COCOA PRESS

ASSEMBLY MANUAL

Break Free from the Mold.

VERSION 1.2.0 | 2023-12-15

Before you begin on your journey, a word of caution.

This machine can injure you or damage itself if care is not taken to follow the steps.

Please, read the entire manual before you start assembly.

Best of luck, and happy printing!

COCOA PRESS

PART PRINTING GUIDELINES

The Cocoa Press 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 Filament Fabrication (FFF)

MATERIAL

PETG

LAYER HEIGHT

Recommended: 0.2mm

NOZZLE SIZE

Recommended: 0.4mm

INFILL TYPE

Gyroid, Grid, Honeycomb, Triangle or Cubic

INFILL PERCENTAGE

Recommended: 25%

WALL COUNT

Recommended: 3

SOLID TOP/BOTTOM LAYERS

Recommended: 4 bottom, 5 top layers

FILE NAMING

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

PRIMARY COLOR

B_Drive_Frame_Lower_x1.stl

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

ACCENT COLOR

[a]_Tensioner_Knob_x2.stl

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

QUANTITY REQUIRED

[a]_Thumb_Nut_x3.stl

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

STL FILE LIST

We have put together a comprehensive list of all the STL files used in this manual you can use this to keep track of parts you have printed, identify the names of printed parts, and/or reference where they are used in the body of this manual. Simply copy the document from the link and you can markup a local copy for yourself.

https://than.gs/m/939895

FILAMENT

While under no obligation to use our filaments, we’ve collaborated with Printed Solid to produce Cocoa Press PETG for use with your FFF plastic printer to make the printed parts for your Cocoa Press. They can be purchased on our website here.

cocoapress.com/products/cocoa-press-filament

HOW TO GET HELP

If you need assistance with your build, we're here to help. Head on over to our contact page and submit your questions.

REPORTING AN ISSUE

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/CocoaPress/AssemblyManual-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.

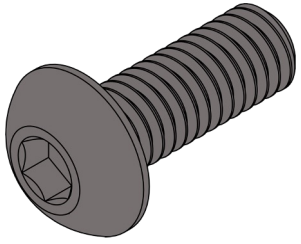
github.com/CocoaPress/AssemblyManual-Issues

cocoapress.com/pages/contact

discord.gg/KMnuqrd5nW

THIS IS JUST A REFERENCE

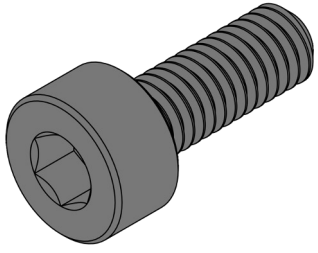
This manual is designed to be a simple reference manual. Building a printer can be a complex endeavour and for that reason we recommend checking out help.cocoapress.com for supplemental information or emailing support (hello@cocoapress.com).



BUTTON HEAD CAP SCREW (BHCS)

Metric fastener with a domed shaped head and hex drive. Most commonly found in locations where M3 fasteners are used.

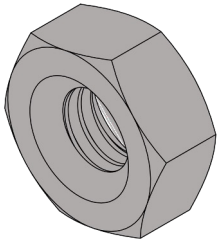
ISO 7380-1



SOCKET HEAD CAP SCREW (SHCS)

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

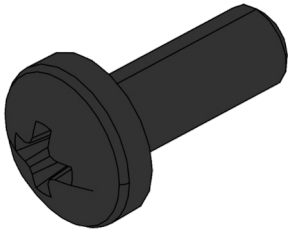
ISO 4762 / DIN 912



M5 HEX NUT

Hex nuts couple with bolts to create a tight, secure joint.

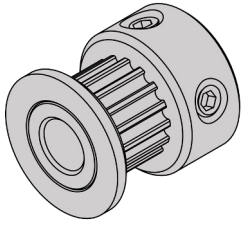
ISO 4032 / DIN 934



BUTTON HEAD PHILLIPS SCREW (BHPS)

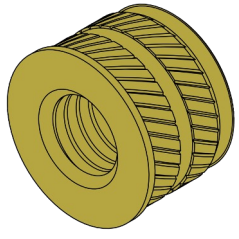
Metric phillips fastener with a rounded head.

ISO 10642



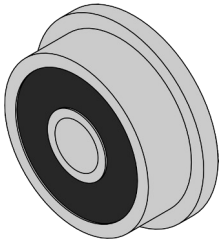
PULLEY

GT2 pulley used on the motion system of the machine.



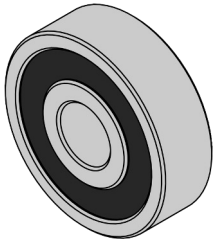
HEAT SET INSERT

Heat the inserts with a soldering iron 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.



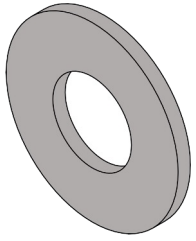
F695 BEARING

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



625 BEARING

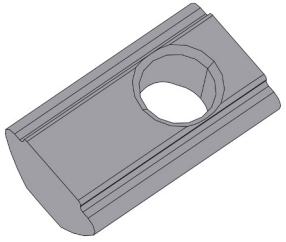
A ball bearing used in various gantry locations.



M5 WASHERS

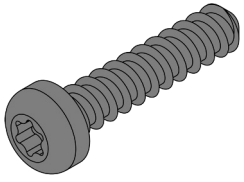
These are used in the belt path bearing stacks and other various locations in this manual.

5x10x1 DIN 988



POST INSTALL 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”.



SELF TAPPING SCREW

Fastener with a pronounced thread profile that is screwed directly into plastic.

ATTENTION BUBBLE

This logo denotes steps that are common areas that mistakes can occur.

Black M3x8
BHPS (2x)

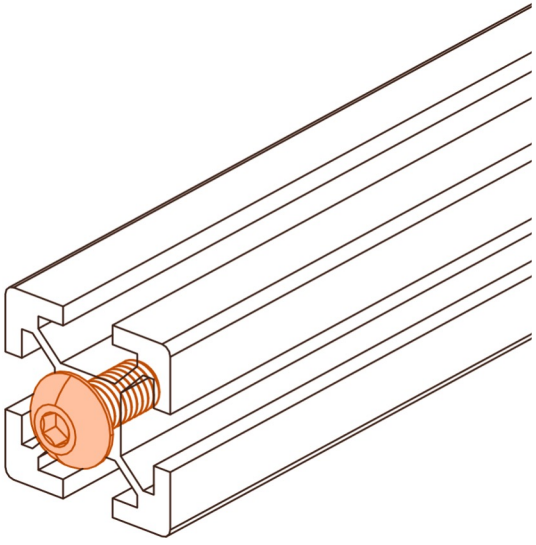
PARTS LABEL CALLOUT

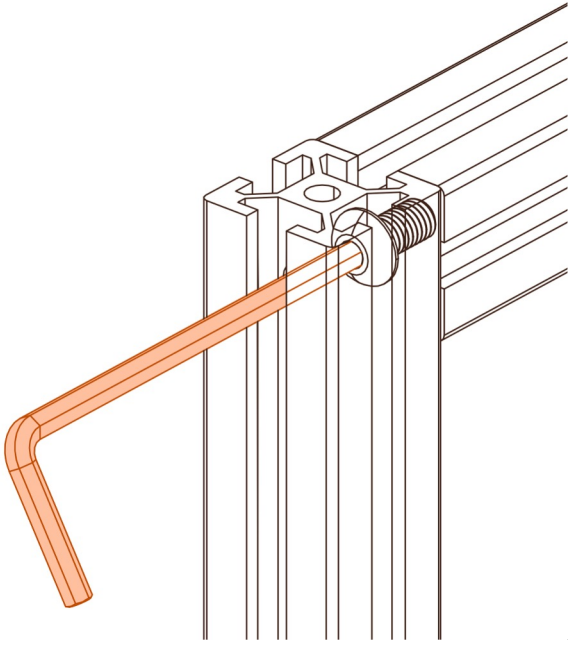
This style of callout shows what fastener or part is used in specific steps, and their quantity.

Labeled as
“Machine Screw
BHCS M3x8”

PARTS LABEL CORRECTION

In the event a part or box is mislabeled, a red box is used as a callout so that users are aware what the label says.





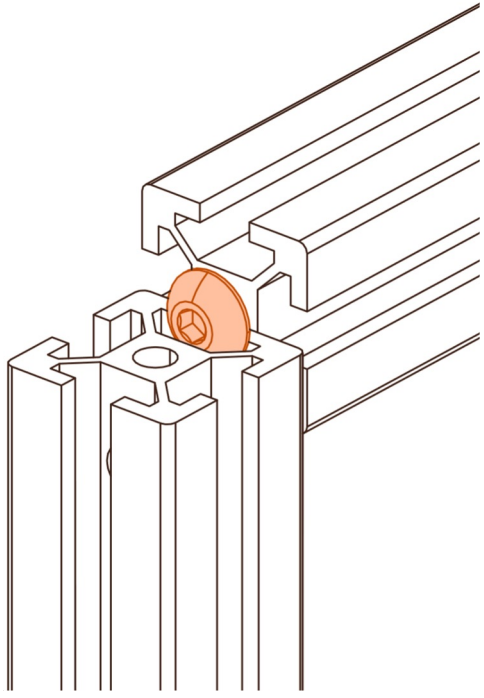
BLIND JOINT BASICS

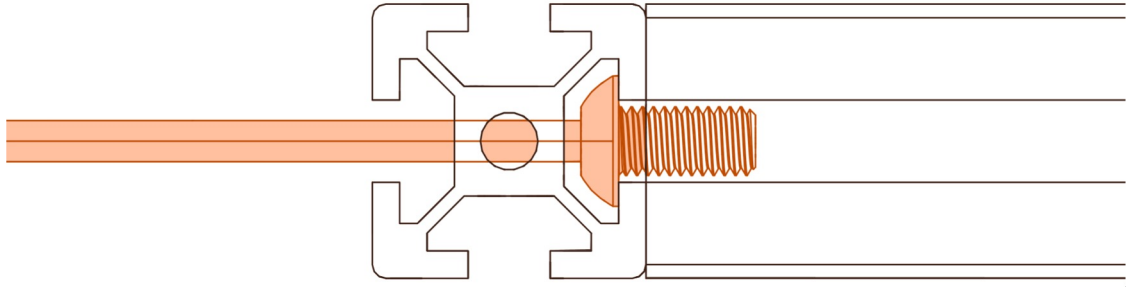
Blind Joints provide a cost-effective and rigid assembly method for joining extrusions. They will be used throughout the frame assembly.

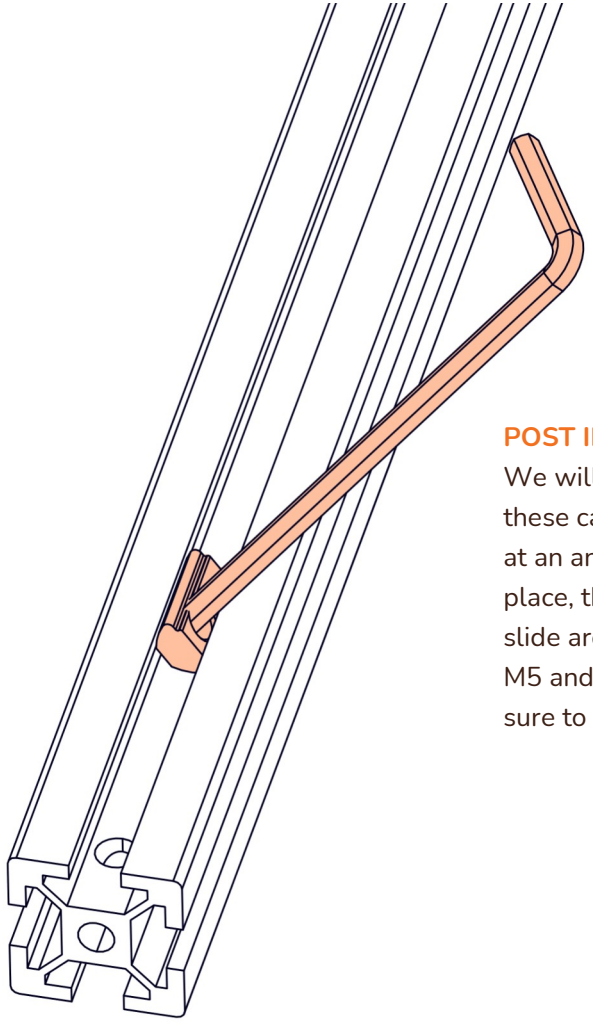
The head of the BHCS is slid into the channel of another extrusion and securely fastened through a small access hole in the extrusion.

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

https://youtu.be/2dvbn0rWA60?t=466

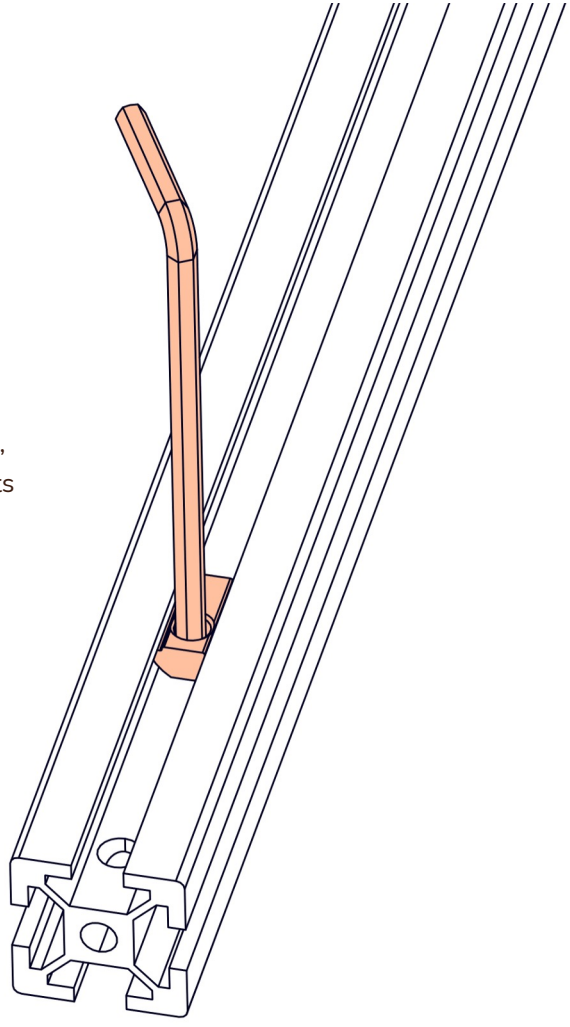






POST INSTALL T-NUTS

We will be using a lot of post install T-nuts, these can be inserted into the extrusion slots at an angle and then rotated to clip into place, they should stay in position and not slide around easily. We will be using both M5 and M3 variants during the build, so be sure to install the correct ones at each step.



BEFORE YOU BEGIN

Remove the box labeled "Cartridge", unpack and wash with soap and water all cartridge and housing components. The included brushes are in the box labeled “Build Plate”.

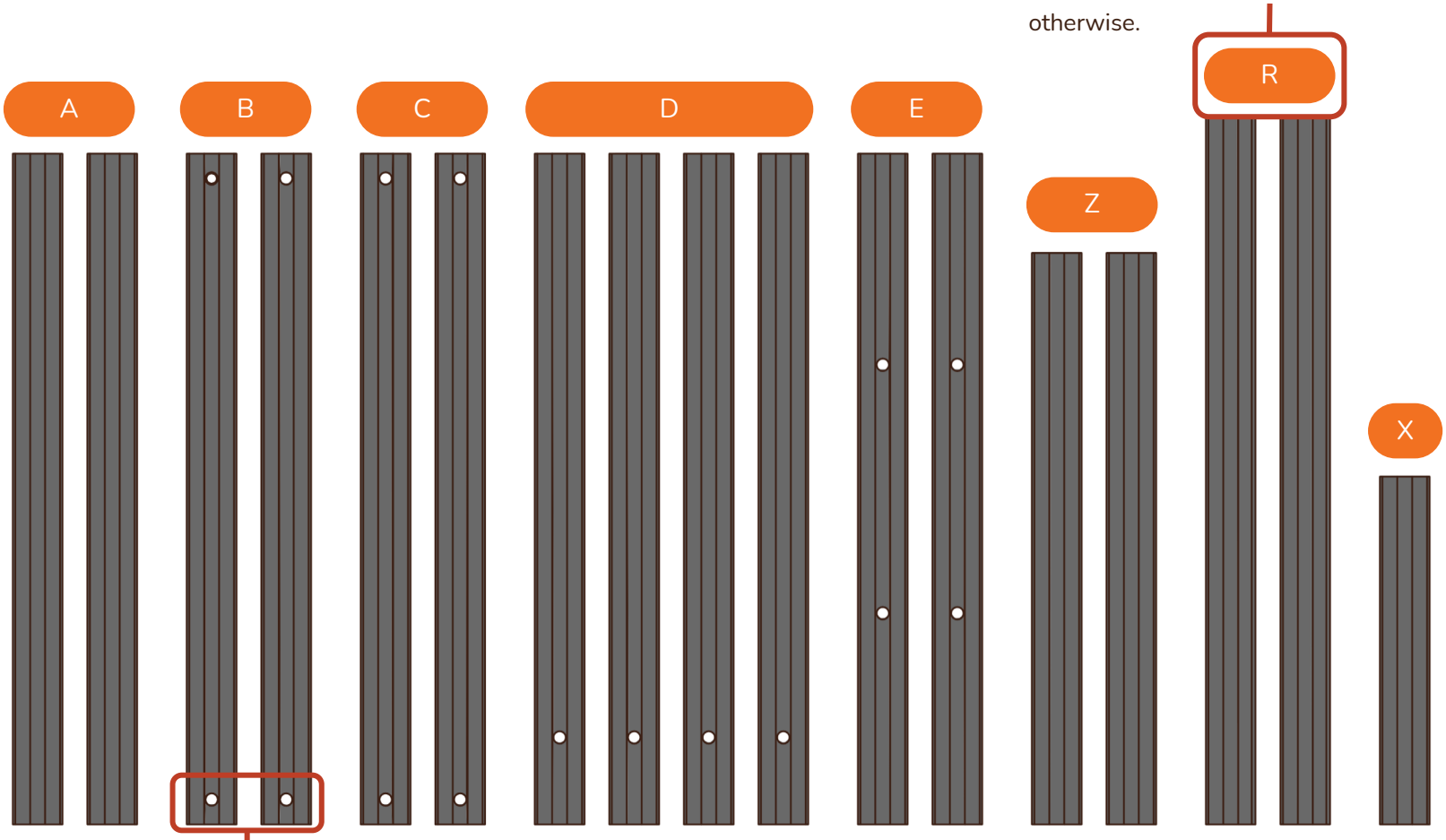
This gives them time to air-dry before you start printing if you intend to get going quickly!

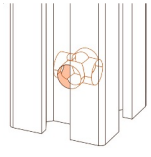
LET'S GO!

Collect your extrusions and sort them by length. We will highlight the extrusions used in each step and label them as shown on this page.

"R" U Sure?

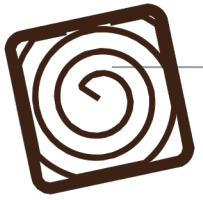
R Profile extrusion is a curved shape, used for the topmost frame rails. They look similar to A and Z otherwise.



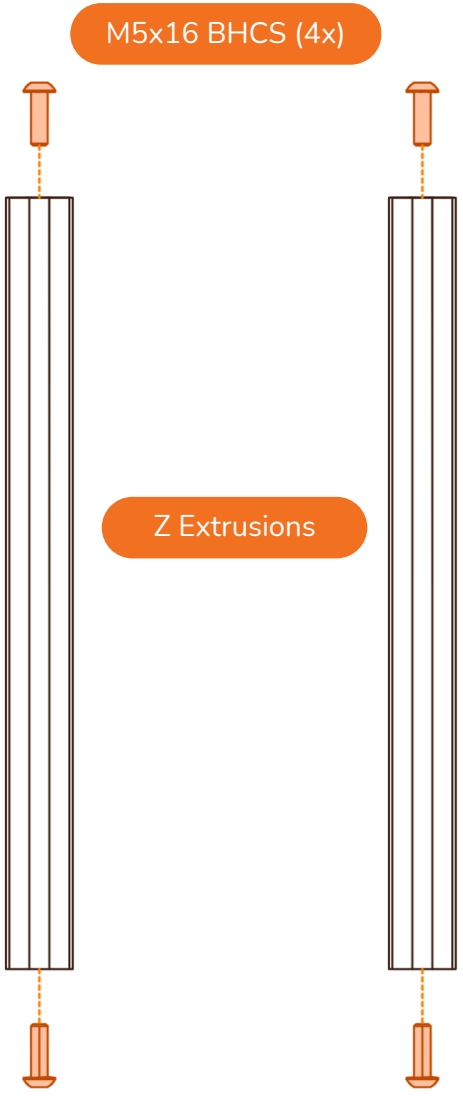


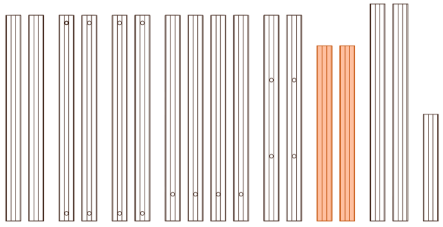
WHAT'S THE DIFFERENCE BETWEEN 'B' AND 'C'?

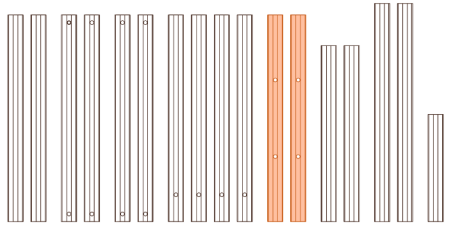
The "B" extrusions have a third hole cross drilled on the lower end, the C extrusions have only 2 holes each, both in the same direction as shown above.

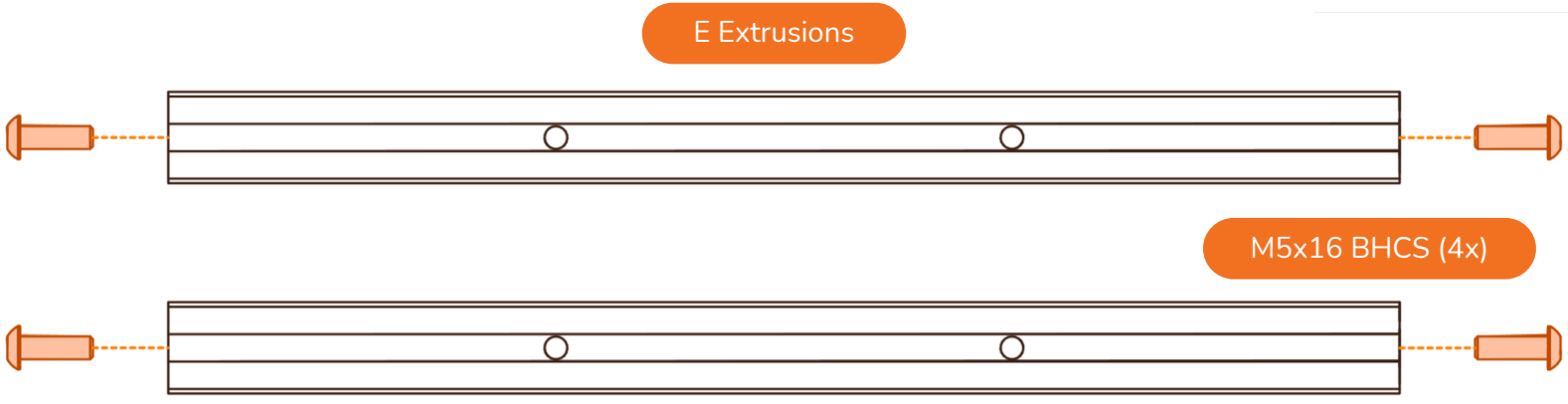


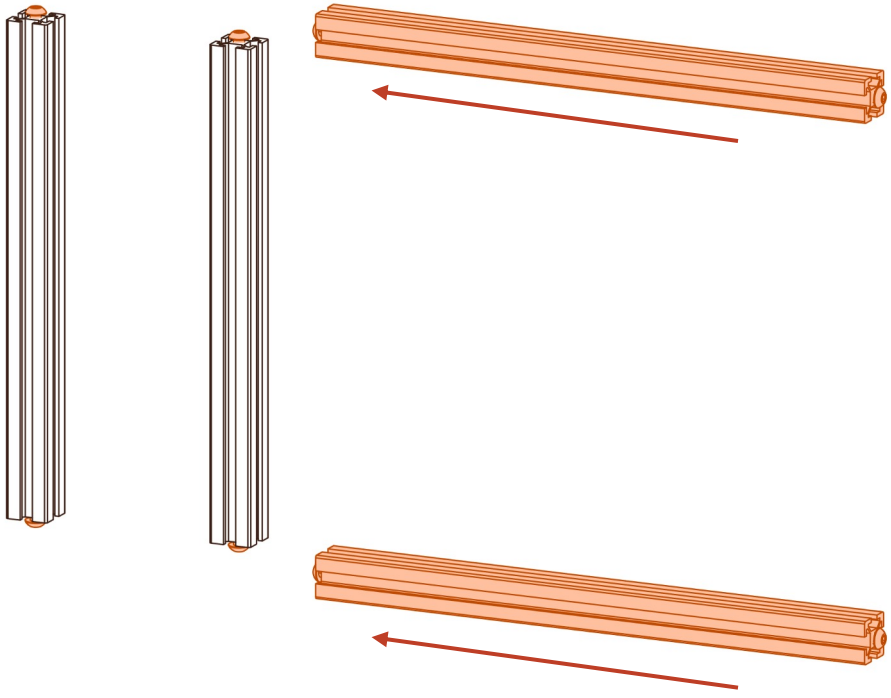
Difficulty	Medium
Tools Needed	M3 Driver M5 Driver Scissors (Suggested, To Remove Bags)
Hardware Needed	Z Extrusions (2x) E Extrusions (2x) D Extrusions (4x) C Extrusions (2x) B Extrusions (2x) A Extrusion (1x) M5x16 Button Head Cap Screw (16x) M5x10 Button Head Cap Screw (10x) M5 T-Nuts (10x) Rubber Feet (4x)
Printed Parts Needed	Front Right / Left Base Rear Right / Left Base

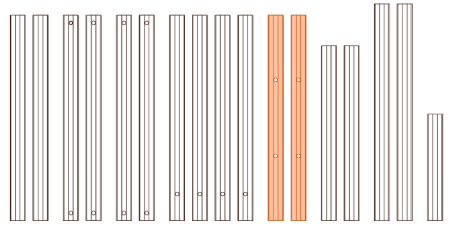

M5x16 BHCS (4x)
Z Extrusions

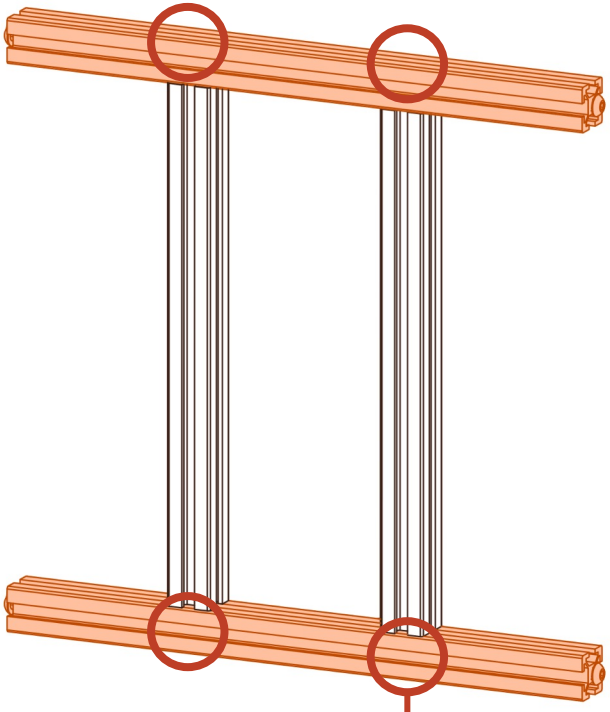


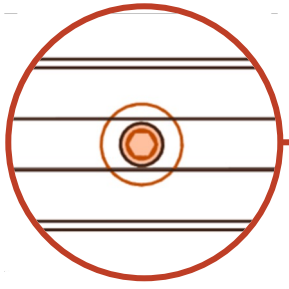



E Extrusions
M5x16 BHCS (4x)





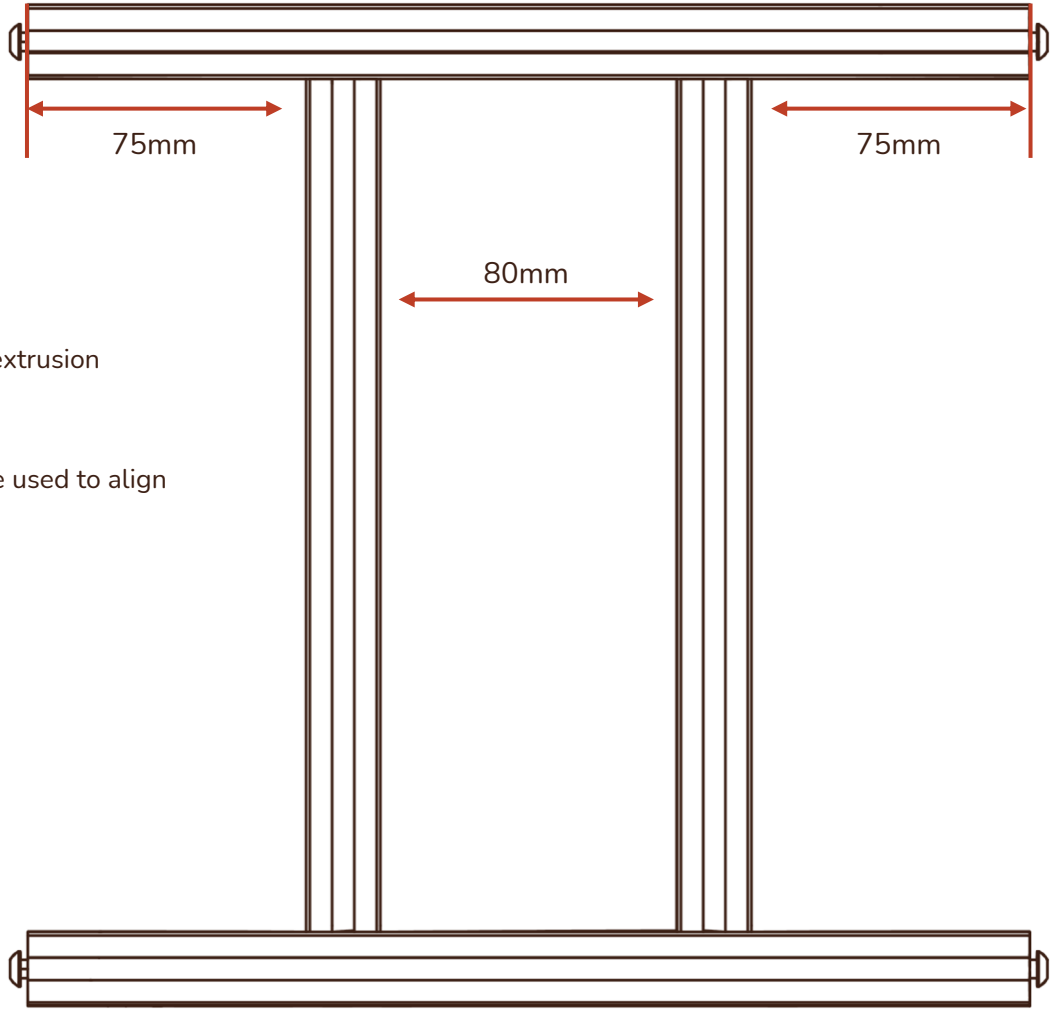




BLIND JOINTS

Align the Z extrusion to the holes in the side of the E extrusion. Then, secure the M5 bolts by inserting an allen key through the access holes.

We will adjust the position of the Z extrusions on the next page.



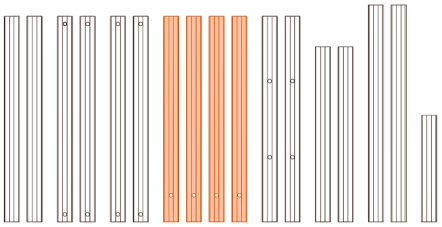
LINE EM UP!

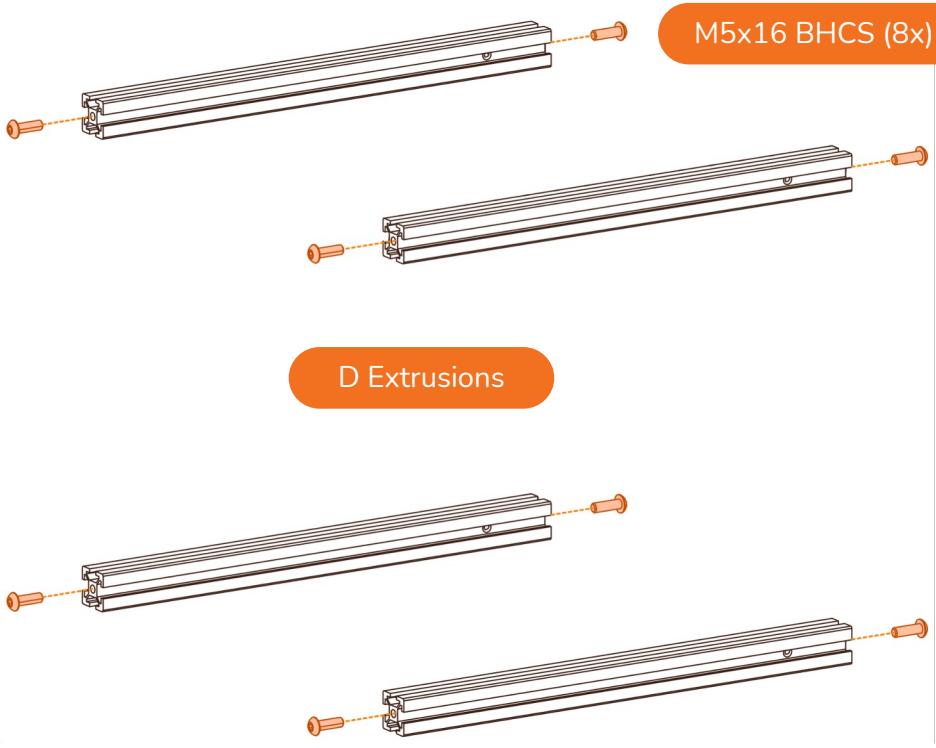
By measuring the distances, align the extrusion profiles.

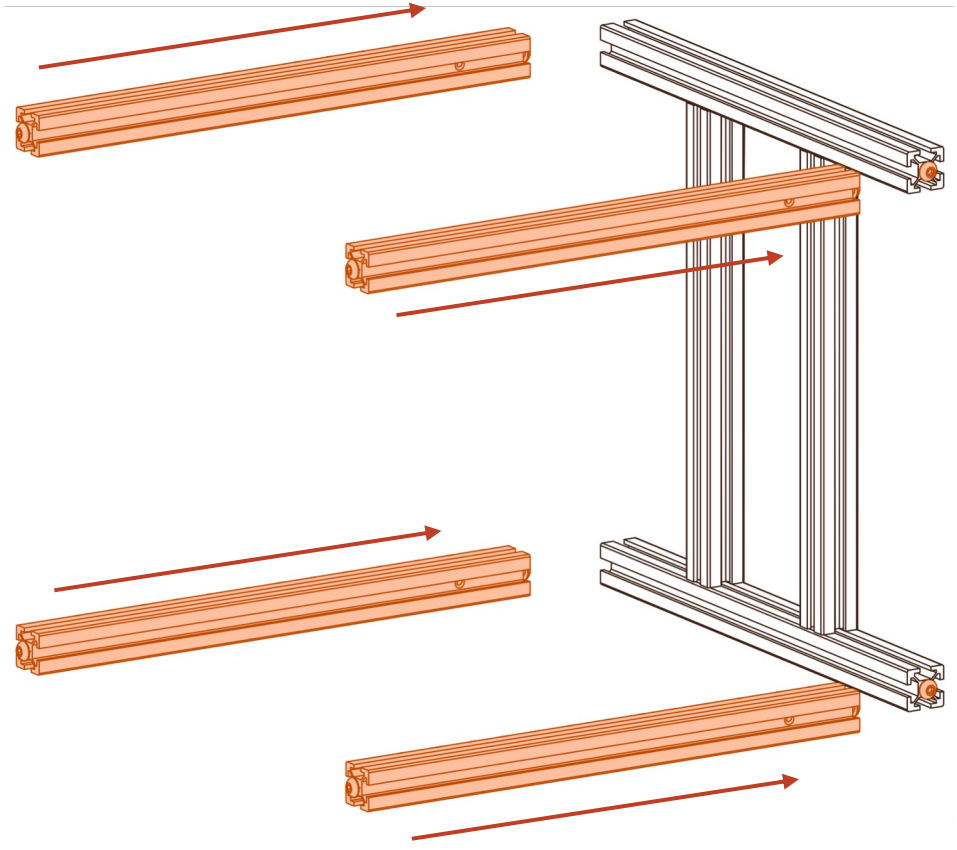
Tip: The holes in the E extrusion can be used to align with the Z extrusions.

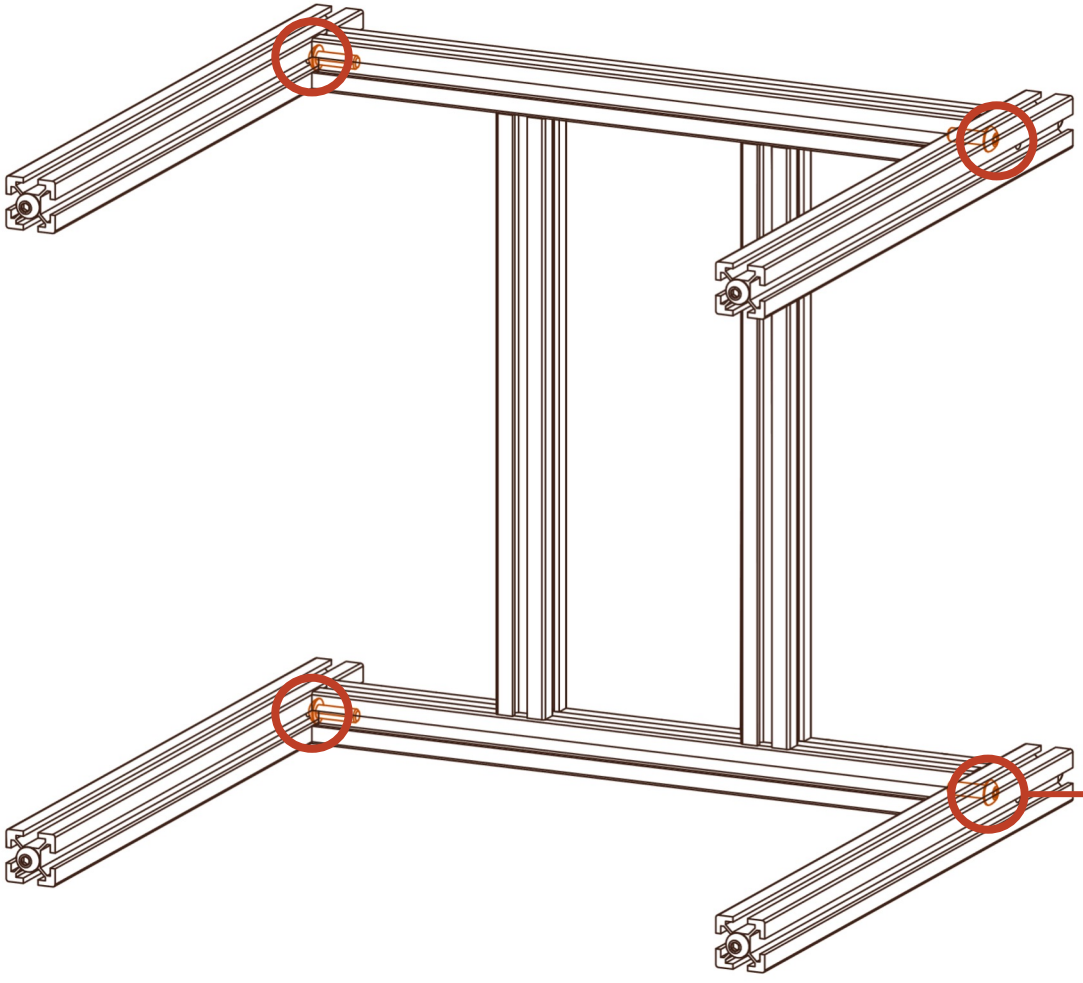
Z EXTRUSION POSITIONING

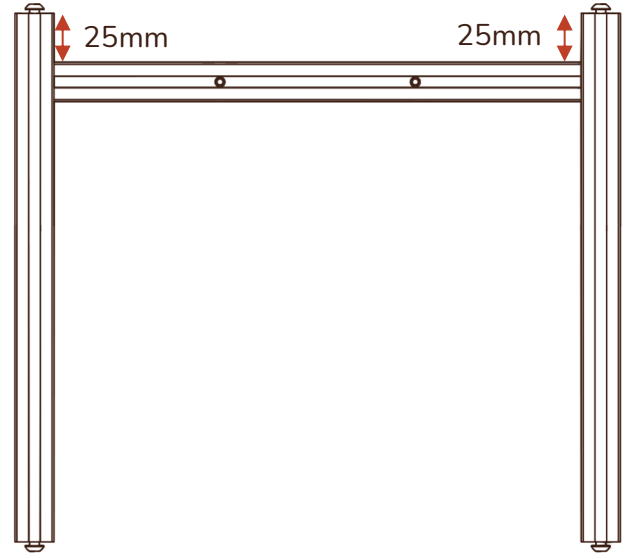
Once you are happy with the positions, be sure to tighten the blind joints fully.




M5x16 BHCS (8x)
D Extrusions

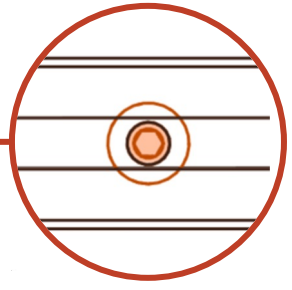


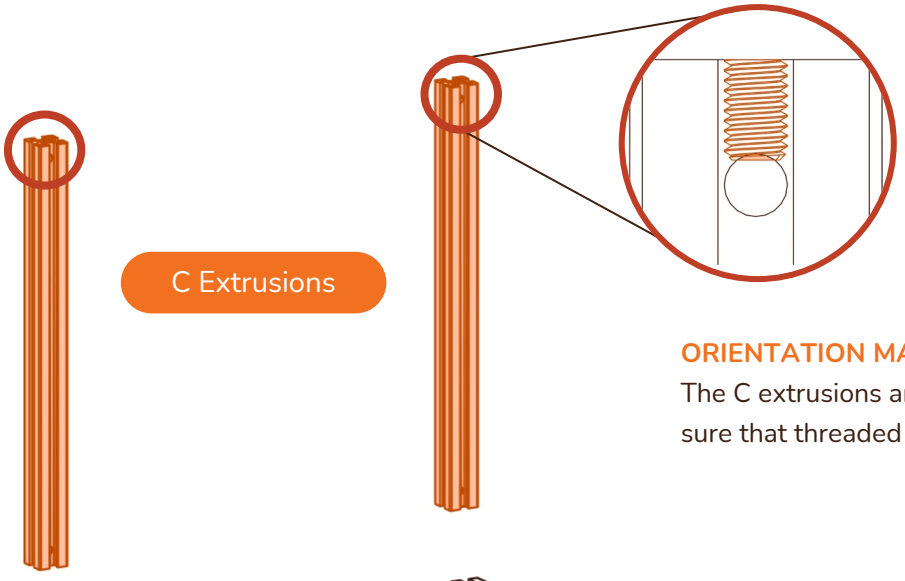




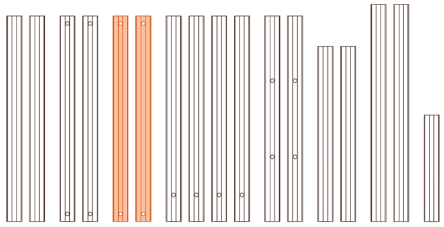
BLIND JOINTS

Secure the M5 bolts by inserting an allen key through the access holes. Adjust the position of the D extrusions so that they match the dimensions noted above.



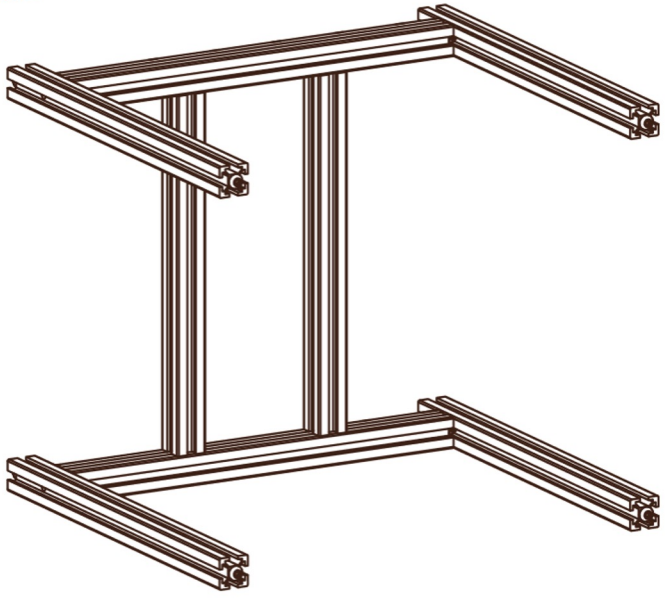


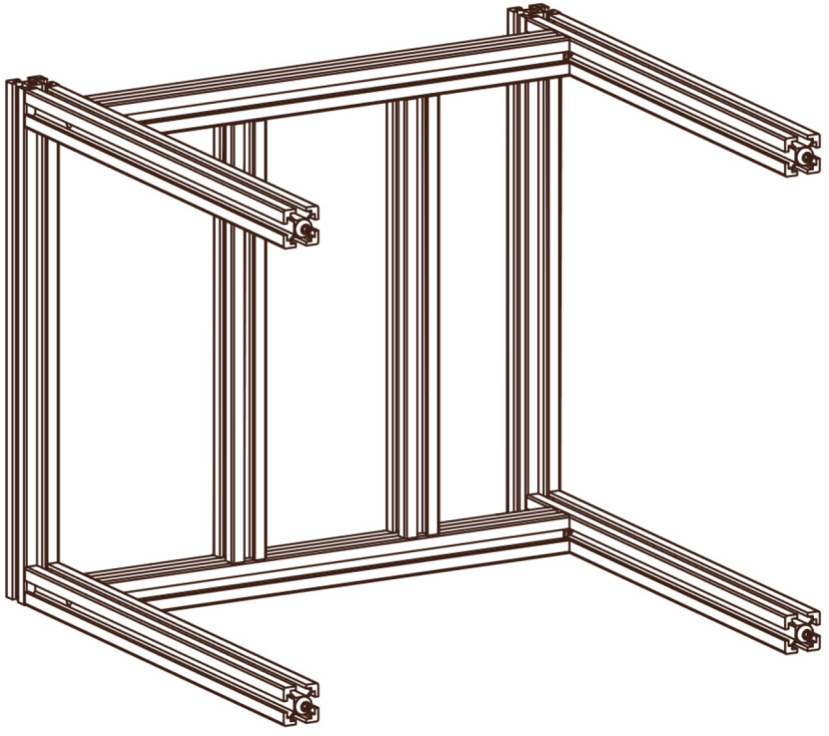
C Extrusions



ORIENTATION MATTERS

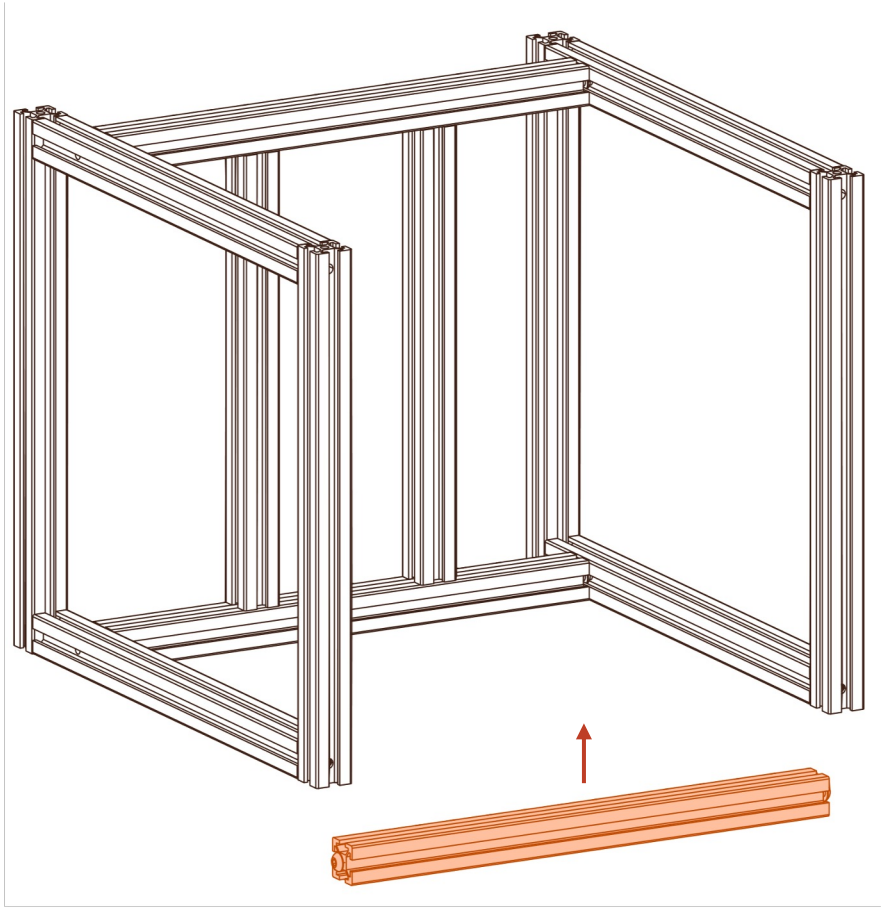
The C extrusions are only threaded on one end. Make sure that threaded end is facing up on both extrusions.

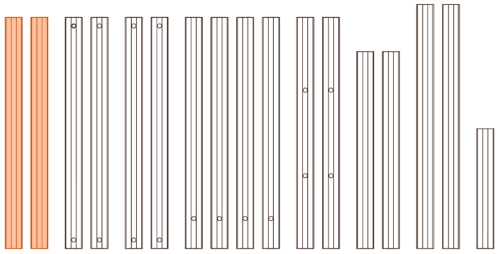


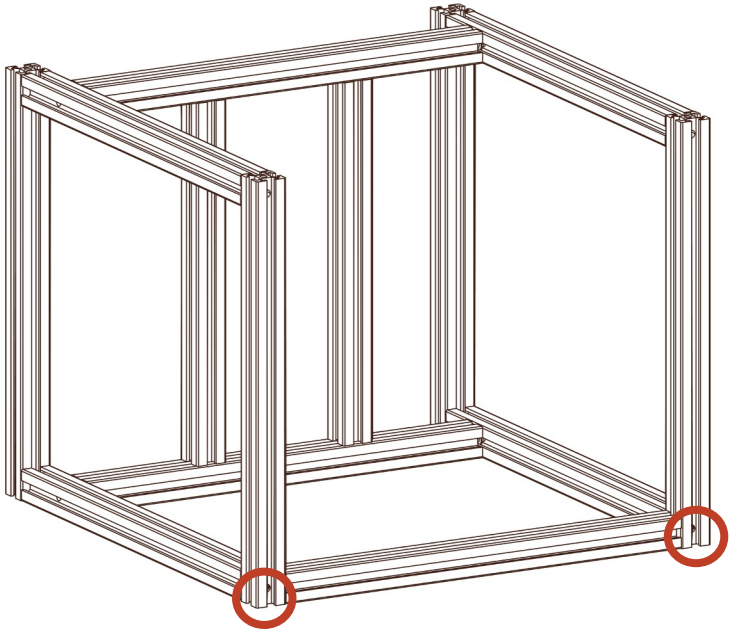


ORIENTATION MATTERS

The B extrusions have cross drilled holes on one end. Make sure these cross drilled holes are to the bottom. Tighten screws.





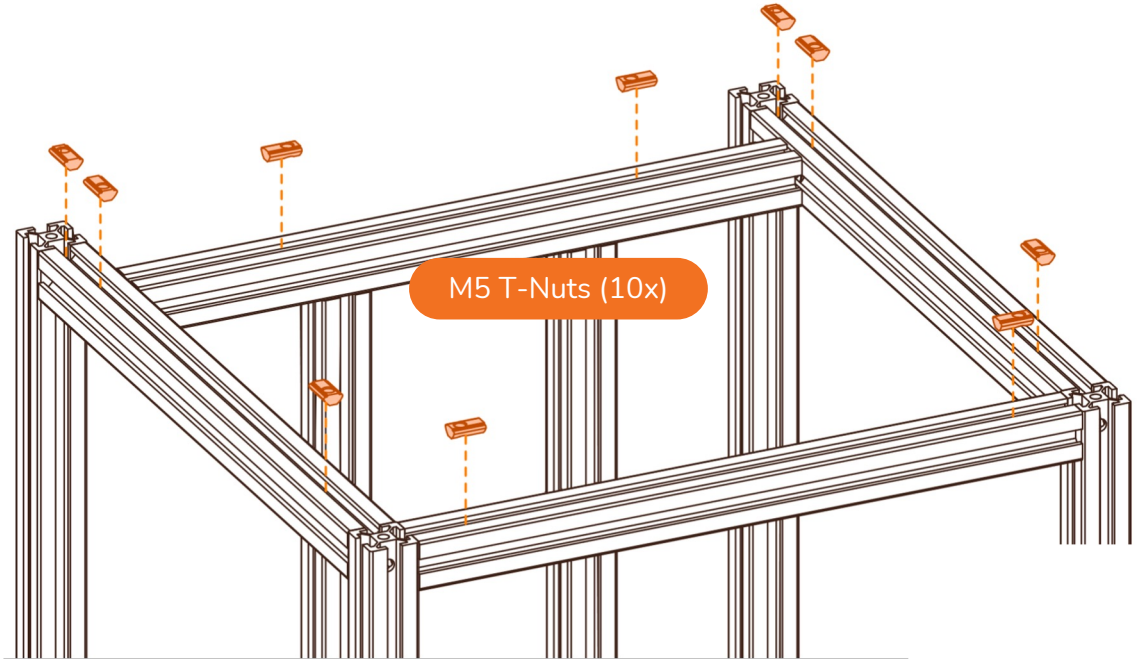


A Extrusion

M5x16 BHCS (2x)

TIGHTEN THE BLIND JOINTS

This is the final piece of the frame. Now is a good opportunity to take some extra time to ensure that your connections are tight and everything is square.

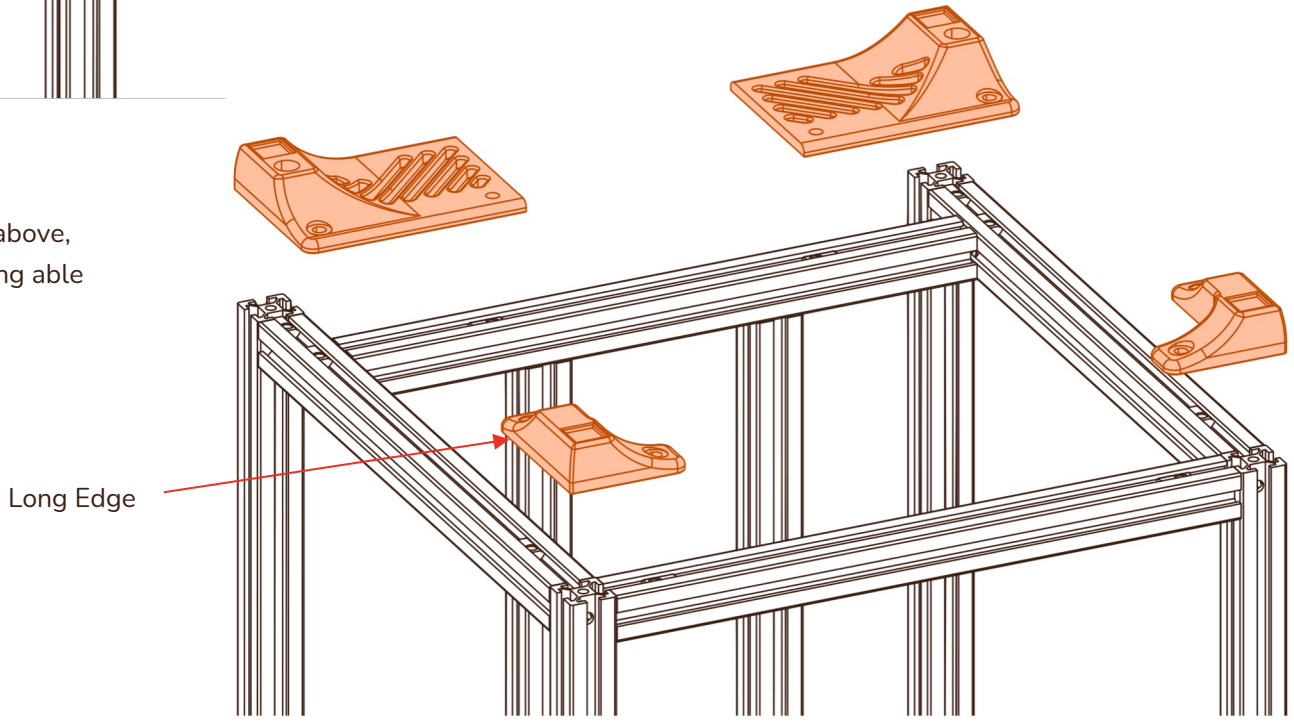


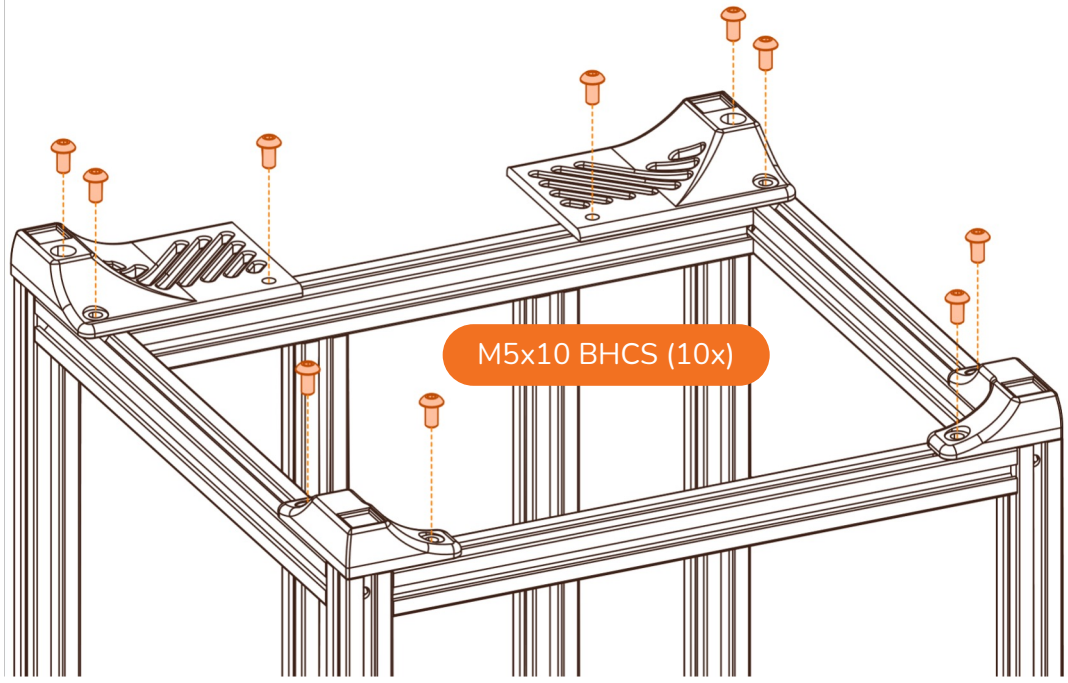
FLIP THE PRINTER OVER

These T-nuts and printed parts are for the feet. On the bottom of the frame, make sure you have the assembly oriented correctly so that it matches the pictures.

ORIENTATION MATTERS

Follow the orientation of the T-nuts as shown above, as installing them backwards results in not being able to tighten your feet prints to the frame as far.



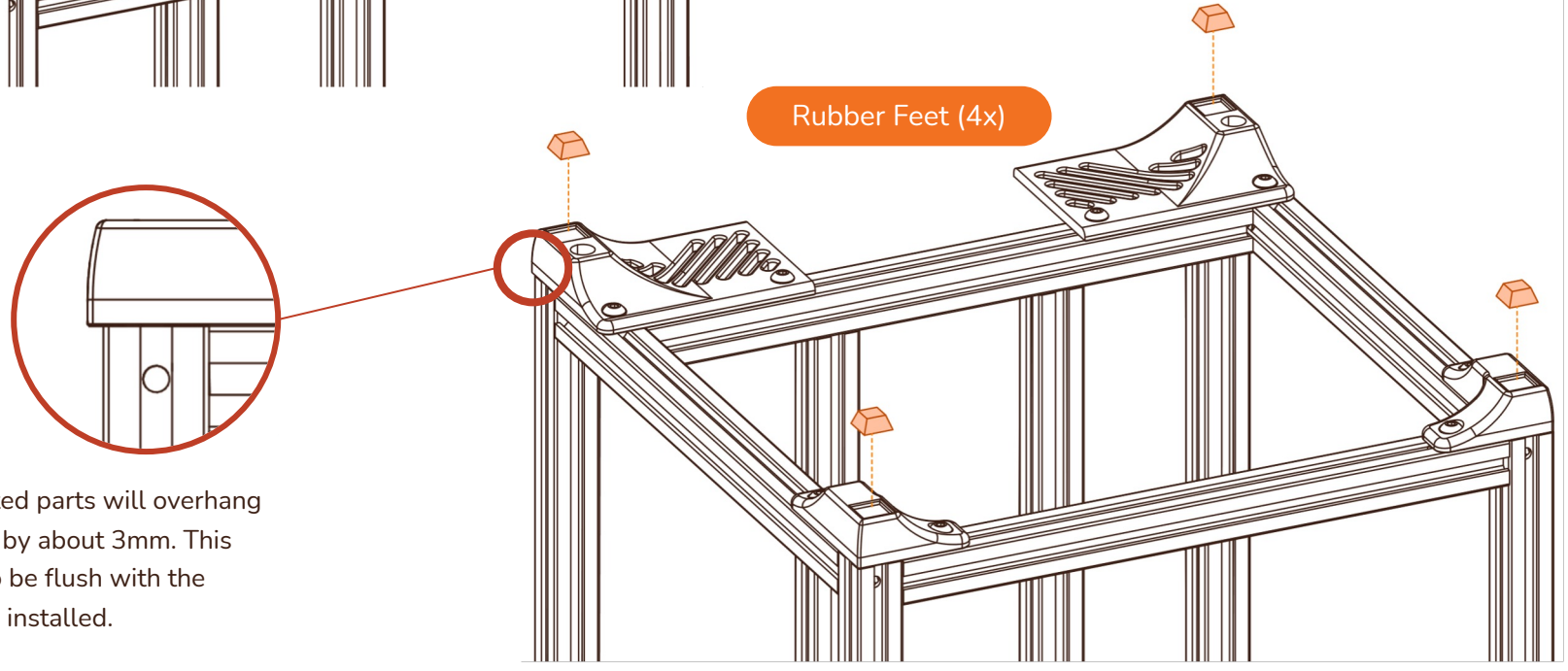


CAN'T FIND MY SHOES!

If you can't find the rubber feet in your kit, check the "Wiring Kit" box. This is because the feet keep your printer *grounded*.

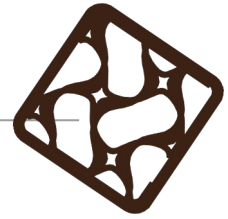
PRESSURE SENSITIVE ADHESIVE

The feet have 3M PSA pre-applied, it requires pressure to adhere correctly to the plastic parts.



MIND THE GAP

The two rear printed parts will overhang the rear extrusion by about 3mm. This will allow them to be flush with the paneling once it is installed.



Difficulty	Easy
Tools Needed	M3 Driver M5 Driver Small Phillips Screwdriver Heatset Insert Tool Soldering Iron (Not Included)
Hardware Needed	M3 Heatset Inserts (4x) M5 T-Nuts (2x) M3 T-Nuts (18x) M5x10 Button Head Cap Screw (2x) M3x8 Button Head Phillips Screw (10x) Interior Rear Panel (1x)
Printed Parts Needed	Panel Supports (2x)

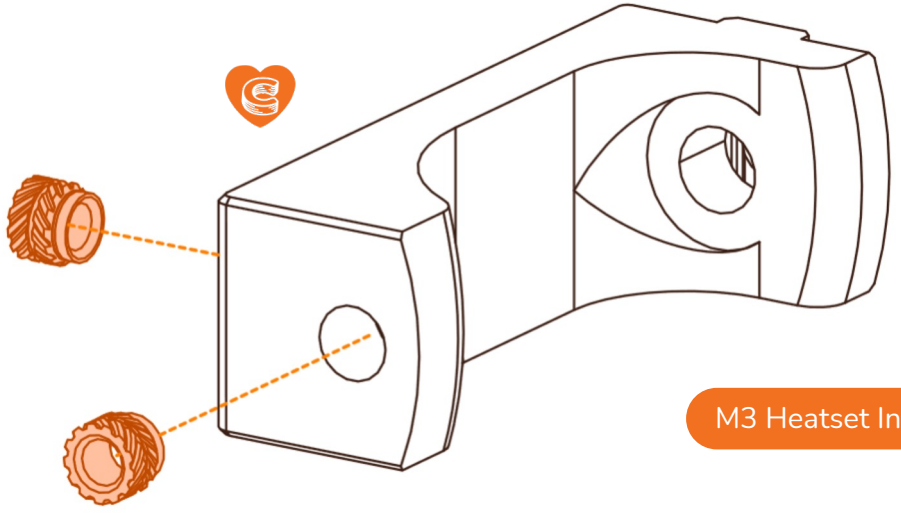
HIGH HEAT STRESSORS

The included headset insert tool may not be compatible with your soldering iron. If not, using a tip that fits the middle of the M3 iron is an acceptable substitute. See here for more information.

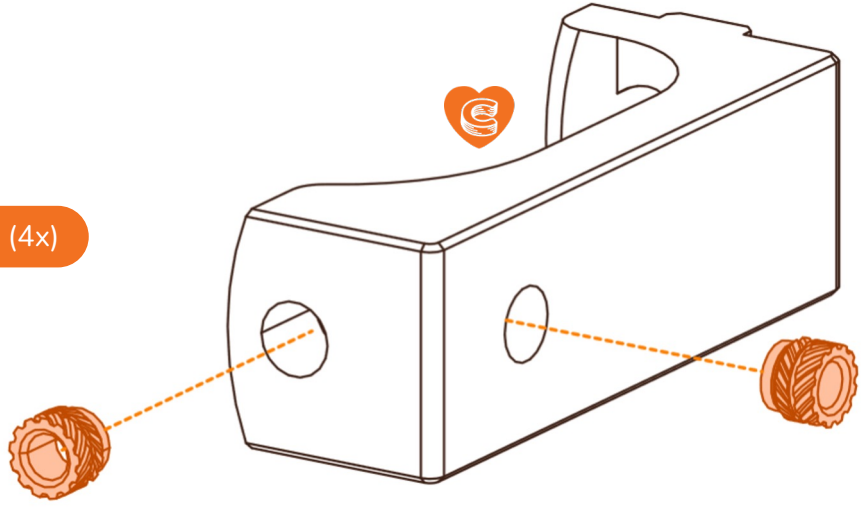
COMPONENT PREP

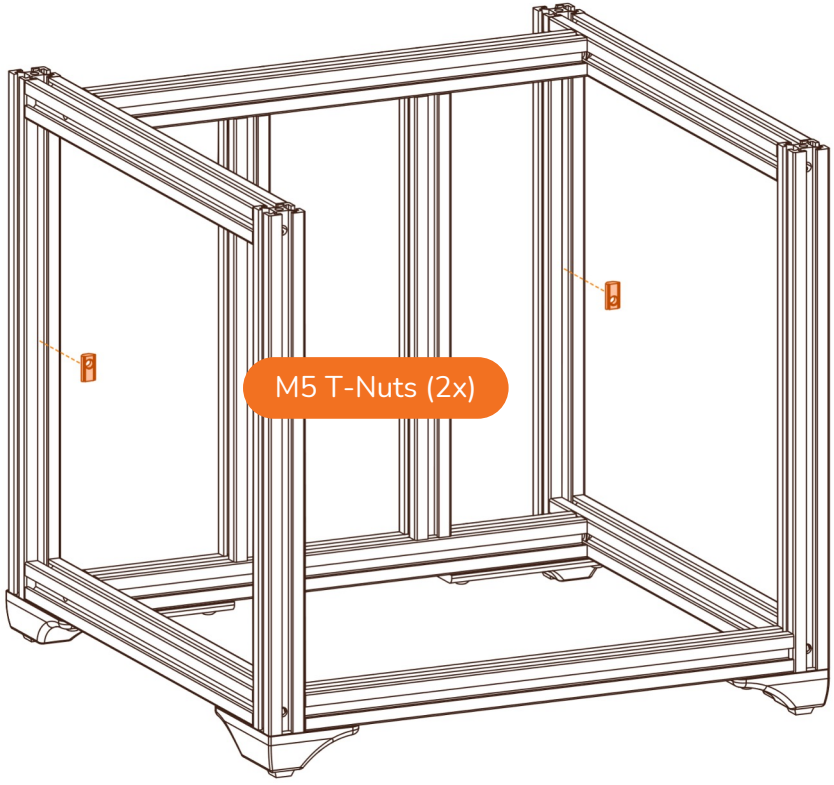
Many of the printed parts will use heatset threaded inserts. If you have never installed these, we recommend you watch the linked video.

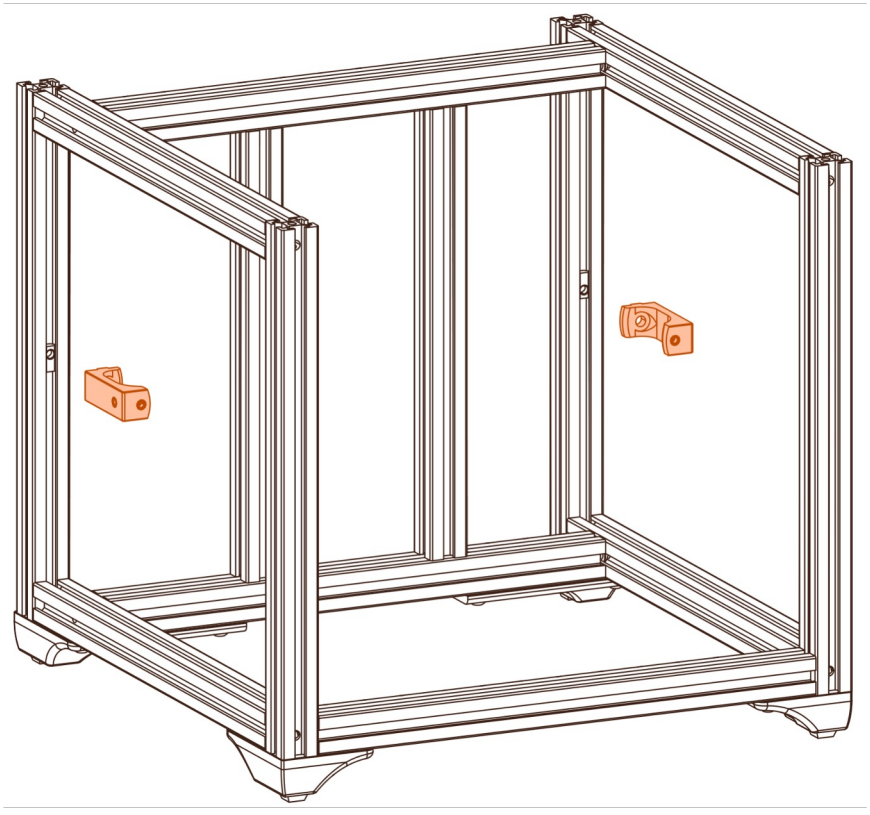
https://www.youtube.com/shorts/C2rznl1uluc

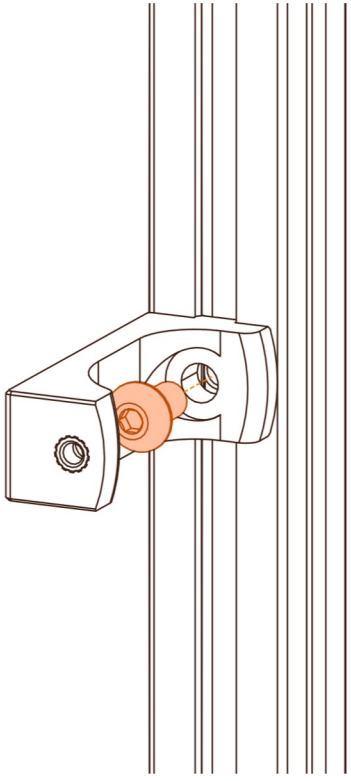


M3 Heatset Inserts (4x)

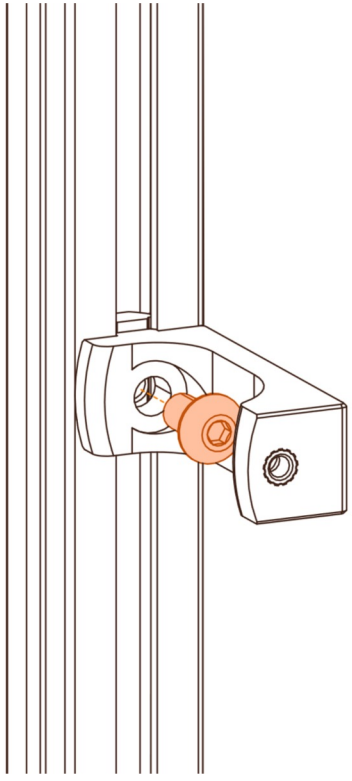



M5 T-Nuts (2x)





M5x10 BHCS (2x)

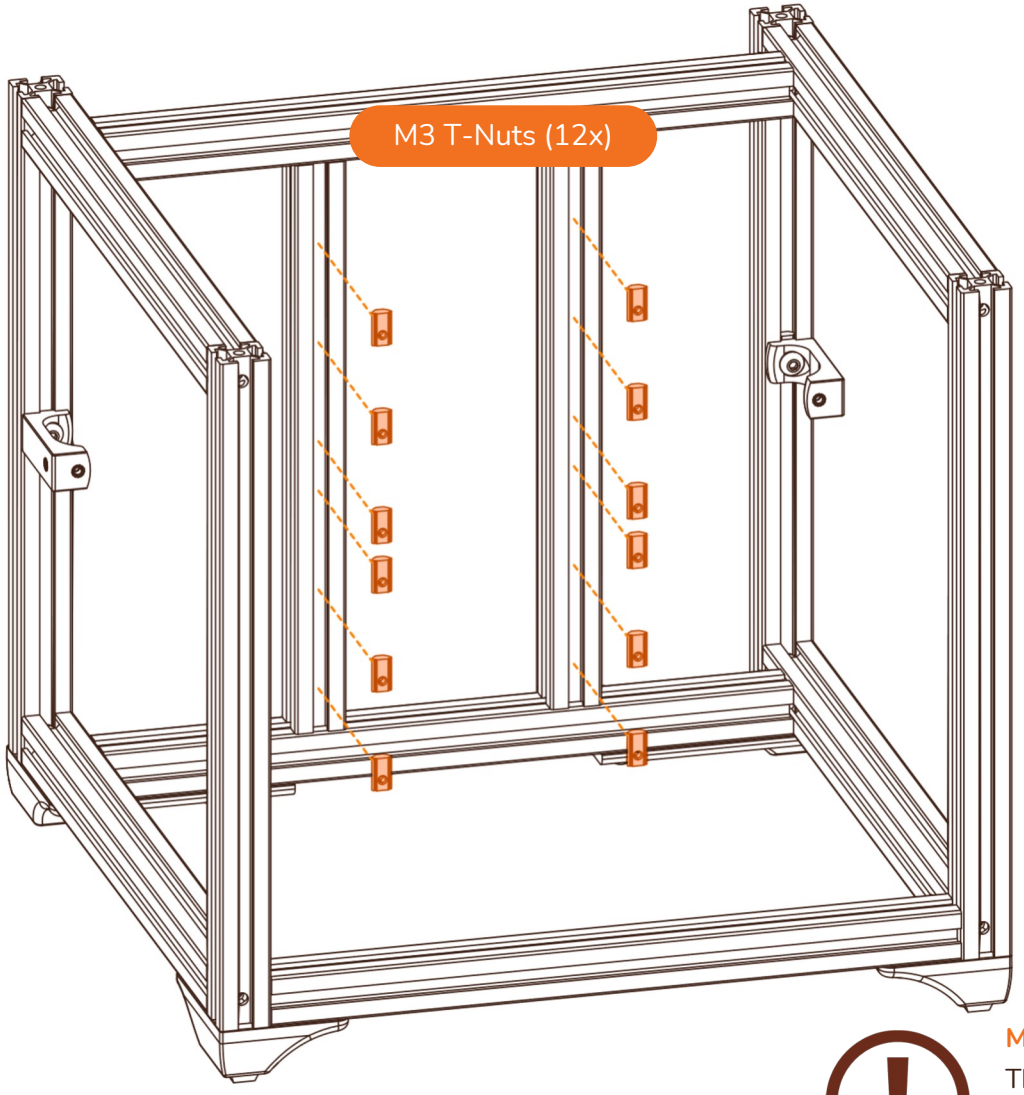


VERTICAL POSITIONING

We will align these supports with the mid panel at a later step. Their position at this time is not critical

GRAVITY IS YOUR FRIEND

Laying the printer on its back may help with the installation of the T-Nuts.



M3, WHO IS SHE?

This is the first time we use M3 T-Nuts. Be sure to select the right type as otherwise there's a significant amount of disassembly to resolve.

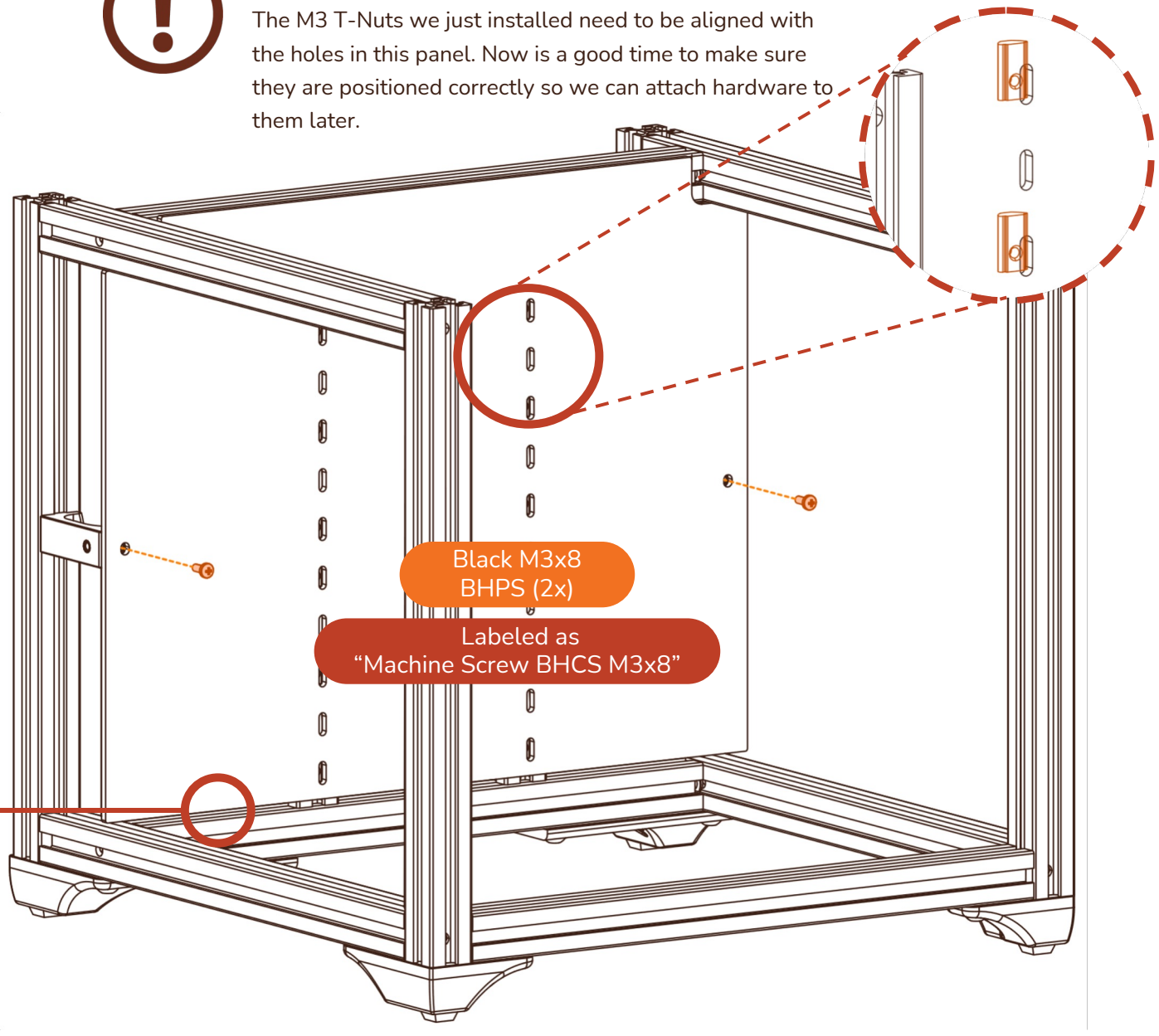
THINKING AHEAD

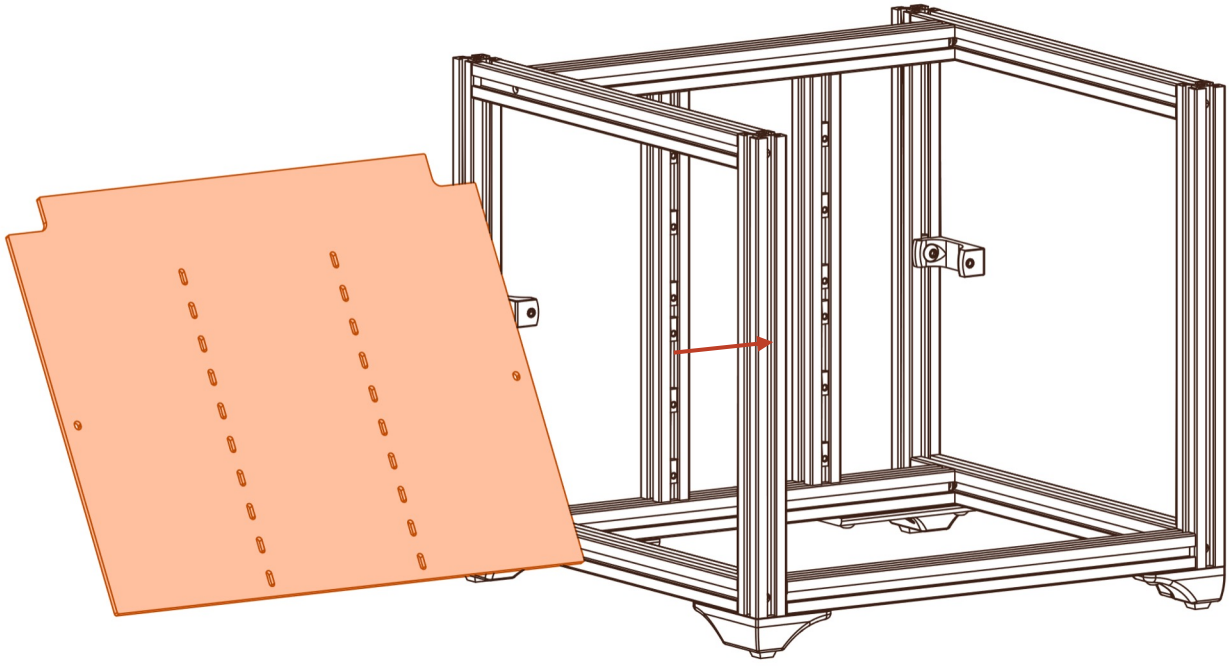
The M3 T-Nuts we just installed need to be aligned with the holes in this panel. Now is a good time to make sure they are positioned correctly so we can attach hardware to them later.

PANEL ALIGNMENT

The panel should be aligned all the way to the top. There will be a ~3mm gap between the bottom of the panel and the frame. This leaves room for the deck panel to be installed.

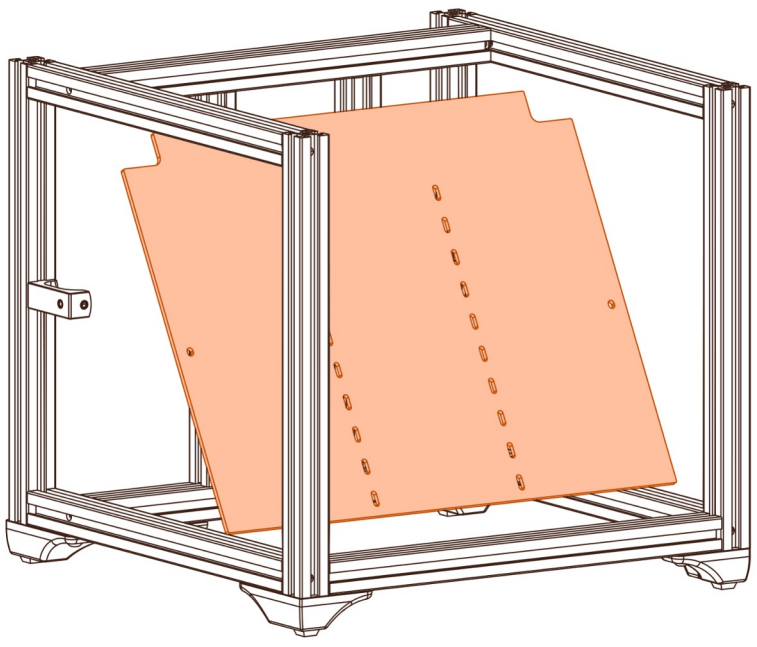
You can loosen the mid panel supports to adjust them up and down to align properly with the screw holes.

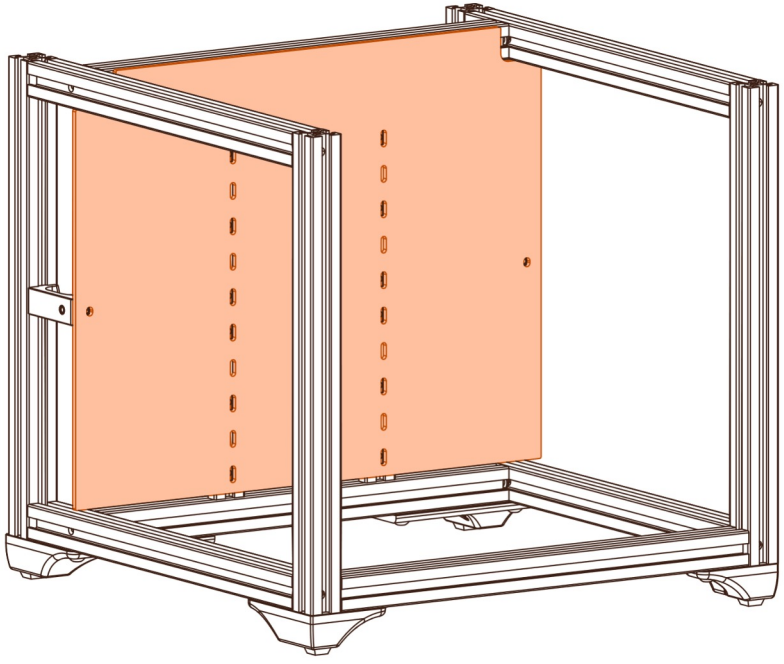


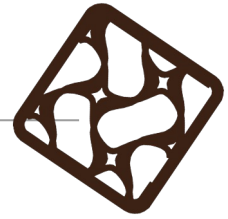


DON'T PAPER OVER THIS

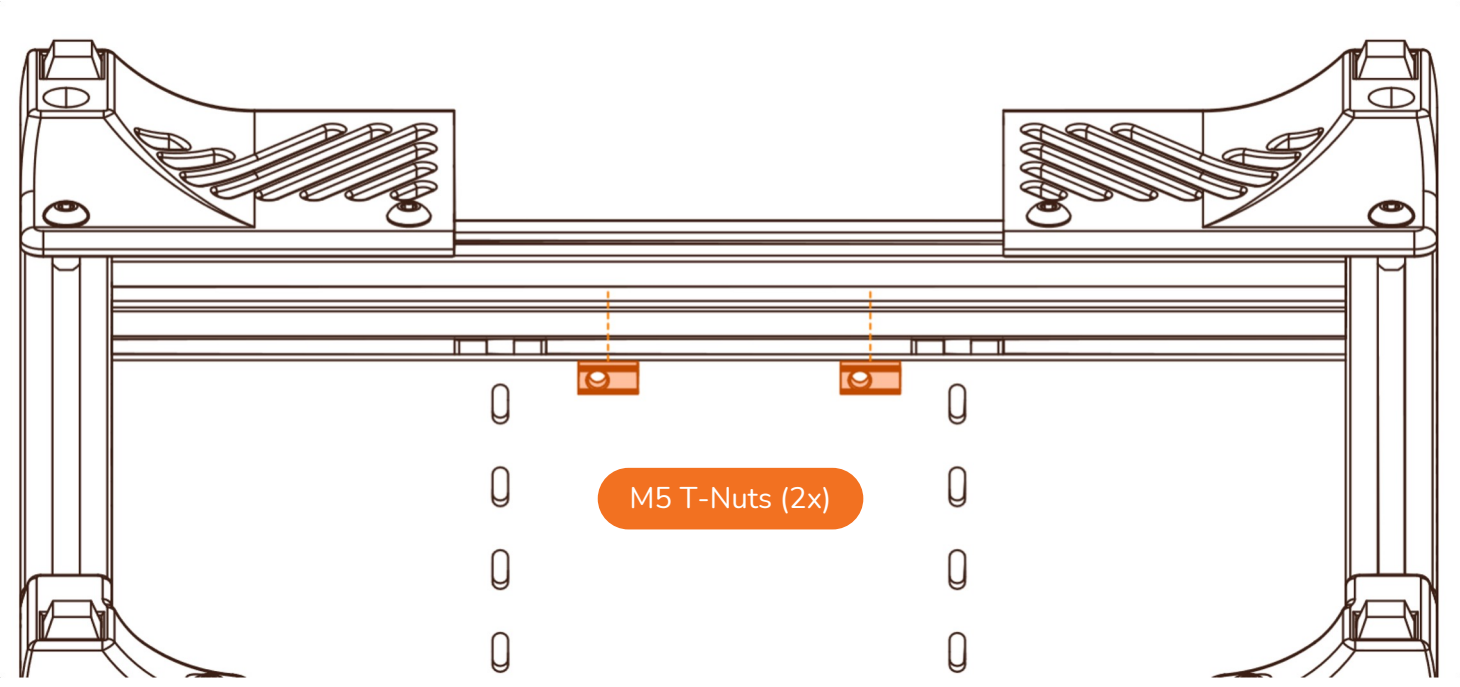
Remove the protective paper film from the acrylic before installation.





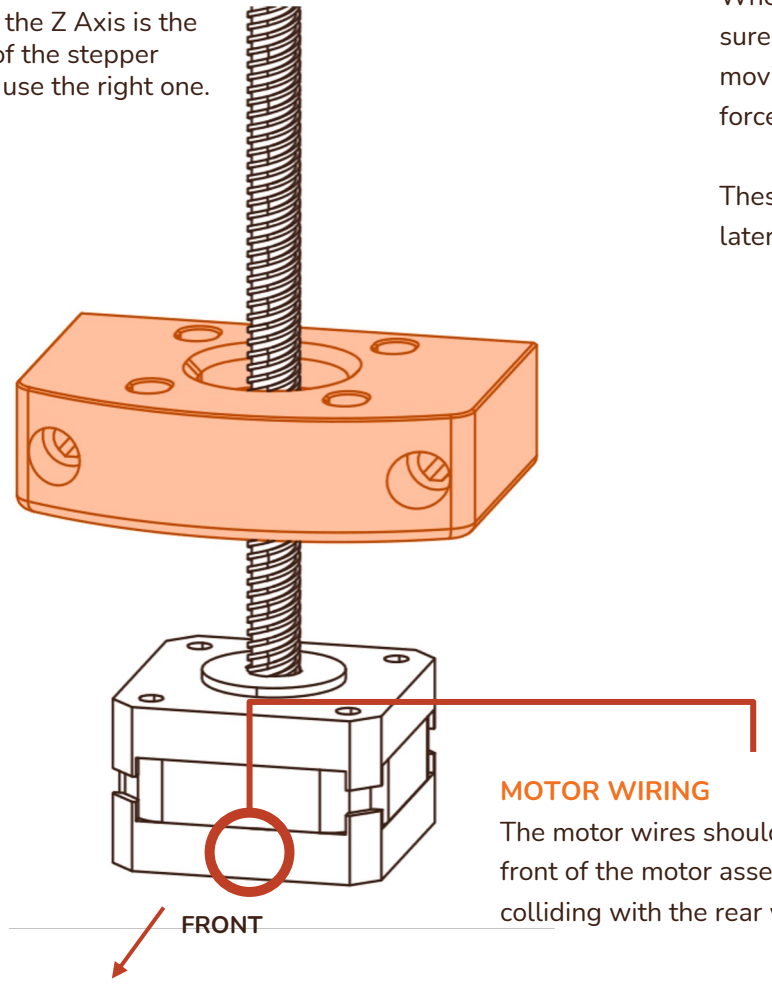


Difficulty	Easy
Tools Needed	M3 Driver M5 Driver
Hardware Needed	M5 T-Nuts (2x) M3x8 Socket Head Cap Screw (4x) M5x40 Socket Head Cap Screw (2x) Bottom Acrylic Panel (1x) Z Motor (1x)
Printed Parts Needed	Z Motor Mount (1x)


M5 T-Nuts (2x)

CHOOSE YOUR ENGINE

The motor used for the Z Axis is the smallest / lightest of the stepper motors. Be sure to use the right one.



