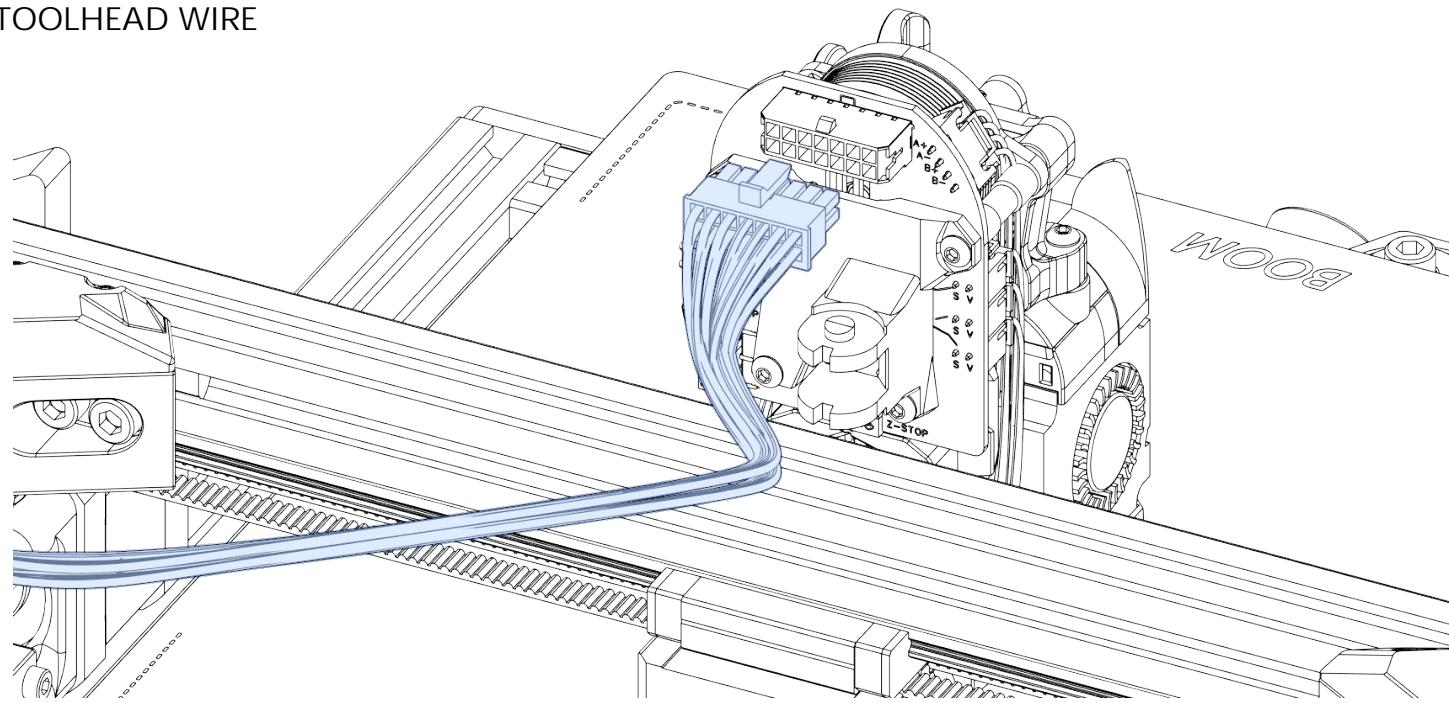
The pulley jig can also be used to trim the top of the PTFE tube to the correct length. Trim the PTFE tube after you have mounted the hotend to the plastic hotend mount and after you have inserted the PTFE tube as far into the heatsink as it will go.

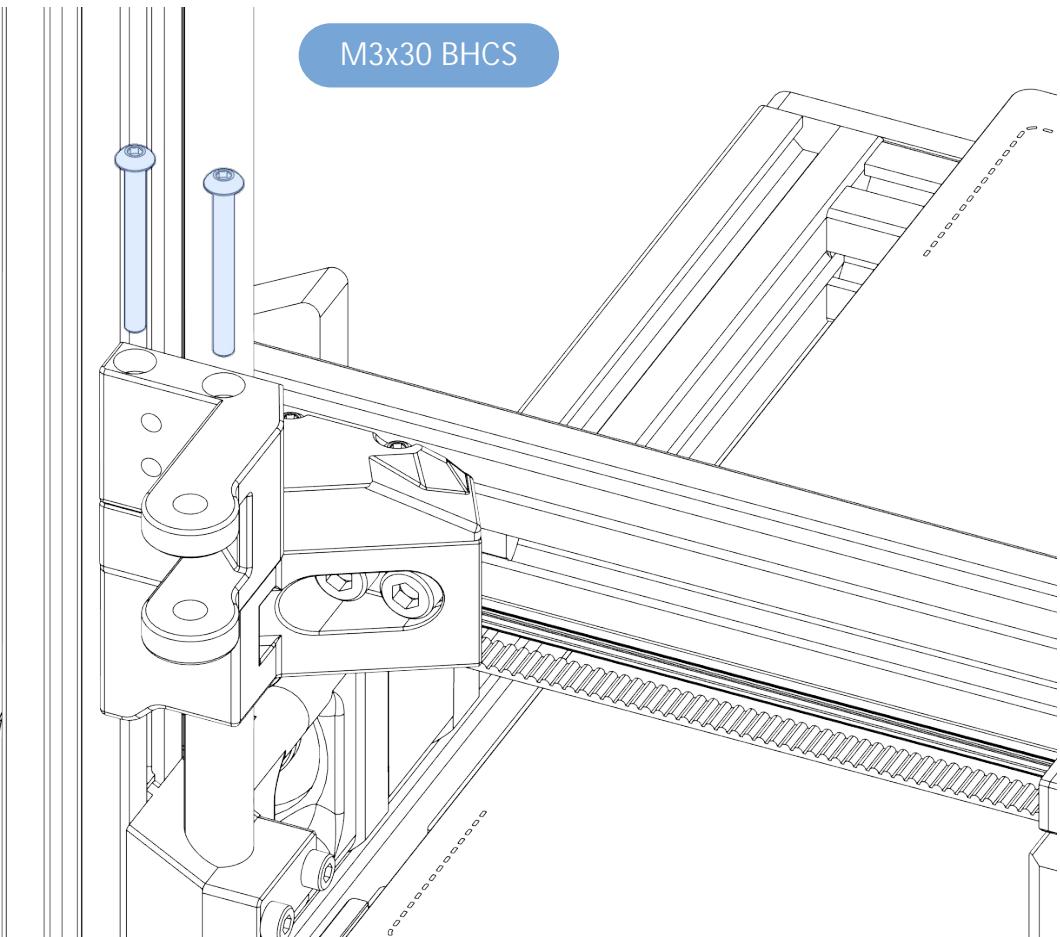
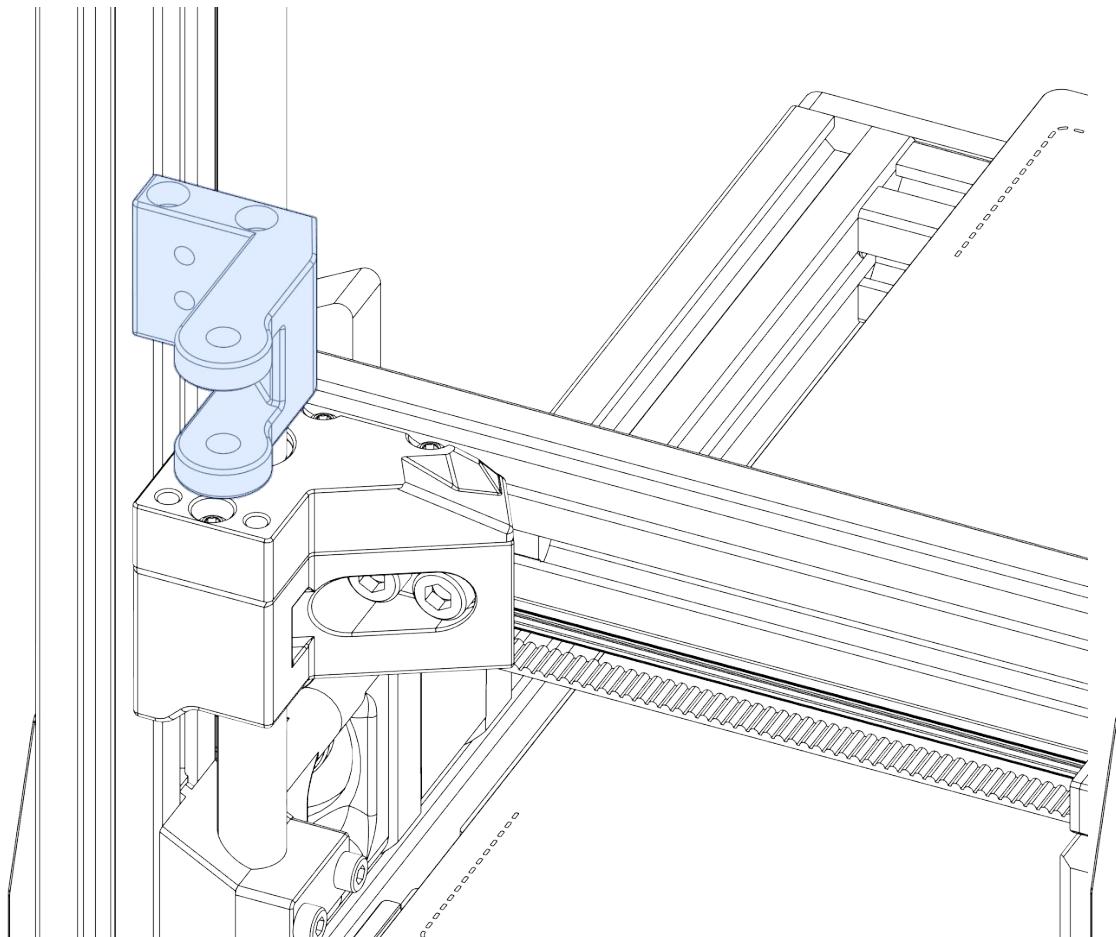