MOTOR WIRING

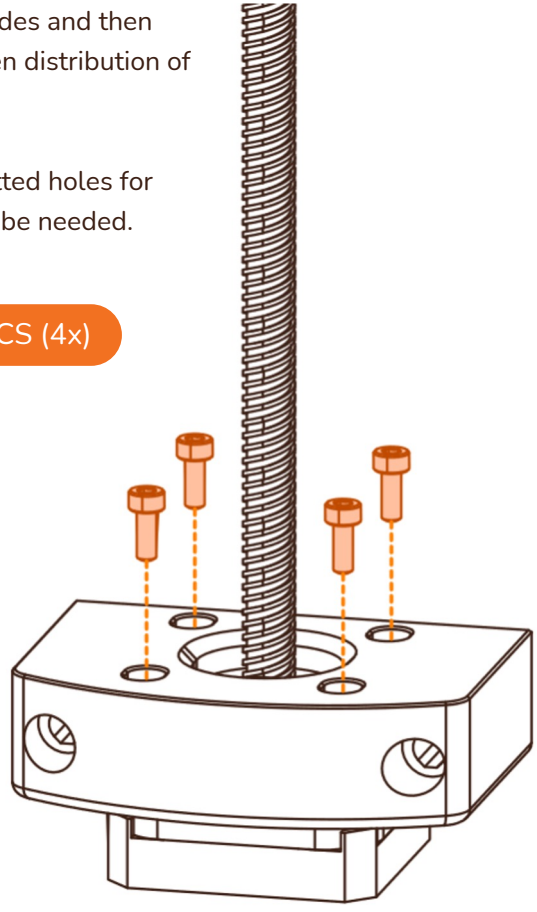
The motor wires should exit through the front of the motor assembly to avoid colliding with the rear wiring cover later.

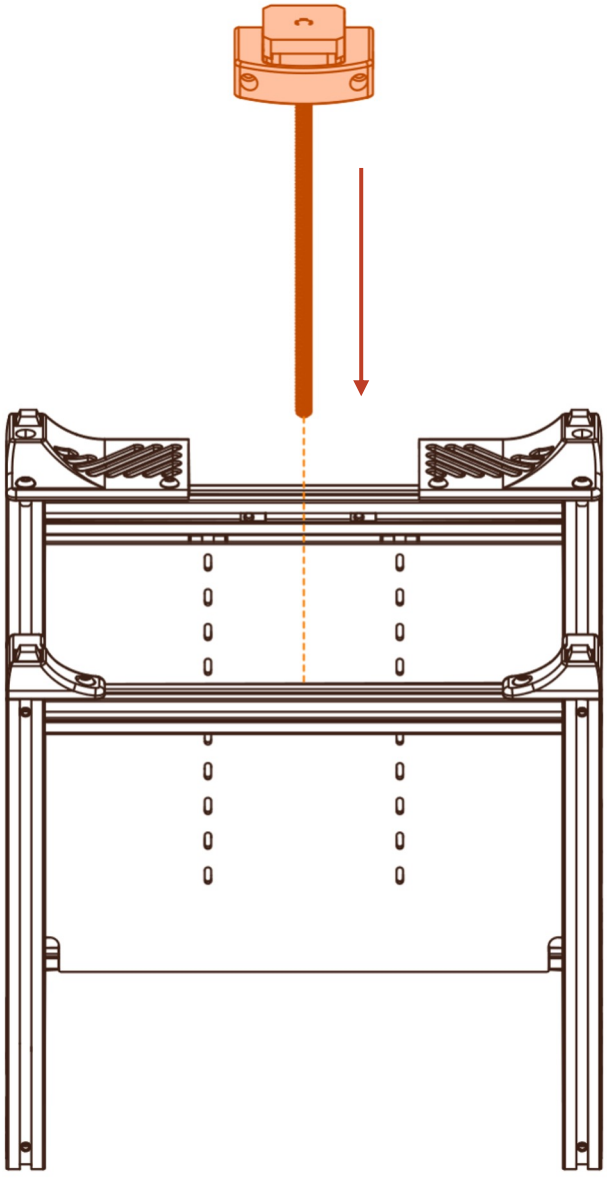
DIAGONALS REACT

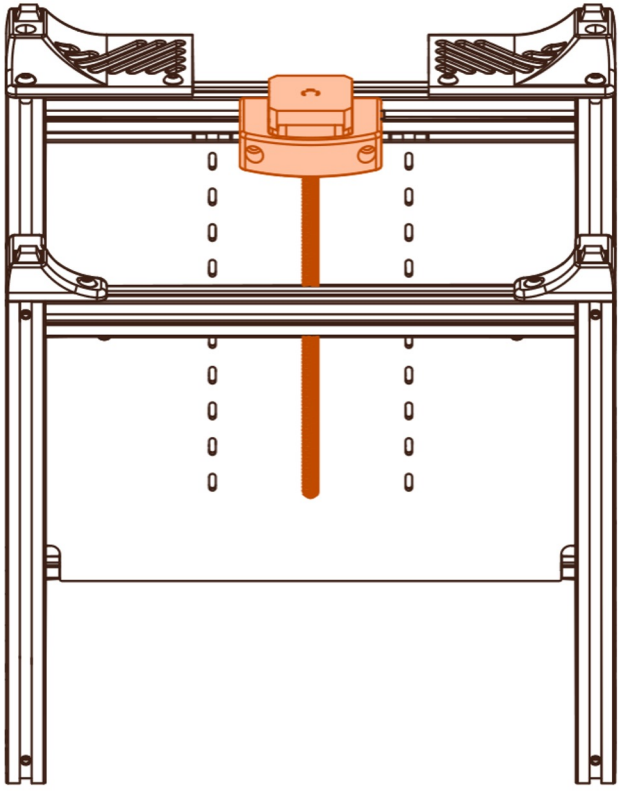
When tightening the M3x8 fasteners, be sure to tighten opposite sides and then moving over to ensure even distribution of forces on the motor.

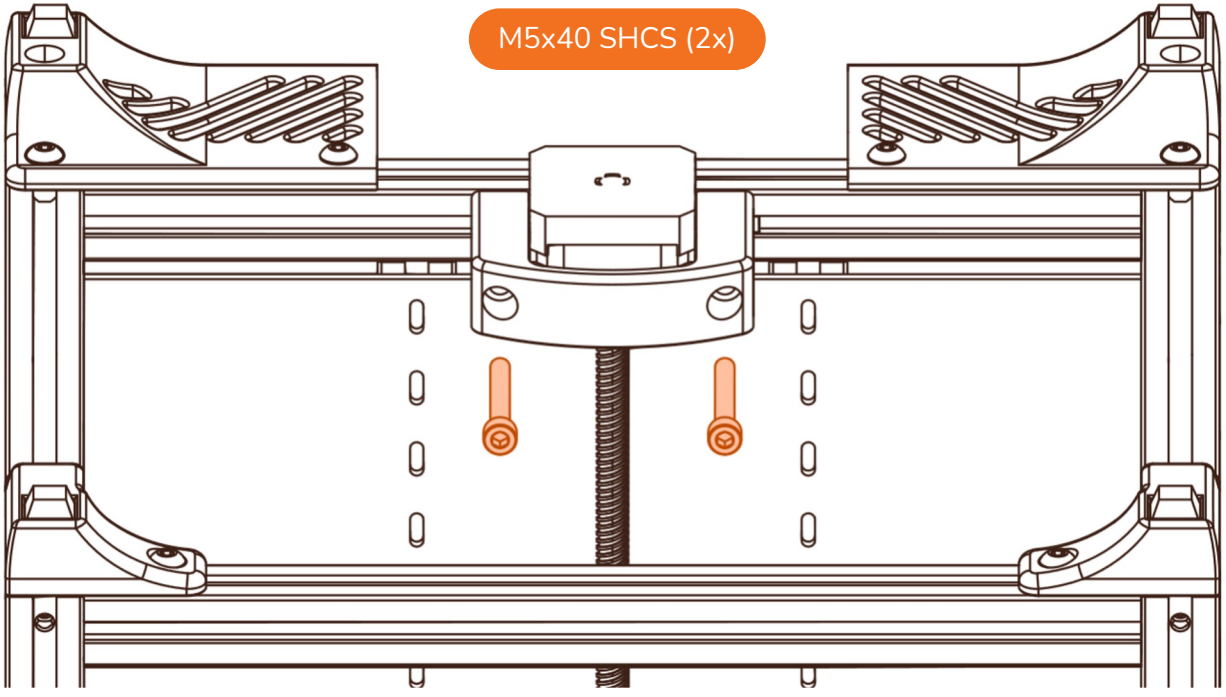
These fasteners are in slotted holes for later adjustment should it be needed.

M3x8 SHCS (4x)



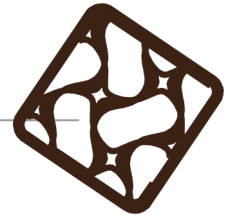




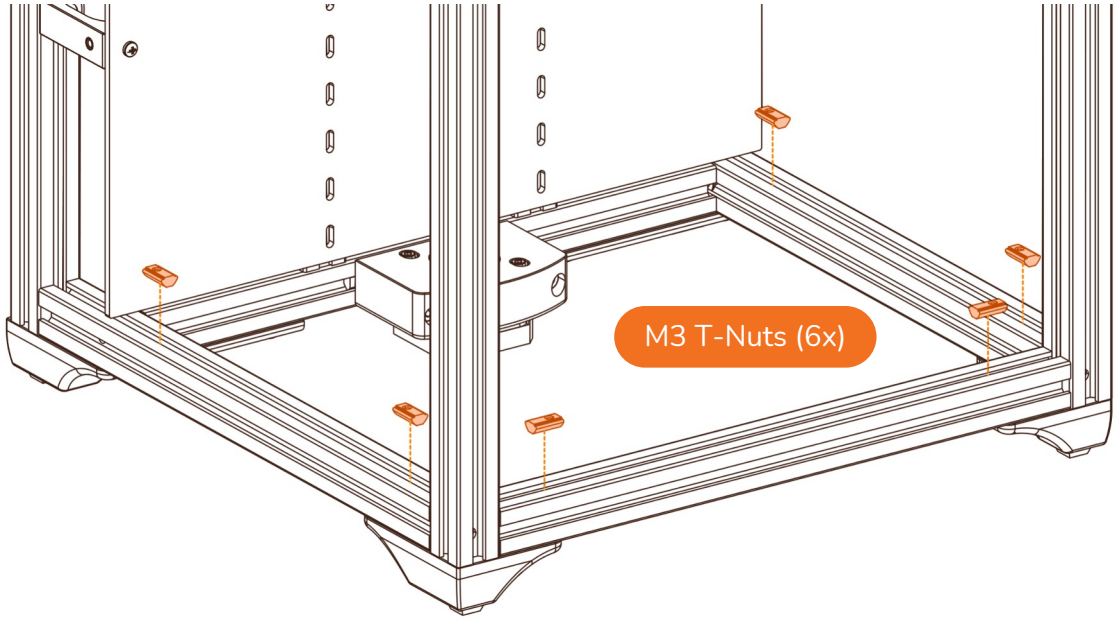


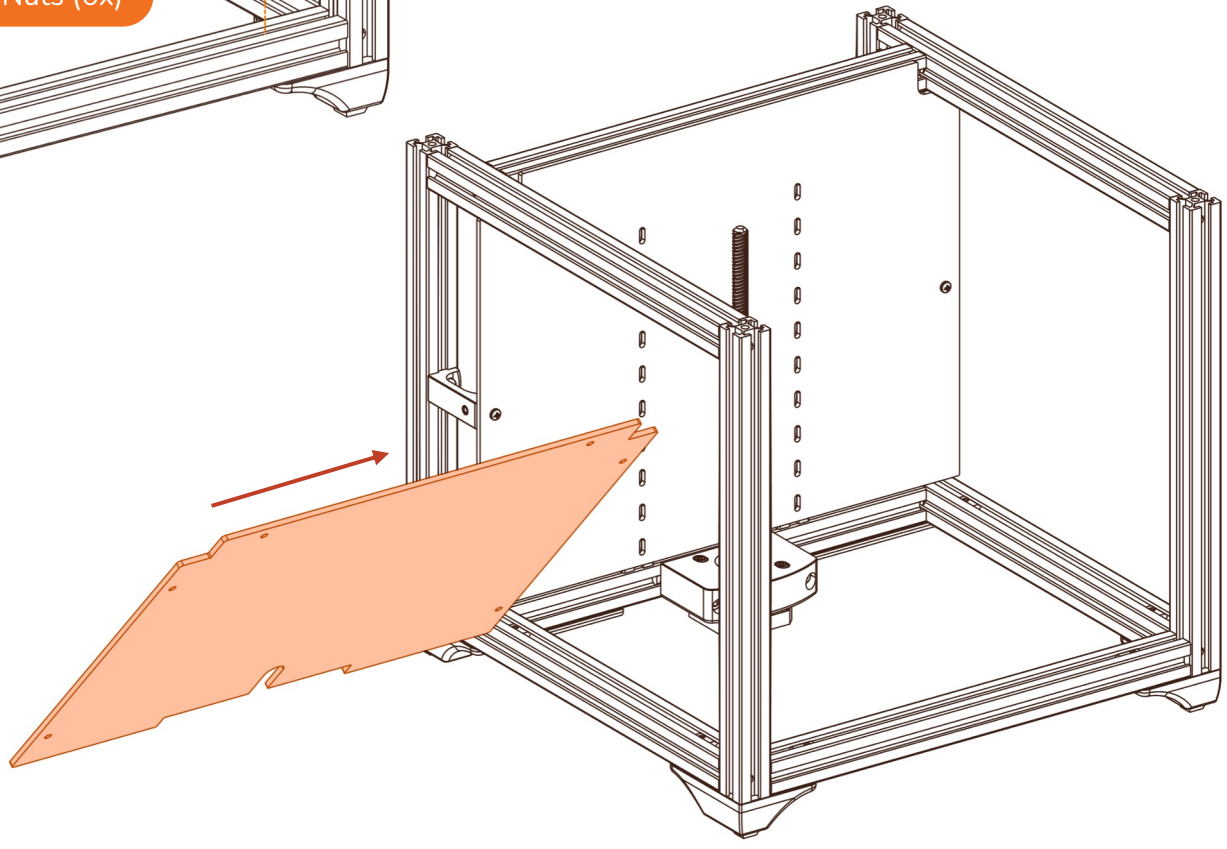
CENTER THE Z MOTOR

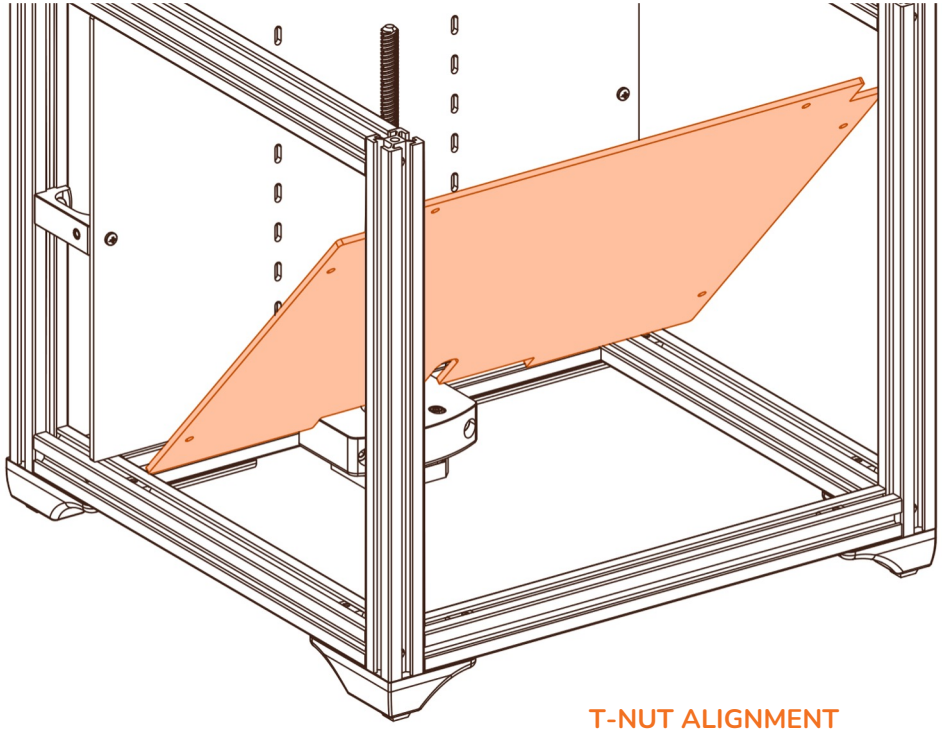
The Z motor should be positioned an equal distance from each side in order for proper bed alignment later on.

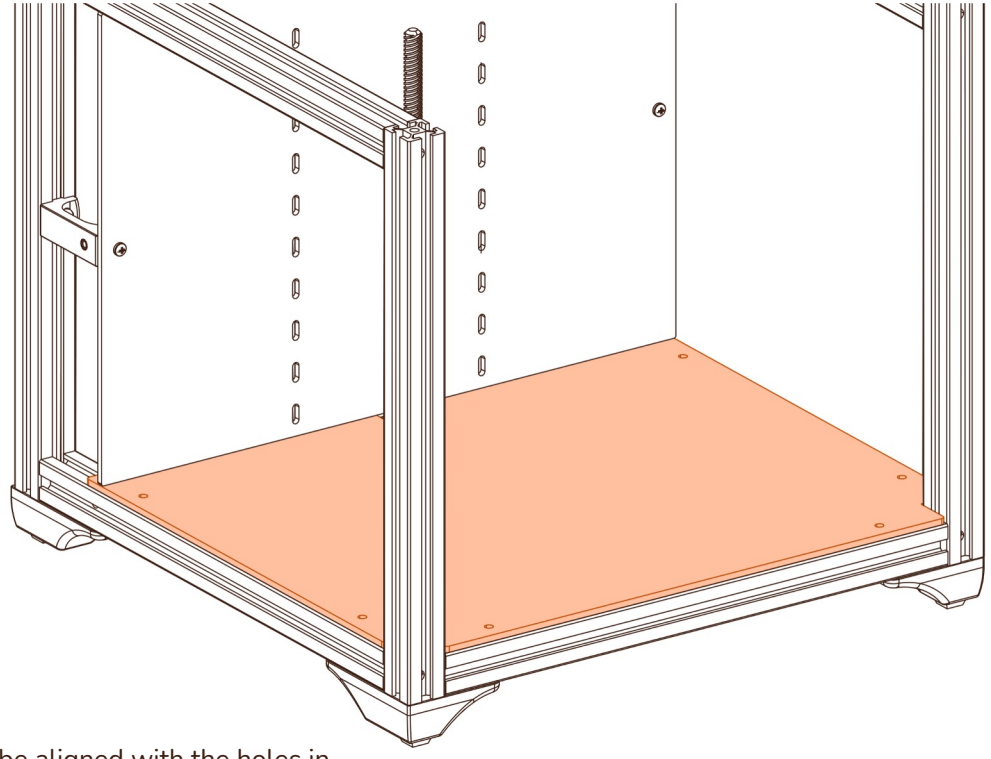


Difficulty	Easy
Tools Needed	M3 Driver Small Phillips Screwdriver
Hardware Needed	M3 Button Head Phillips Screw (6x) M3 T-Nuts (6x)
Printed Parts Needed	None


M3 T-Nuts (6x)

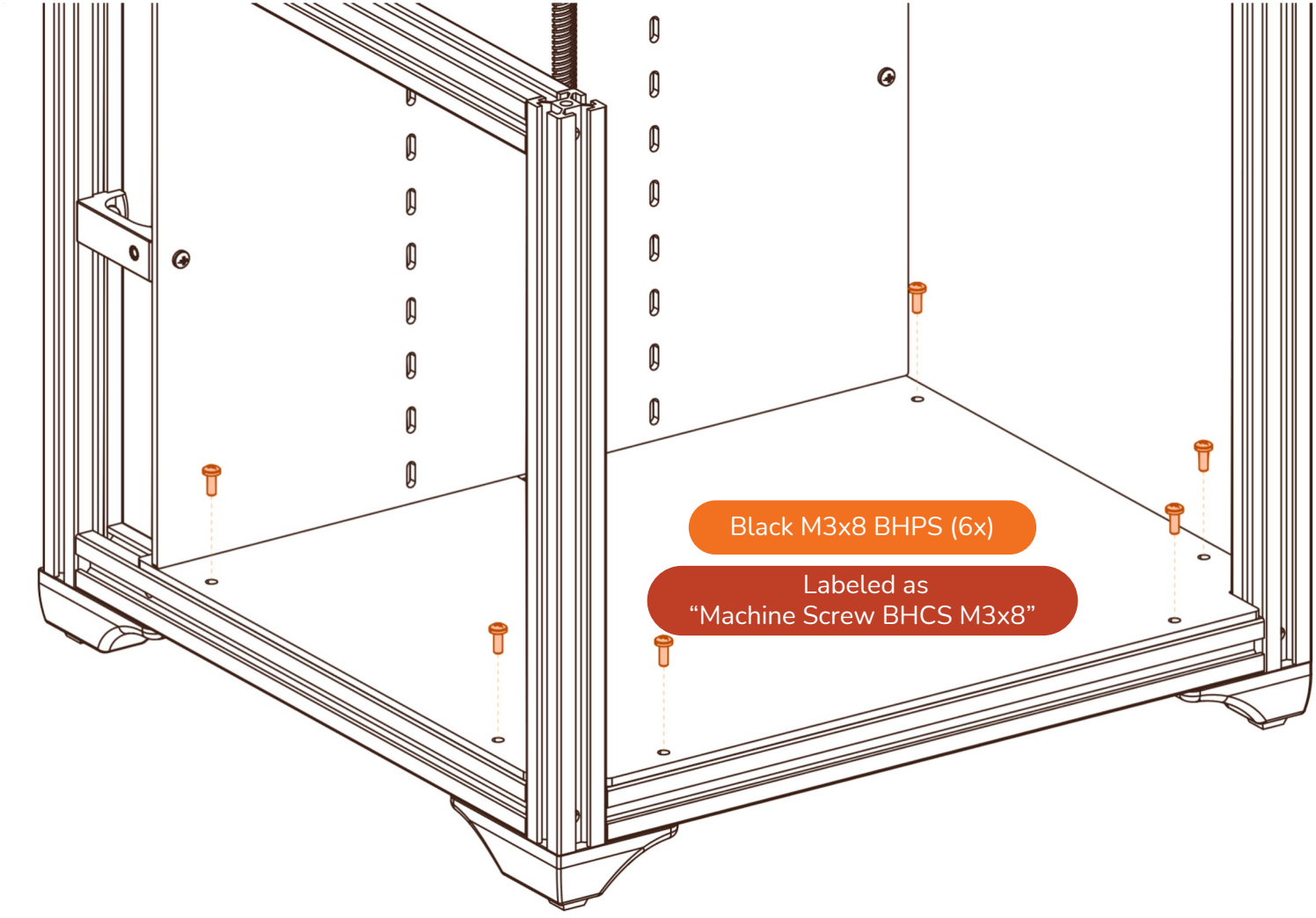


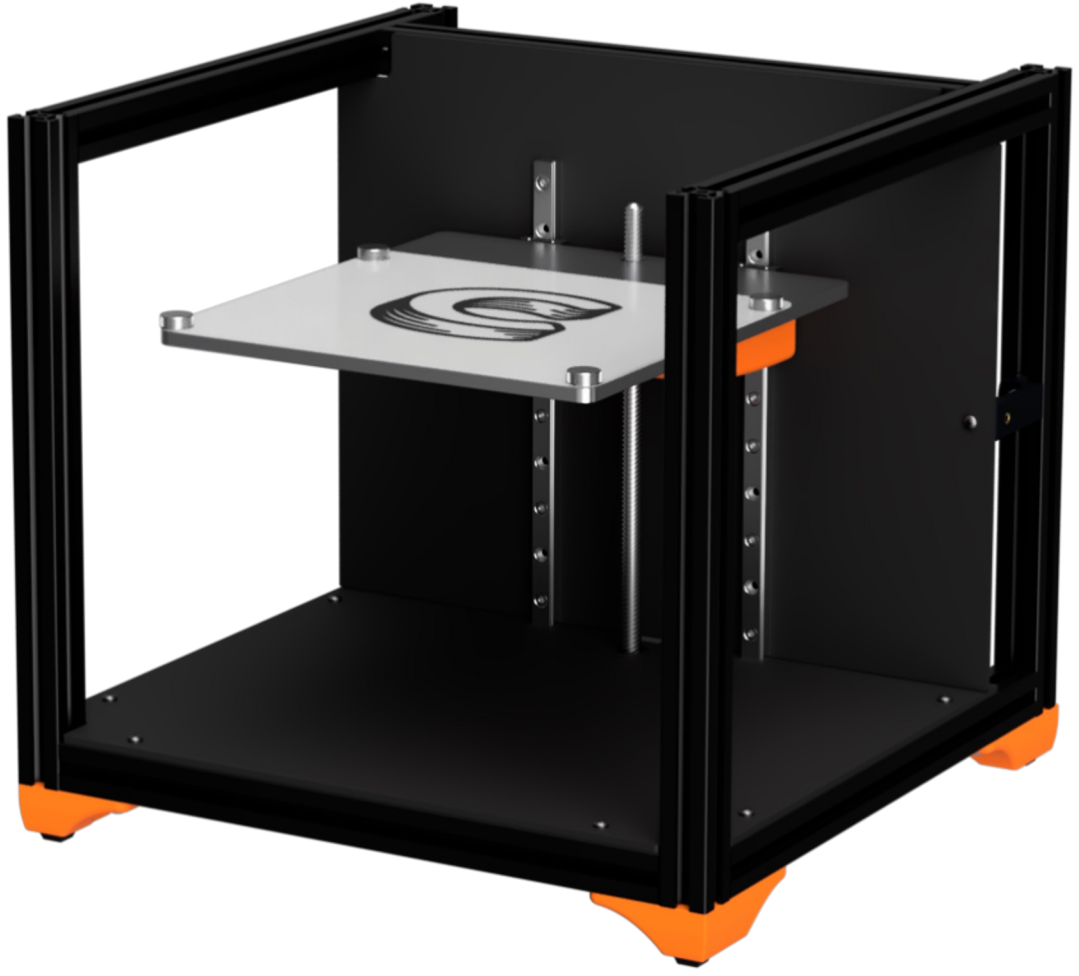


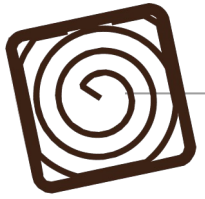


T-NUT ALIGNMENT

The T-Nuts we installed need to be aligned with the holes in this panel. Holding the edge of the panel up to the extrusion can make ensuring the correct spacing for the T-nuts easier.

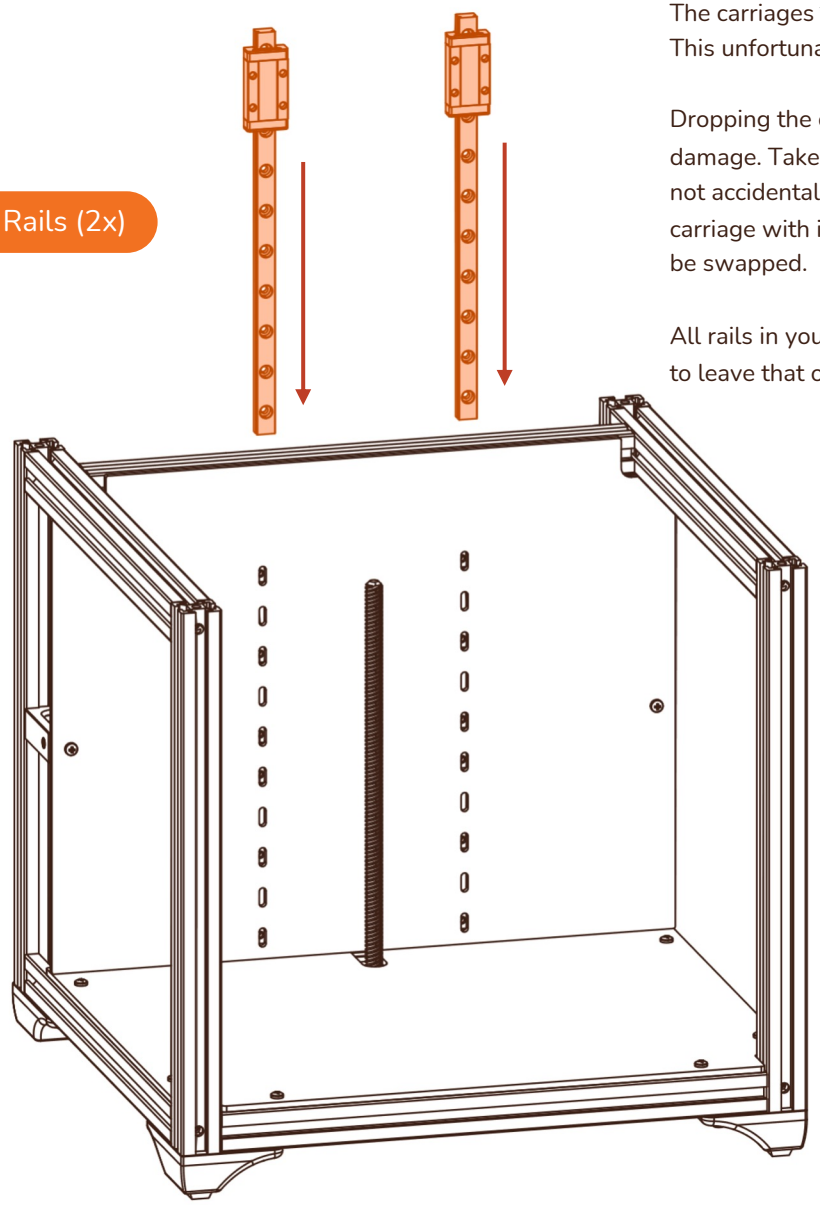

Black M3x8 BHPS (6x)
Labeled as
“Machine Screw BHCS M3x8”





Difficulty	Medium
Tools Needed	M3 Driver M5 Driver
Hardware Needed	M3x10 Socket Head Cap Screw (12x) M3x40 Socket Head Cap Screw (8x) Anti-Backlash Leadscrew Nut (Top+Bottom+Spring, 1x) Aluminum Bed (1x) M5x30 Button Head Cap Screw (4x) M3x8 Socket Head Cap Screw (2x) M4 Thumbscrews (4x)
Printed Parts Needed	Z Carriage Block Left (1x) Z Carriage Block Right (1x)

MGN9 Rails (2x)



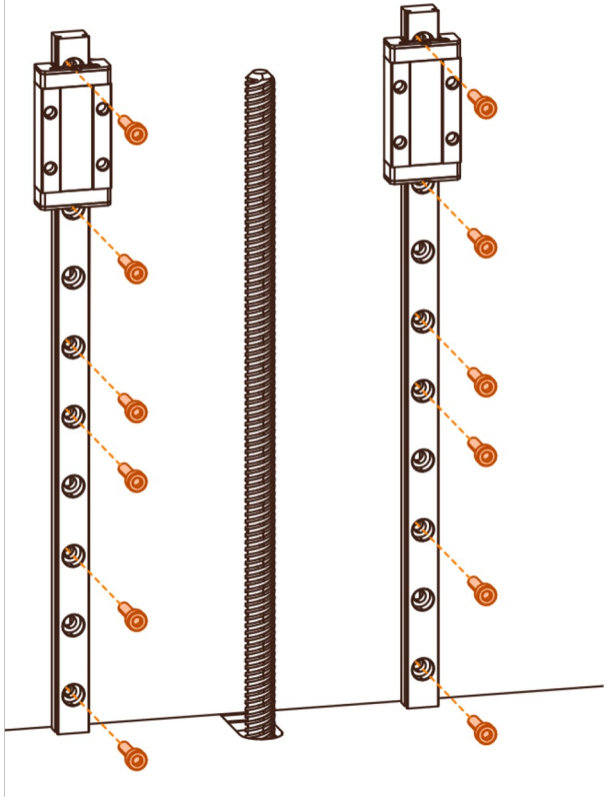
MIND THE CARRIAGES

The carriages are designed to slide along the rail easily. This unfortunately also includes sliding off the rails.

Dropping the carriage will likely result in irreparable damage. Take extra care to ensure that the carriages do not accidentally slide completely off the rails. Keep each carriage with its respective rail, as they are not meant to be swapped.

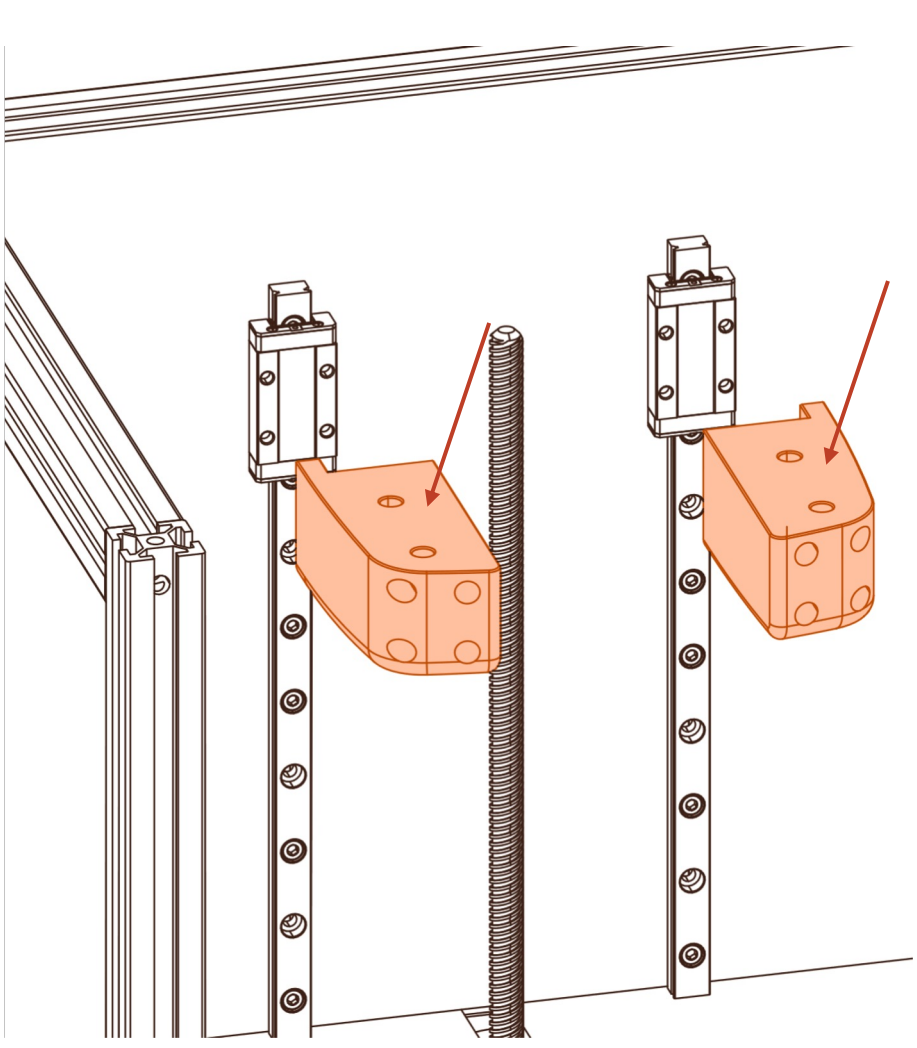
All rails in your kit are the same *except* for one. Be sure to leave that one for the Toolhead Assembly.

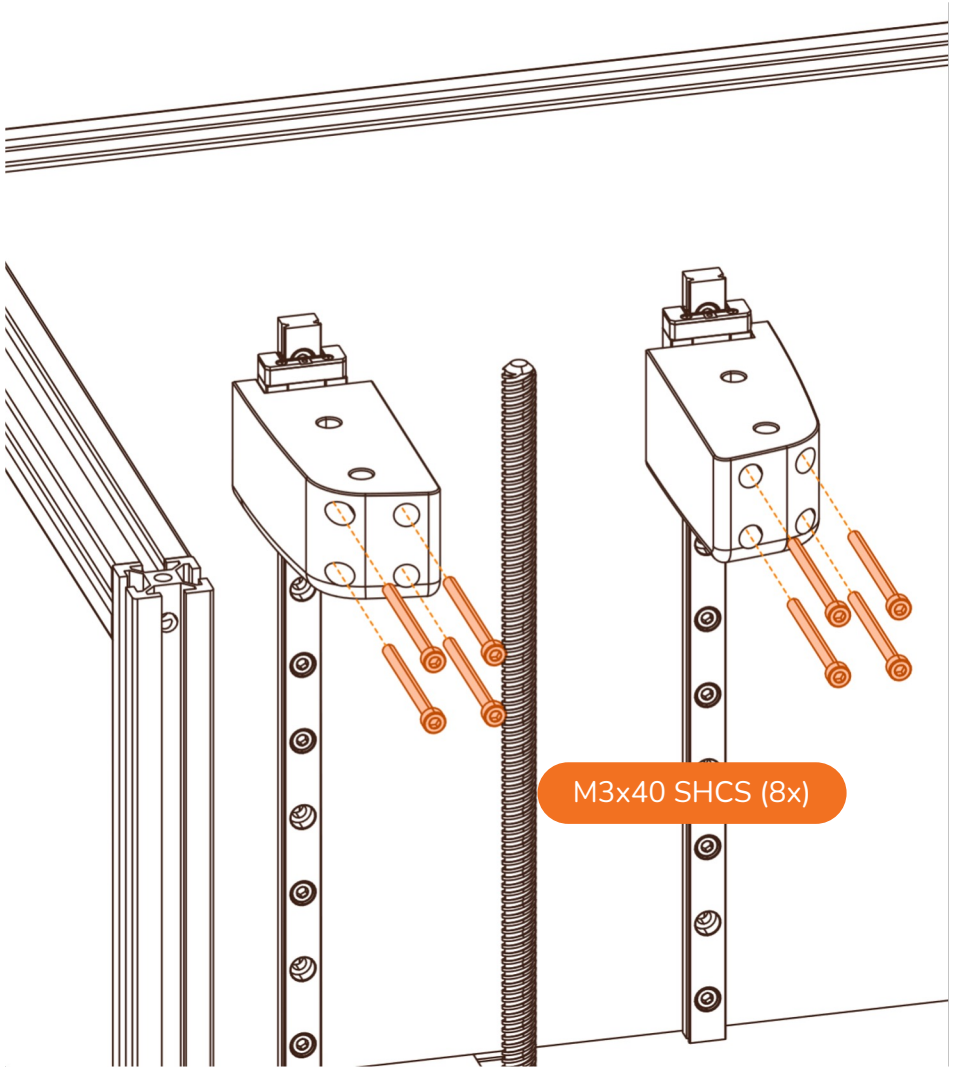
M3x10 SHCS (12x)

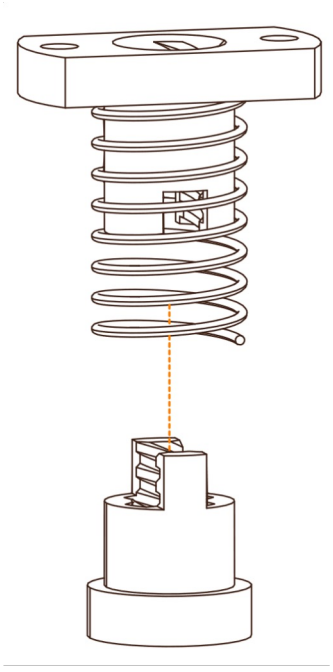


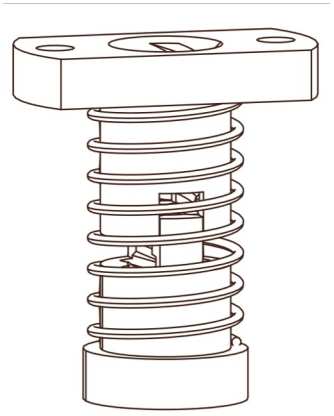
FLAT AS FLATLAND

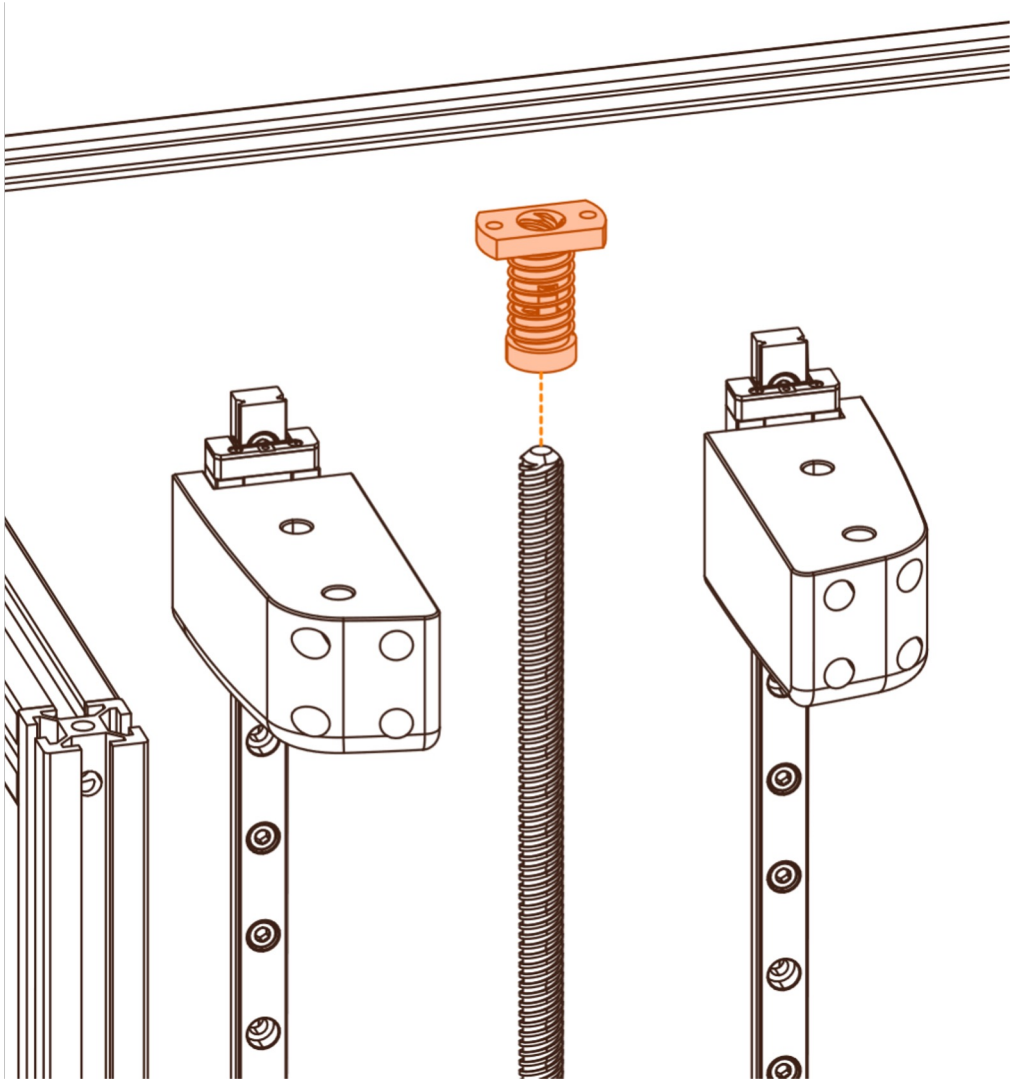
These printed parts need to be as flat as possible on the top surface that the bed plate rests on. Failure to have a flat bed plate can and will result in warping and distortion when attempting to calibrate the printer.











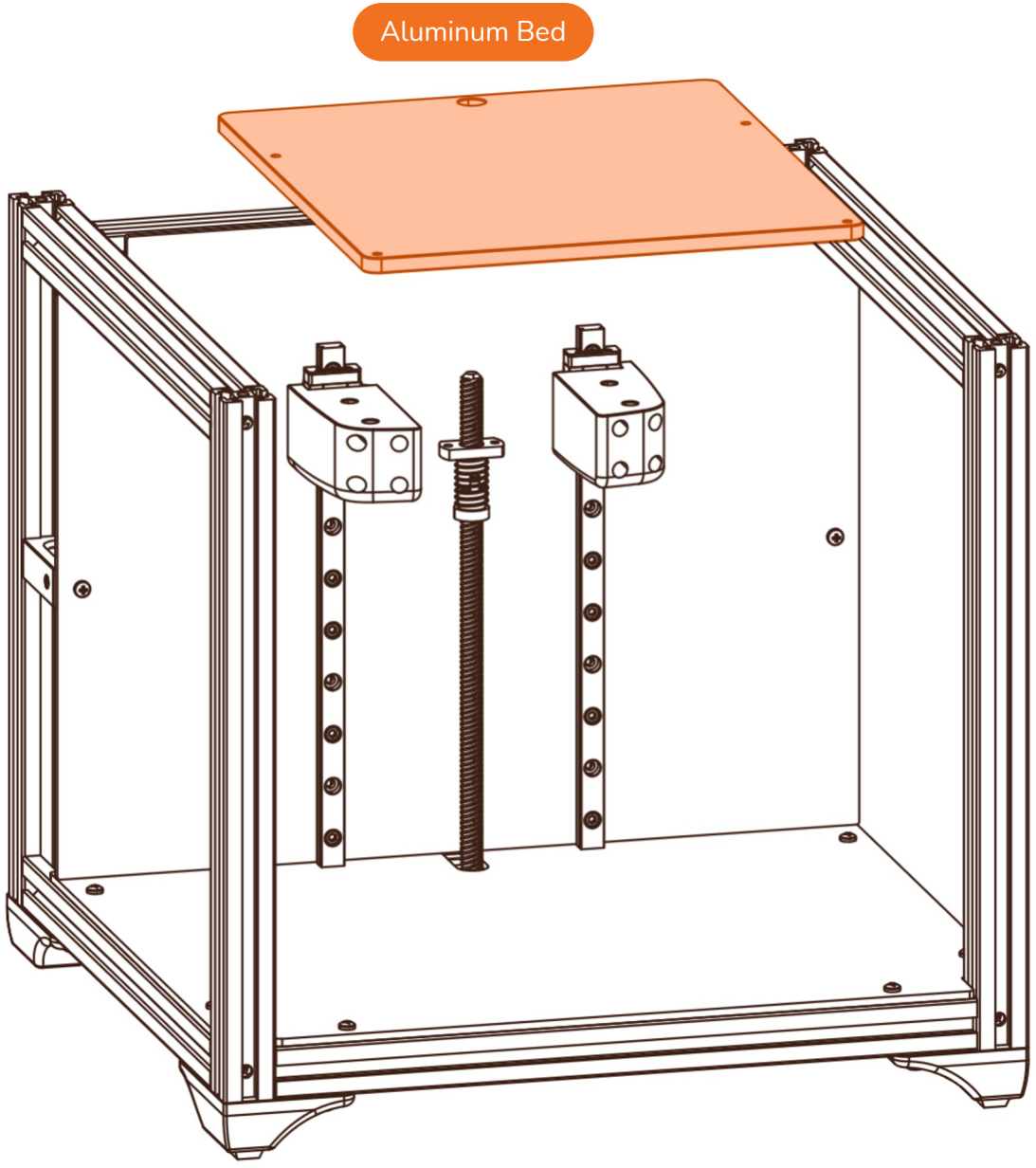
ANTI-BACKLASH

The anti-backlash nut works by applying constant pressure on the leadscrew threads. In order for it to function correctly, it must be compressed and then loaded onto the lead crew such that the two pieces cannot spin independently.

Refer to the linked video for assembly.

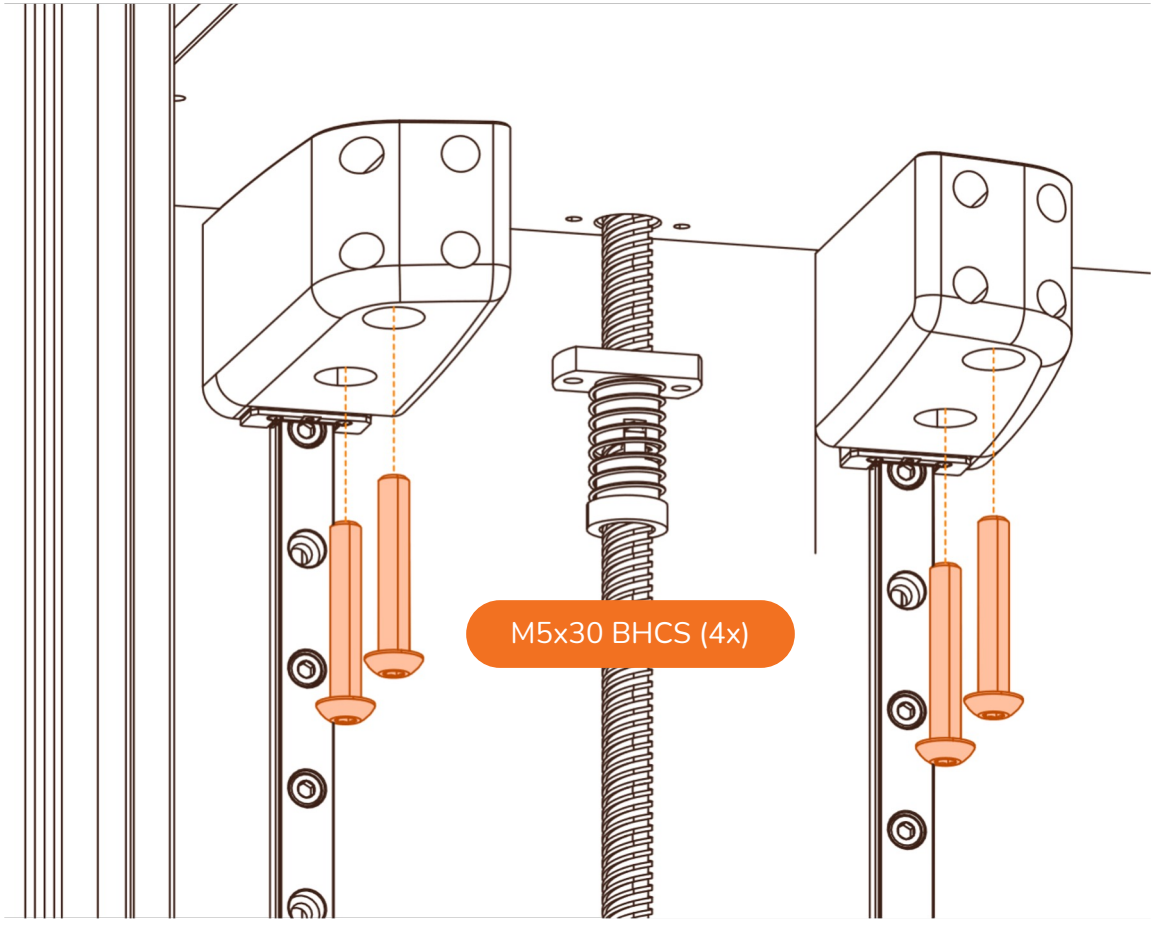
Tip: If you can't find the anti-backlash nut, it'll be in the same box as your motors.

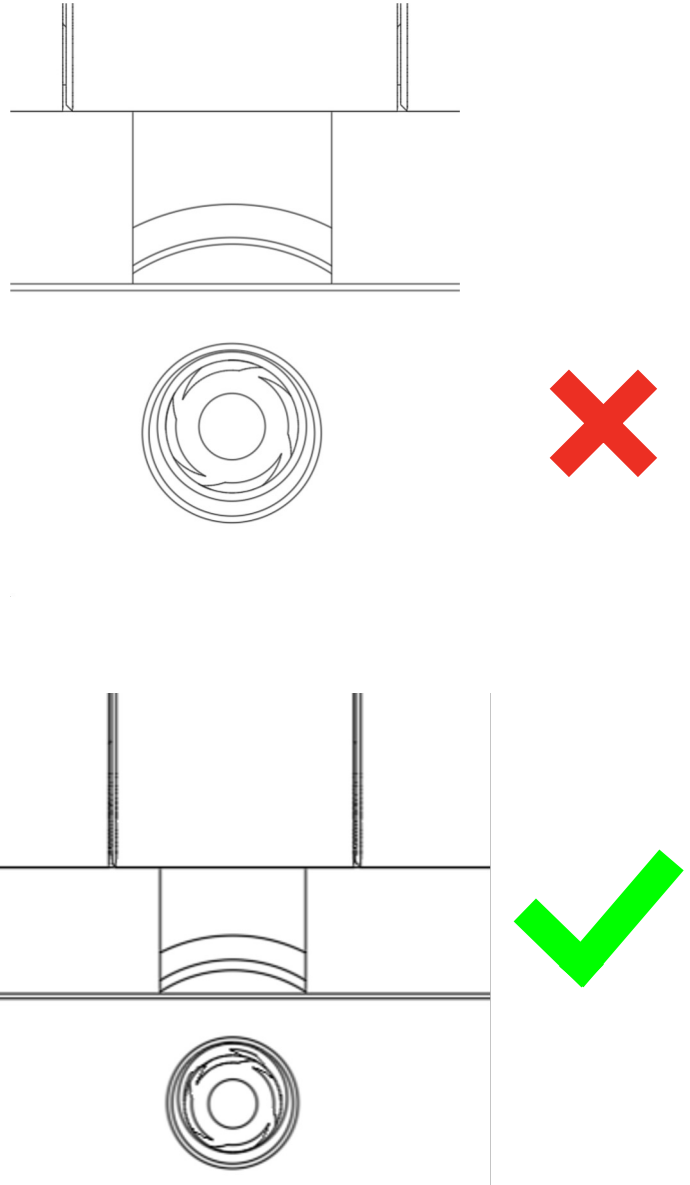
https://www.youtube.com/shorts/Y4ScC2dLILY


Aluminum Bed

STAY IN THE MIDDLE

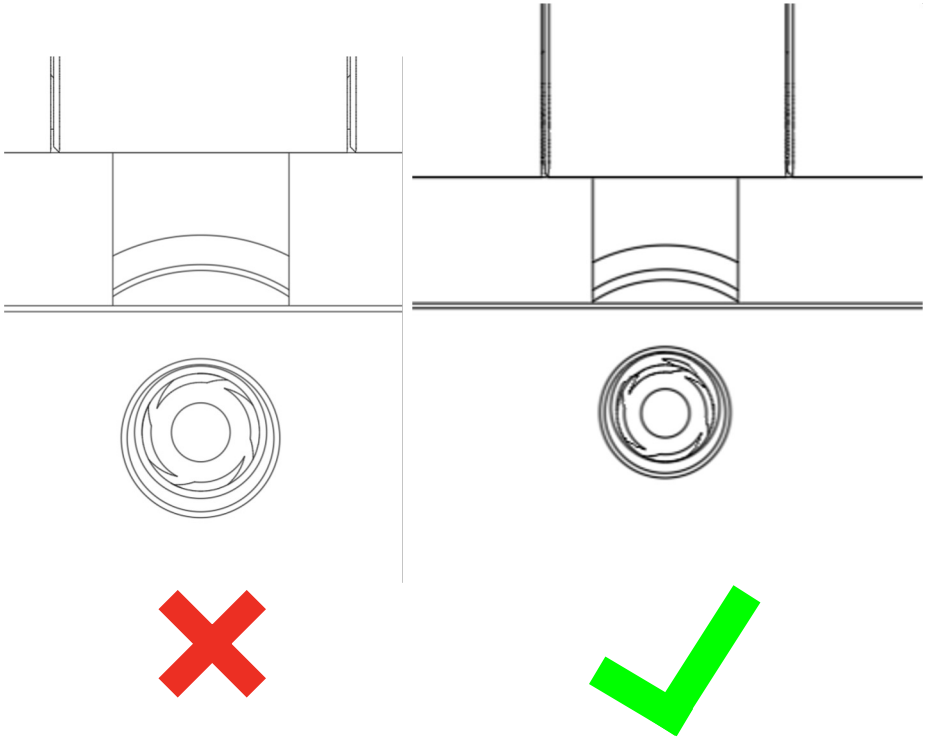
Looking at the Z axis leadscrew, check that the hole in the bed plate is centered on the leadscrew. If not, you'll need to follow the steps on the next page.

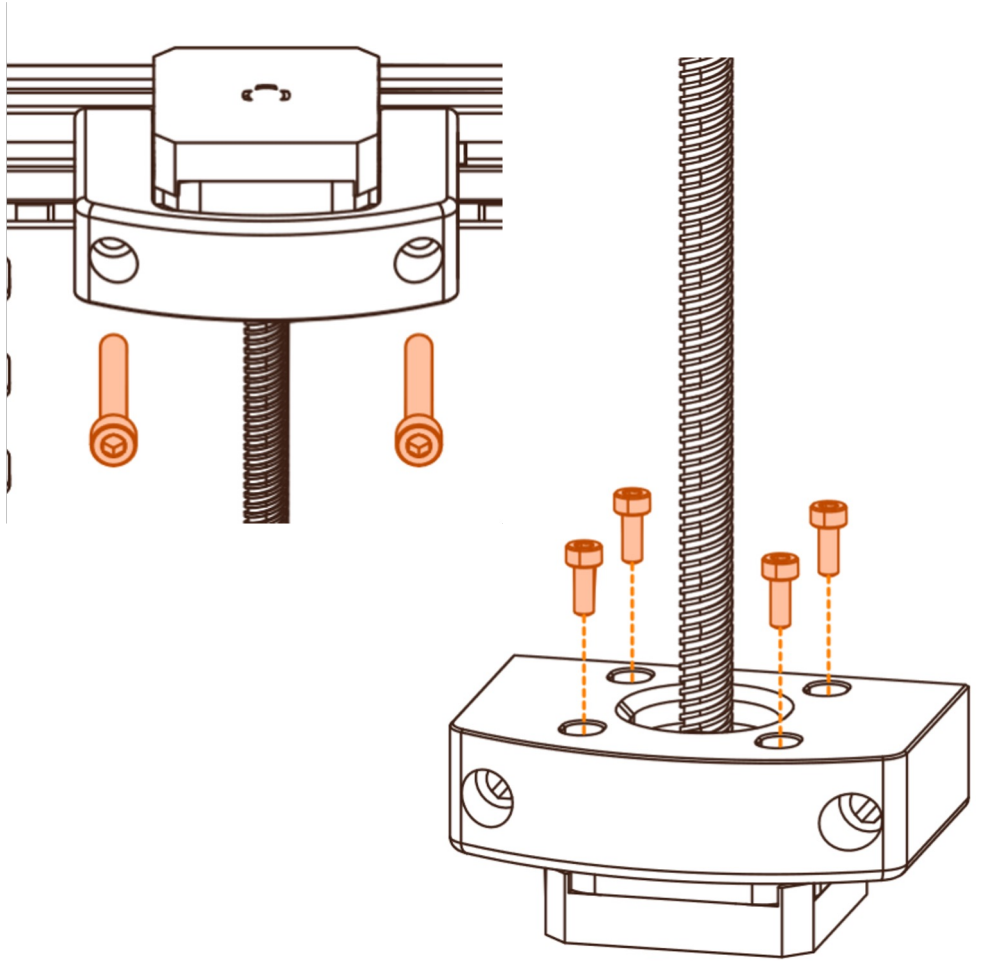


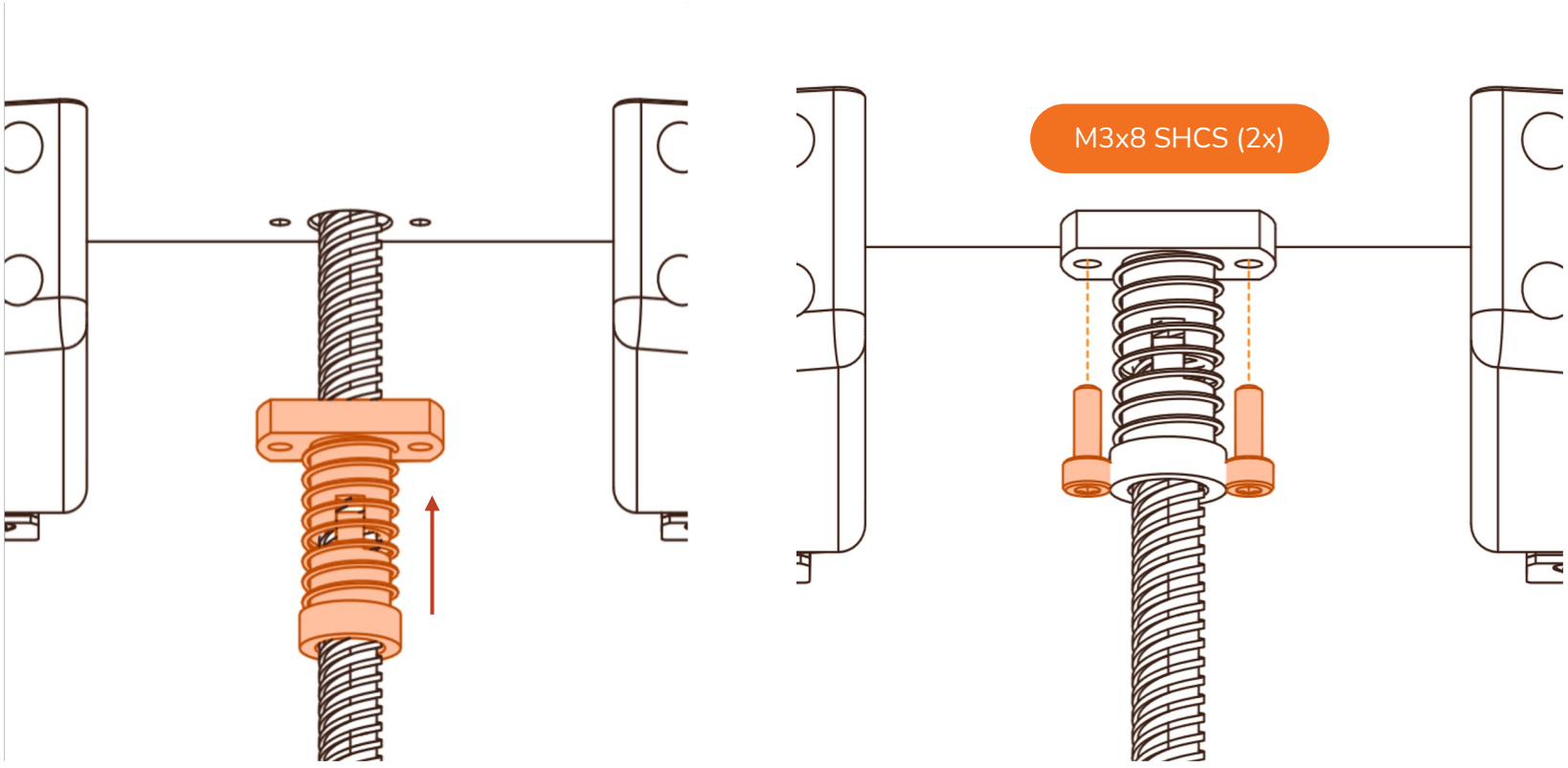


KEEP IT STEADY

To align your Z Axis Leadscrew, remove the M5 screws holding the motor and bracket in place. Remove the motor + leadscrew assembly. Then, adjust the slotted M3 screws on the bracket, and re-attach such that the bed is aligned correctly.
This may take multiple tries to get correct.





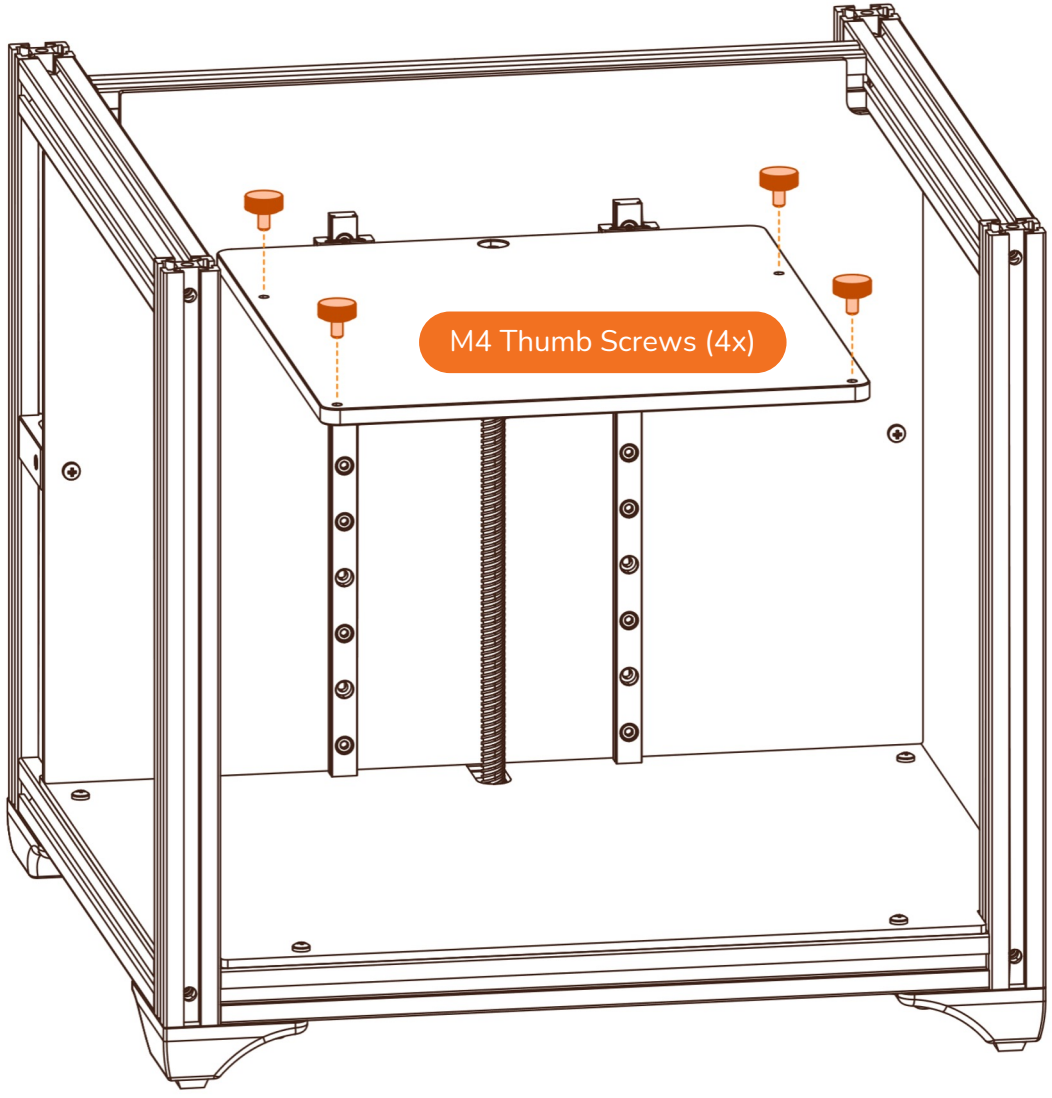


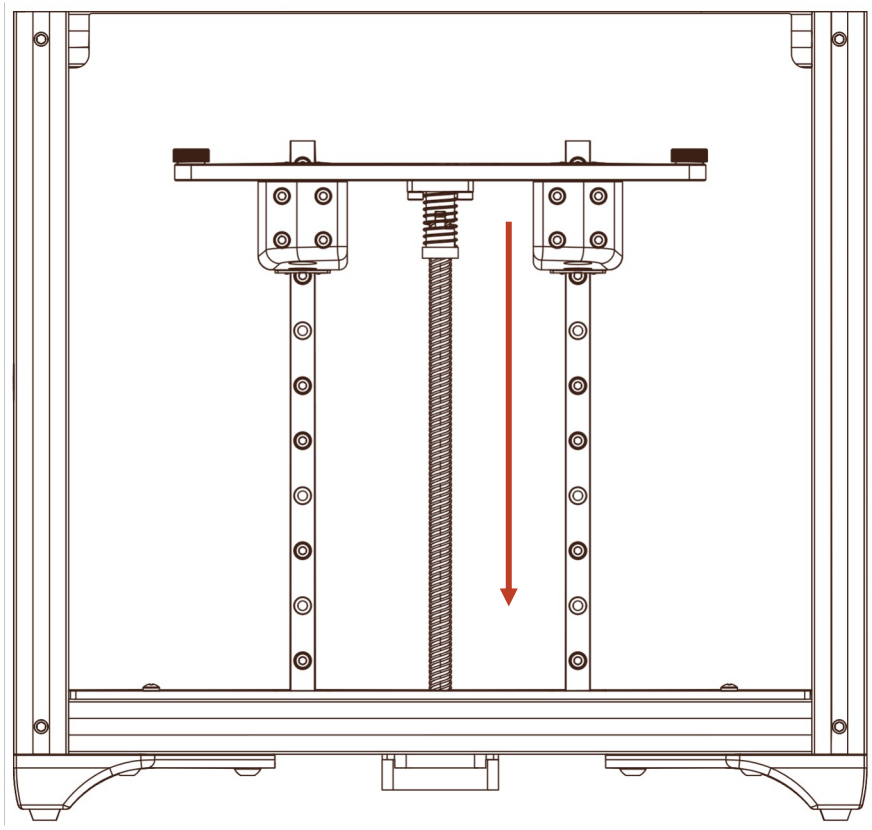
CENTER STAGE

If the Z Screw is centered within the bed plate, raise the anti-backlash nut to be flat with the build plate and fasten securely.

BUILD SURFACE

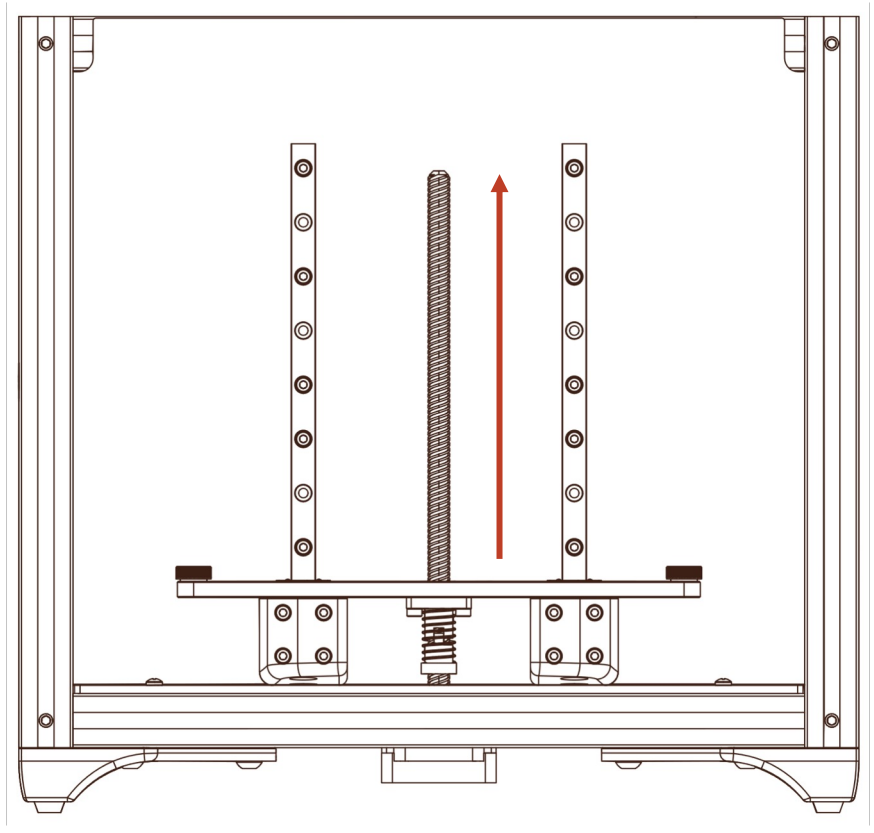
You can install the silicone baking mat that came with the printer on your bed, the M4 thumb screws should keep it in place.





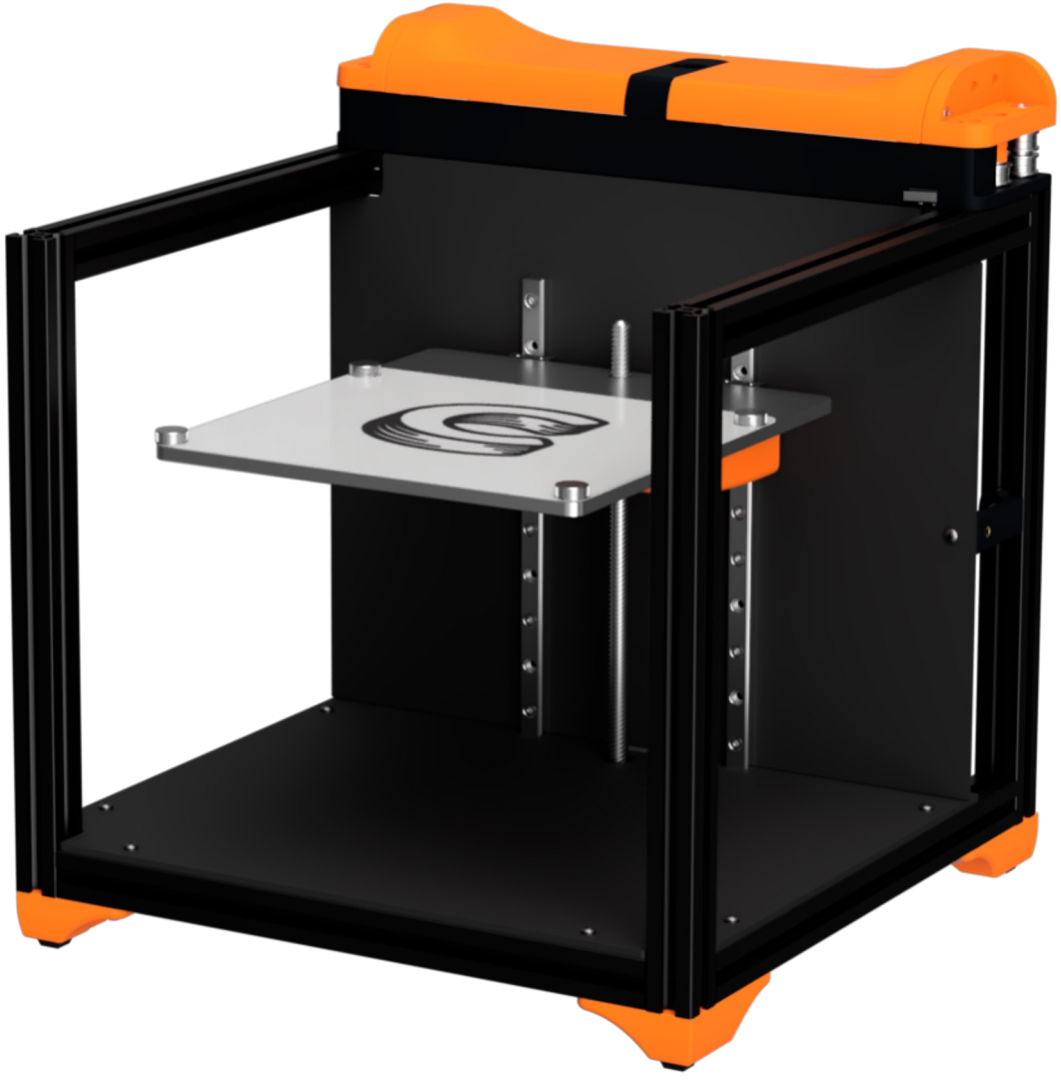
CHECK BED ALIGNMENT

Slide the bed assembly up and down to ensure that there are no areas where it is binding. The motion should be smooth and consistent.

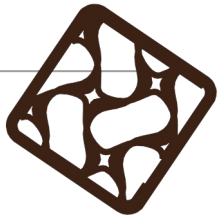


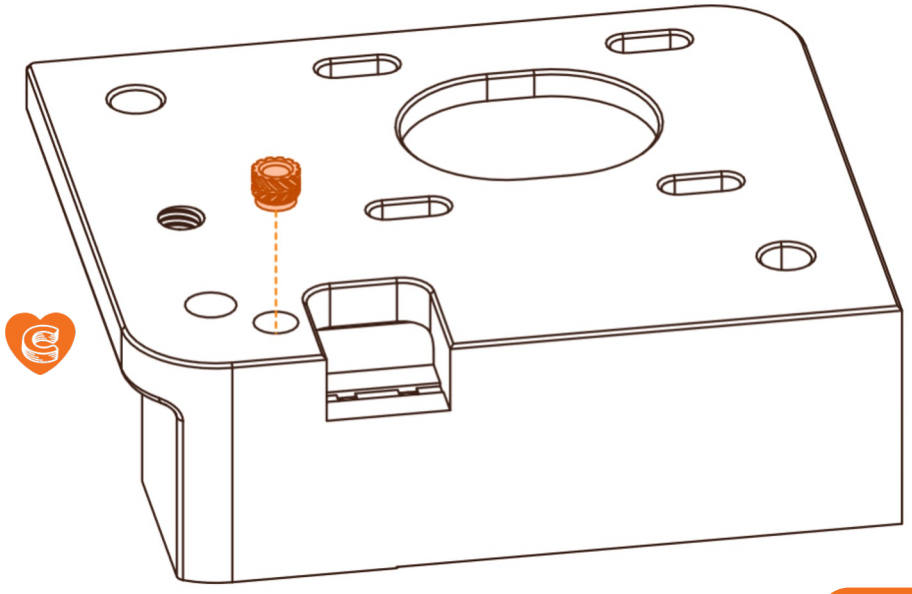
CHECK RAILS ARE FASTENED

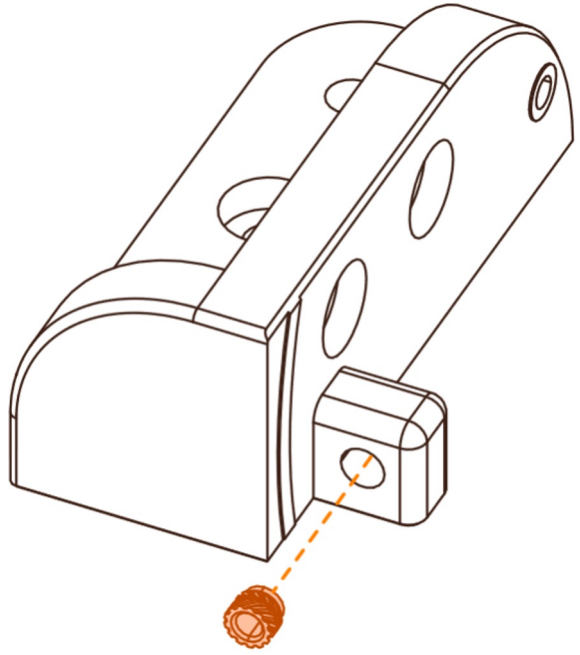
Wiggle the rails side to side. If you can move them by hand, tighten them down further using an M3 driver.



Difficulty	Medium
Tools Needed	M2 Driver M3 Driver M5 Driver Heatset Insert Tool Soldering Iron (Not Included)
Hardware Needed	M3 Heatset Insert (3x) Y Endstop Switch (1x) M2 Self Tapping Screws (2x) GT2 Pulley (1x) M5 Washer (6x) F695 Bearing (6x) M3 Thumbscrew (1x) M3x8 Socket Head Cap Screw (4x) M3x30 Socket Head Cap Screw (1x) M3x30 Button Head Cap Screw (1x) M5x40 Socket Head Cap Screw (1x) M5x30 Button Head Cap Screw (2x) M5x10 Button Head Cap Screw (1x)
Printed Parts Needed	Printed Spacer (1x) Motor Mount Right (1x) Rear Idler Stabilizer Right (1x) Belt Tensioner Sled (1x)



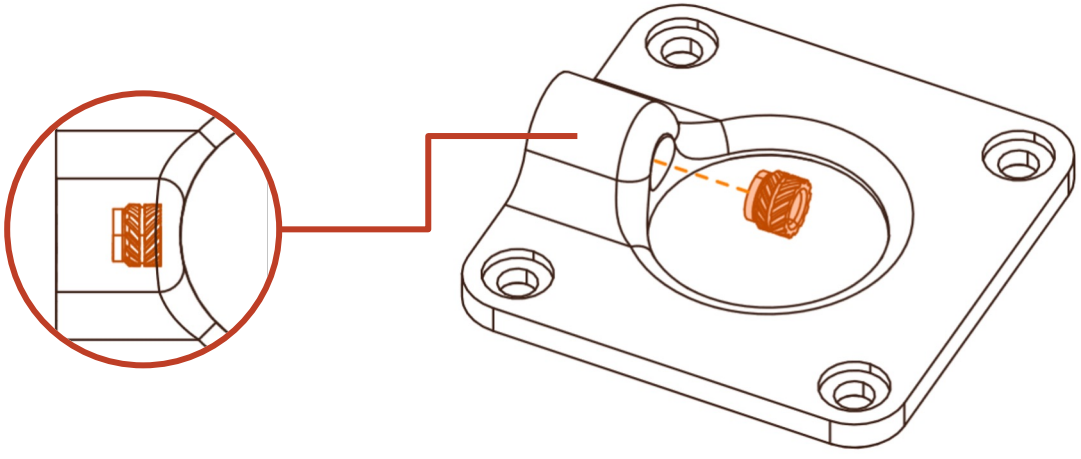




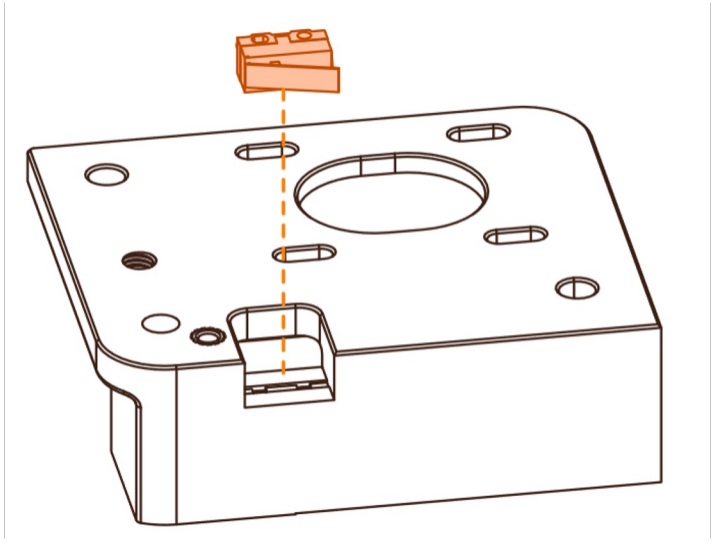
M3 Heatset Inserts (3x)

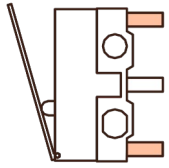
INSERT INSTALLATION

This headset insert sits below the surface of the printed part, be sure that you have installed it to its correct position.



Y Endstop Switch

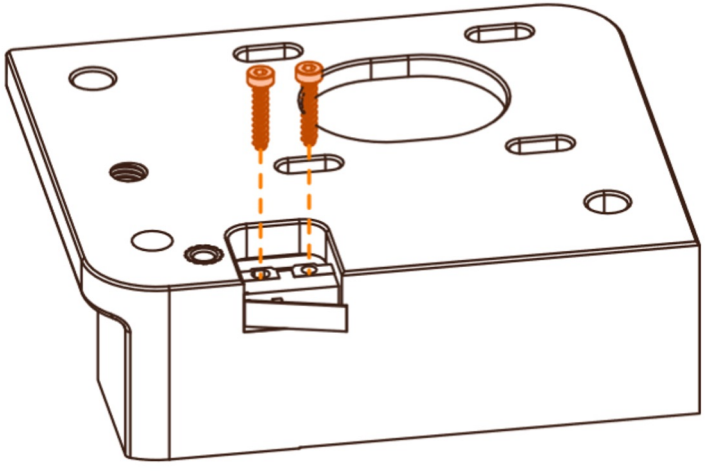




ENDSTOP WIRING

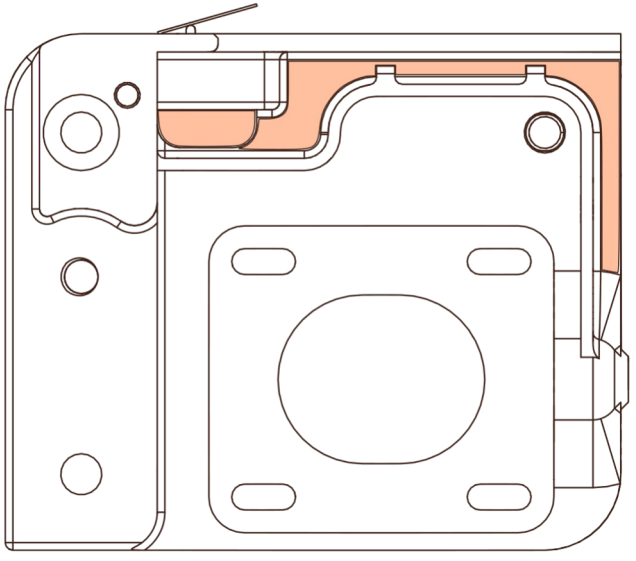
The endstop switches come pre-wired to the outer two terminals of the switch.

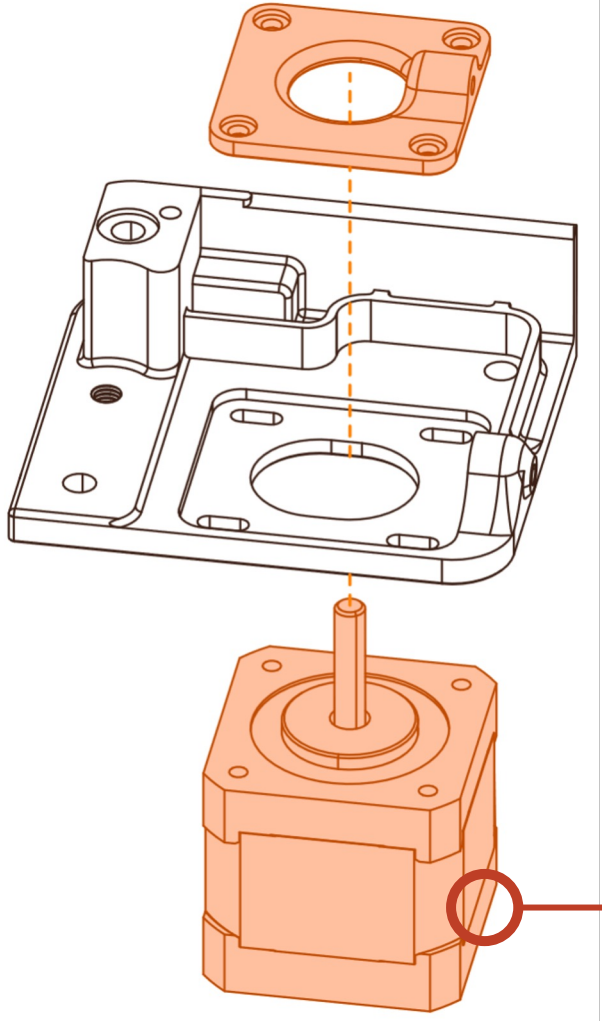
M2 Self Tapping Screws (2x)

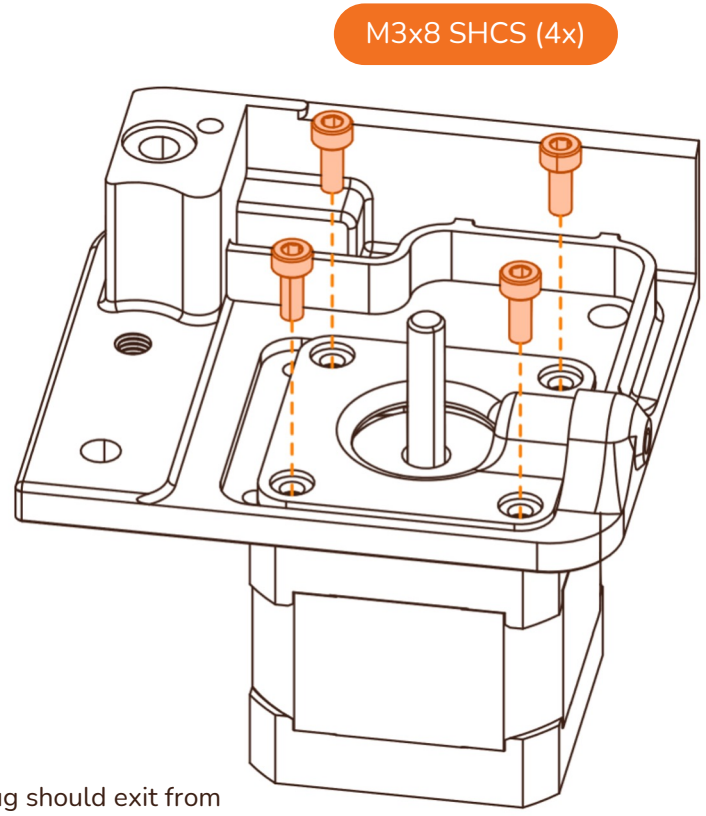


WIRE PATH

Run the endstop wiring along the highlighted path in the A motor assembly.

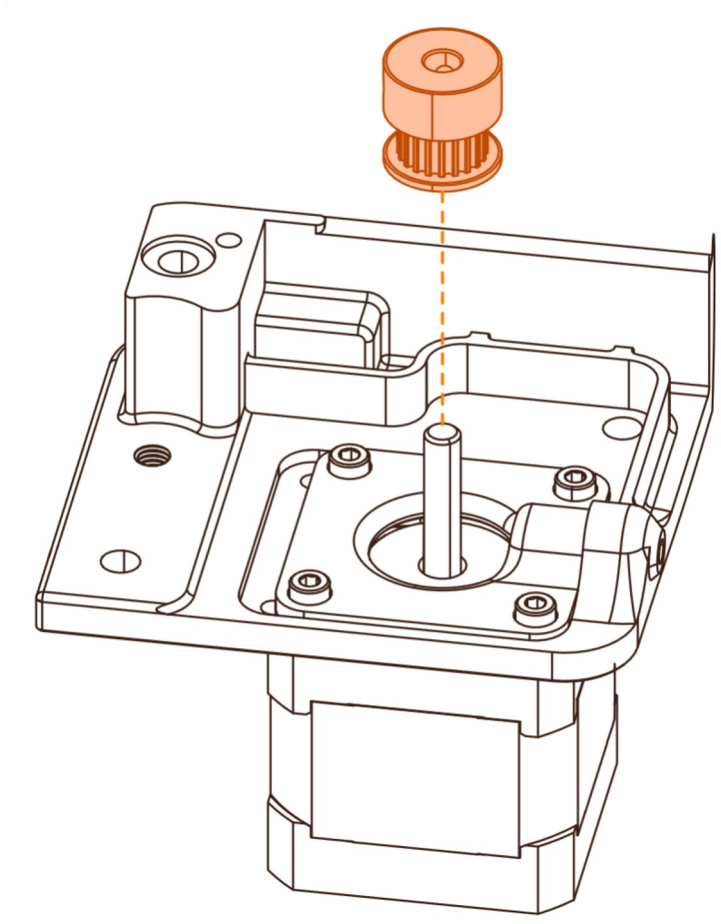






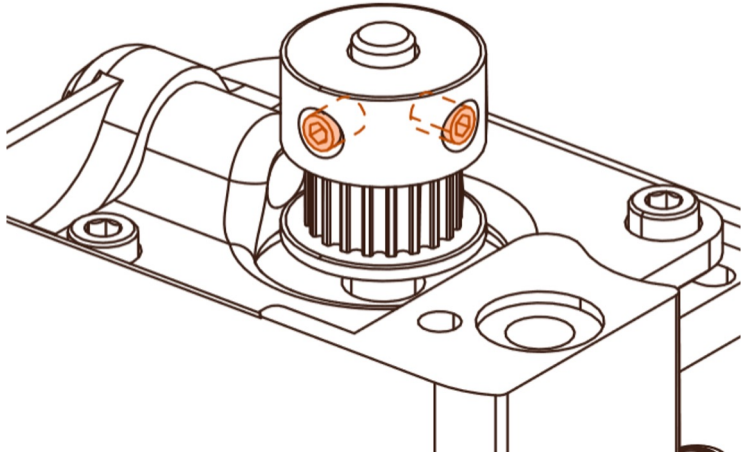
MOTOR WIRING

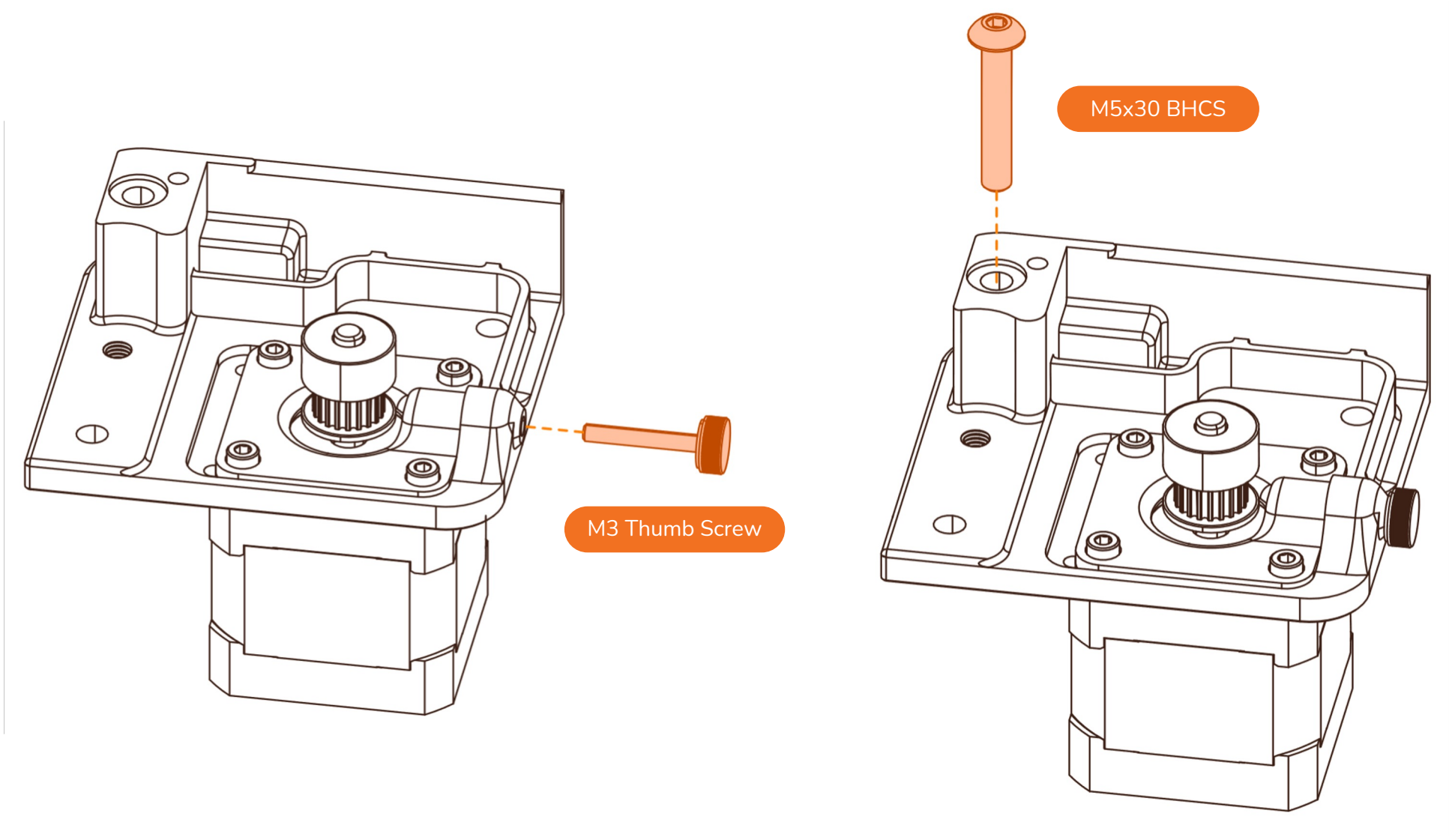
The motor wiring plug should exit from here, towards the center of the machine when the drive unit is installed.