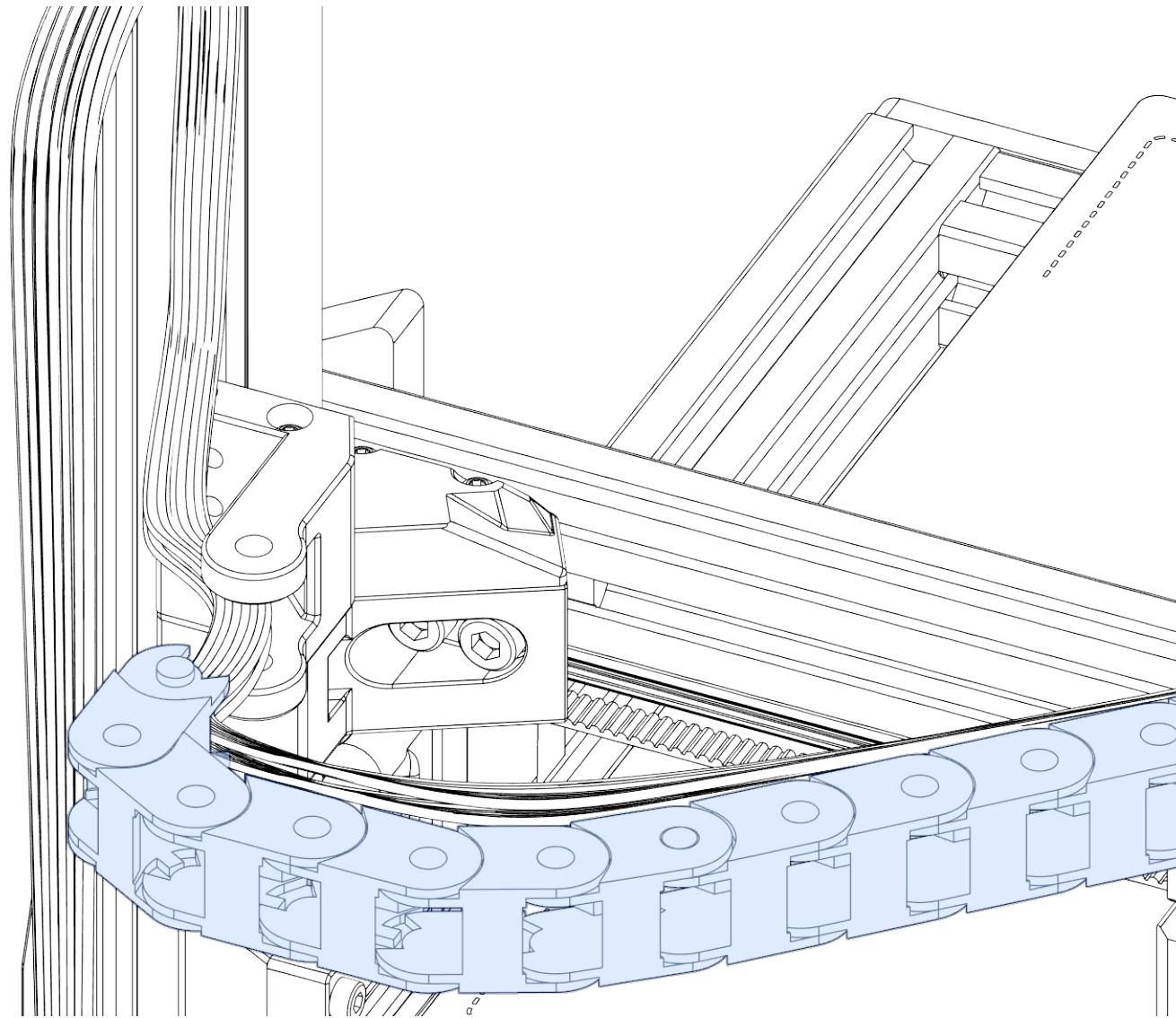


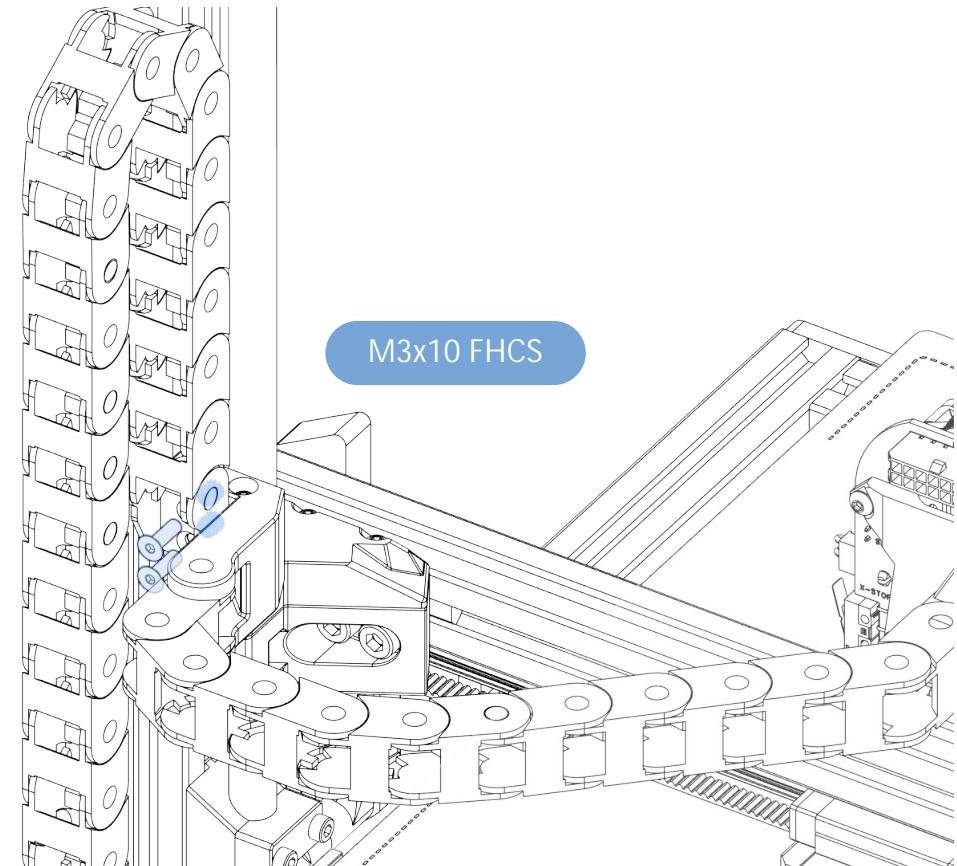
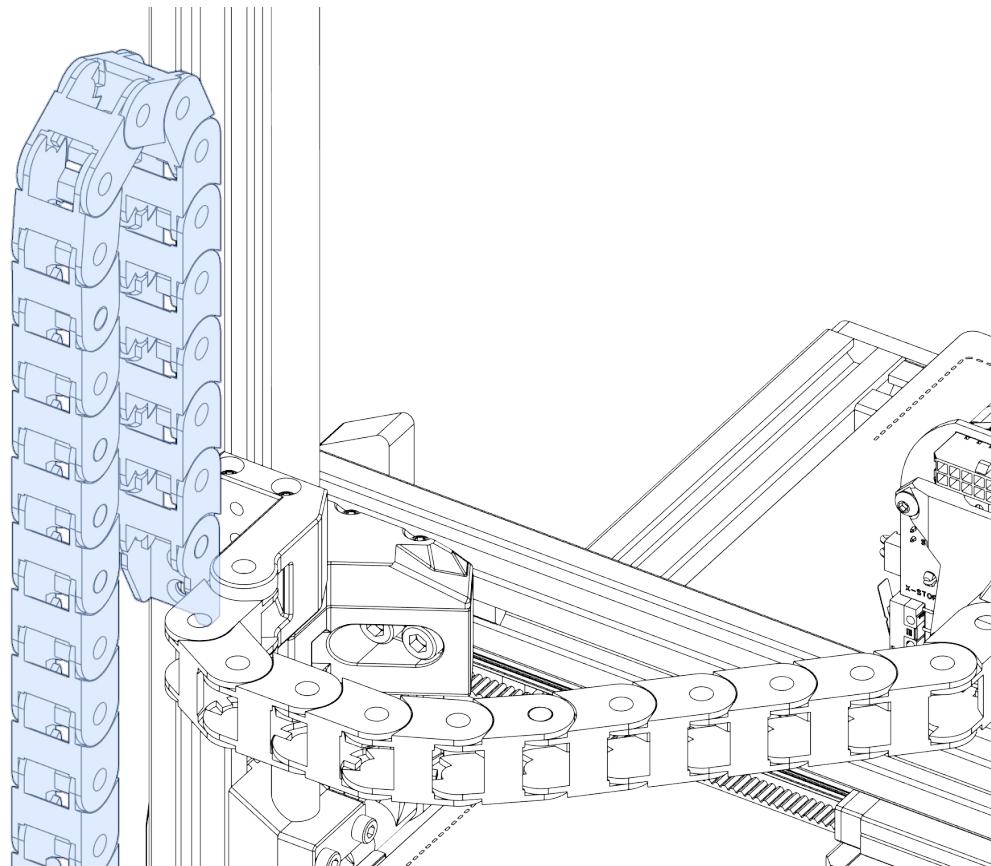


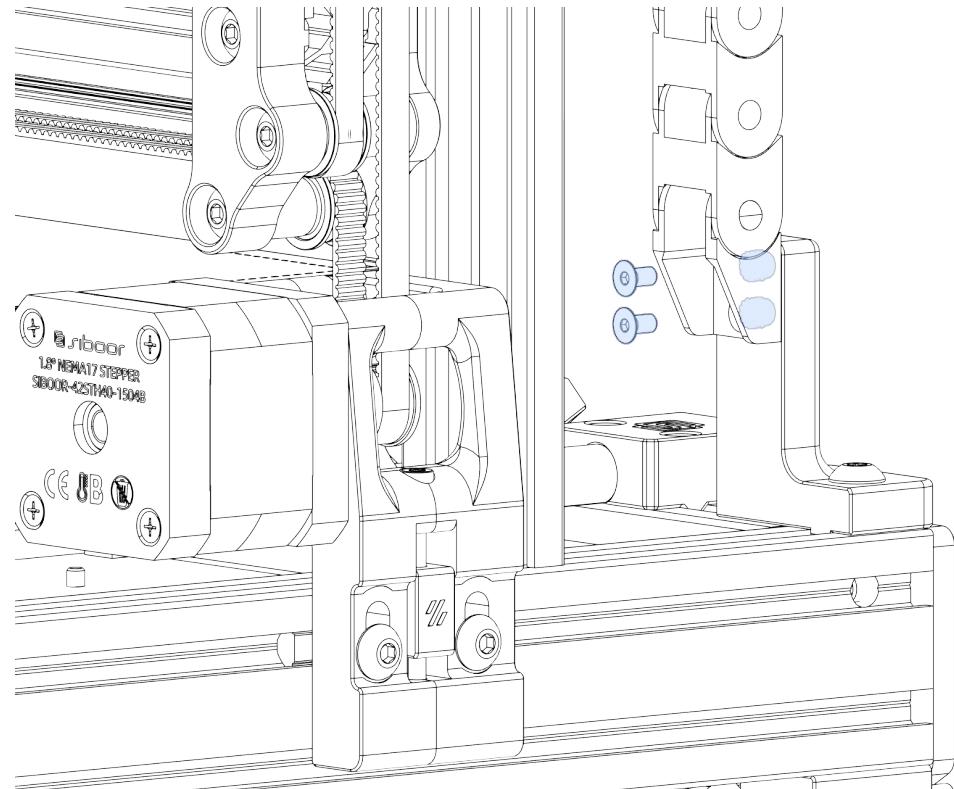
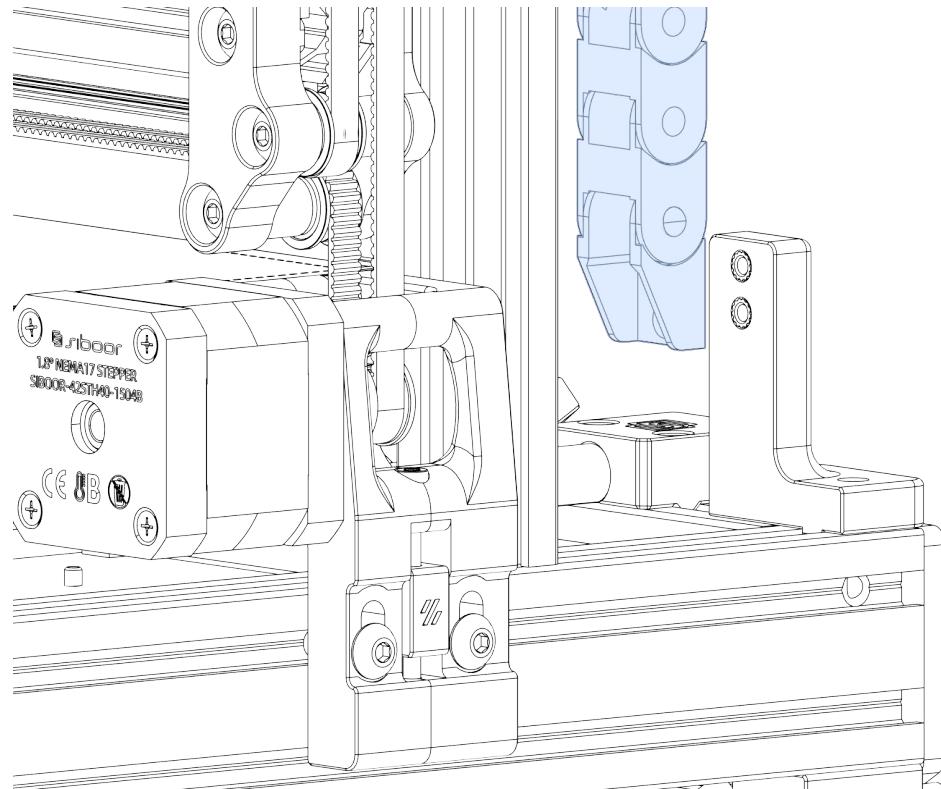








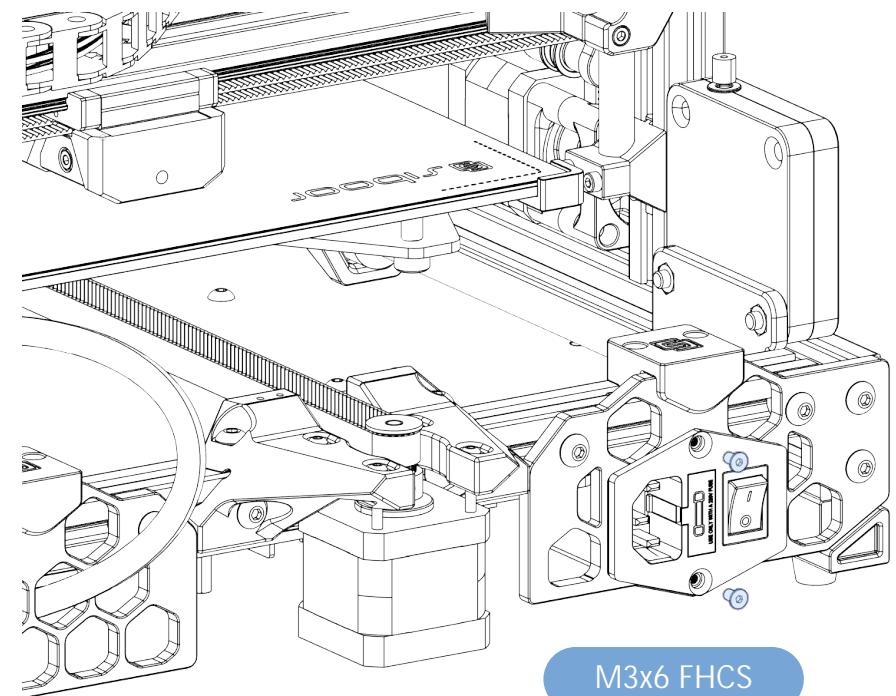
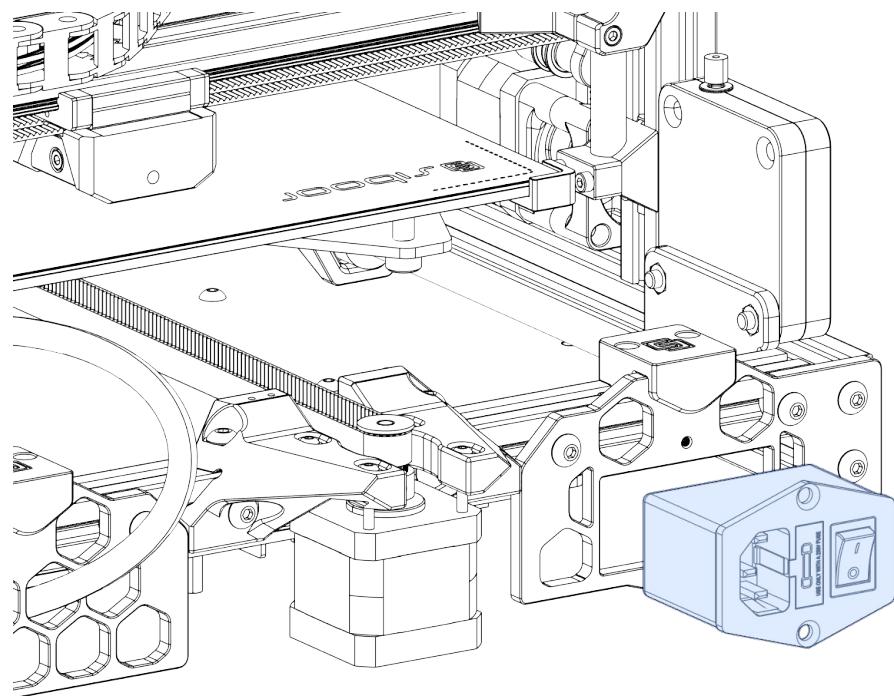




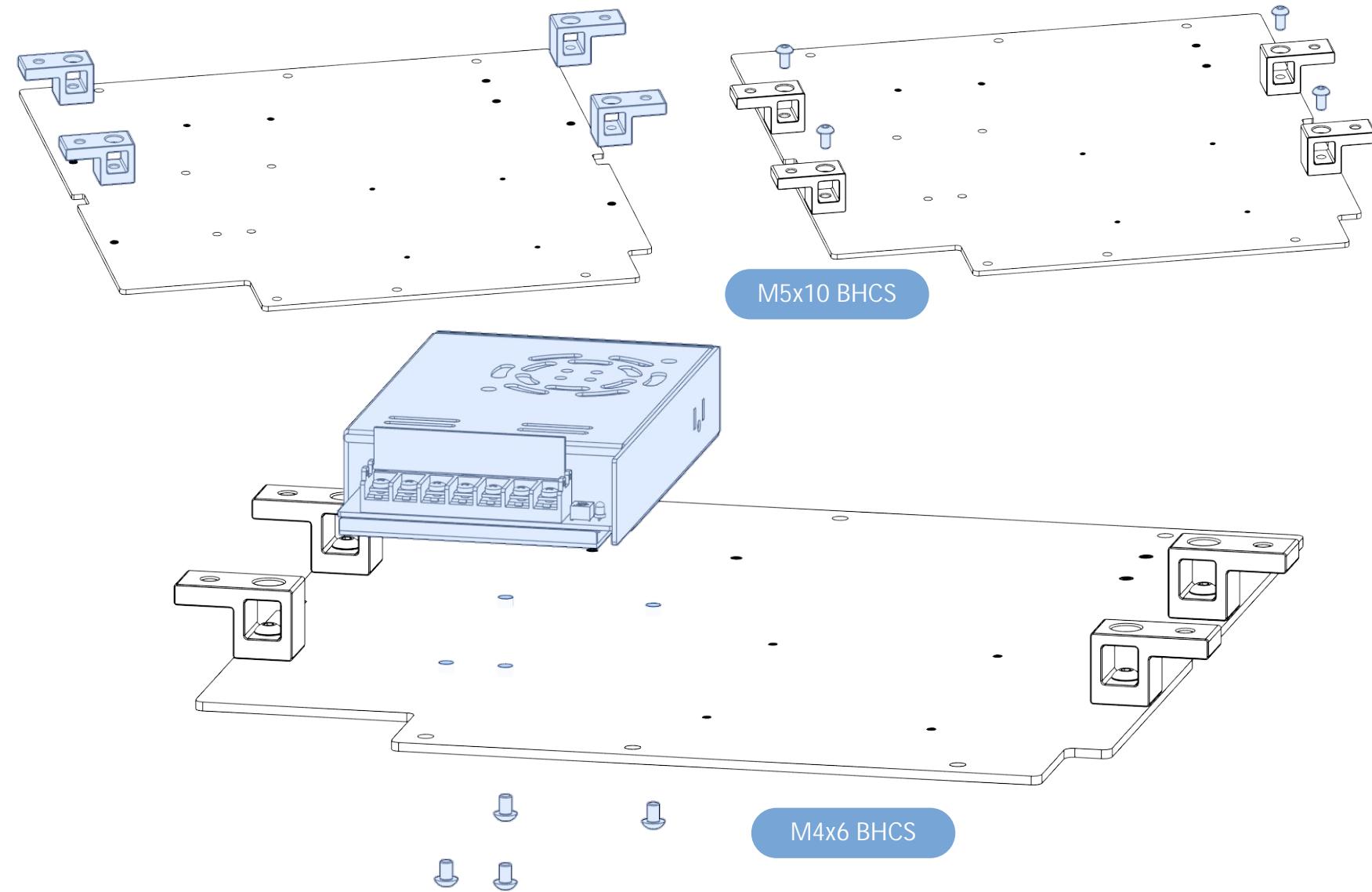
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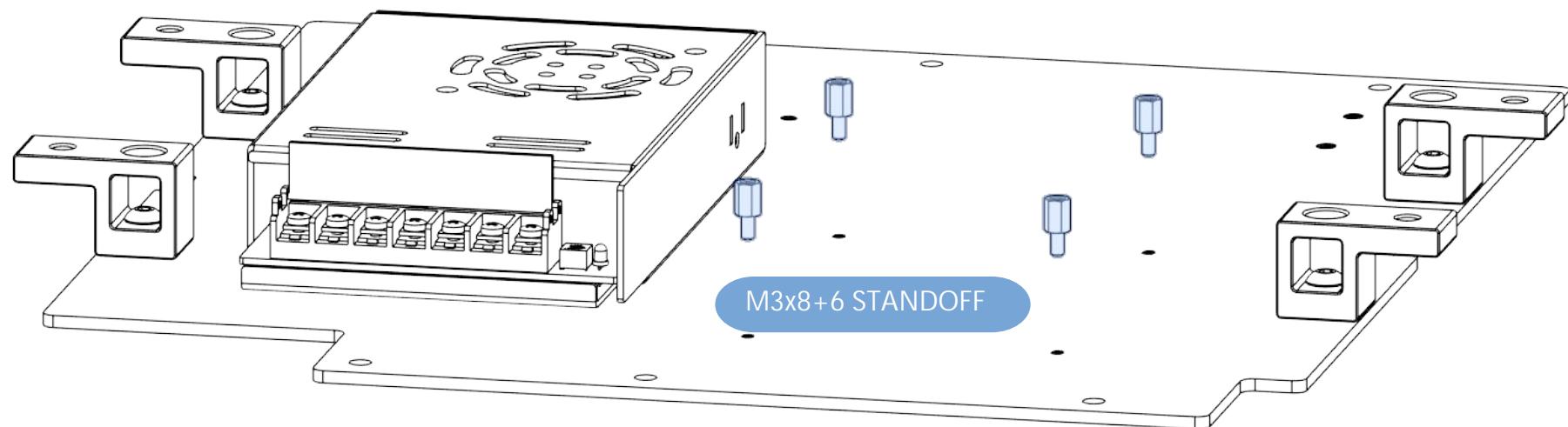
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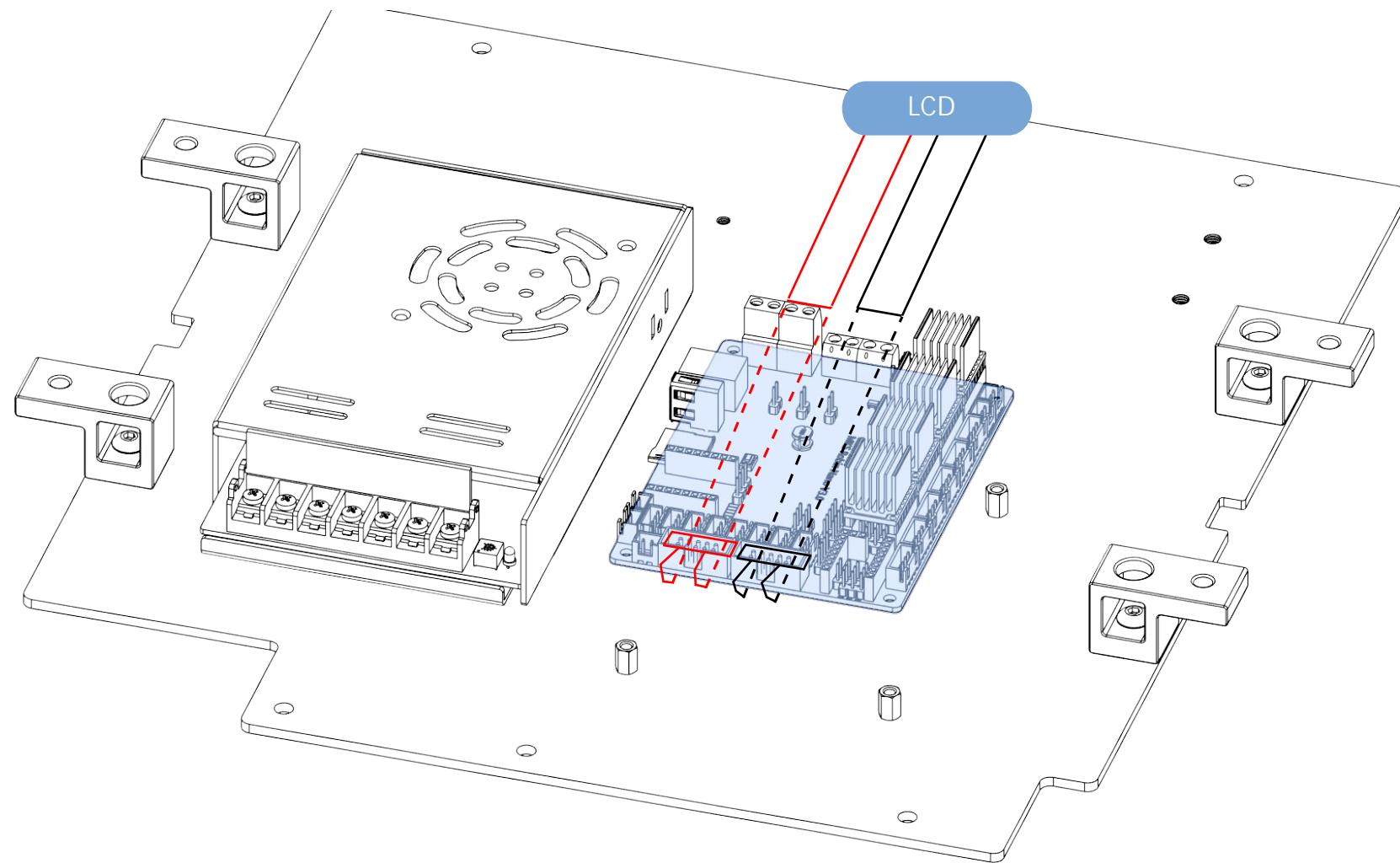