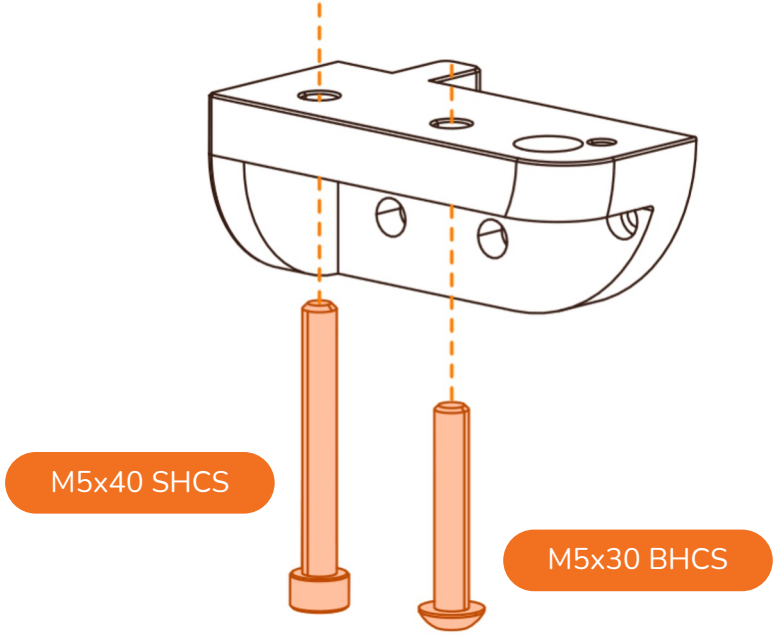


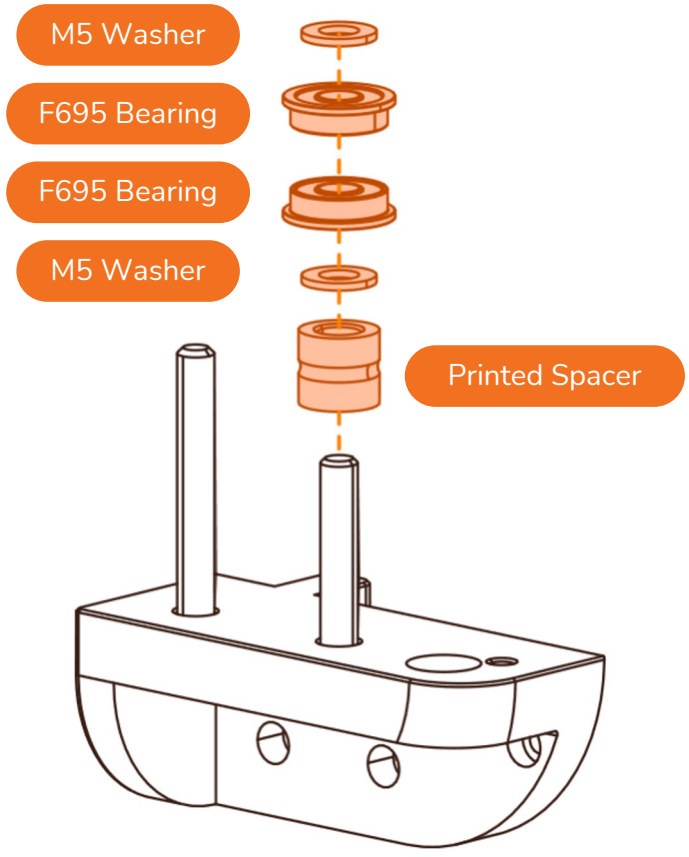
PULLEY PLACEMENT

We will set the height of this pulley at a later step. For now, ensure that at least one of the set screws is in contact with the flat portion of the motor shaft.



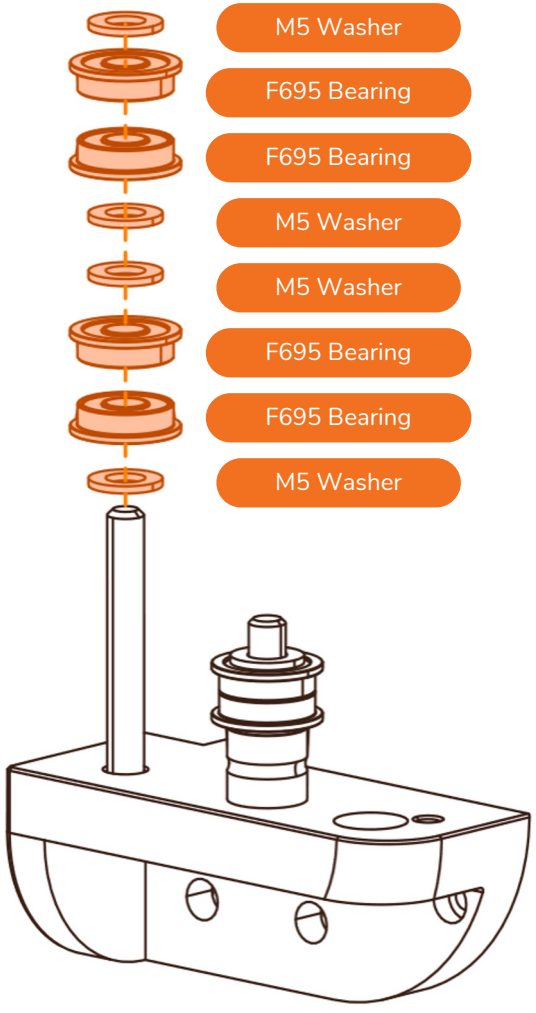

M5x30 BHCS
M3 Thumb Screw

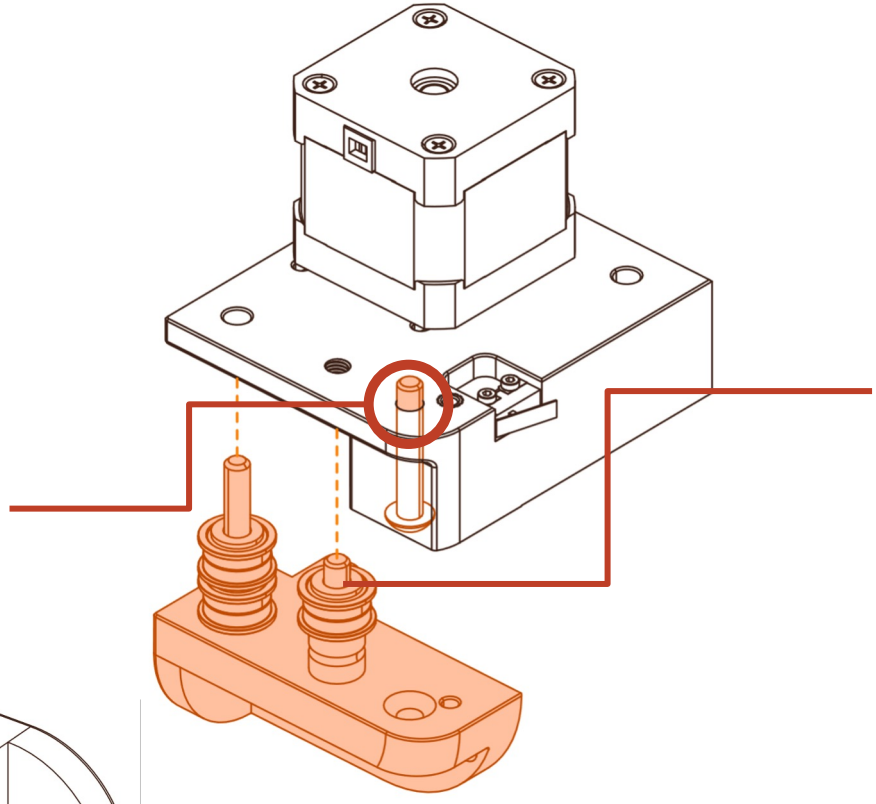




HARDWARE STACKS

We will be installing a number of similar but NOT identical stacks of hardware like the one shown above. Pay attention to the printed part orientation and the order of the stacked components as they are not all the same.


M5 Washer
F695 Bearing
F695 Bearing
M5 Washer
M5 Washer
F695 Bearing
F695 Bearing
M5 Washer

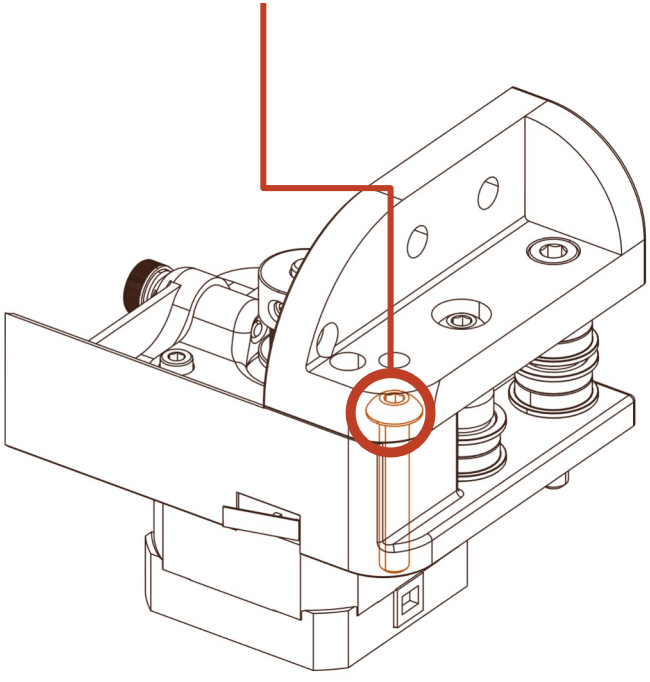


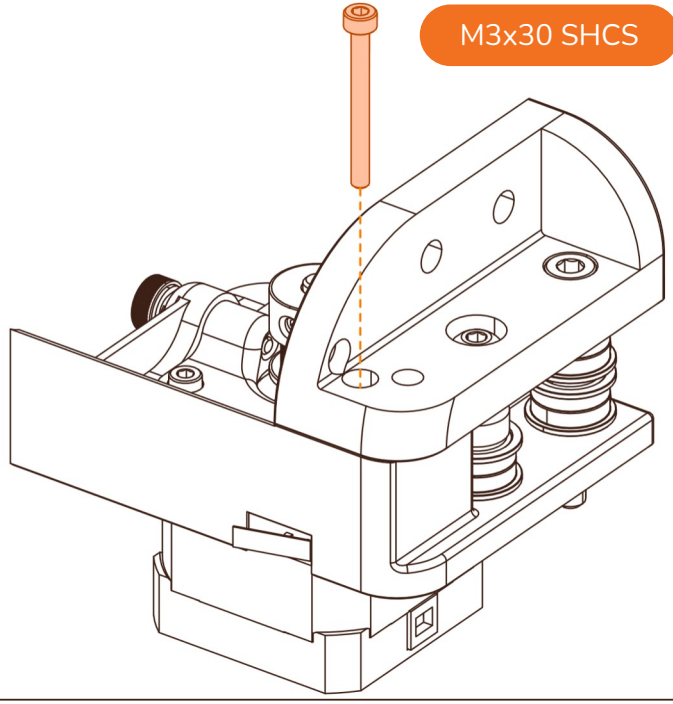
THREADING INTO PLASTIC

This screw threads into the plastic printed part, take care not to strip it by tightening it too much.

EXTRA SCREWS

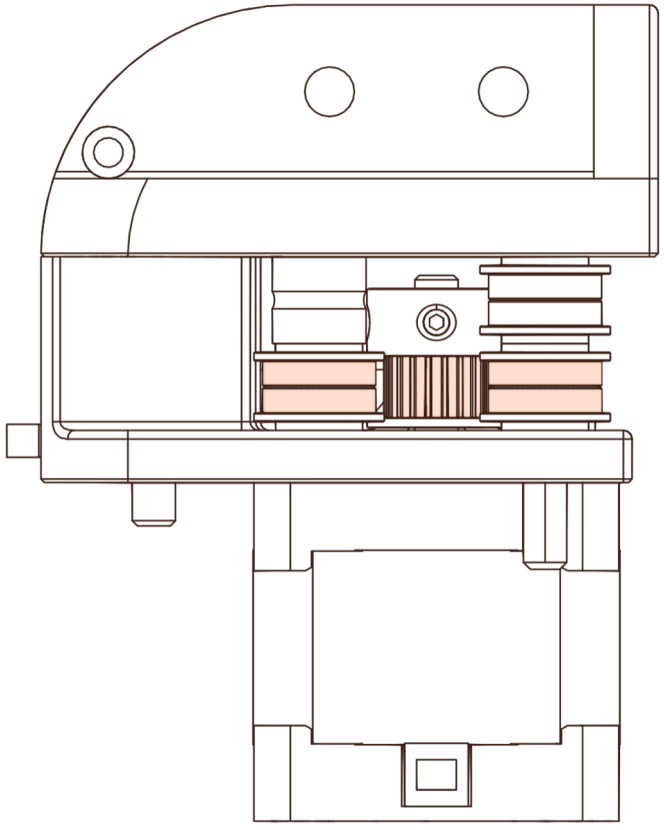
We installed an M5x30 screw here on page 57 that will be captured by the printed parts. This fastener will help mount the drive unit to the frame at a later step.





SETTING DRIVE PULLEY HEIGHT

At this point we can adjust the height of the drive pulley on the motor shaft. We want the pulley to be centered with the bottom pair of bearings on the A drive unit.

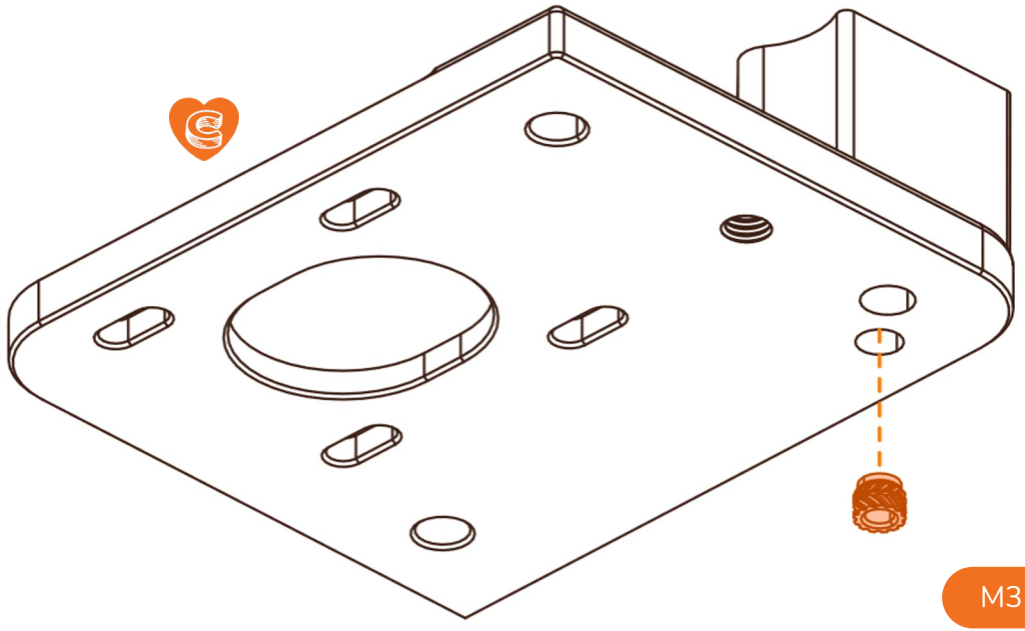


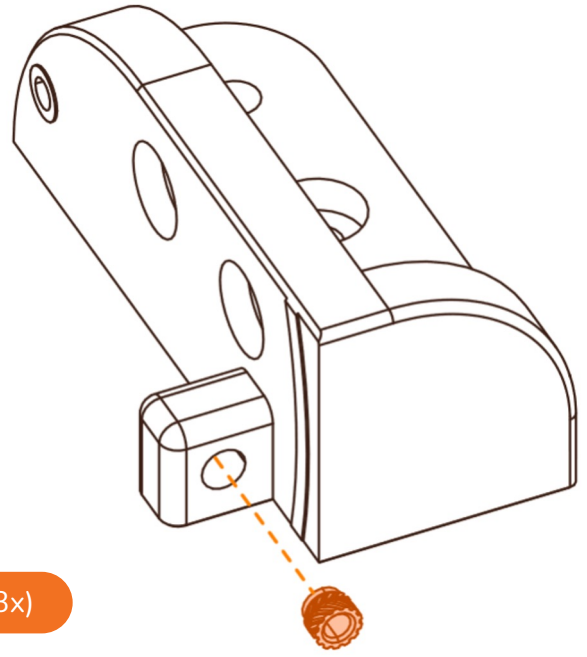
Difficulty	Medium

Tools Needed	M2 Driver M3 Driver M5 Driver Heatset Insert Tool Soldering Iron (Not Included)

Hardware Needed	M3 Heatset Insert (3x) M5 T-Nuts (3x) Y Endstop Switch (1x) M2 Self Tapping Screws (2x) GT2 Pulley (1x) M5 Washer (6x) F695 Bearing (6x)	M3 Thumbscrew (1x) M3x8 Socket Head Cap Screw (4x) M3x30 Socket Head Cap Screw (1x) M3x30 Button Head Cap Screw (1x) M5x40 Socket Head Cap Screw (1x) M5x30 Button Head Cap Screw (2x) M5x10 Button Head Cap Screw (1x)

Printed Parts Needed	Printed Spacer (1x) Motor Mount Left (1x) Rear Idler Stabilizer Left (1x) Belt Tensioner Sled (1x)

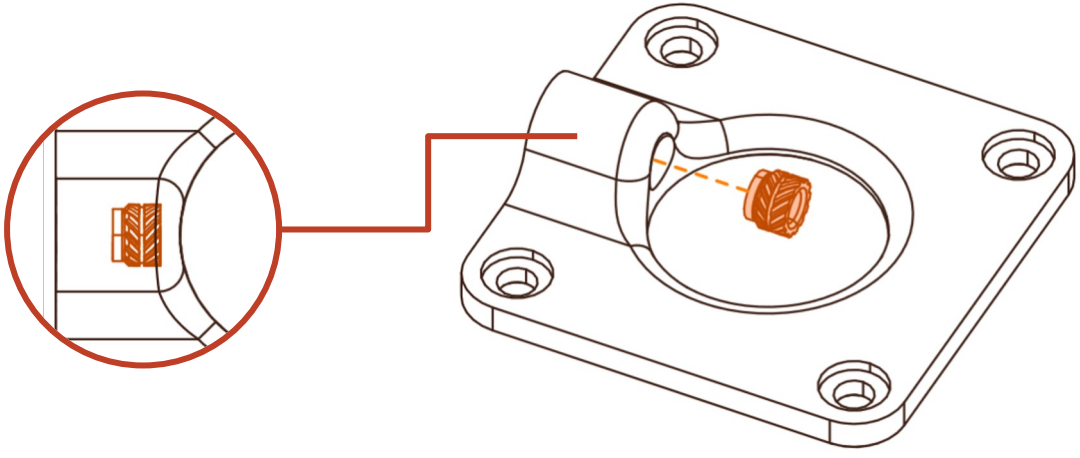


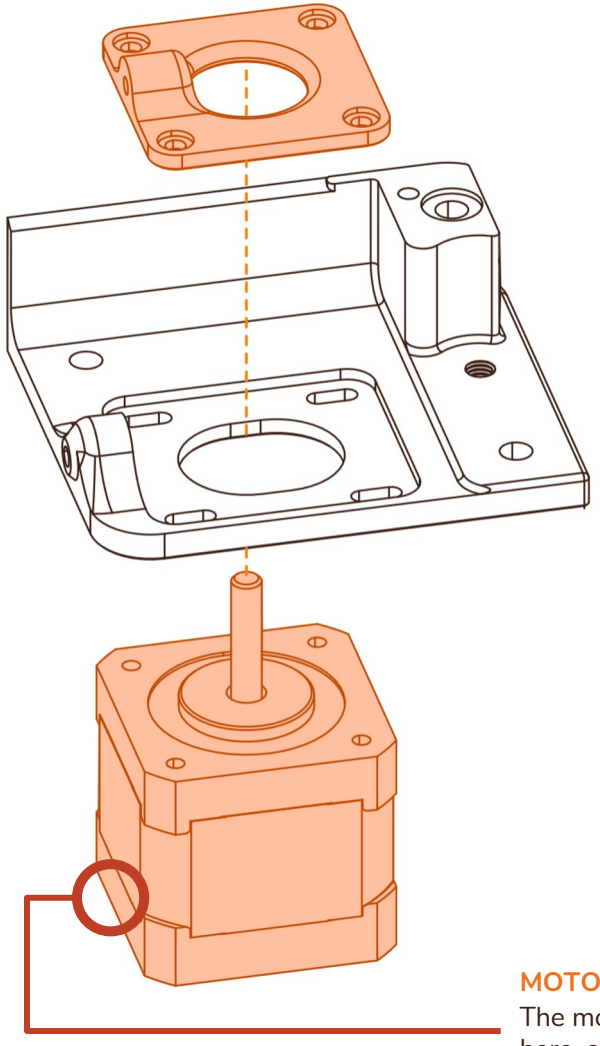


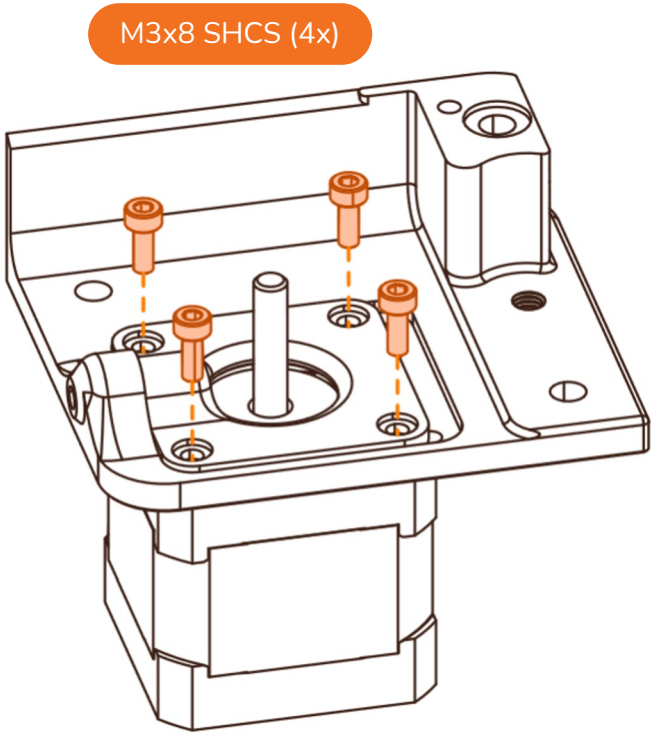
M3 Heatset Inserts (3x)

INSERT INSTALLATION

This headset insert sits below the surface of the printed part, so be sure that you have installed it to its correct position.

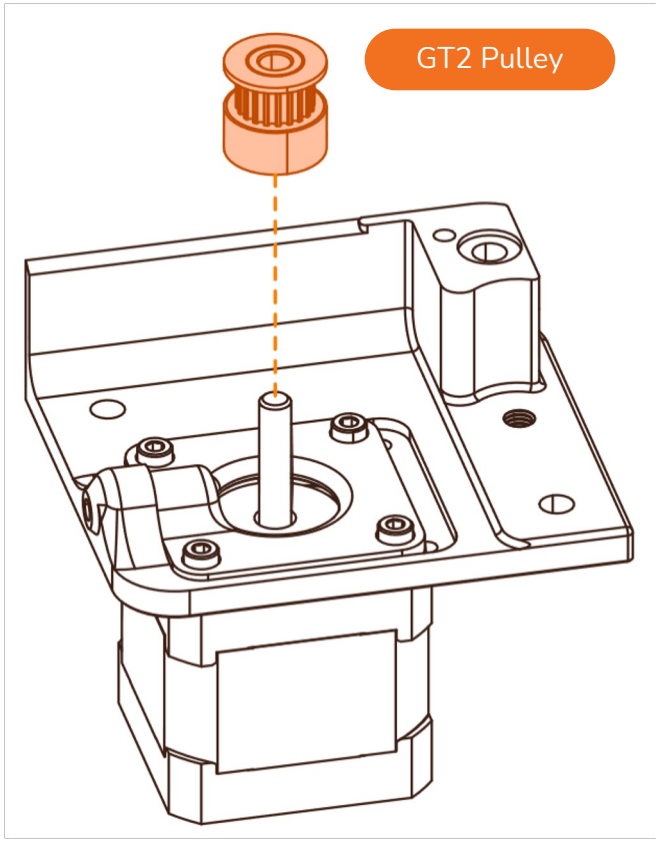


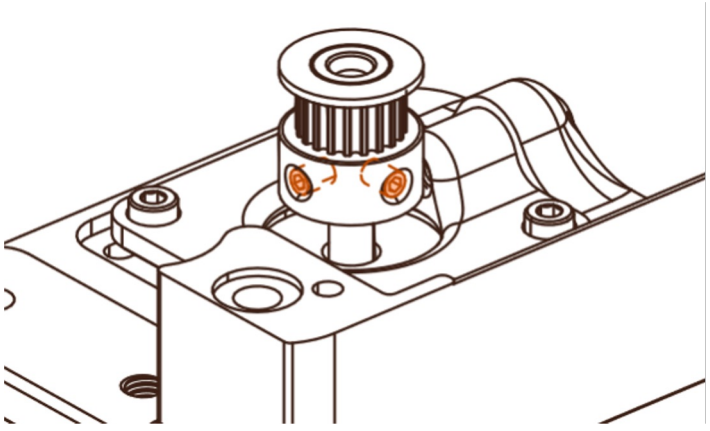


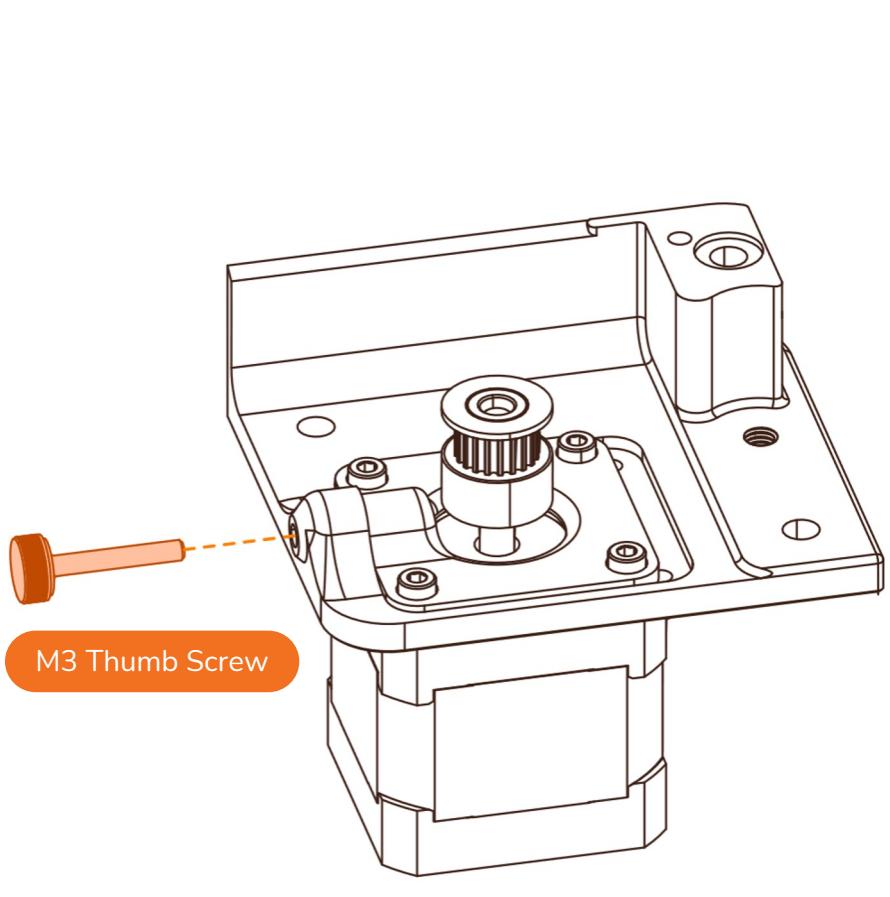


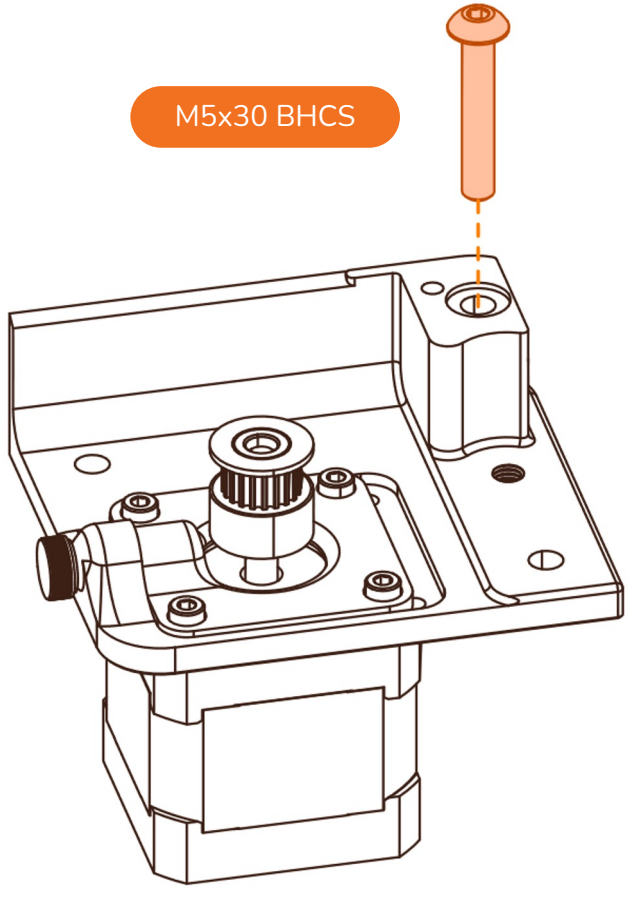
MOTOR WIRING

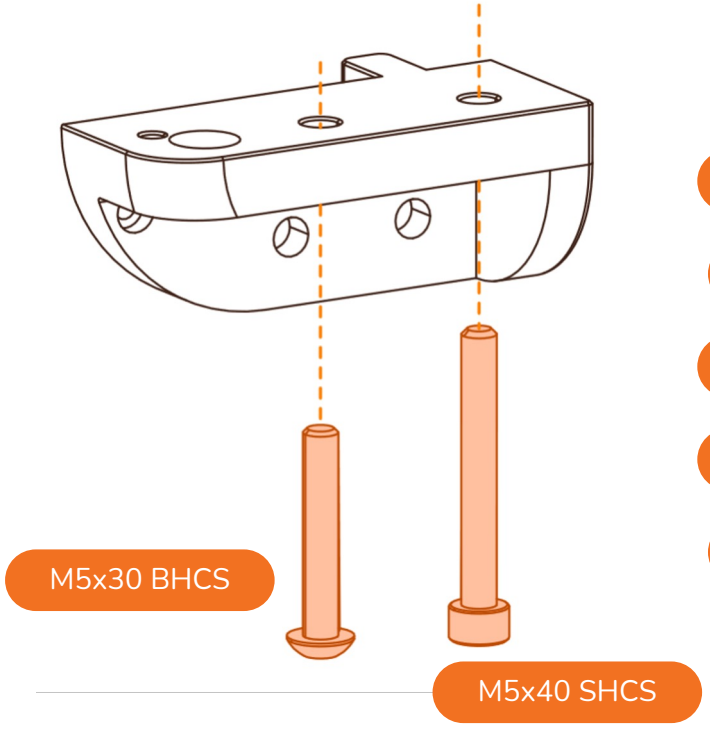
The motor wiring plug should exit from here, and direct towards the center of the machine when the drive unit is installed.

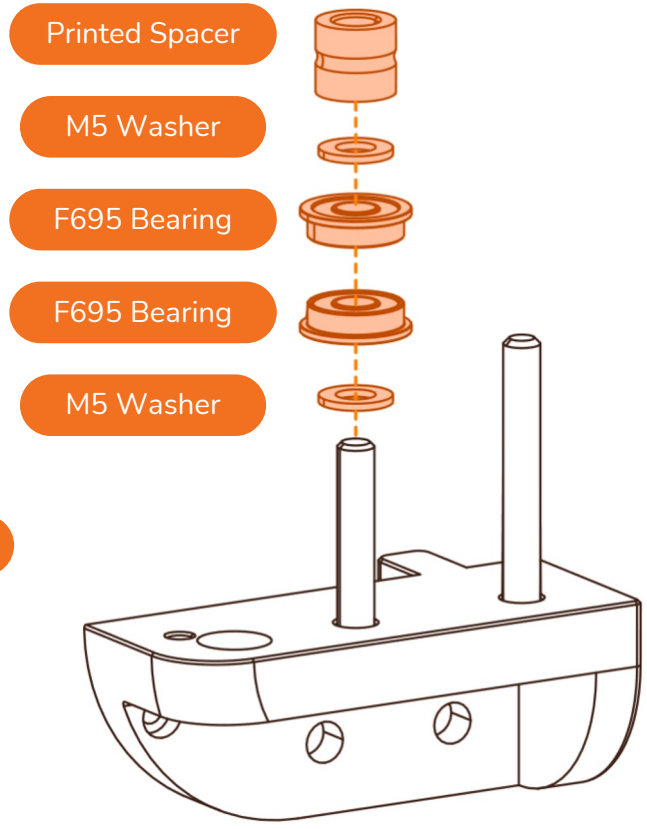

GT2 Pulley

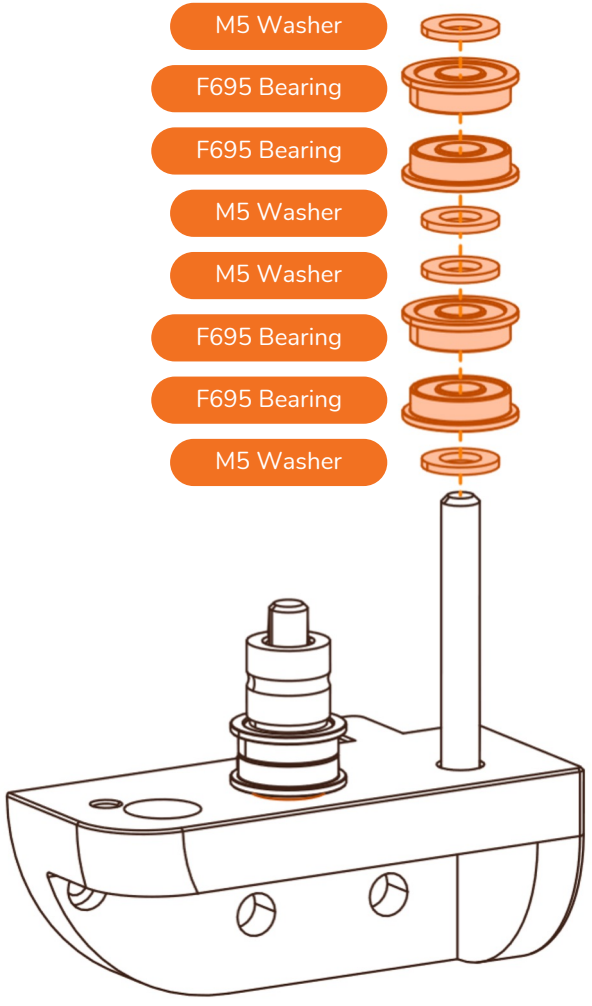



M3 Thumb Screw


M5x30 BHCS

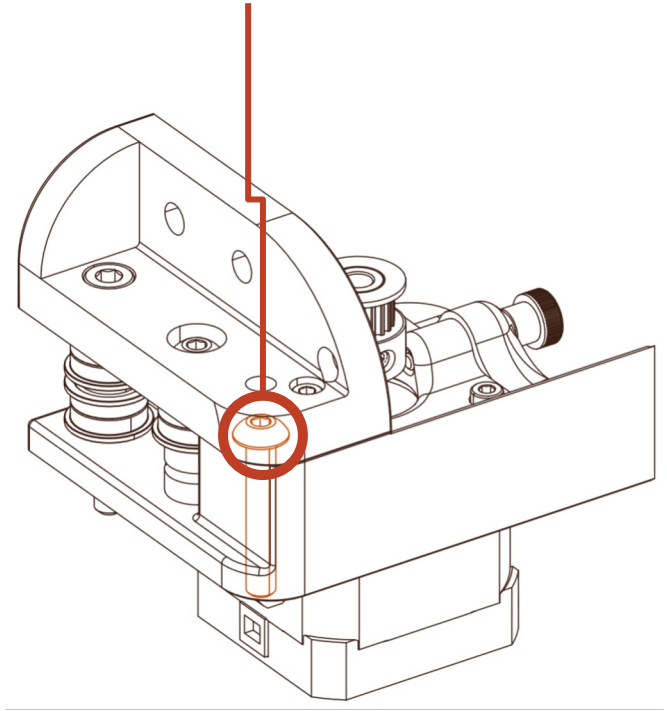

M5x30 BHCS
M5x40 SHCS

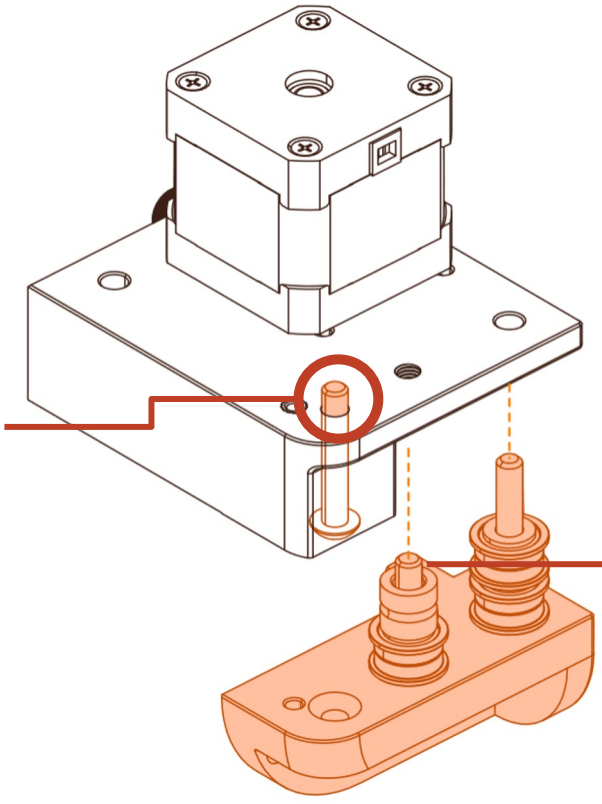

Printed Spacer
M5 Washer
F695 Bearing
F695 Bearing
M5 Washer


M5 Washer
F695 Bearing
F695 Bearing
M5 Washer
M5 Washer
F695 Bearing
F695 Bearing
M5 Washer

EXTRA SCREWS

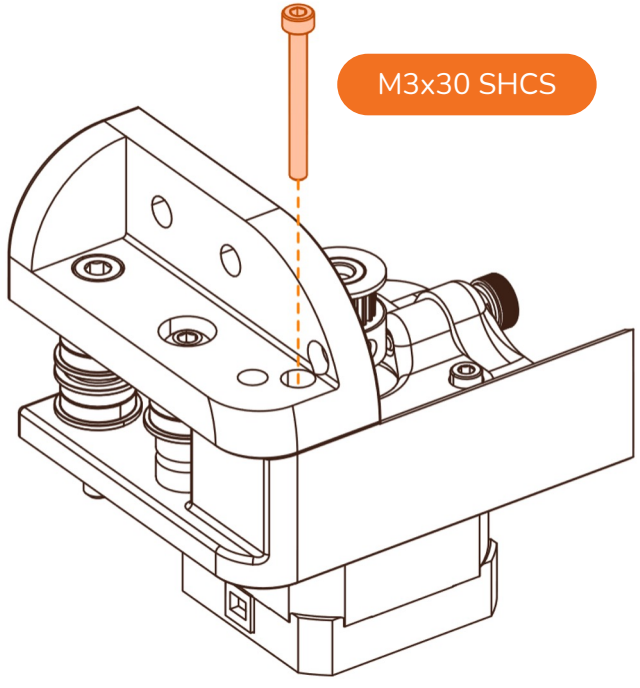
We installed an M5x30 screw here back on page 65 that will be captured by the printed parts. This fastener will help mount the drive unit to the frame at a later step.





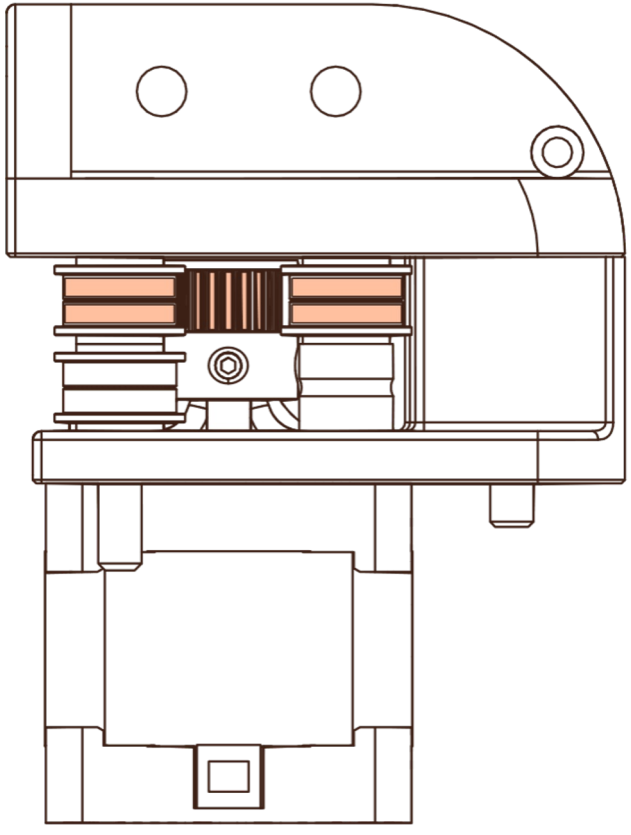
THREADING INTO PLASTIC

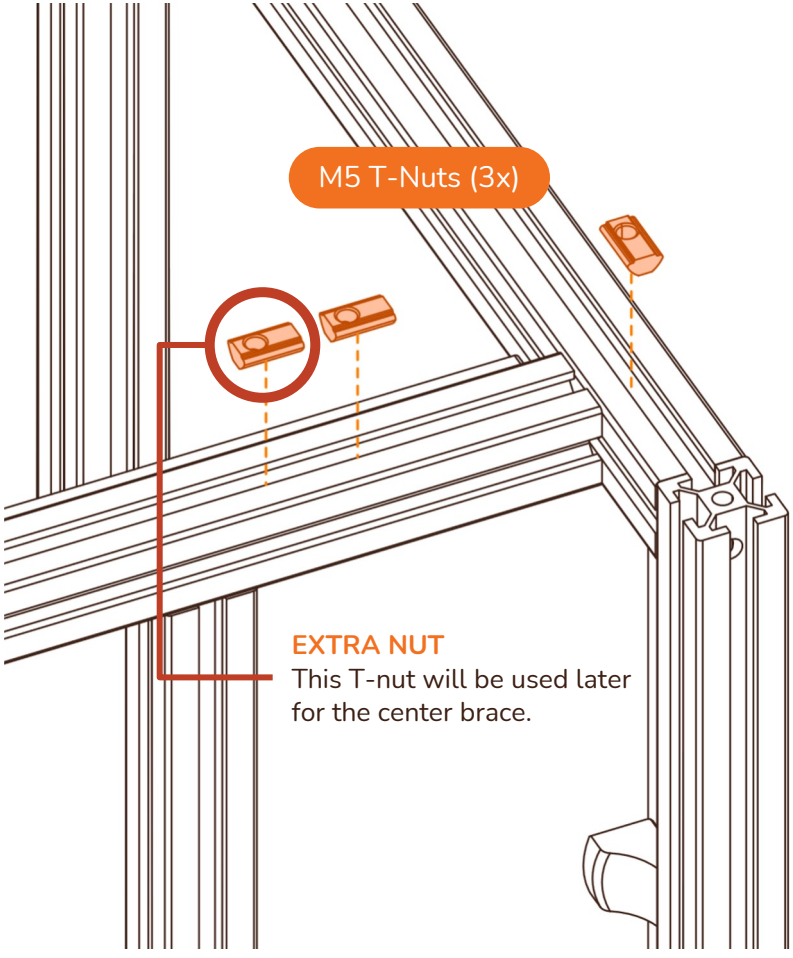
This screw threads into the plastic printed part, take care not to strip it by tightening it too much.

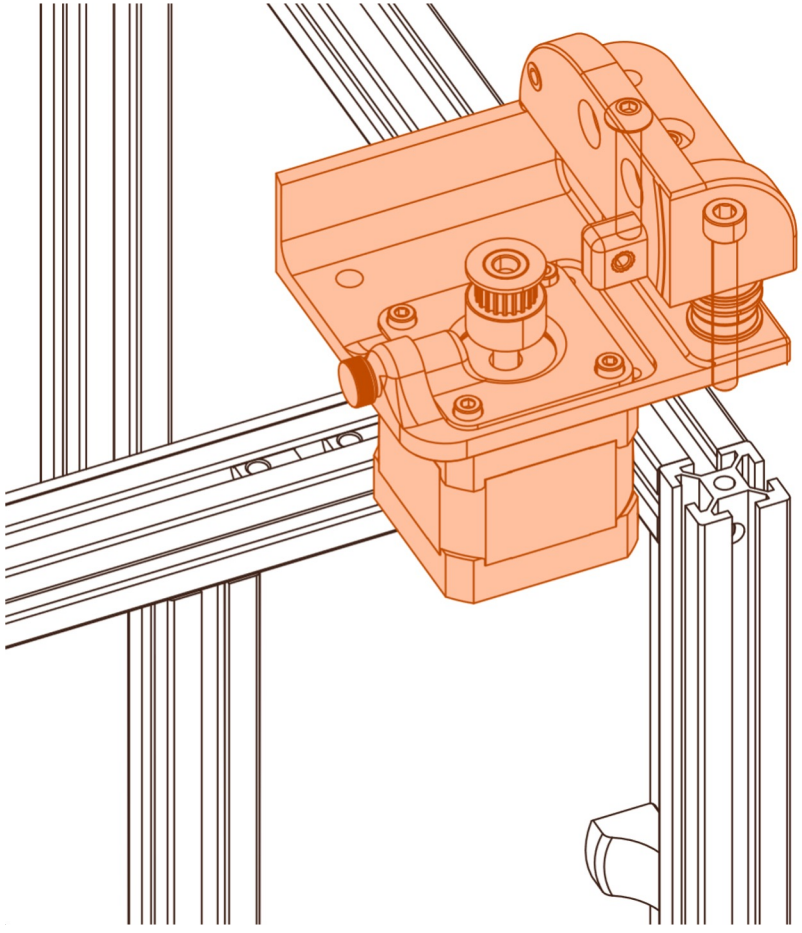


SETTING DRIVE PULLEY HEIGHT

At this point we can adjust the height of the drive pulley on the motor shaft. We want the pulley to be centered with the top pair of bearings on the B drive unit.

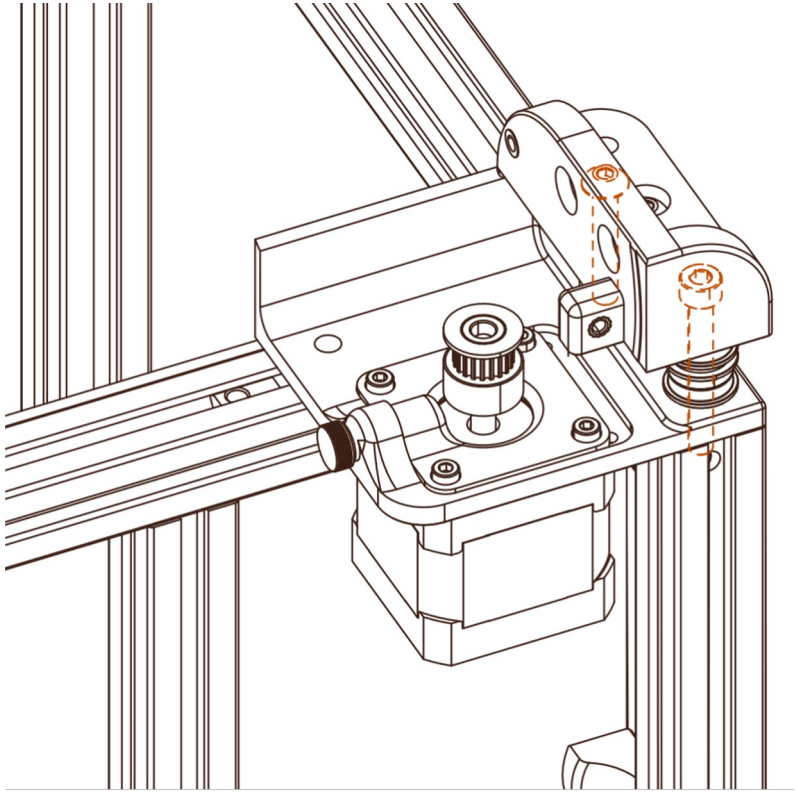


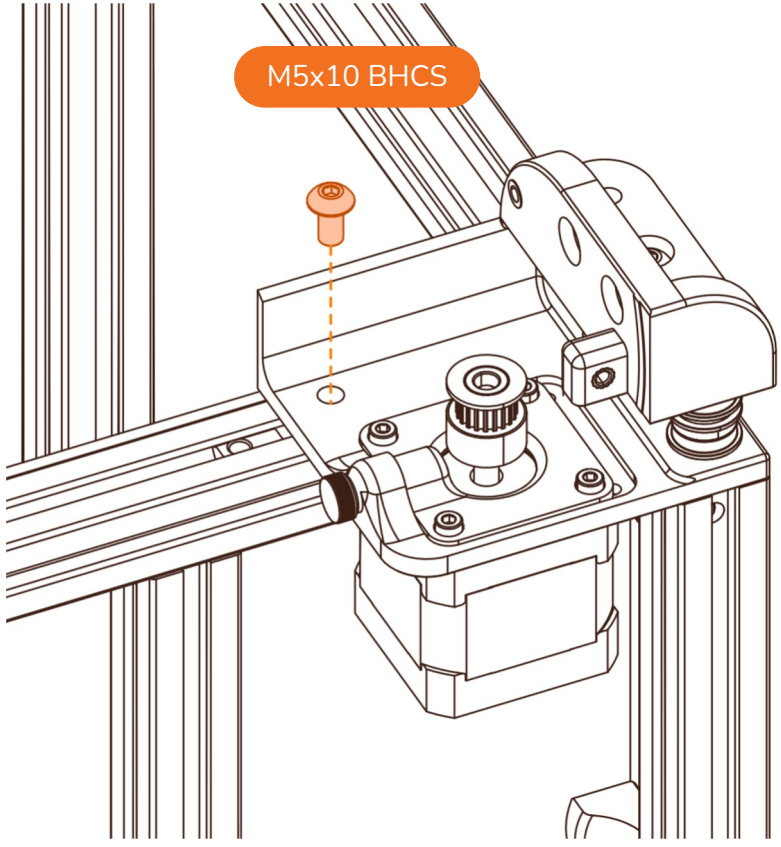

M5 T-Nuts (3x)
EXTRA NUT
This T-nut will be used later for the center brace.



ATTACHING THE DRIVE UNIT

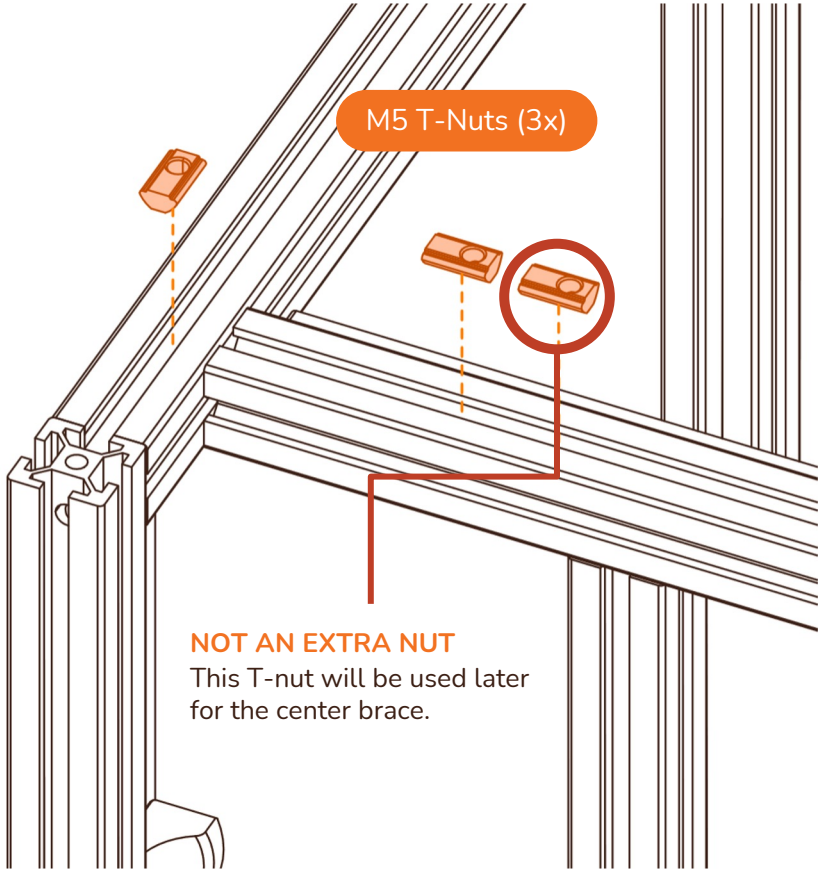
The two highlighted screws help secure the drive unit to the frame, the button head screw threads into a T-nut you installed on the previous page, and the socket head screw threads into the end of the vertical extrusion.

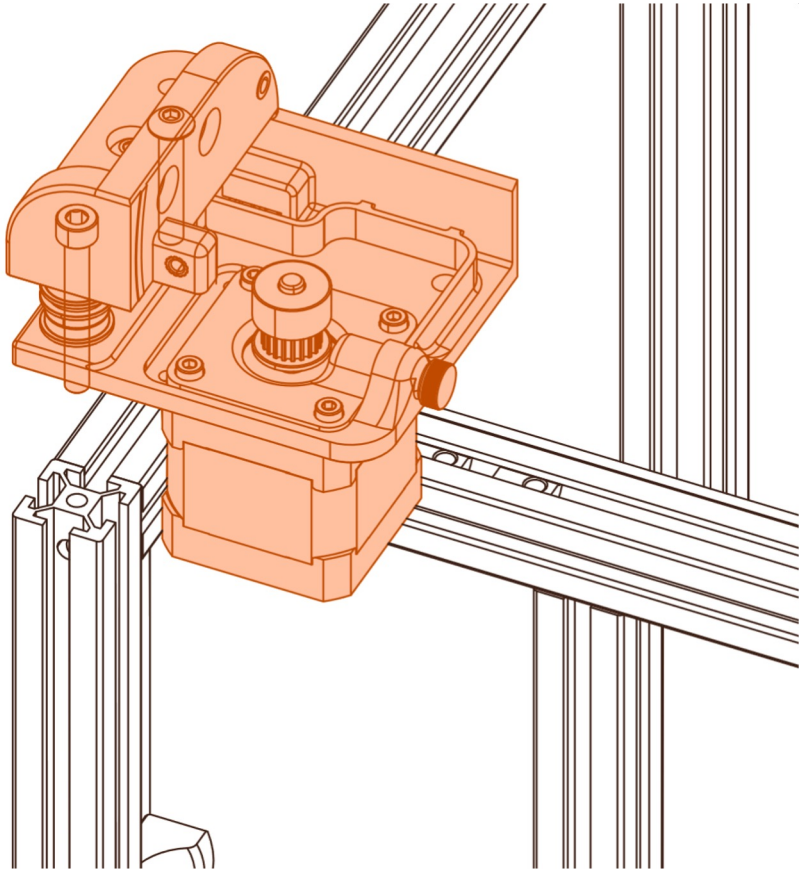




DON'T SQUISH!

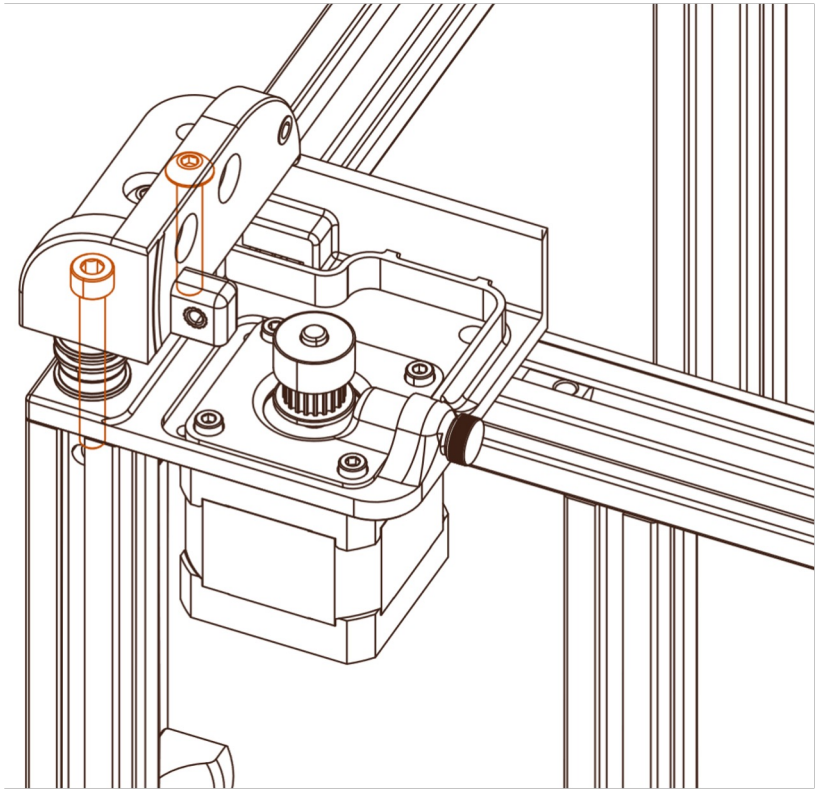
This screw threads through printed parts and can compress the part accidentally. Do not overtighten.

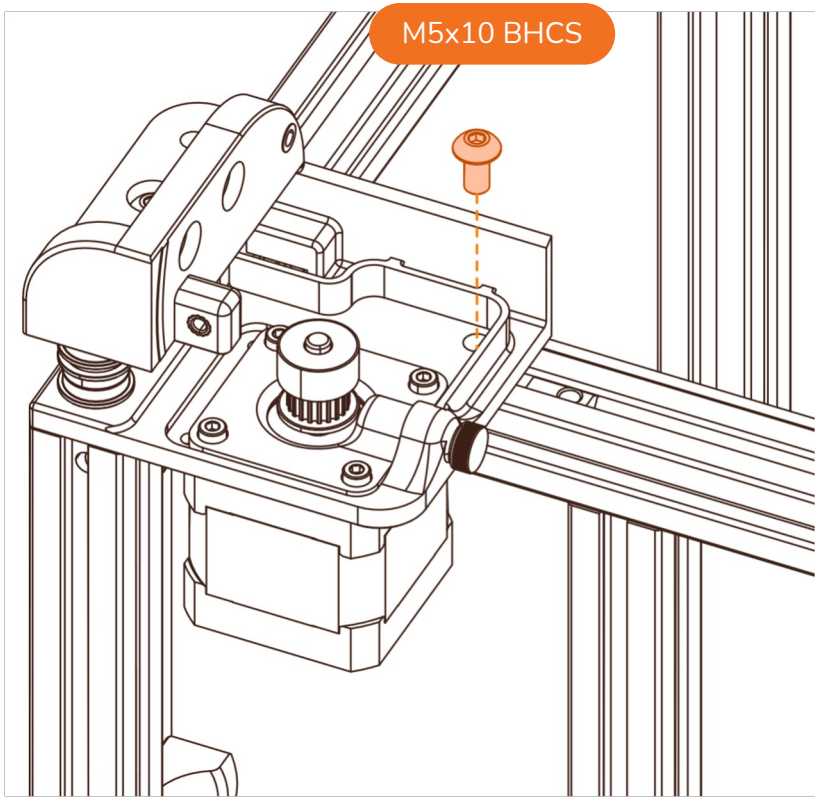

M5 T-Nuts (3x)
NOT AN EXTRA NUT
This T-nut will be used later
for the center brace.



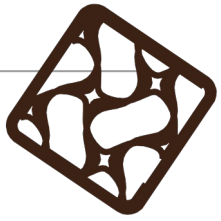
ATTACHING THE DRIVE UNIT

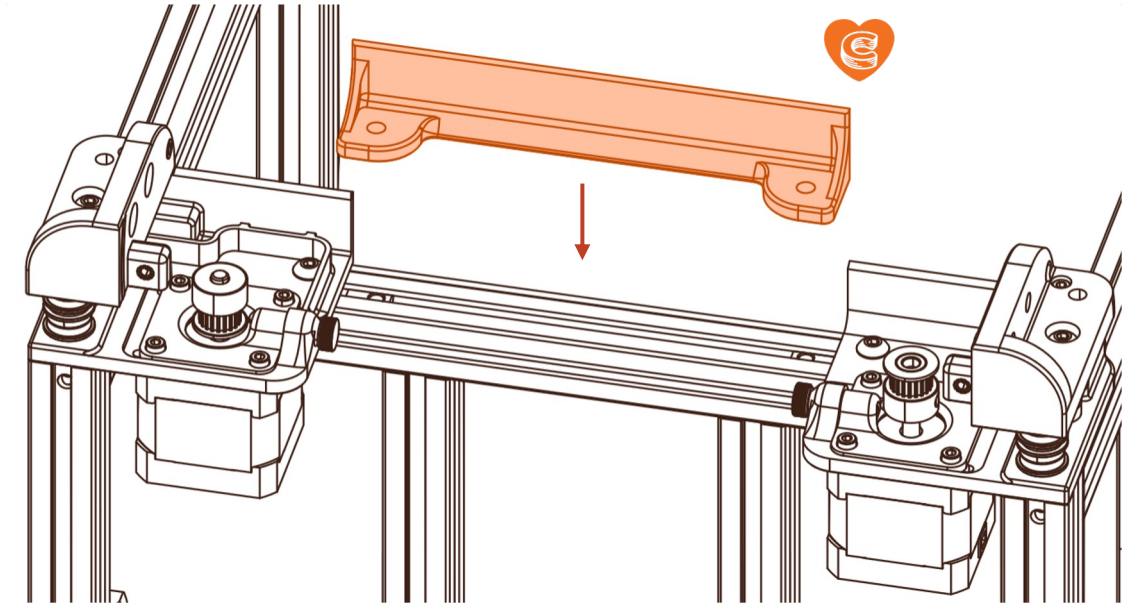
The two highlighted screws help secure the drive unit to the frame, the button head screws threads into a T-nut you installed on the previous page, and the socket head screw threads into the end of the vertical extrusion.

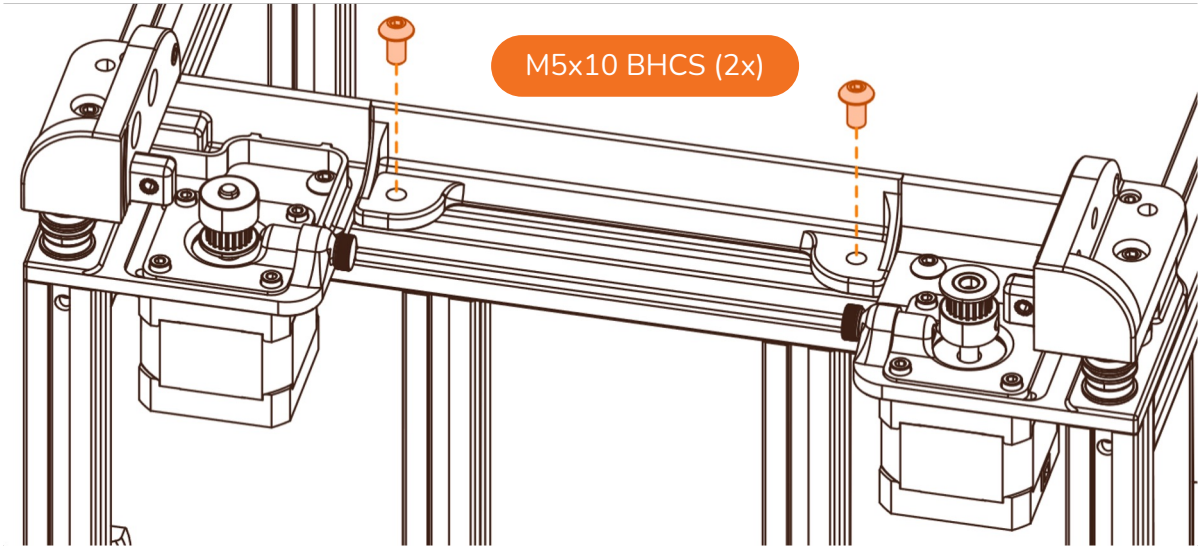


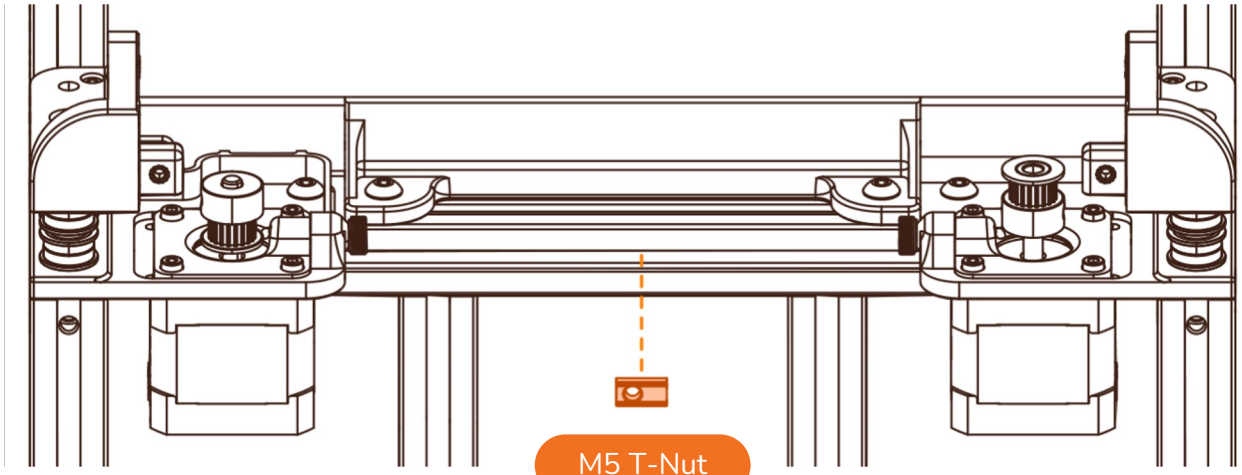


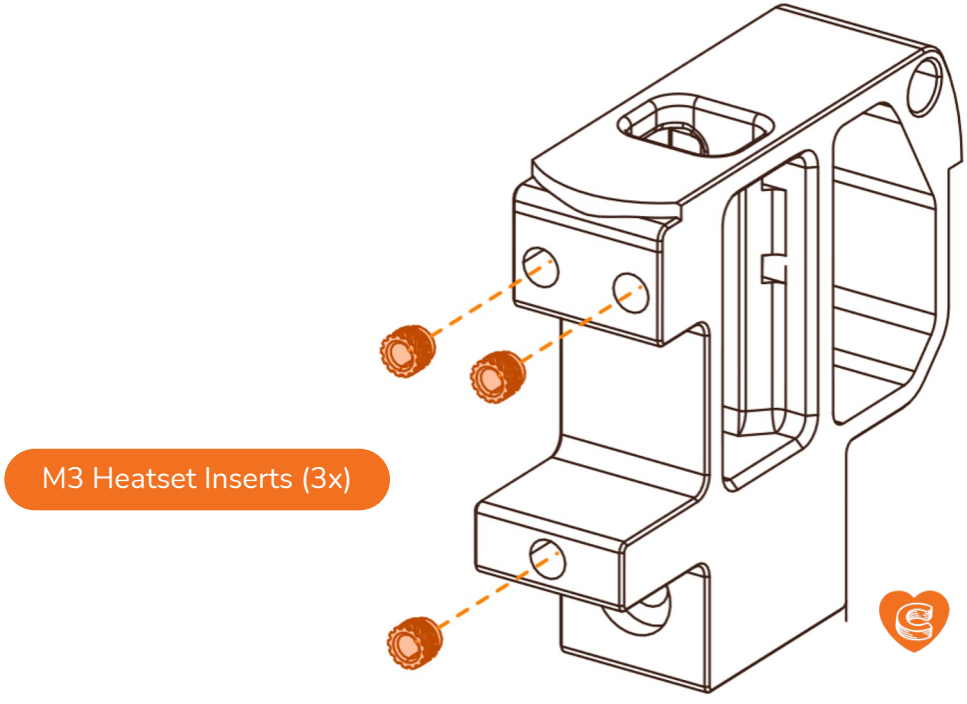
Difficulty	Medium
Tools Needed	M3 Driver M5 Driver Heatset Insert Tool Soldering Iron (Not Included)
Hardware Needed	M5x10 Button Head Cap Screw (2x) M5 T-Nut (1x) M3 Heatset Inserts (3x) M5x30 Button Head Cap Screw (1x) M3x8 SHCS (2x) M3x16 SHCS (2x) M3x12 SHCS (4x)
Printed Parts Needed	Rear Cover Panel (1x) Rear Center Support (1x) Motor Bay Cover Left (1x) Motor Bay Cover Right (1x)

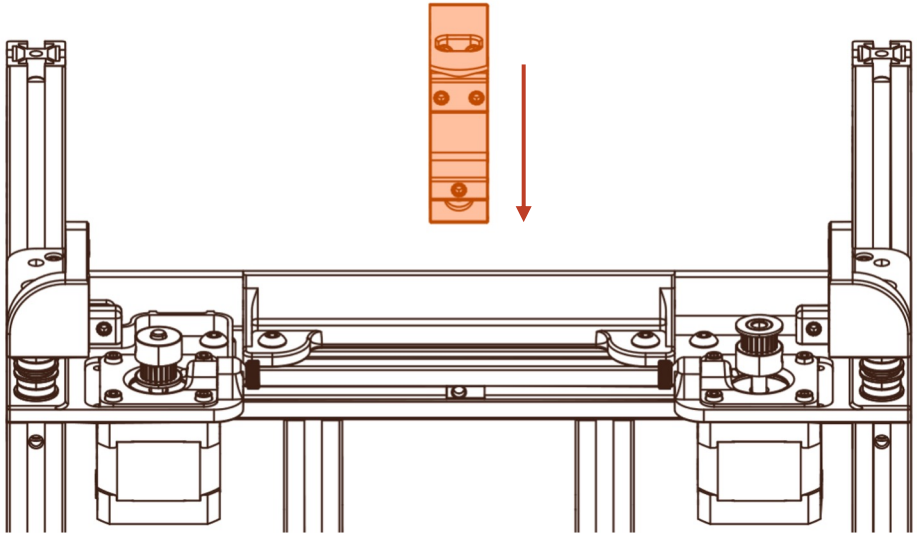


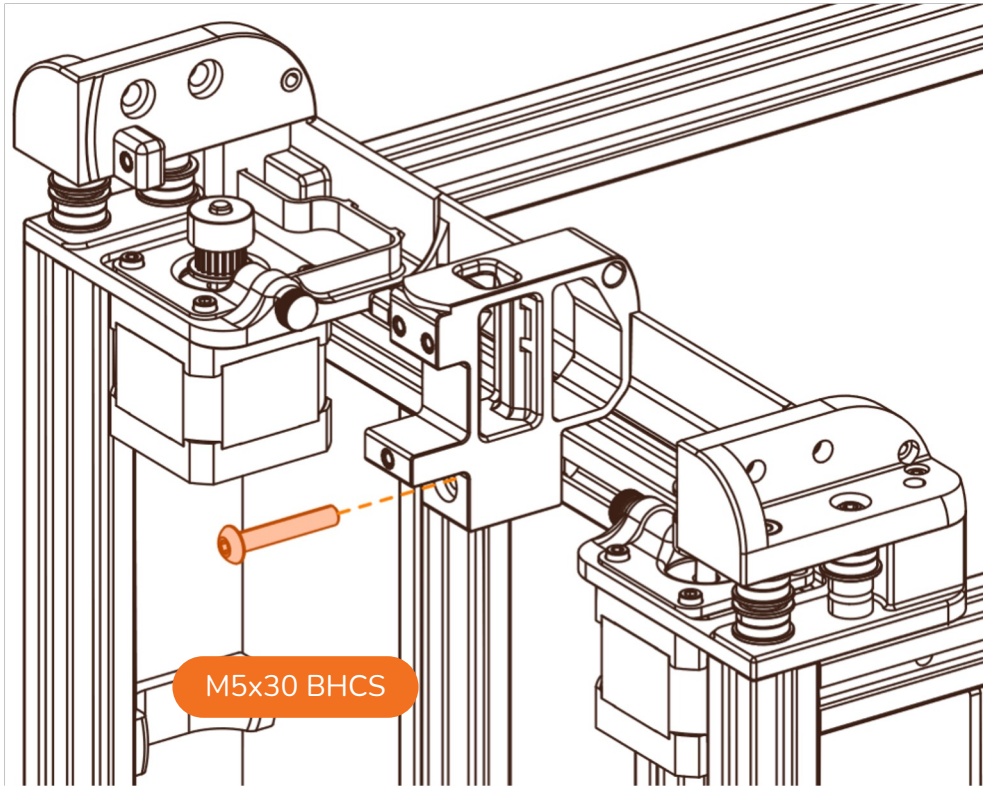


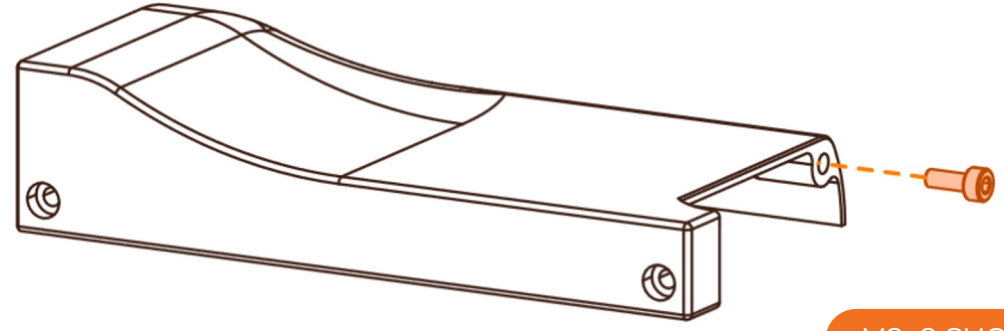

M5x10 BHCS (2x)


M5 T-Nut

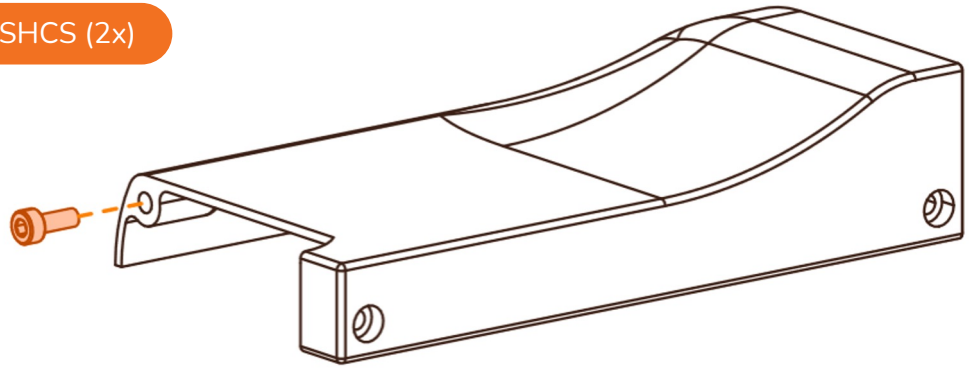

M3 Heatset Inserts (3x)




M5x30 BHCS



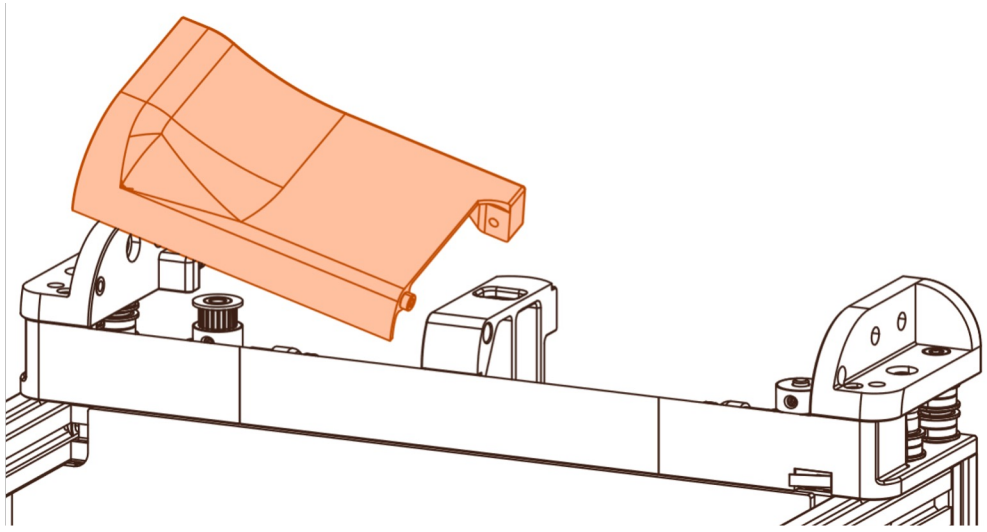
M3x8 SHCS (2x)

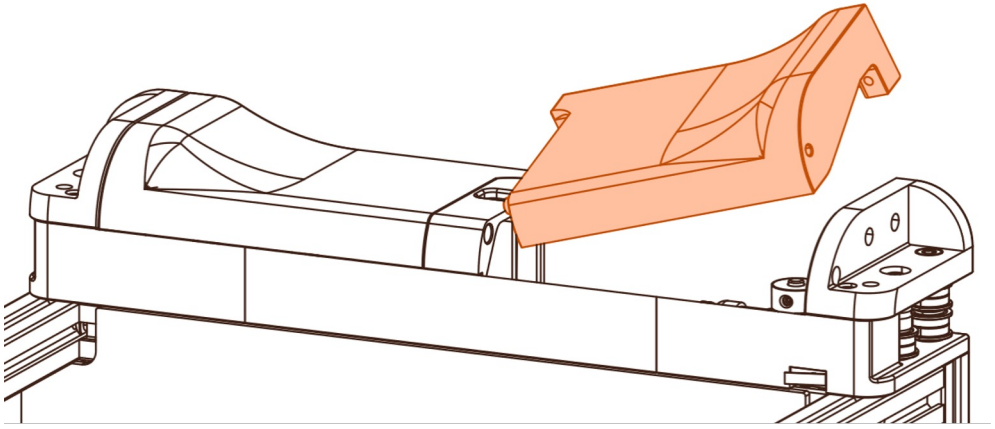


PREPPING THE DRIVE UNIT COVERS

These two M3 screws will act as hinge points for the drive covers. The screws thread directly into the cover.

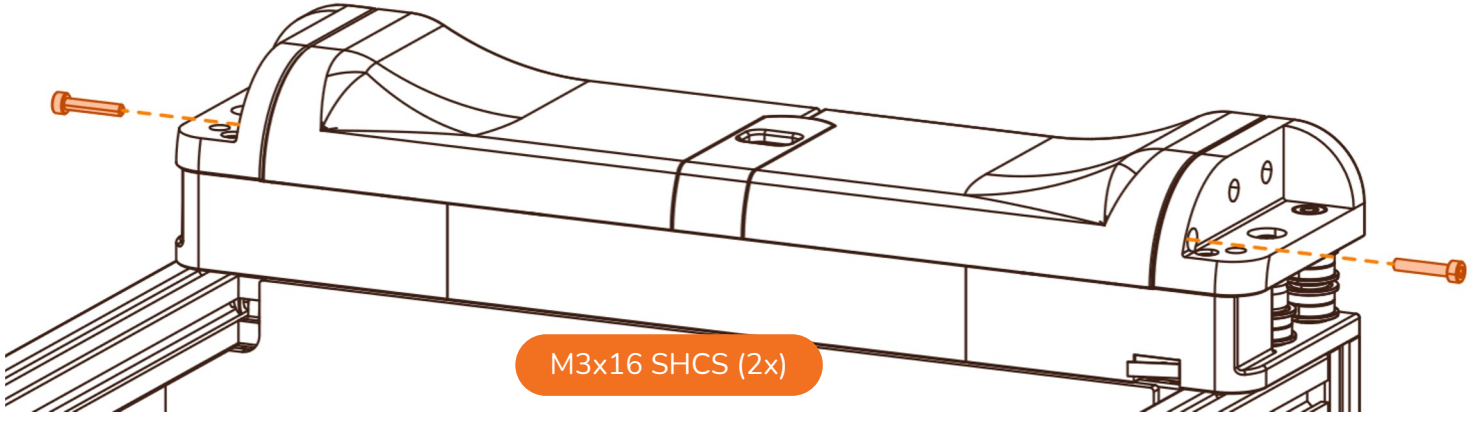
Tighten fully; they're likely to make noise while being tightened. Continue until the bottom of the screw head is flush with the print surface.

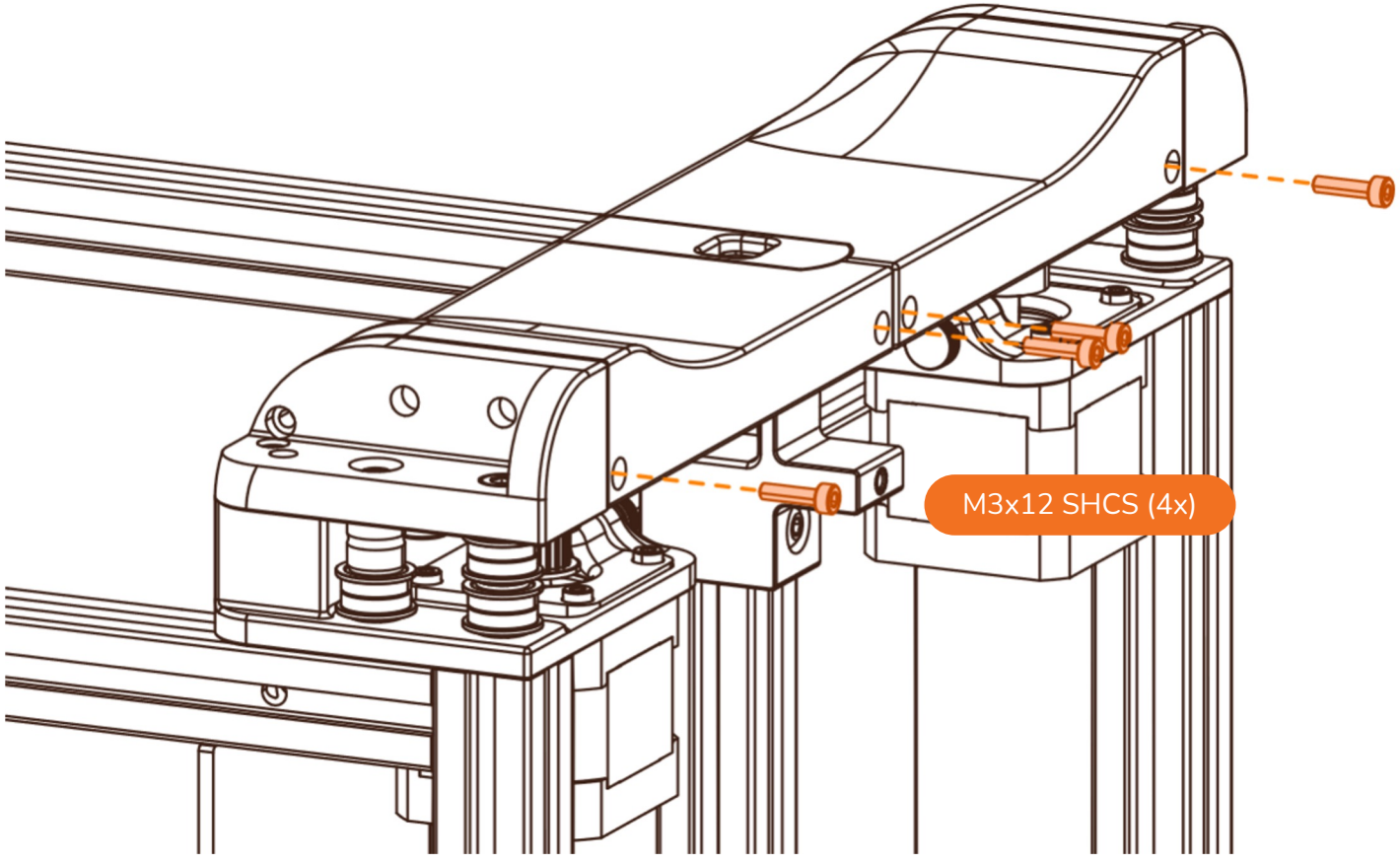




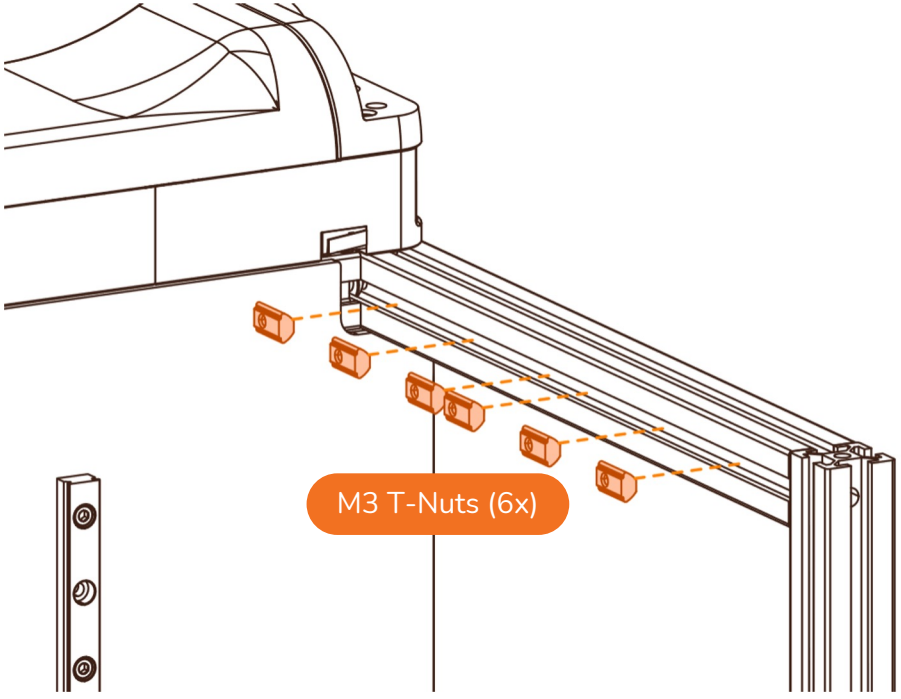
HANG LOOSE

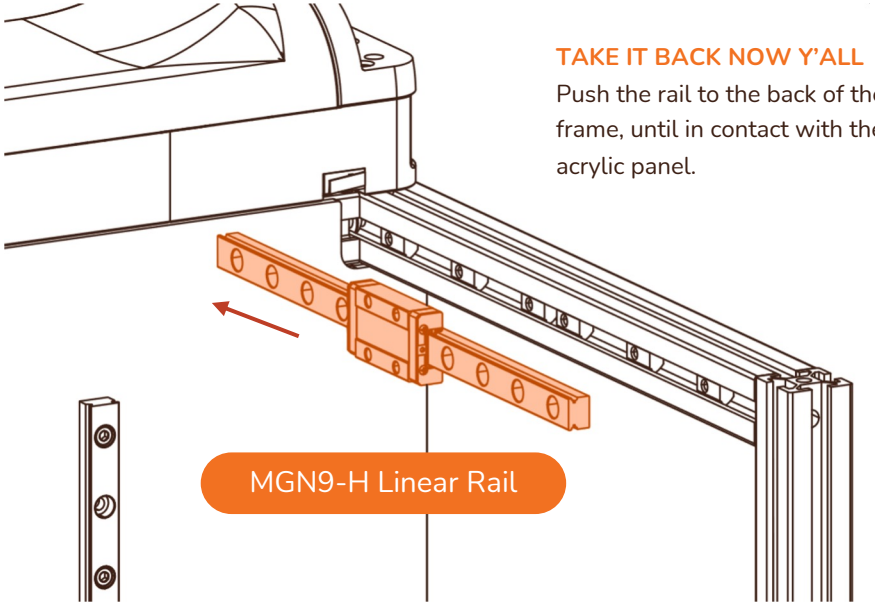
Leave the M3x16 screws loose enough that the hinge of the Drive Cover Left & Right can still pivot. Tightening them too well will result in them not being able to hinge.




M3x12 SHCS (4x)

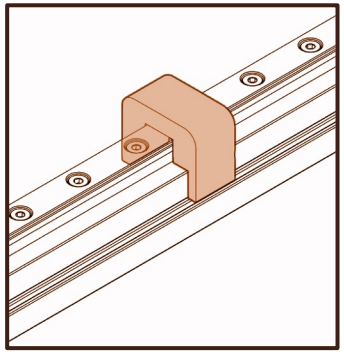
Difficulty	Medium
Tools Needed	M3 Driver
Hardware Needed	M3 T-Nuts (12x) M3x8 SHCS (12x) MGN-H Linear Rail (2x)
Printed Parts Needed	MGN9 Rail Guide (2x)





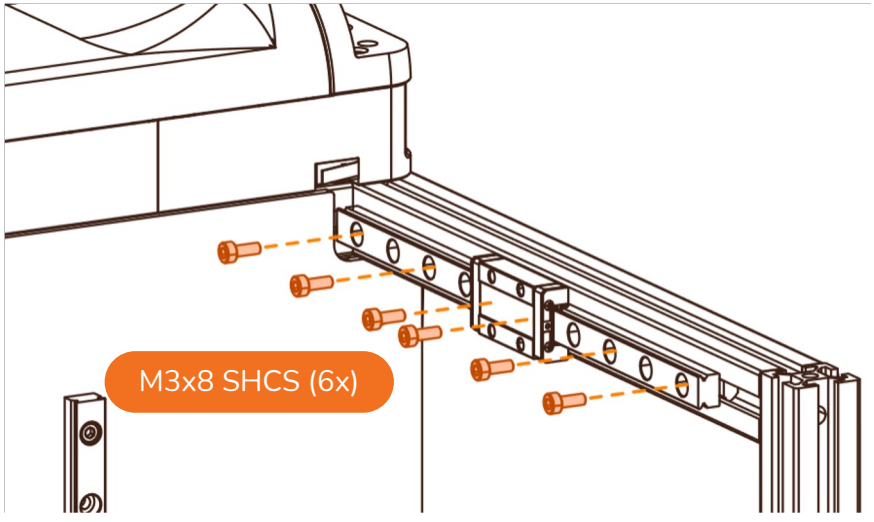
TAKE IT BACK NOW Y'ALL

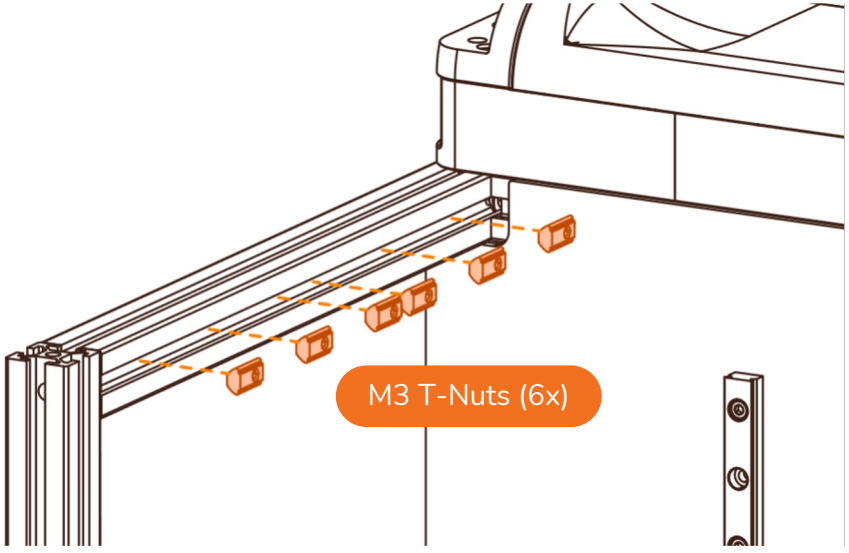
Push the rail to the back of the frame, until in contact with the acrylic panel.