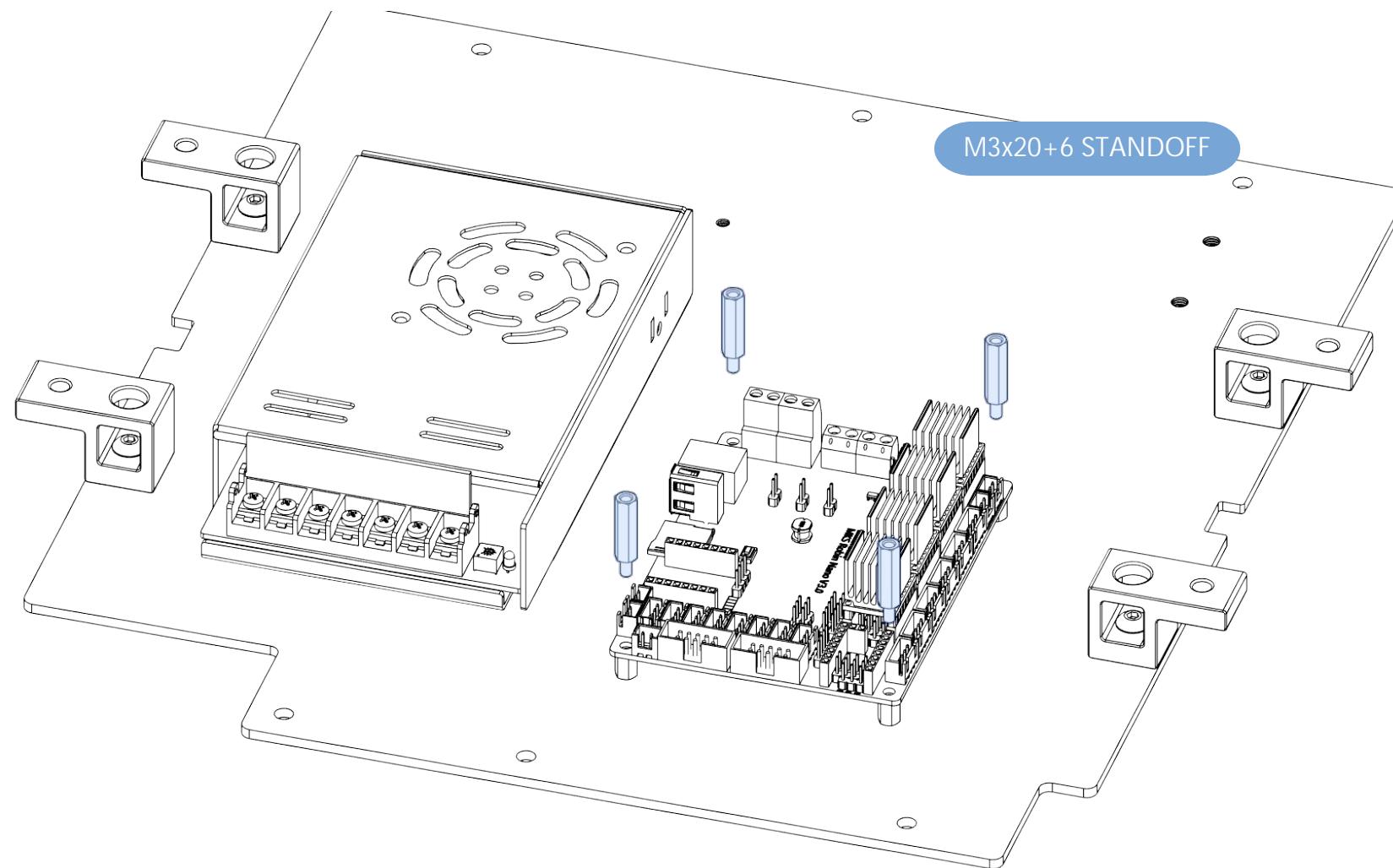


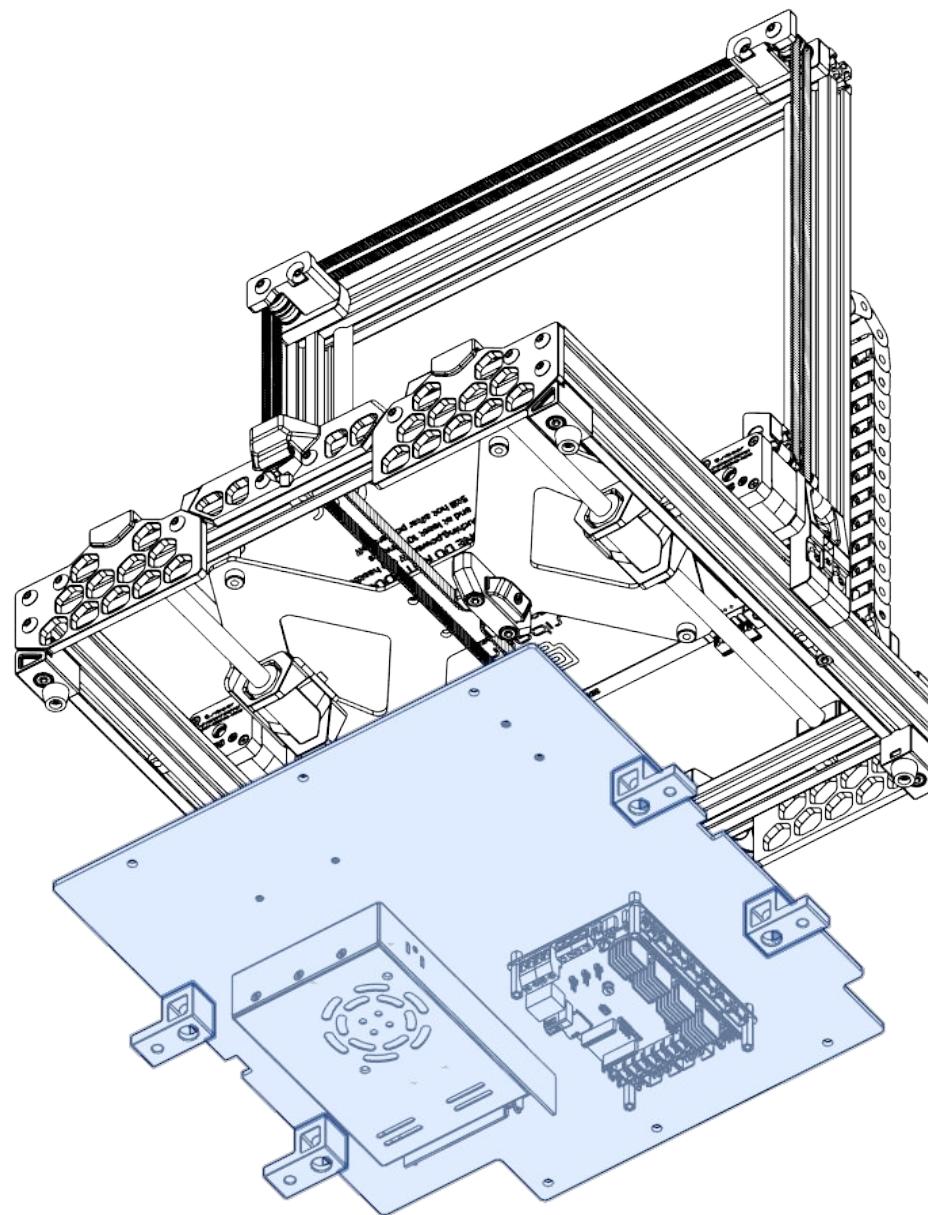
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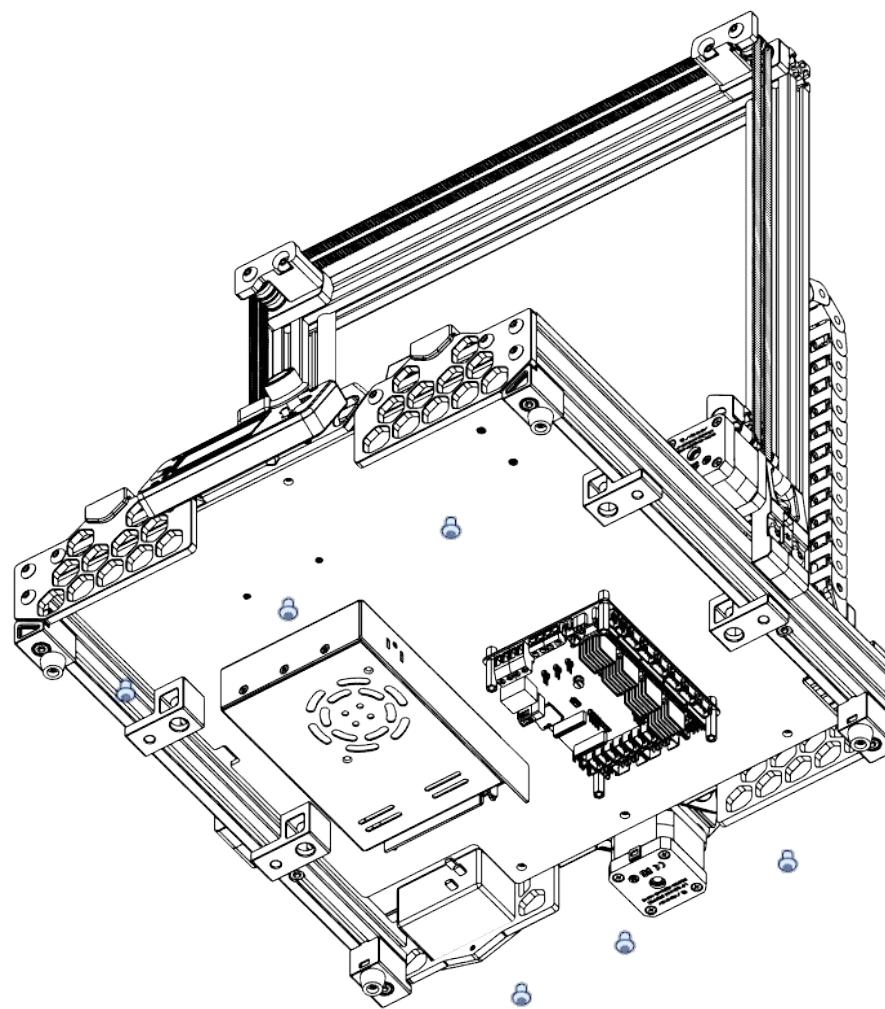




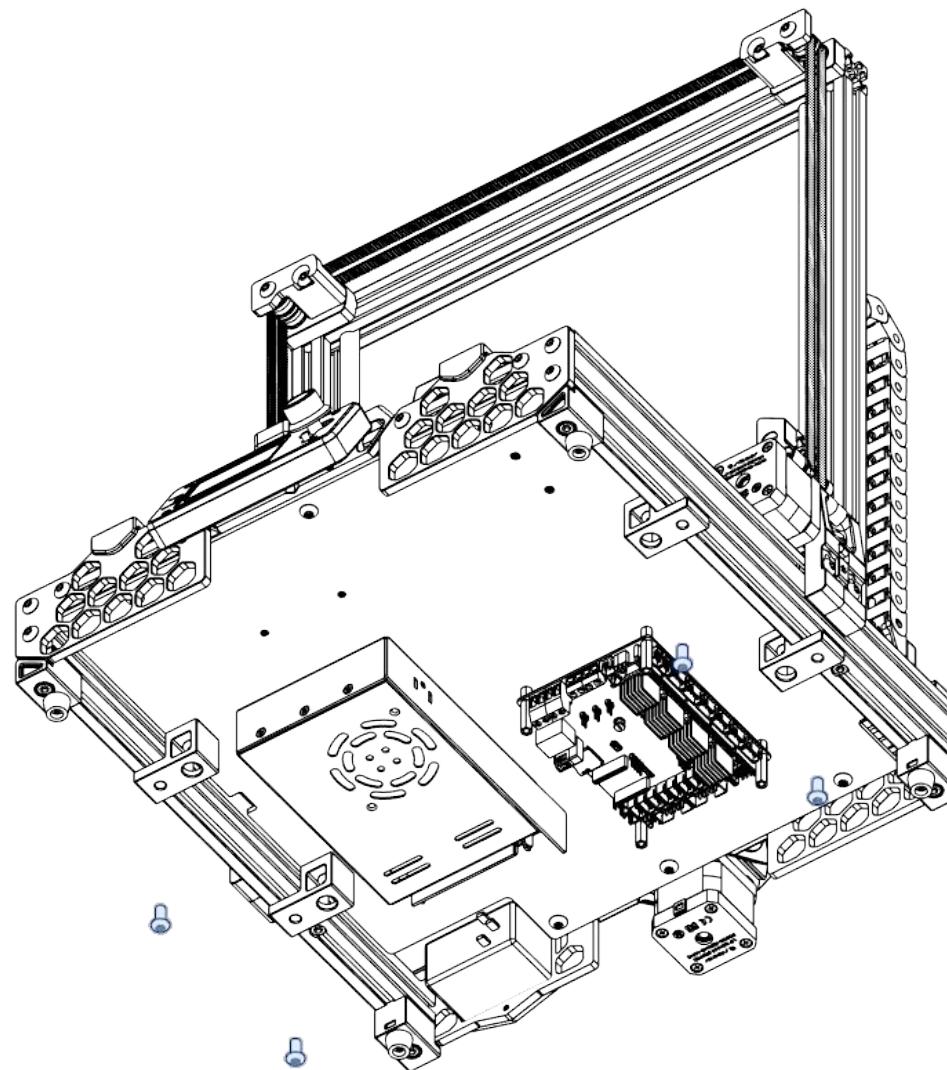




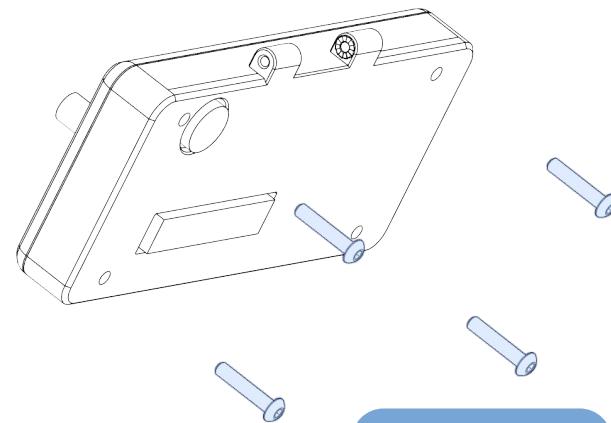
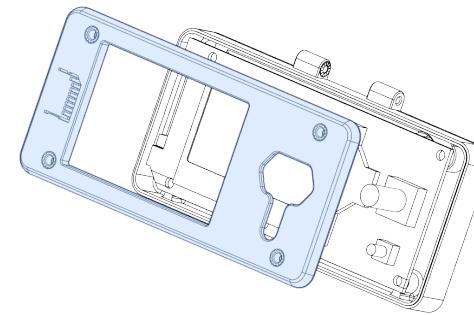
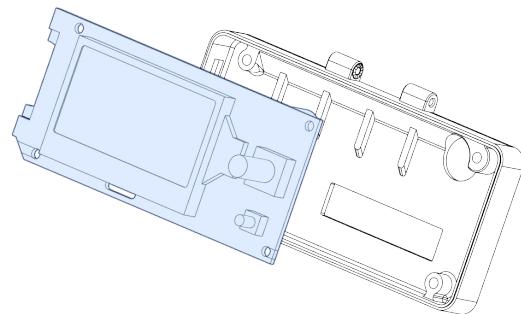