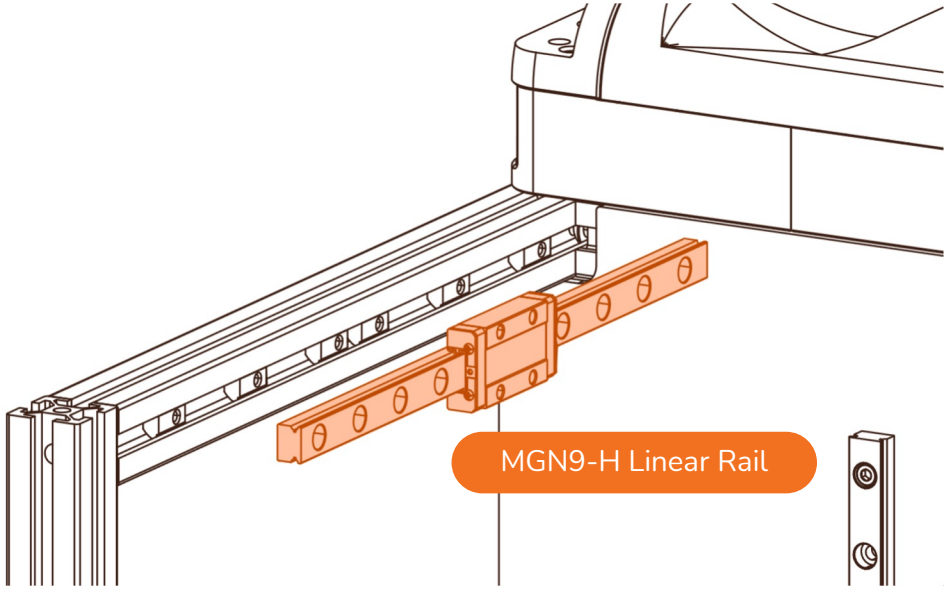


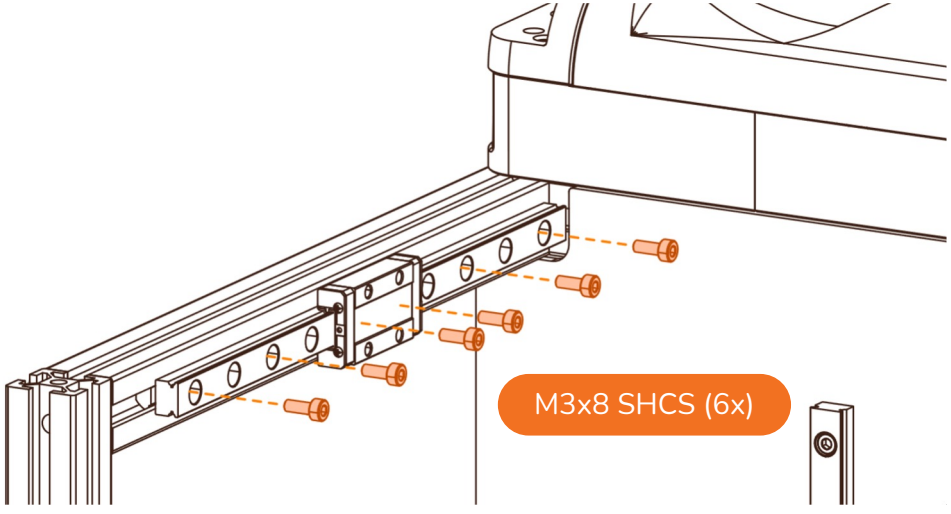
RAIL INSTALLATION GUIDES

Use the guides to position the rail in the center of the extrusion prior to fastening the screws.

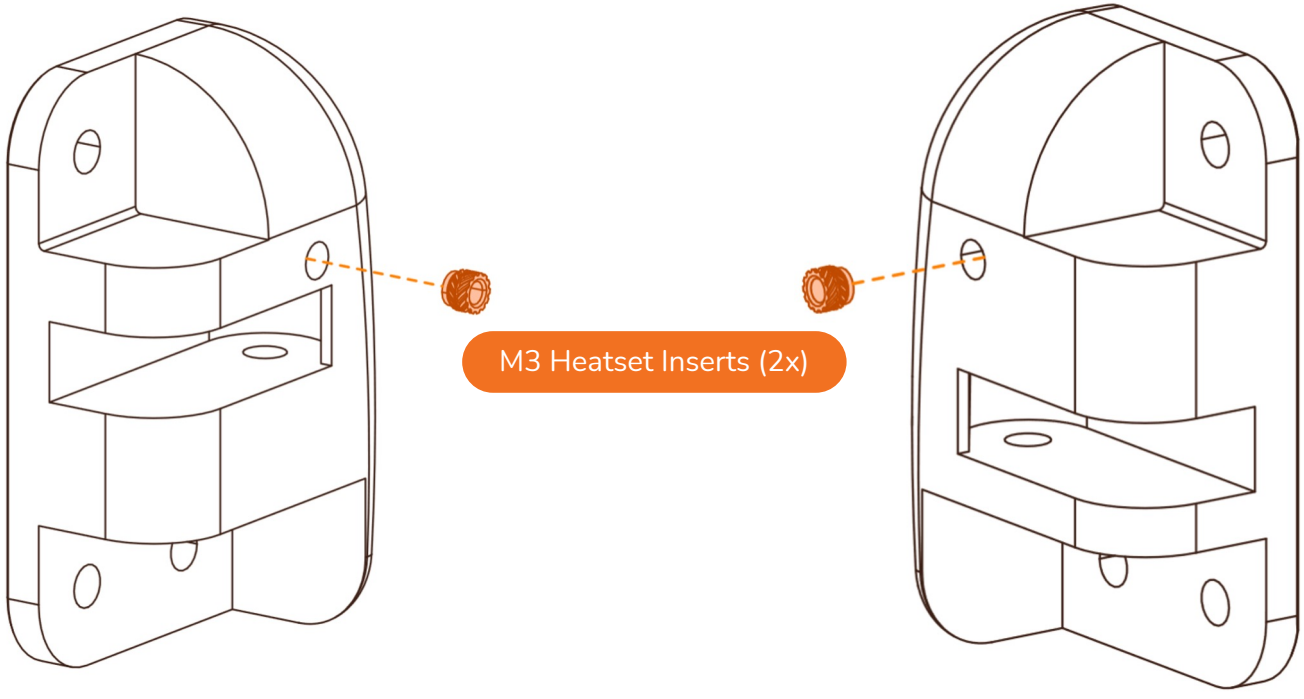


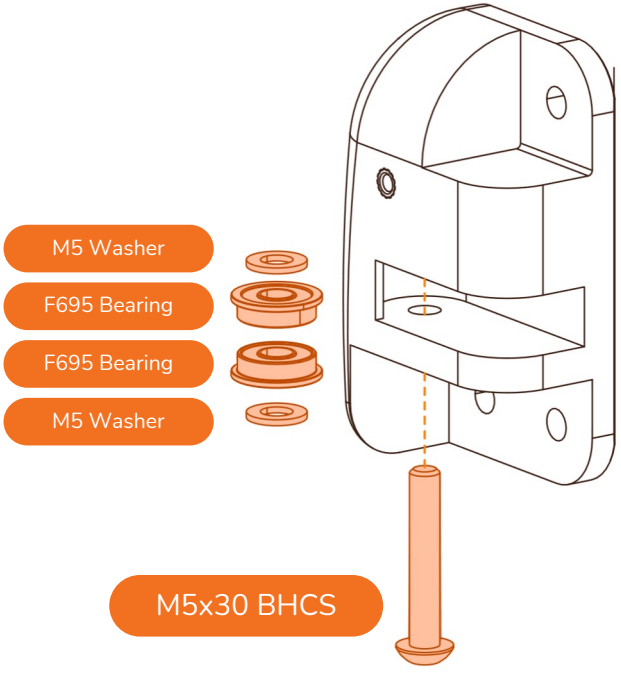

M3 T-Nuts (6x)

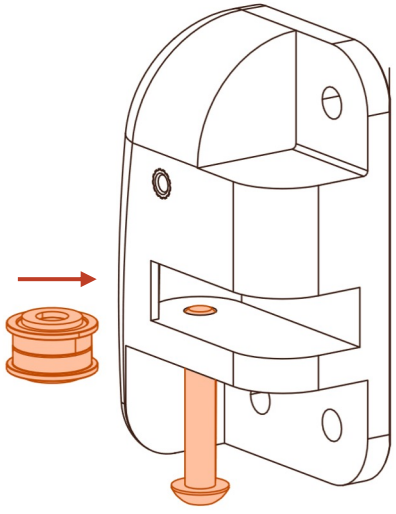

MGN9-H Linear Rail

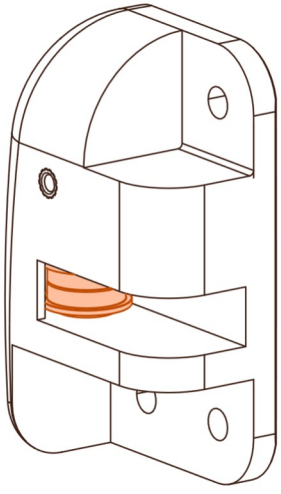

M3x8 SHCS (6x)

Difficulty	Medium
Tools Needed	M2 Driver M3 Driver M5 Driver Heatset Insert Tool Soldering Iron (Not Included)
Hardware Needed	M3 Heatset Inserts (4x) M5 Washer (4x) F695 Bearing (4x) M5x30 Button Head Cap Screw (2x) M5 T-Nuts (4x) M5x10 Button Head Cap Screw (4x)
Printed Parts Needed	Front Idler Left (1x) Front Idler Right (1x)


M3 Heatset Inserts (2x)

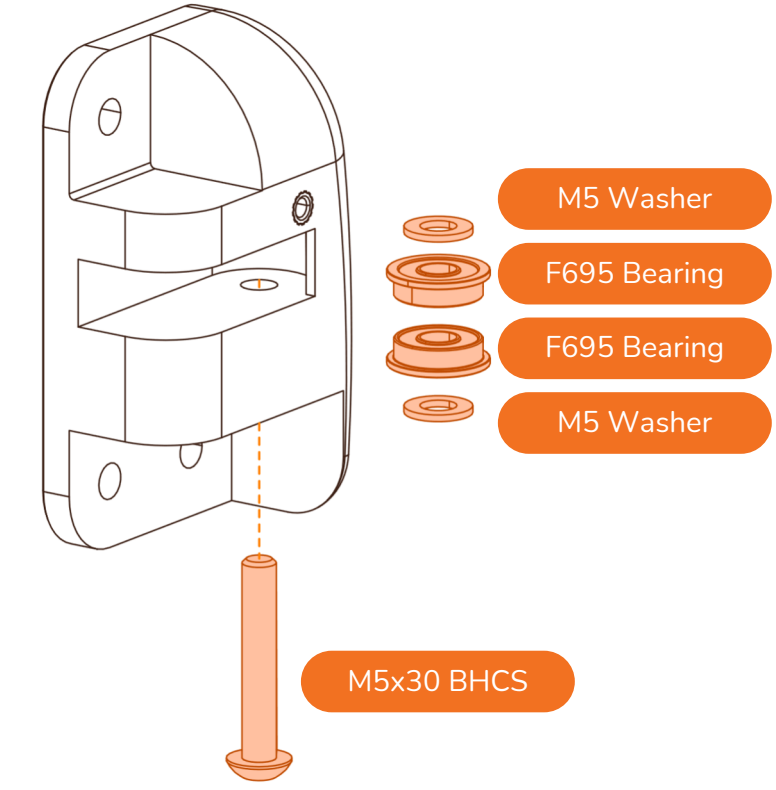






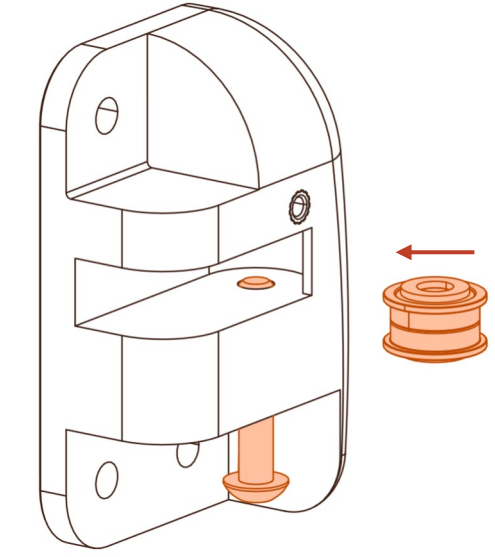
THREADING INTO PLASTIC

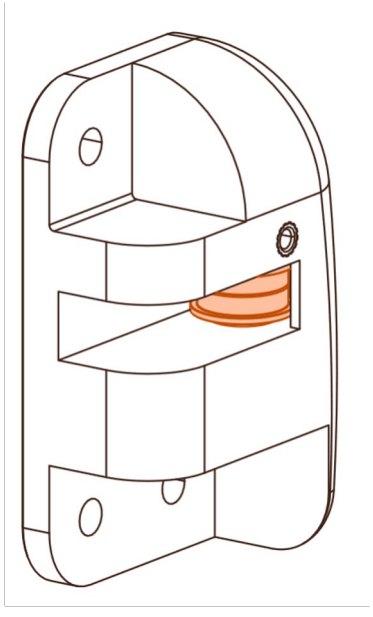
This screw threads into the plastic printed part, take care not to strip it by tightening it too much.

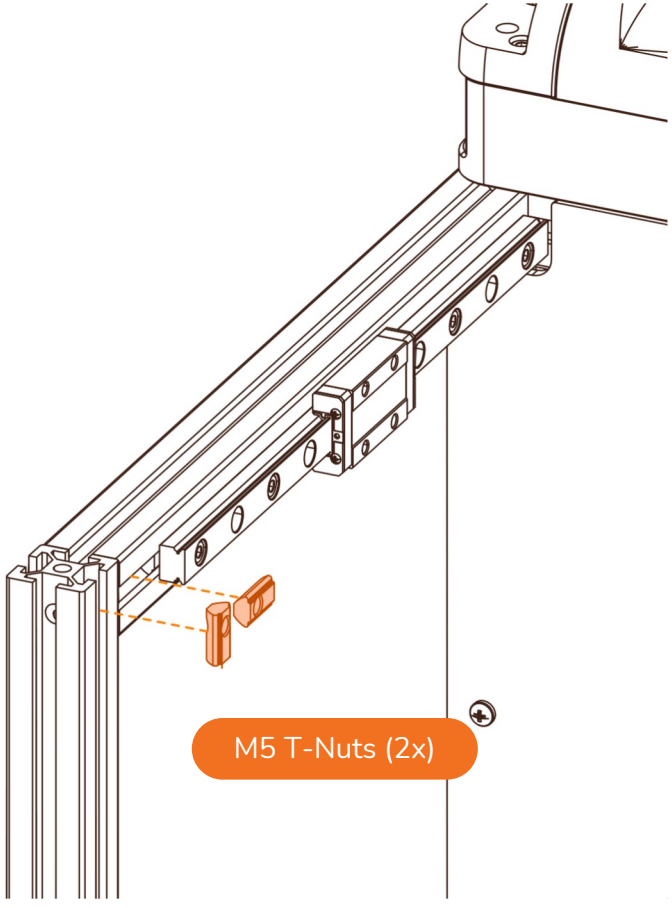


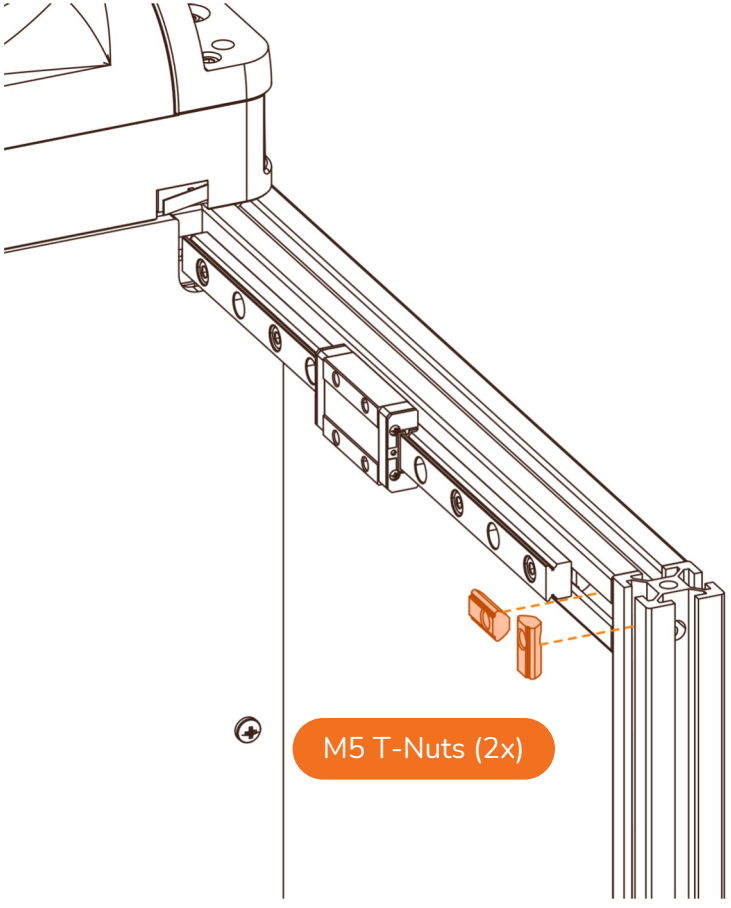
THREADING INTO PLASTIC

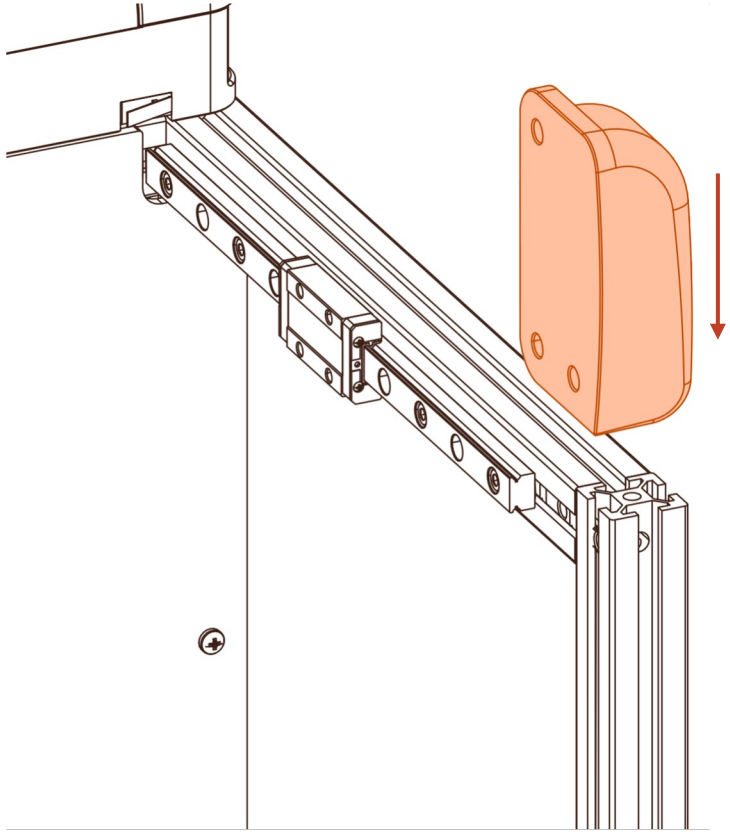
This screw threads into the plastic printed part, take care not to strip it by tightening it too much.

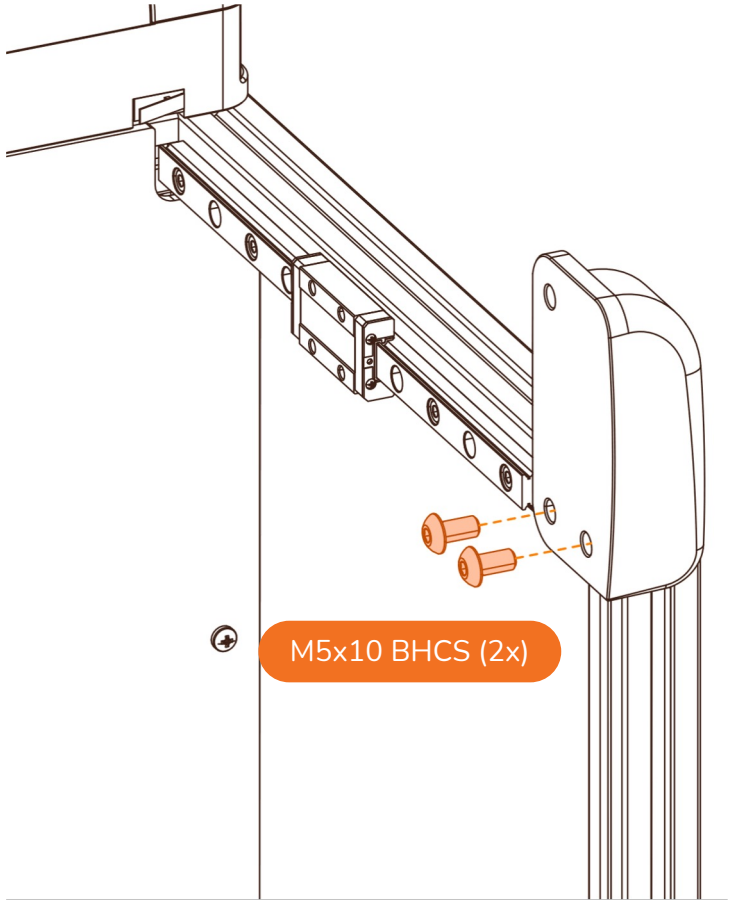


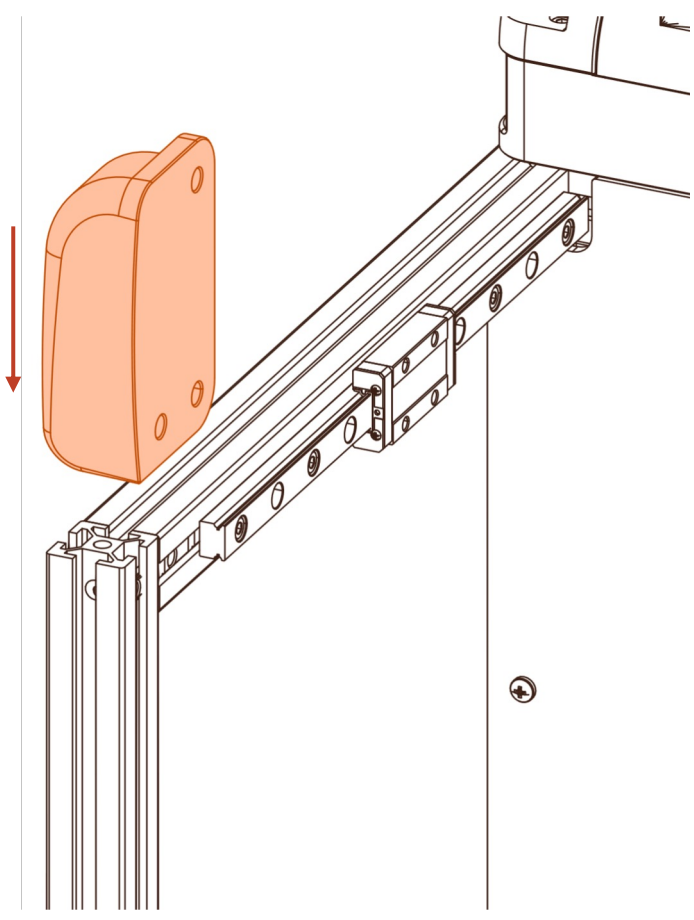


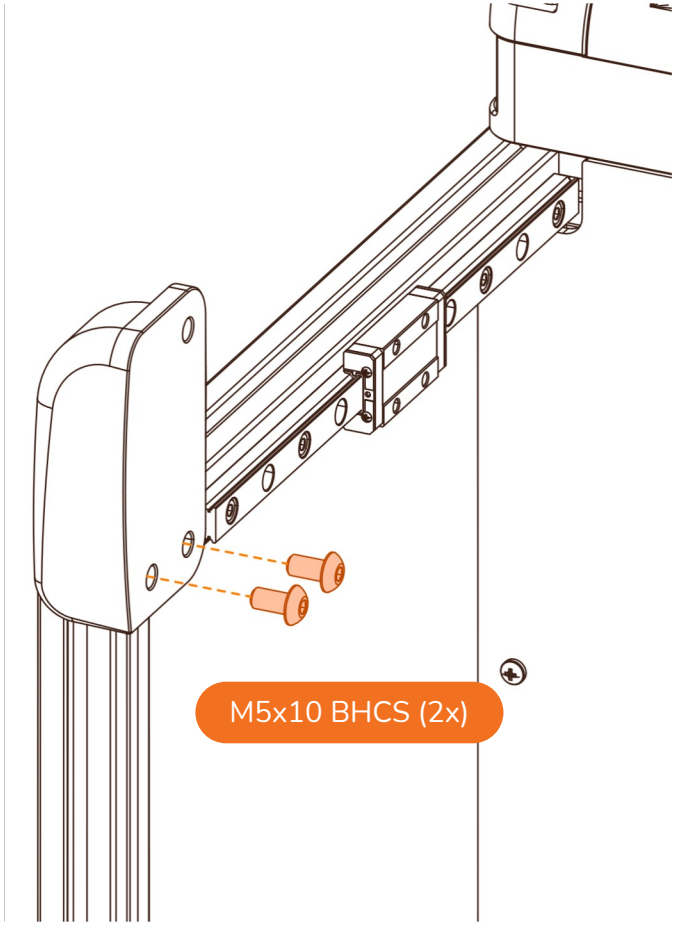

M5 T-Nuts (2x)

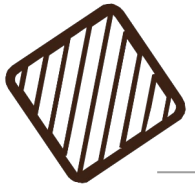

M5 T-Nuts (2x)



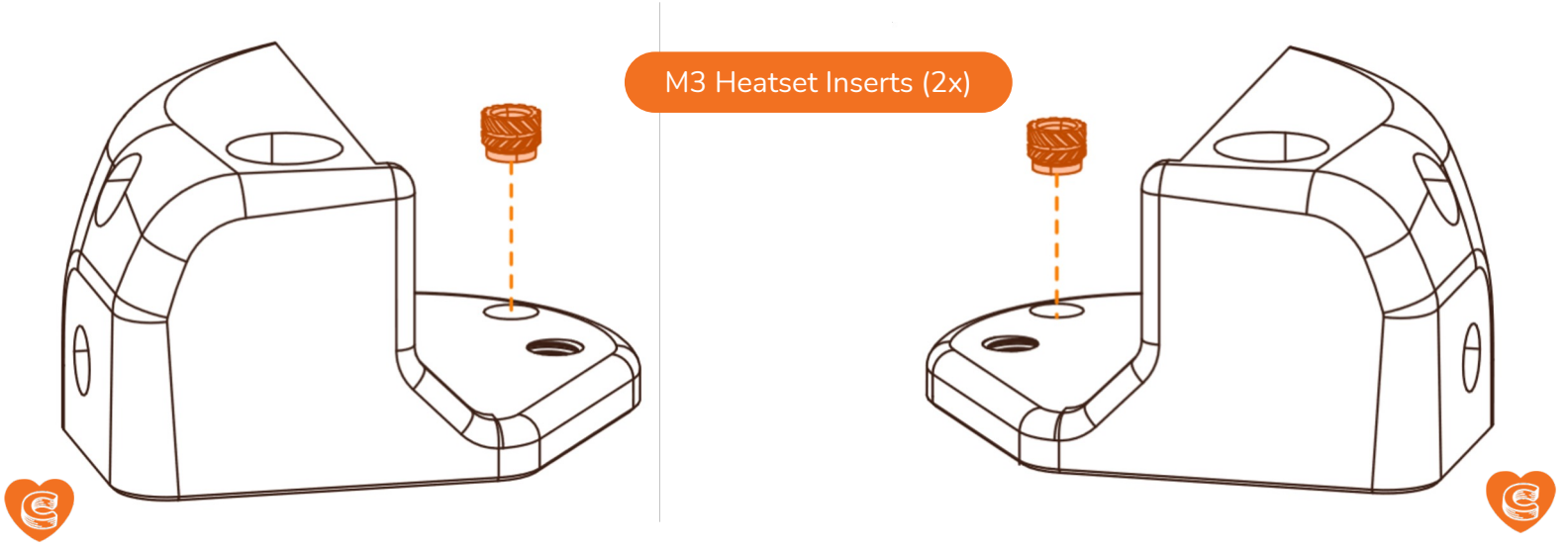

M5x10 BHCS (2x)




M5x10 BHCS (2x)

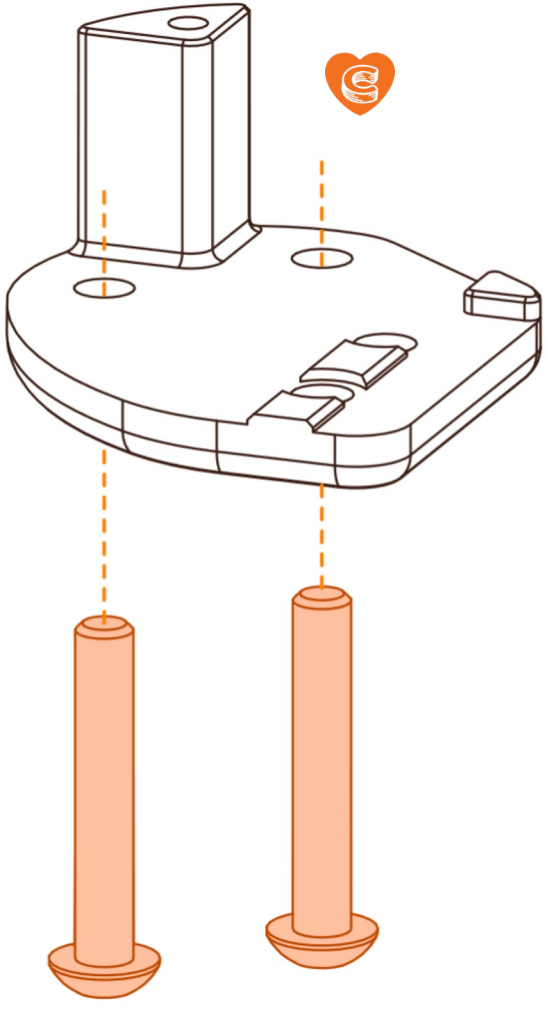


Difficulty	Medium
Tools Needed	M2 Driver M3 Driver M5 Driver Heatset Insert Tool Soldering Iron (Not Included)
Hardware Needed	M3 Heatset Inserts (2x) M5x30 Button Head Cap Screw (2x) F695 Bearings (4x) M5 Washers (4x) M3x30 Socket Head Cap Screw (1x)
Printed Parts Needed	XY Lower Left (1x) XY Upper Left (1x) Printed Spacer (2x)

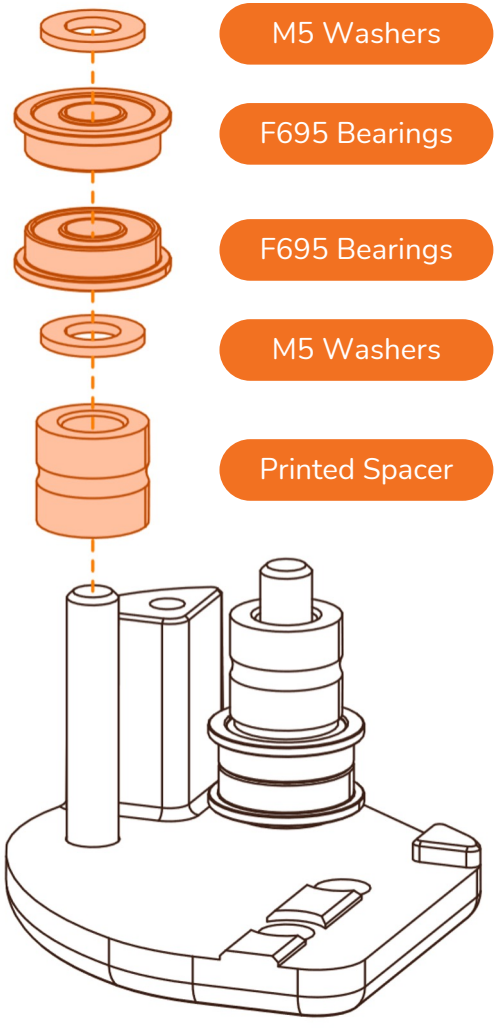

M3 Heatset Inserts (2x)

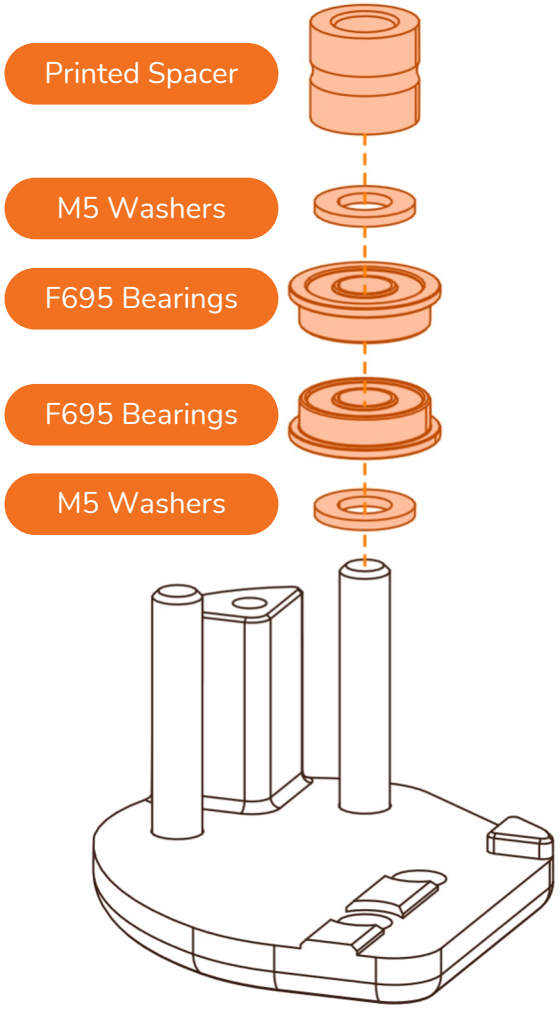
MIRROR MIRROR ON THE WALL...

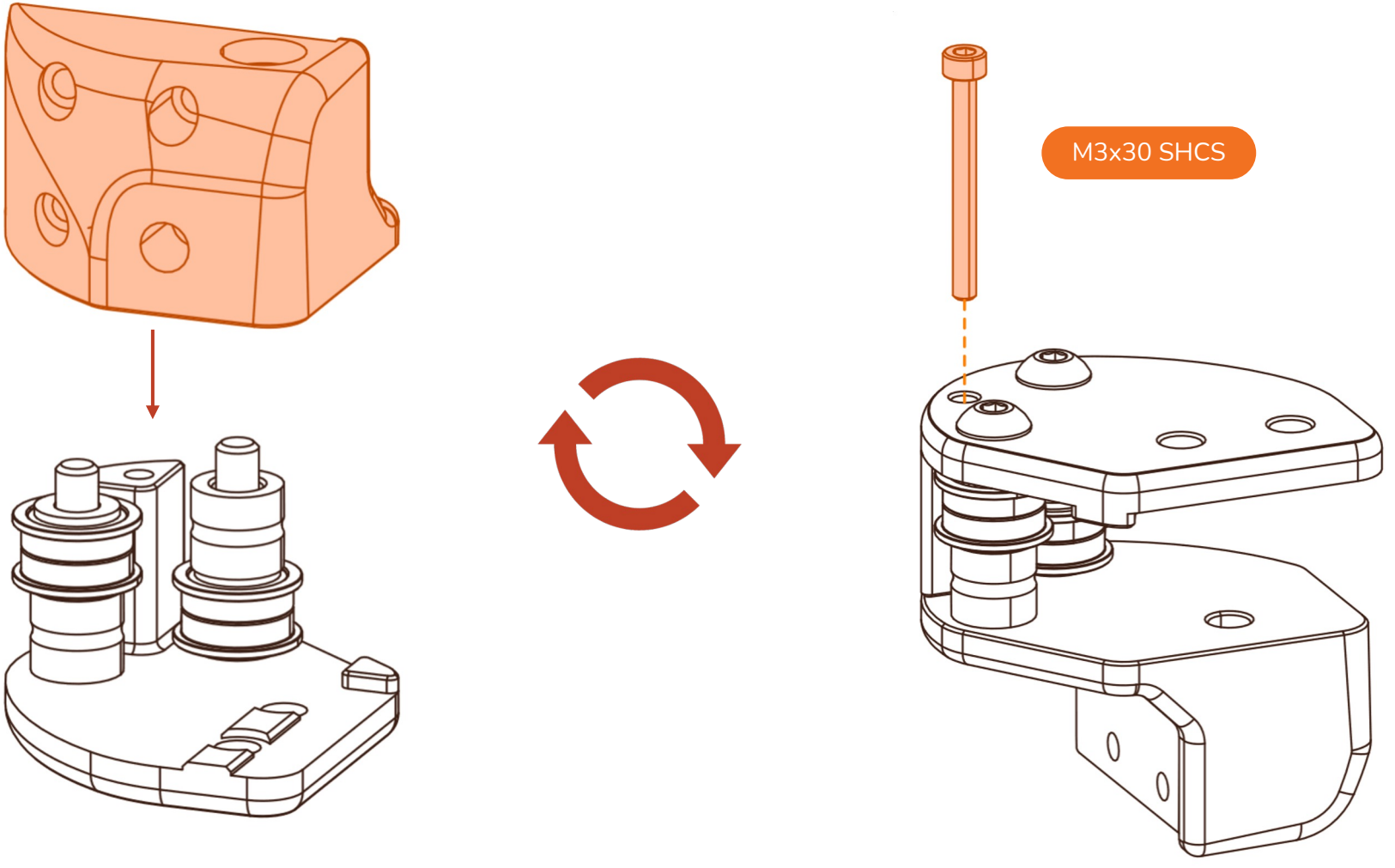
The X/Y joints use similar, *but not identical*, mirrored parts. Be sure to closely match the printed part you are using to the picture to ensure you are assembling the correct joint.



M5x30 BHCS (2x)


M5 Washers
F695 Bearings
F695 Bearings
M5 Washers
Printed Spacer

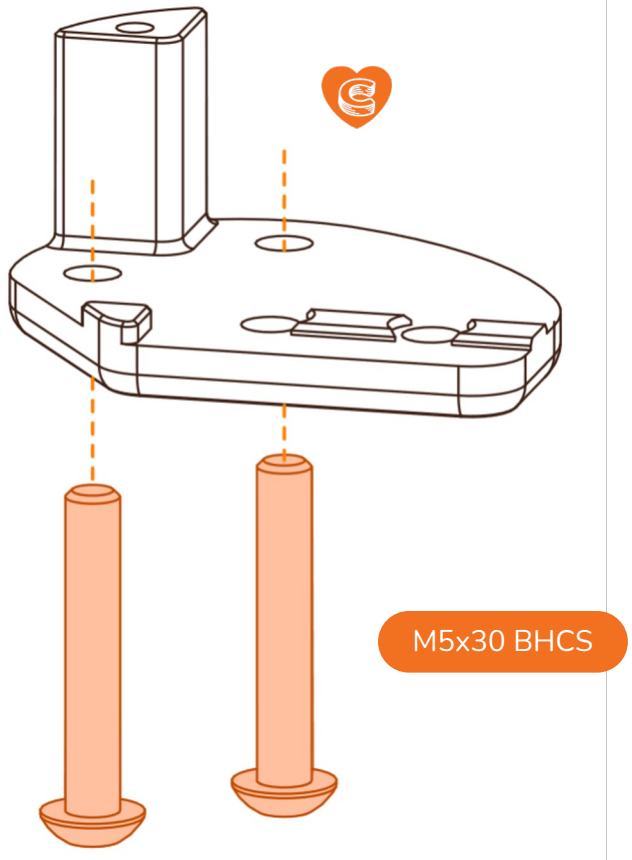

Printed Spacer
M5 Washers
F695 Bearings
F695 Bearings
M5 Washers

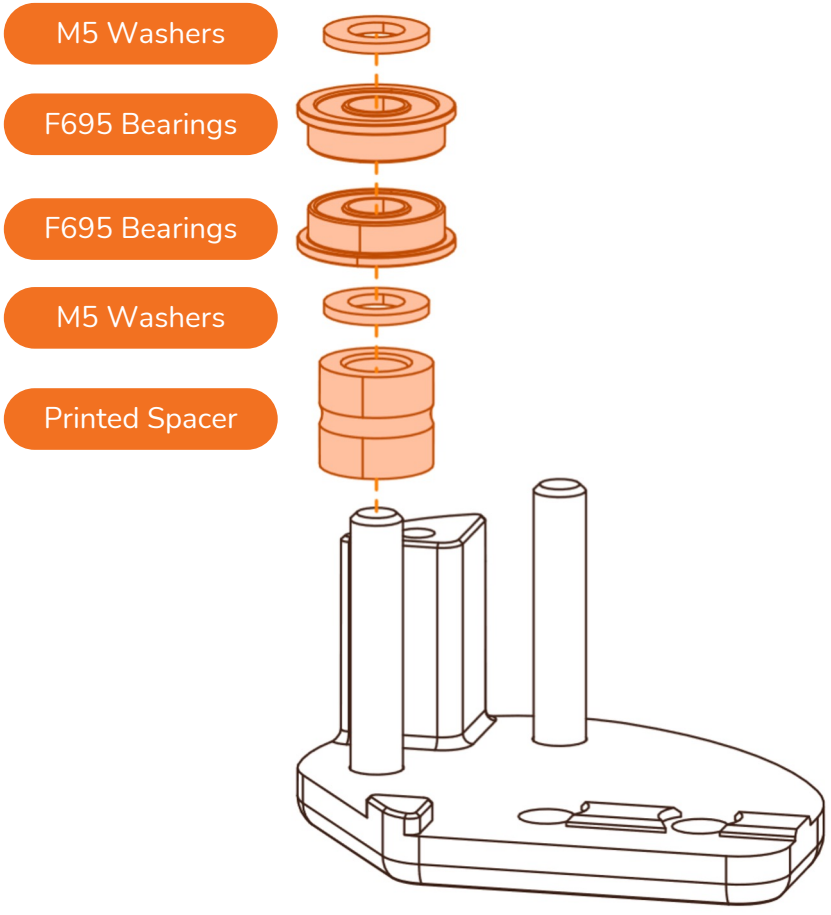

M3x30 SHCS

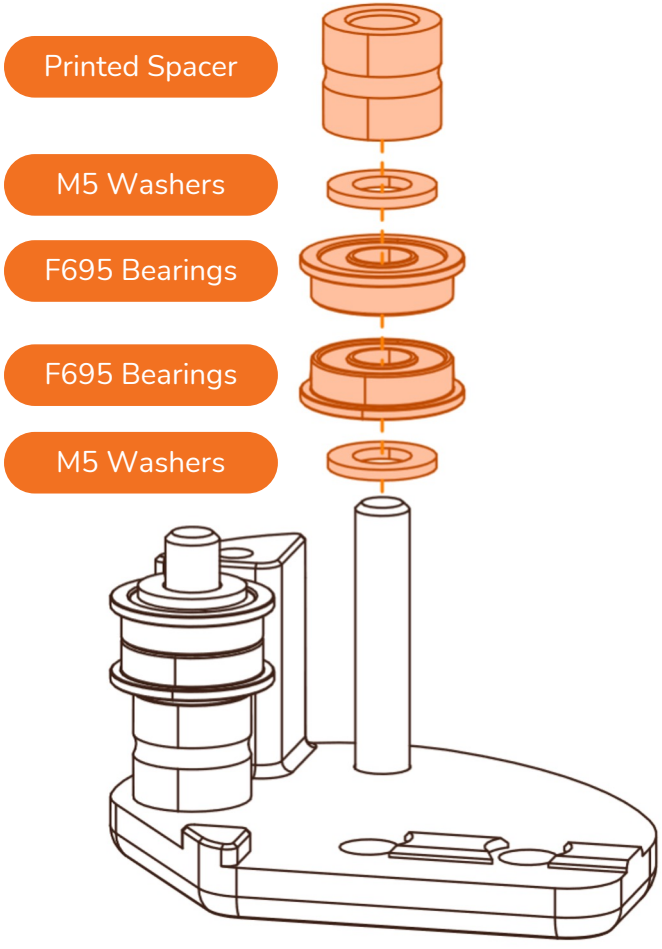
Difficulty	Medium
Tools Needed	M2 Driver M3 Driver M5 Driver Heatset Insert Tool Soldering Iron (Not Included)
Hardware Needed	M5x30 Button Head Cap Screw (2x) F695 Bearings (4x) M5 Washers (4x) M3x30 Socket Head Cap Screw (1x)
Printed Parts Needed	XY Lower Left (1x) XY Upper Left (1x) Printed Spacer (2x)

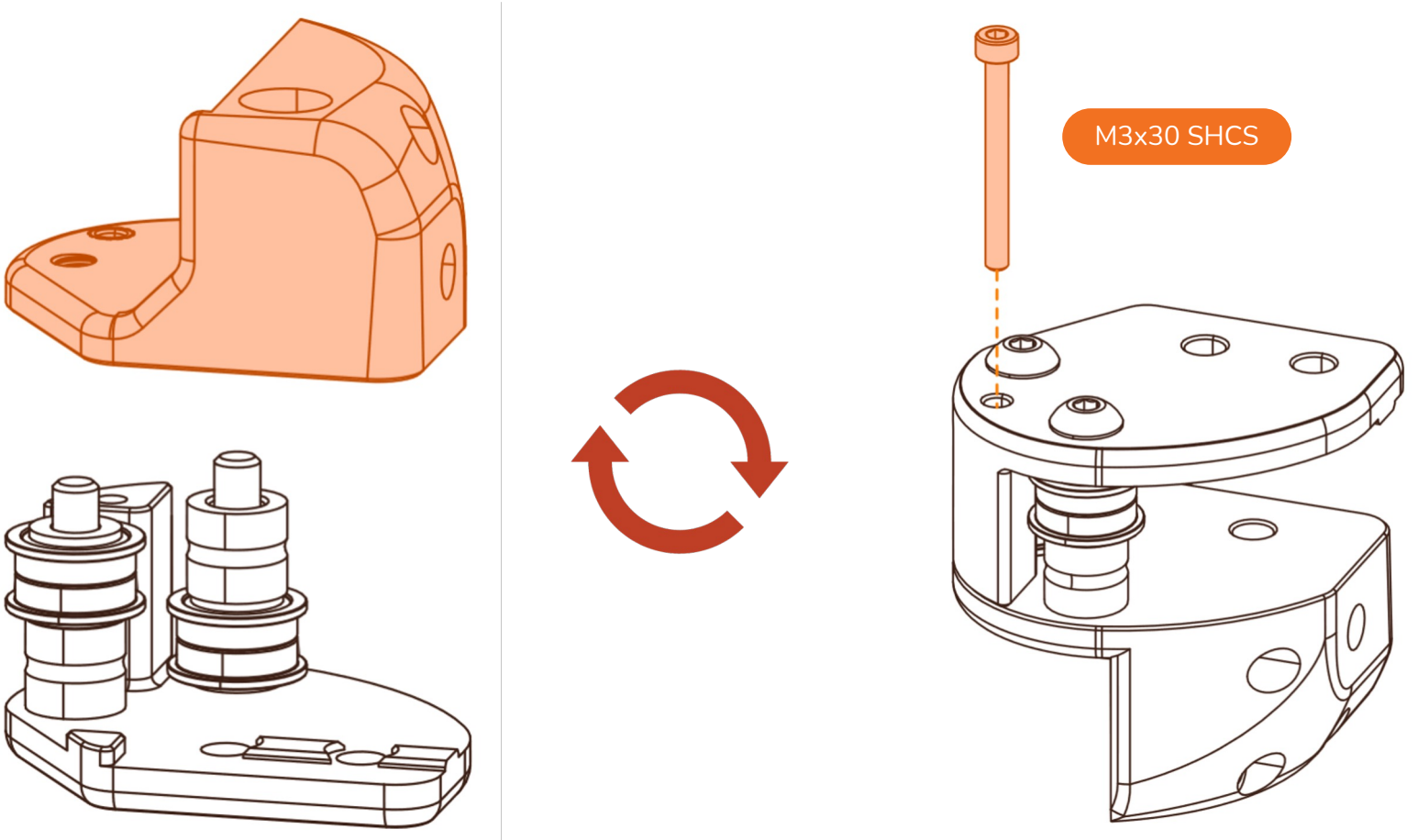
...WHO IS THE FAIREST OF THEM ALL

The X/Y joints use similar, but not the same, parts. Closely match the printed part you are using to the picture to ensure you are assembling the correct joint.

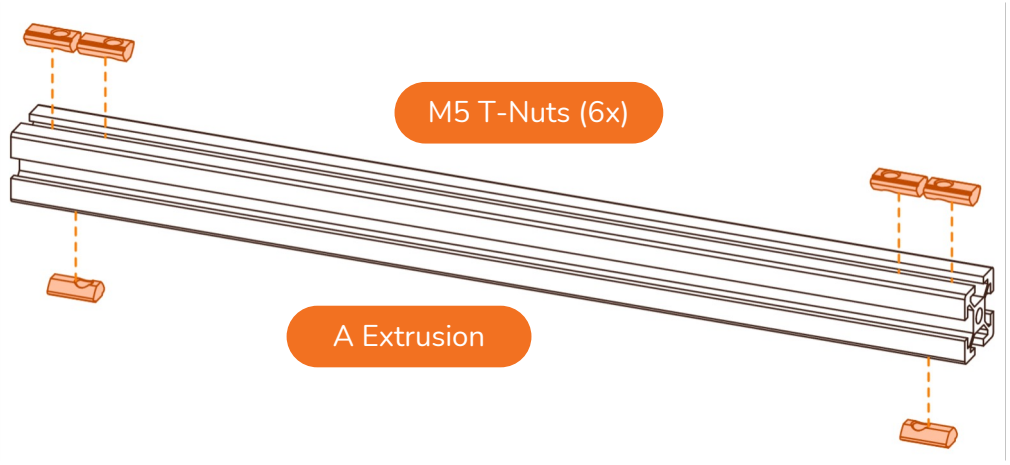


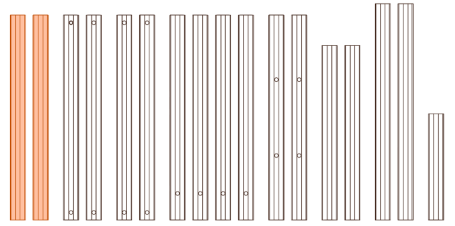

M5 Washers
F695 Bearings
F695 Bearings
M5 Washers
Printed Spacer


Printed Spacer
M5 Washers
F695 Bearings
F695 Bearings
M5 Washers


M3x30 SHCS

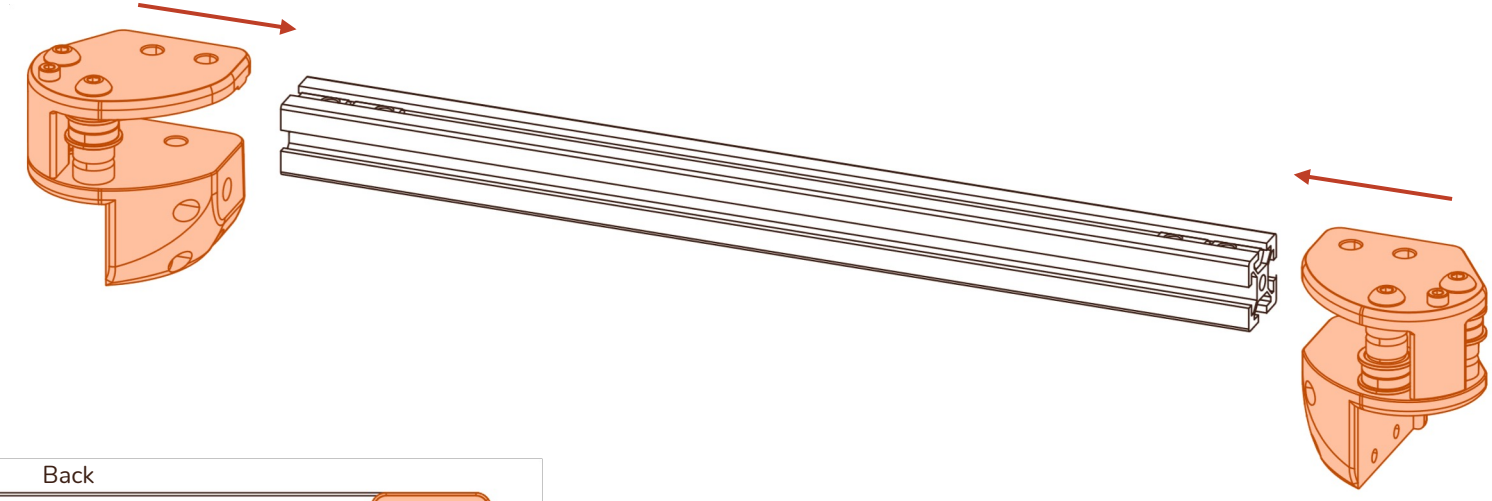
Difficulty	Easy
Tools Needed	M2 Driver M3 Driver M5 Driver Heatset Insert Tool Soldering Iron (Not Included)
Hardware Needed	M5x10 Button Head Cap Screw (4x) M5x30 Button Head Cap Screw (2x) M3x8 Socket Head Cap Screw (10x) M3x16 Socket Head Cap Screw (8x) M5 T-Nuts (6x) M3 T-Nuts (10x)
Printed Parts Needed	Rail Installation Guides (2x)

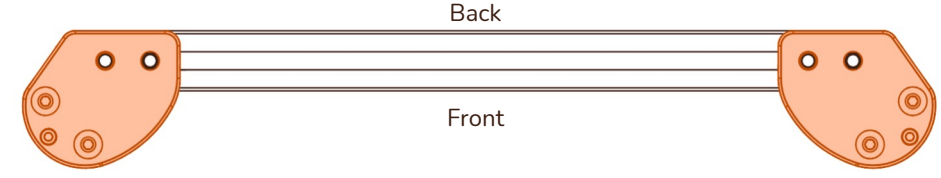


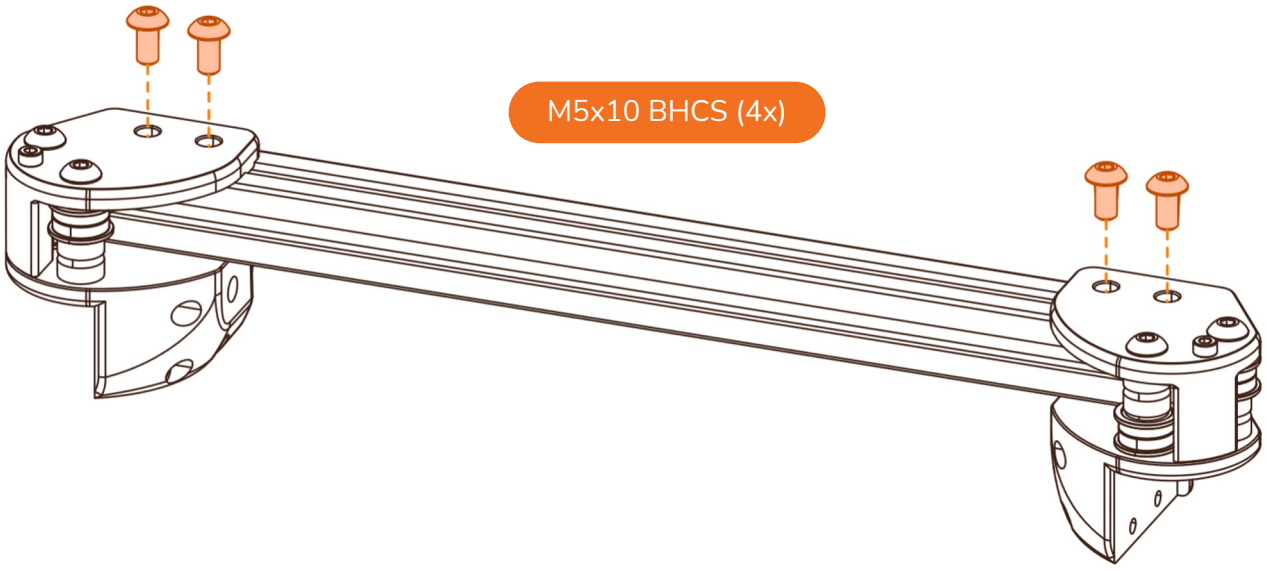


WHEN WILL MY REFLECTION SHOW...

Double-check that your X/Y gantry joints follow the diagrams on this page accurately. Otherwise, a partial or full disassembly of the X/Y gantry may be required to resolve issues.

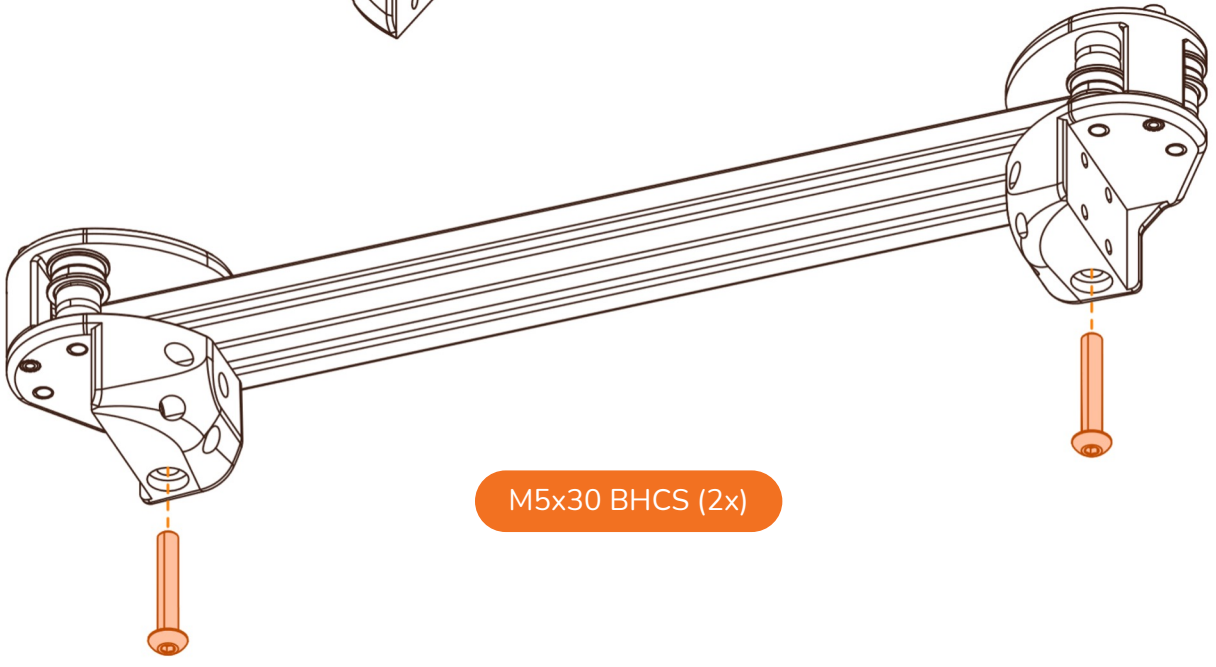


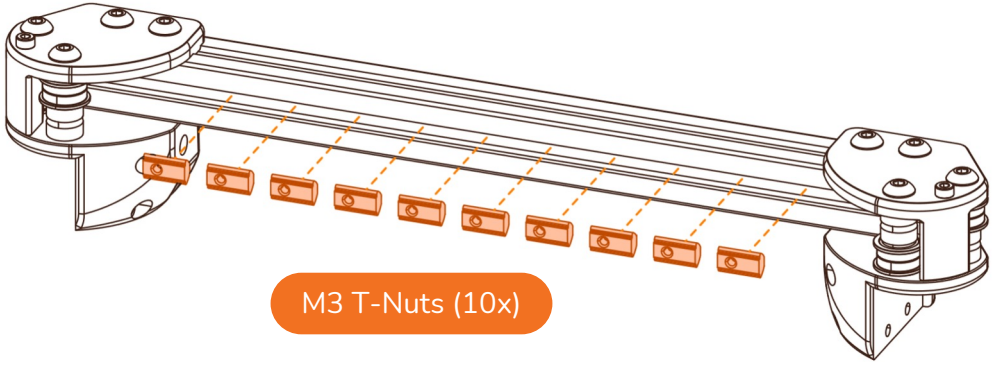




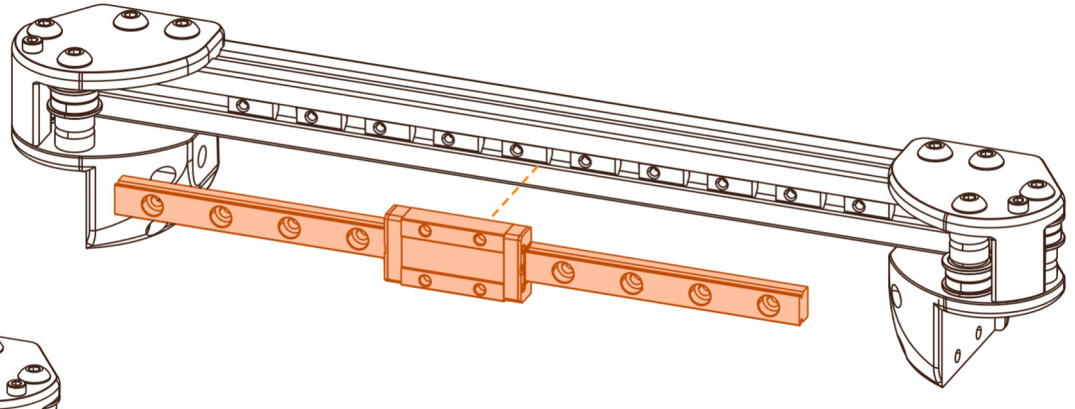
NOT SO FAST

Leave these 6 screws loose for now. We will tighten them at a later step, when the gantry is installed in the machine.



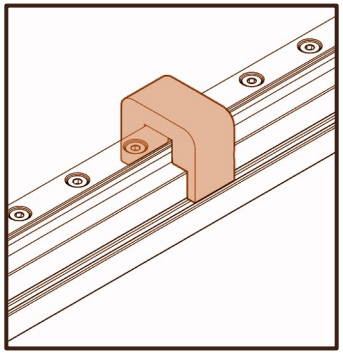


M3 T-Nuts (10x)



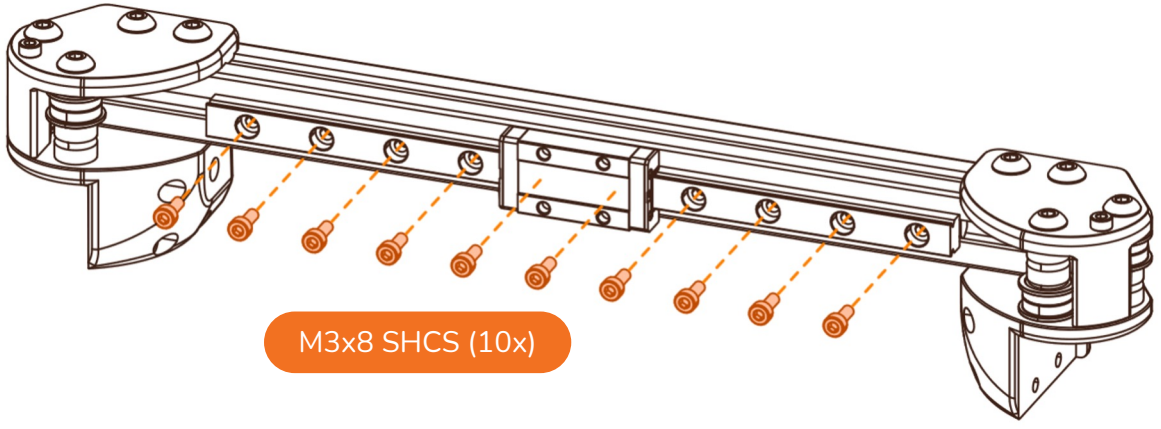
BALANCE, HARMONY...

Center the rail on the extrusion as best you can.

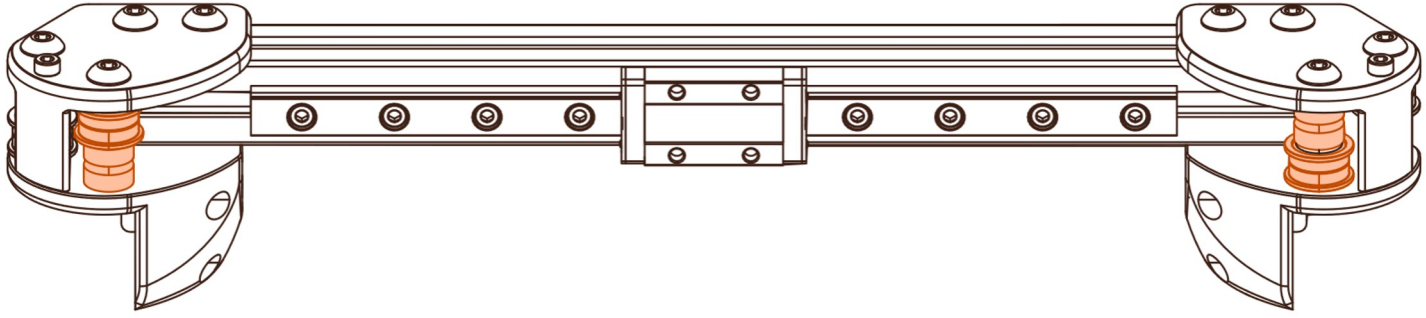


RAIL INSTALLATION GUIDES

Use the guides to position the rail in the center of the extrusion prior to fastening the screws.

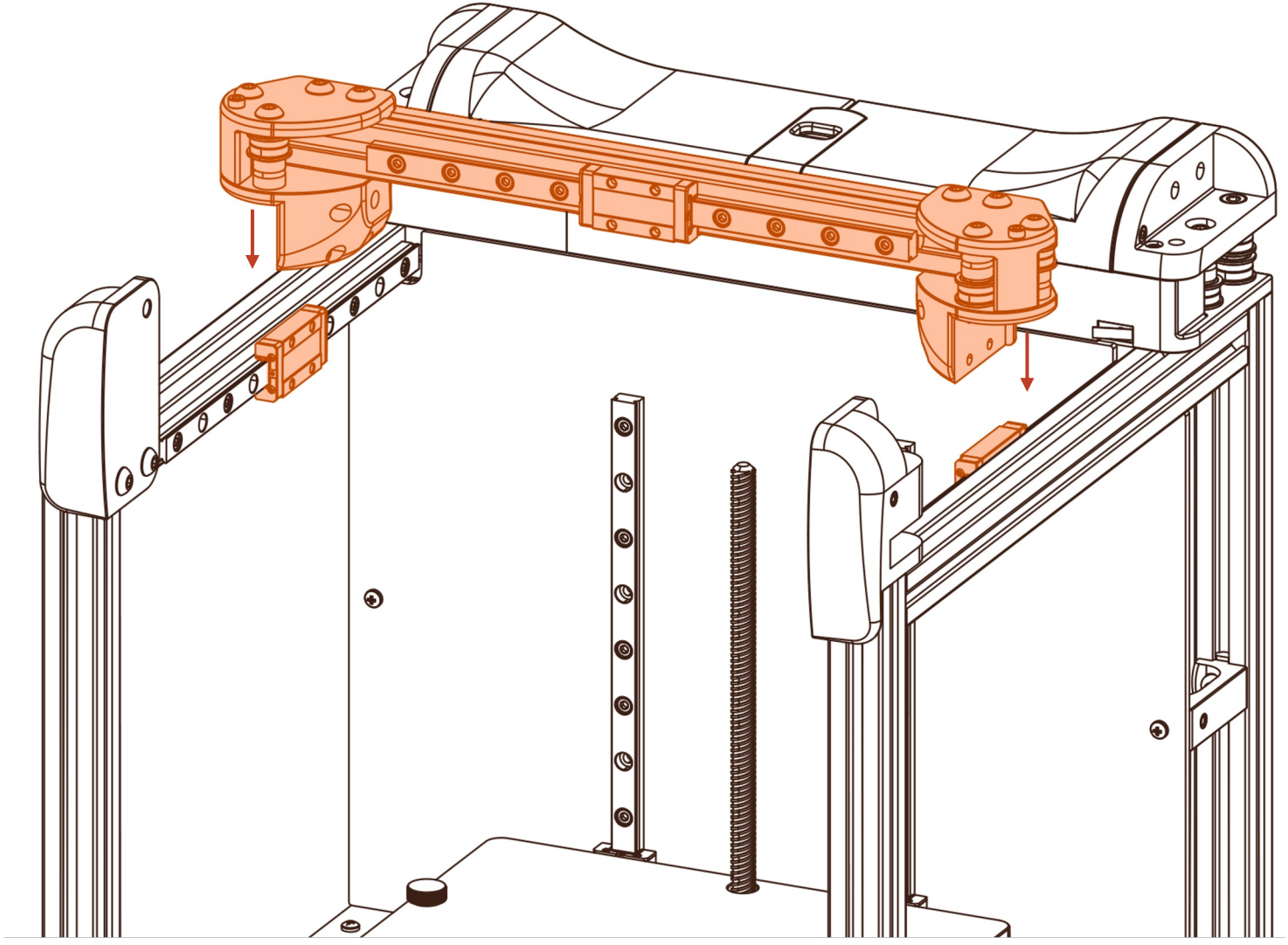


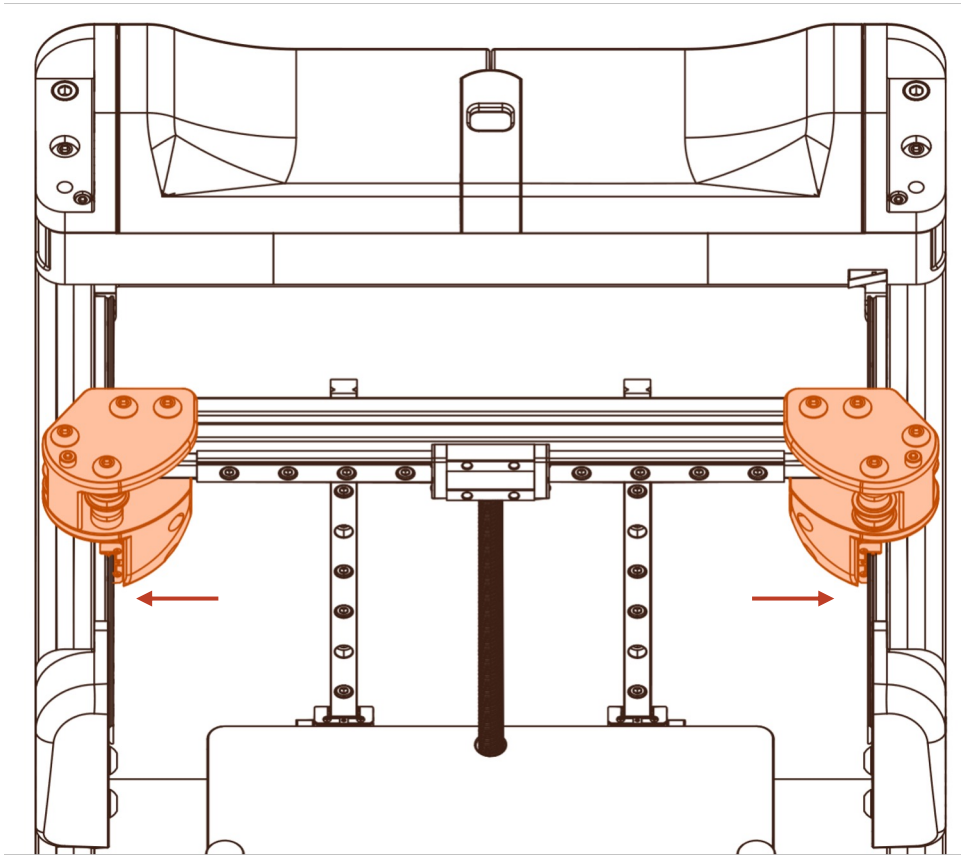
M3x8 SHCS (10x)

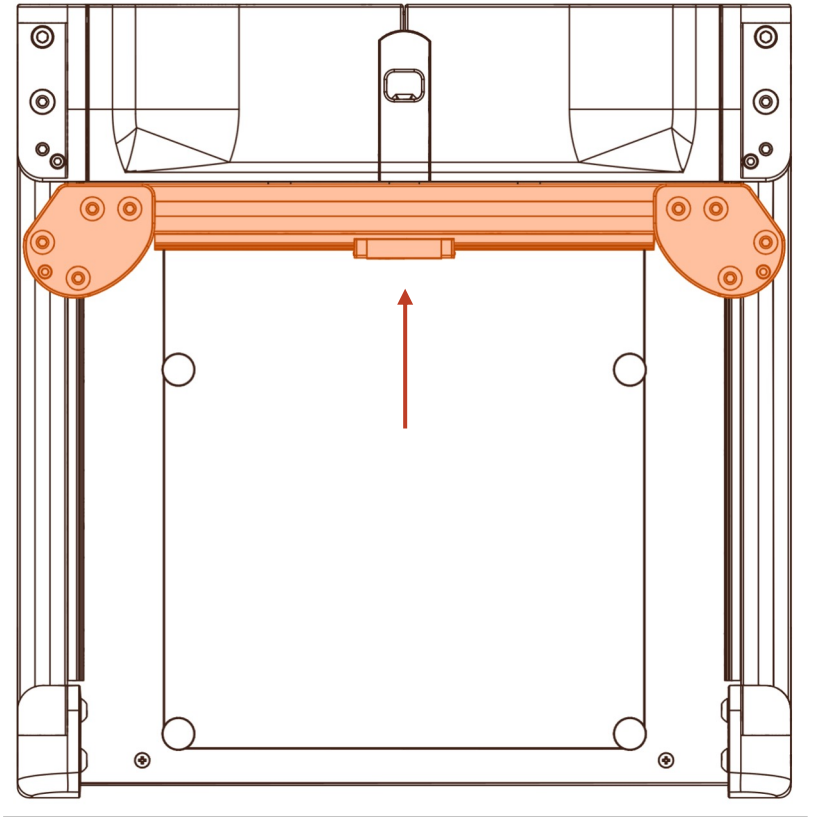


TRUST BUT VERIFY

Double check your work. The bearing positions should match the image above.





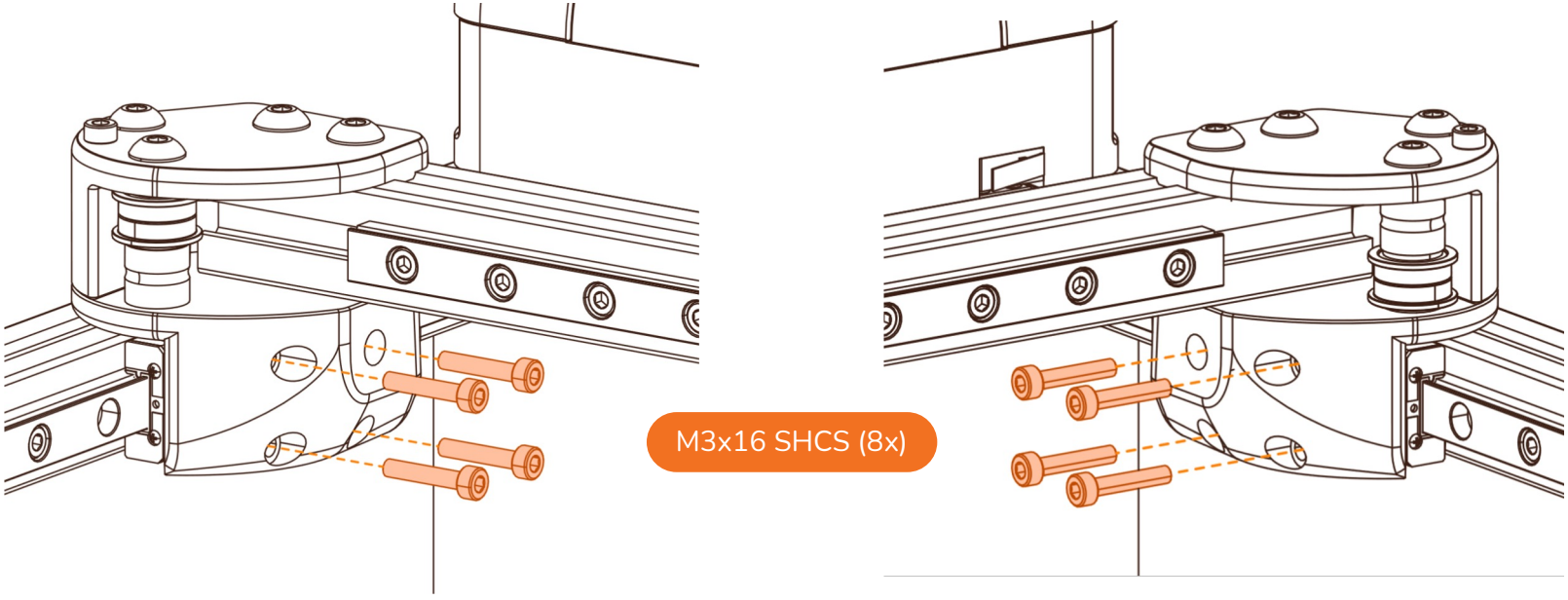


GANTRY INSTALLATION

Press the X/Y joints outward so that they are flush with the Y carriages, then move the gantry all the way to the rear of the machine.

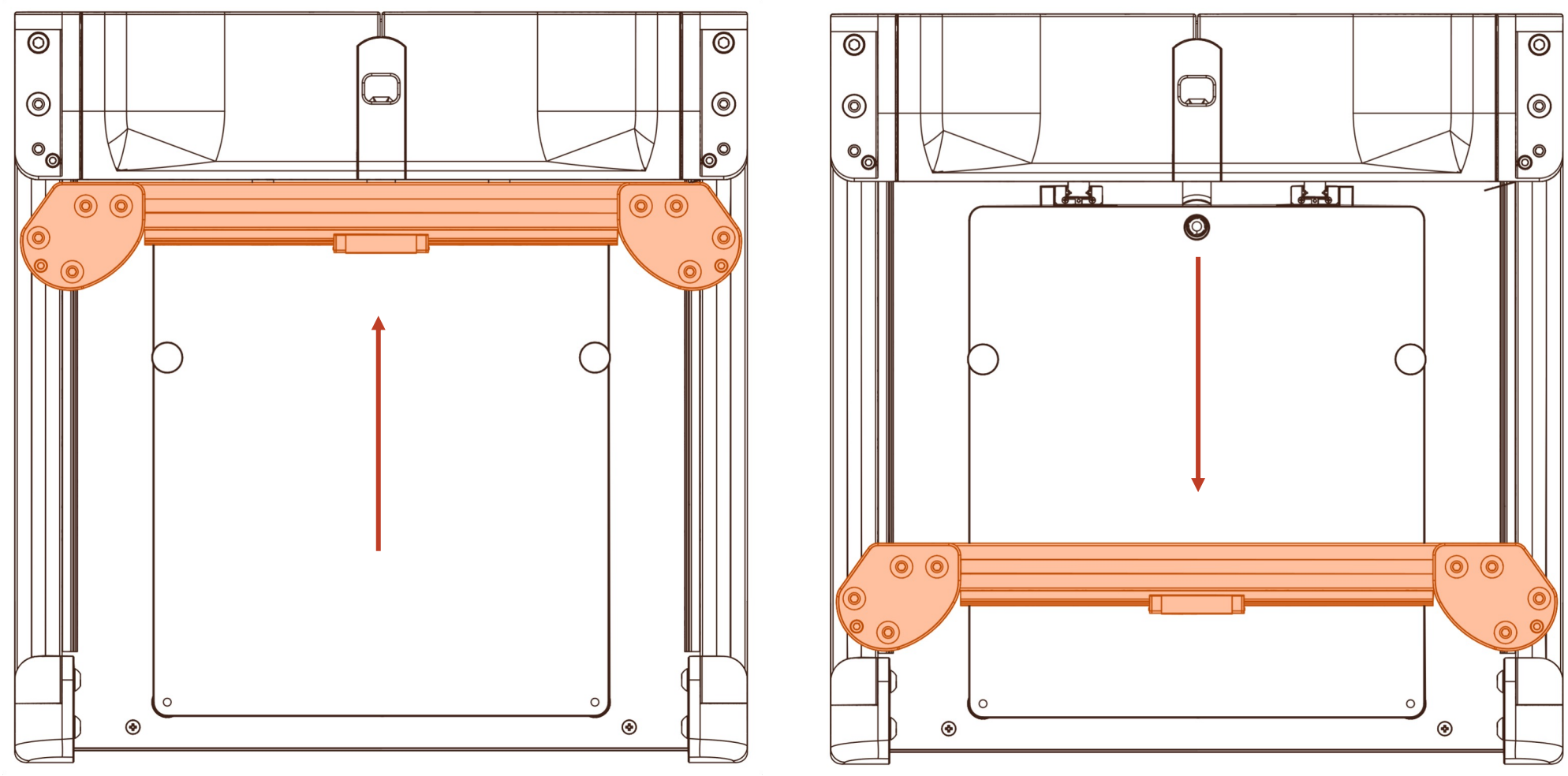
CLICK CLICK!

Make sure that when the gantry collides with the rear of the machine. The Y limit switch makes a quiet “click” noise.



SECURE THE GANTRY IN PLACE

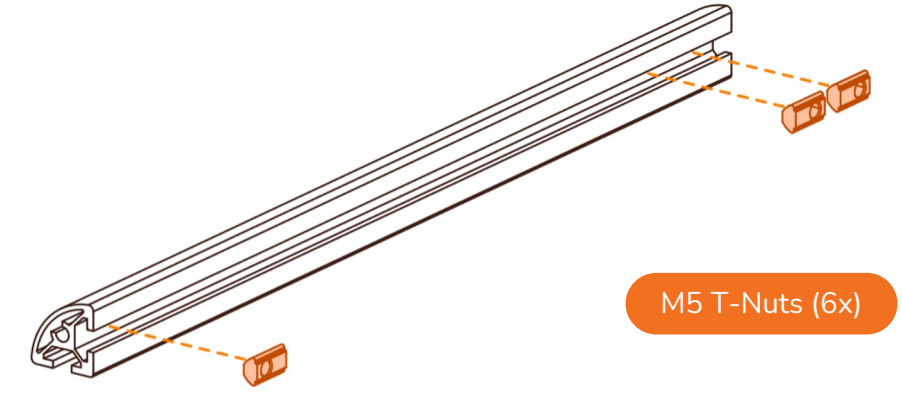
Now we can tighten the 6 screws we left loose earlier. This will complete the installation of the gantry.



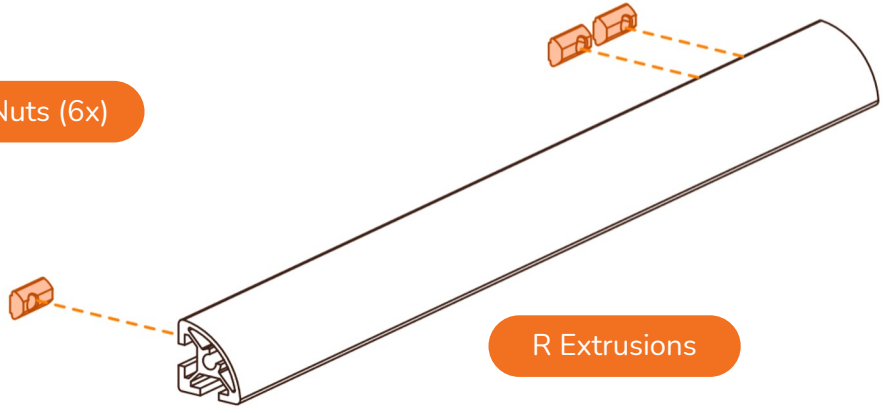
TEST THE GANTRY MOTION

Slide the gantry back and forth to ensure that it has smooth consistent motion along its entire travel distance. Listen to verify the Y limit switch makes a quiet “click” noise when the gantry is at the back of the machine.

Difficulty	Easy
Tools Needed	M3 Driver M5 Driver
Hardware Needed	R Extrusions (2x) M5 T-Nuts (6x) M5x10 Button Head Cap Screw (6x)
Printed Parts Needed	None



M5 T-Nuts (6x)

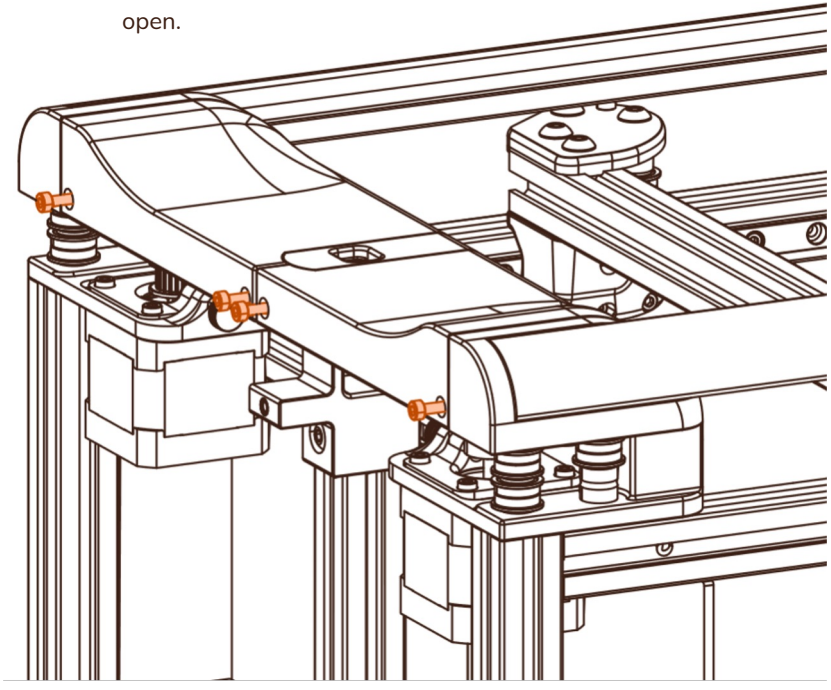


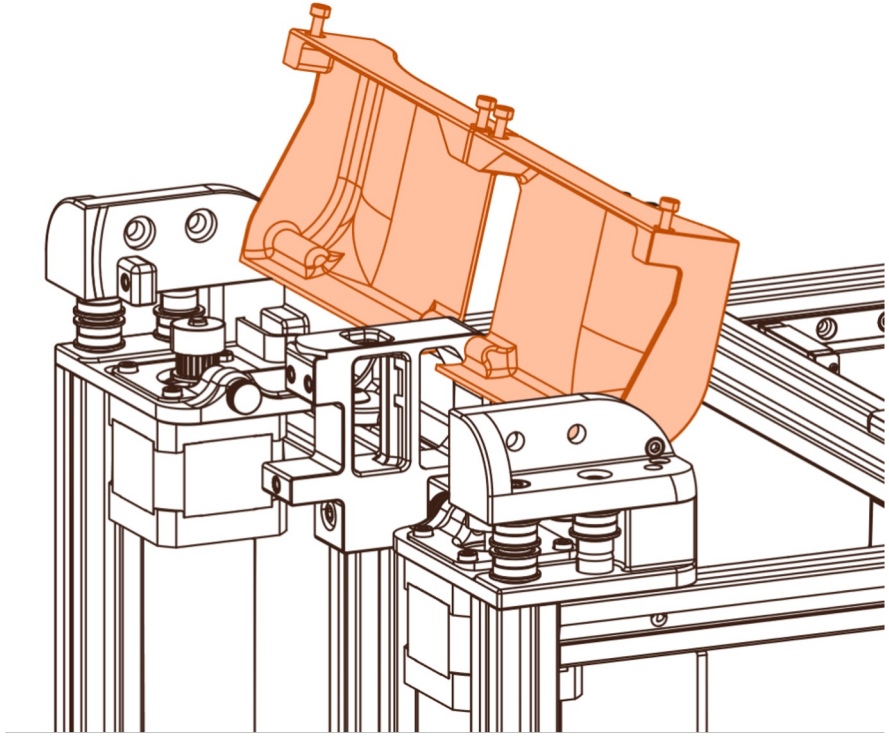
R Extrusions

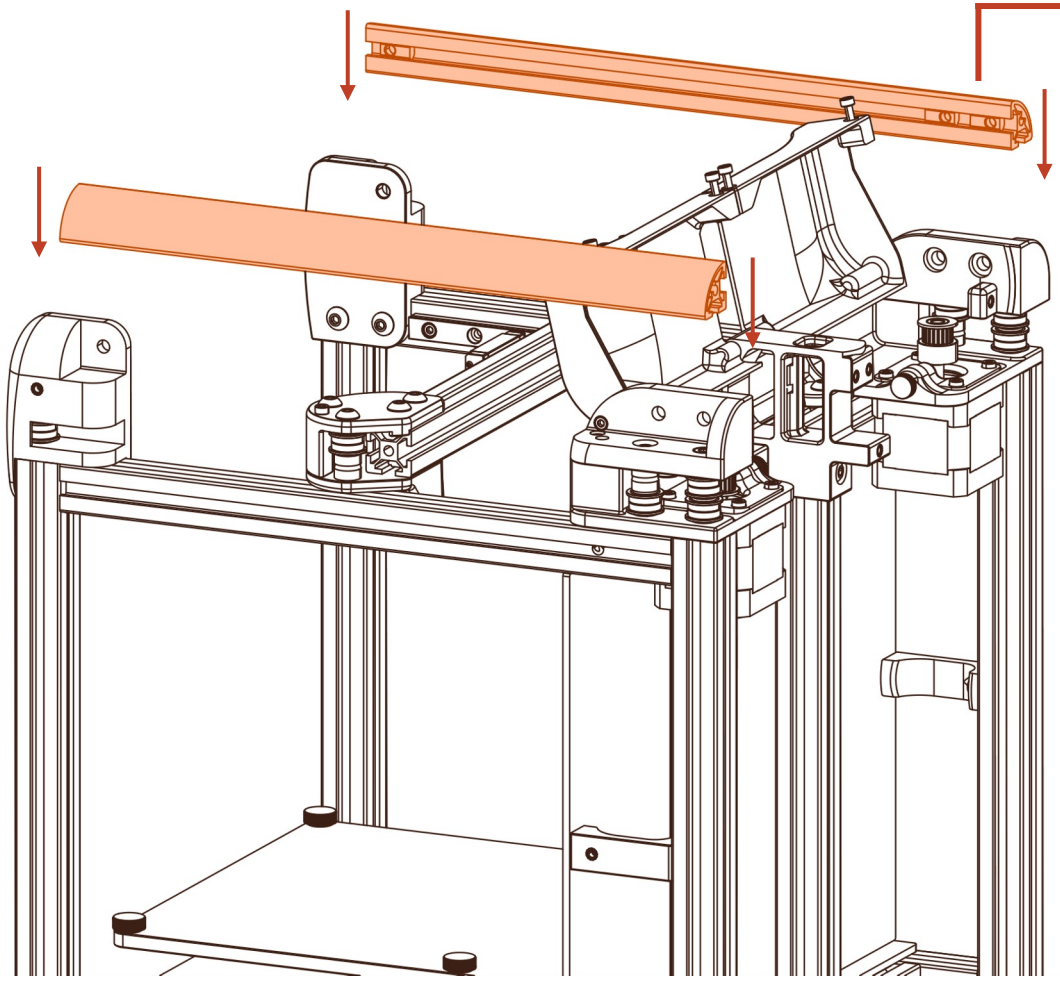
ACCESS TO THE GOODS

Open the Drive covers, as we will need access to some of the holes in the drive units for the next steps.

The screws that hold the covers in place do not need to be fully removed in order for the doors to swing open.

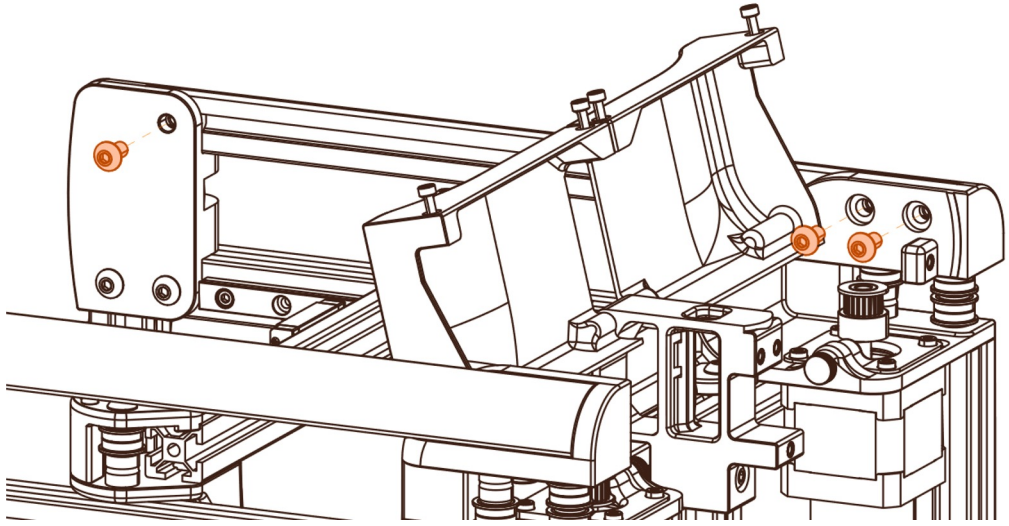






ORIENTATION MATTERS

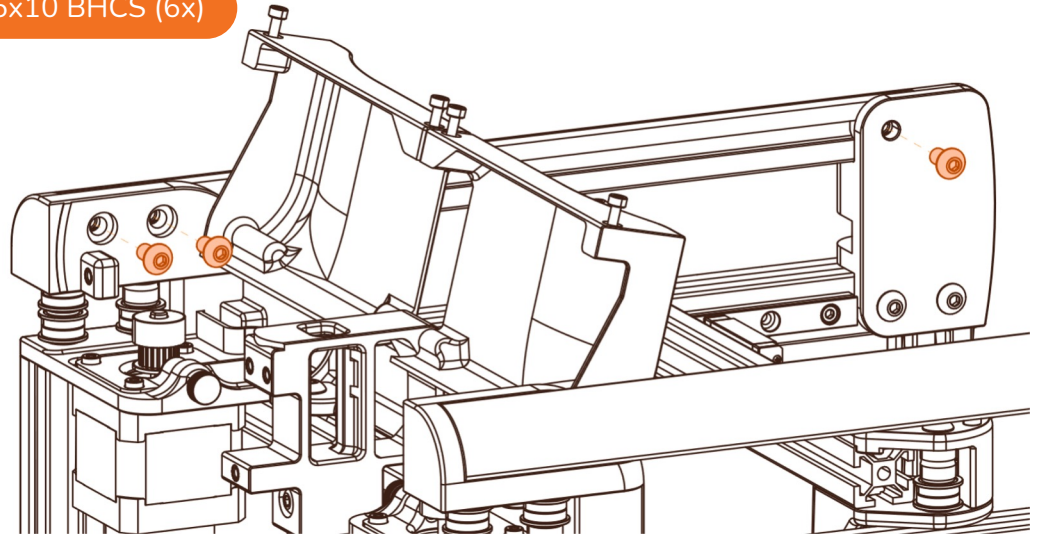
Make sure the ends with two preloaded T-Nuts are towards the rear of the machine.