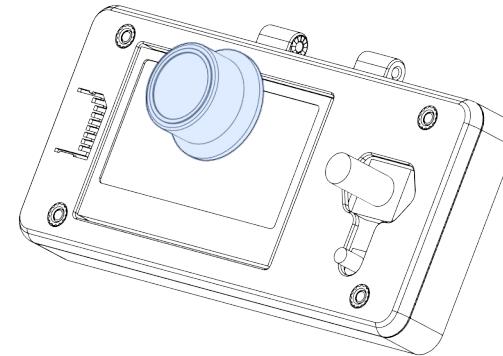
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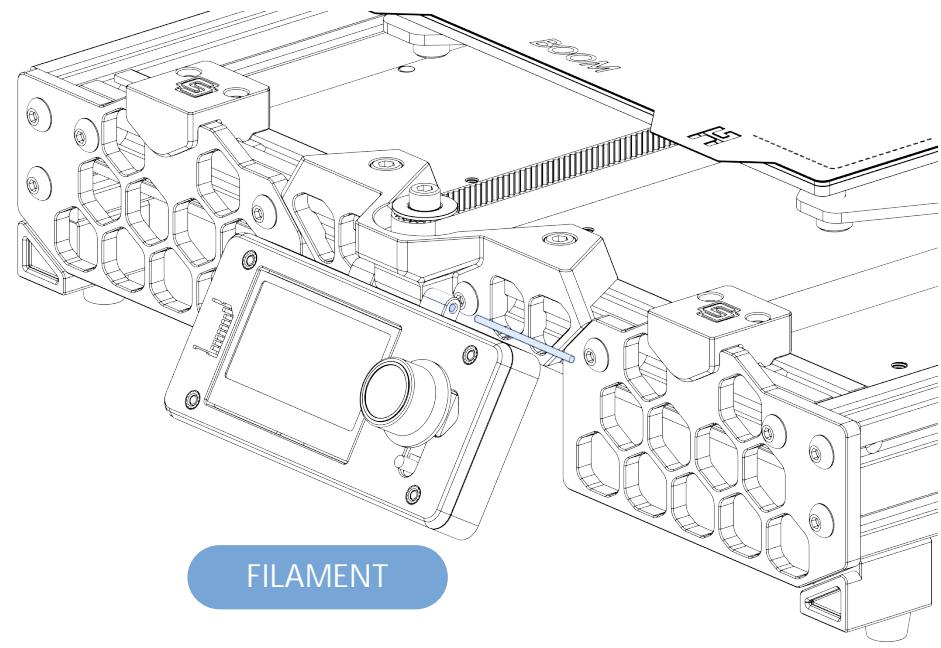
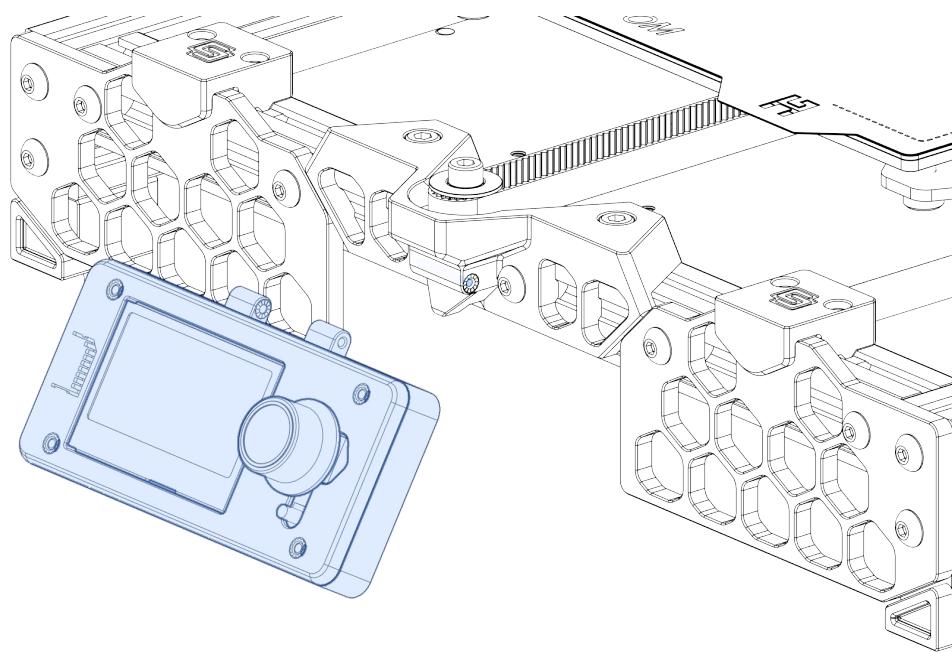


M5x12 BHCS

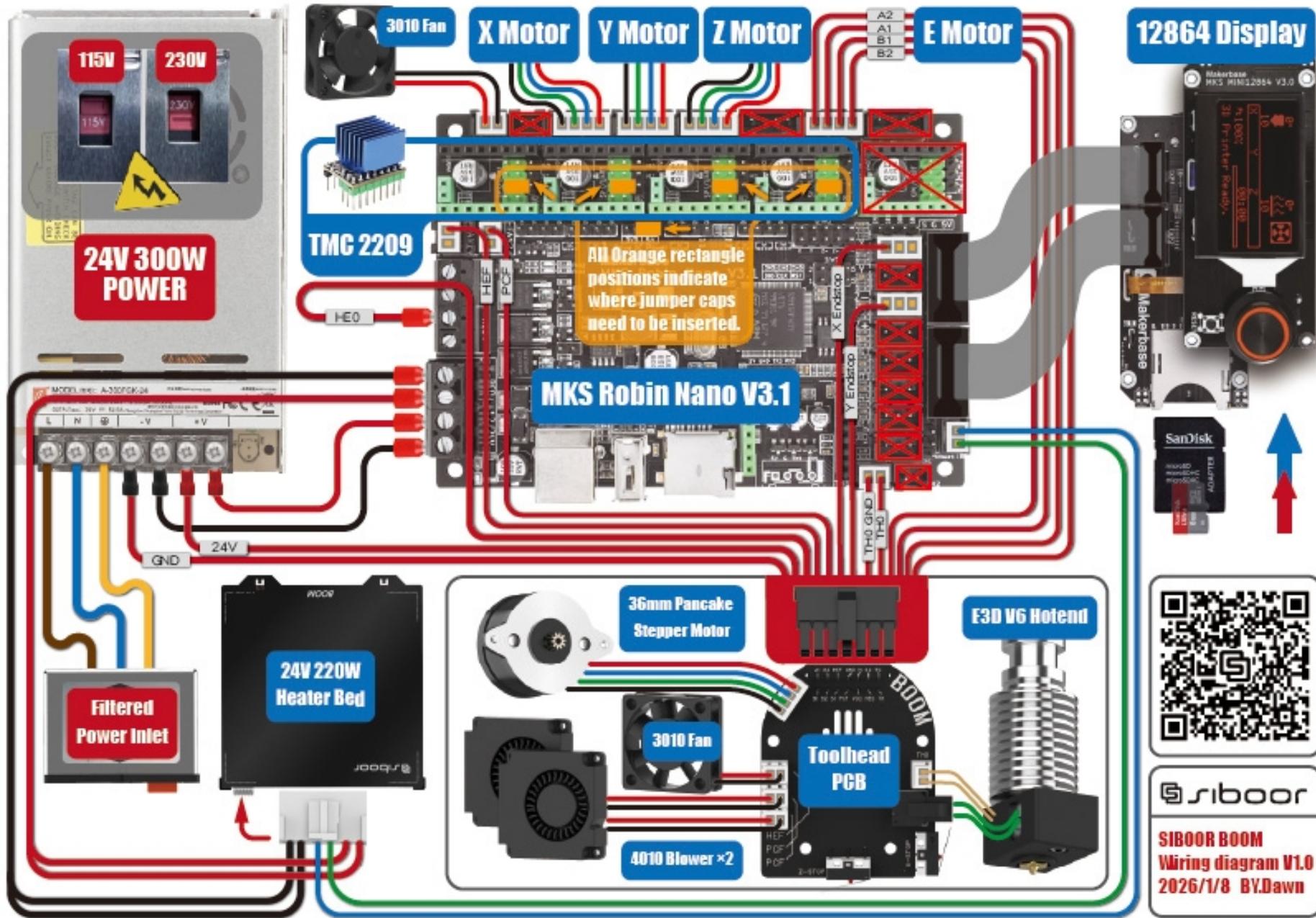


M3x16 BHCS





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ATTENTION

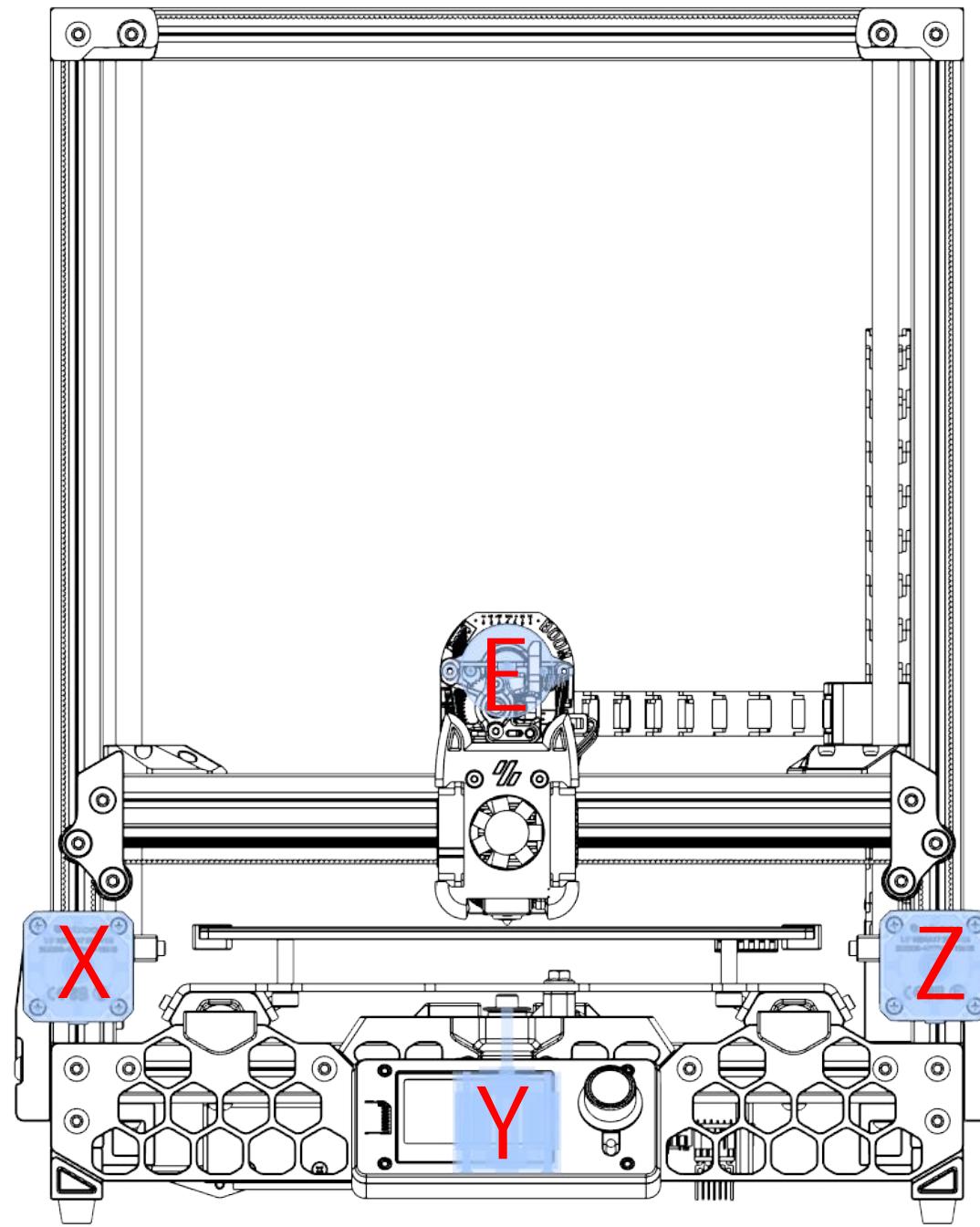
We are about to enter the section of the manual
that involves AC and DC electrical wiring.

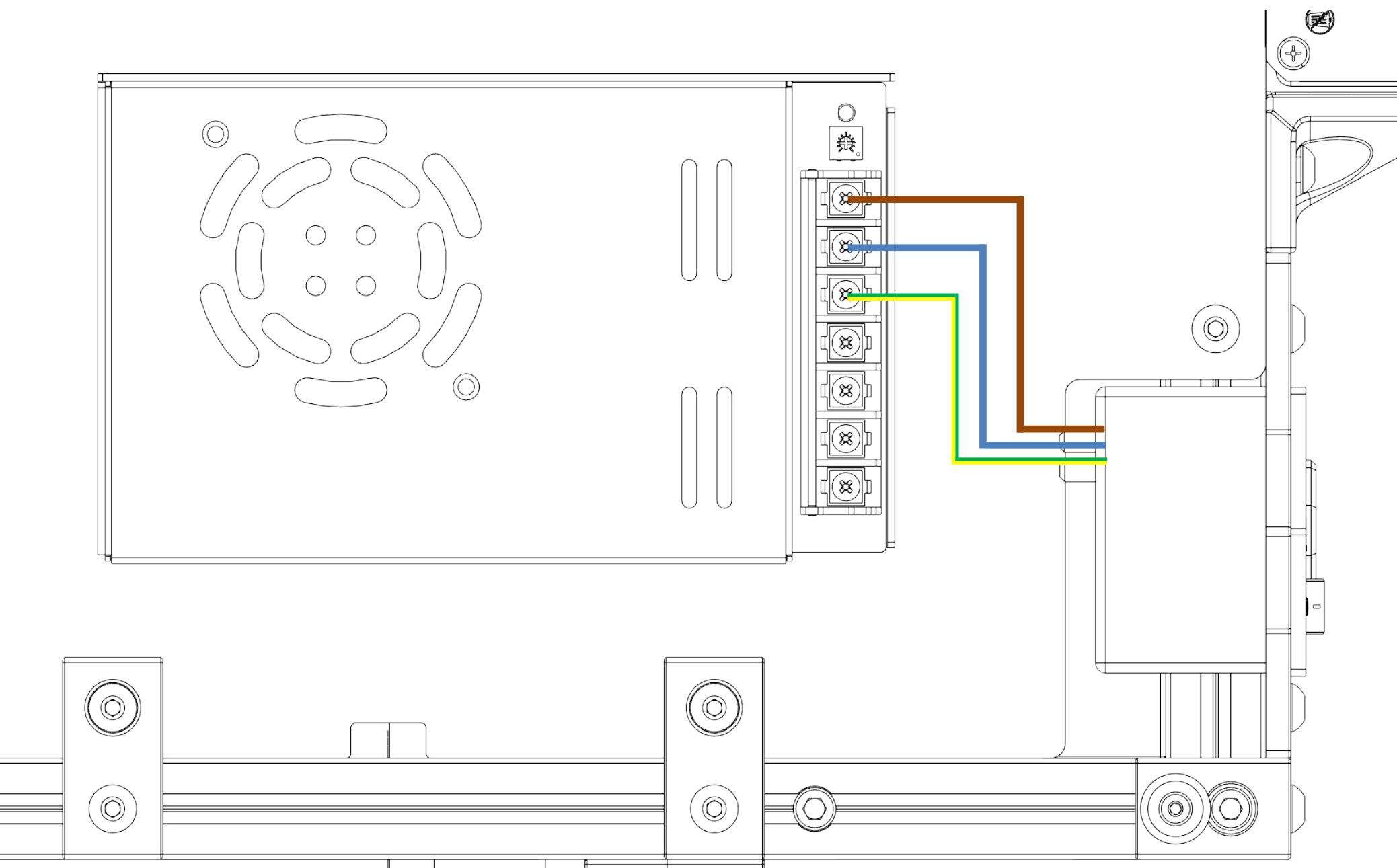
Here be dragons.