CLOSE THE ENGINE BAY

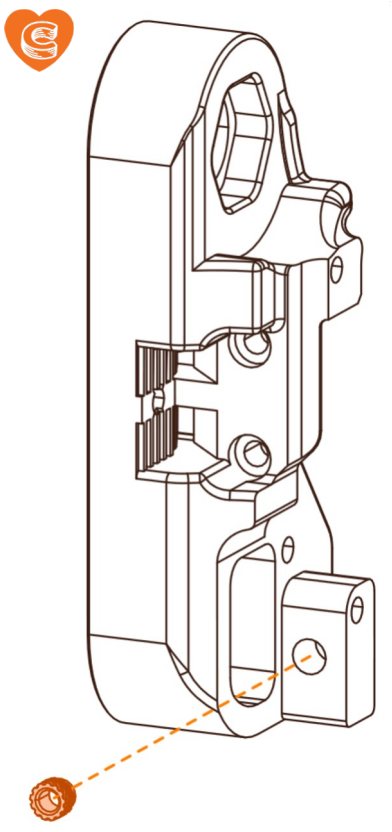
Close the Drive access doors before continuing. This keeps them out of the way until needed.

M5x10 BHCS (6x)



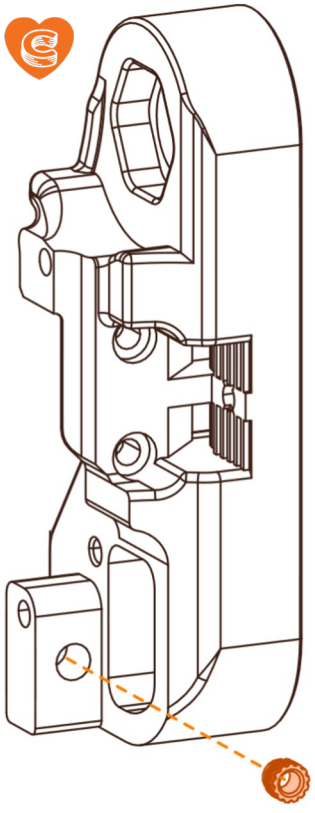
Difficulty	Hard

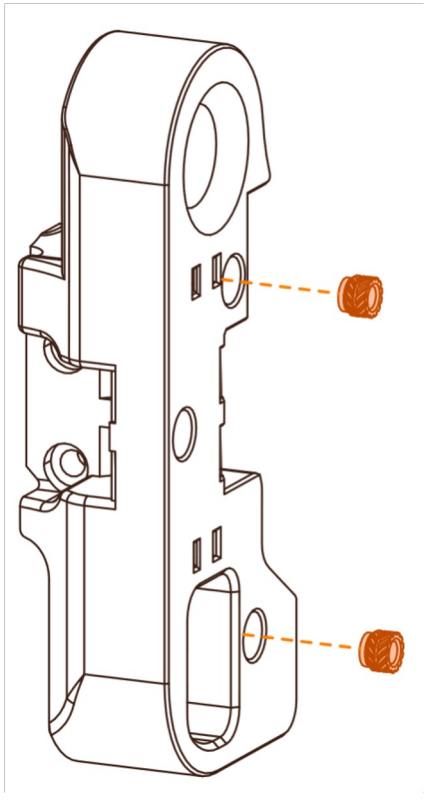
Tools Needed	M2 Driver M3 Driver M5 Driver	Heatset Insert Tool Soldering Iron (Not Included)
Hardware Needed	M3 Heatset Inserts (4x) M3x10 Socket Head Cap Screw (4x) M3x10 Self-Tapping Screw (4x) M3x16 Socket Head Cap Screw (2x) M3x30 Socket Head Cap Screw (1x) M5x30 Button Head Cap Screw (1x) M5x10 Button Head Cap Screw (2x) M3x40 Socket Head Cap Screw (3x)	X Endstop Switch (1x) Inductive Probe (1x) Zip Ties (2x) X Extrusion (1x) 625 Bearings (2x) M5 Washer (2x) M5x40 Socket Head Cap Screw (1x) M5 Hex Nut (1x) M5 T-Nuts (2x)
Printed Parts Needed	X Carriage Frame Left (1x) X Carriage Frame Right (1x) Tilt Latch (1x) Tilt Lock Rocker (1x) Endstop Cable Shelf (1x)	



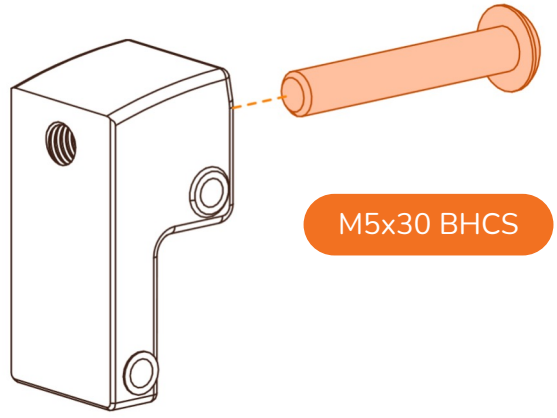
♫ WAY DOWN, HADESTOWN ♫

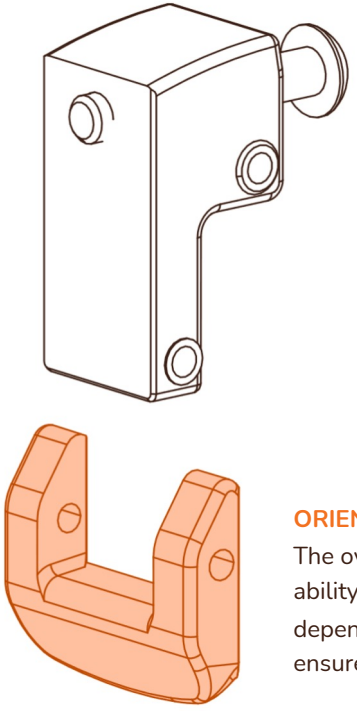
The heatset inserts shown below are inserted well below the surface of the prints. Take care to ensure they're seated all the way or the X Carriage may not fasten together properly.





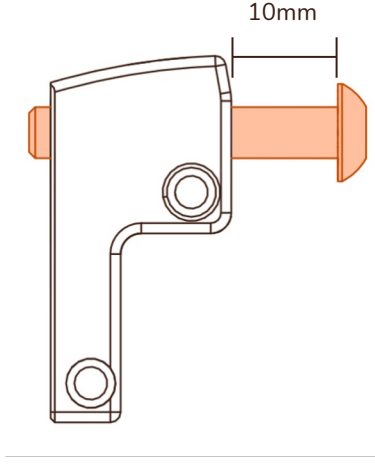
M3 Heatset Inserts (4x)

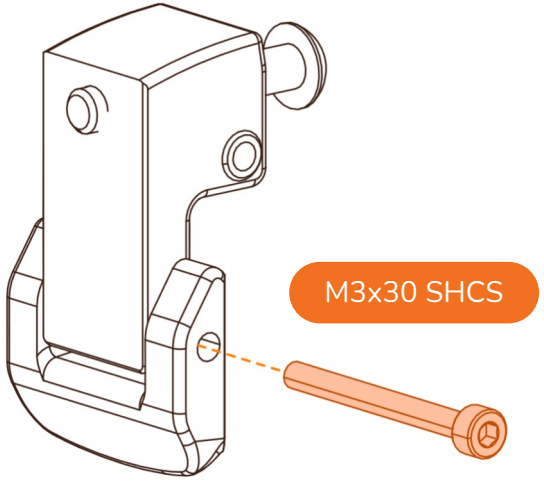




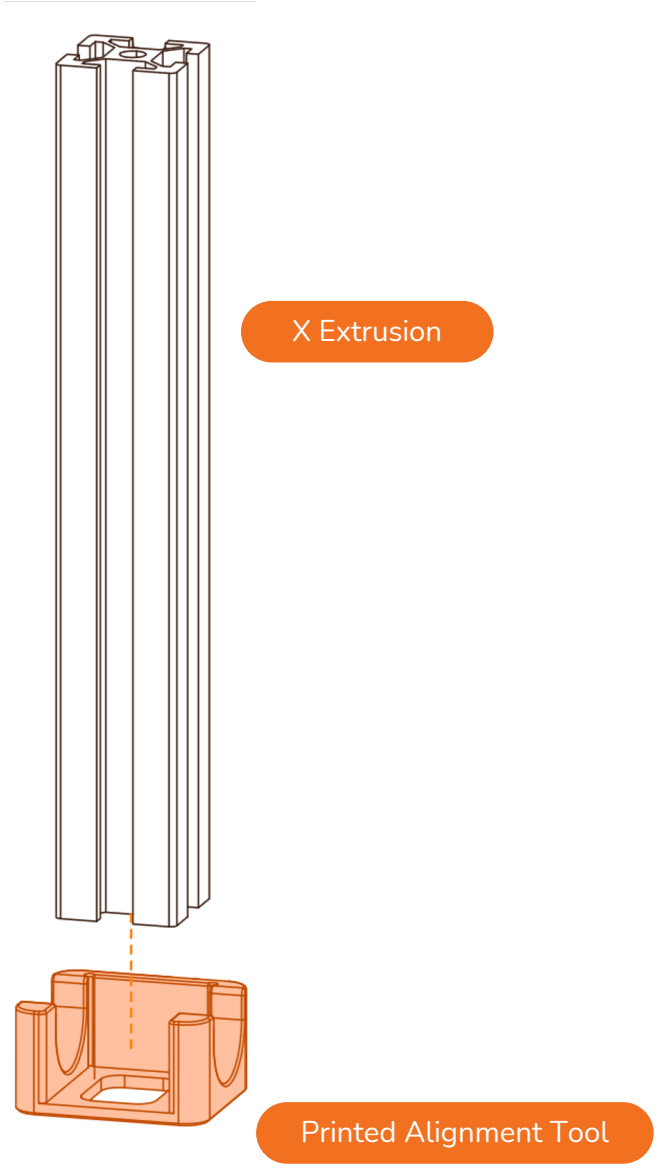
ORIENTATION MATTERS

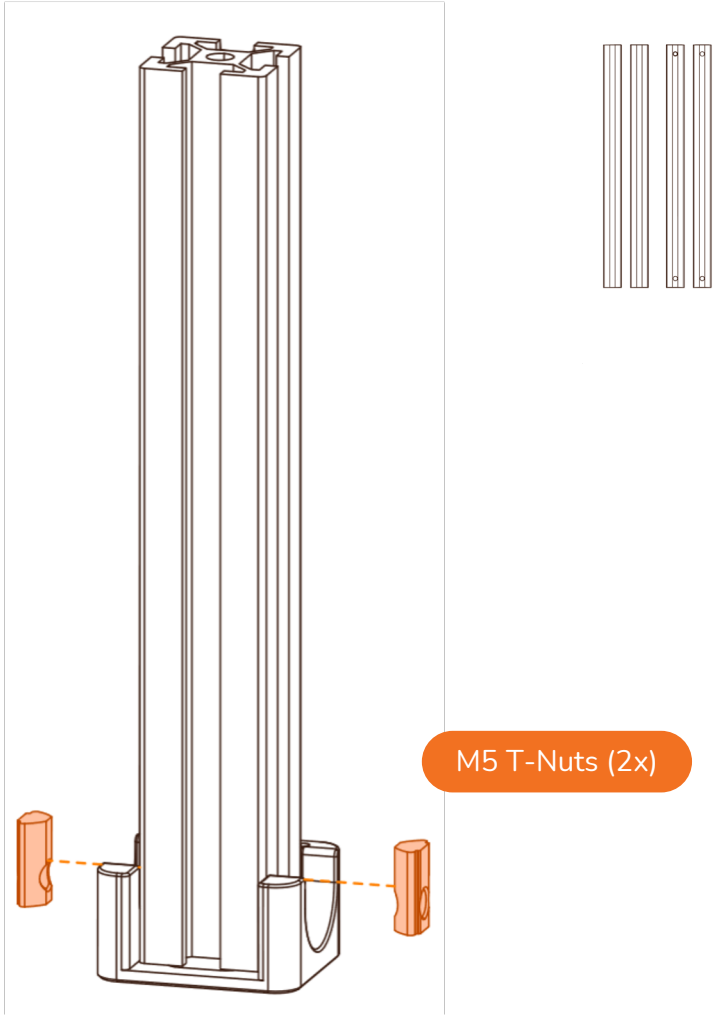
The over-center action of this latch, and its ability to hold the extruder in place, is dependent on the orientation of this piece, so ensure that it matches the diagram.

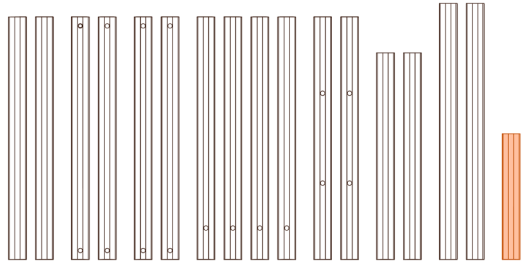




120

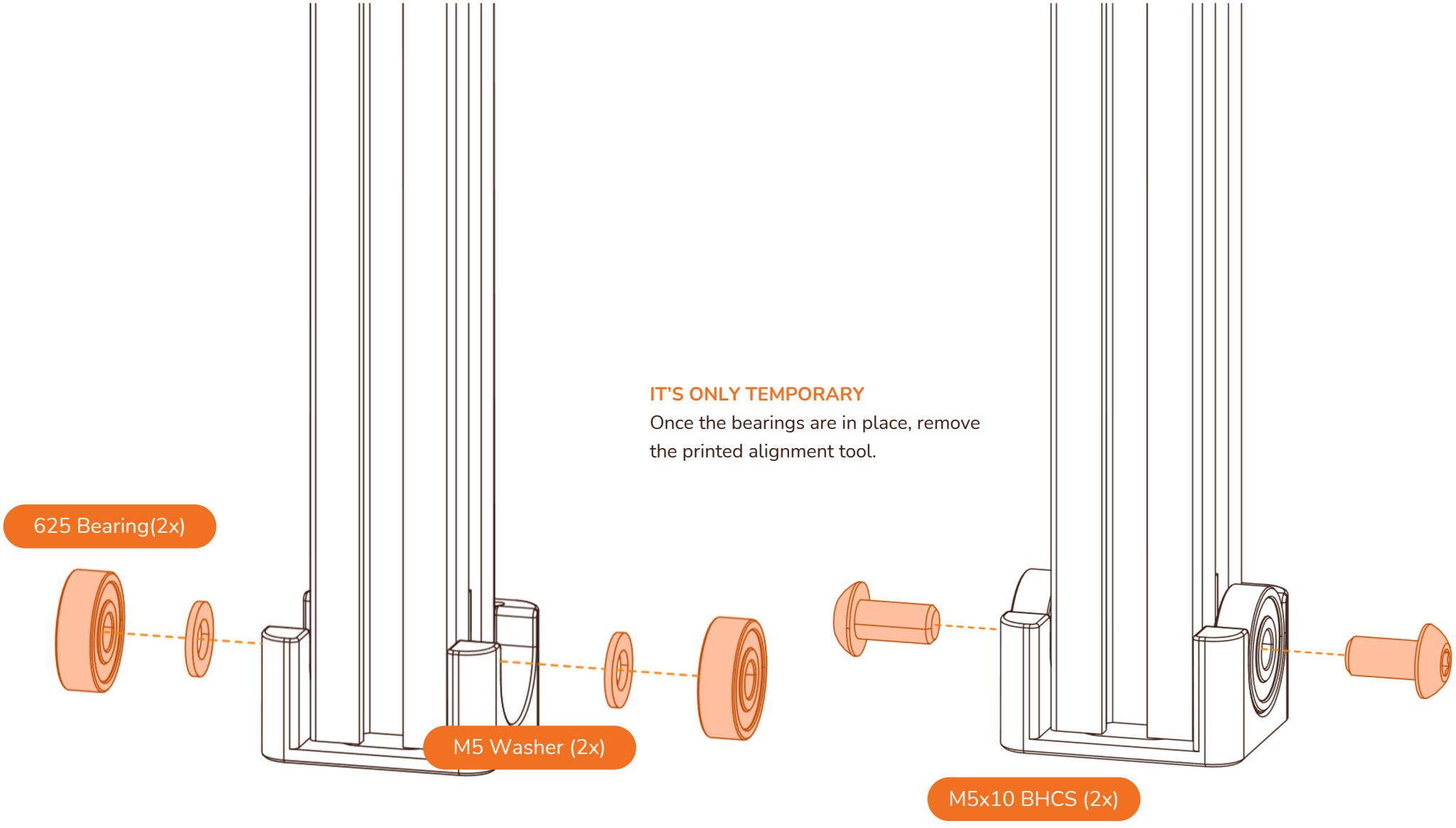






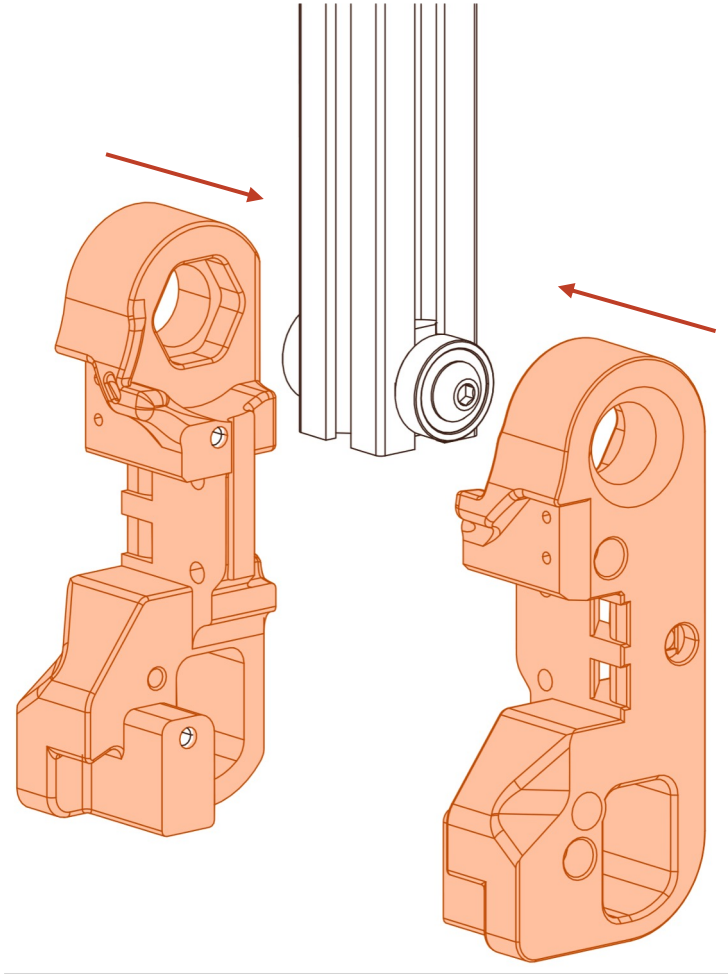
ORIENTATION MATTERS

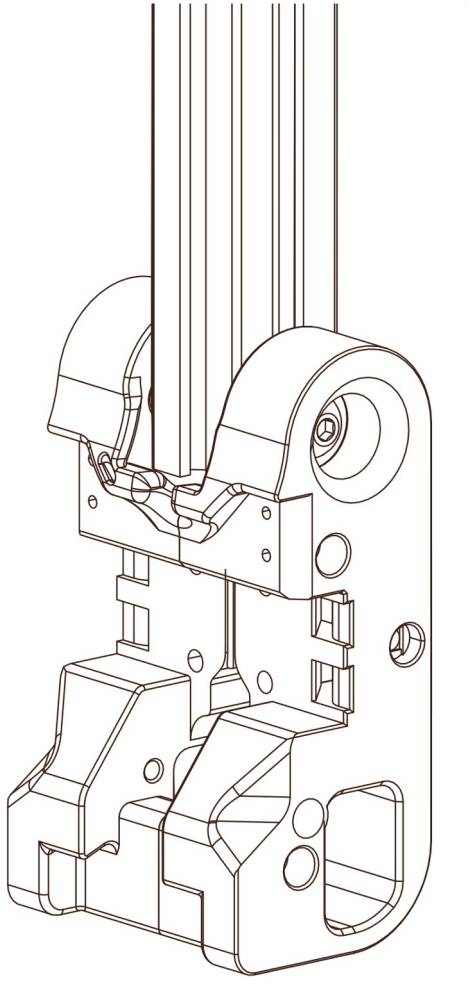
The T-Nuts used here cannot be secured correctly if upside-down. The retention detent will be off the end of the extrusion.

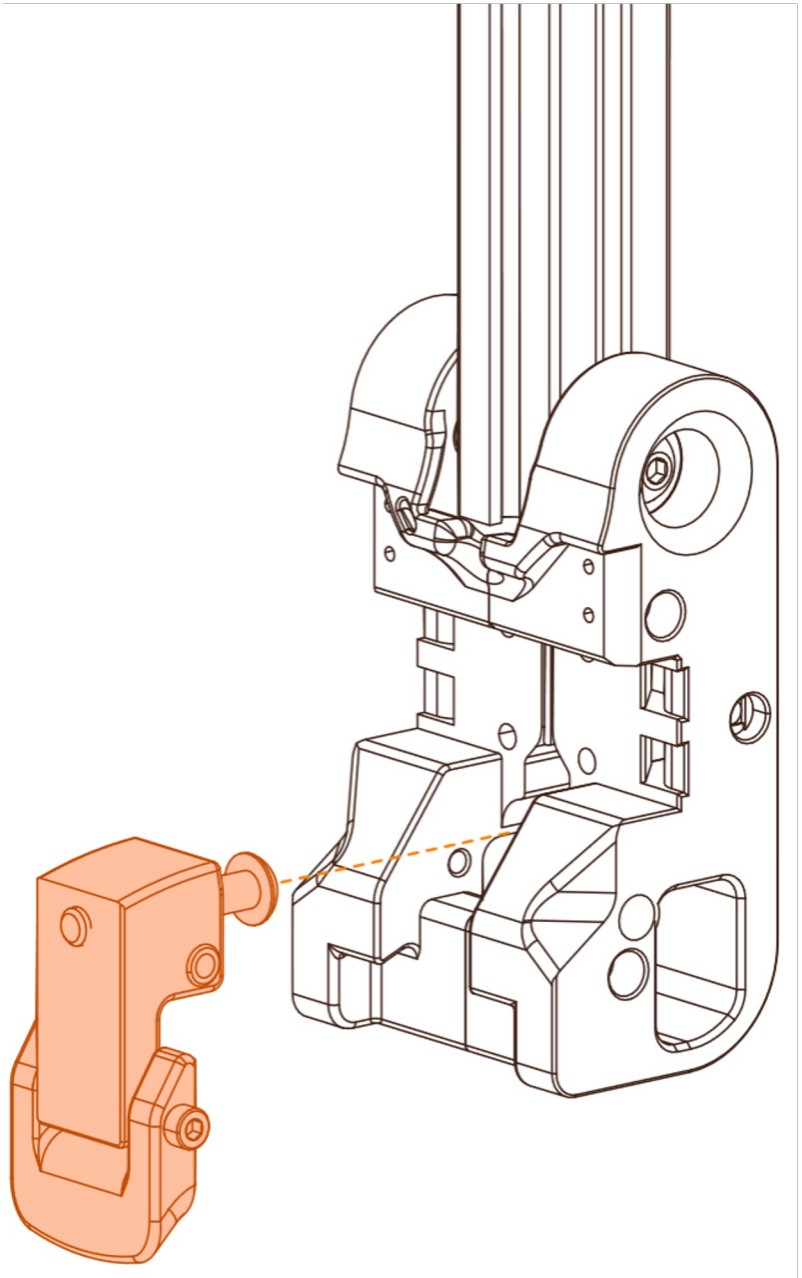


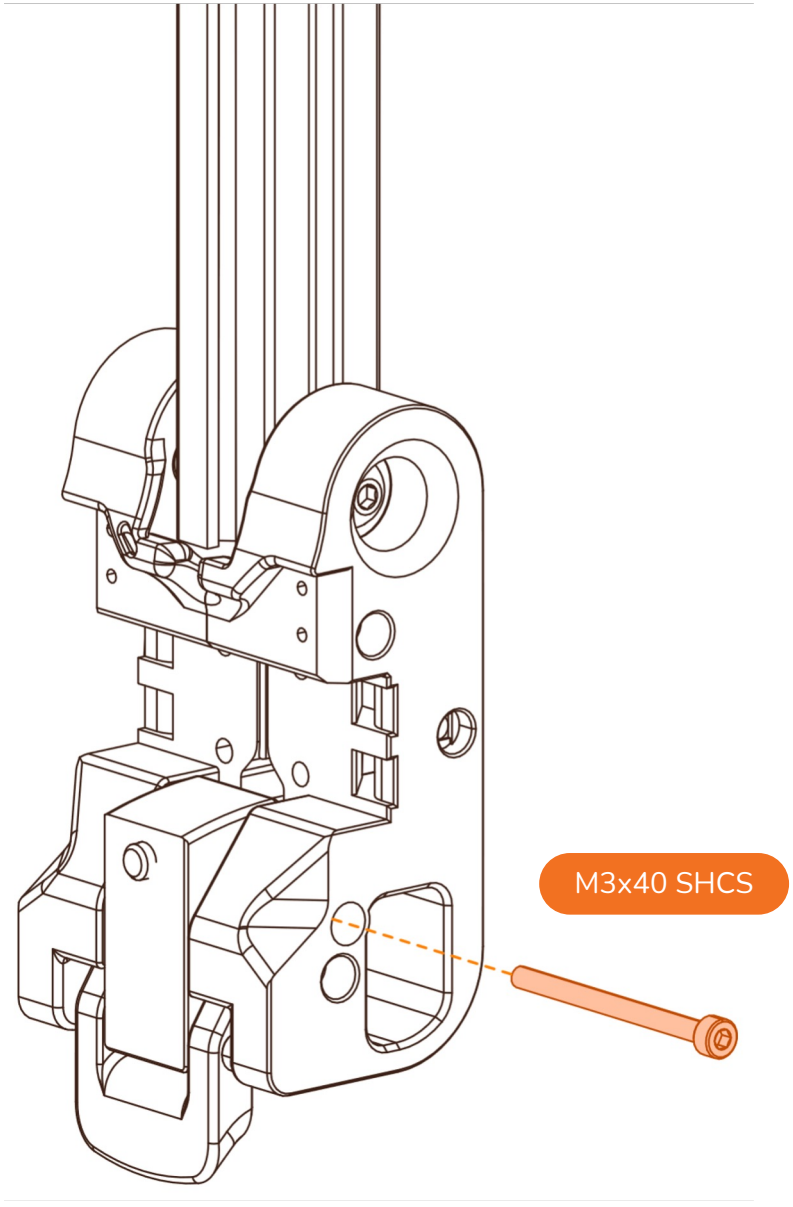
IT'S ONLY TEMPORARY

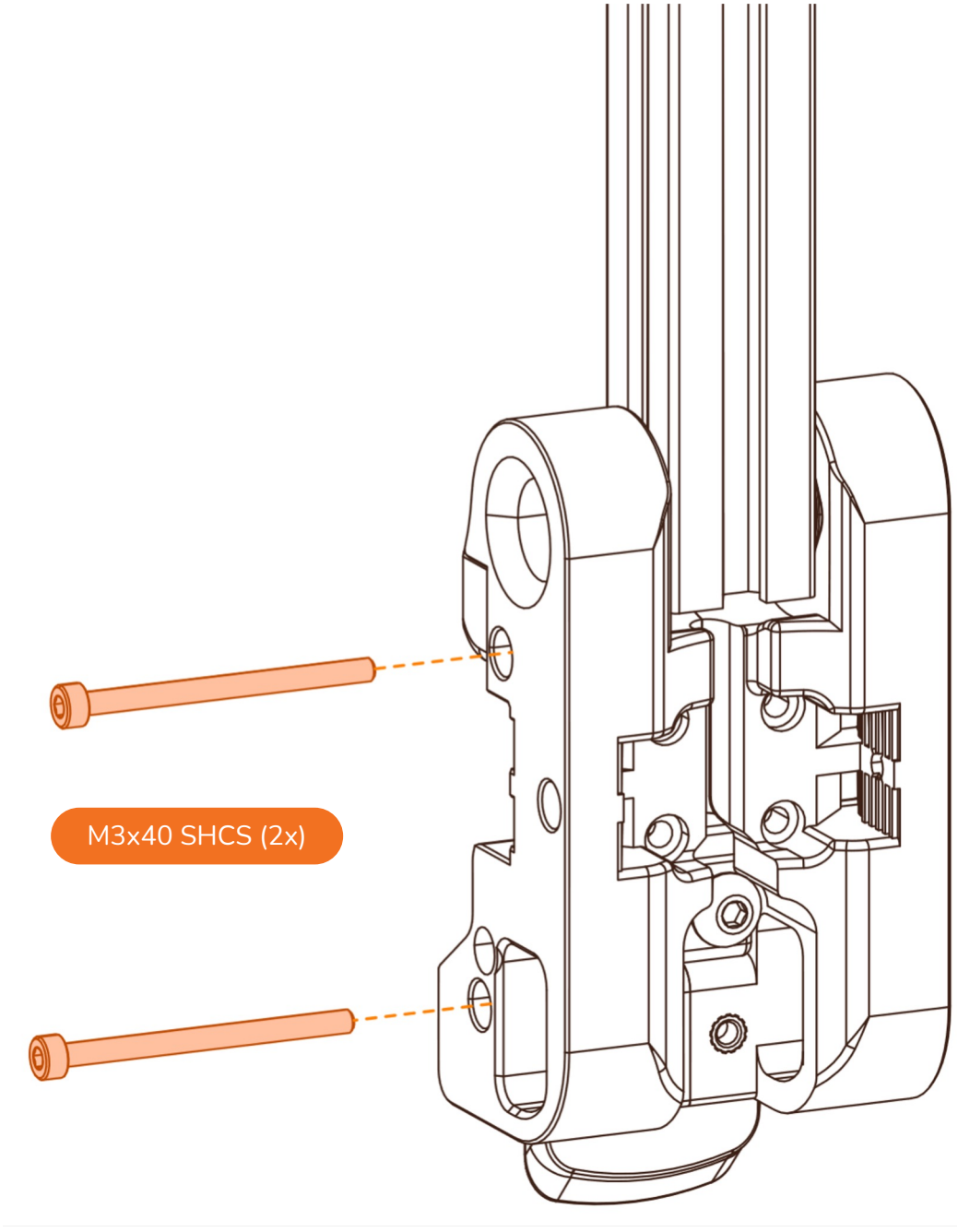
Once the bearings are in place, remove the printed alignment tool.



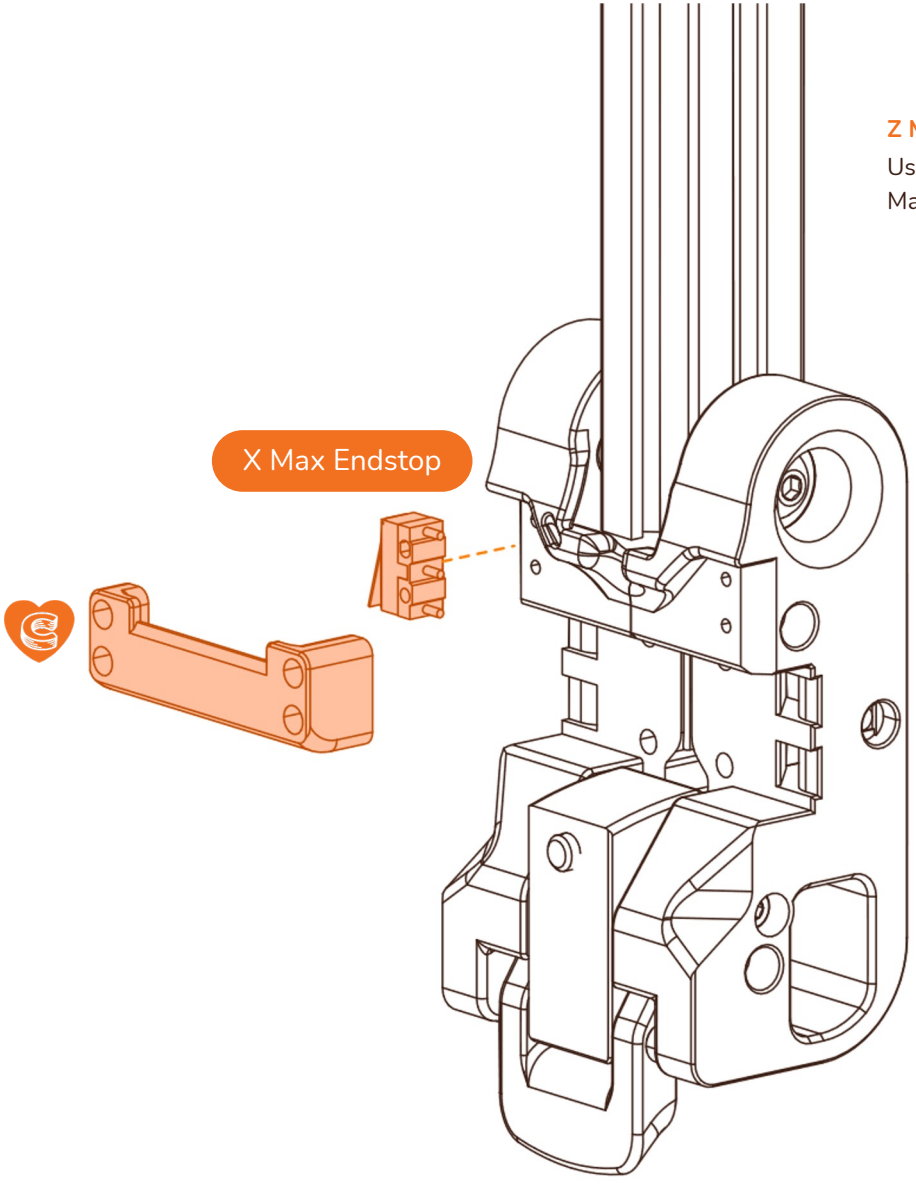





M3x40 SHCS

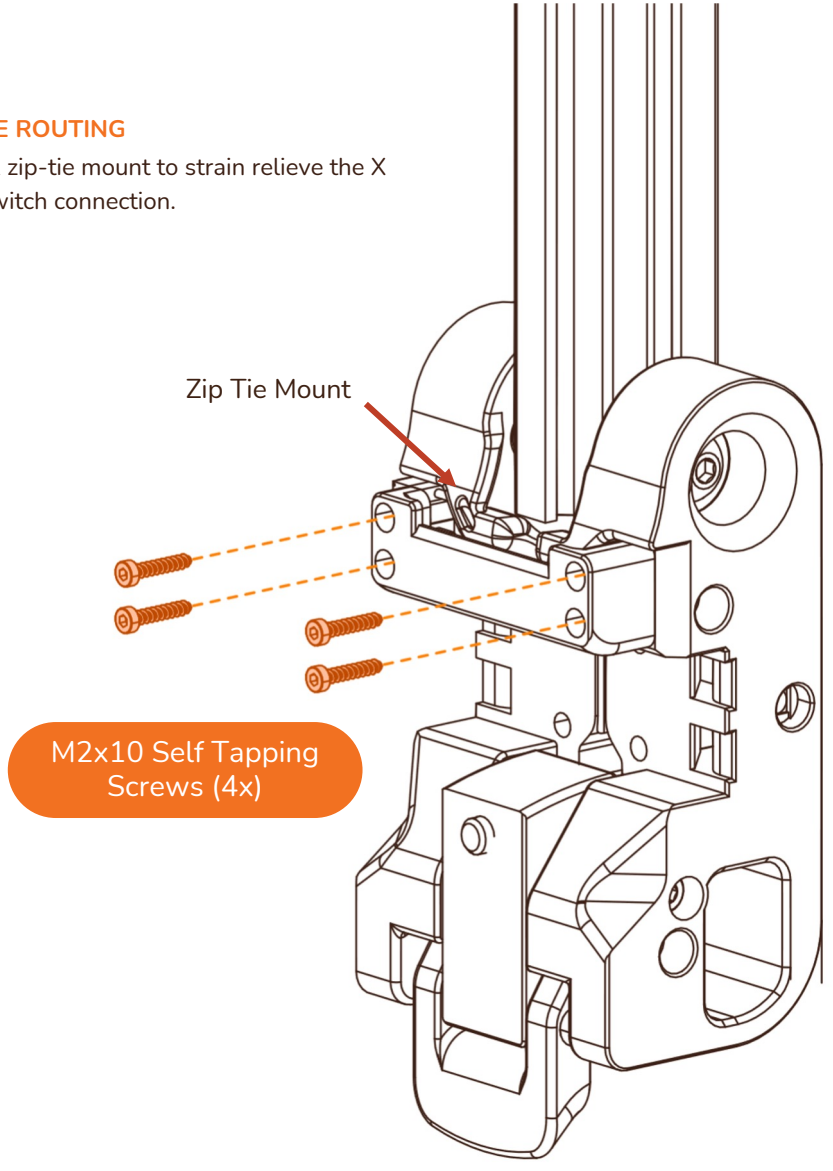


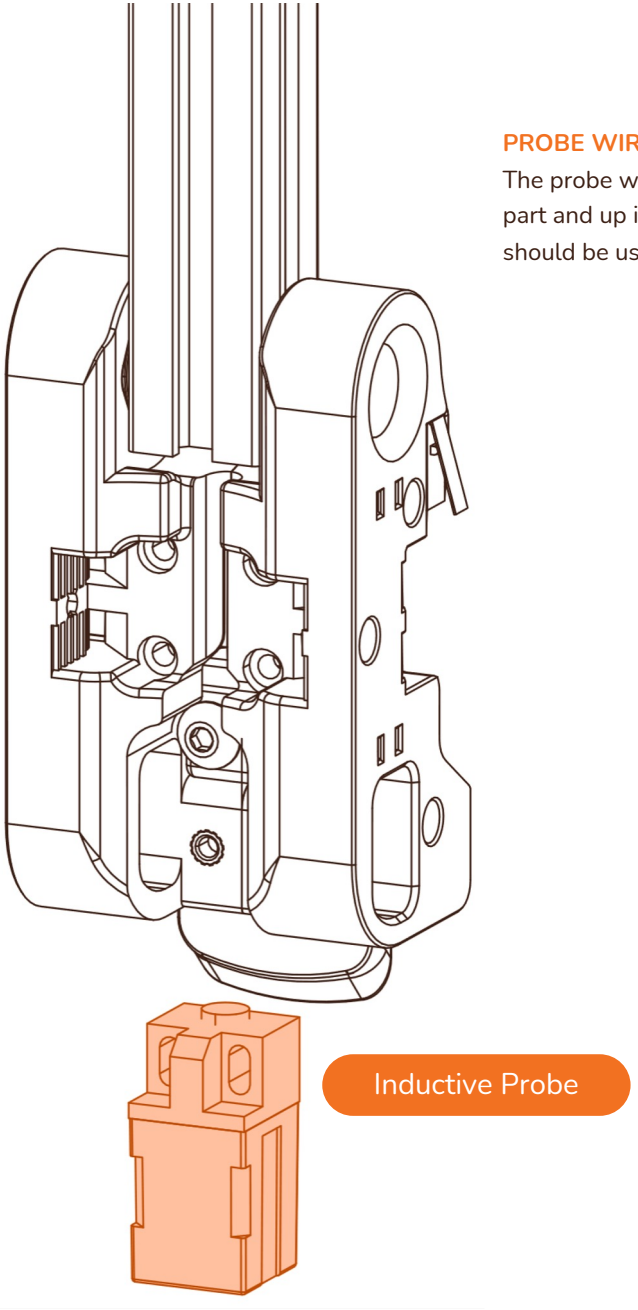
125



Z MAX WIRE ROUTING

Use the back zip-tie mount to strain relieve the X Max Limit Switch connection.

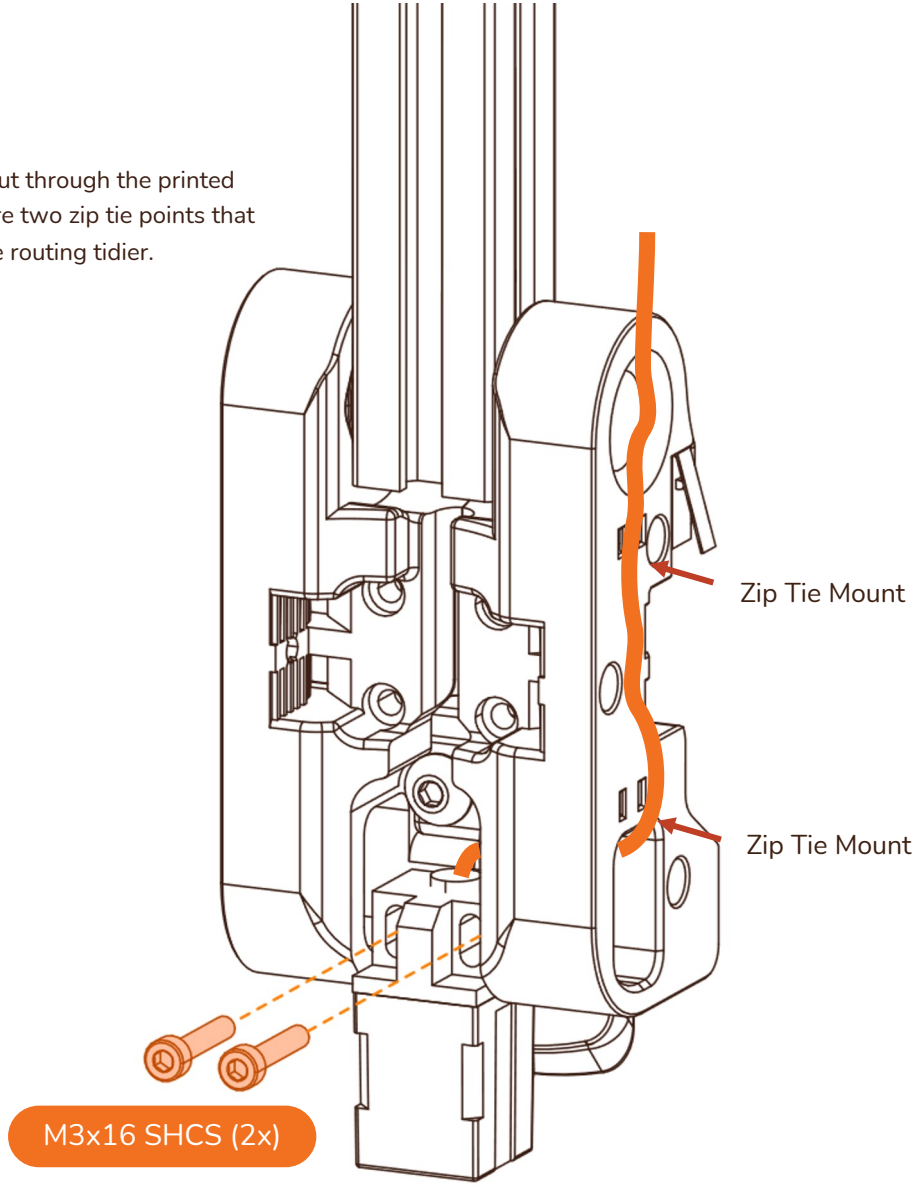


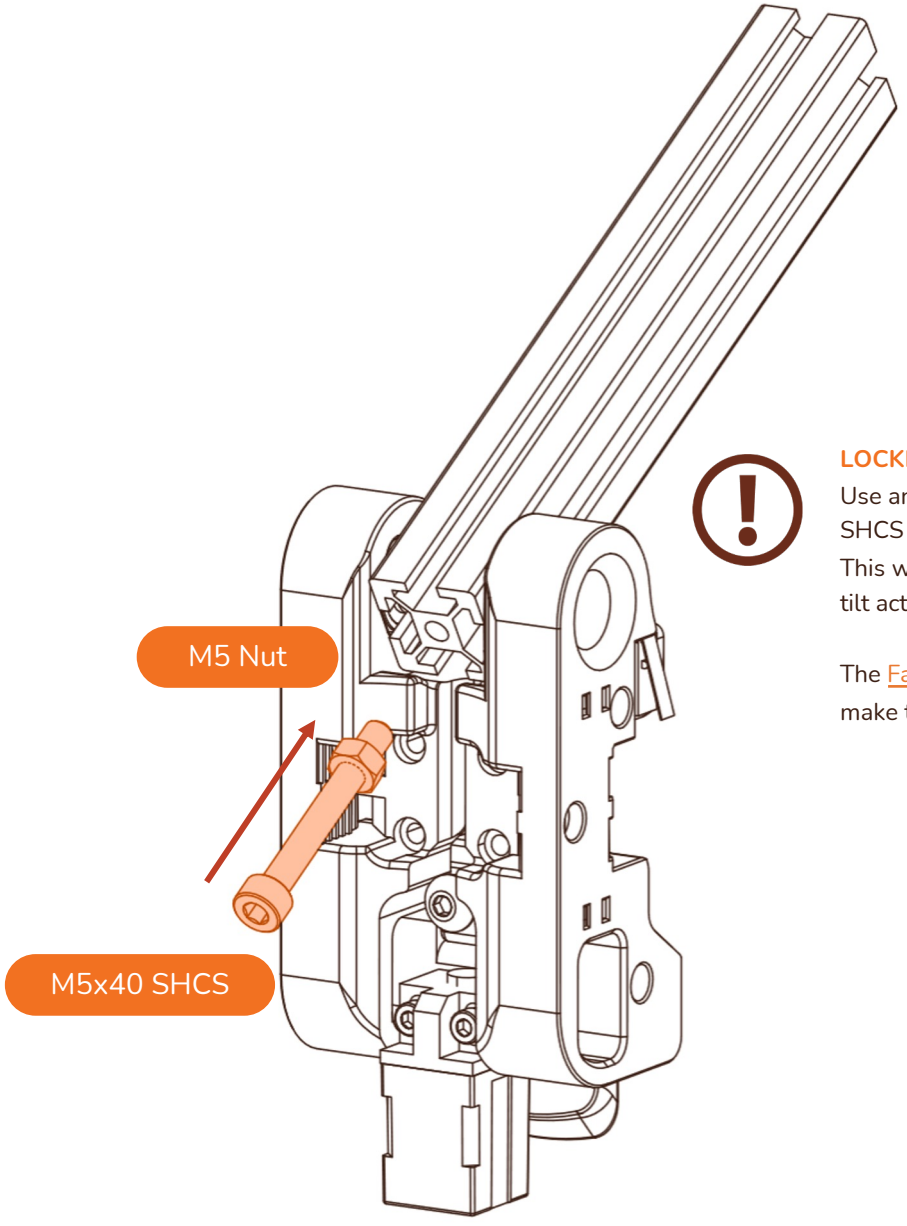


Inductive Probe

PROBE WIRE ROUTING

The probe wires will route out through the printed part and up its side. There are two zip tie points that should be used to make wire routing tidier.

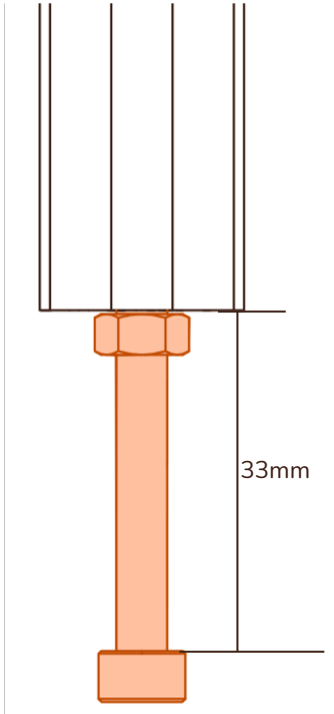


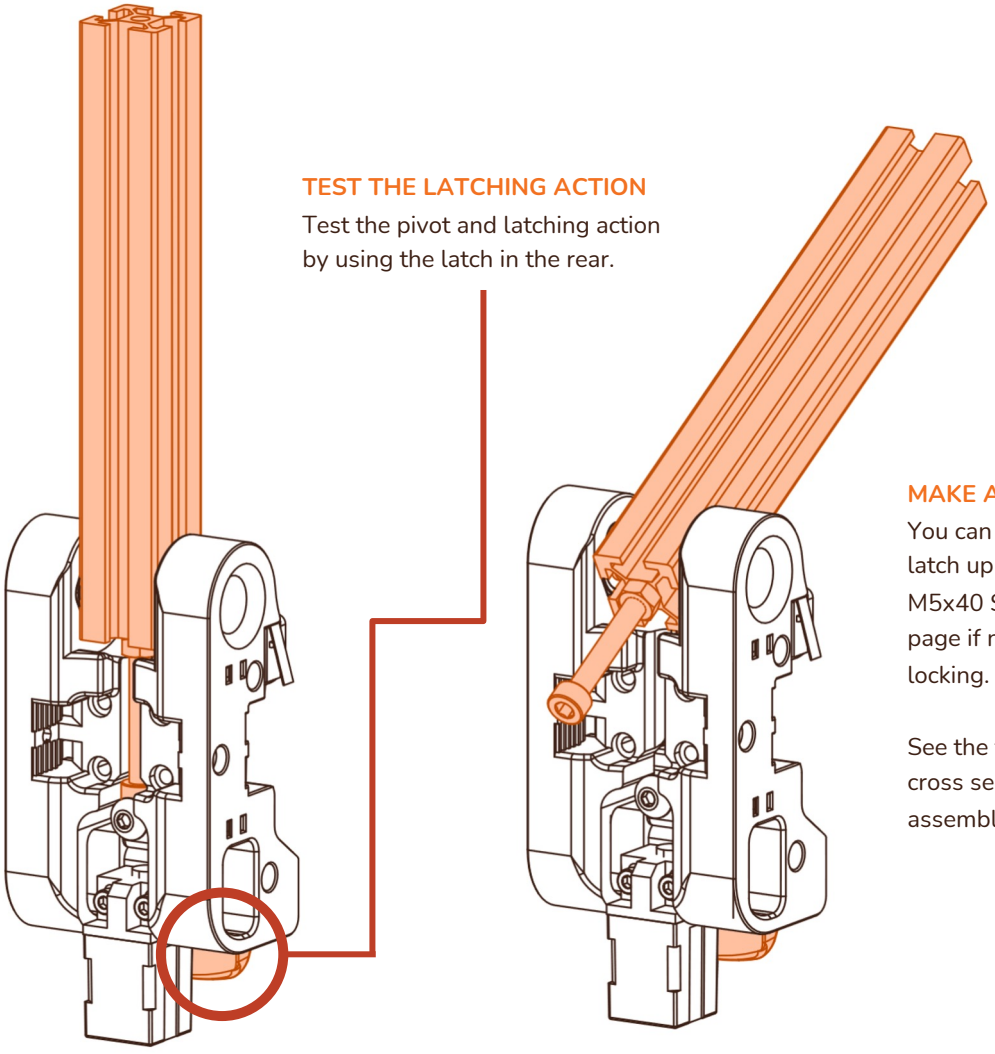


LOCKING MECHANISM

Use an M5 nut as a locking nut to position this SHCS exactly 33mm from the end of the extrusion. This will be used as the latching mechanism for the tilt action of the toolhead.

The Fastener Guide has this diagrammed to scale to make this step easier to perform correctly.





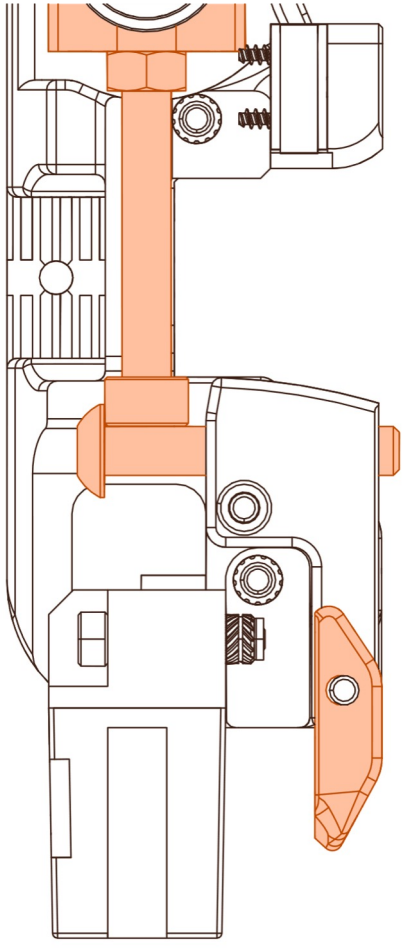
TEST THE LATCHING ACTION

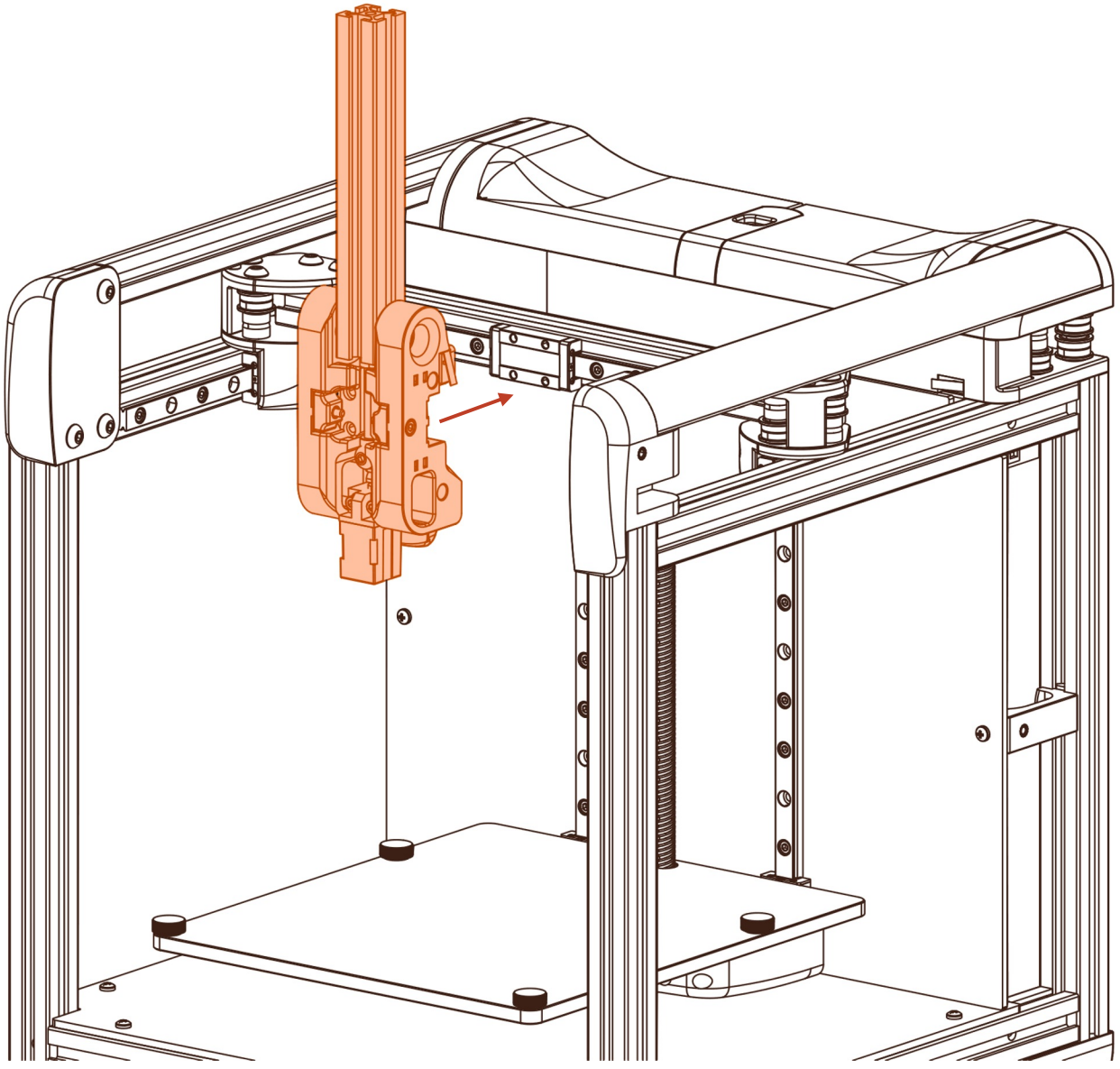
Test the pivot and latching action by using the latch in the rear.

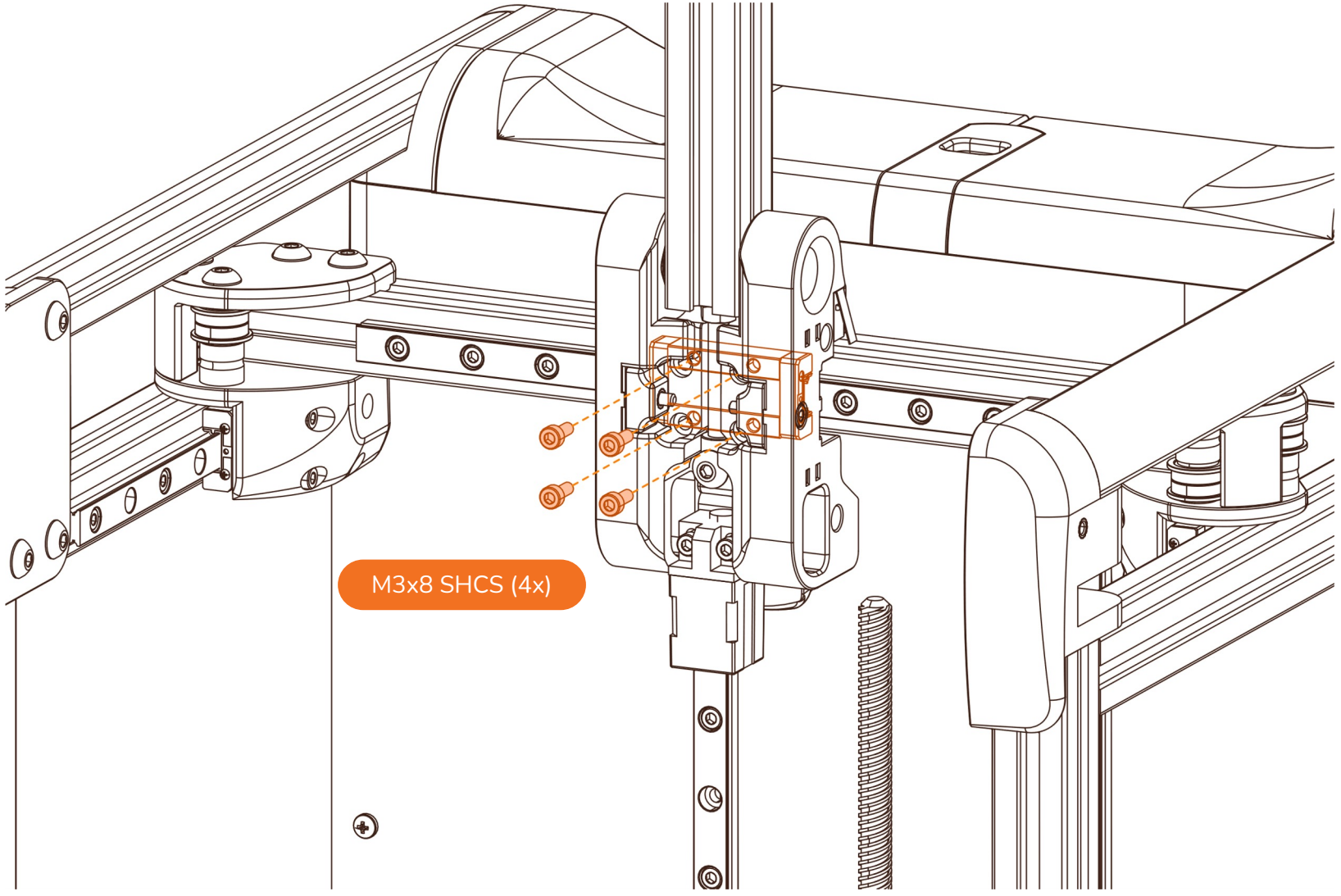
MAKE ADJUSTMENTS AS NEEDED

You can adjust the position of the latch up and down by loosening the M5x40 SHCS you installed on the last page if needed to fine-tune the locking.

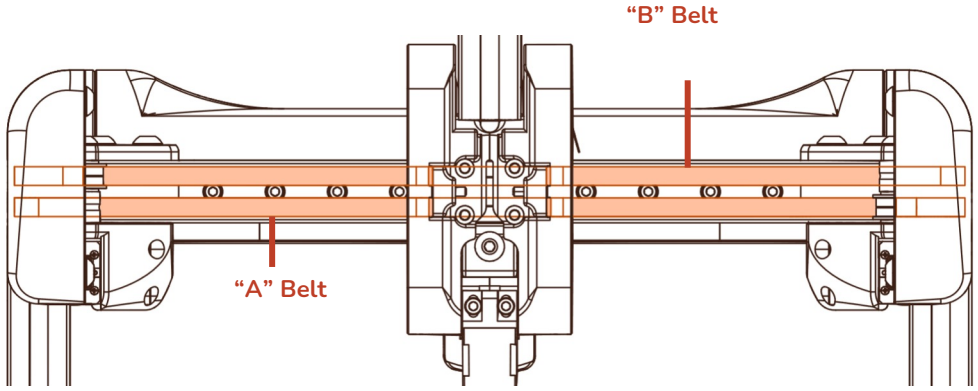
See the figure on the right for the cross section view on the correct assembly.

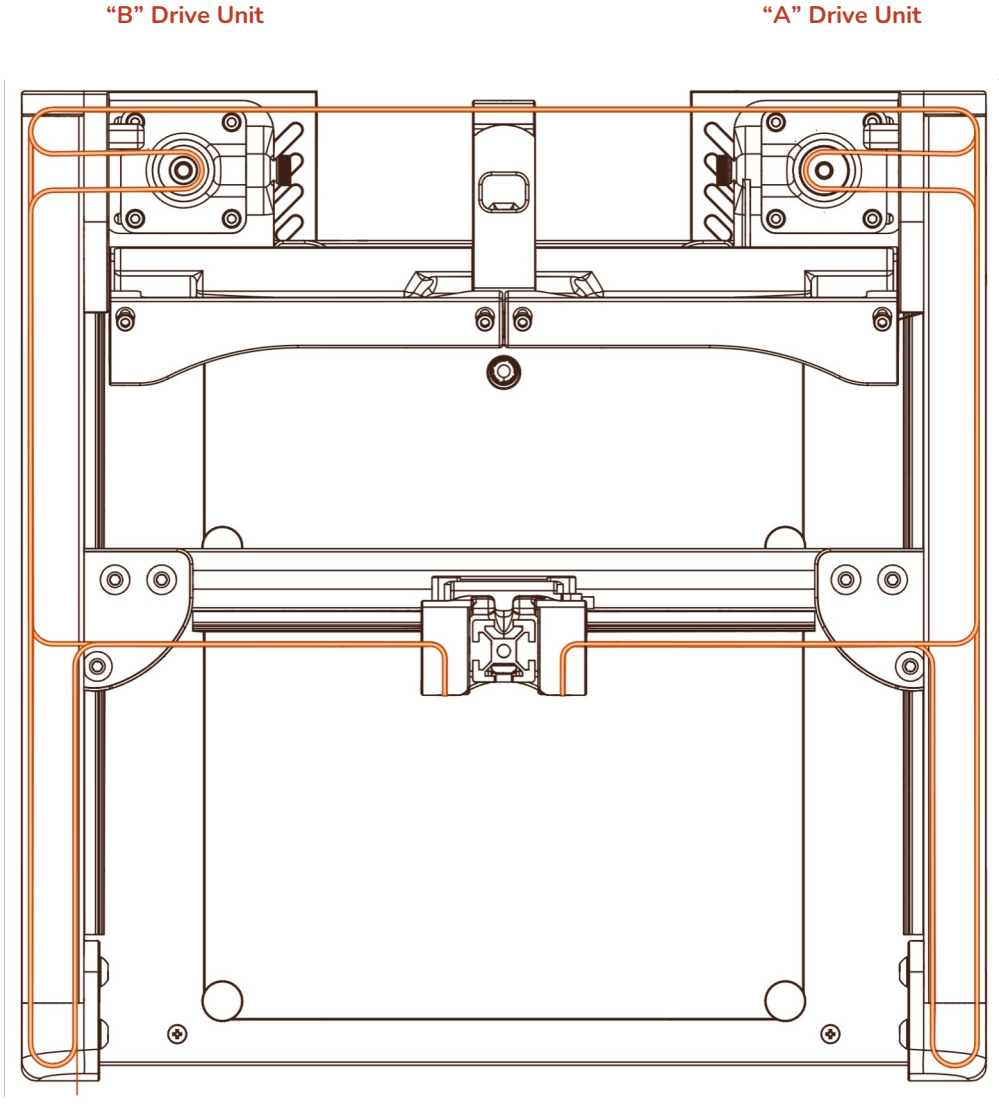





M3x8 SHCS (4x)

Difficulty	Medium
Tools Needed	M3 Driver Heatset Insert Tool Soldering Iron (Not Included) Scissors (Not Included)
Hardware Needed	M3 Heatset Inserts (2x) M3x16 Socket Head Cap Screw (2x) X & Y Belts (2x)
Printed Parts Needed	Belt Clip (2x)



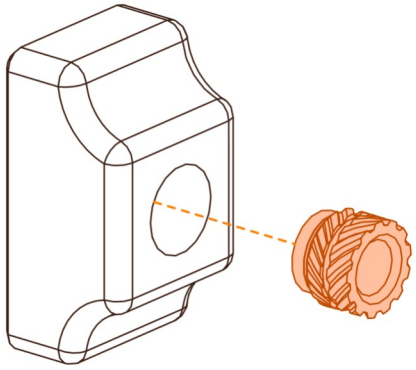


THE BELT PATH

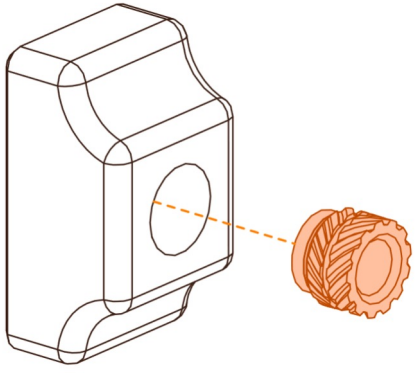
The Cocoa Press printer uses a belt path based on the popular CoreXY pattern.

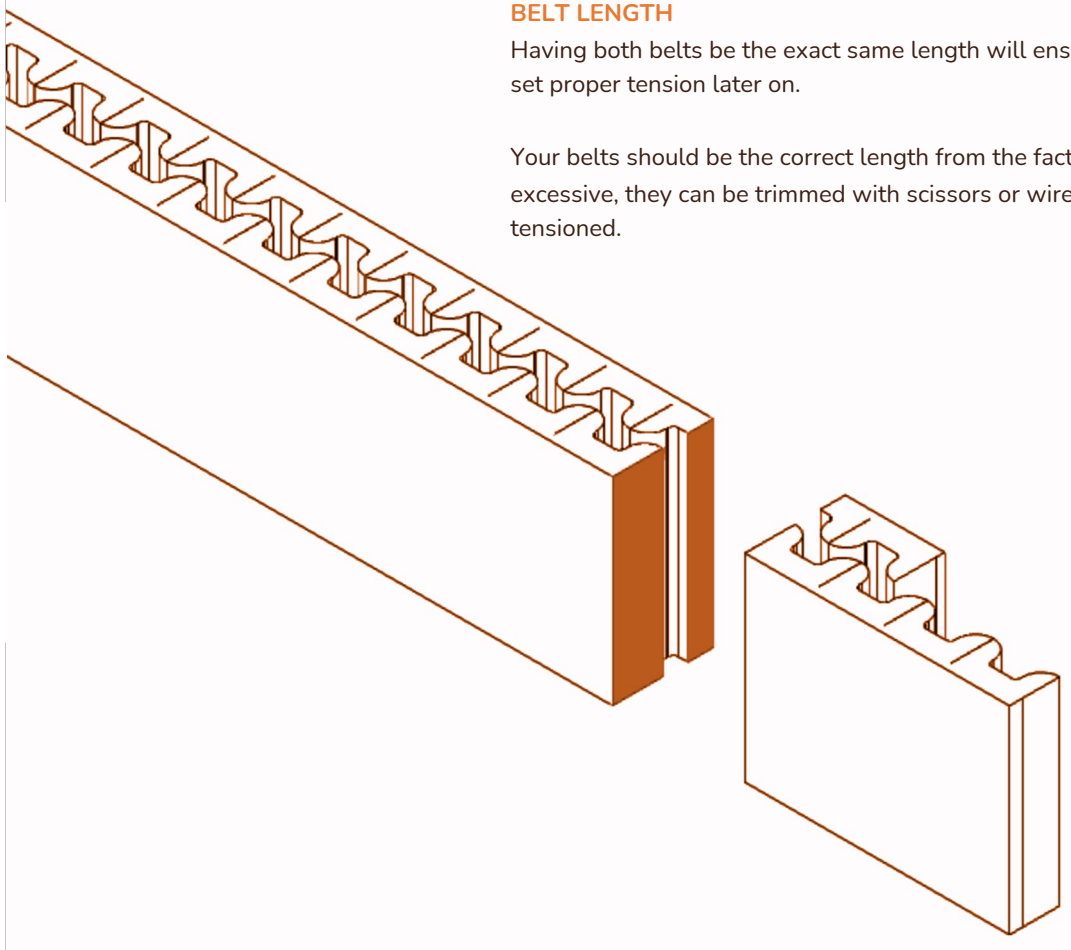
The individual belt paths are stacked on top of each other, and the crossing often found in CoreXY designs is omitted. Compared to many other implementations, the motors are moved to a less intrusive position.

Equal belt tension is important to the proper function of a CoreXY motion system.



M3 Heatset Inserts (2x)





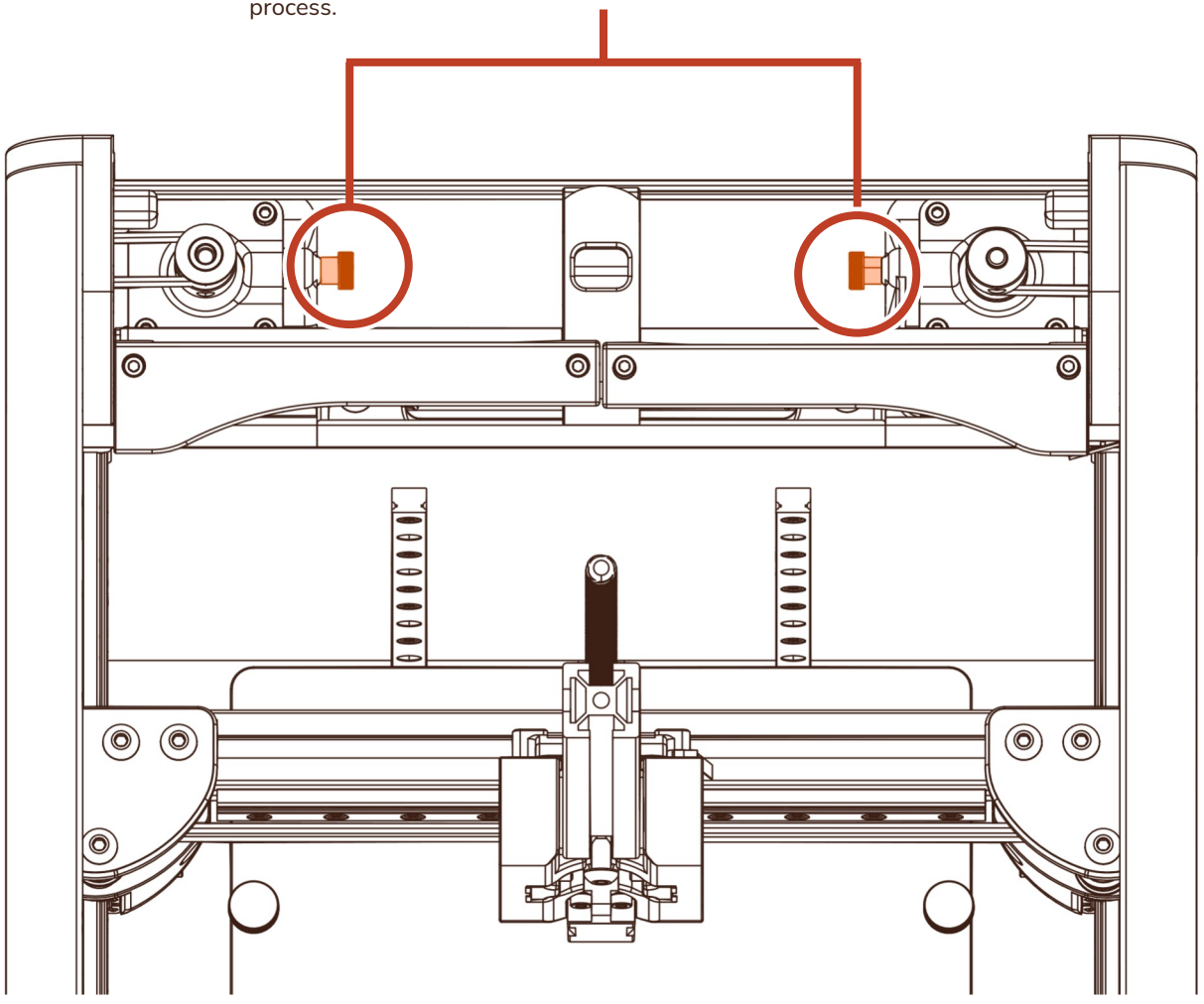
BELT LENGTH

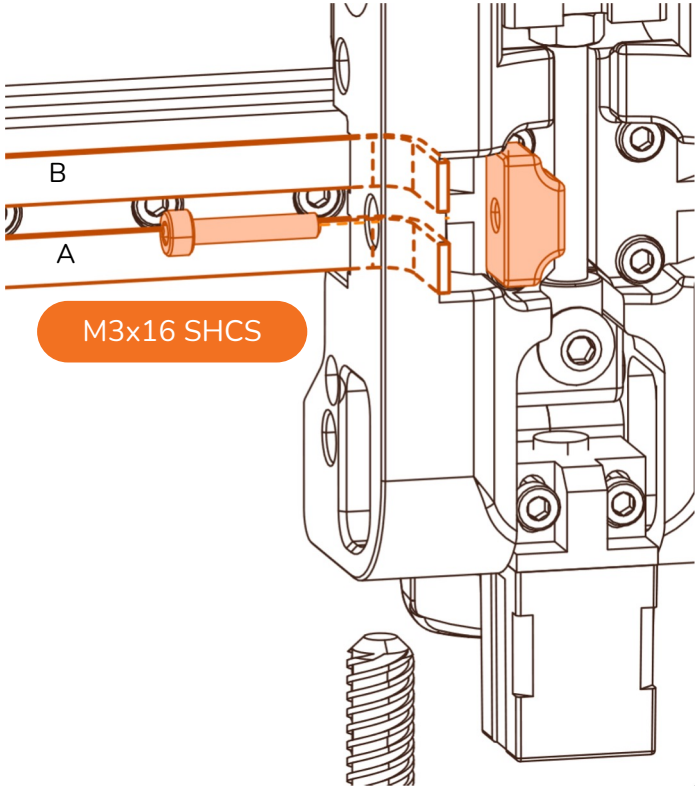
Having both belts be the exact same length will ensure that you can set proper tension later on.

Your belts should be the correct length from the factory, but if excessive, they can be trimmed with scissors or wirecutters once tensioned.

LOOSEN THE BELT TENSION KNOBS

Before we begin belting the printer, we need to loosen the tension knobs so that we have adequate travel to properly tension the belts later on. Be sure the motor screws are also loosened for this process.



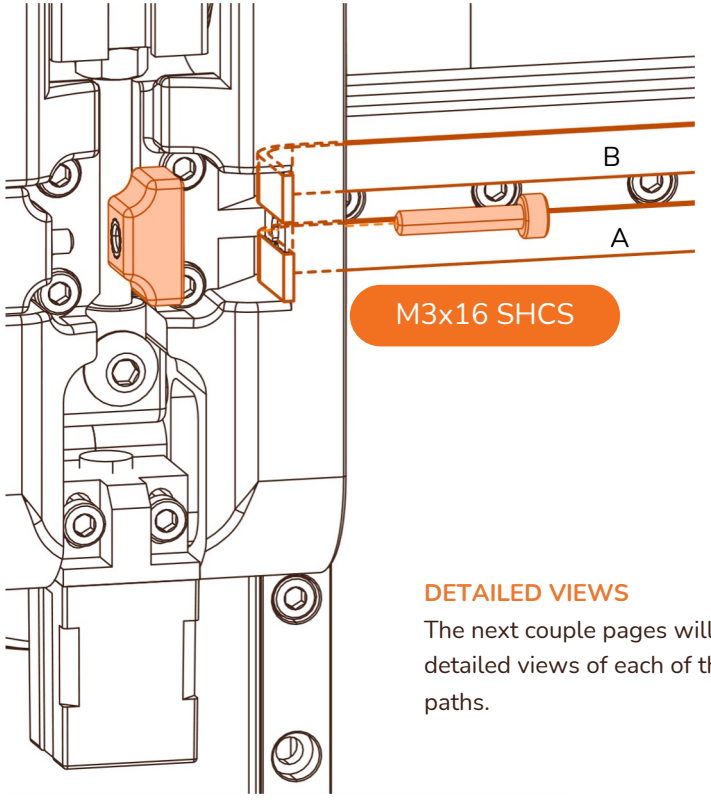


SECURING THE BELTS

Run the belts through their respective paths, and attach them to the opposite side of the X carriage. Before fully tightening the belt clamps, you can pull the ends of the belts to tighten them as best you can by hand.

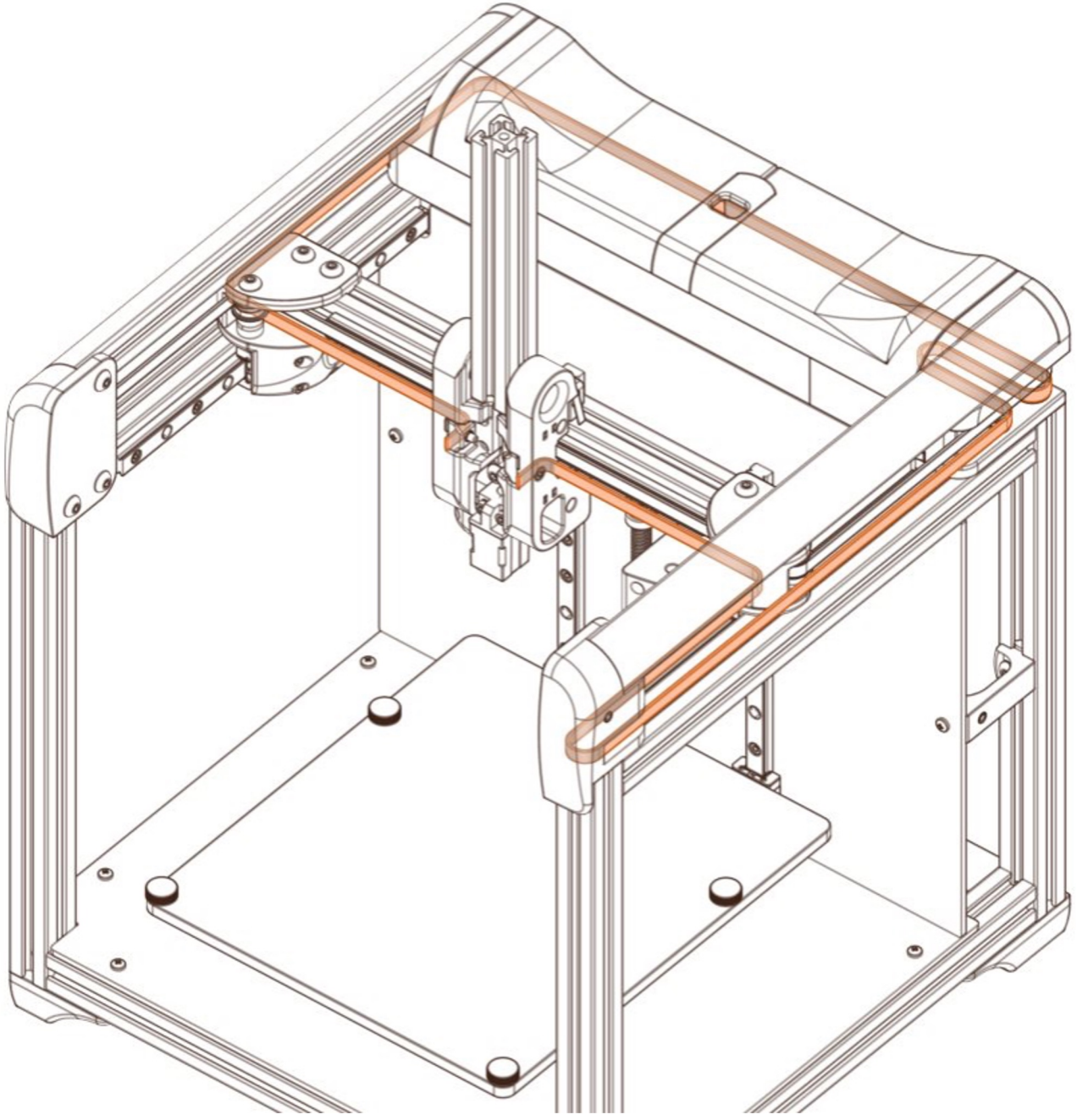
BELTING THE PRINTER

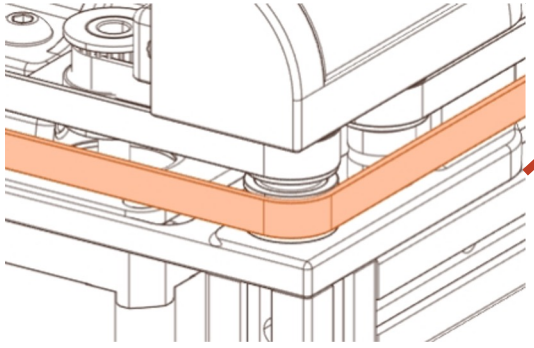
Start on one side of the toolhead and secure the A and B belts to the X carriage.

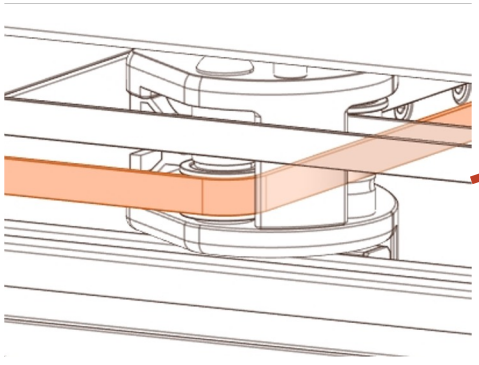


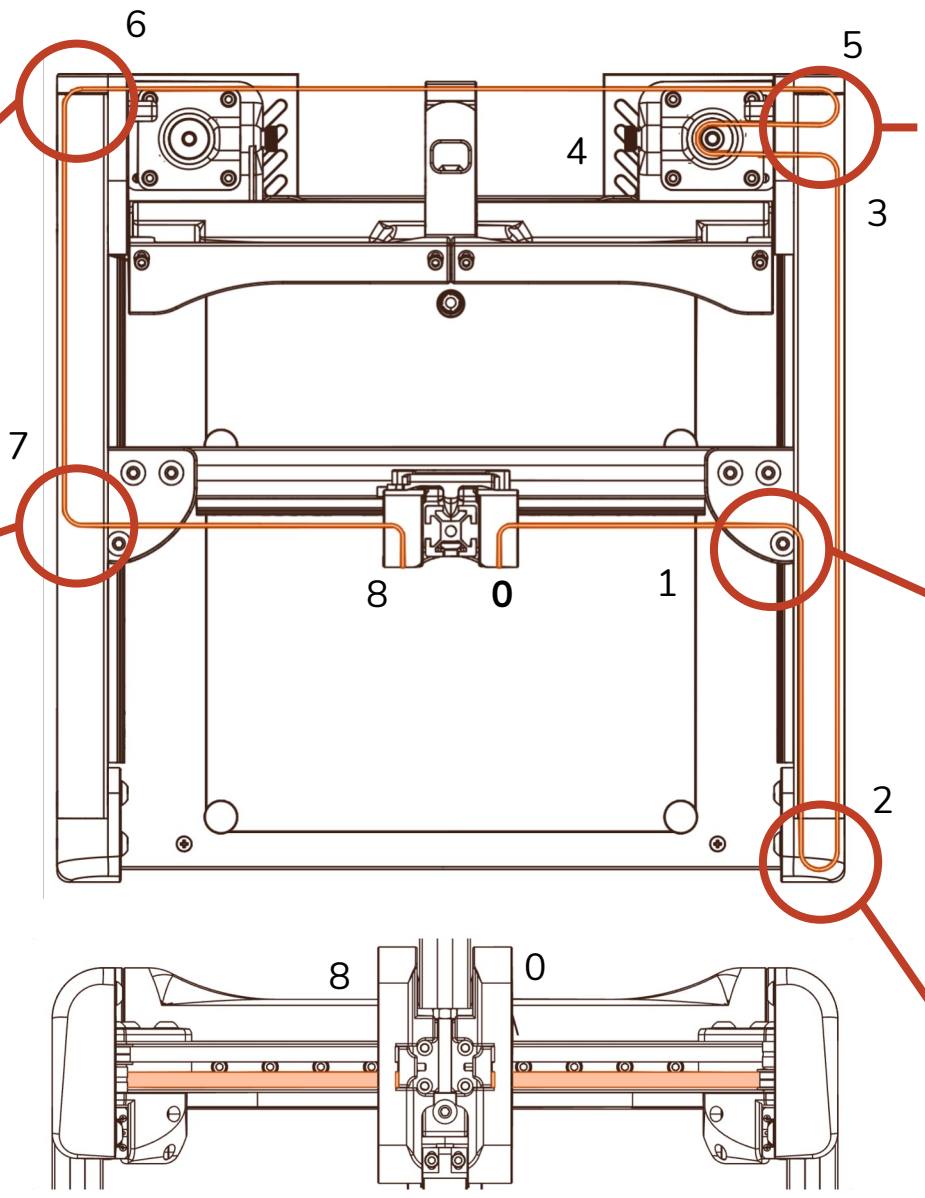
DETAILED VIEWS

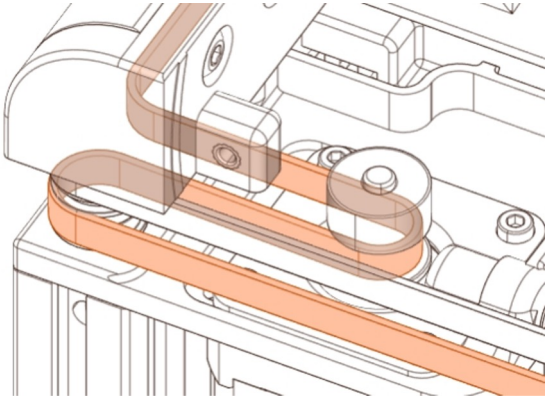
The next couple pages will show detailed views of each of the belt paths.

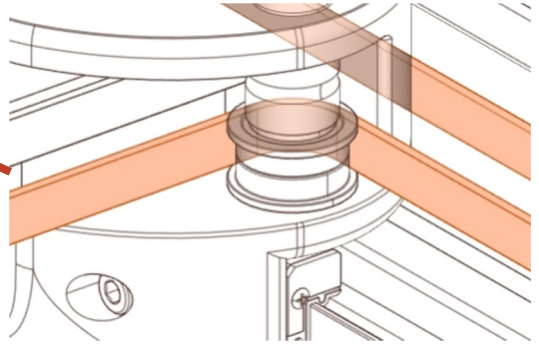


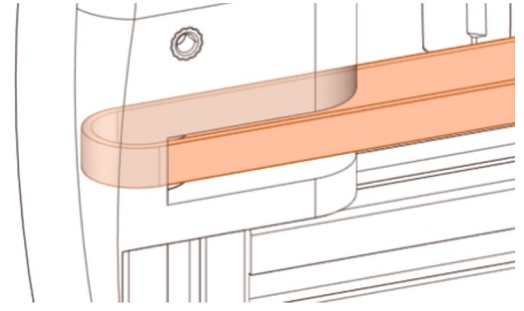






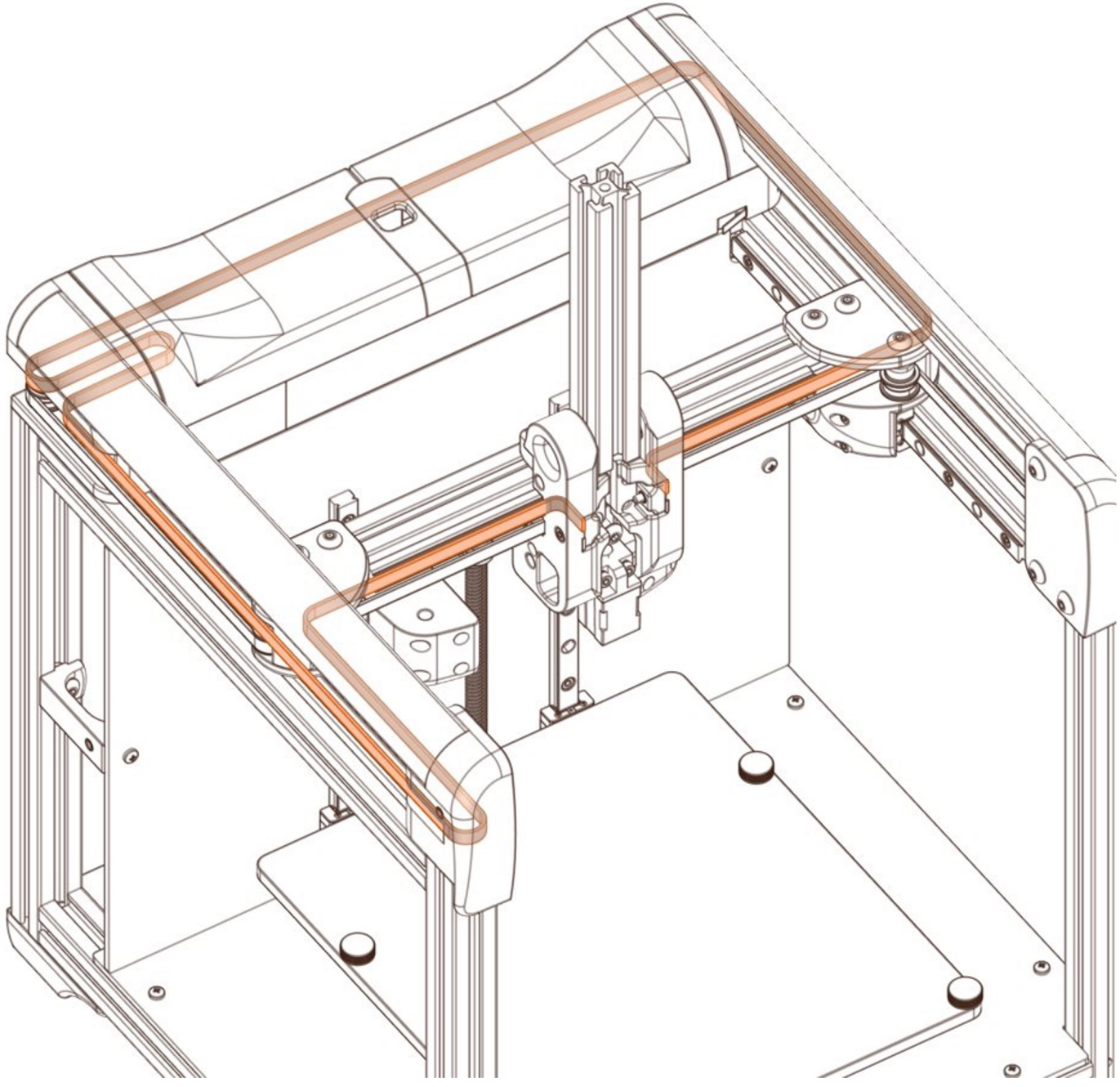


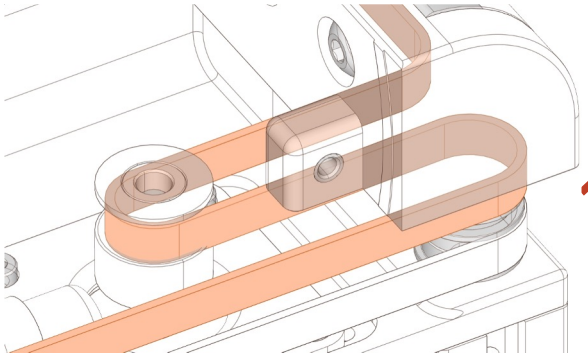


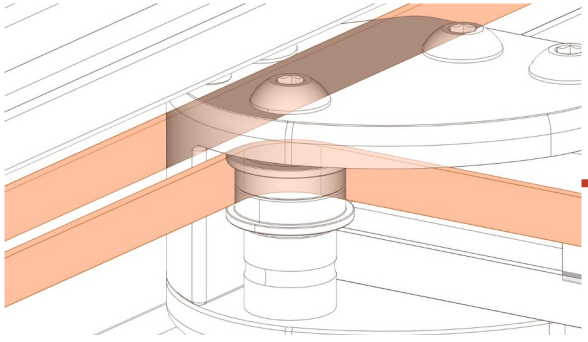


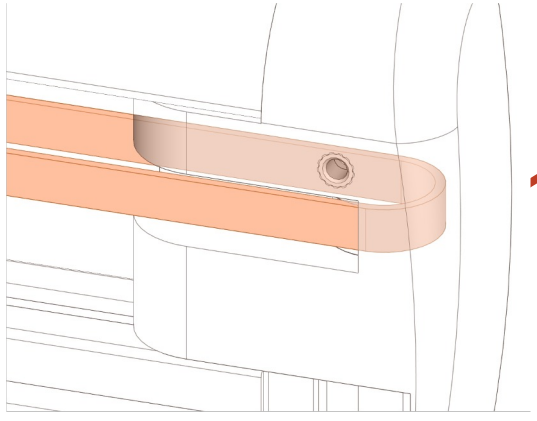
LIKE TYING YOUR SHOES BUT WORSE

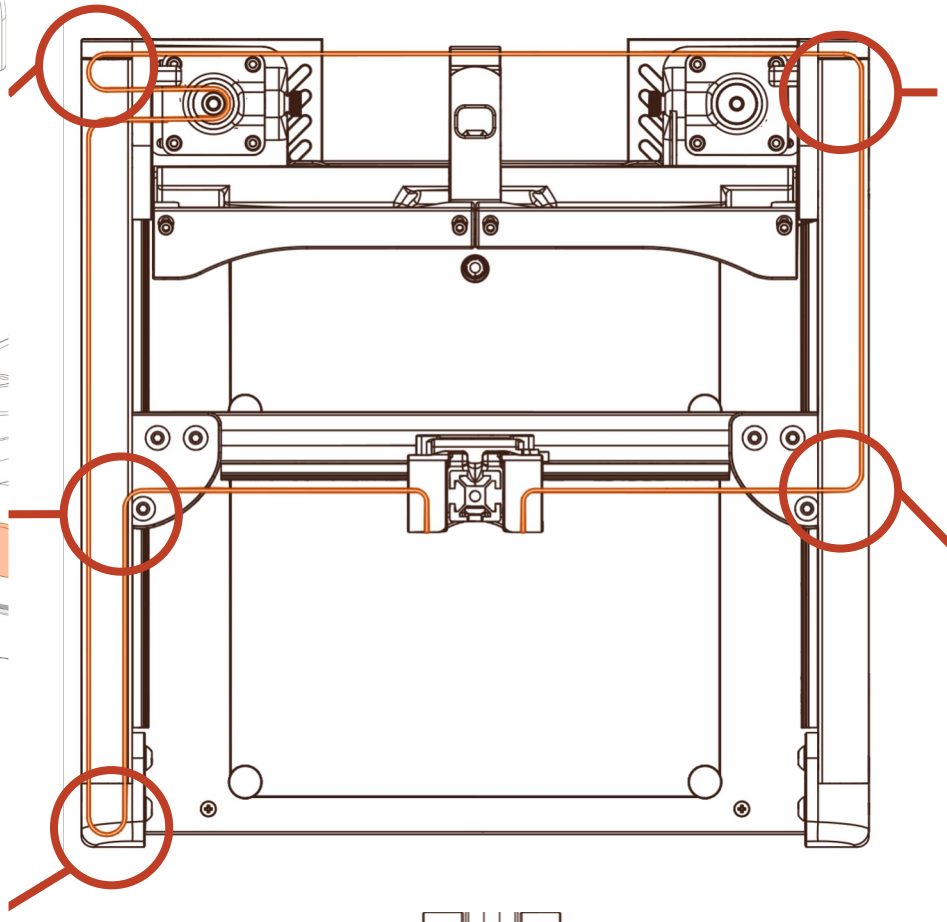
Thread belt A through the printer.
The belt sits below the B belt.
The belt should only contact smooth bearing surfaces. No part of the belt should be touching plastic.