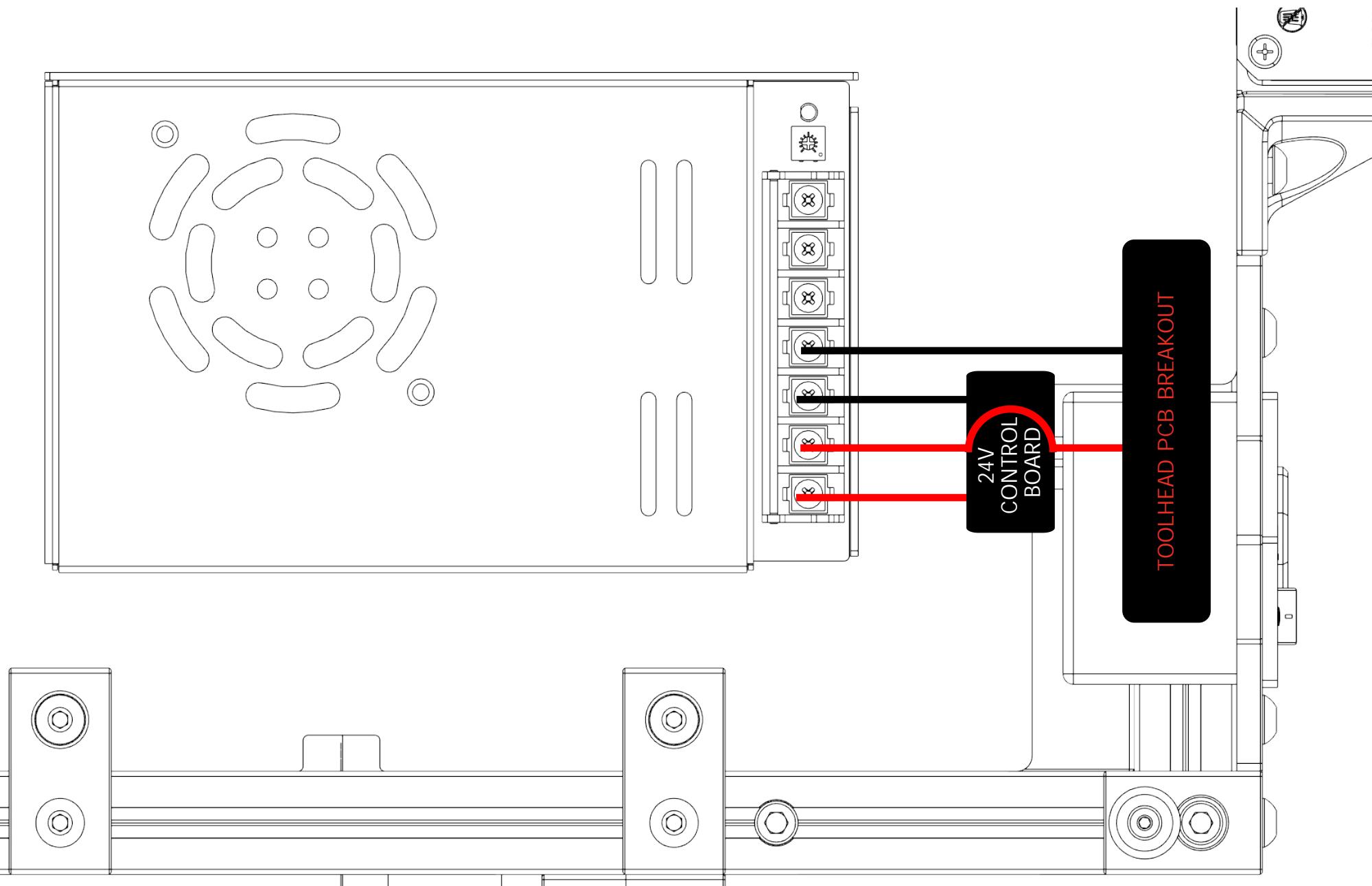
However, the machine is generally considered safe
as long as it remains **unplugged**. So, before
powering it on for the first time, **double check** this
section and **be sure** you are ready to do so.

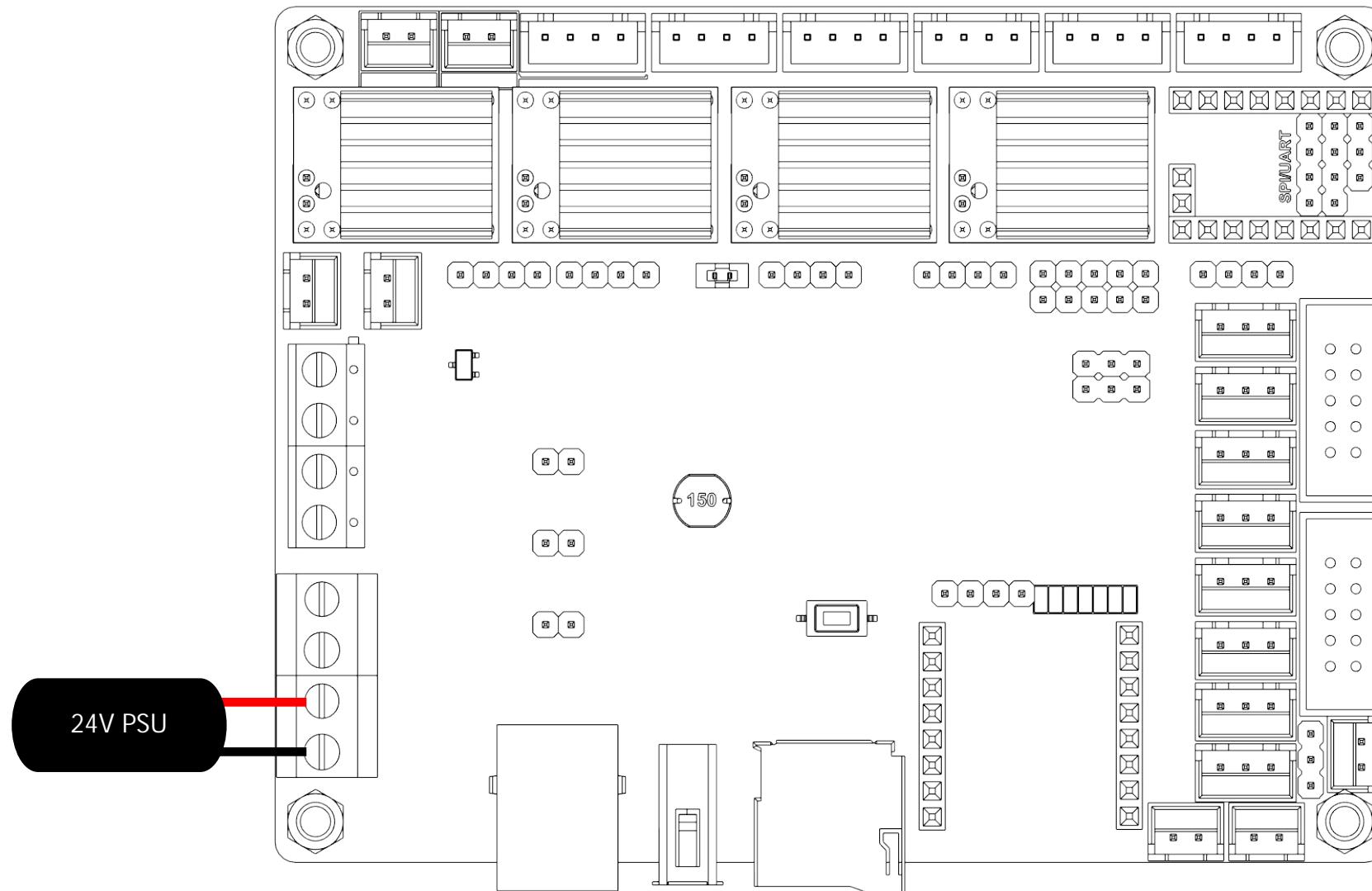
If there is something you are not sure about, please reach out.

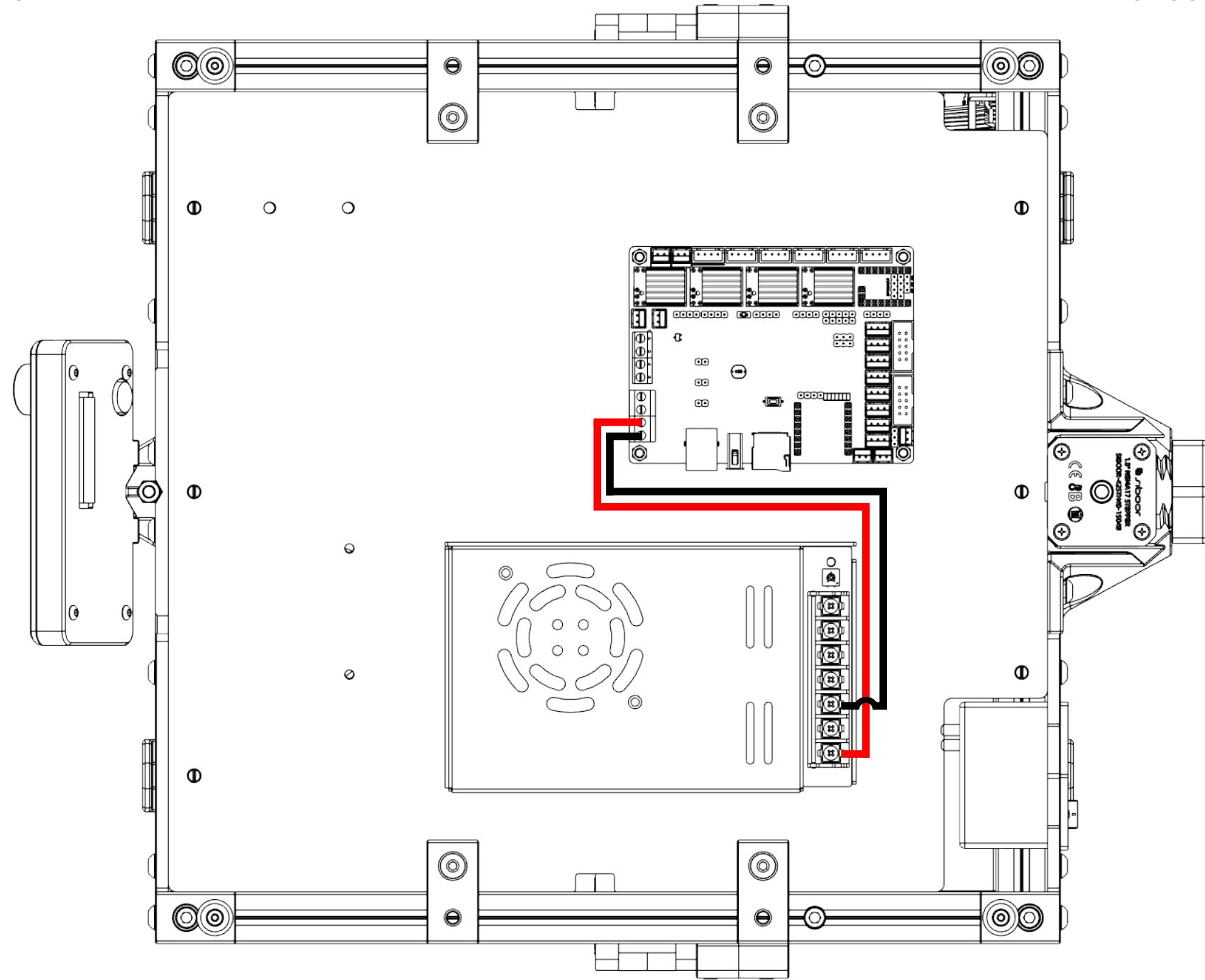
There is no such thing as a dumb
question, only a dumb answer.
Let's get started!

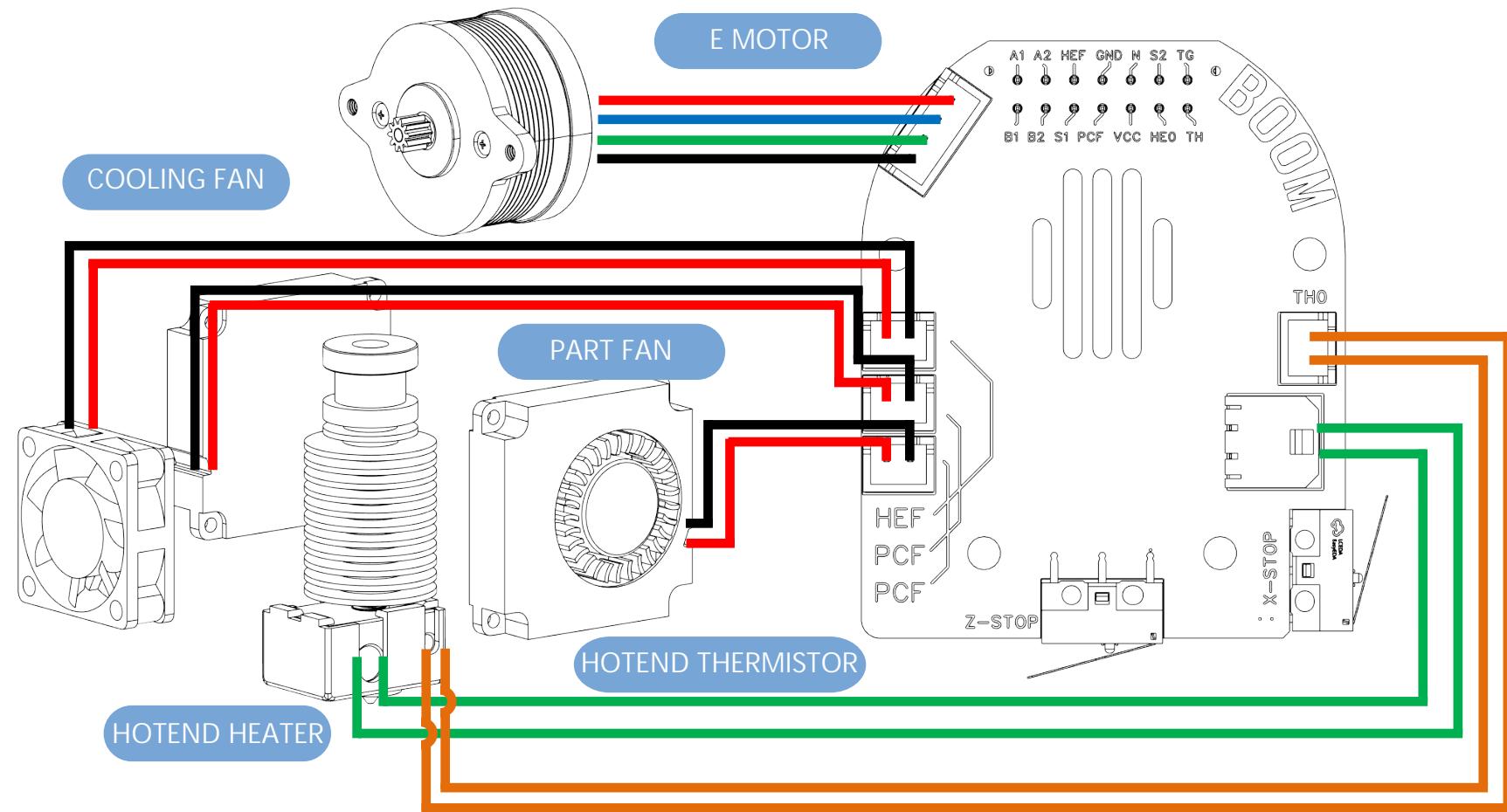


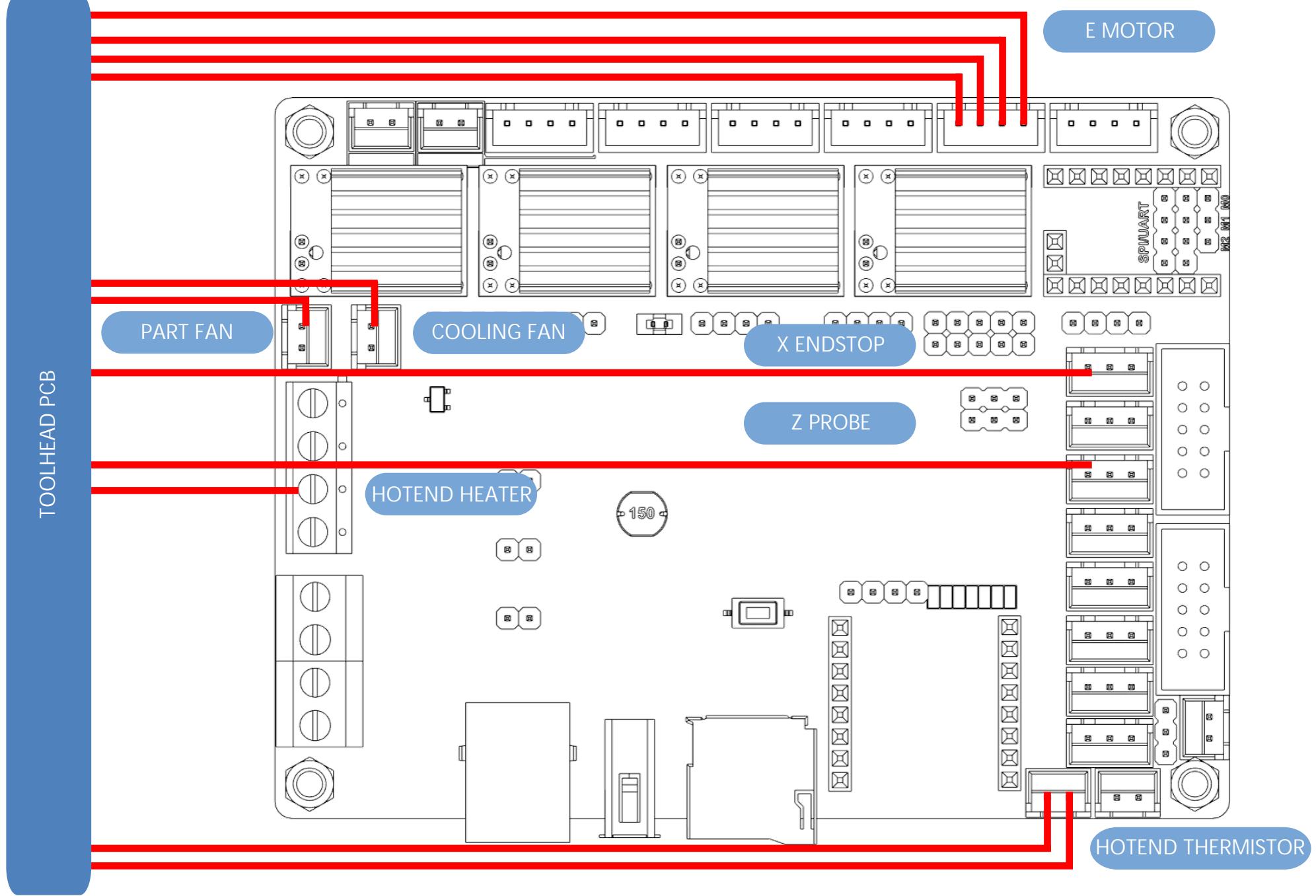


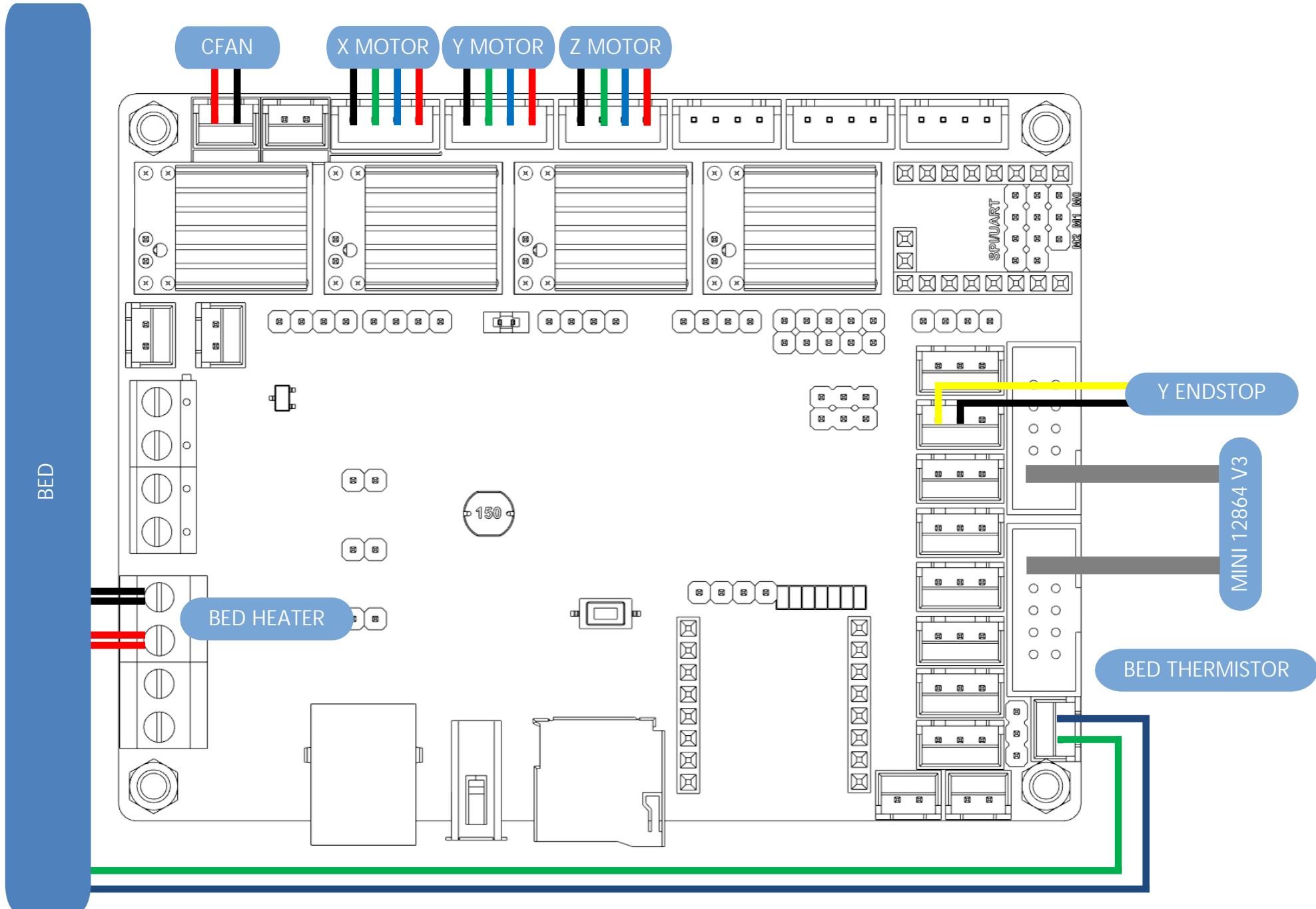






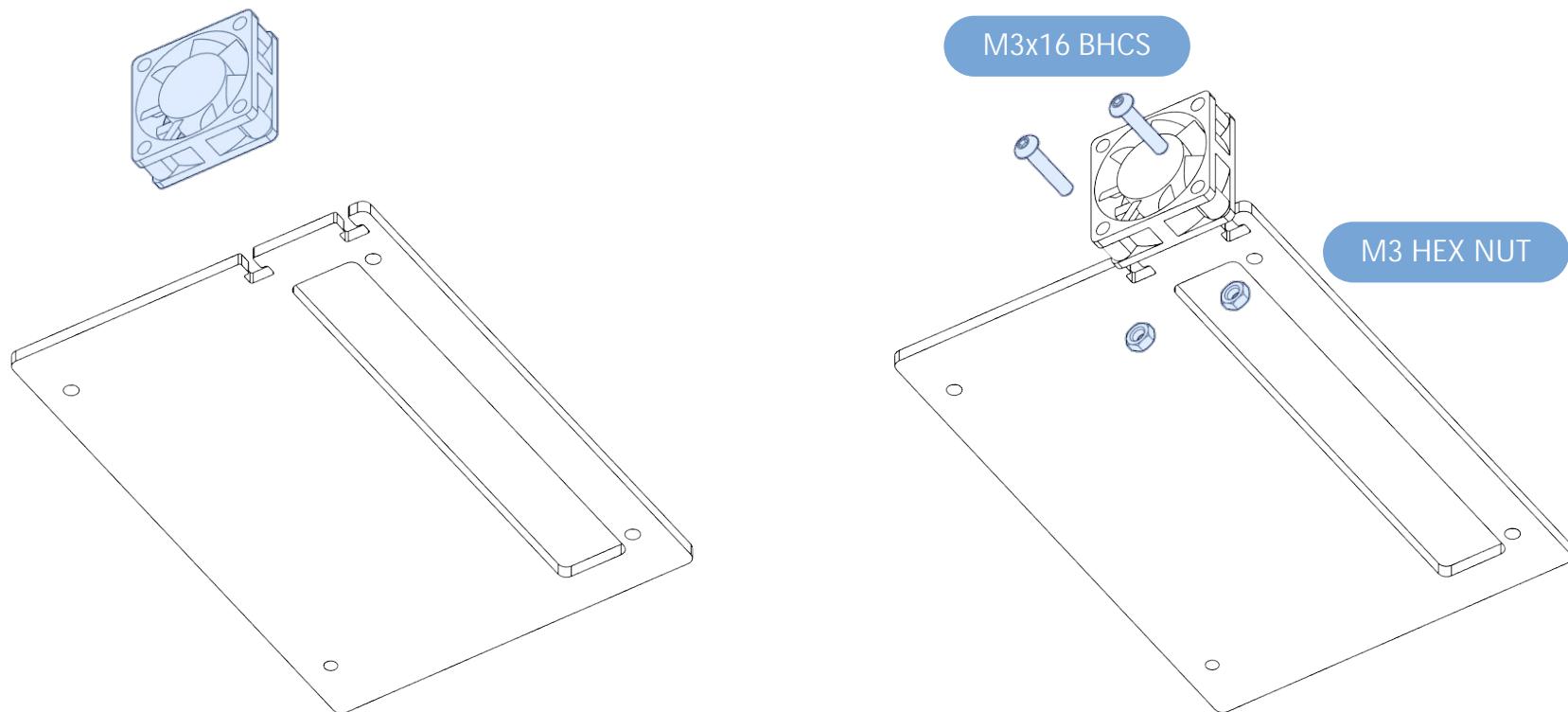






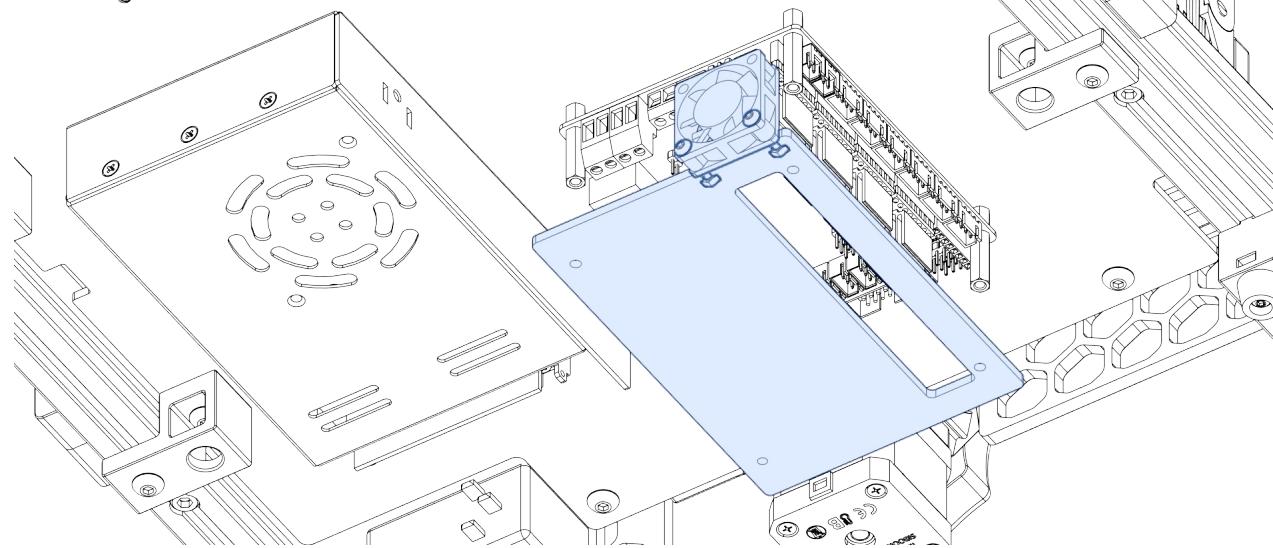
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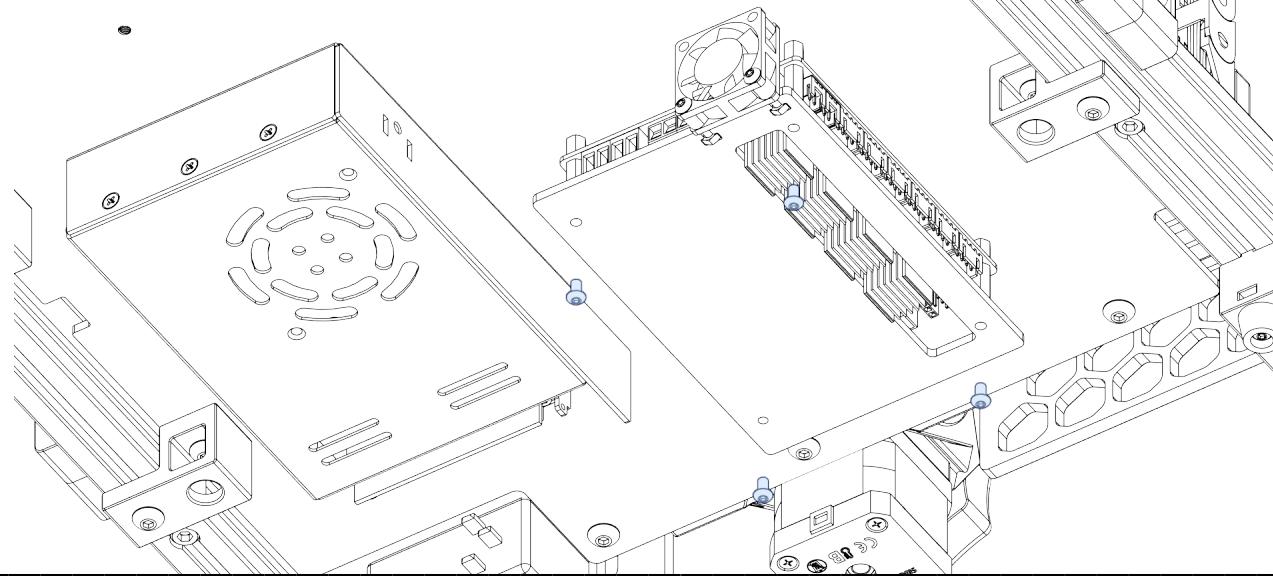


BOTTOM PANEL