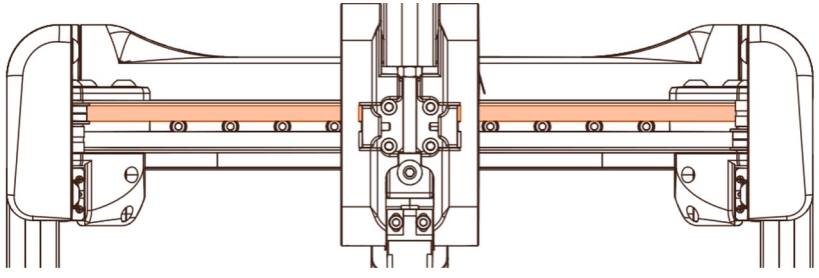


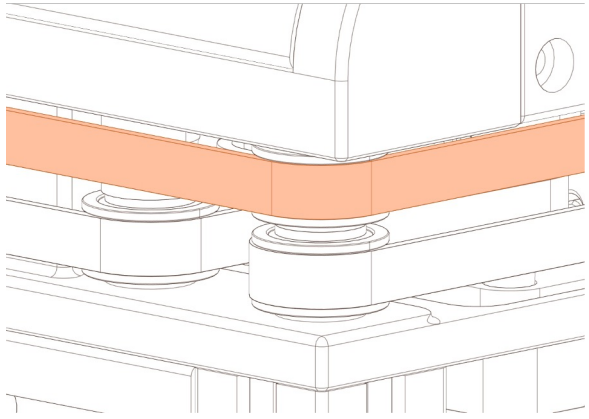


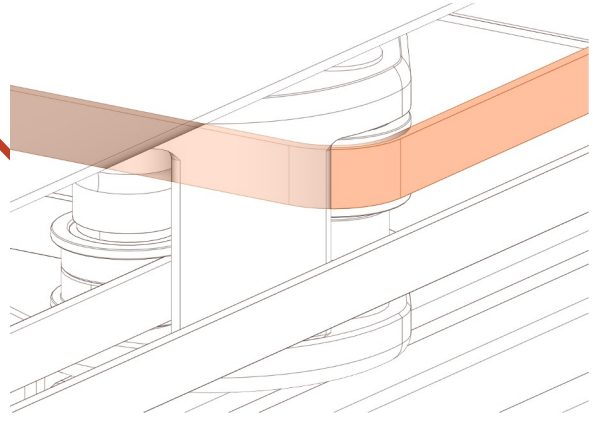












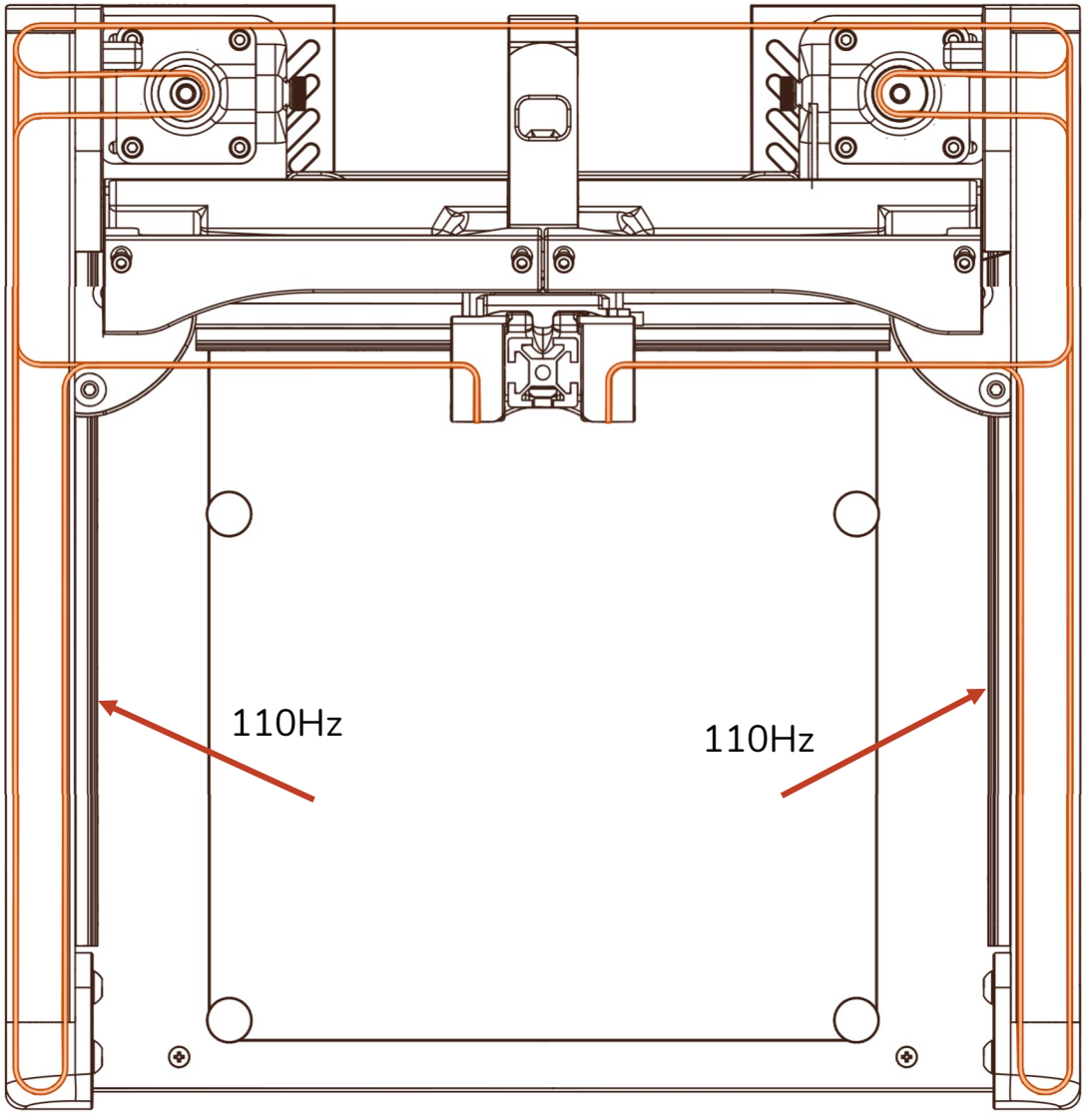
LIKE TYING YOUR SHOES BUT WORSE

Thread belt B through the printer.
The B belt sits above the A belt.
The flat side of the belt should only contact smooth bearing surfaces. No part of the belt should be touching plastic.

125Hz AT MAX Y TRAVEL

You can use an instrument tuning app on your smartphone or in browser to measure the frequency of the belts when the gantry is in a fixed location. Move the gantry all the way to the rear of the printer and pluck the indicated belts.

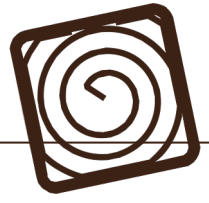
Using the “MK3S Y Belt” option on the site should allow it to give you a safe indicator zone as well and not just the standalone frequency. **Your belts should be very close / the same in frequency.**



143

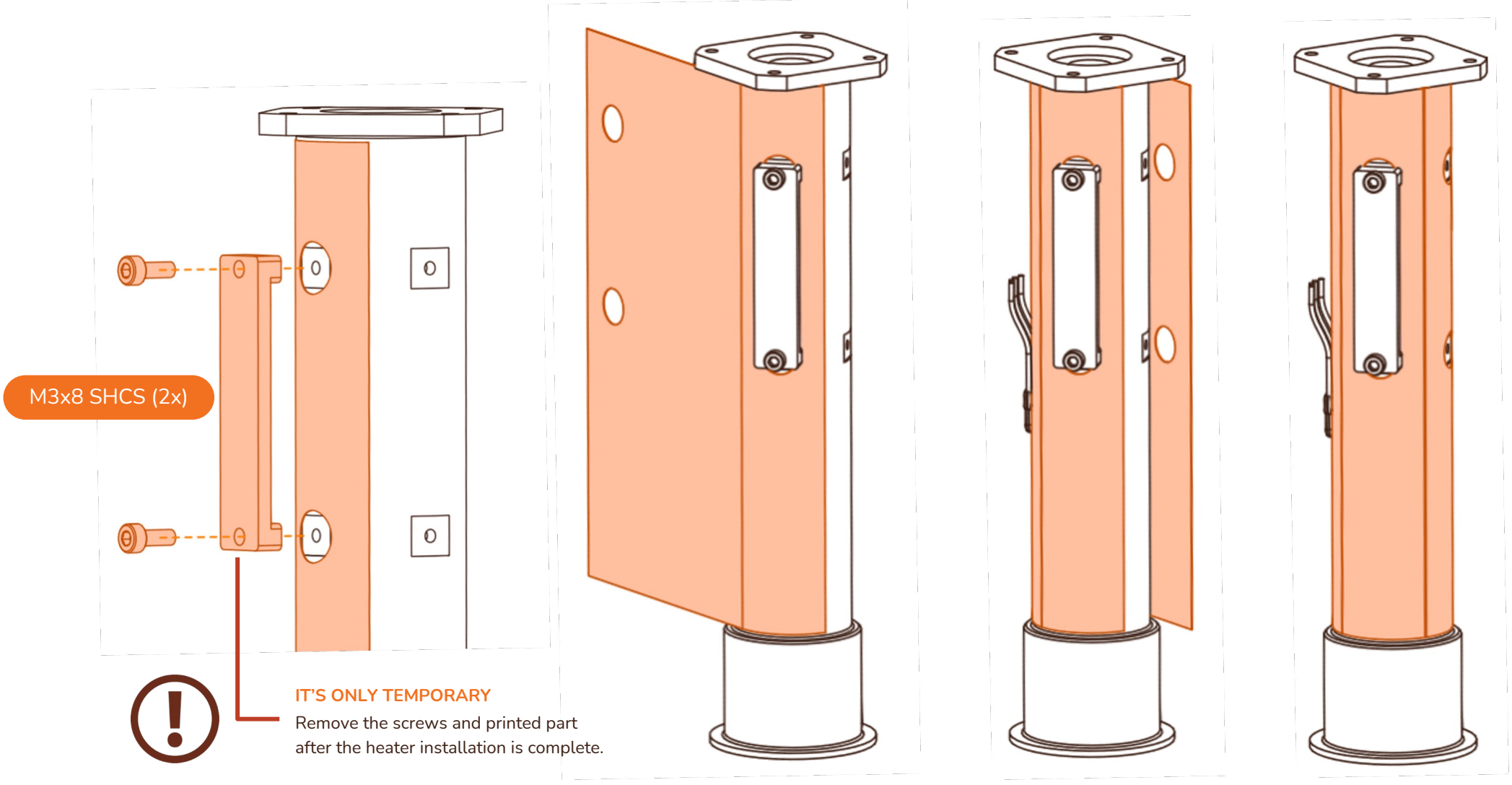
Difficulty	Hard

Tools Needed	M2 Driver M3 Driver M5 Driver	Heatset Insert Tool Soldering Iron (Not Included)
Hardware Needed	M3 Heatset Inserts (8x) M2 Heatset Inserts (2x) M2x10 Socket Head Cap Screw (6x) M3x8 Socket Head Cap Screw (7x) M3x12 Socket Head Cap Screw (5x) M3x16 Socket Head Cap Screw (2x) M3x20 Socket Head Cap Screw (8x) M5x10 Button Head Cap Screw (1x) M6 Thumb Screw (1x)	Nozzle Heater (1x) Body Heater (1x) E Motor (1x) E Leadscrew (1x) Heater Body (1x) Zip Ties (3x) Cartridge (1x) MGN7-H Rail (1x)
Printed Parts Needed	Heater Jig (1x) Cocoa Press Medallion (1x) MJF Plunger Adapter (1x) Extruder Motor Case (1x)	Extruder Motor Cover (1x) Extruder Shell Front (1x) Extruder Shell Rear (1x) Extruder Cable Cover (1x)



INSTALLING HEATERS

The body heater gets wrapped around the cartridge housing. The 4 holes in the heater align with the 4 screw holes in the component. Use the printed guide to help attach the heater to the barrel. Wrap the heater around and be sure to prevent any air bubbles from forming.
We strongly suggest going through the motions before removing the adhesive backing.



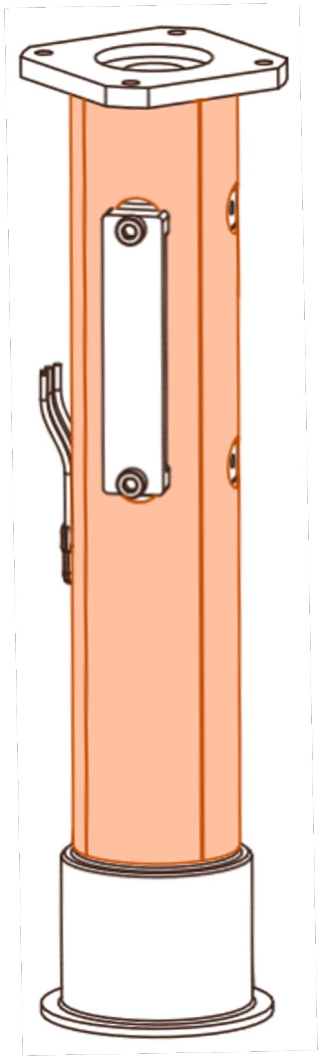
IT'S ONLY TEMPORARY

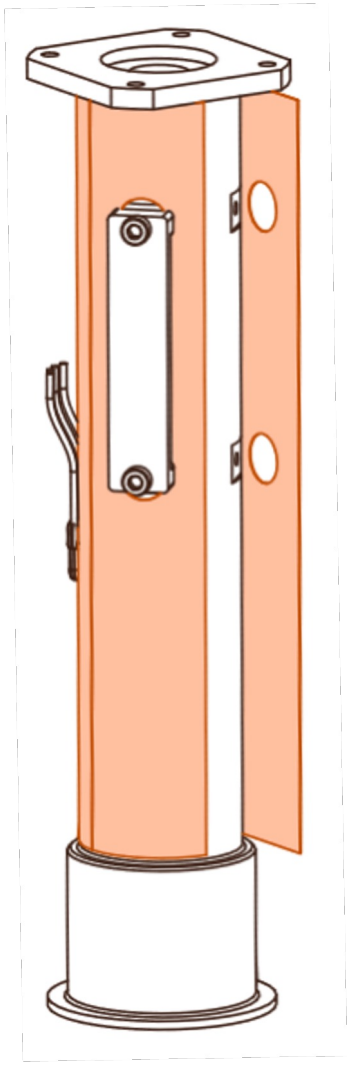
Remove the screws and printed part after the heater installation is complete.

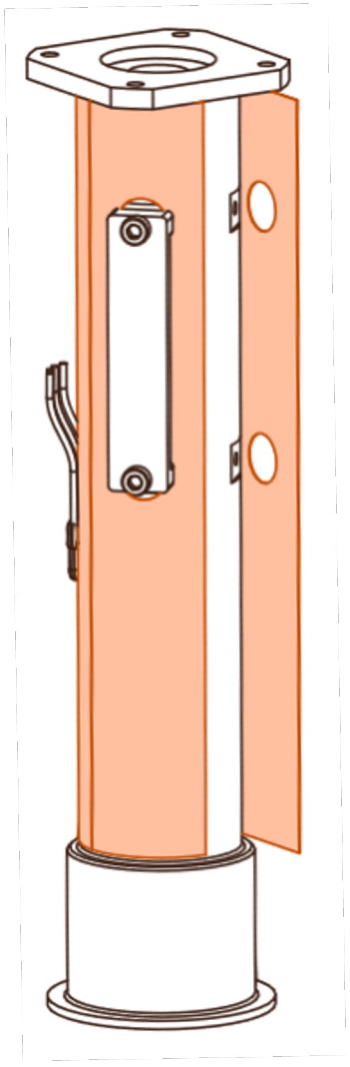
STICKY!

When sure that the heater is in the right space, tighten the M3 screws, and unpeel approximately an inch off of the *opposite side* and fold paper over itself. Then lay firmly onto tube, ensuring no bubbles form.

We strongly suggest going through the motions before removing the adhesive backing.

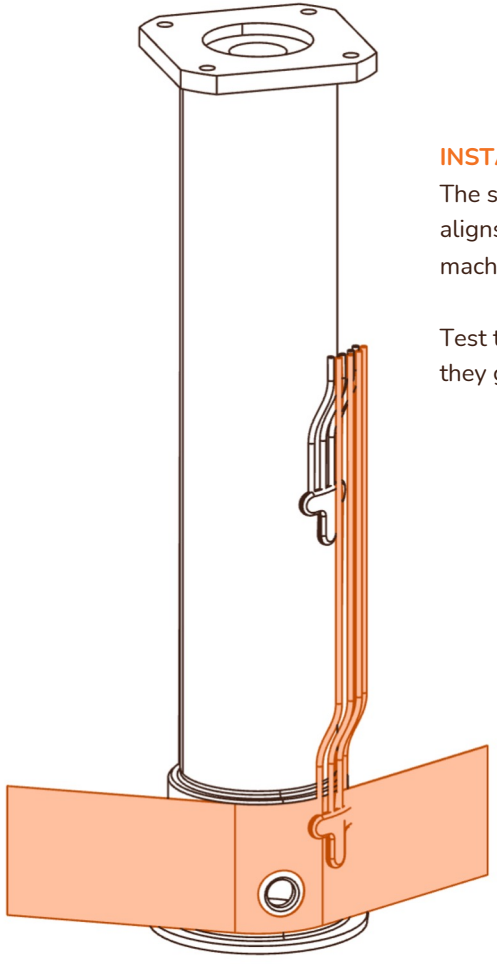






PERFECTION ISN'T PRACTICAL

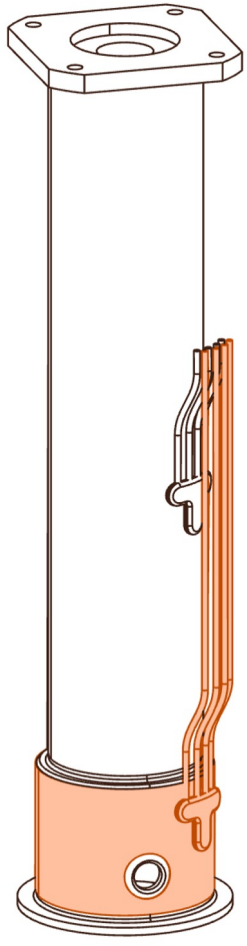
While we ask you try to get the body heater aligned as well as possible, the actual objective is to avoid any fasteners or screws having their electrical traces crushed by tightening. Crushing the traces can cause sporadic failures and safety issues.

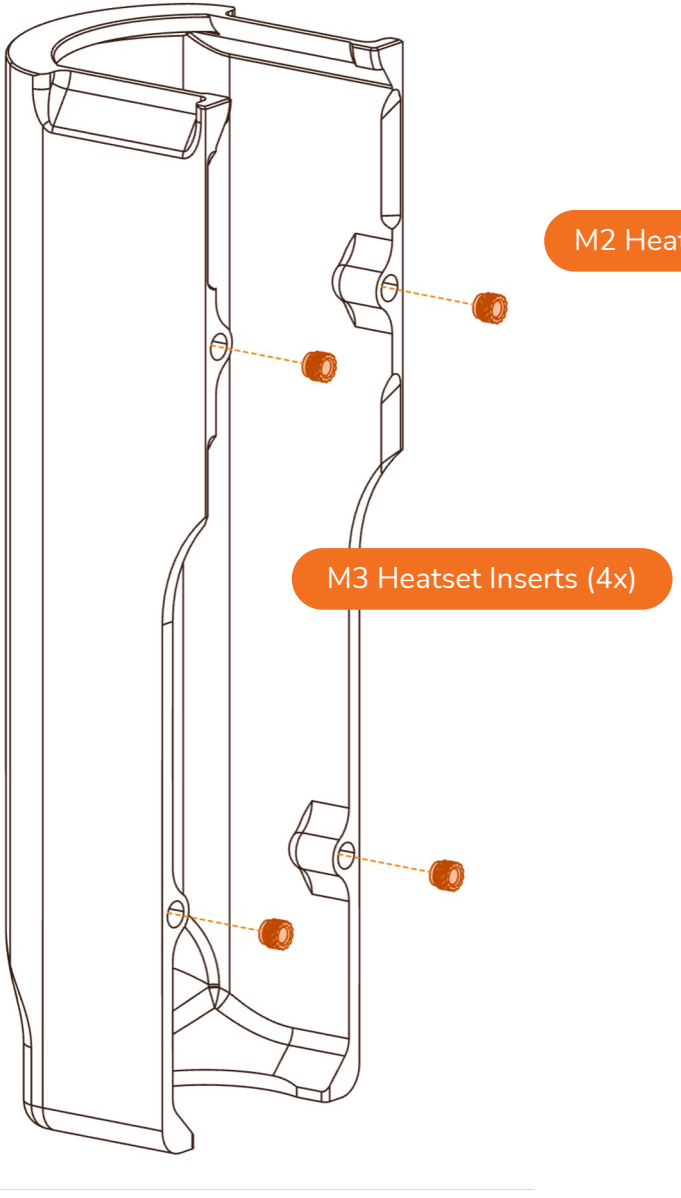


INSTALLING HEATERS

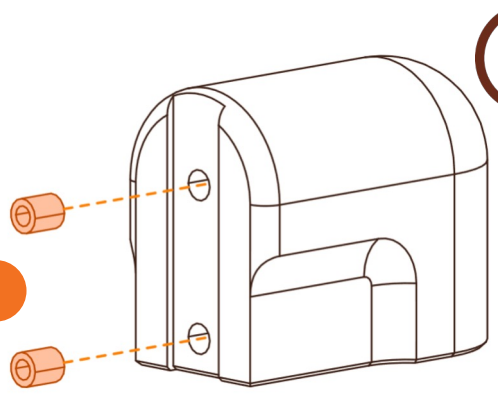
The smaller heater has a single hole that aligns with the hole in the front of the machined component.

Test the positioning to understand where they go before removing the adhesive back.





M3 Heatset Inserts (4x)

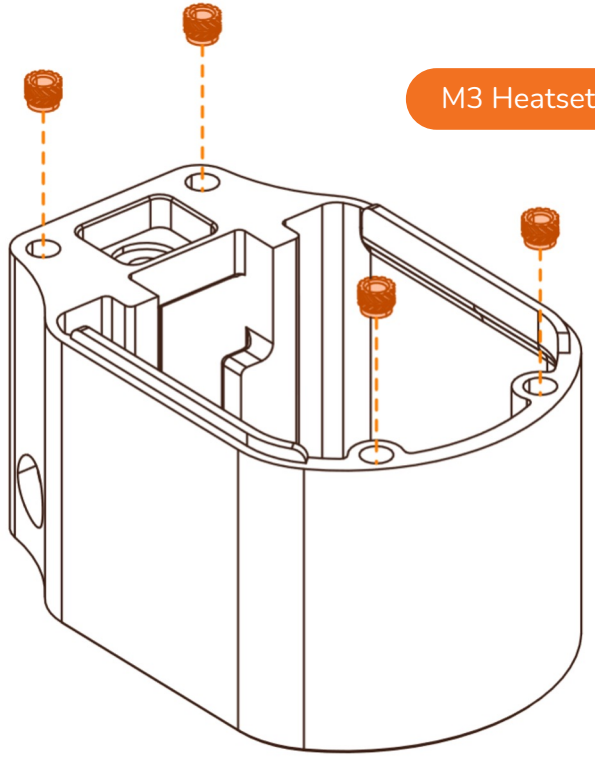


M2 Heatset Inserts (2x)

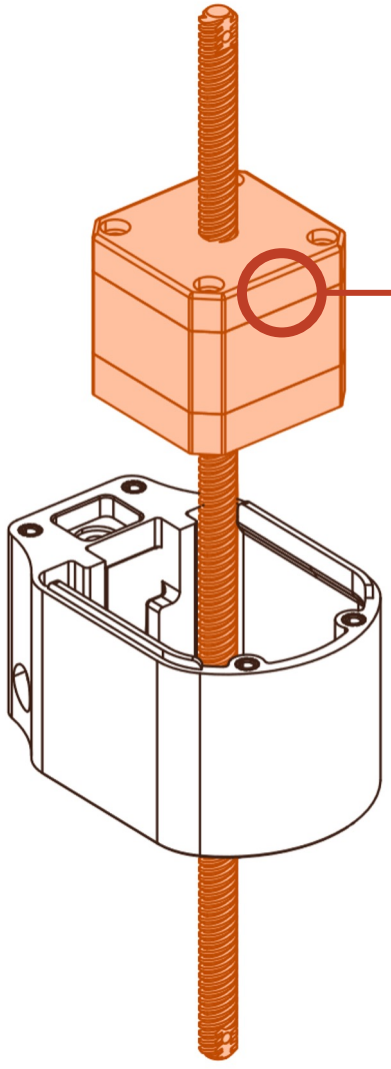
WE'RE NOT ALL THE SAME

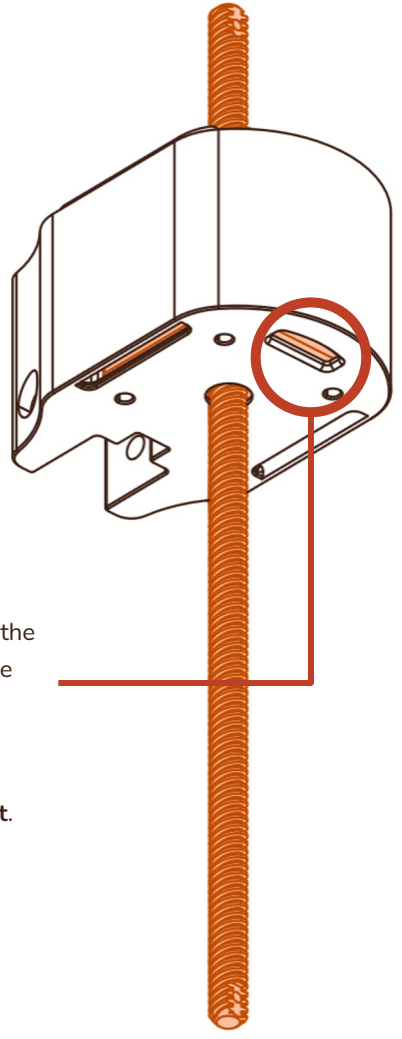
This part uses M2 heatset inserts. They are smaller than the M3 inserts we have been using so far.

Take care to ensure the M2 heatsets are well aligned and not distorted. Otherwise you may cause mechanical failures later in printer use.



M3 Heatset Inserts (4x)

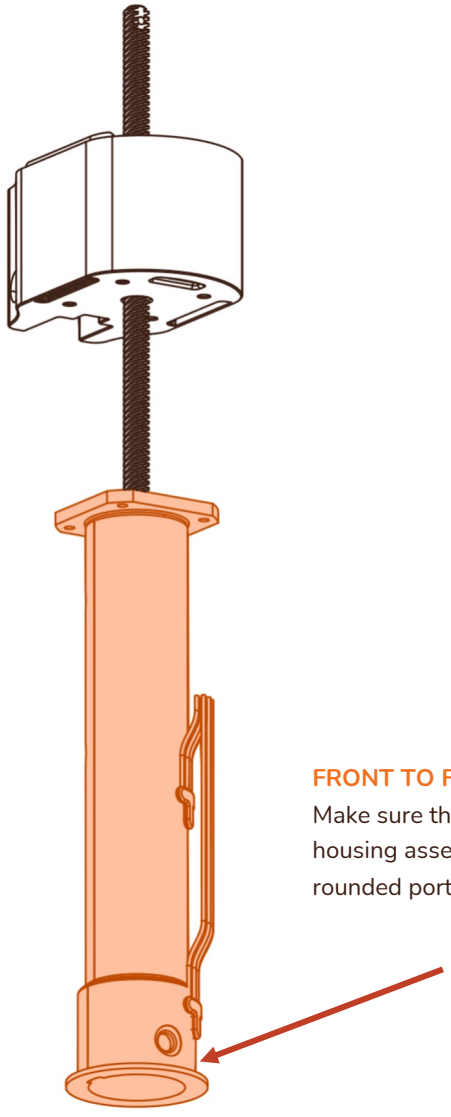




MOTOR WIRE ROUTING

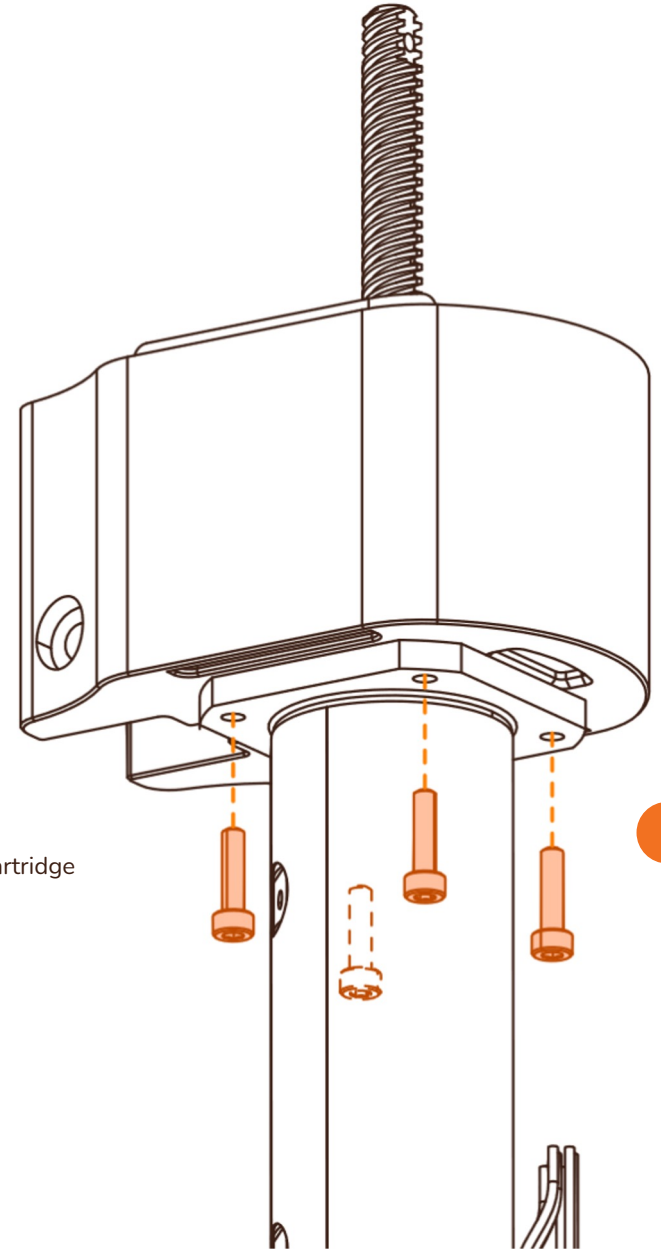
The toolhead motor wires (labeled as “E”) should exit out the front of the motor. Route the white connector through the open hole on the front of the piece down and away from the motor.

Connect the cable to the motor at this point.

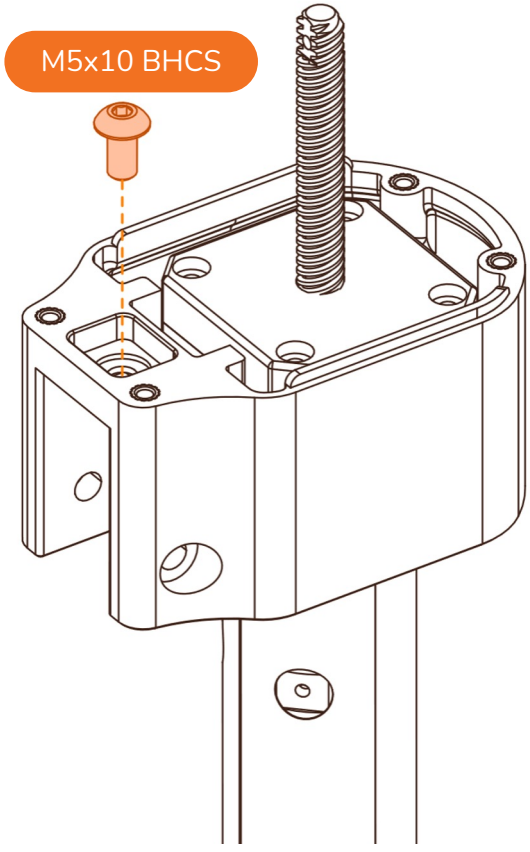


FRONT TO FRONT

Make sure the through hole in the cartridge housing assembly is facing the front rounded portion of the printed part.

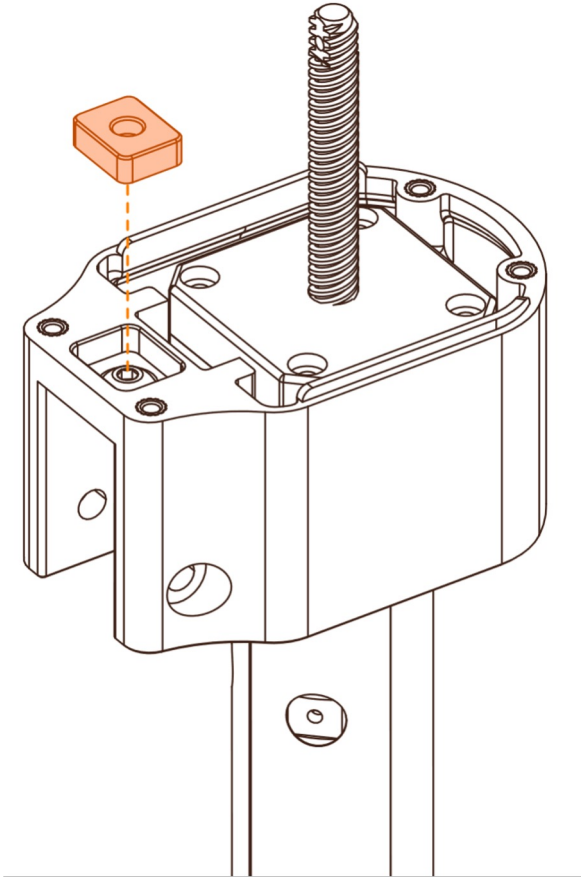


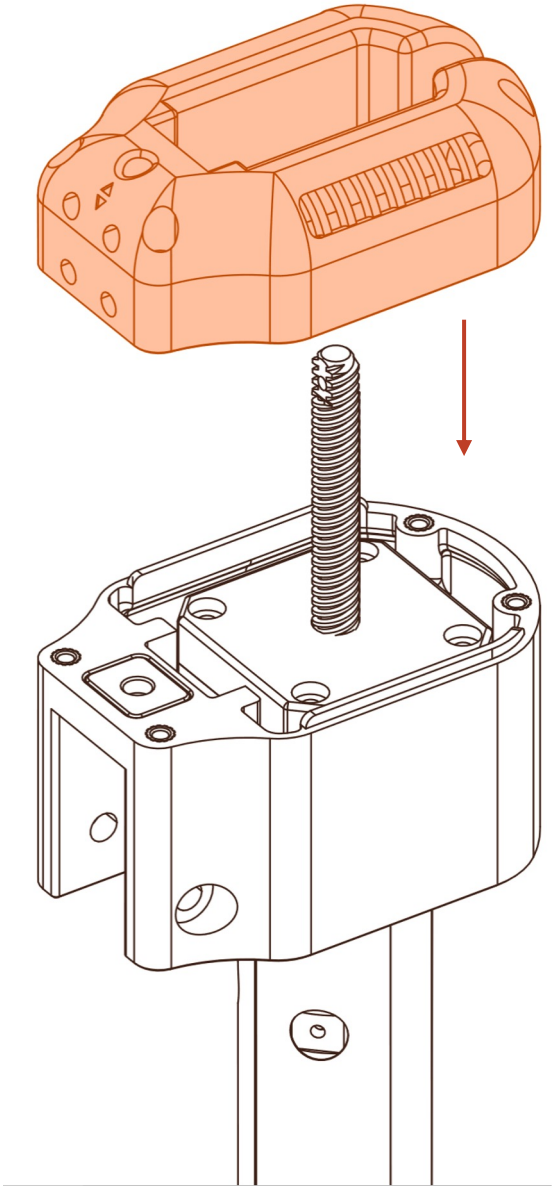
M3x12 SHCS (4x)

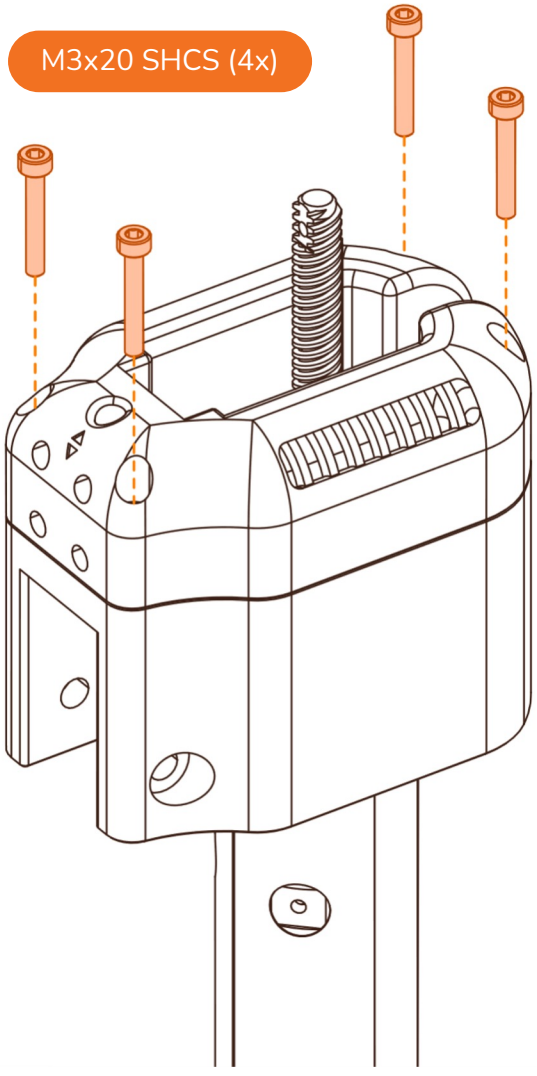


SMALL PART, BIG DIFFERENCE

This insert allows you to precisely adjust the offset between your Z Probe and the rest of the toolhead, be sure to include it.

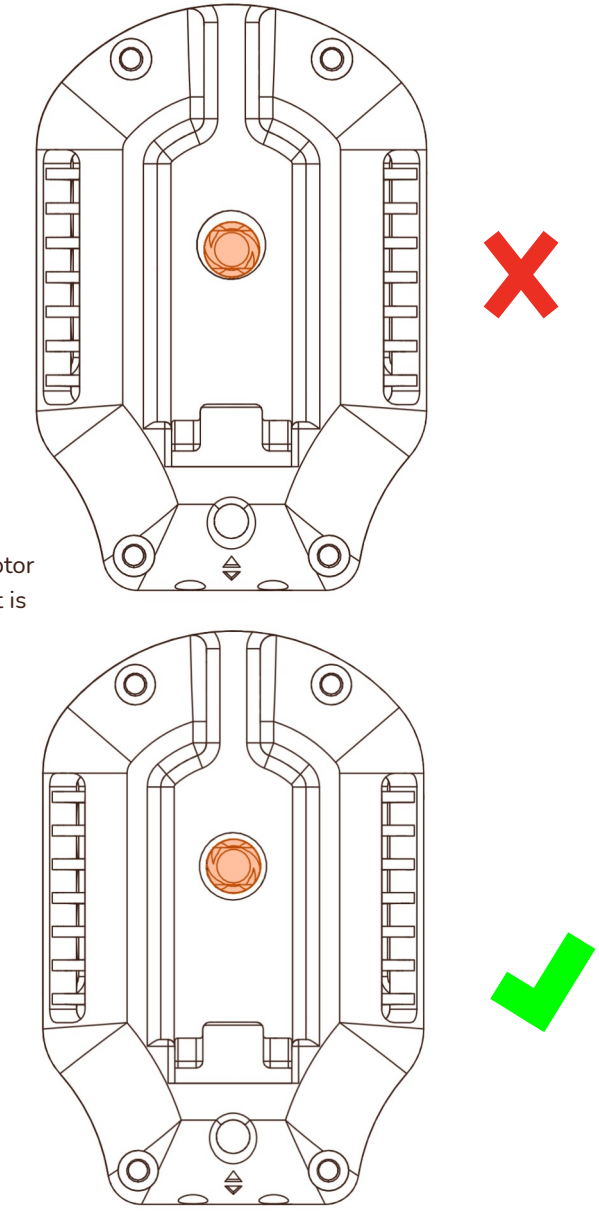


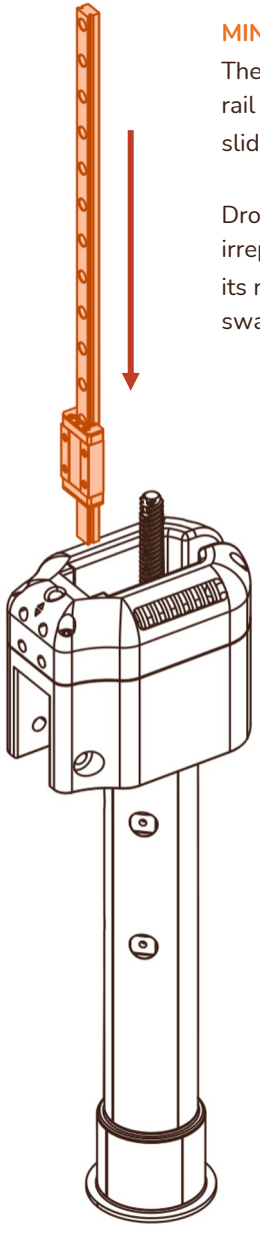




LEAD SCREW ALIGNMENT

Make sure the leadscrew from the extruder motor is aligned in the center of the printed parts. If it is not, you may need to loosen the four M3x12 screws holding the motor on and adjust its position.

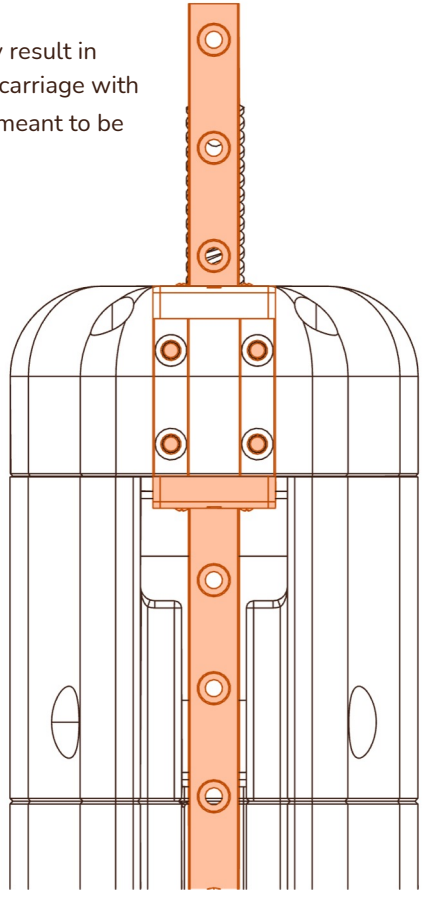


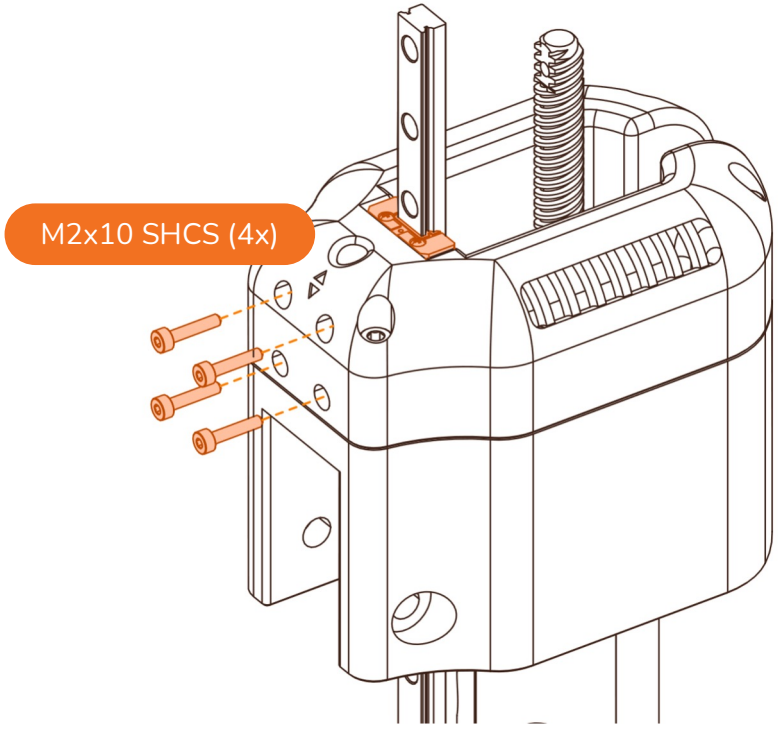


MIND THE CARRIAGES

The carriages are designed to slide along the rail easily. This unfortunately also includes sliding off the rails.

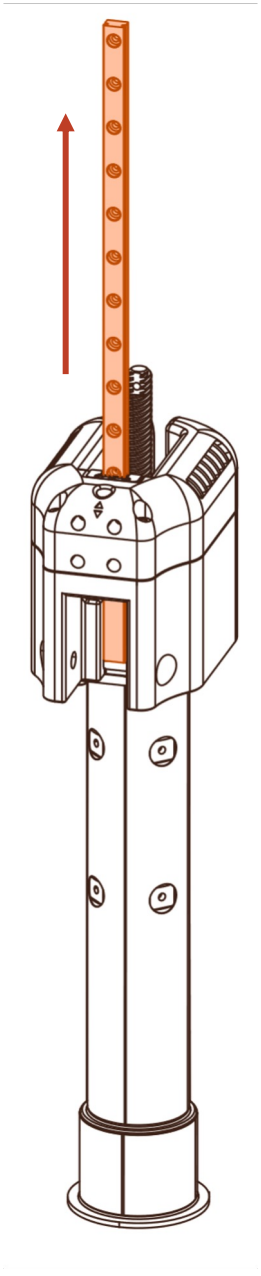
Dropping the carriage will likely result in irreparable damage. Keep each carriage with its respective rail. They are not meant to be swapped.





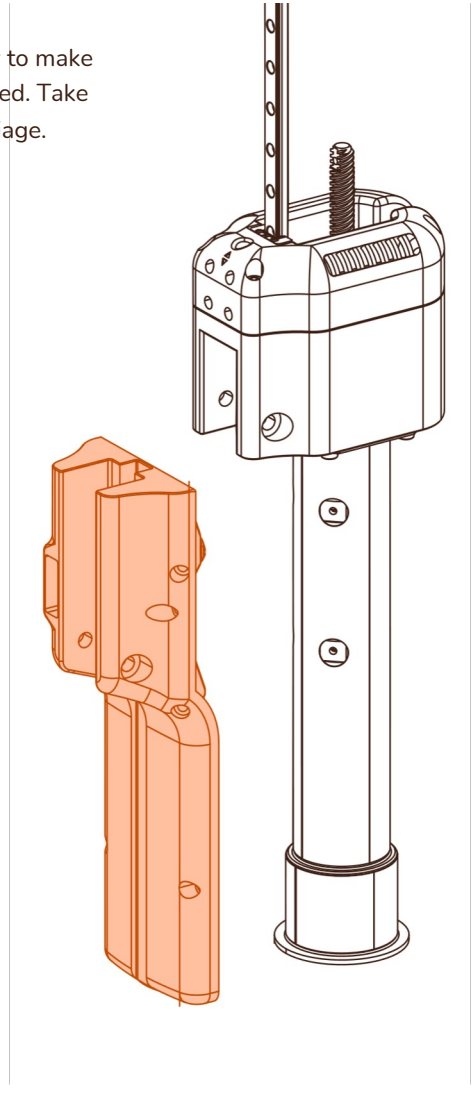
NOT THAT BOUNCY

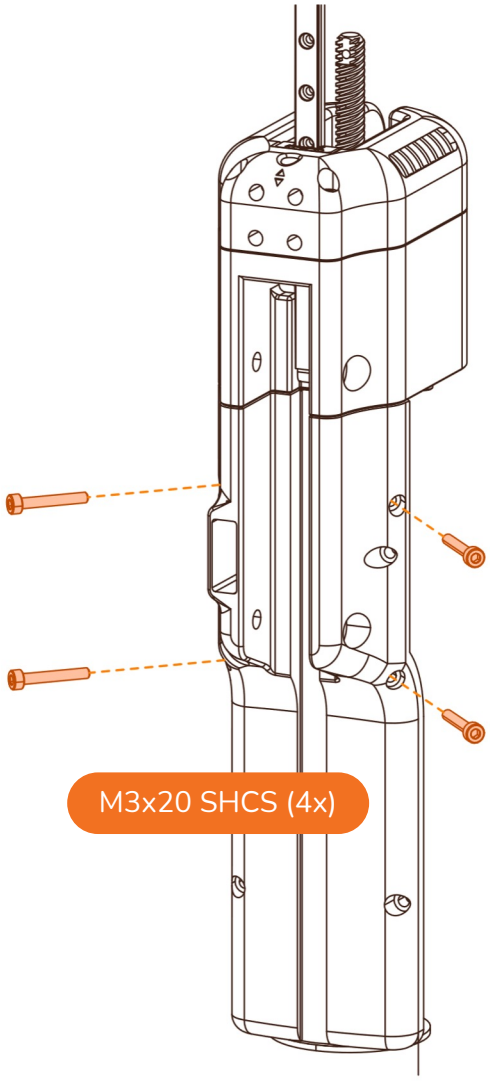
Keep the rubber bumpers on the linear rails for now. This reduces the chances of the rail sliding out and causing damage to the carriage.

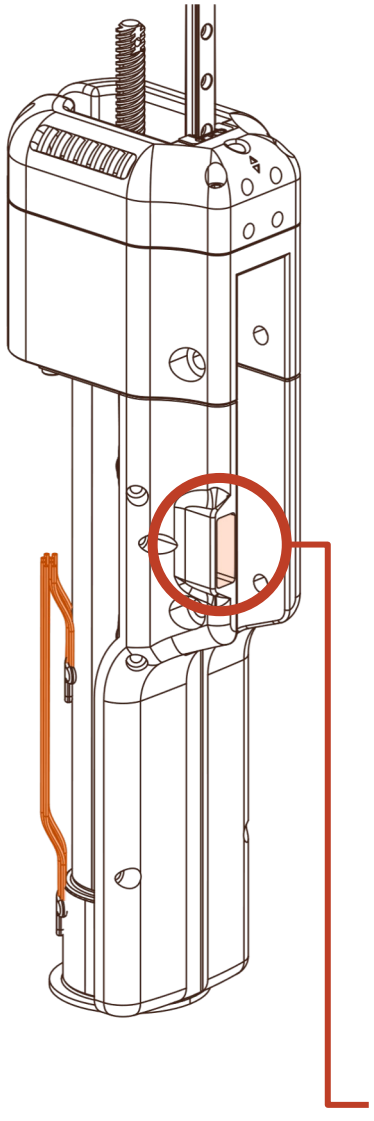


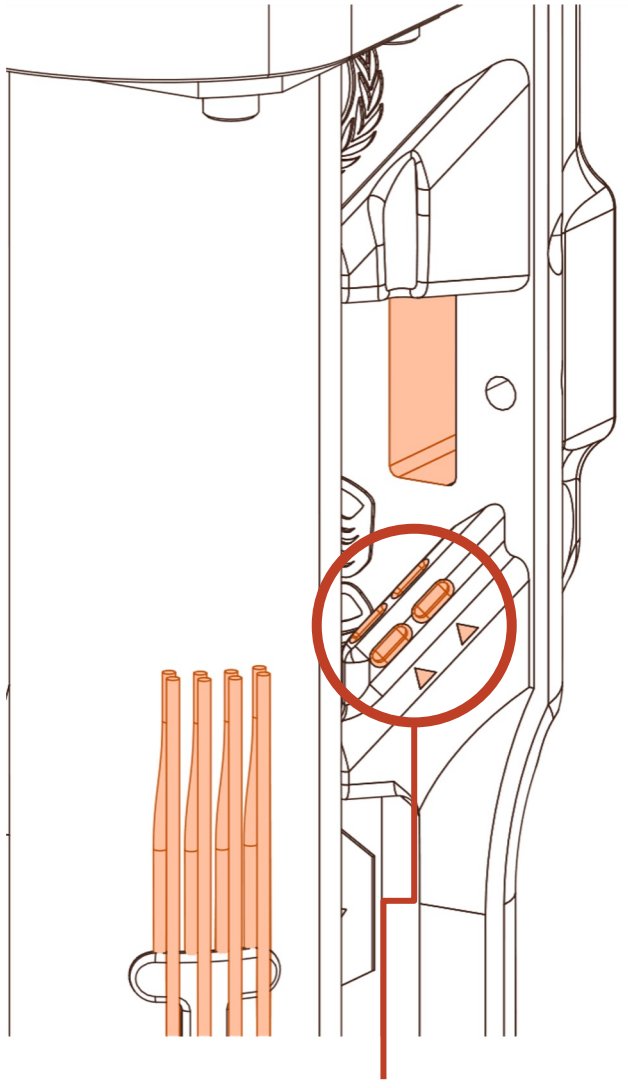
MAKE ROOM

Slide the linear rail up and out of the way to make room for the printed housing to be installed. Take care not to let the rail slide off of the carriage.





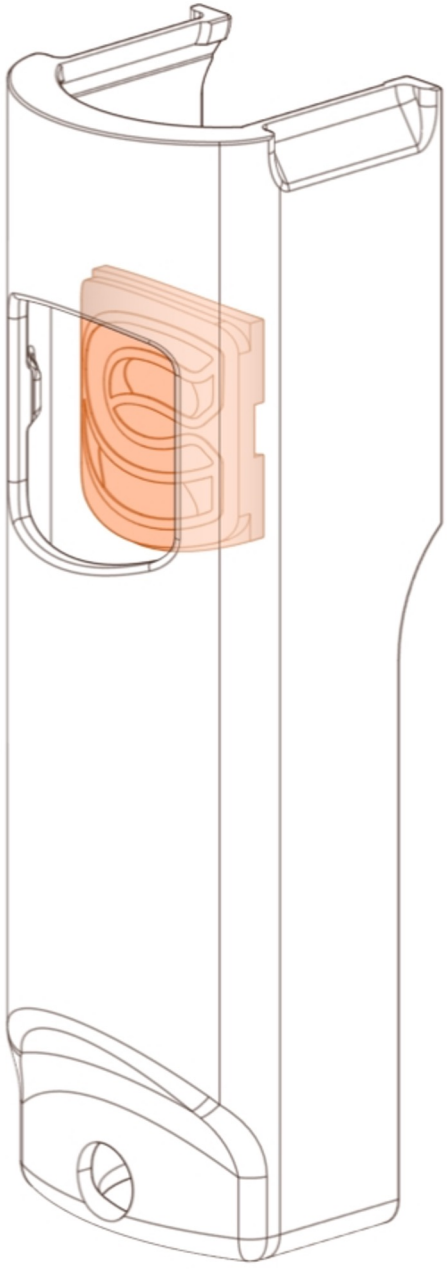




WIRE ROUTING

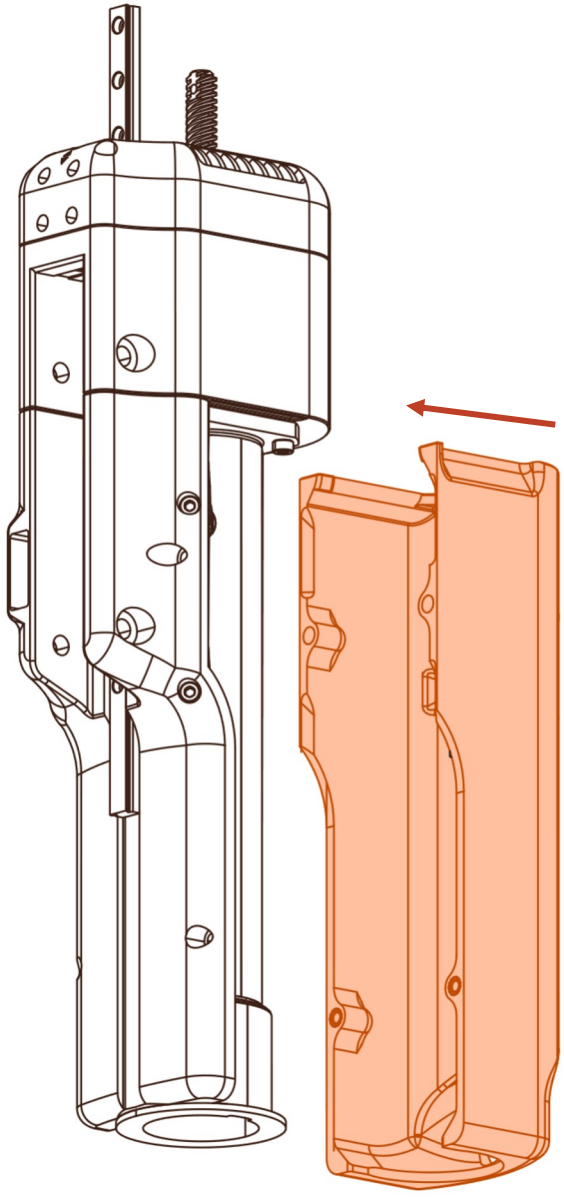
The wires for both heaters and the extruder motor need to be fed through the holes here. Ensure they're through before continuing.

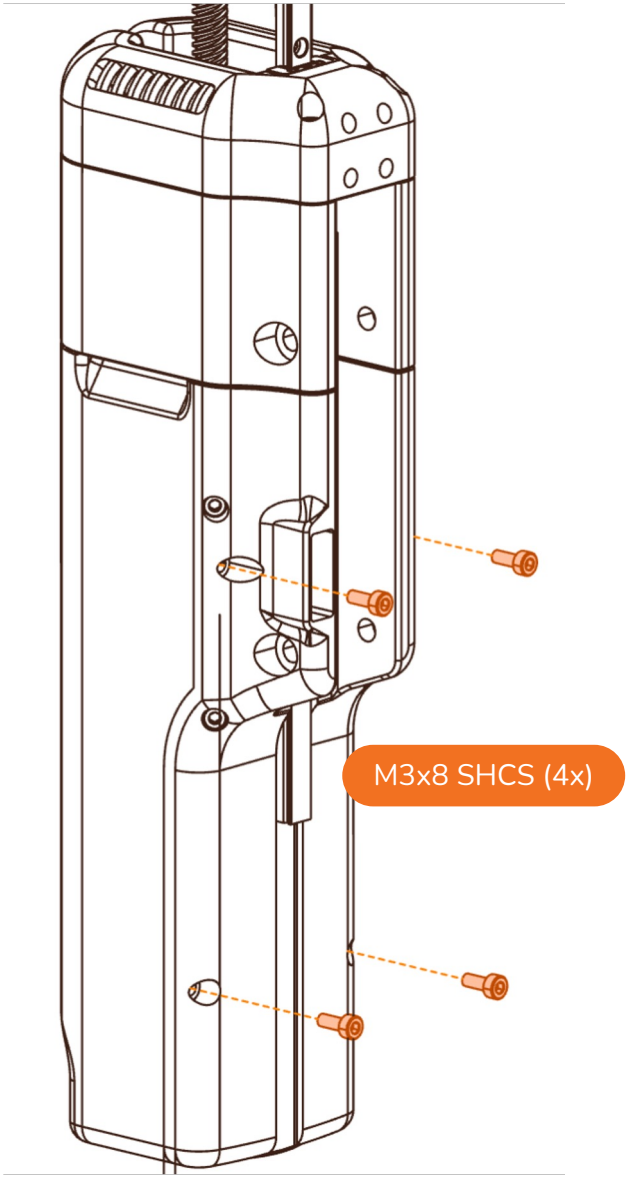
Use the zip tie mounts on the opposite side to hold the heater wires in place to avoid strain.

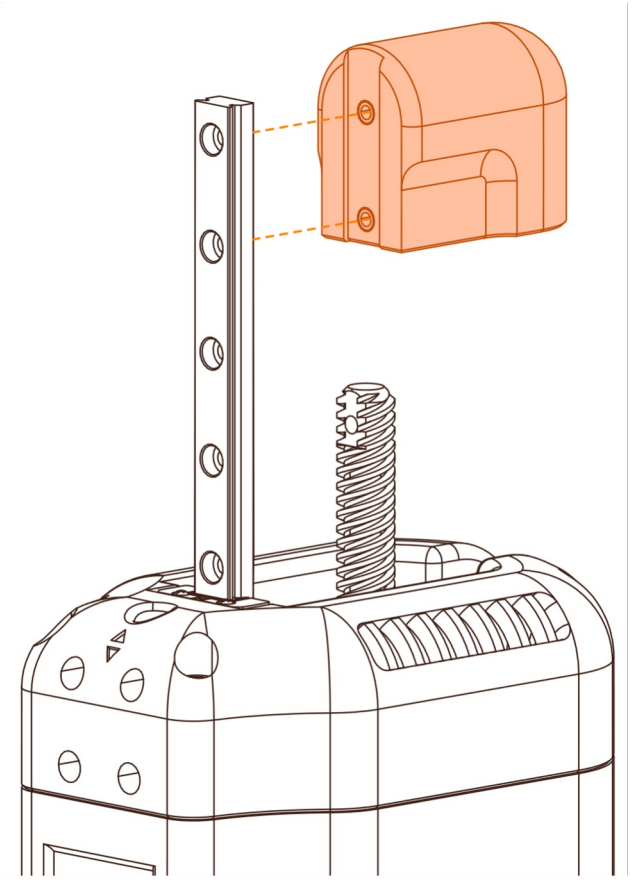


DO IT FOR THE BRAND

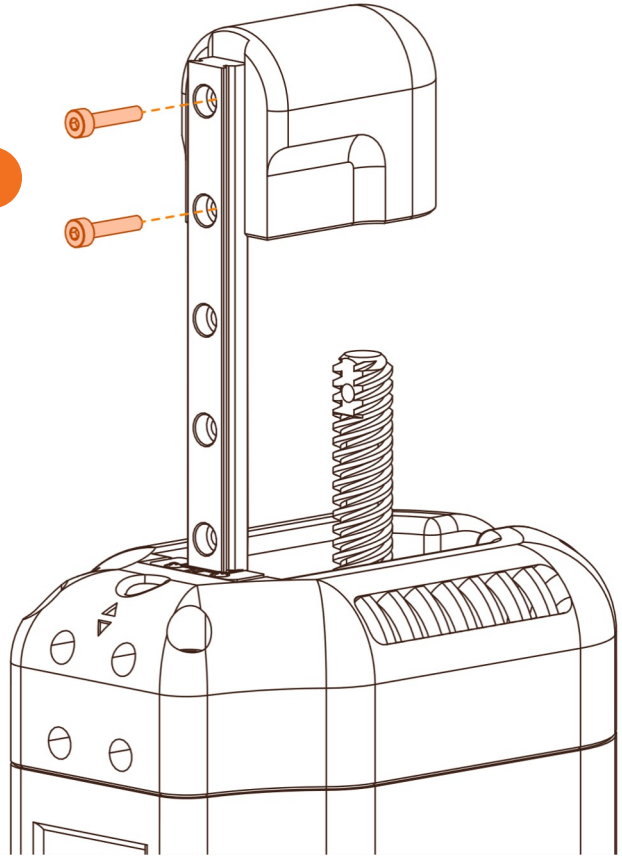
The logo insert clips into place from the inside of the shroud.




M3x8 SHCS (4x)

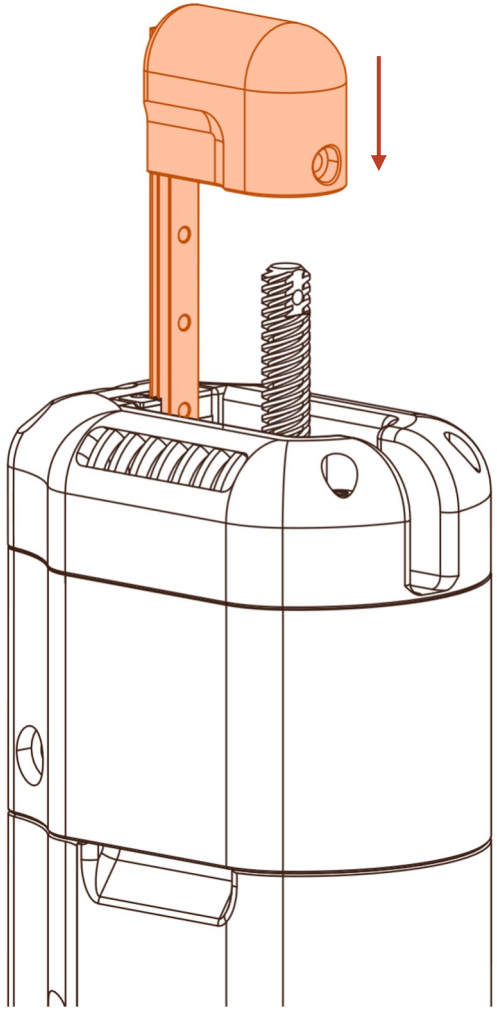


M2x10 SHCS (2x)



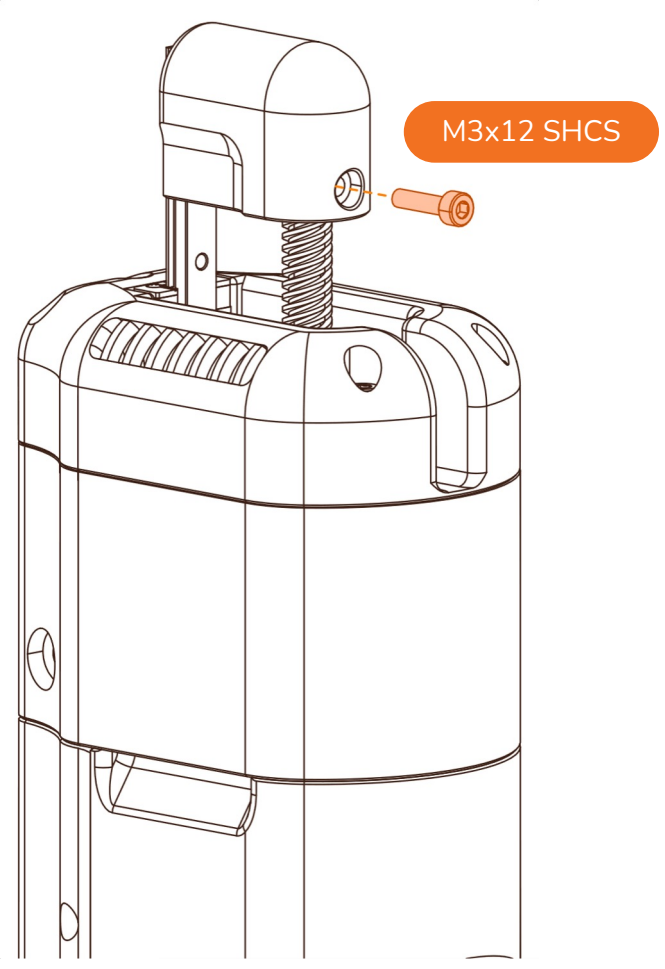
STOP WITH THE STOPPERS!

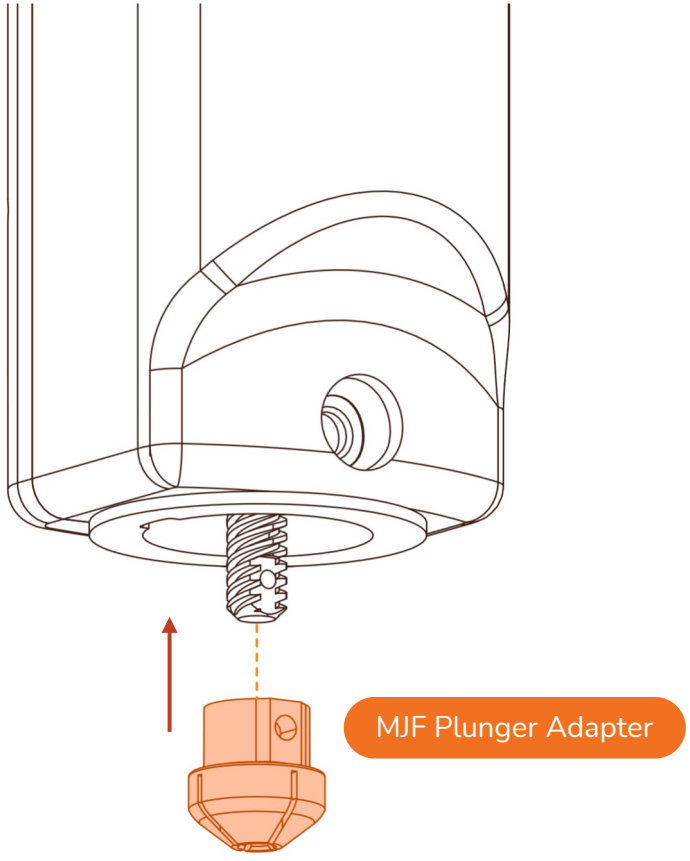
The rubber stoppers on the MGN7H rails can now be removed safely.

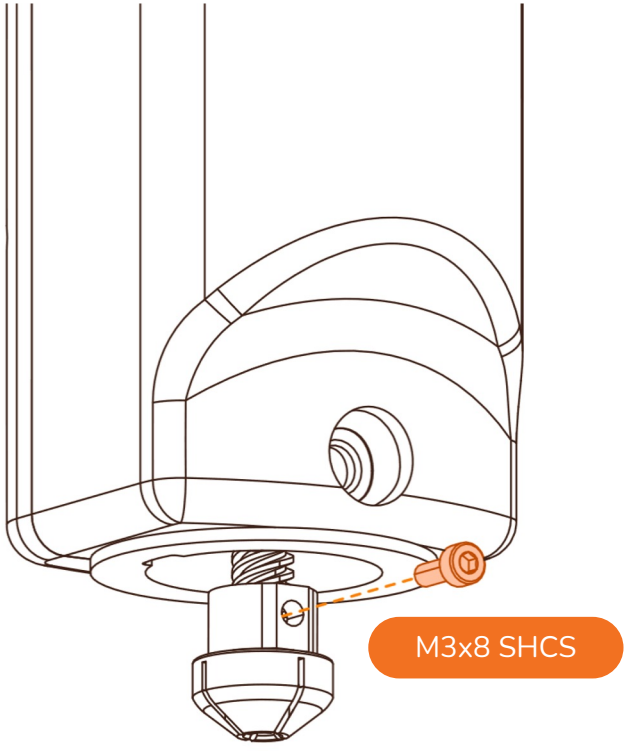


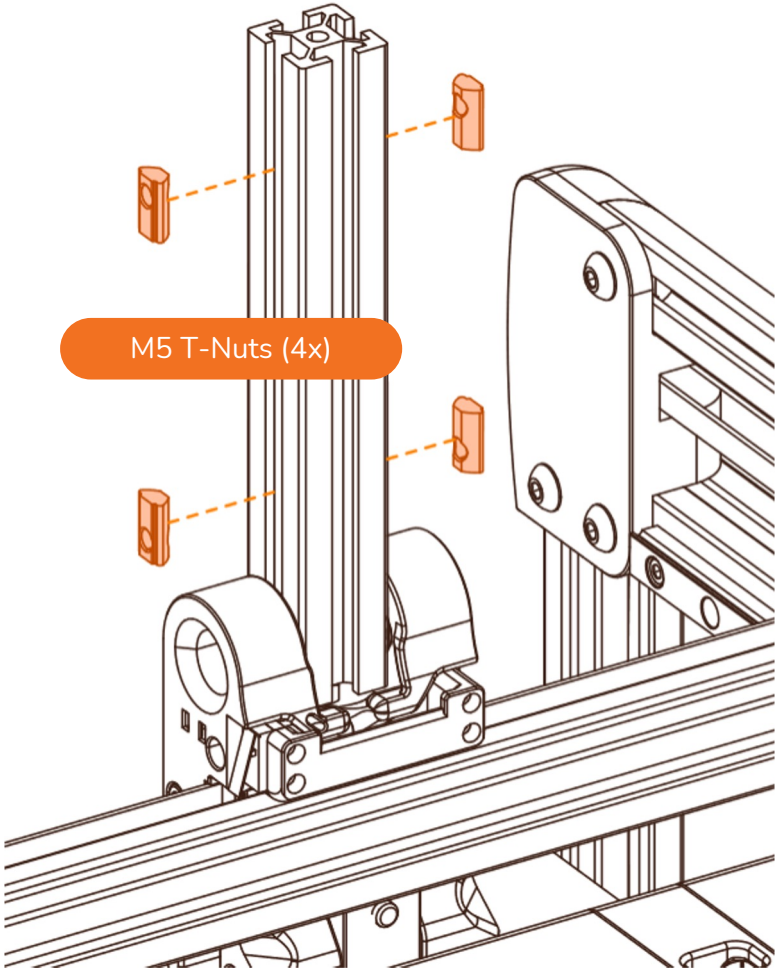
LEADSCREW FLATS

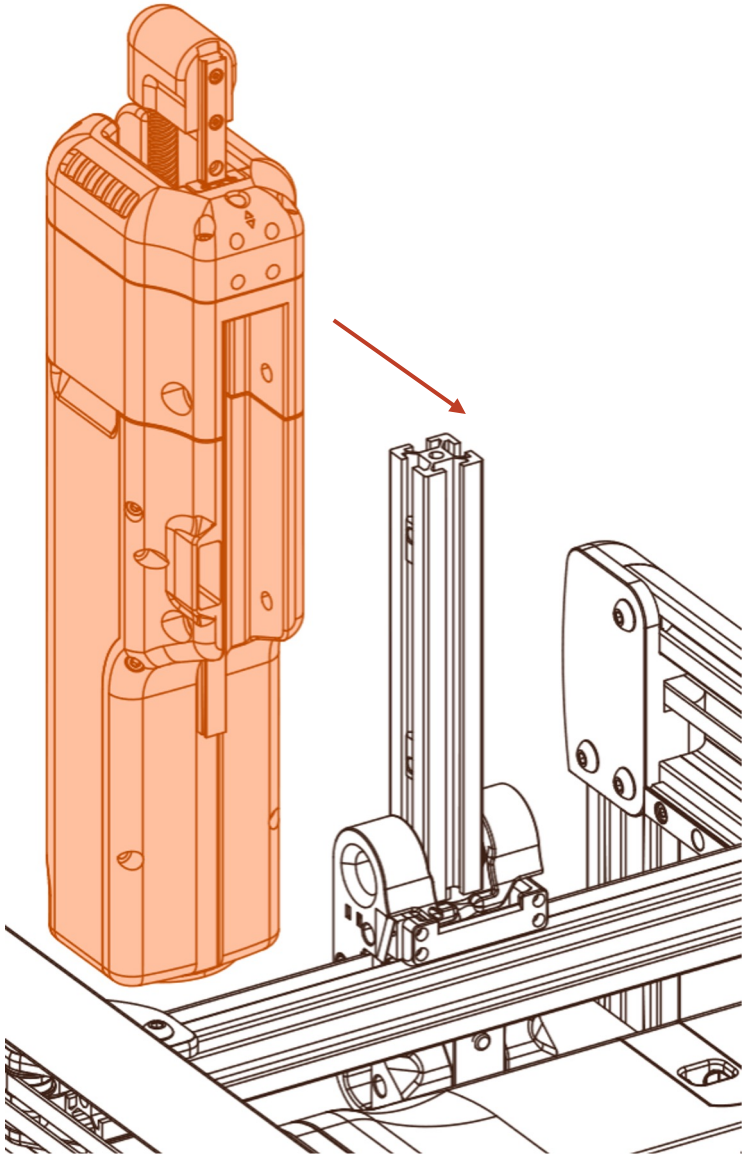
The leadscrew has two flats machined into it, make sure they are positioned front to back to that the leadscrew fits into the printed part.

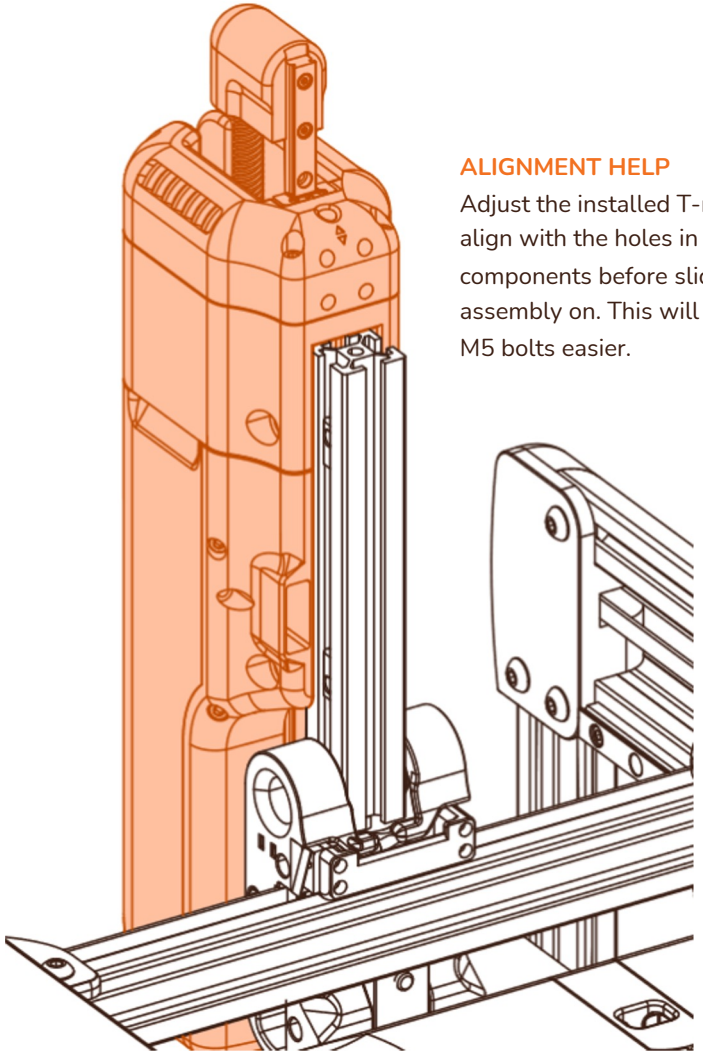



MJF Plunger Adapter


M3x8 SHCS

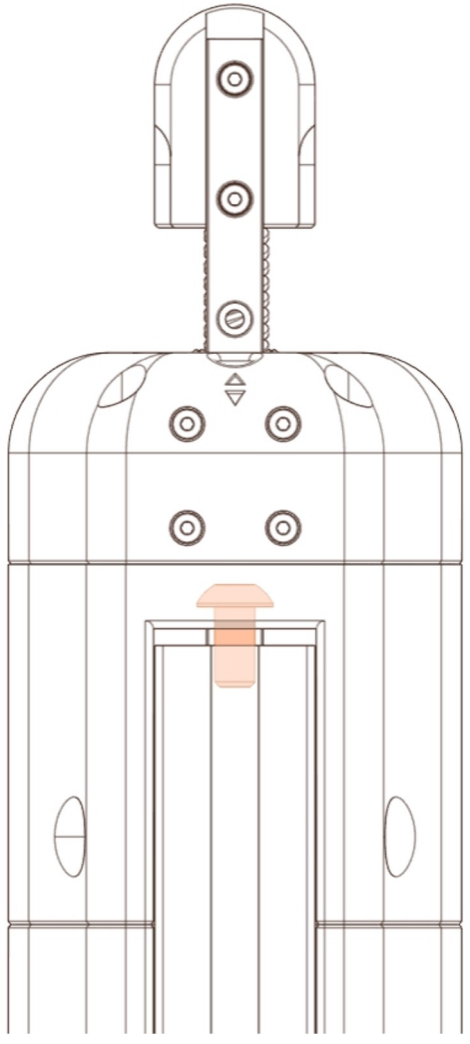

M5 T-Nuts (4x)





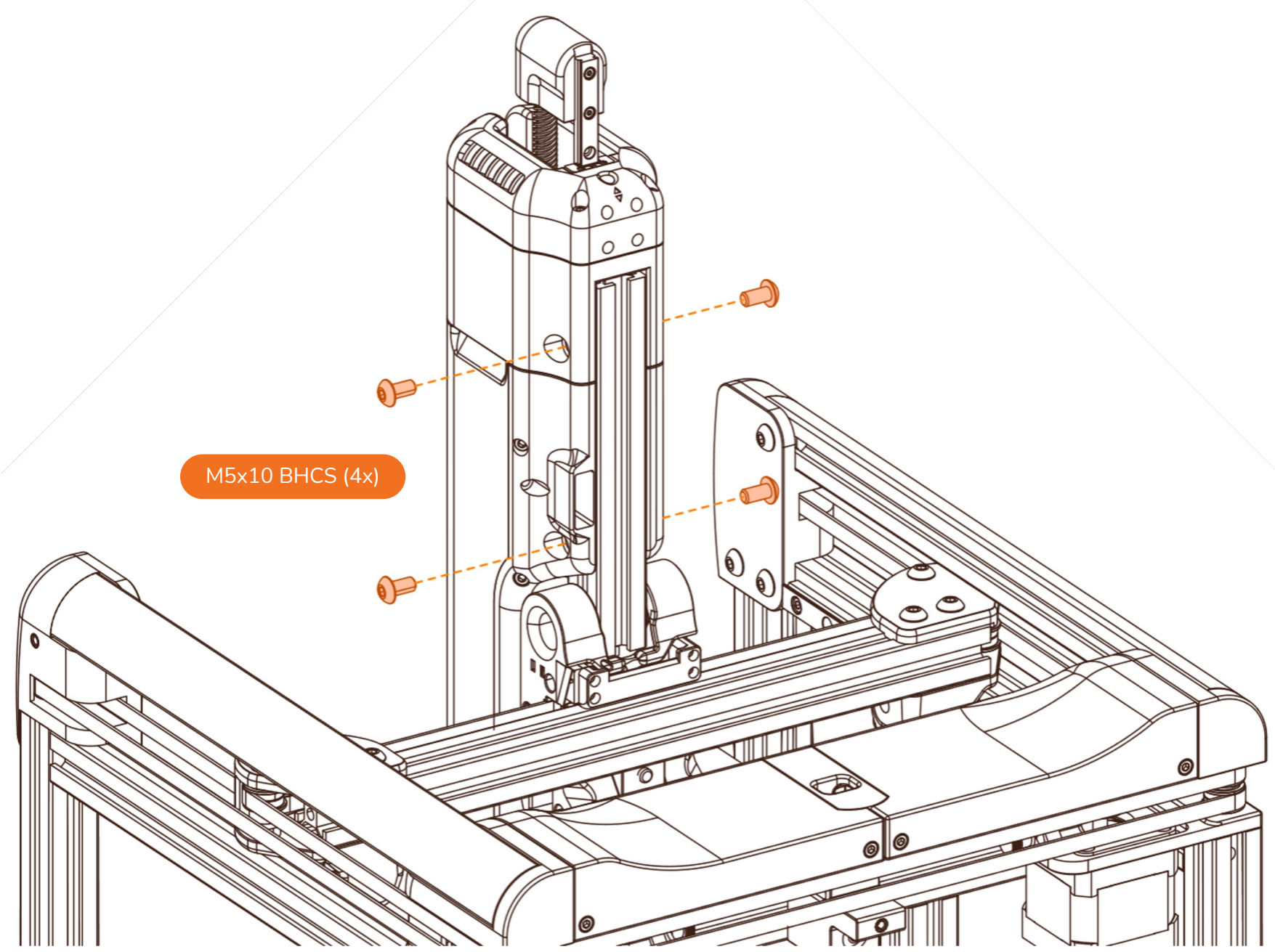
ALIGNMENT HELP

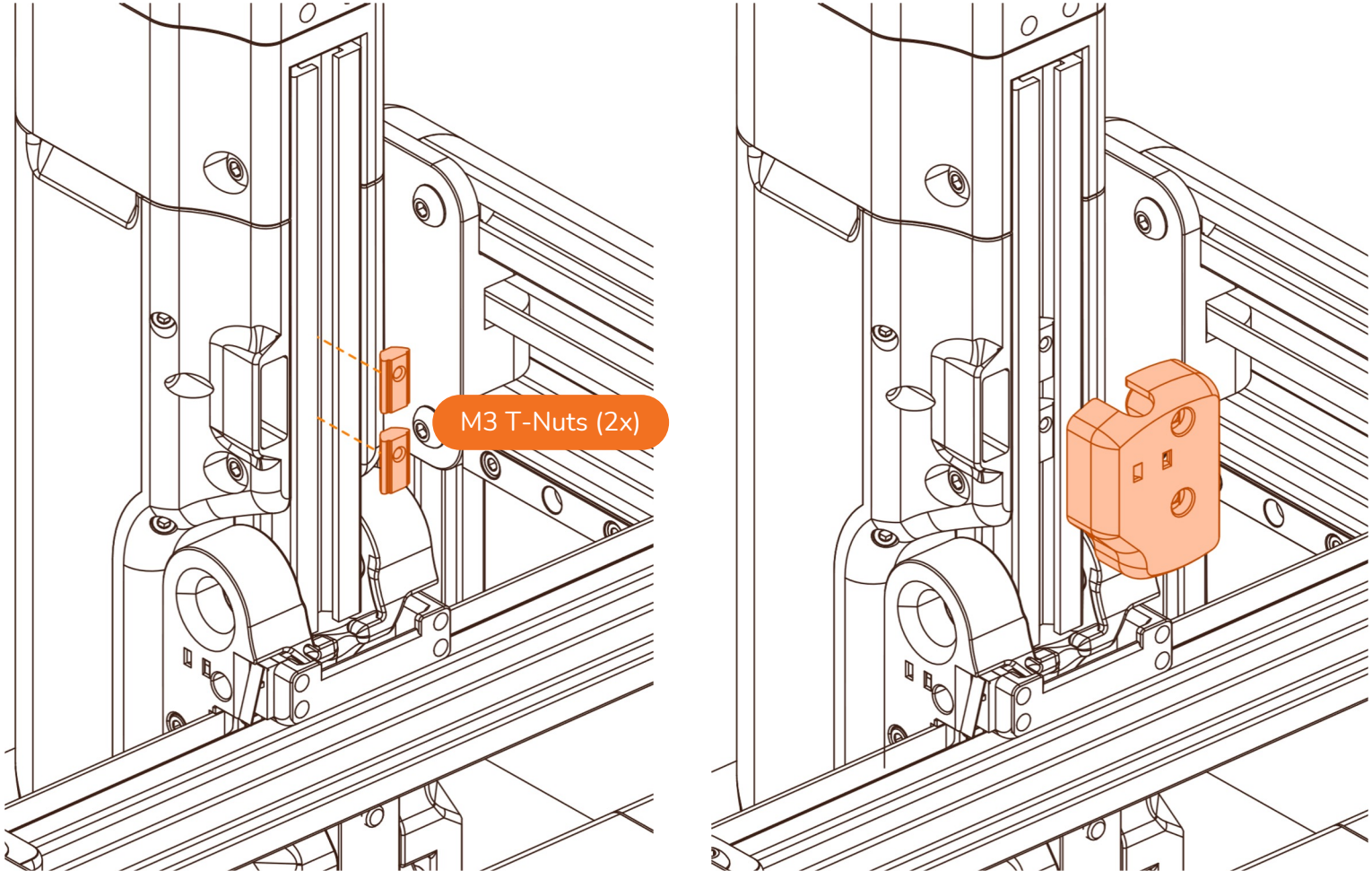
Adjust the installed T-nuts so that they align with the holes in the toolhead components before sliding the entire assembly on. This will make adding the M5 bolts easier.

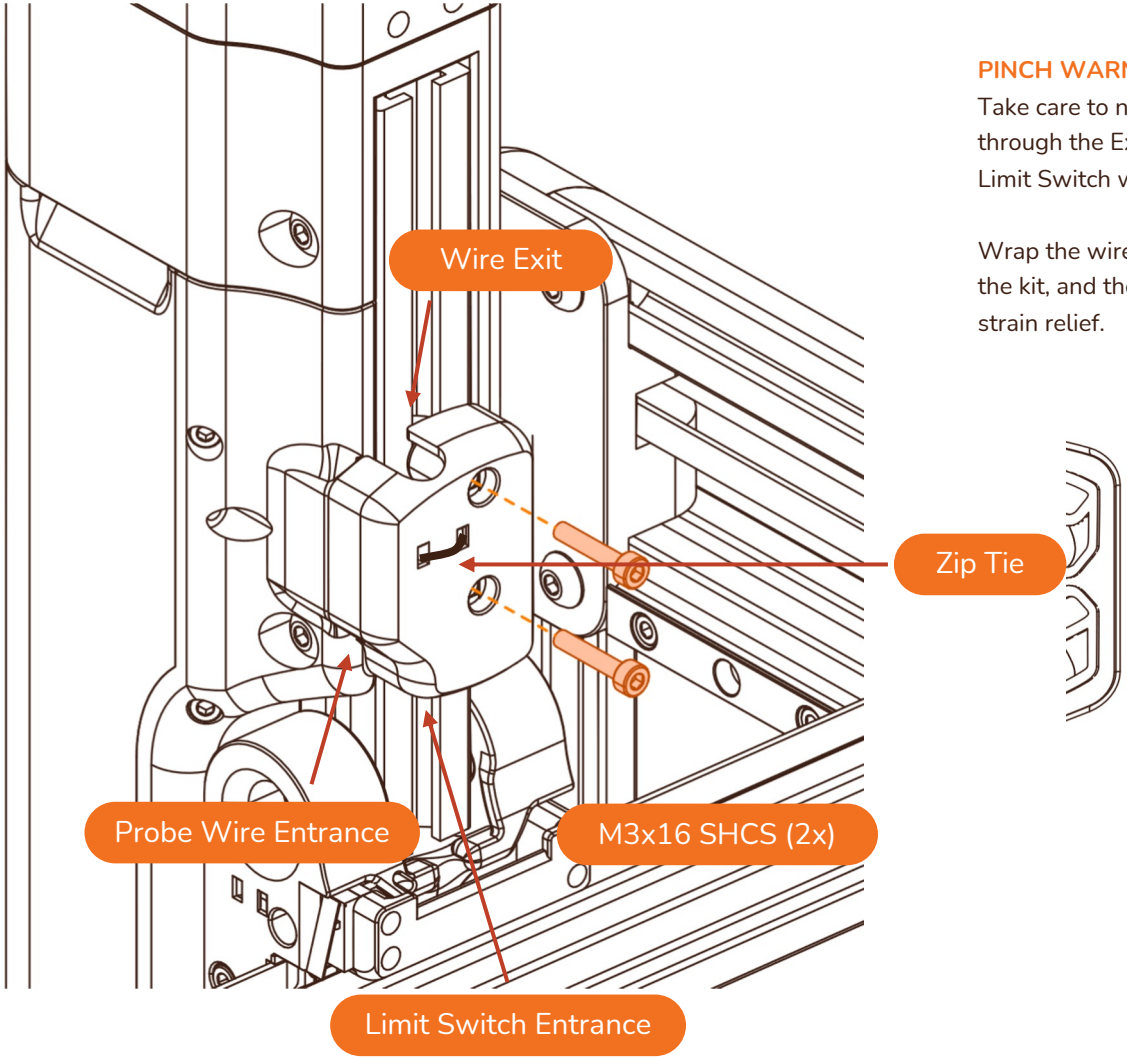


HEIGHT ADJUSTMENT

This is where you'd use the captured M5 Screw to adjust the height of the toolhead relative to the Z-Probe should you need to after assembly.


M5x10 BHCS (4x)


M3 T-Nuts (2x)

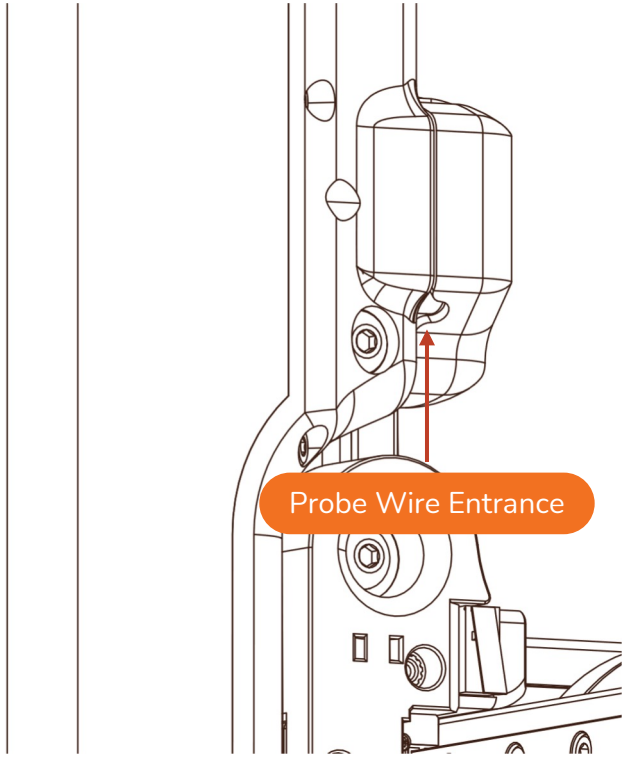


Note: The limit switch wire is routed through the channel of the extrusion to avoid putting unnecessary strain. Please do not route it through the probe wire entrance.

PINCH WARNING

Take care to not crush any cables when securing the toolhead cables through the Extruder Cable Cover. Damaging the Inductive Probe or X Max Limit Switch will render your printer non-functional.

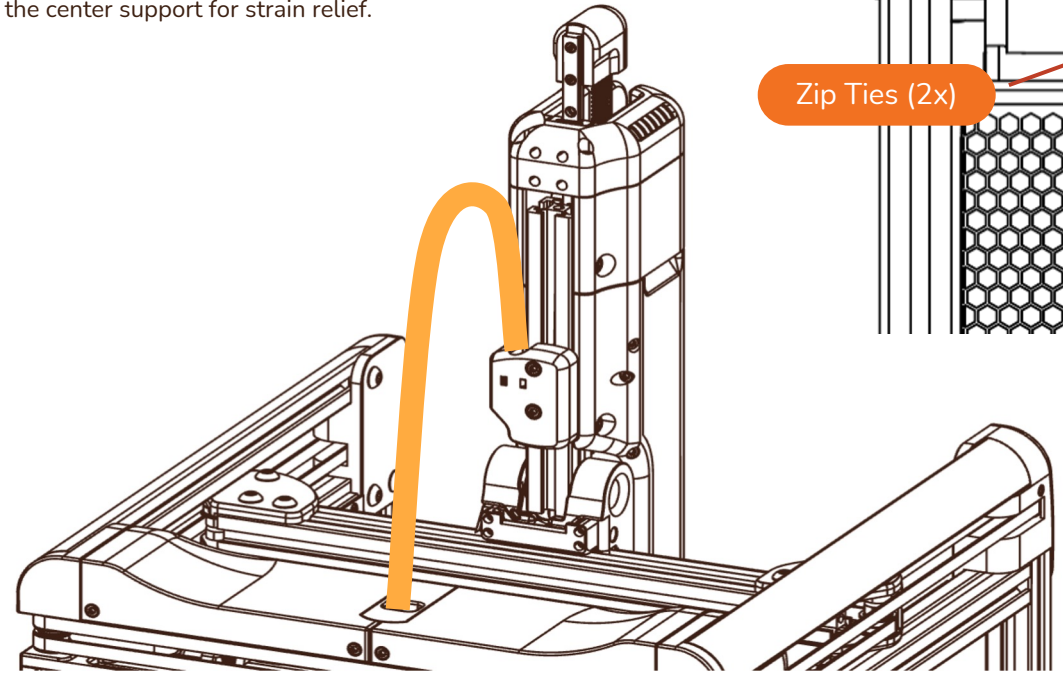
Wrap the wires exiting the cable cover with the split loom provided with the kit, and then secure through the zip tie holes on the exterior cover for strain relief.

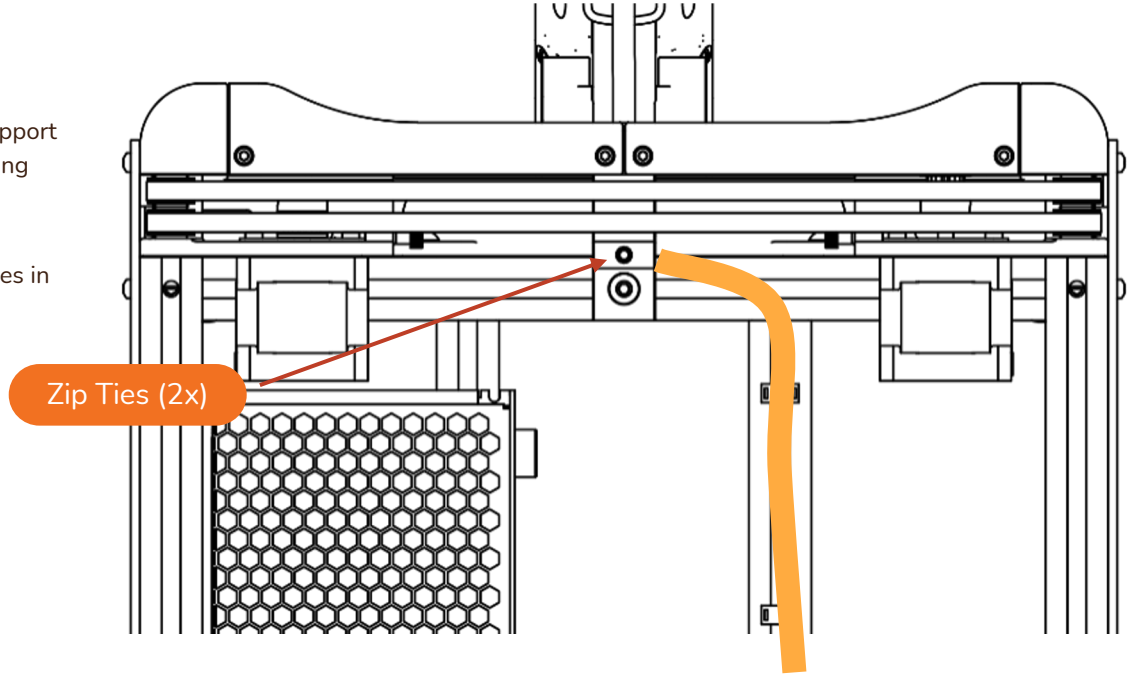


THREAD THE NEEDLE

Route the toolhead wiring and wire loom through the Rear Center Support printed part. Ensure the toolhead can move to all corners without being pulled fully taut.

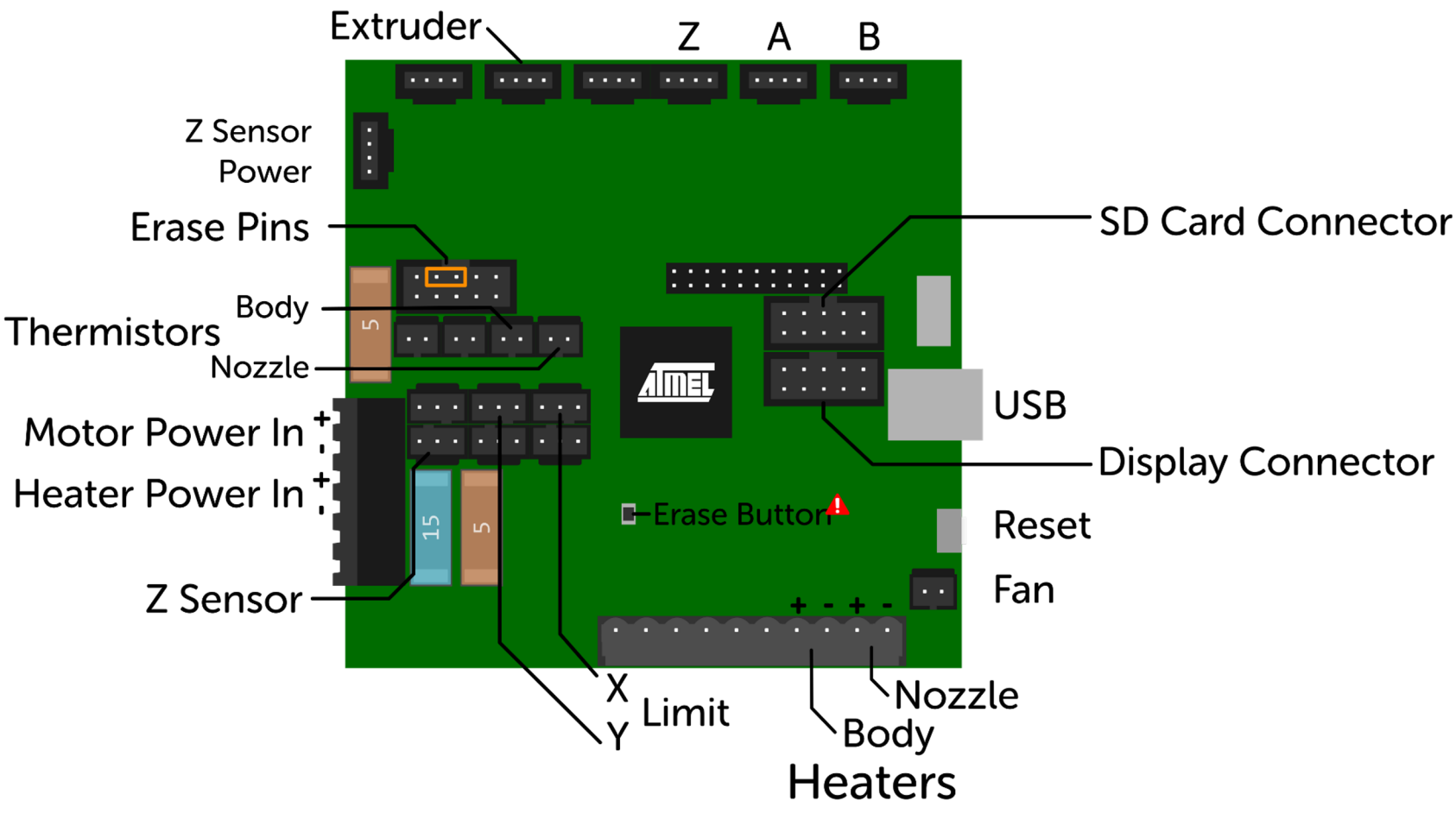
Once installed and the length is verified, route zipties through the holes in the center support for strain relief.





Difficulty	Medium

Tools Needed	M3 Driver M5 Driver Phillips Driver Flathead Driver Soldering Iron (Not Included)
Hardware Needed	M3x8 Socket Head Cap Screw (12x) M5 T-Nuts (2x) M3 T-Nuts (7x) M5x10 Button Head Cap Screw (2x) M3x8 Button Head Phillips Screw (2x) Power Supply Cable (1x) Archim2 Power Cable (1x) Erase Button (1x) Screw Terminal Block (2x)
Printed Parts Needed	PSU Bracket (2x) Inlet Bracket (1x) Plug Panel (1x) Archim2 Top Bracket (1x) Archim2 Bottom Bracket (2x) Wire Anchor (4x) PSU Cover (1x) Erase Button Jig (1x)



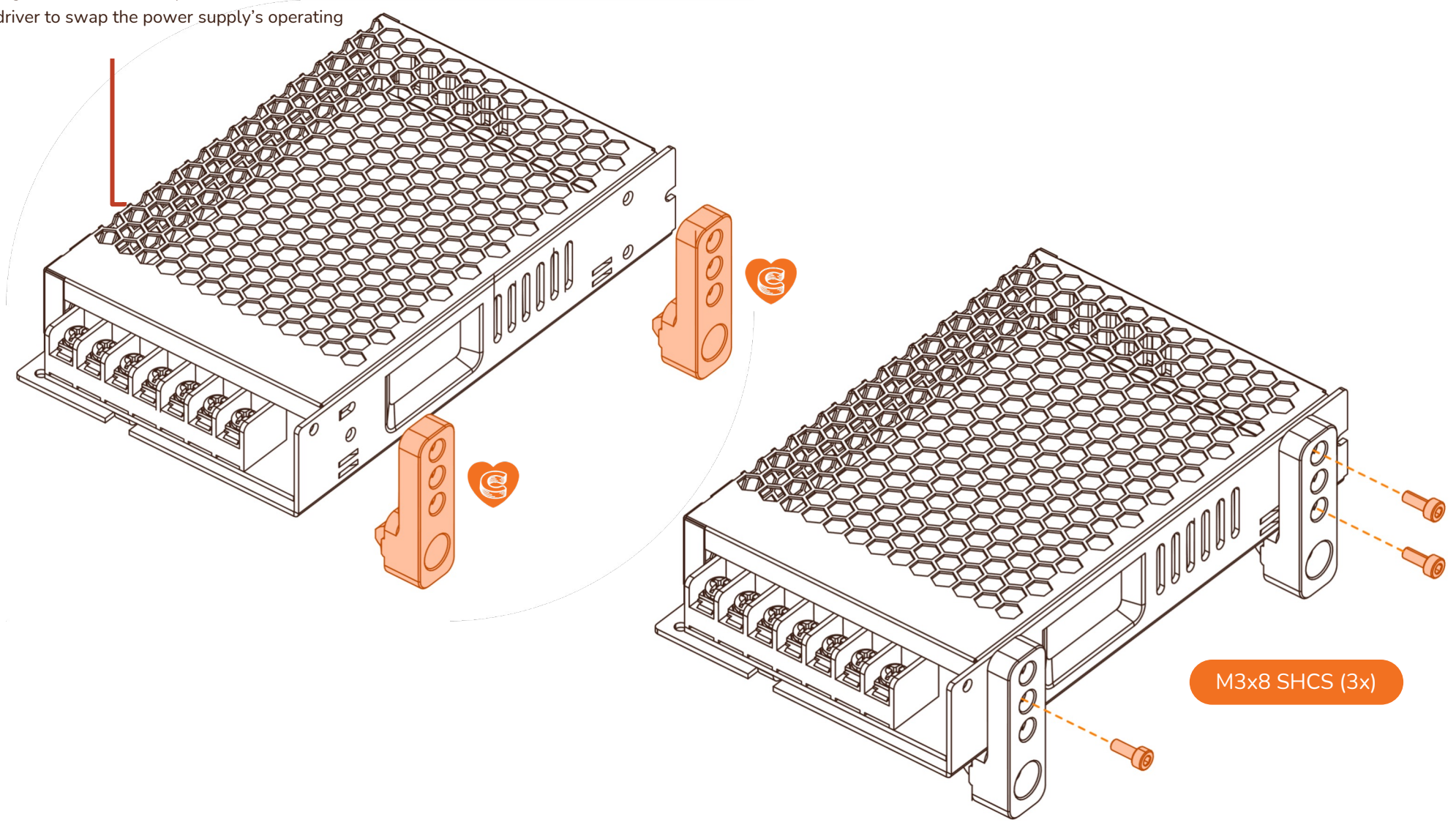
⚠ This button removes your printer's firmware. Use with caution.

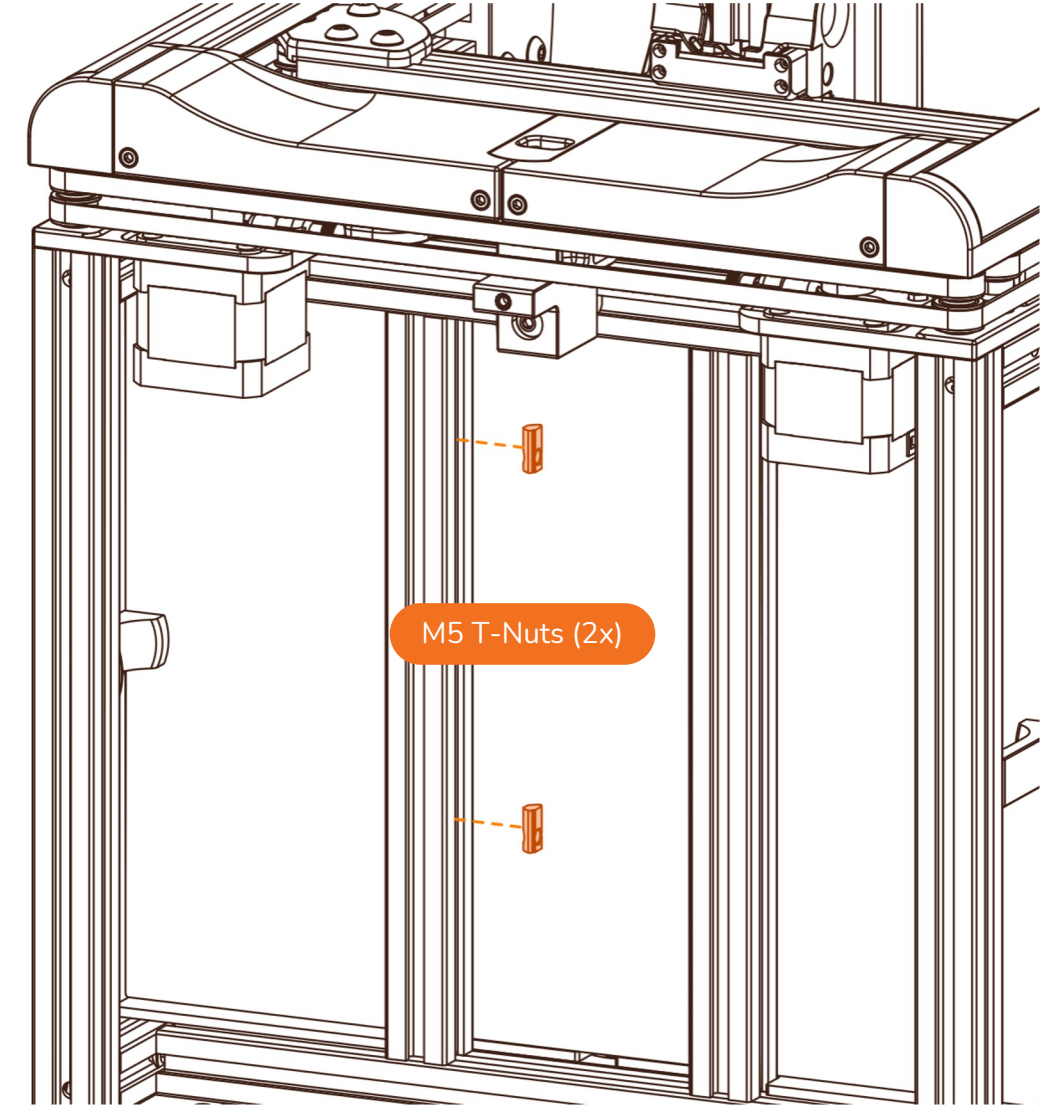
OVERVIEW

This is an overview image of the wiring for the Archim board, you can return to this page to reference it as we work through the electronics section. Supplemental images are also shown at each step.

TURN IT OFF/ON, FLIP FLIP

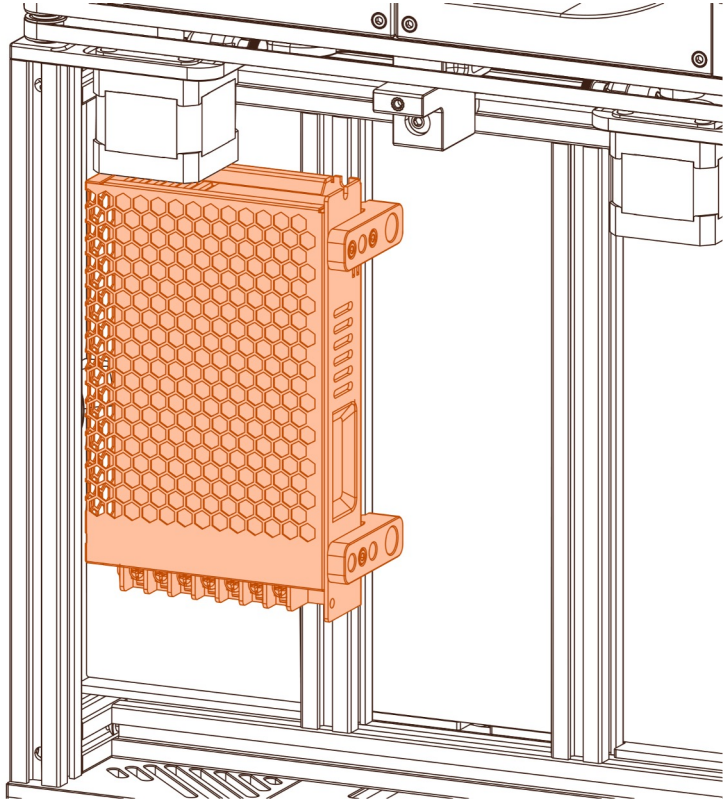
If in a region that uses 230V power, use a flathead screwdriver to swap the power supply's operating mode.

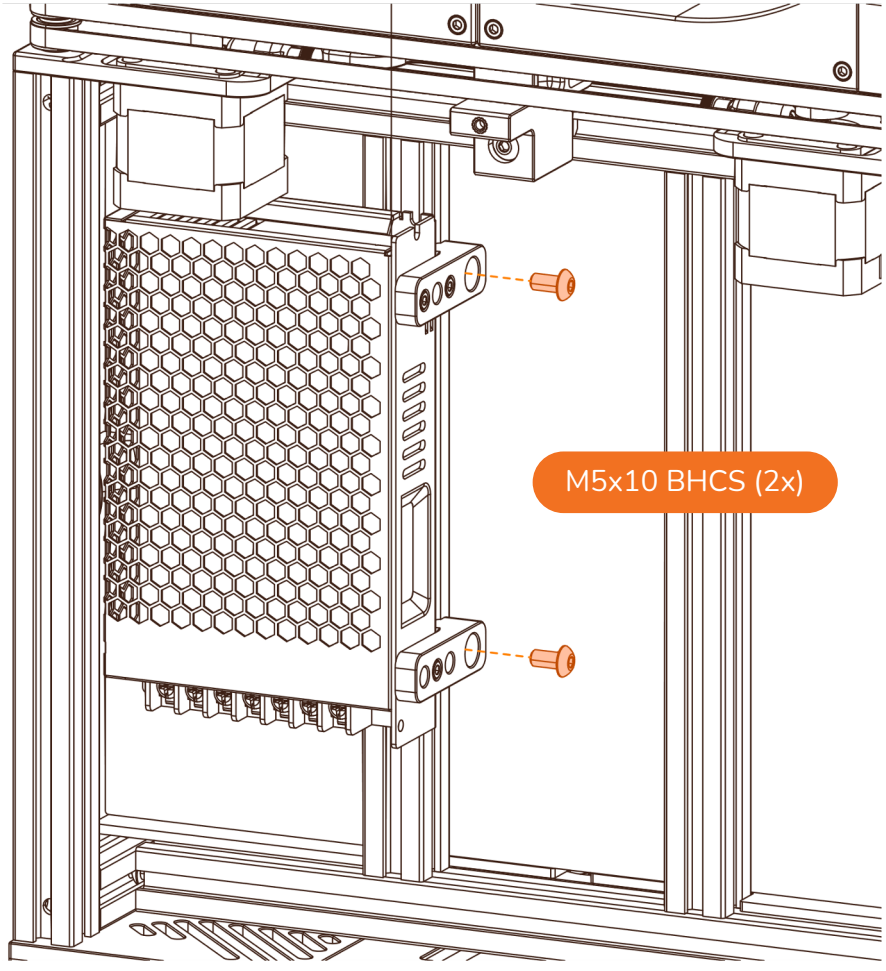


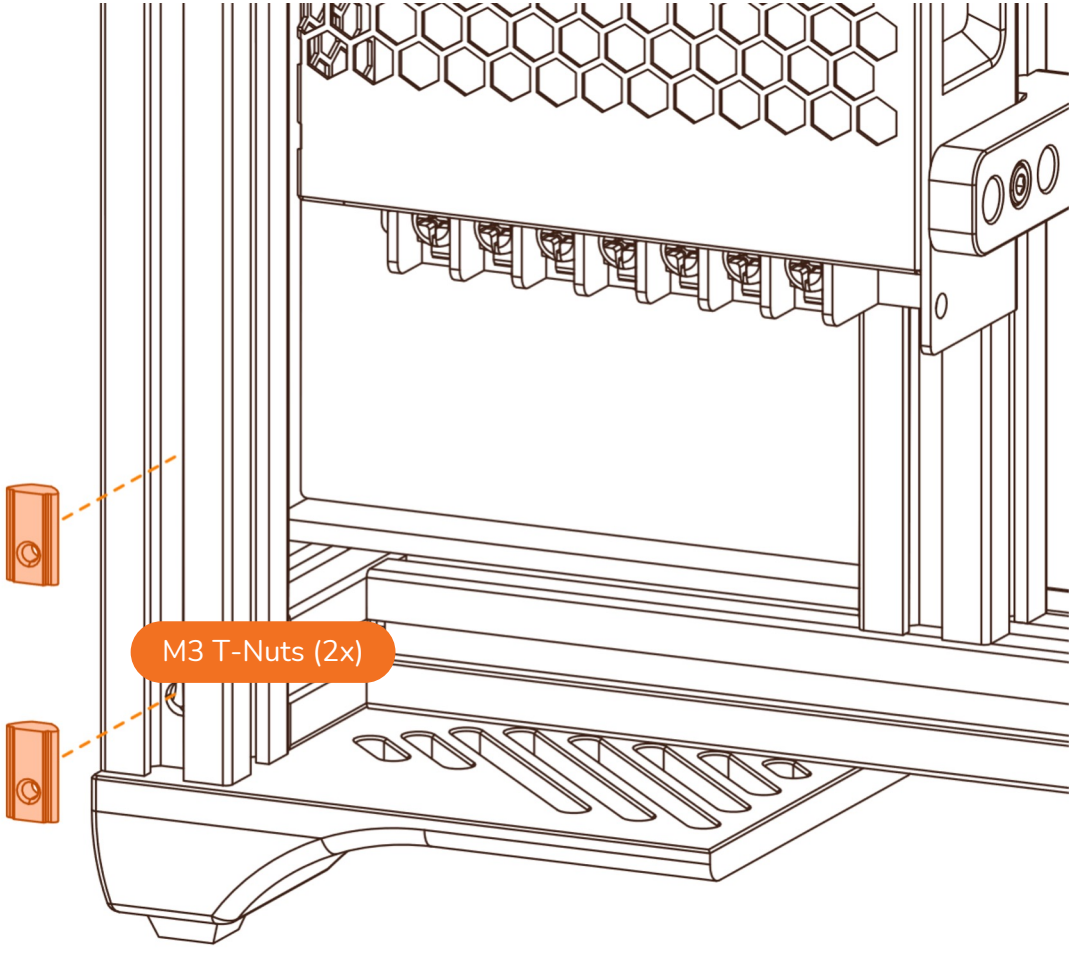

M5 T-Nuts (2x)

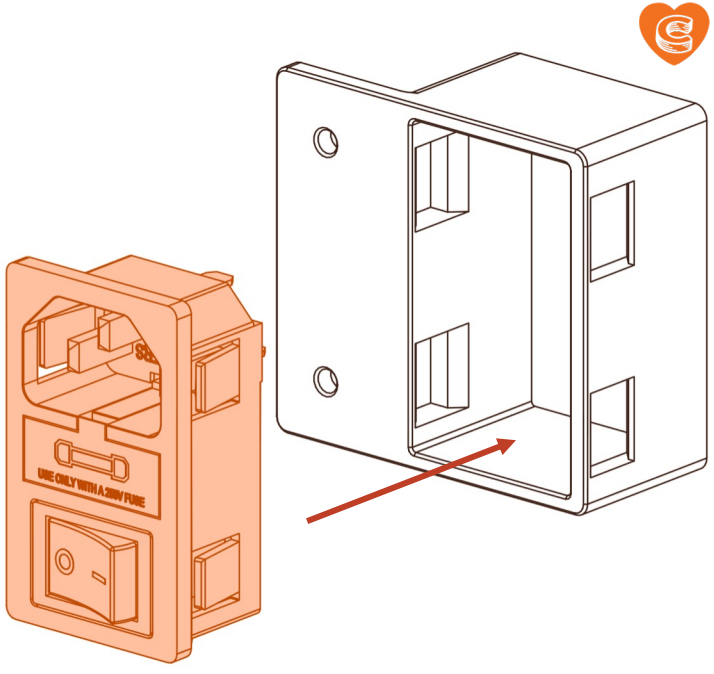
“NO TOUCHING, NO TOUCHING!”

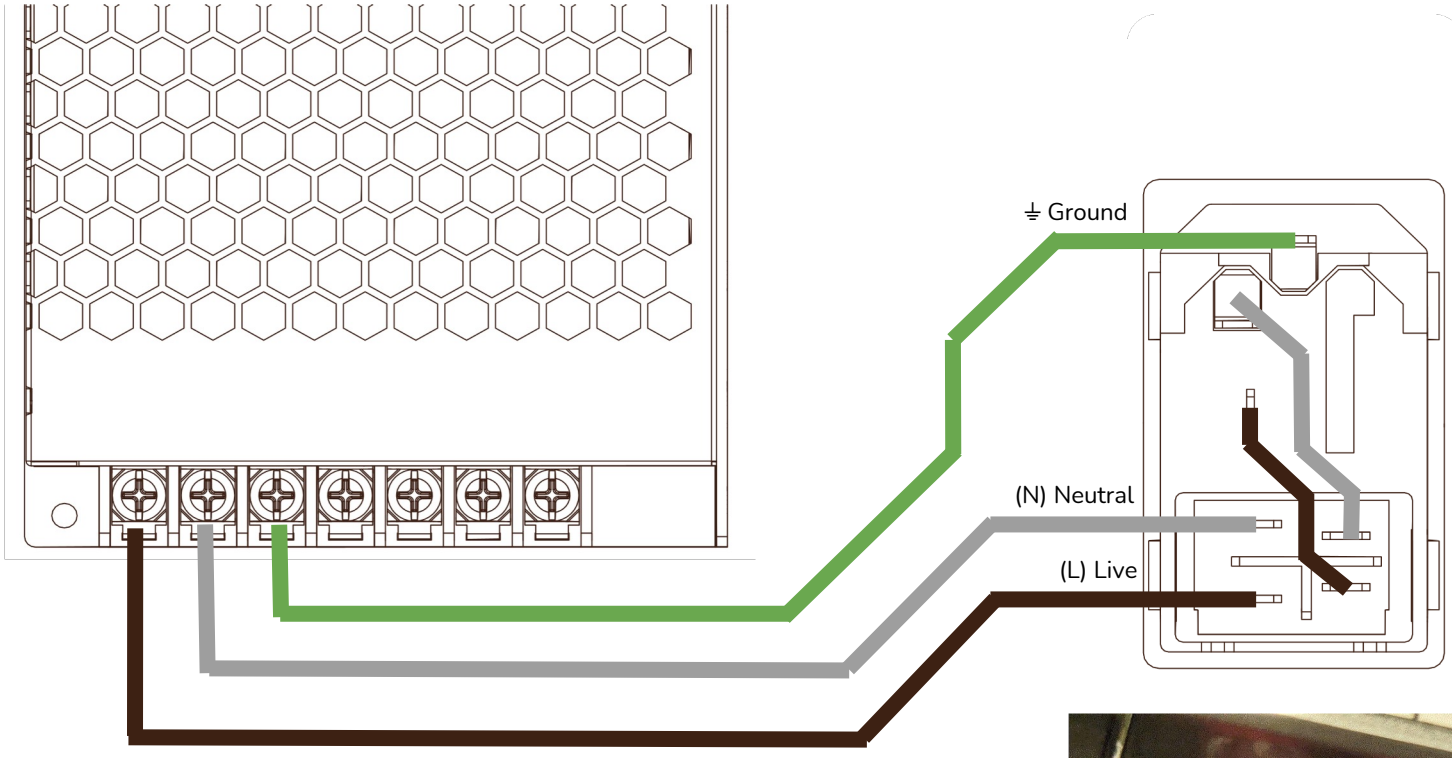
The power supply should be slid along the rail to touch the stepper motor above it, and then slid back off, by approximately 20mm. This makes wire routing easier later, as well as ensures airflow around both units.





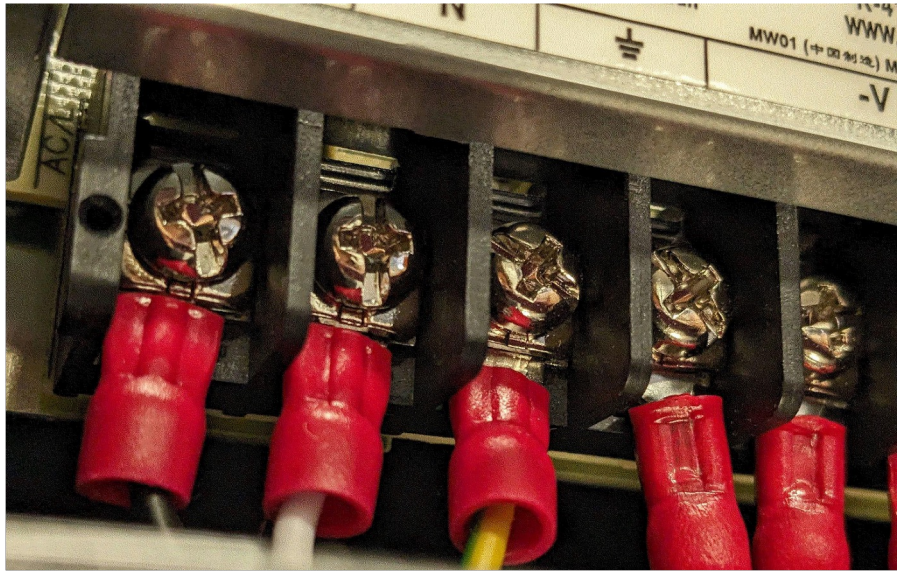

M3 T-Nuts (2x)

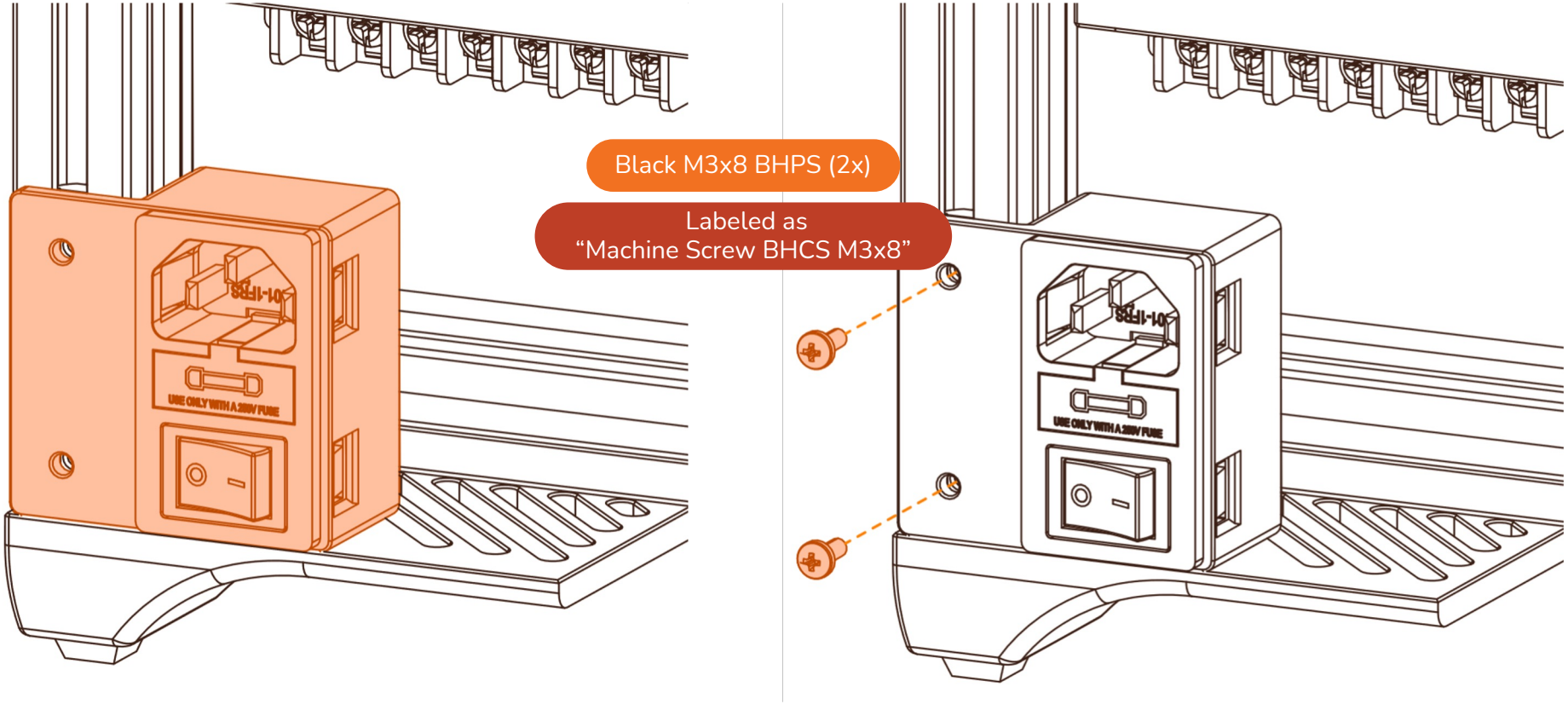




CONDUCTIVITY IN SPADES

When inserting the spade terminals to the power supply, take care to get the forks between the top plate that's on the screw and the bottom bar.



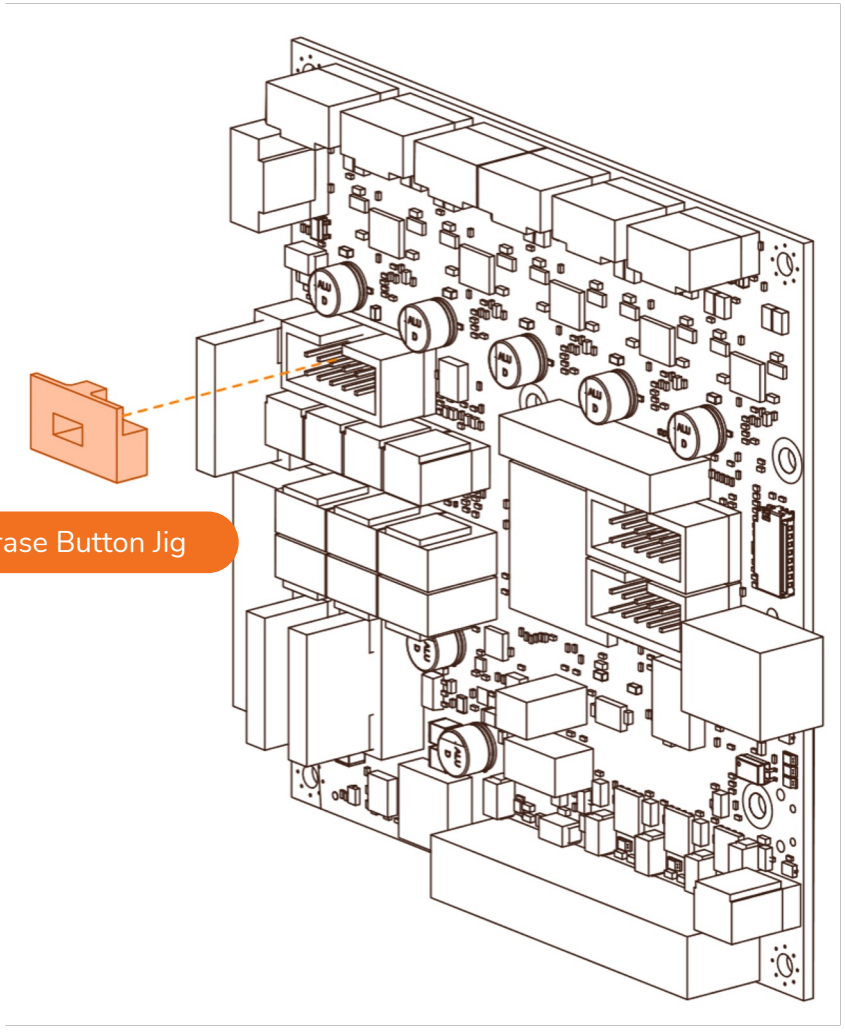


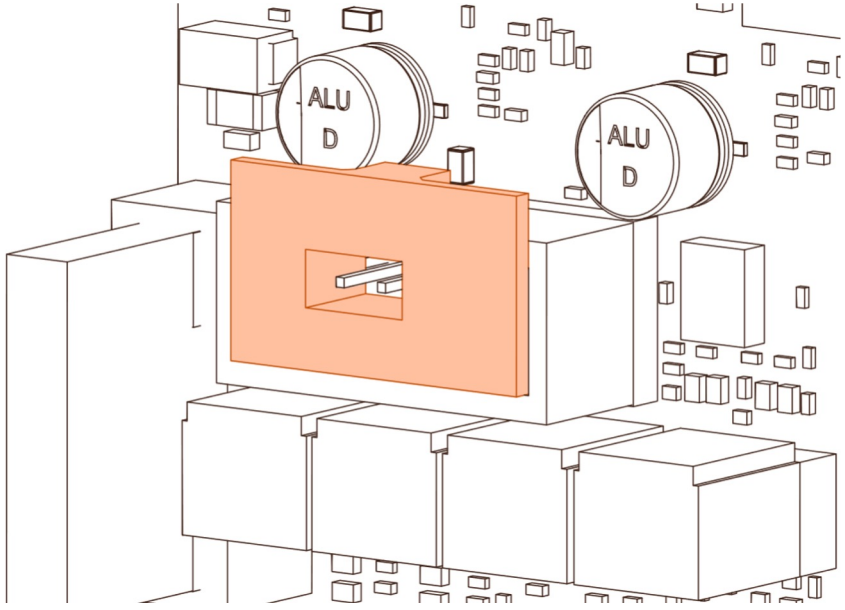
POWER CONNECTOR

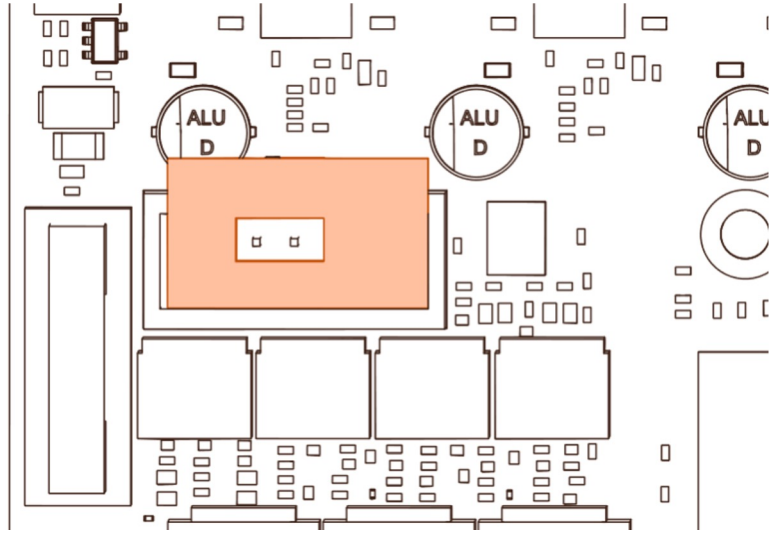
Install wires to carry mains voltage from the IEC14 socket to the power supply now, *before* mounting it to the frame.

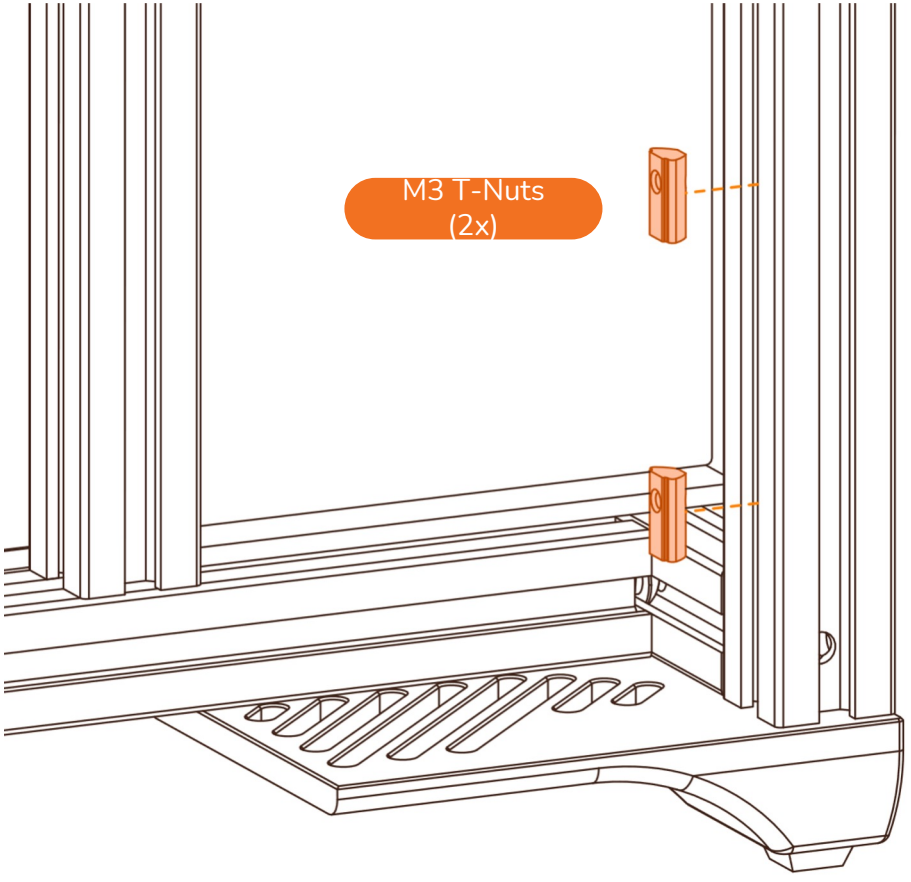
BETTER SAFE THAN SORRY

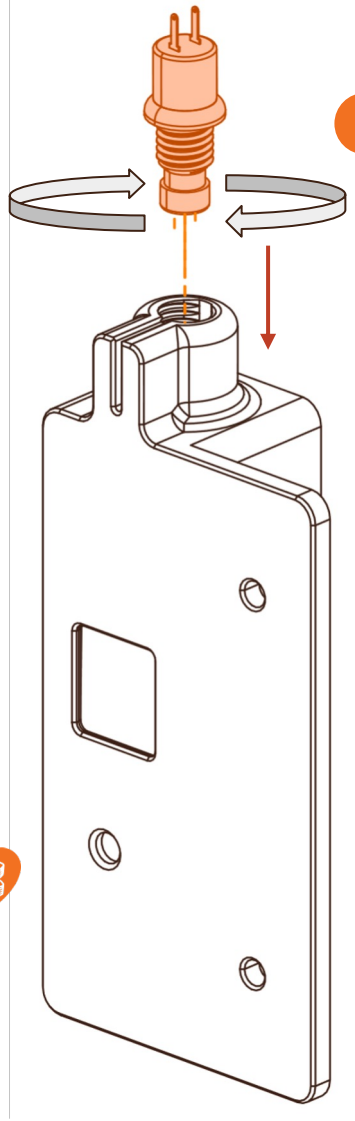
This cover helps prevents accidental connections to the Erase Button, and to protect to sensitive pins that may damage the Archim2 if connected electrically when using the Erase Button.











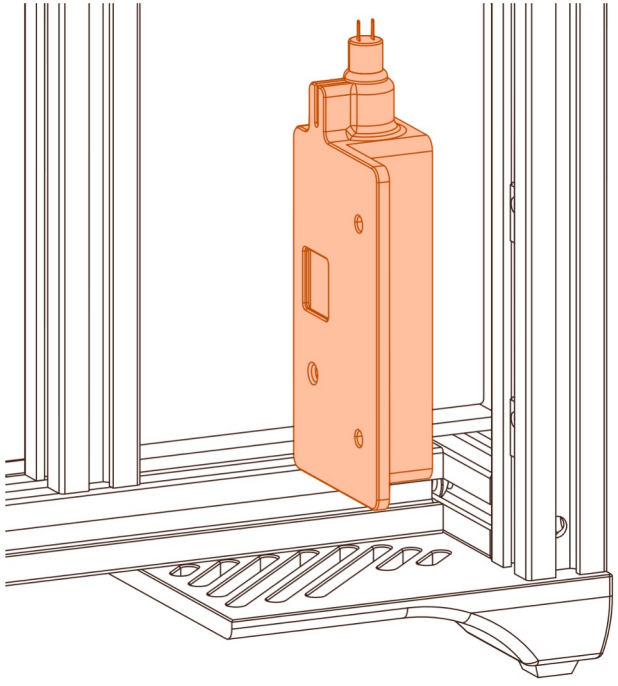
NUT-THING REALLY MATTERS...

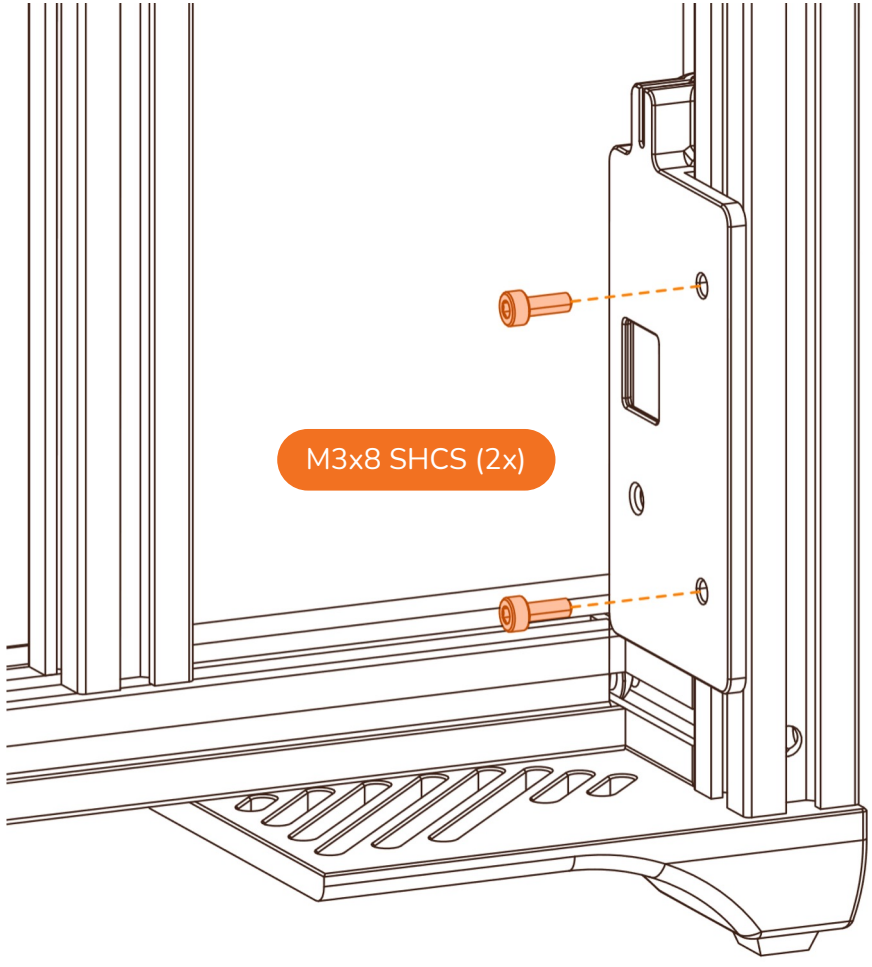
Be sure to remove the locking nut from the Erase Button before installation, as you otherwise may not be able to use the button if necessary.

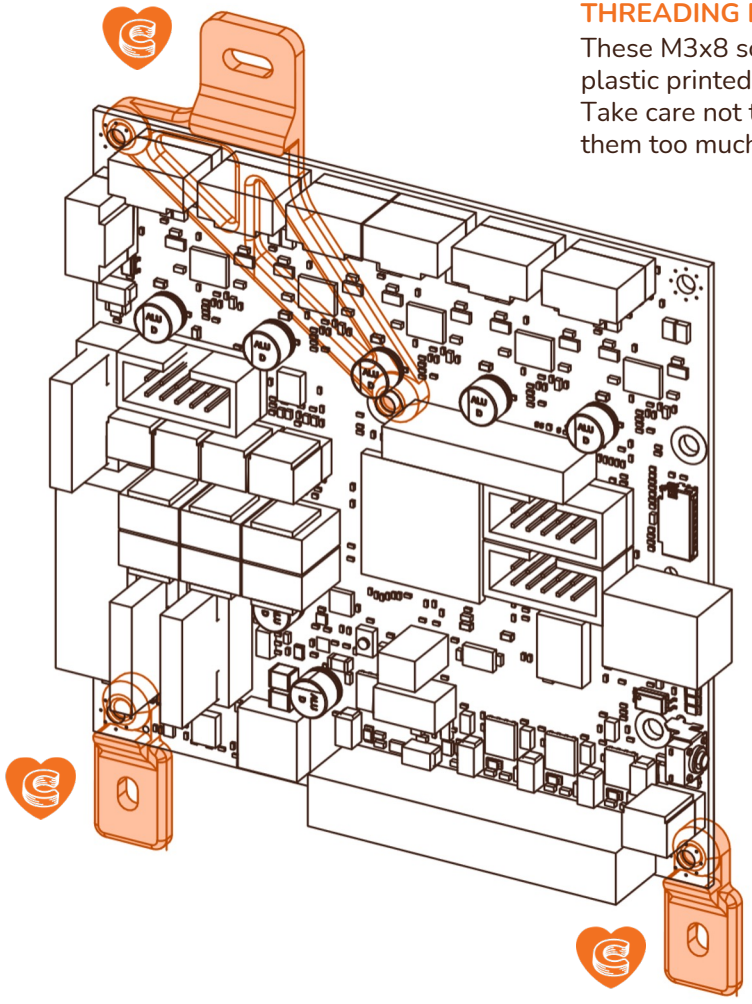
This part is threading into plastic, so take care to not crush the printed part, and to avoid overtightening.

ANYTHING NOT SAVED...

Be sure to add your Erase button into this part before installing it. This allows you to update your Cocoa Press' firmware down the line without taking the back cover off.

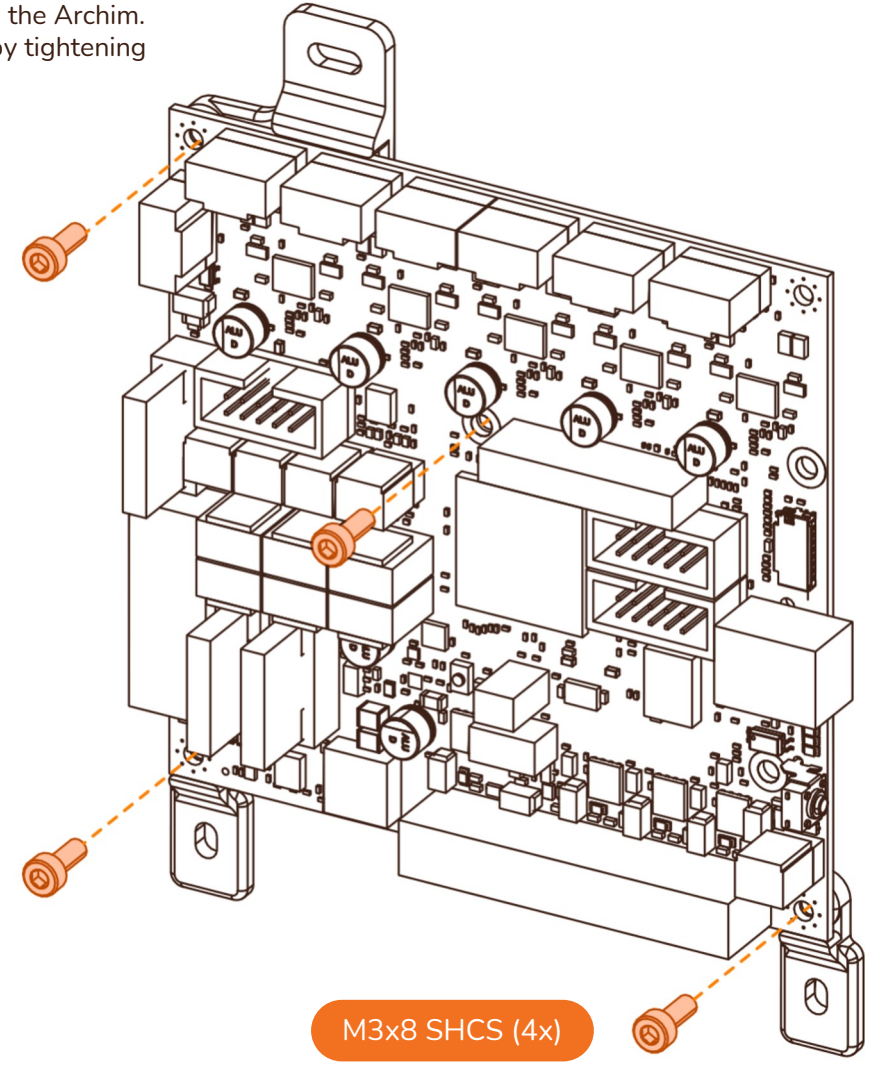


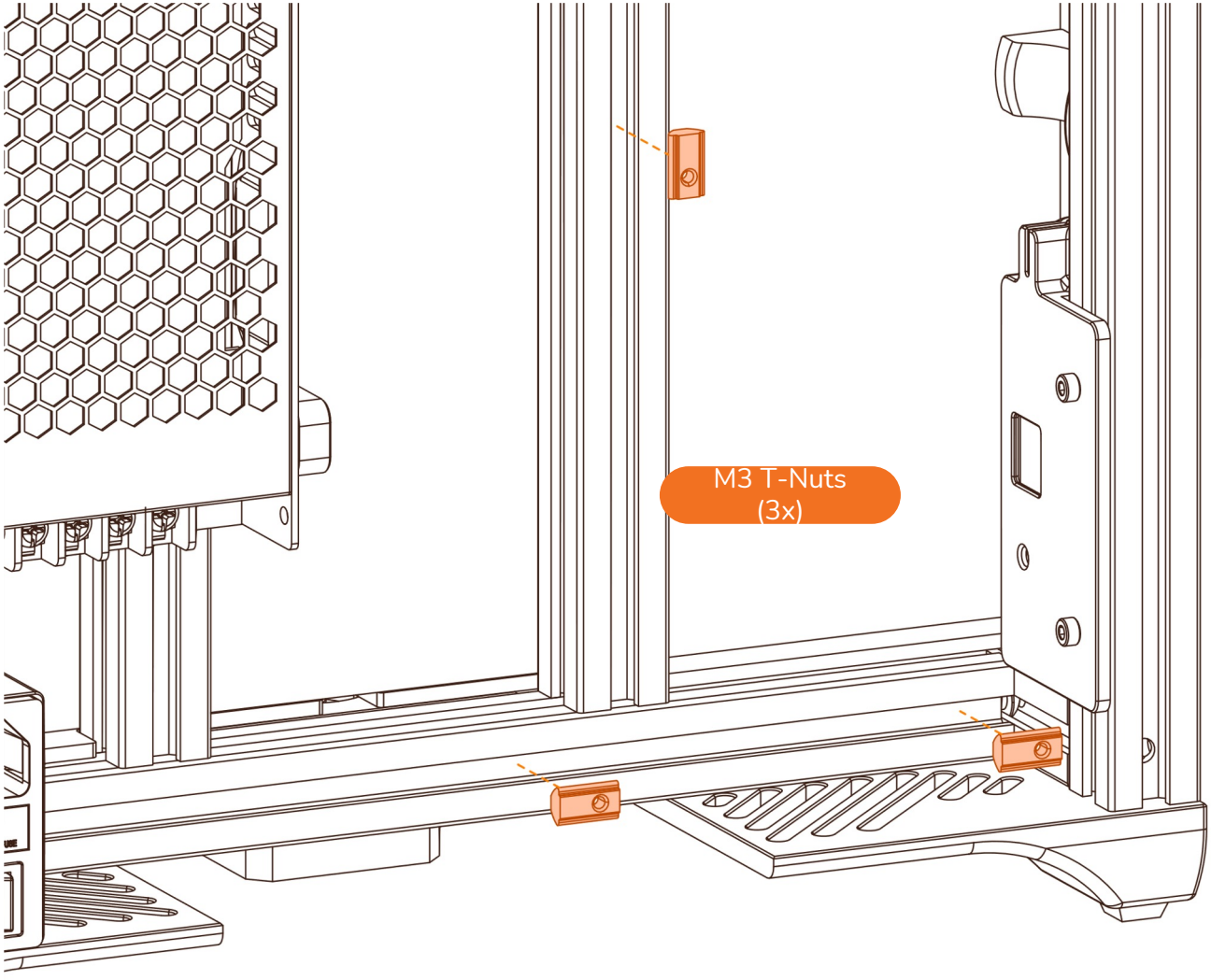


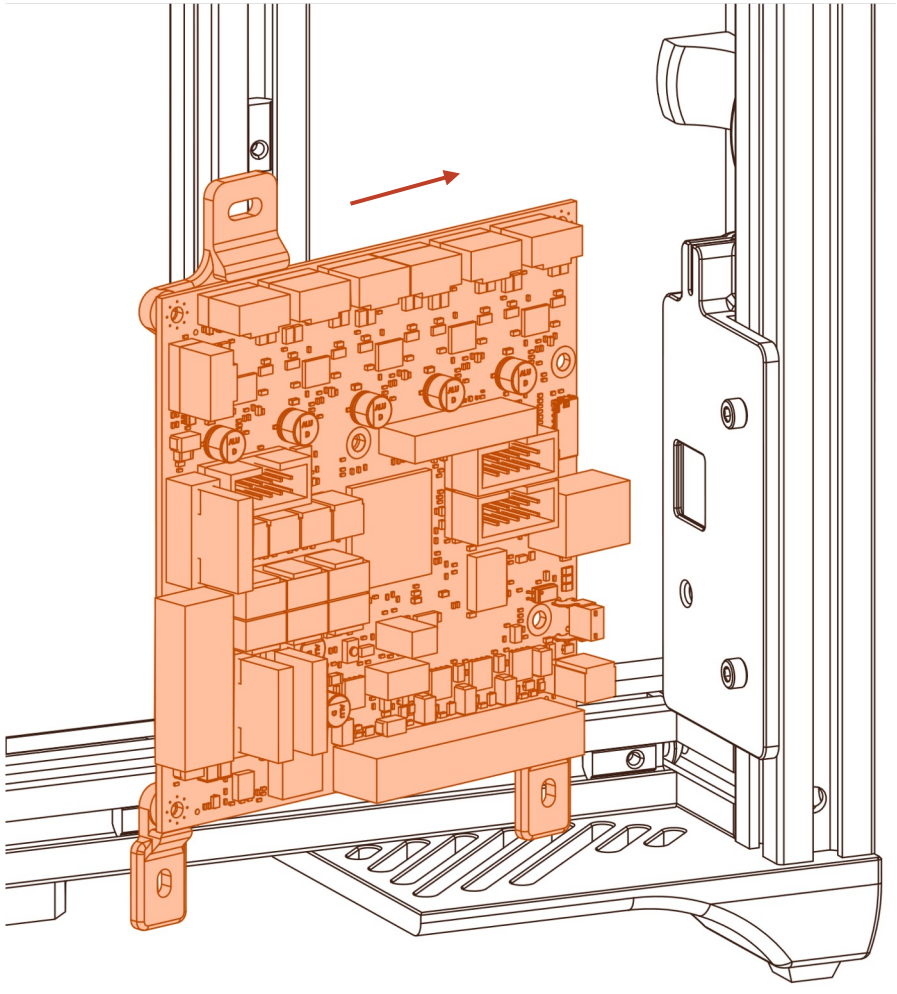


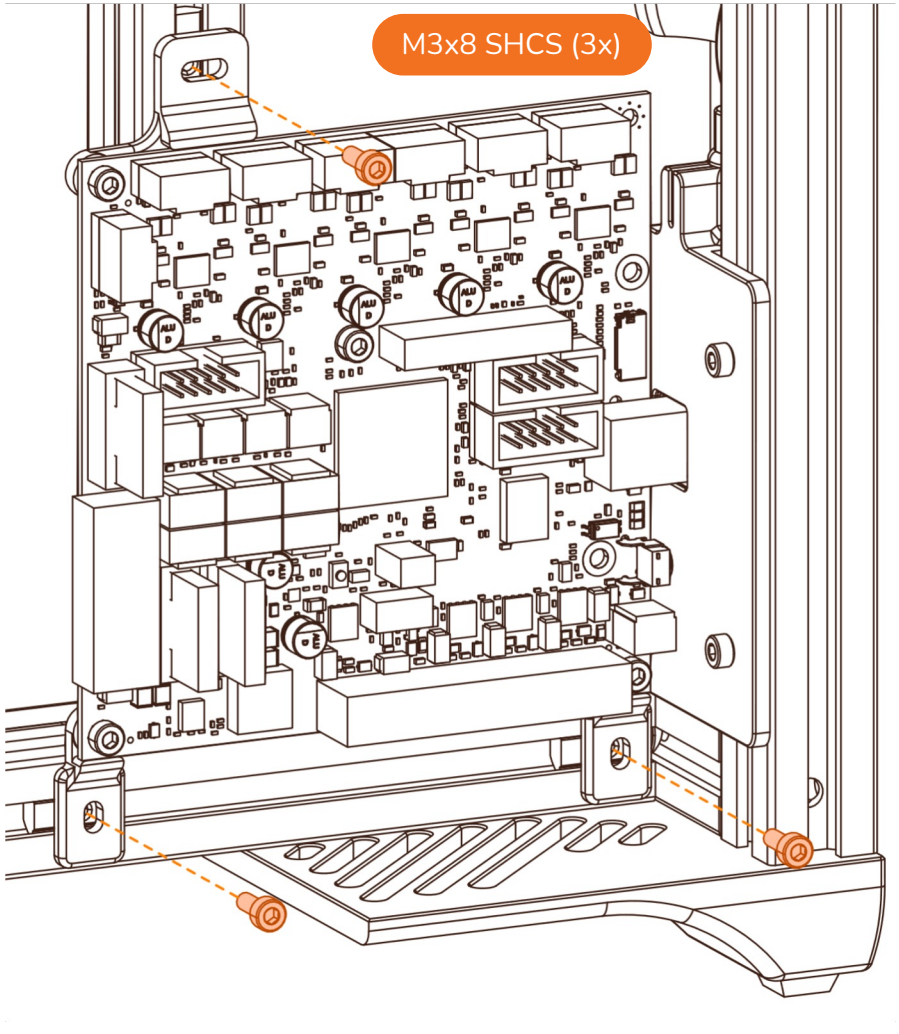
THREADING INTO PLASTIC

These M3x8 screws will thread into the plastic printed parts through the Archim. Take care not to strip them by tightening them too much.



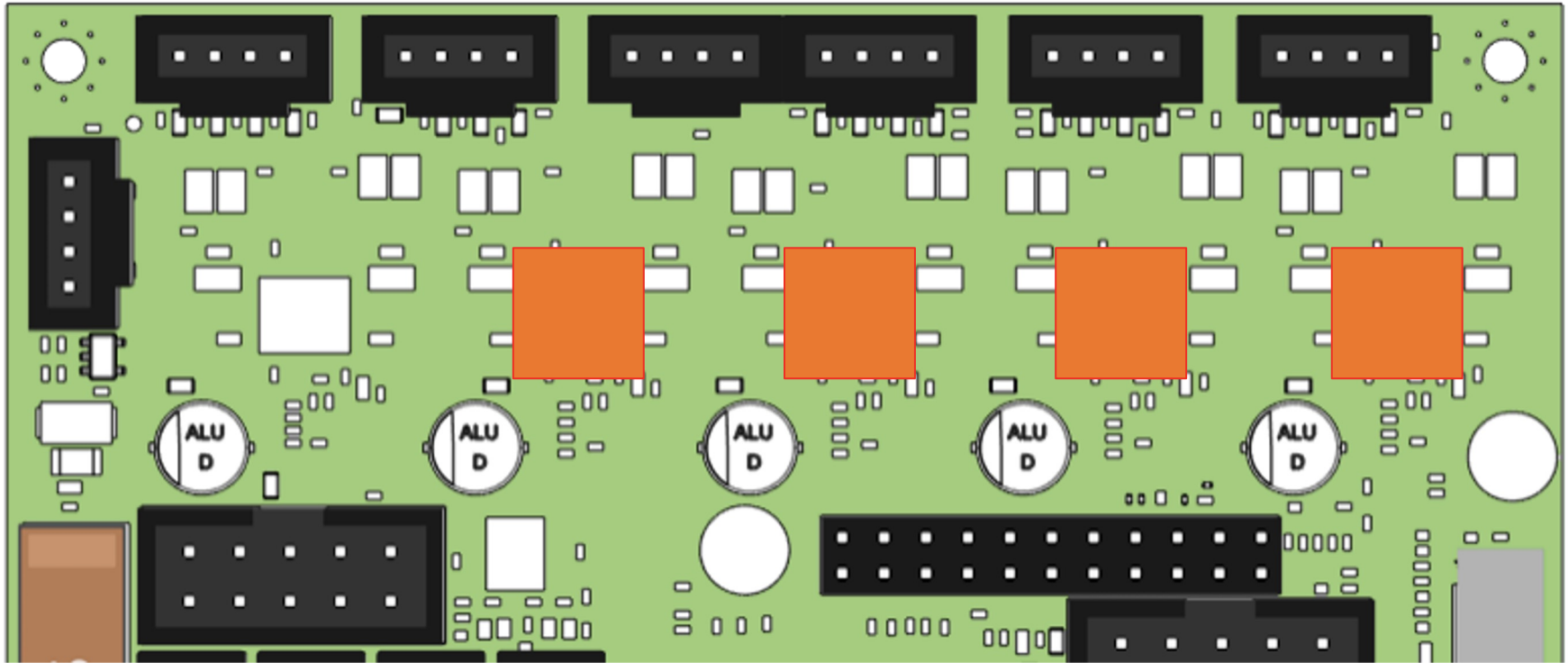

M3 T-Nuts
(3x)

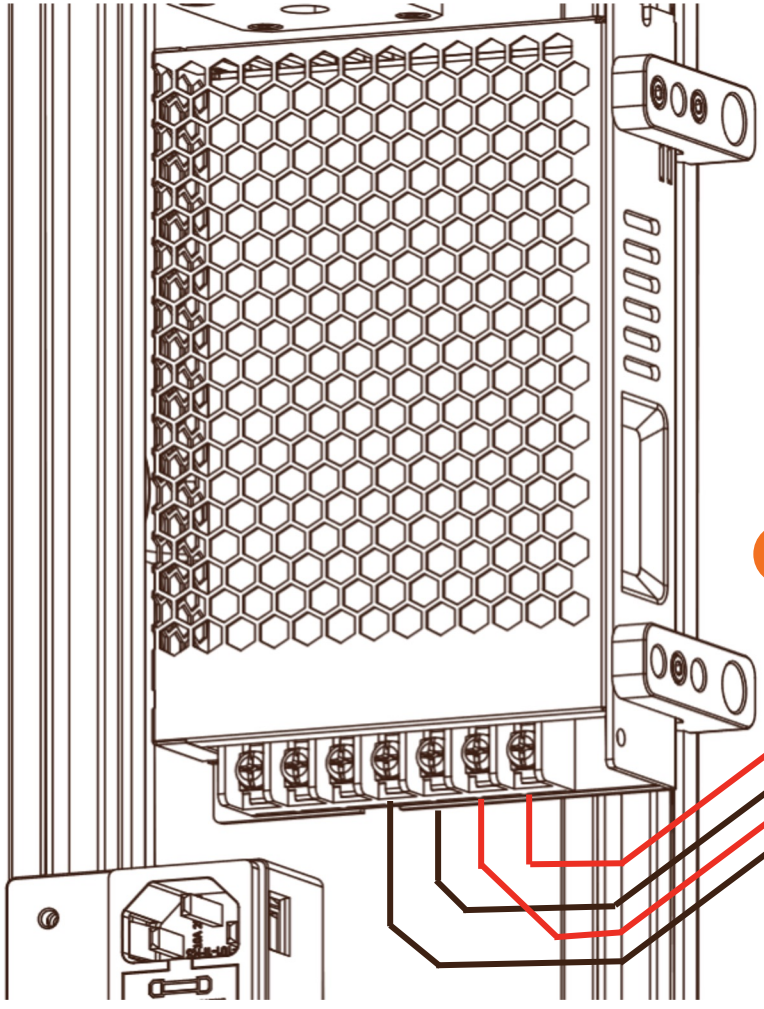



M3x8 SHCS (3x)

LIKE, CHILL OUT

To prevent overheating on the stepper drivers, install the heatsinks in the kit on the Archim2 at the locations depicted. This allows them to better dissipate heat during rapid or high intensity motion.





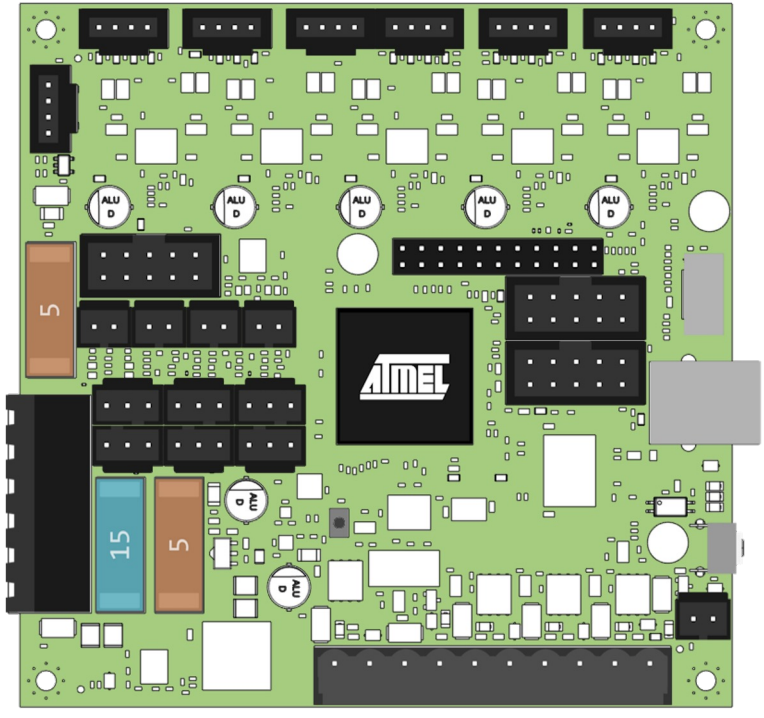
CROSSOVER!

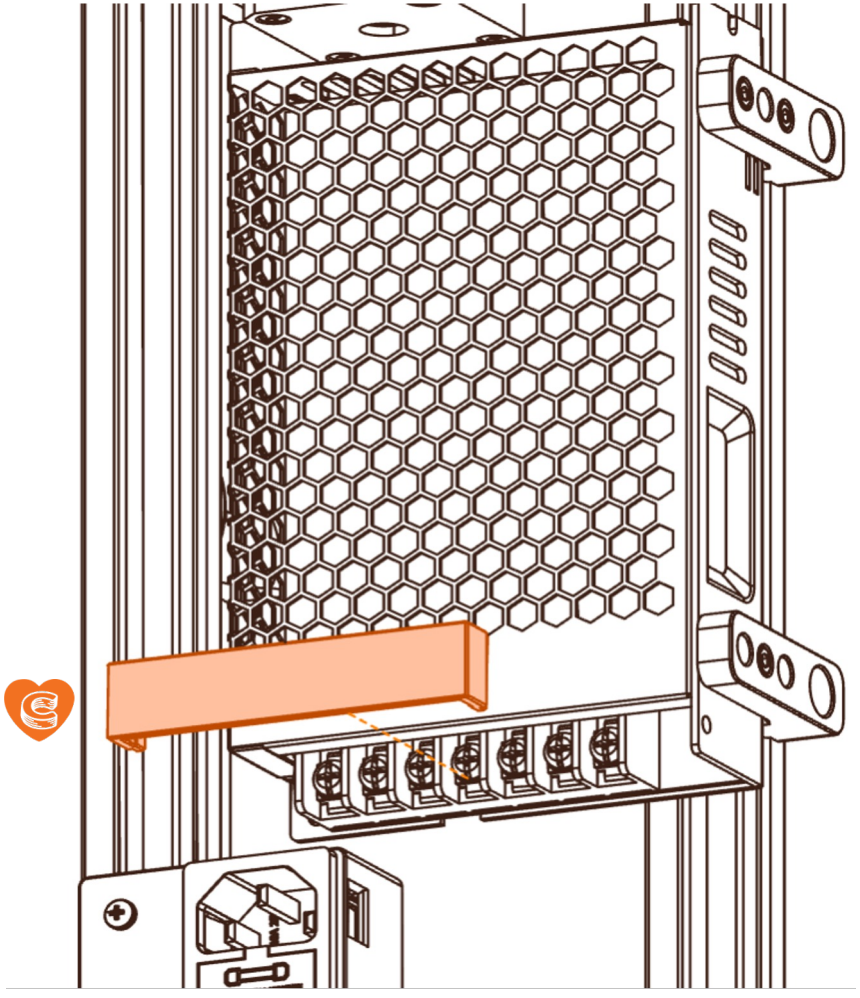
Note that the order of the positive and negative leads is not the same for the Archim2 and the Power Supply.

This can seriously damage your printer if not followed precisely.

Main Board Power

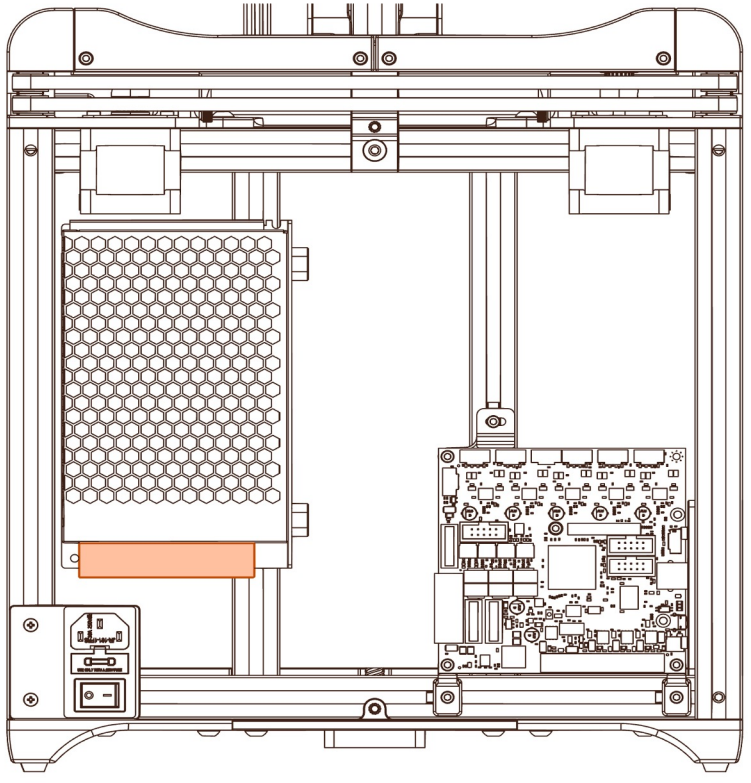
V+
V-
V+
V-





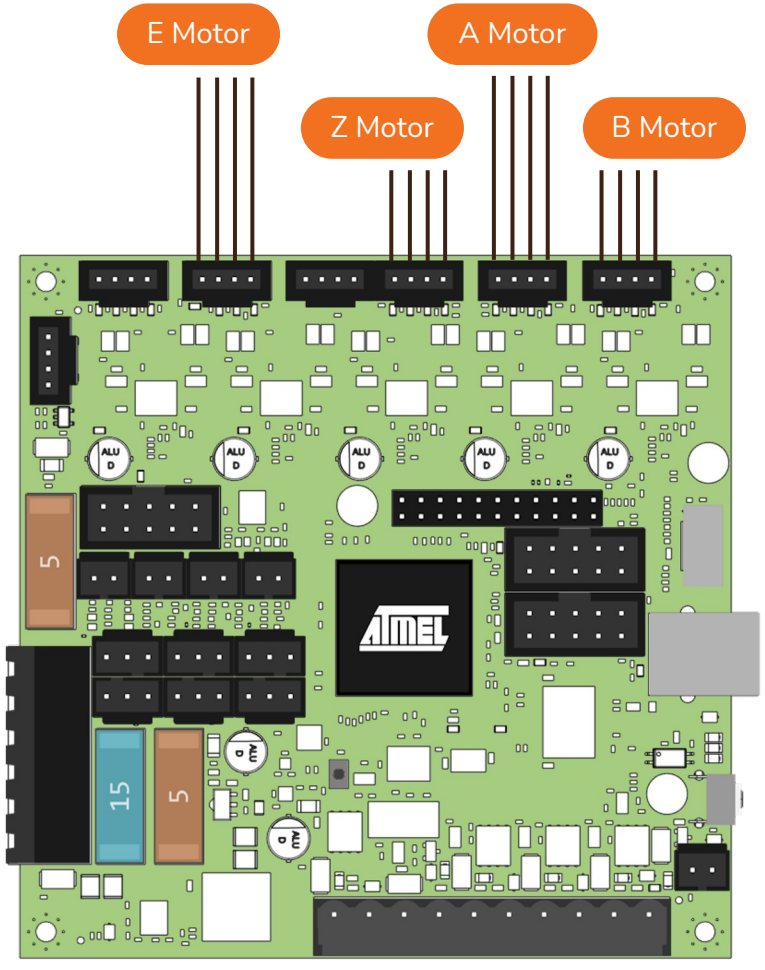
SO THE MAIN THING IS... DON'T TOUCH MAINS

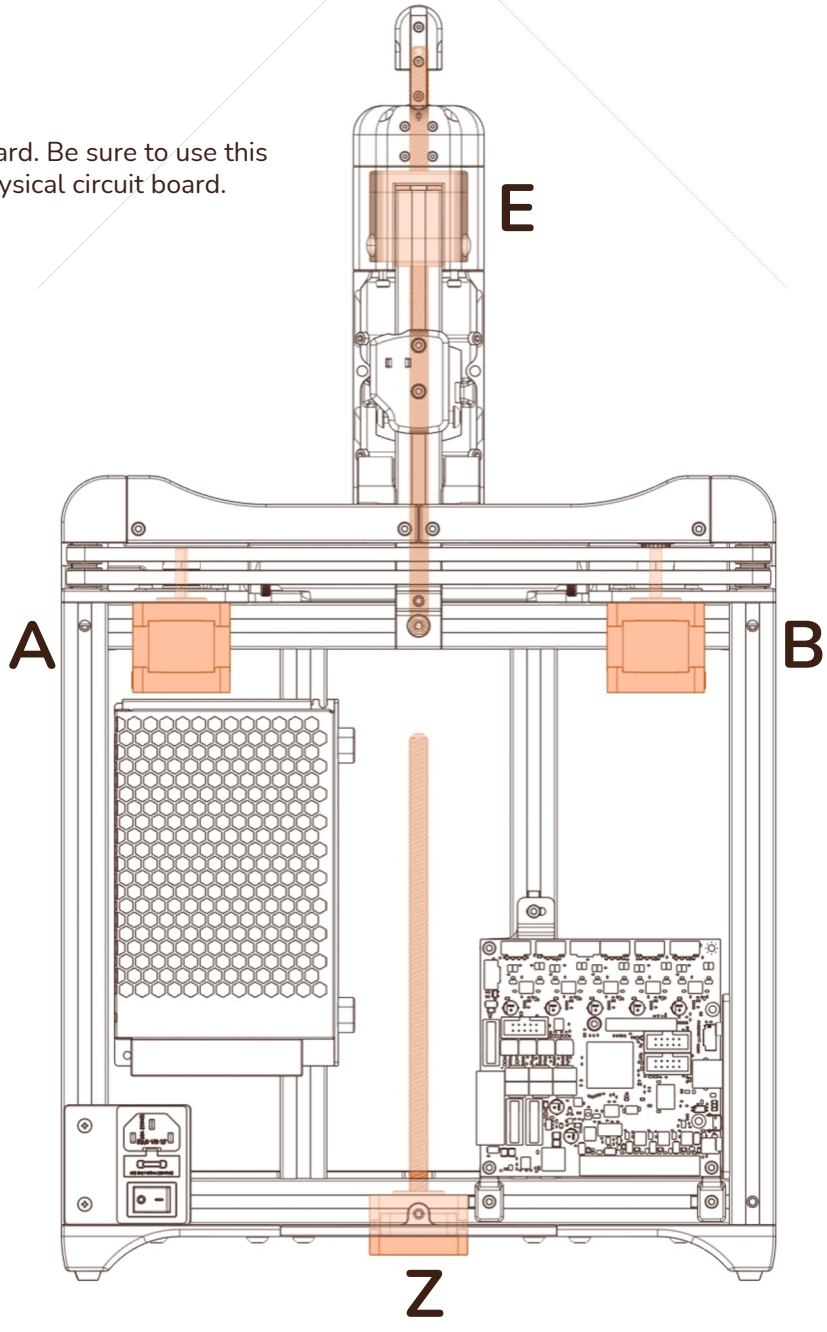
This cover makes it significantly more difficult to touch the mains voltage terminals wired in from the IEC14 socket right below it. Be sure to install it.

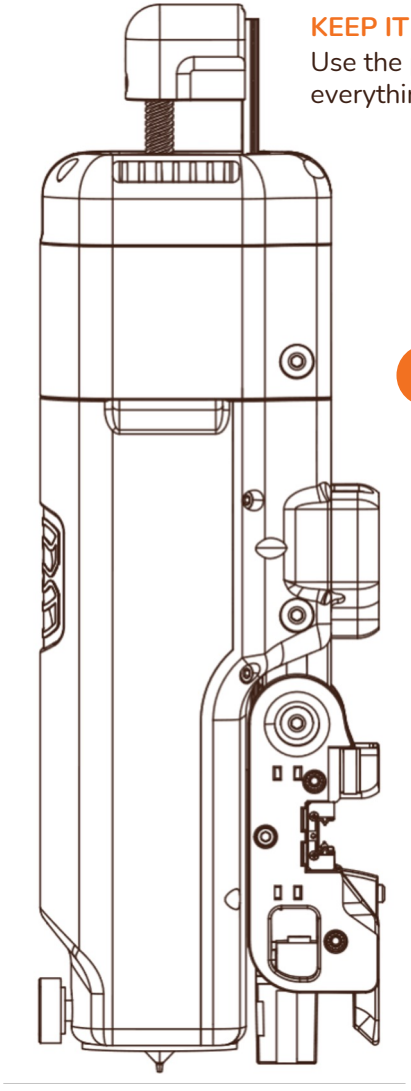


NOTE

Plug in the motors to the Archim2 board. Be sure to use this diagram, and not the labels on the physical circuit board.

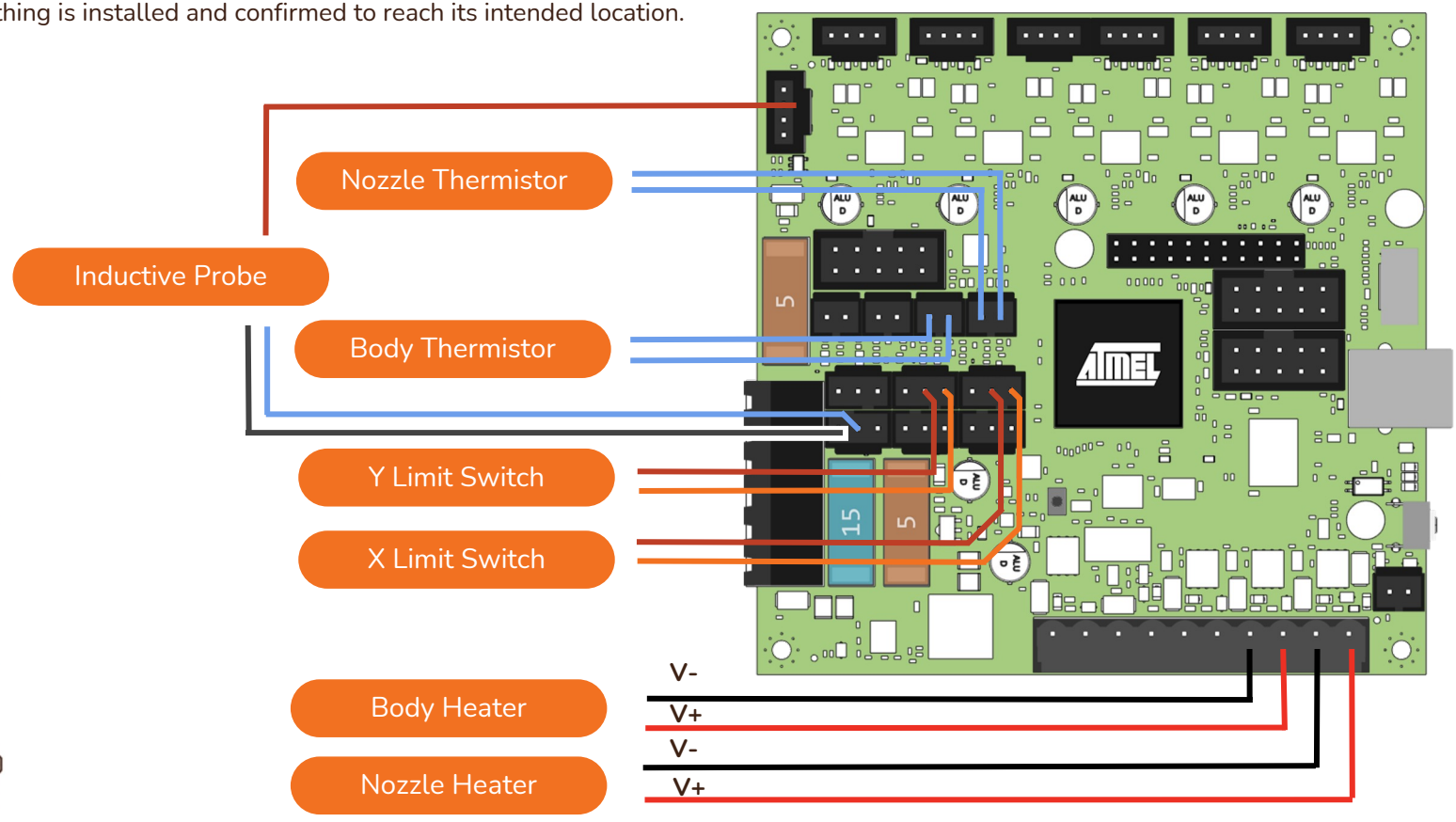






KEEP IT TIDY

Use the printed cable harness anchors to secure your wiring once everything is installed and confirmed to reach its intended location.

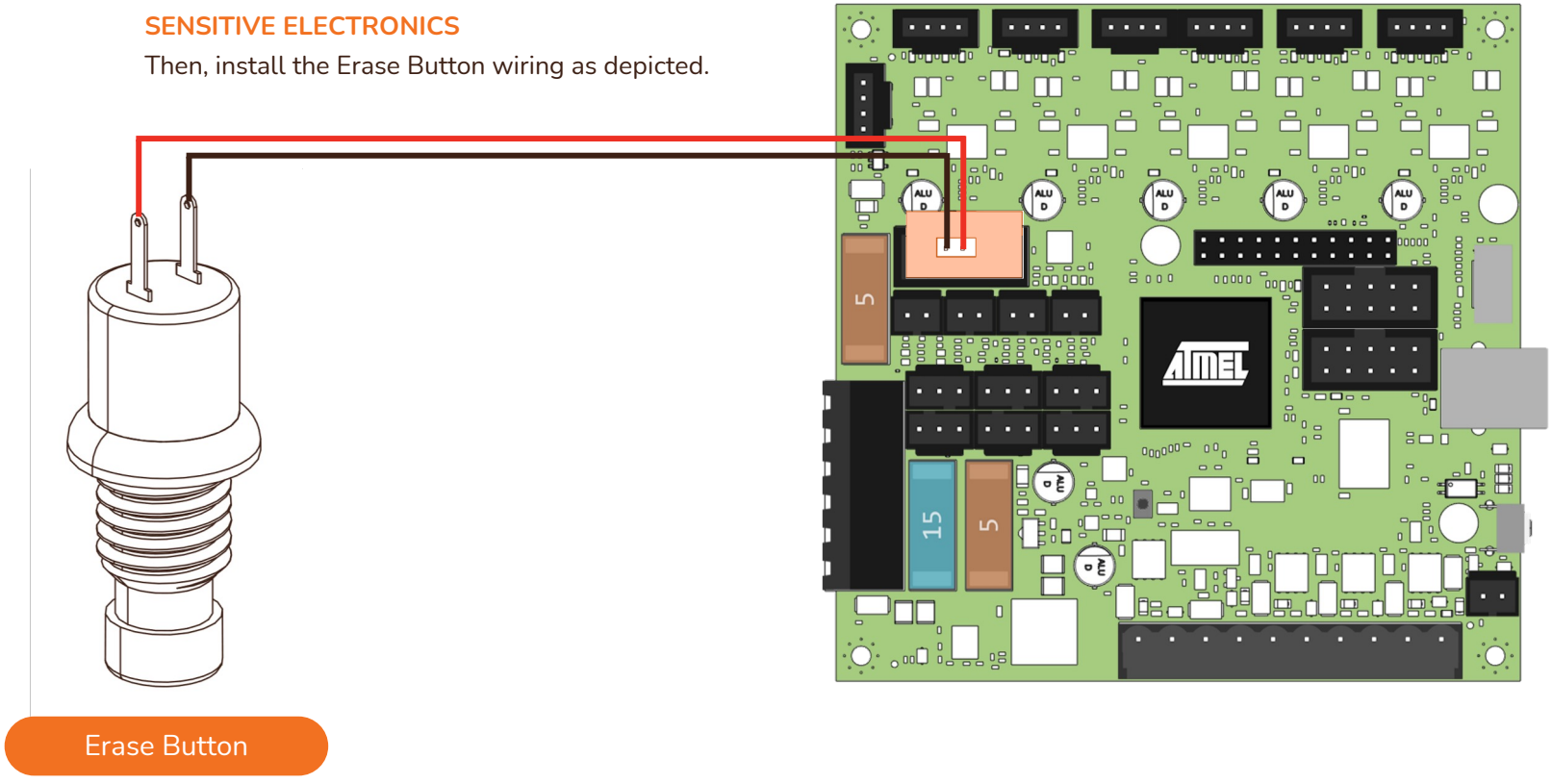


DON'T SHORT-CHANGE YOURSELF

Be sure to use the terminal blocks included in your kit and screw them down fully to install the body and nozzle heaters.