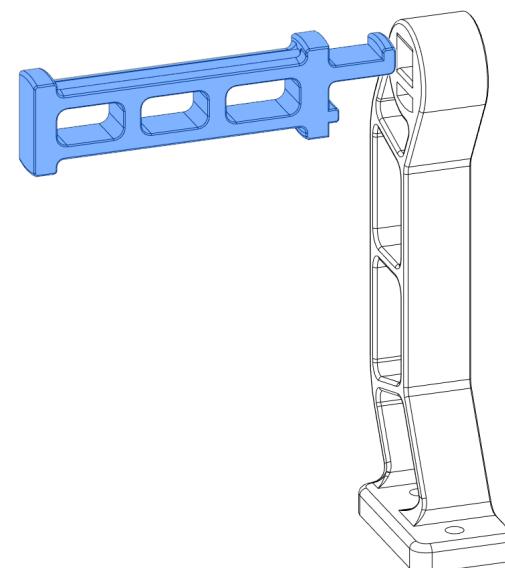
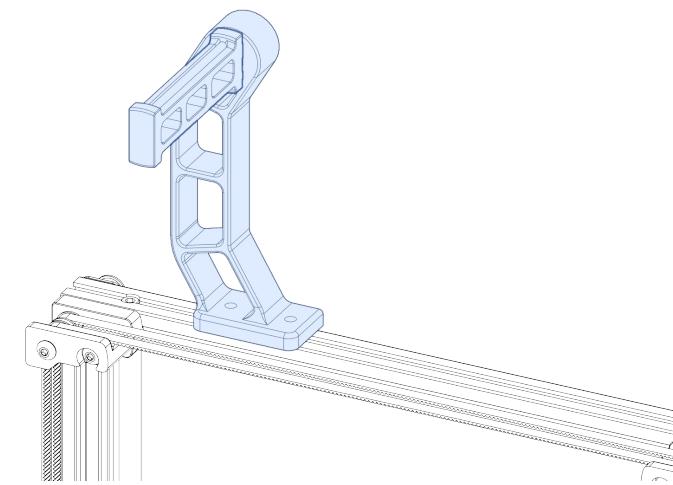
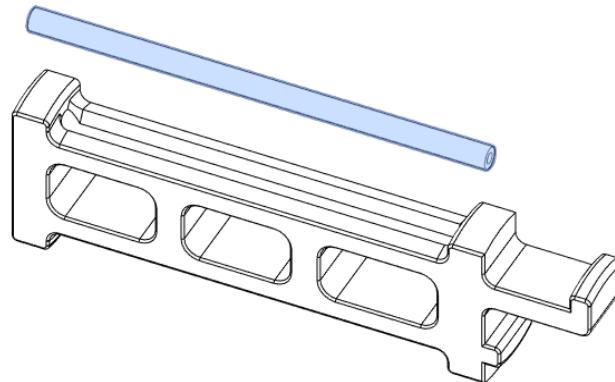
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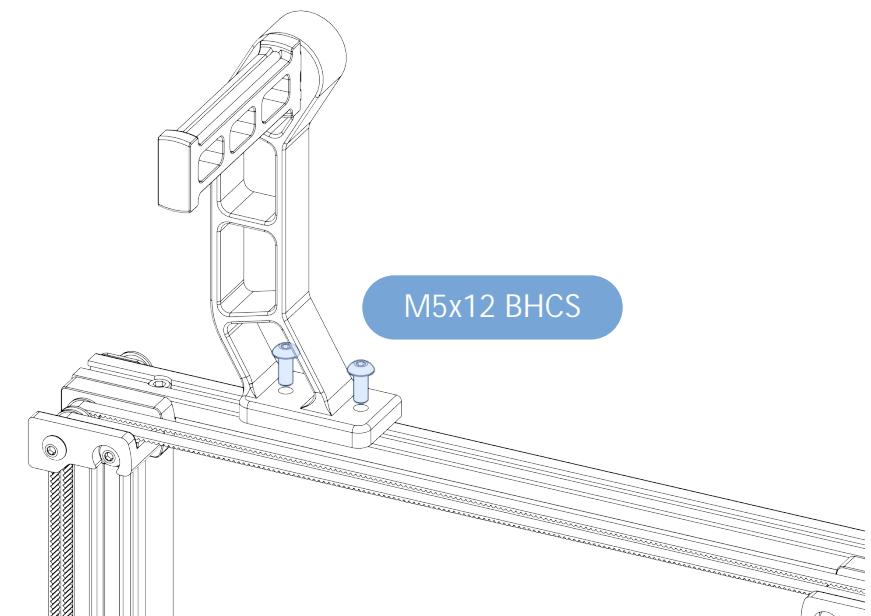
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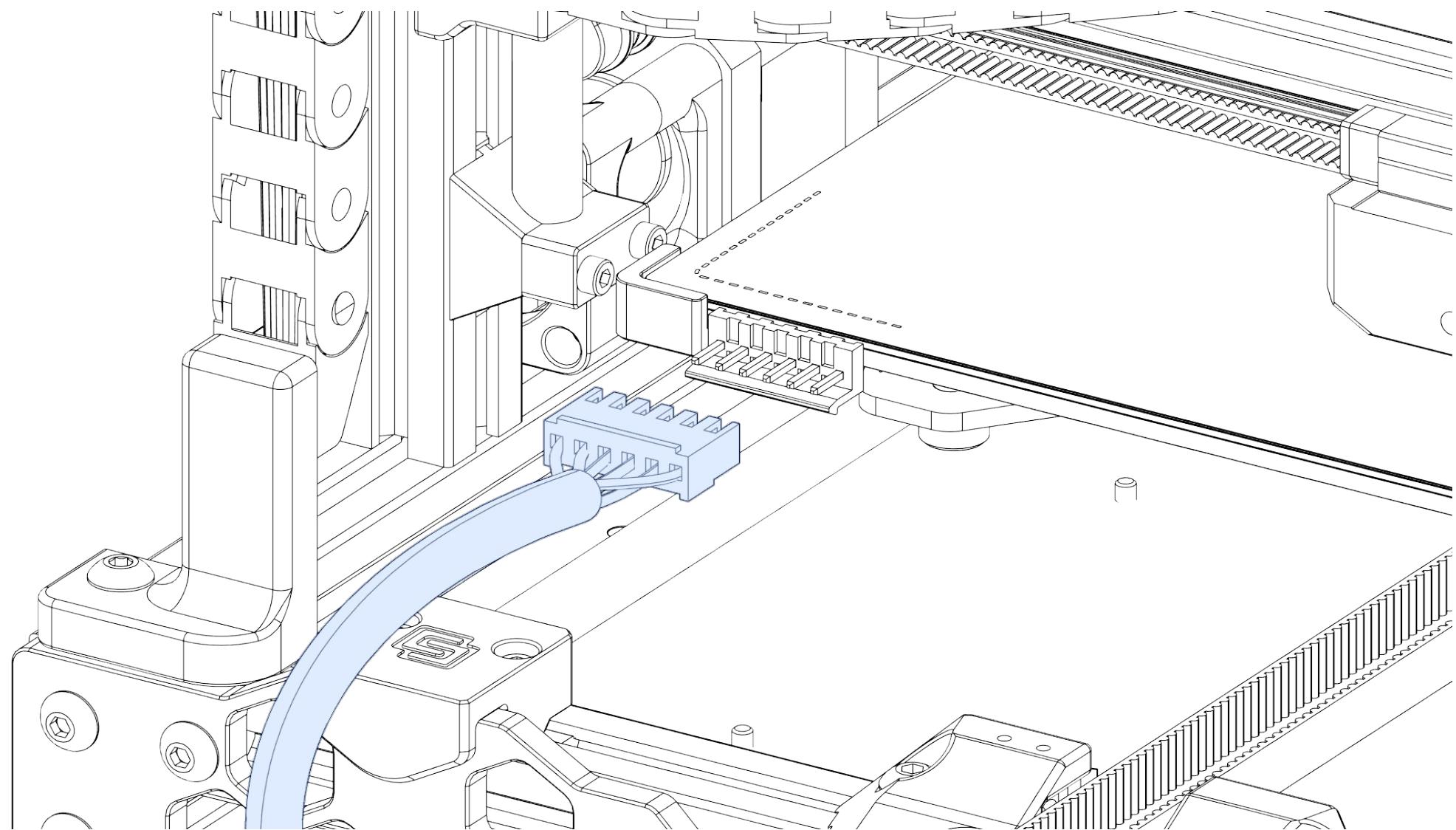


PETF TUBE



M5x12 BHCS







-SIBOOR- S-BOOM ASSEMBLY