SENSITIVE ELECTRONICS

Then, install the Erase Button wiring as depicted.

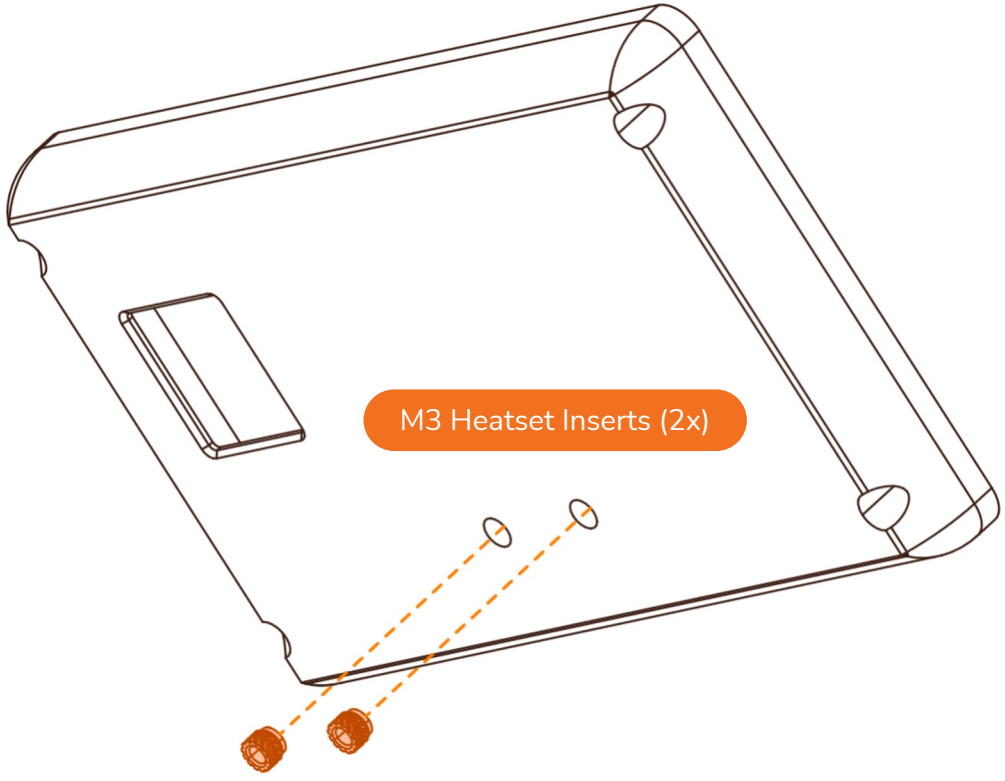


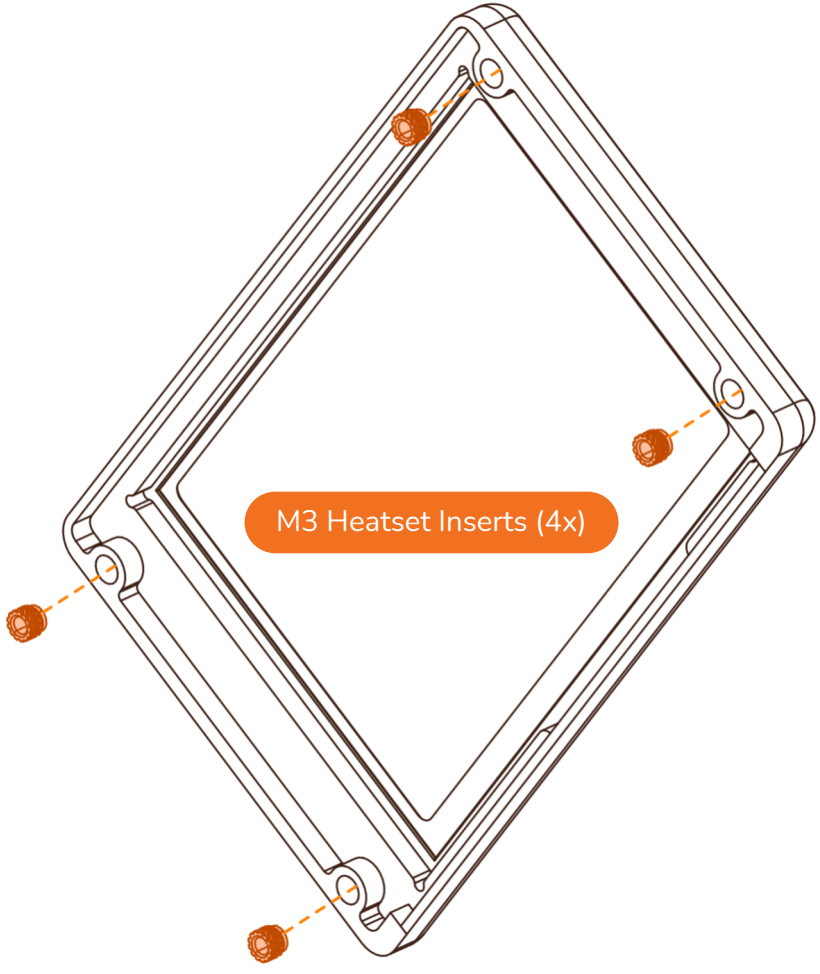
Difficulty	Medium

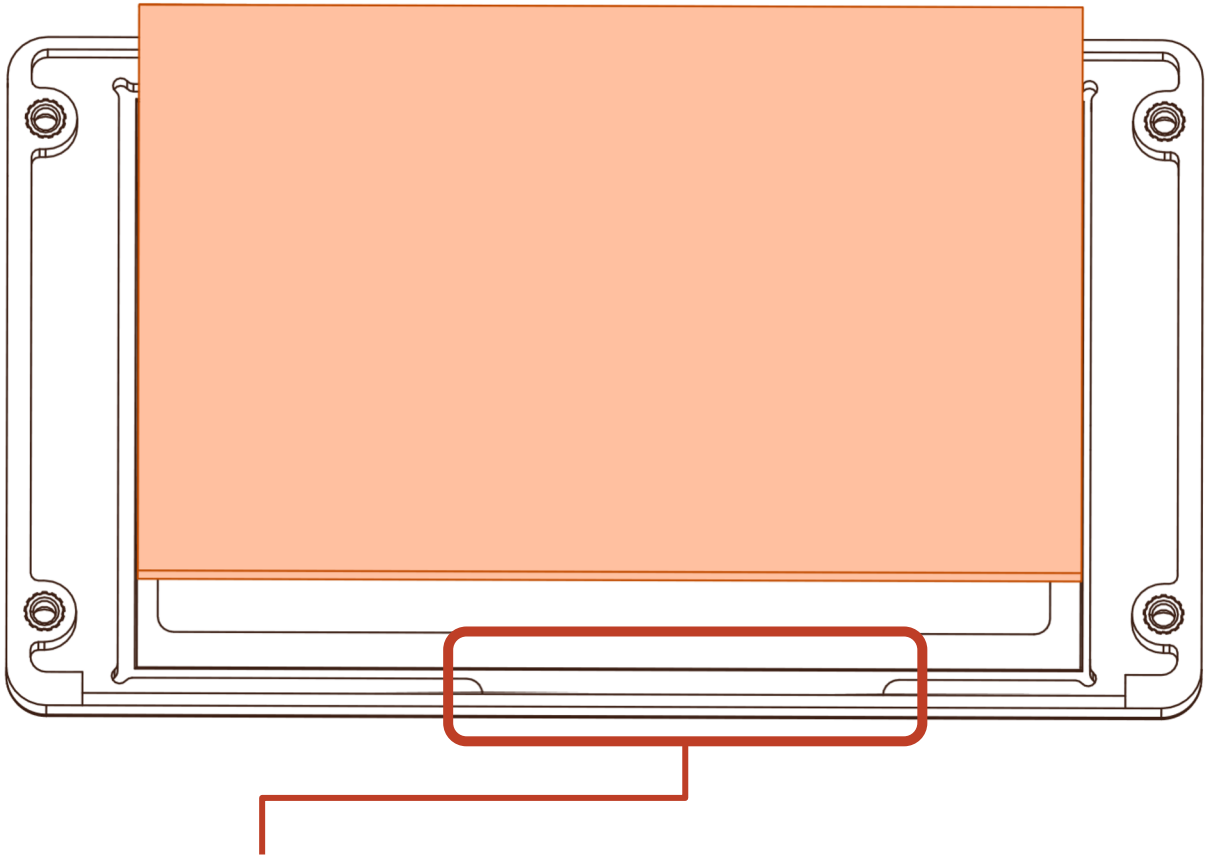
Tools Needed	M3 Driver M5 Driver Heatset Insert Tool Soldering Iron (Not Included)

Hardware Needed	M3 Heatset Insert (6x) M3x8 Socket Head Cap Screw (7x) M3x16 Socket Head Cap Screw (2x) M5 T-Nuts (2x) M5x10 Button Head Cap Screw (2x)	Display Panel SD Reader LCD Controller LCD Ribbon Cable SD Ribbon Cable

Printed Parts Needed	LCD Front Cover (1x) LCD Rear Cover (1x) LCD Bottom Cover (1x) LCD Mount (1x) Display Spacer (1x) Ribbon Cable Clip (1x)

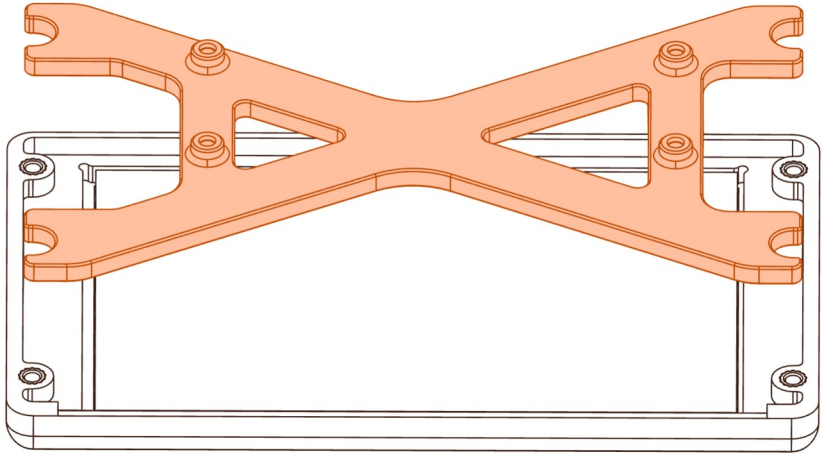

M3 Heatset Inserts (2x)

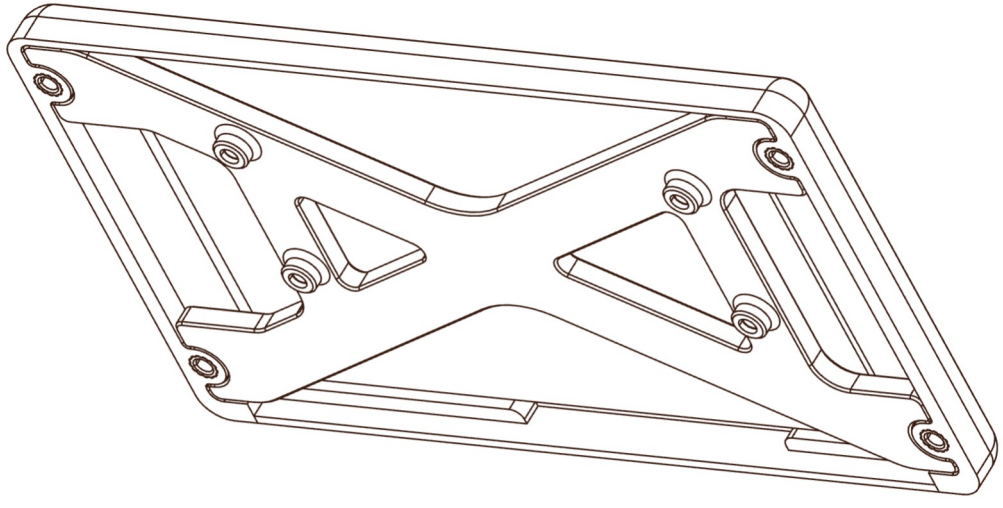

M3 Heatset Inserts (4x)

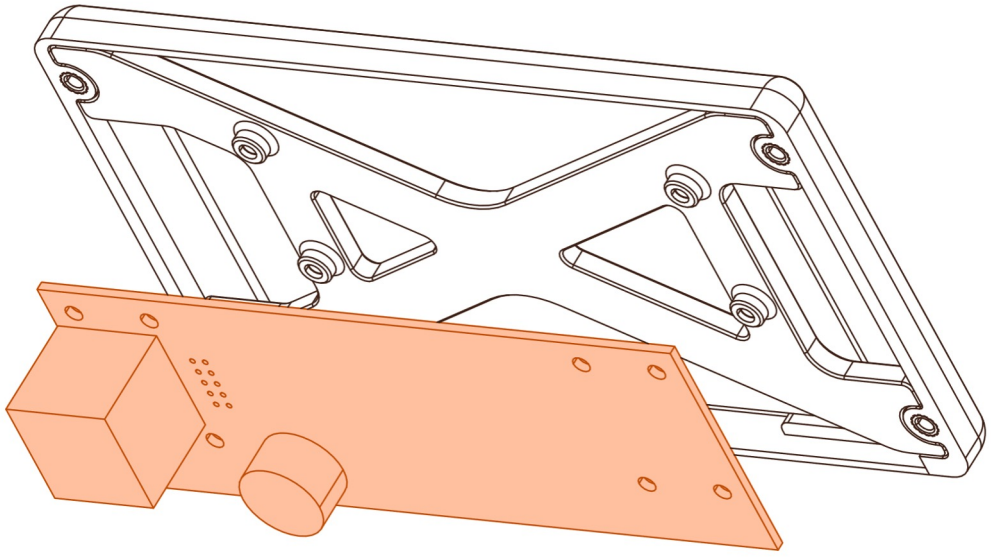


DELICATE CABLES

The ribbon cable from the display will sit in the opening here. Take care to not bend excessively or fold, as this may damage the display.





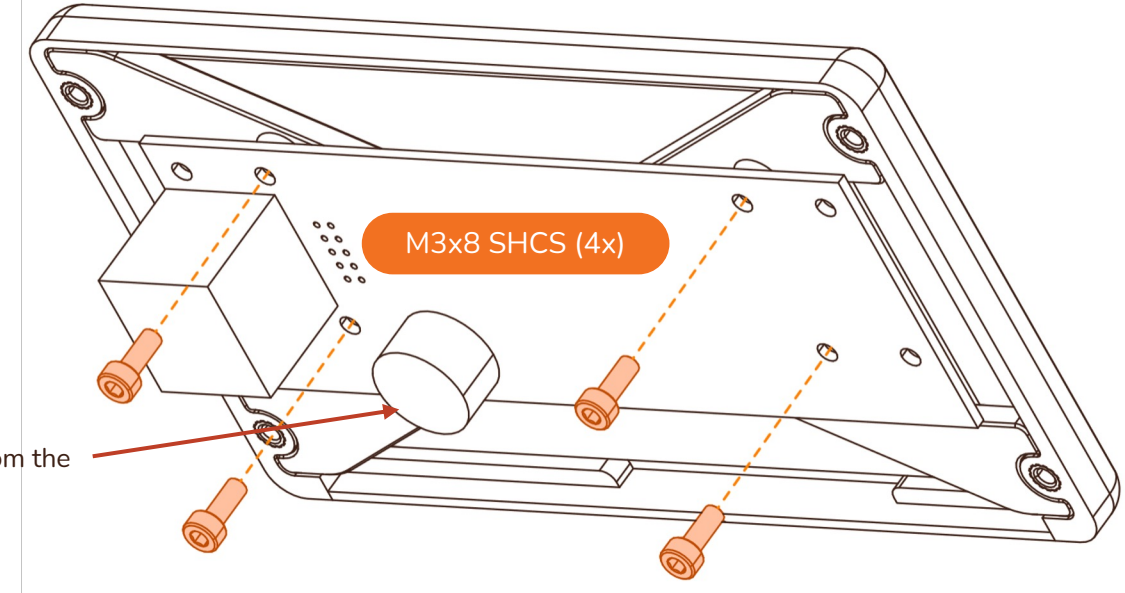


CONNECT-EM UP!

Take the time to connect the LCD Controller ribbon cable to the Display now.

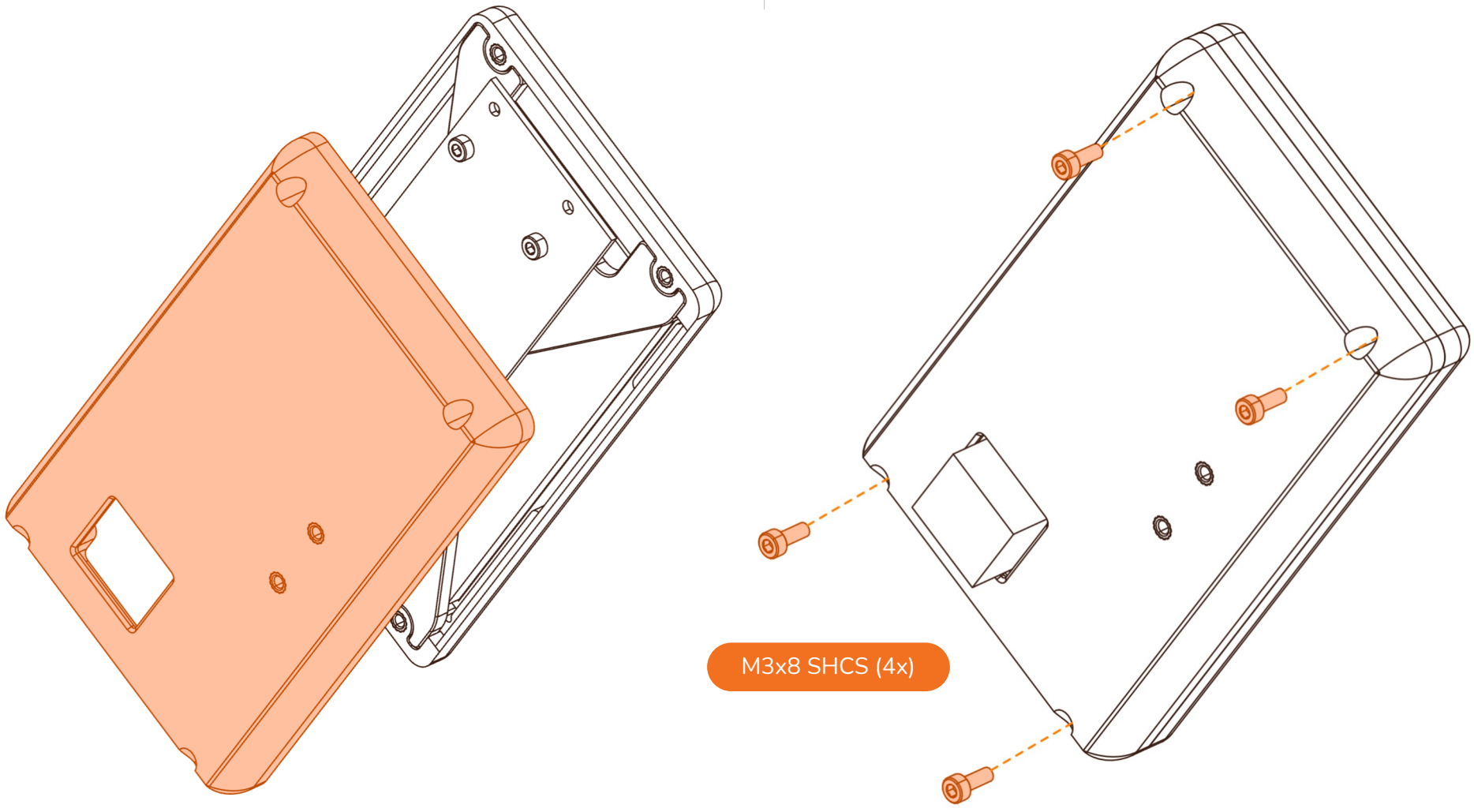
THREADING INTO PLASTIC

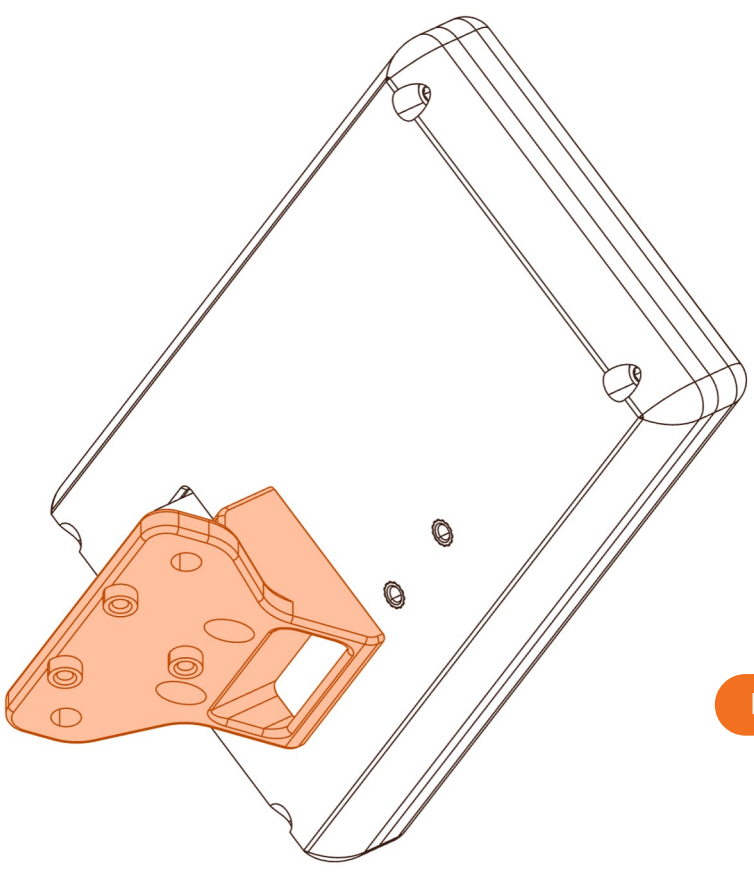
These screws will thread into the plastic printed parts, through sensitive electronics. Take care to not over-tighten them.



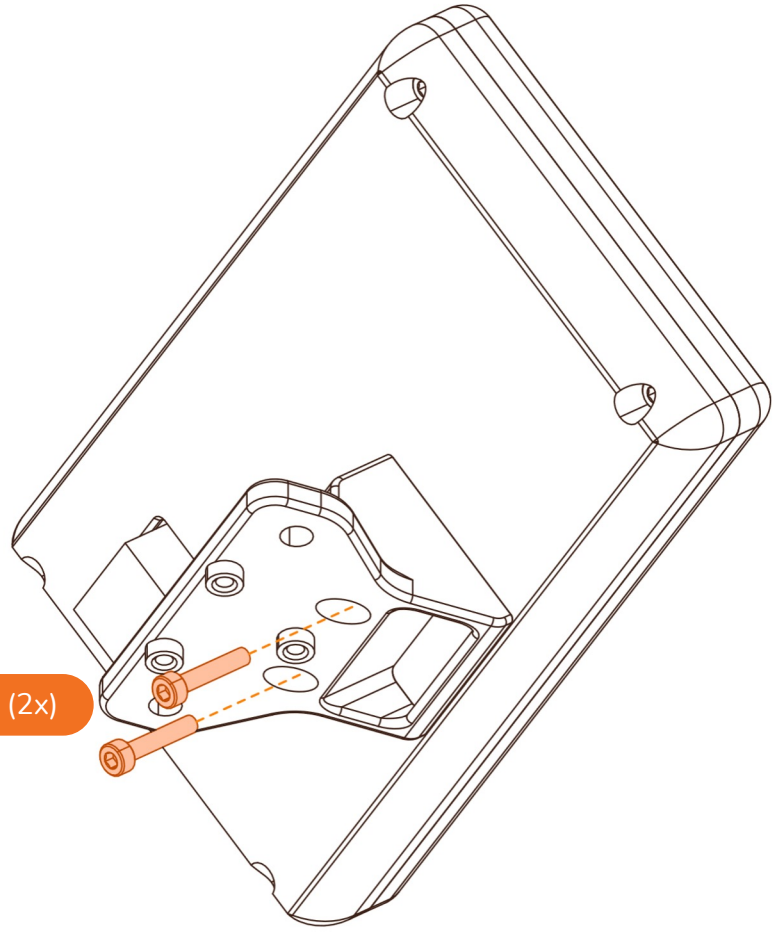
"LET 'EM SING!"

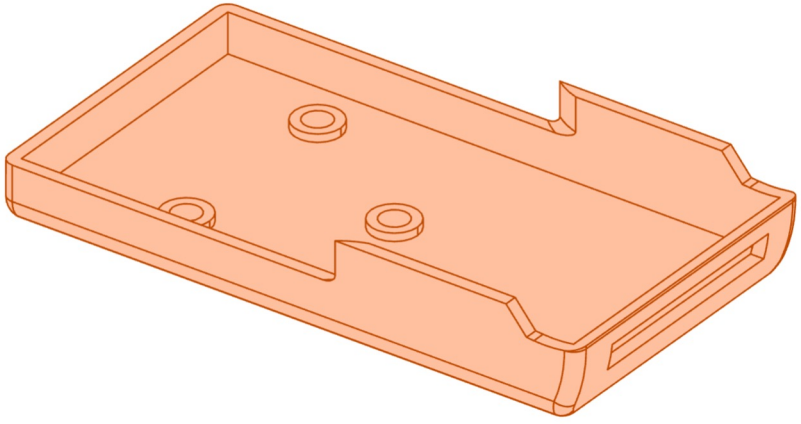
Be sure to remove the small tape film from the speaker on the display board.

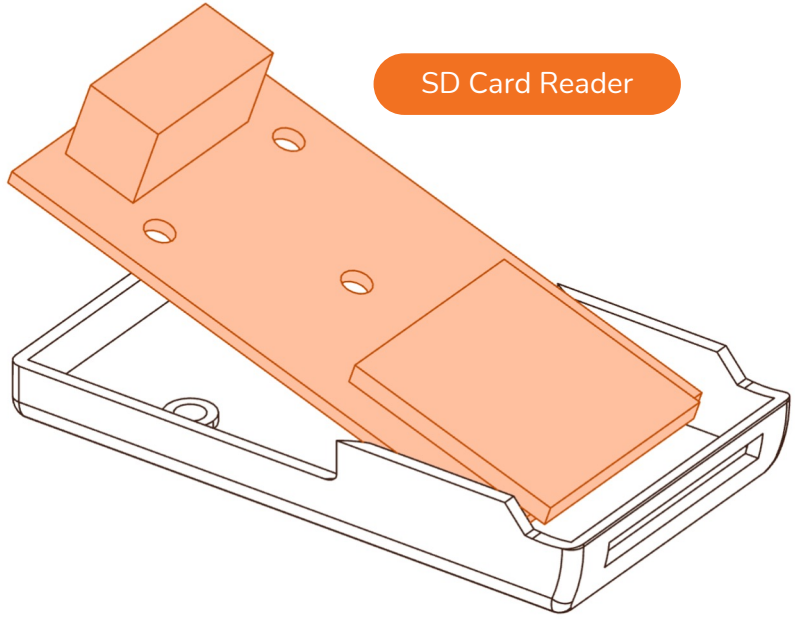

M3x8 SHCS (4x)

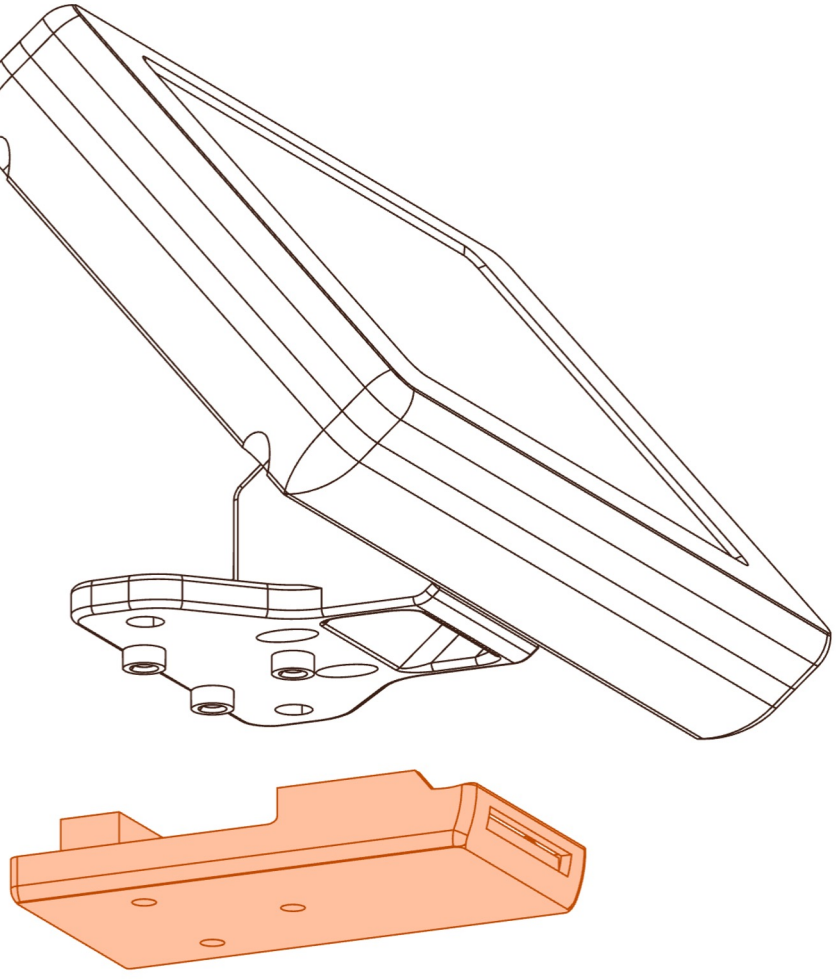


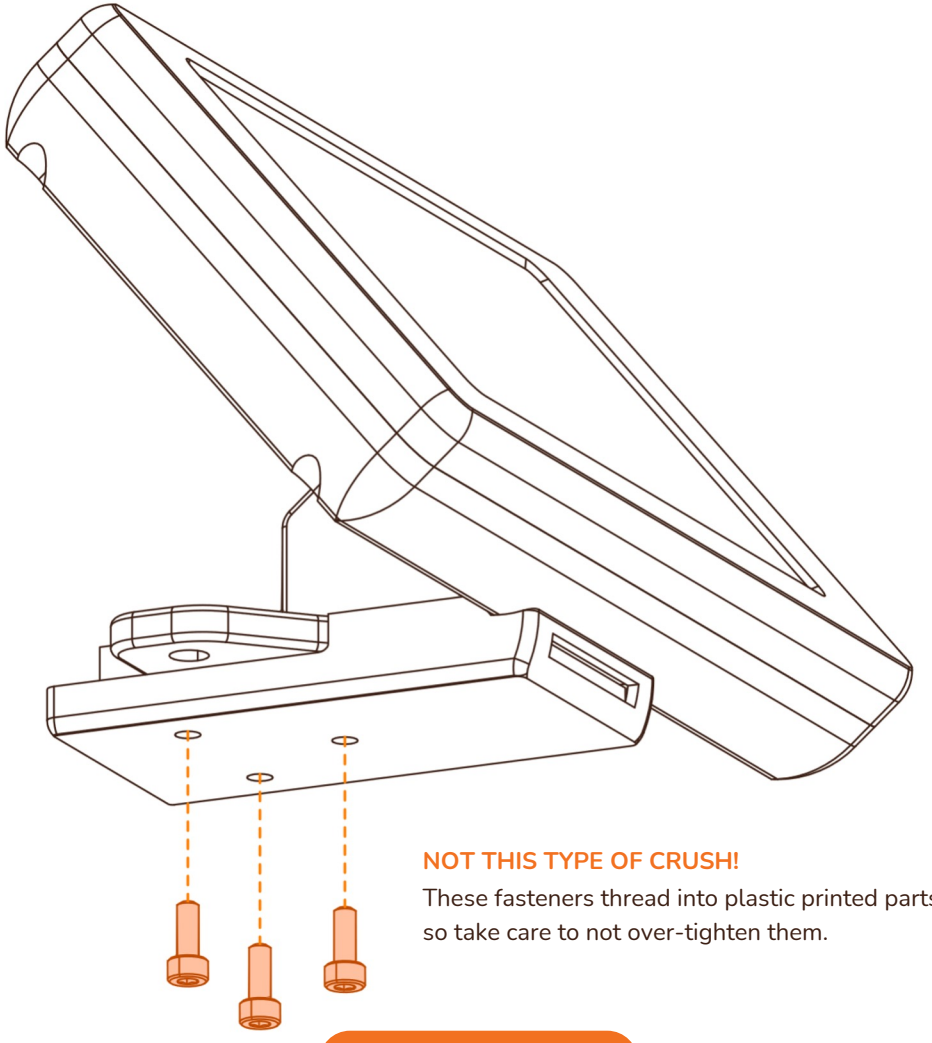
M3x16 SHCS (2x)






SD Card Reader

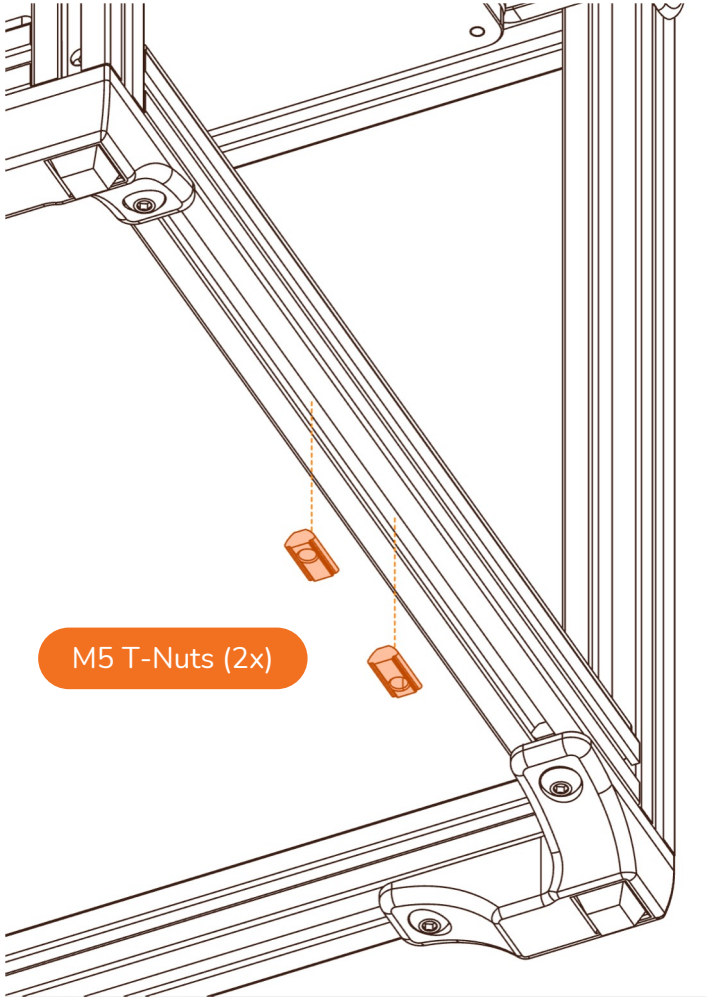


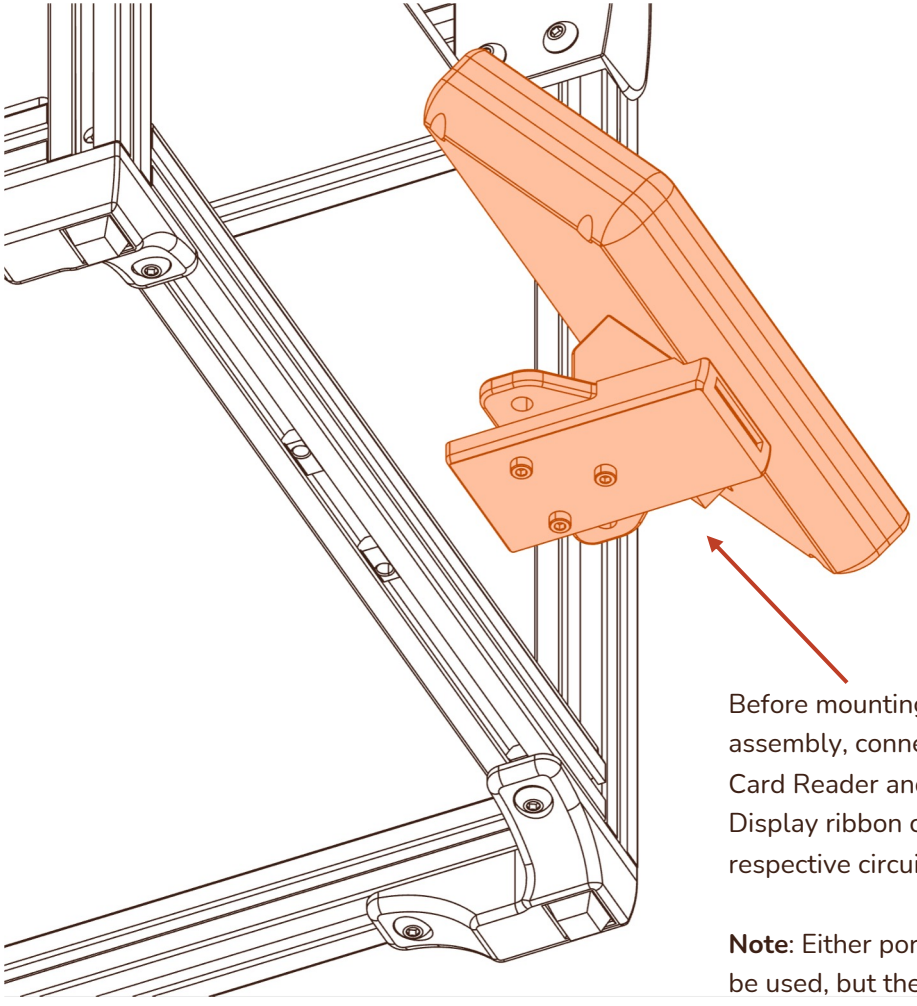


NOT THIS TYPE OF CRUSH!

These fasteners thread into plastic printed parts, so take care to not over-tighten them.

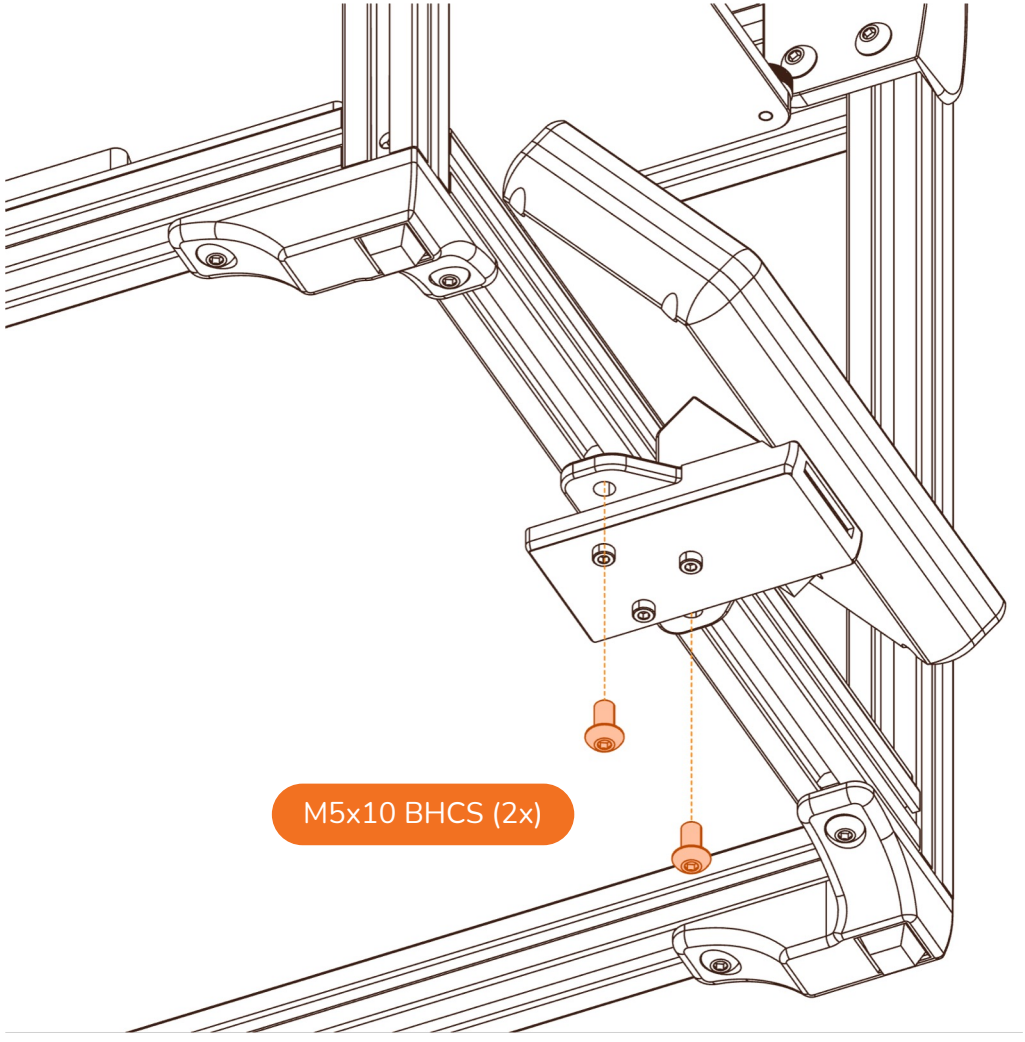
M3x8 SHCS (3x)

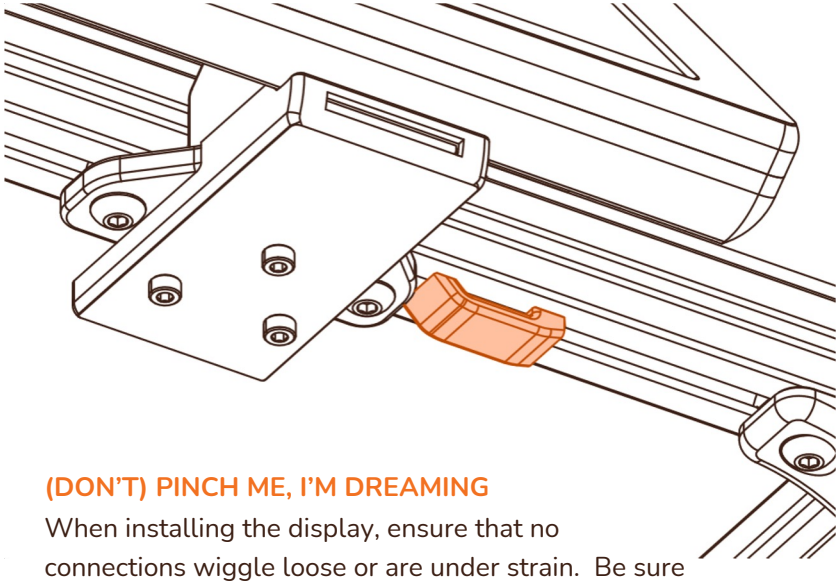




Before mounting the display assembly, connect the EXP1 / SD Card Reader and EXP2 / LCD Display ribbon cables to their respective circuit boards.

Note: Either port on the display can be used, but the innermost one is suggested.

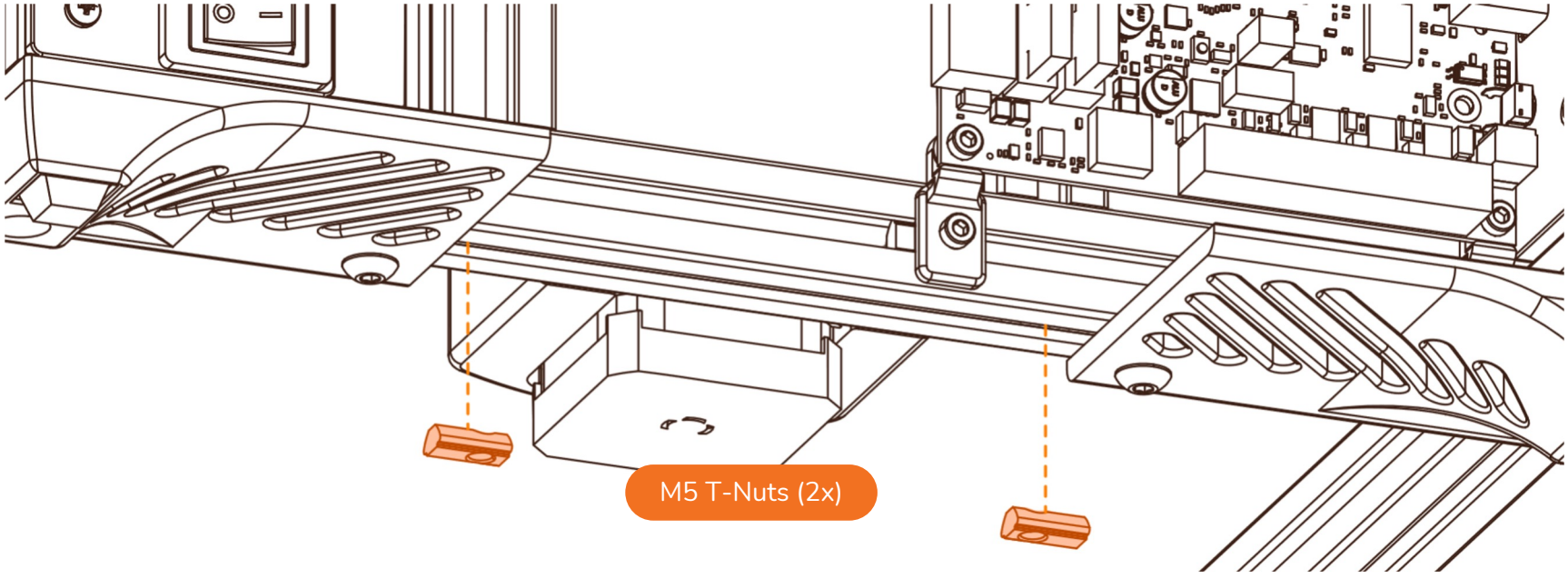


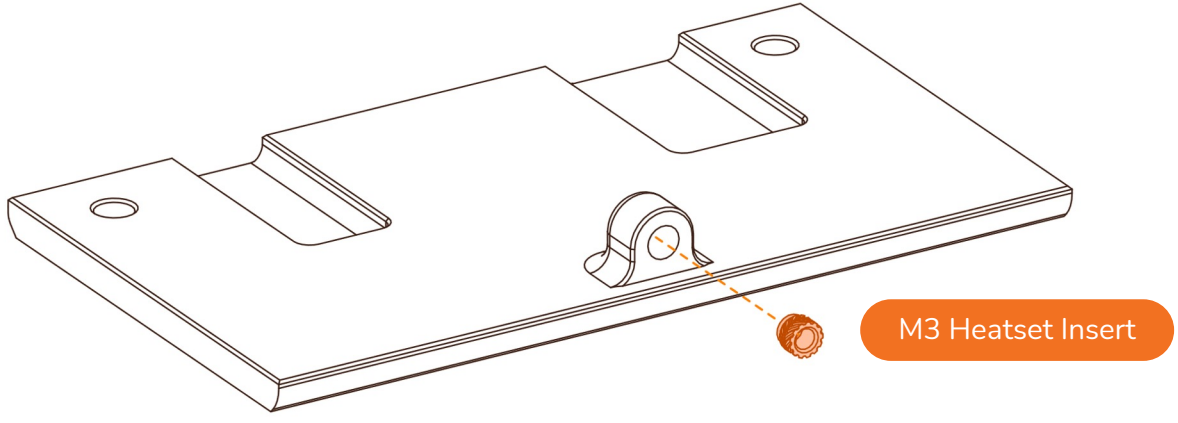


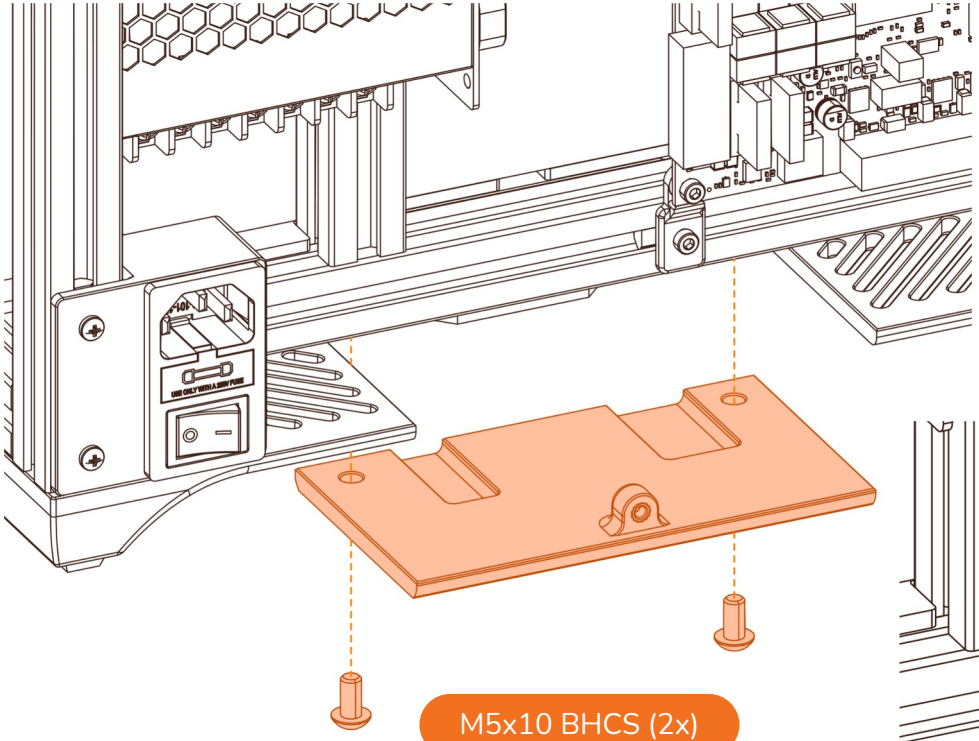
(DON'T) PINCH ME, I'M DREAMING

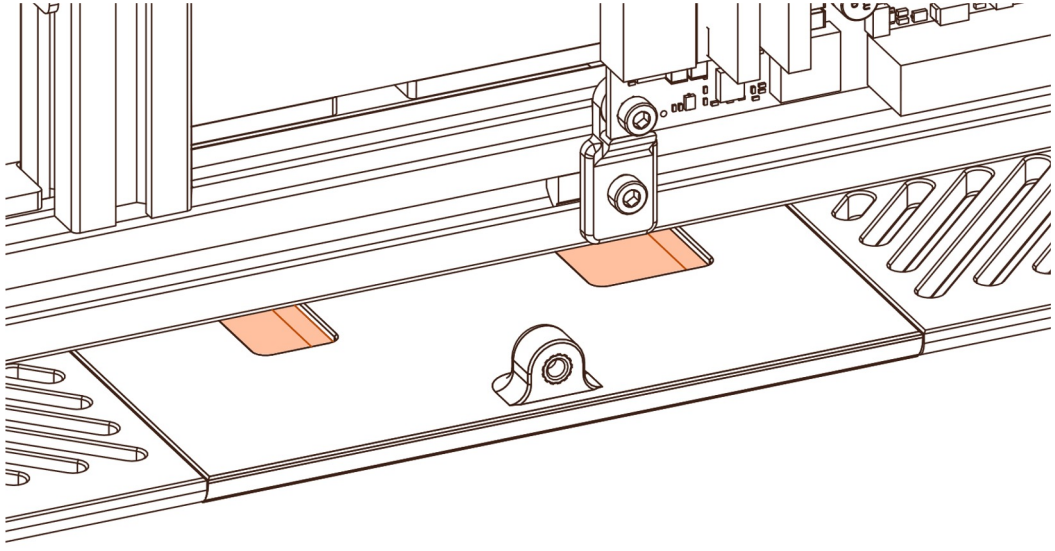
When installing the display, ensure that no connections wiggle loose or are under strain. Be sure to not pinch the cables under the frame until you install the cable management piece.

Difficulty	Easy
Tools Needed	M3 Driver M5 Driver Heatset Insert Tool Soldering Iron (Not Included)
Hardware Needed	M5 T-Nuts (2x) M3 Heatset Insert M5x10 Button Head Cap Screw (2x)
Printed Parts Needed	Center Cover (1x)


M5 T-Nuts (2x)

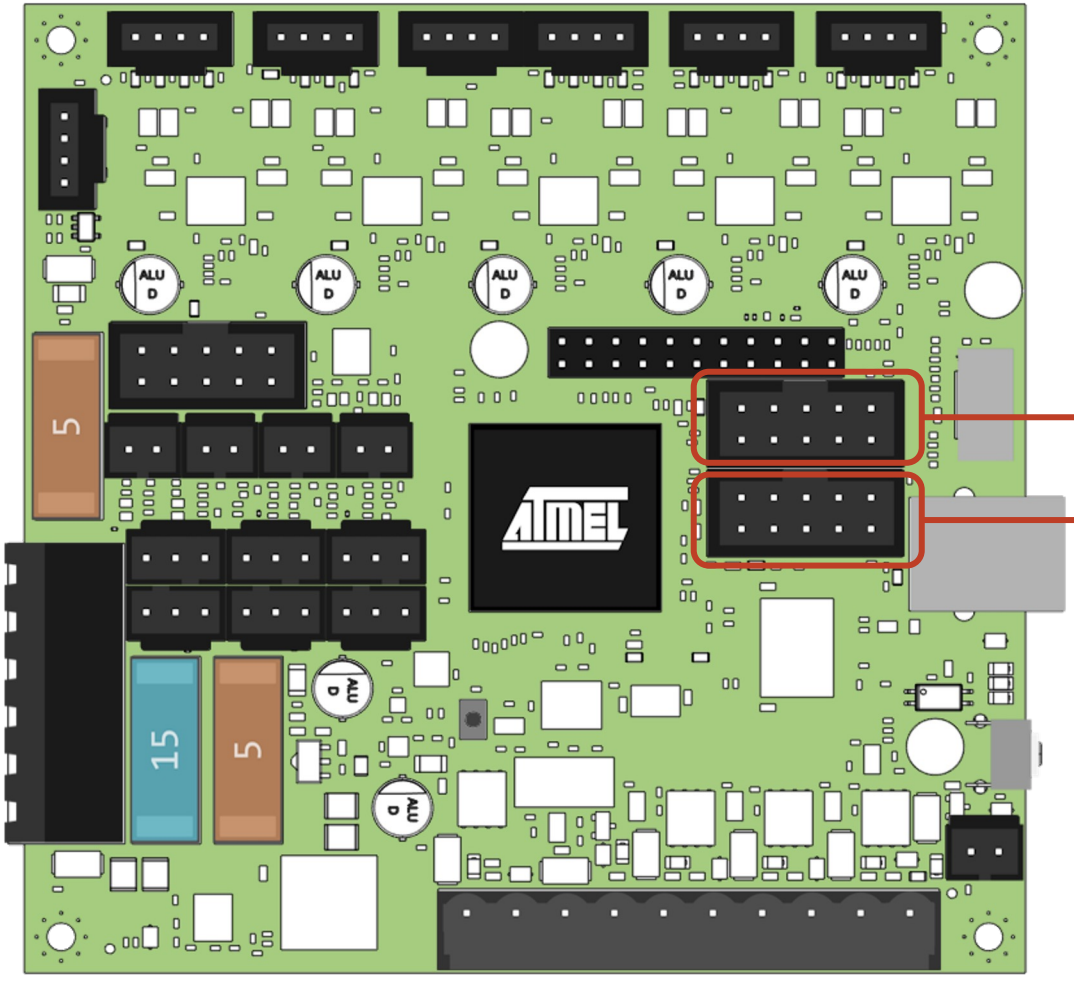

M3 Heatset Insert





(DON'T) PINCH ME, I'M DREAMING

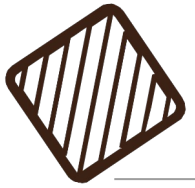
When installing the bottom cover, be sure to route the Display and SD Card ribbon cables, as well as the Z stepper motor wires through the provided grooves. Make sure the cables are loose and can slide to ensure they are not being pinched.



RIBBONS OF ELECTRONS

Connect the EXP1 & EXP2 ribbon cables as labeled above. The connectors are keyed so you can't get them upside-down, only backwards!

The display has two connection points, the connector attaches to the plug closest to the center of the display on the other end.

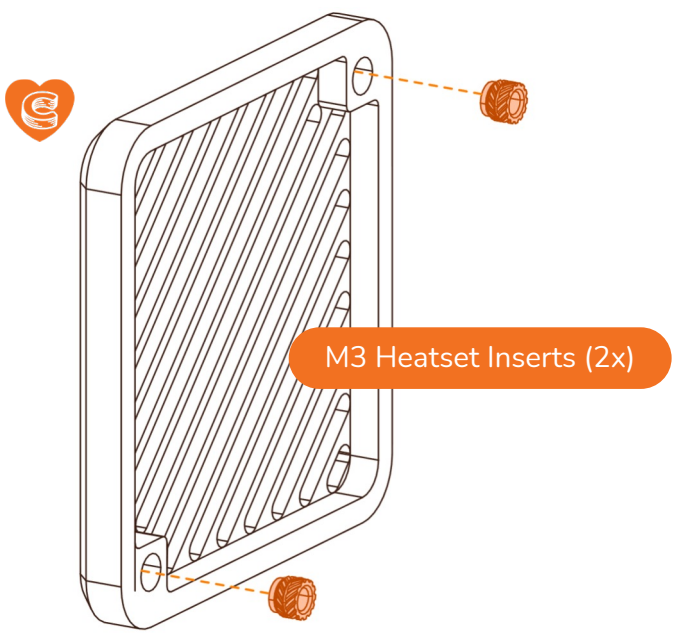


Difficulty	Easy

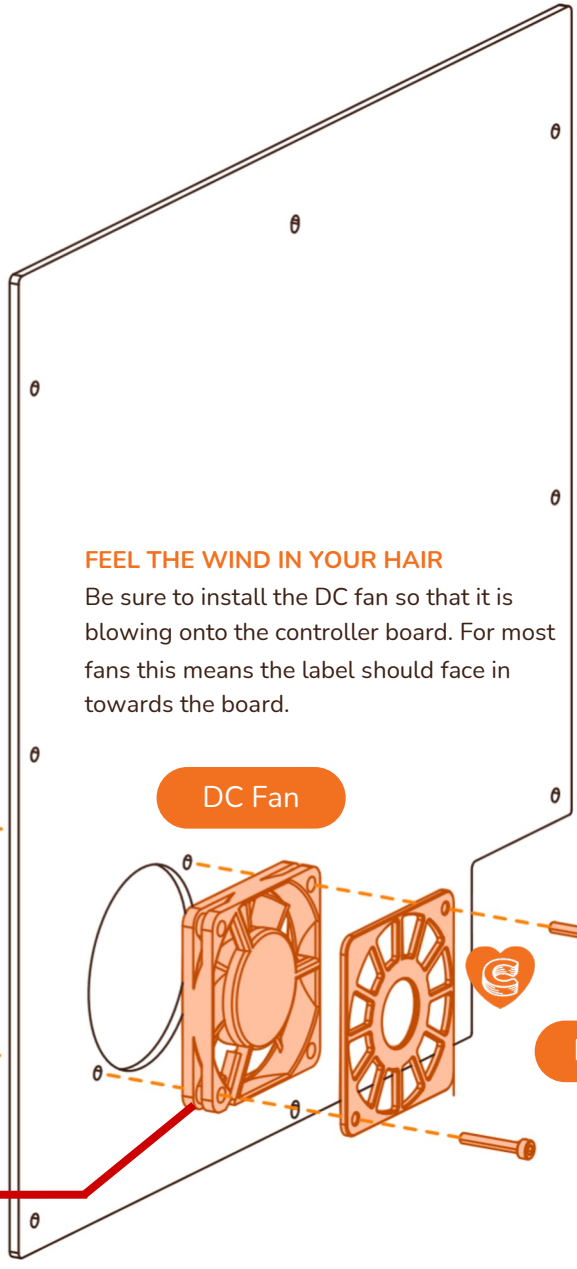
Tools Needed	M3 Driver Phillips Screwdriver Heatset Insert Tool Soldering Iron (Not Included)

Hardware Needed	M3 Heatset Inserts (2x) M3 T-Nuts (20x) M3x8 Button Head Phillips Screw (26x) M3x20 Socket Head Cap Screw (2x)	Rear Exterior Panel (1x) Left Panel (1x) Right Panel (1x) 24V DC Fan (1x)

Printed Parts Needed	Rear Fan Grill (1x) Rear Fan Inner Guard (1x) Serial Number Plate (1x)



M3 Heatset Inserts (2x)

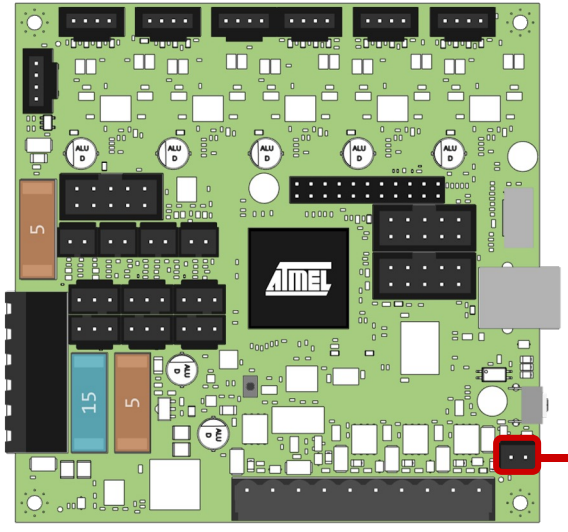


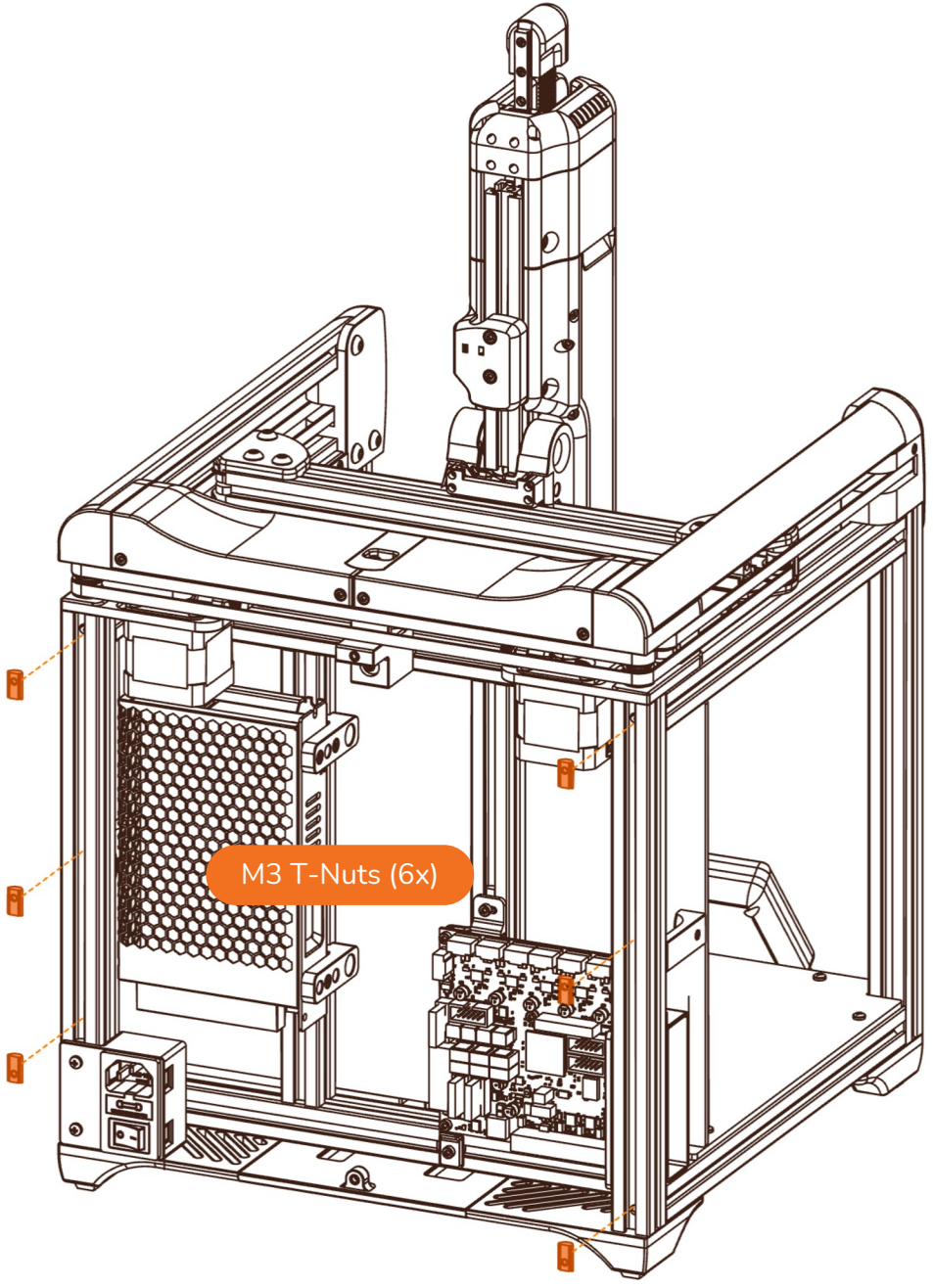
FEEL THE WIND IN YOUR HAIR

Be sure to install the DC fan so that it is blowing onto the controller board. For most fans this means the label should face in towards the board.

DC Fan

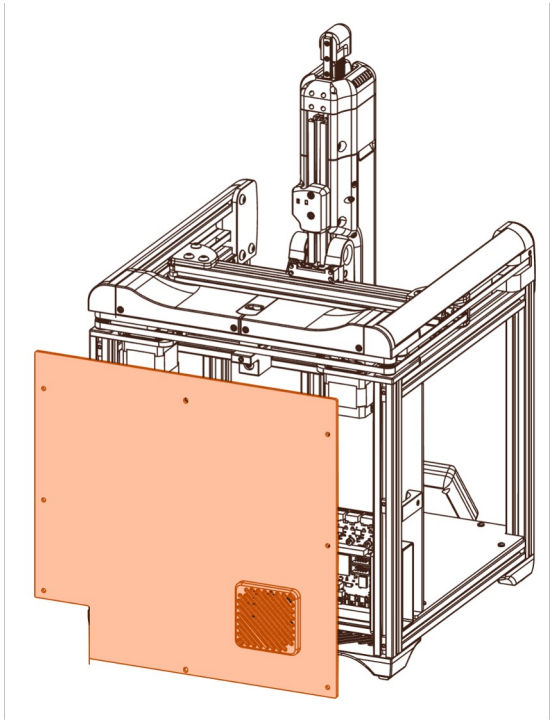
M3x20 SHCS (2x)





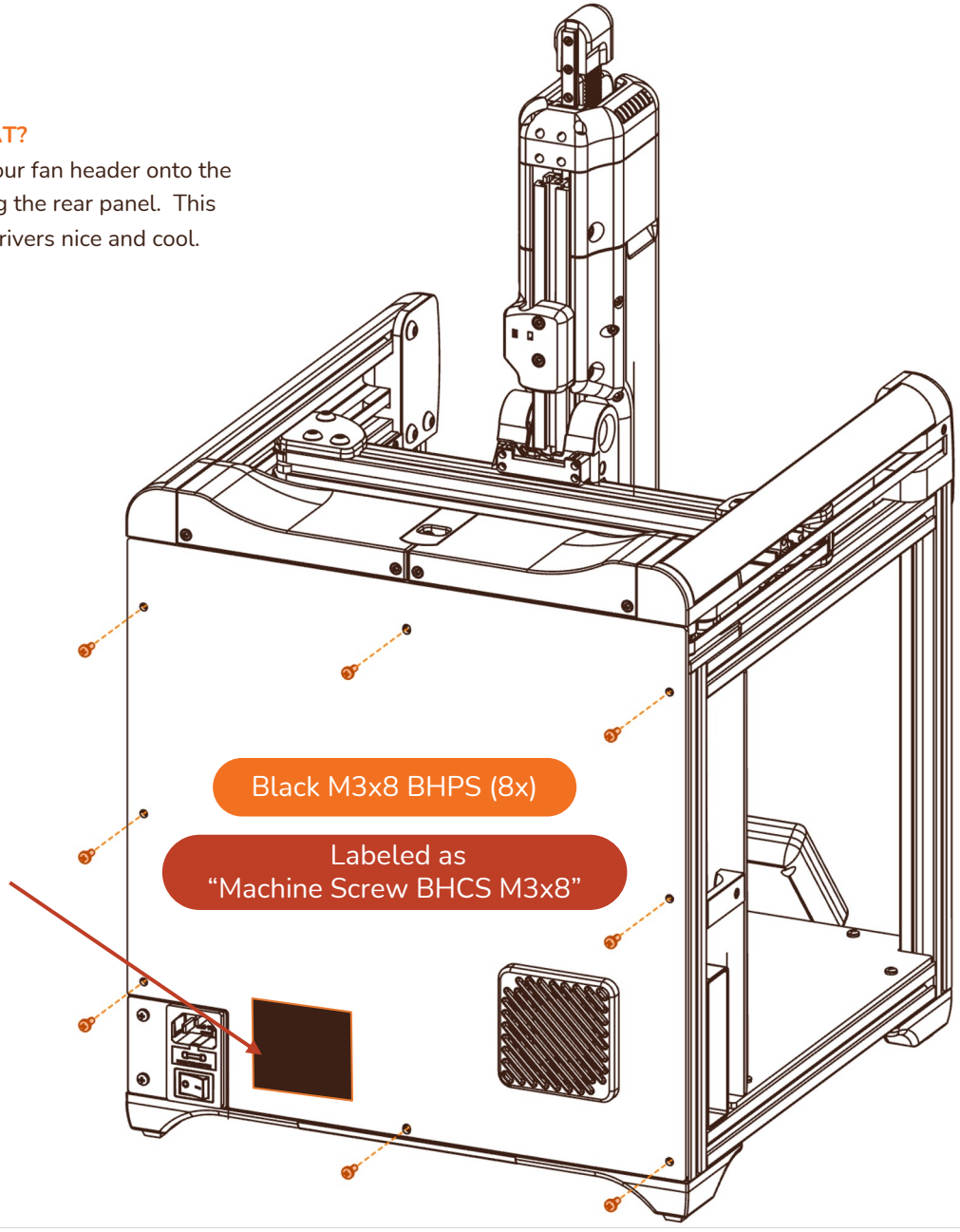
ORIENTATION MATTERS

The T-nuts should be aligned such that the threads are often over the access holes in the extrusion. This ensures you can secure every fastener of the panels.



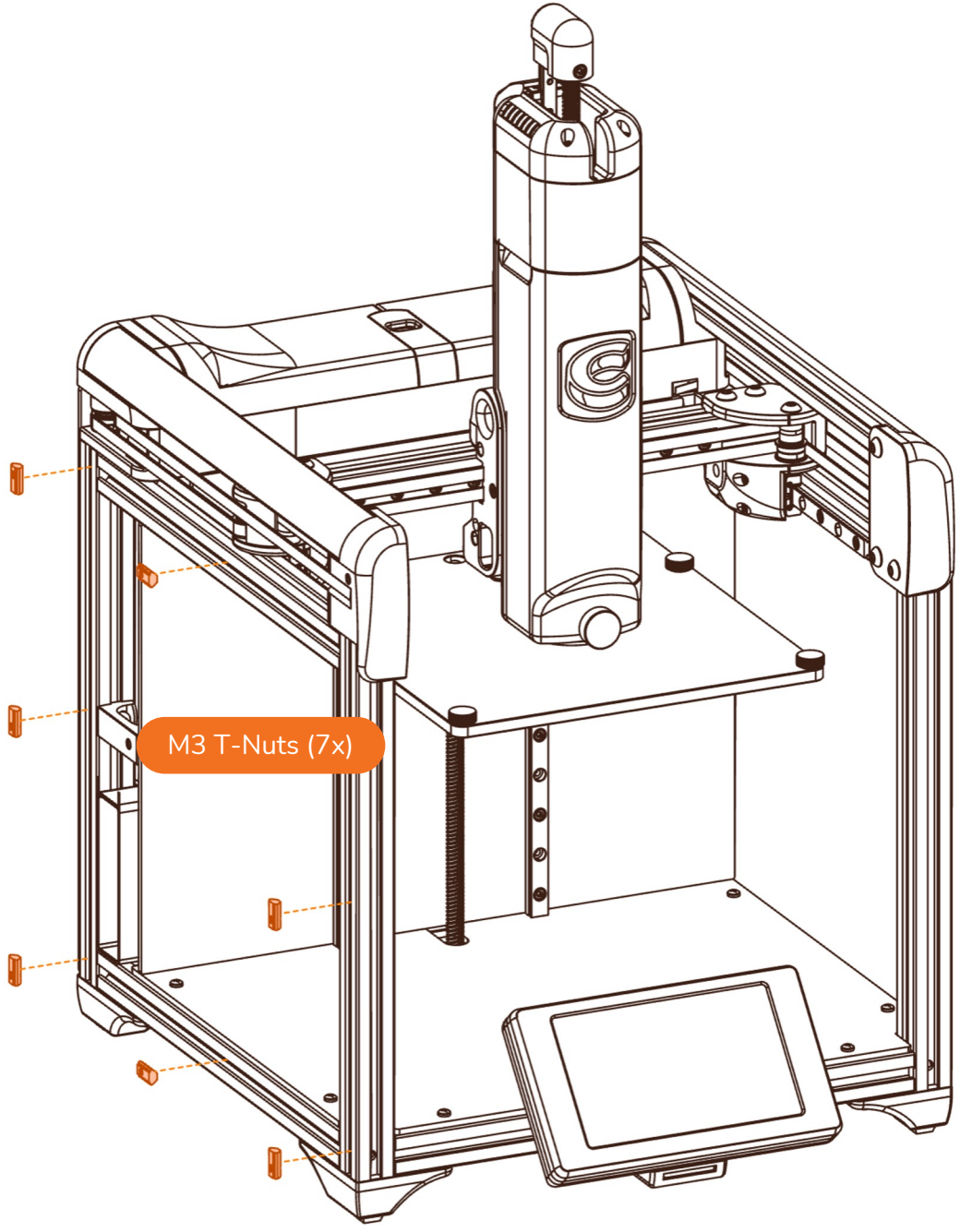
NOT A FAN OF THAT?

Be sure to connect your fan header onto the Archim before closing the rear panel. This keeps your stepper drivers nice and cool.



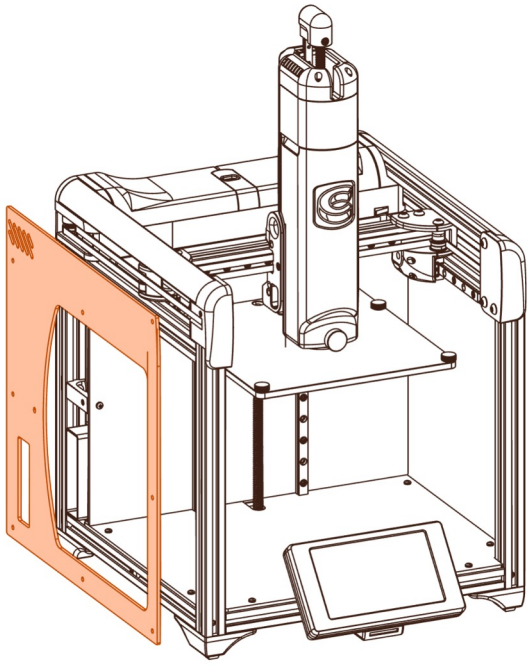
SUPER SERIAL ABOUT THIS

Attach your serial number plate to your rear acrylic panel at this point. This ensures that if you have a support request that your serial number is available and associated with the printer.



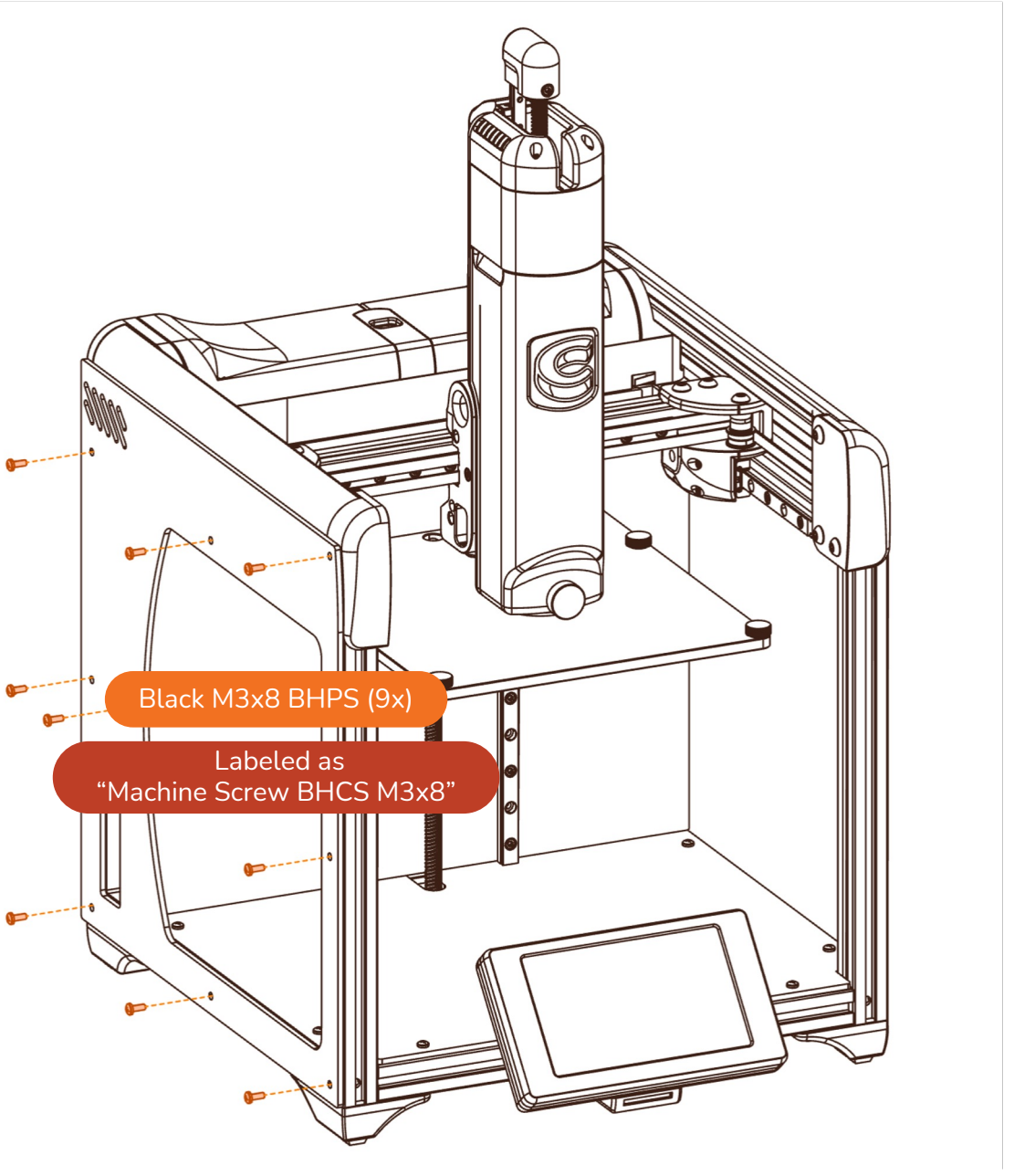
ORIENTATION MATTERS

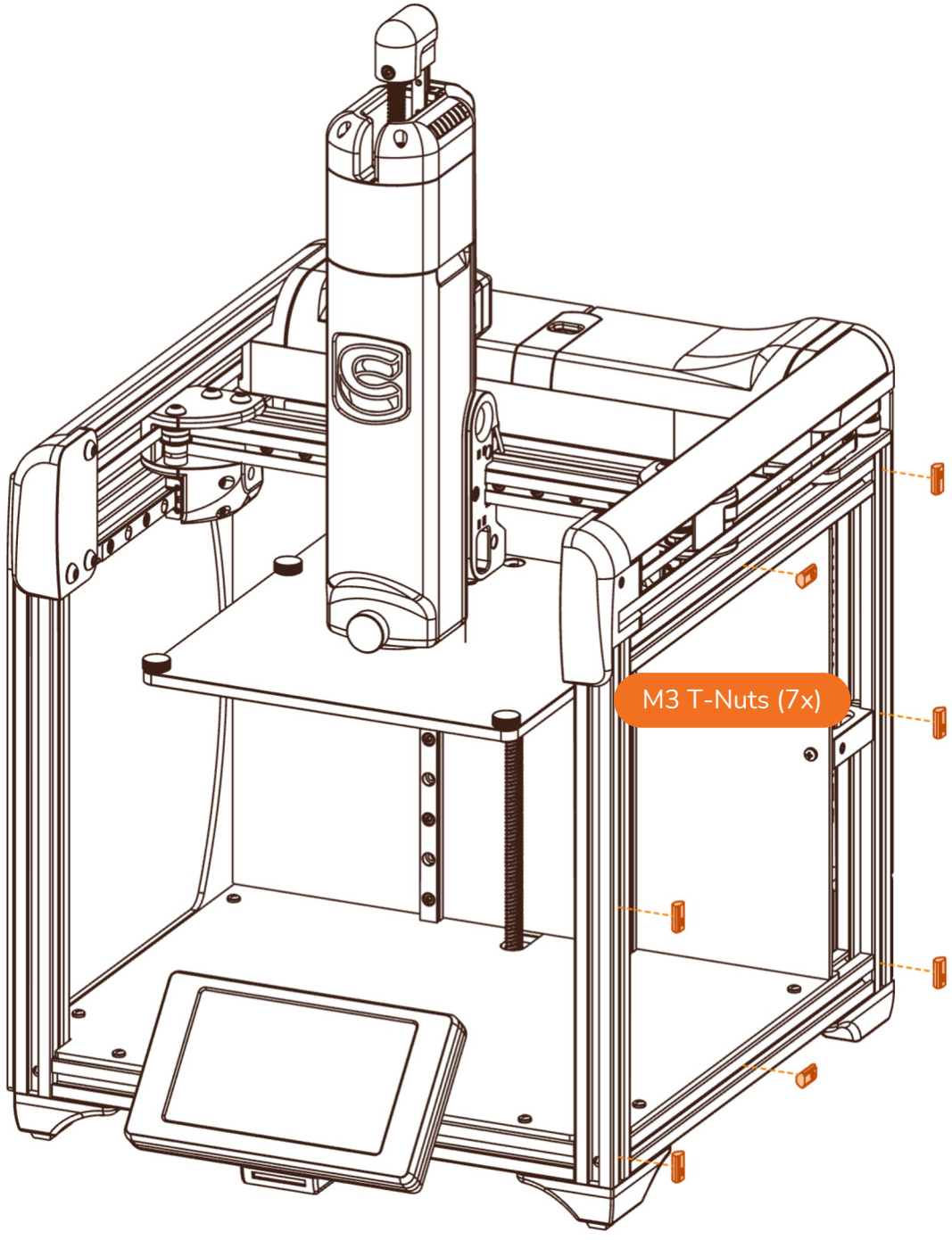
The T-nuts should be aligned such that the threads are often over the access holes in the extrusion. This ensures you can secure every fastener of the panels.



TURN OVER A NEW LEAF

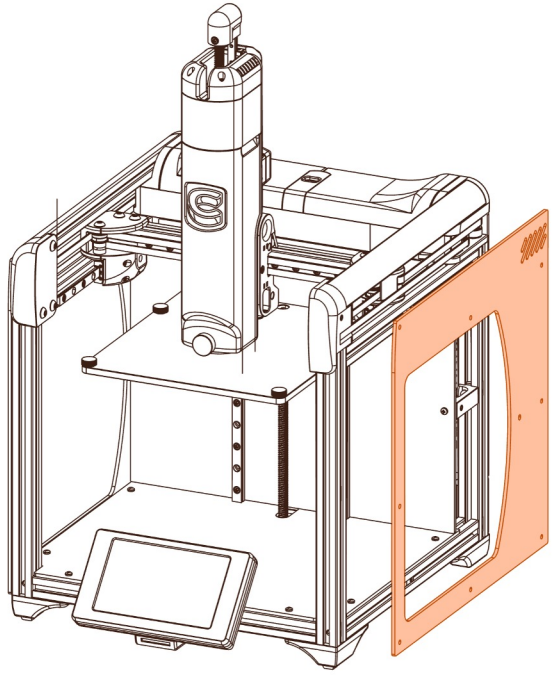
Be sure to remove the protective papering from the acrylic panels before doing final installation.

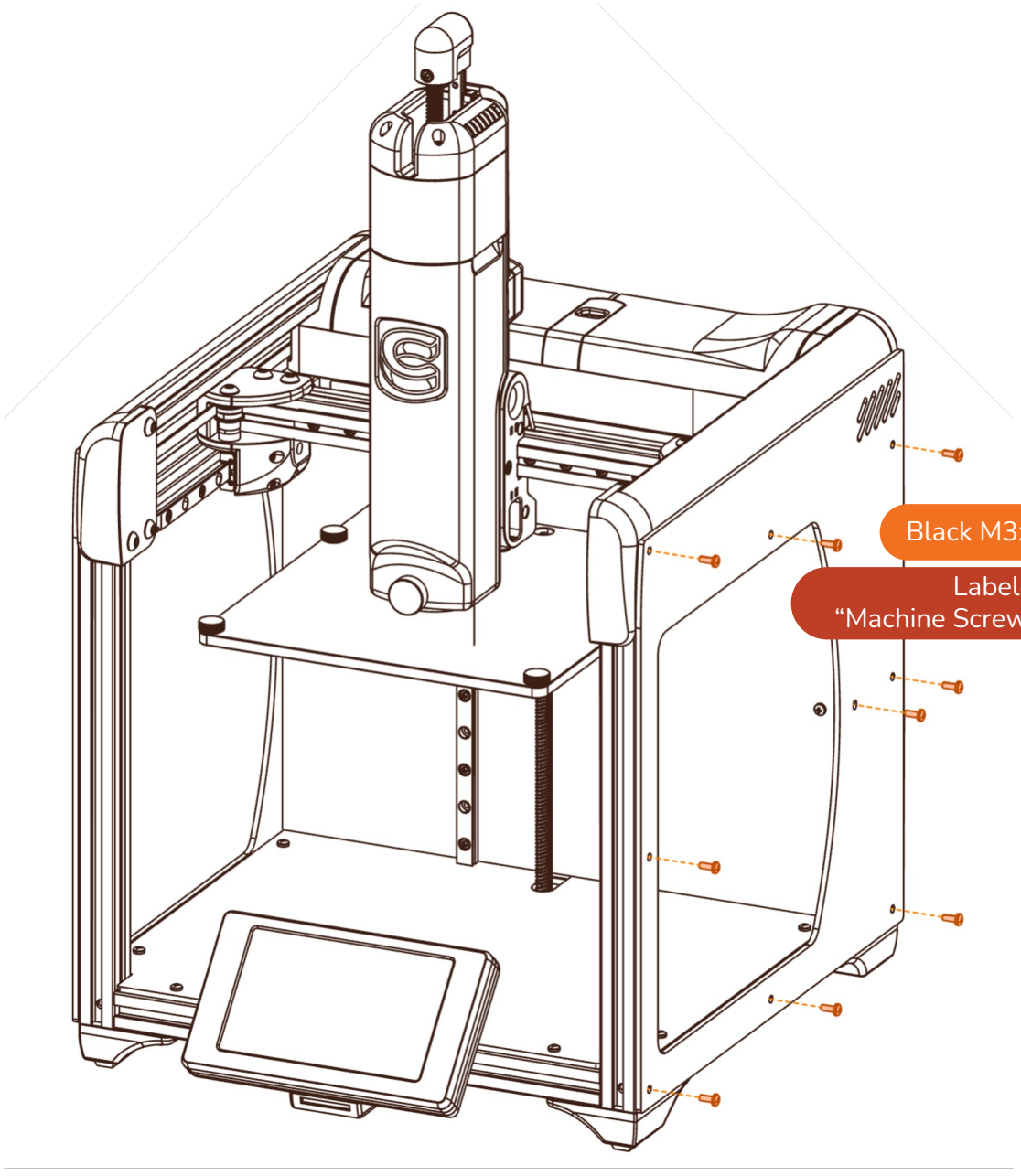


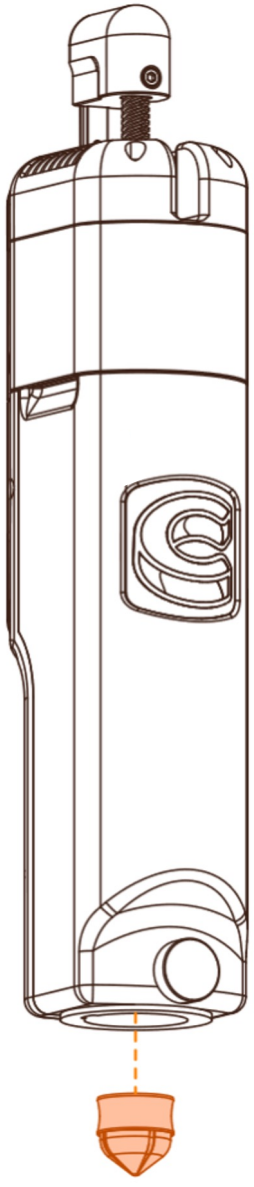


ORIENTATION MATTERS

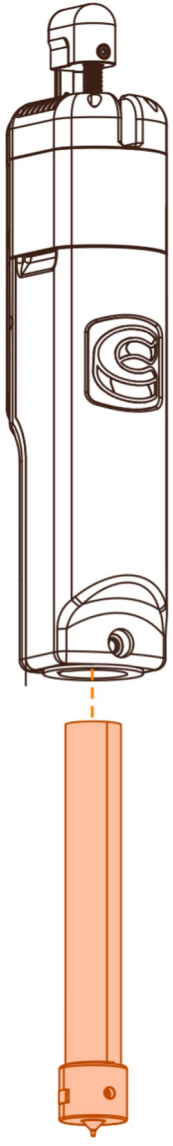
The T-nuts should be aligned such that the threads are often over the access holes in the extrusion. This ensures you can secure every fastener of the panels.




Black M3x8 BHPS (9x)
Labeled as
“Machine Screw BHCS M3x8”



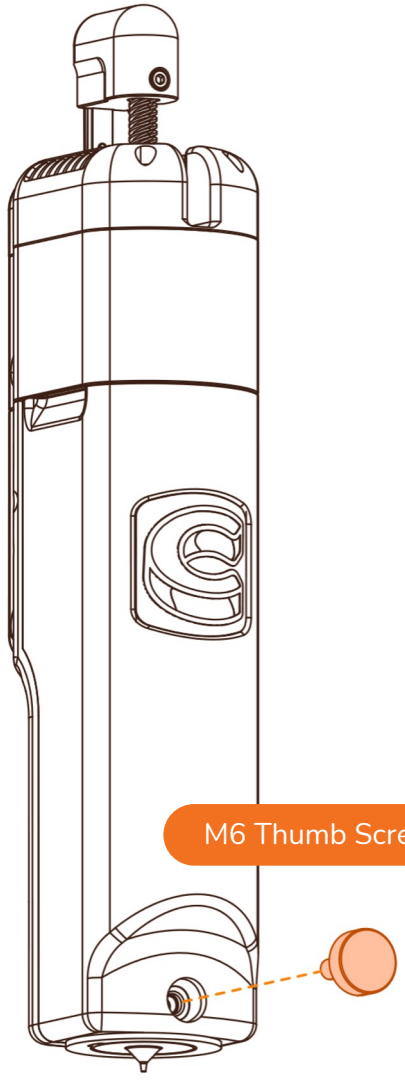
Red Plastic Plunger



NOZZLE CARTRIDGE

It is a good idea to thoroughly wash the nozzle, cartridge and plunger parts as they may have contaminates from the manufacturing process.

These components directly contact the chocolate and should be cared for like any other food contact items in your kitchen.



M6 Thumb Screw

COCOA PRESS

NEXT STEPS

Congratulations! You made it through the assembly manual. At this point the next steps you likely need to take are software related.

Head on over to help.cocoapress.com to find detailed instructions for how to proceed!