

## HYPEROVA BUILD GUIDE

“We build precision with simplicity, so anyone can  
create the impossible.”

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VERSION 2025-09-09

Before beginning your build, please take a few minutes to carefully check all of the included hardware. Verifying your kit ensures a smooth assembly process and prevents delays caused by missing parts.

Included Hardware:

- M3x40 Countersunk Torx — 5 pcs
- M3x10 Countersunk Torx — 3 pcs
- M3x20 Button Head Torx — 4 pcs
- M3x12 Countersunk Torx — 4 pcs
- M3x8 Button Head Torx — 5 pcs
- M3x26mm Standoff — 2 pcs
- M3x8 Countersunk Torx — 4 pcs
- M3x8 Ultra Low Profile Torx — 2 pcs
- M2.5x6 Button Head Torx — 8 pcs
- M2x10 Socket Head — 2 pcs
- M2.5x16 Countersunk Torx — 4 pcs
- M2.5 Heat-sets — 10 pcs
- M3 Heat-sets — 13 pcs
- M3 Hyper Sets — 3 pcs
- 4010 Fans — 2 pcs
- 2510 Hyper Fan — 1 pcs
- Top Plate HN-TTPU — 1 pcs
- Bottom Plate HN-BPU — 1 pcs

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## HYPEROVA PRINT GUIDE

Use the following print settings in your slicer of choice

### 3D PRINTING PROCESS

Fused Deposition Modeling (FDM)

### INFILL TYPE

Grid, Gyroid, Honeycomb, Triangle or Cubic

### MATERIAL

ABS/ASA

### INFILL PERCENTAGE

Recommended: 50%

### LAYER HEIGHT

Recommended: 0.2mm

### WALL COUNT

Recommended: 4

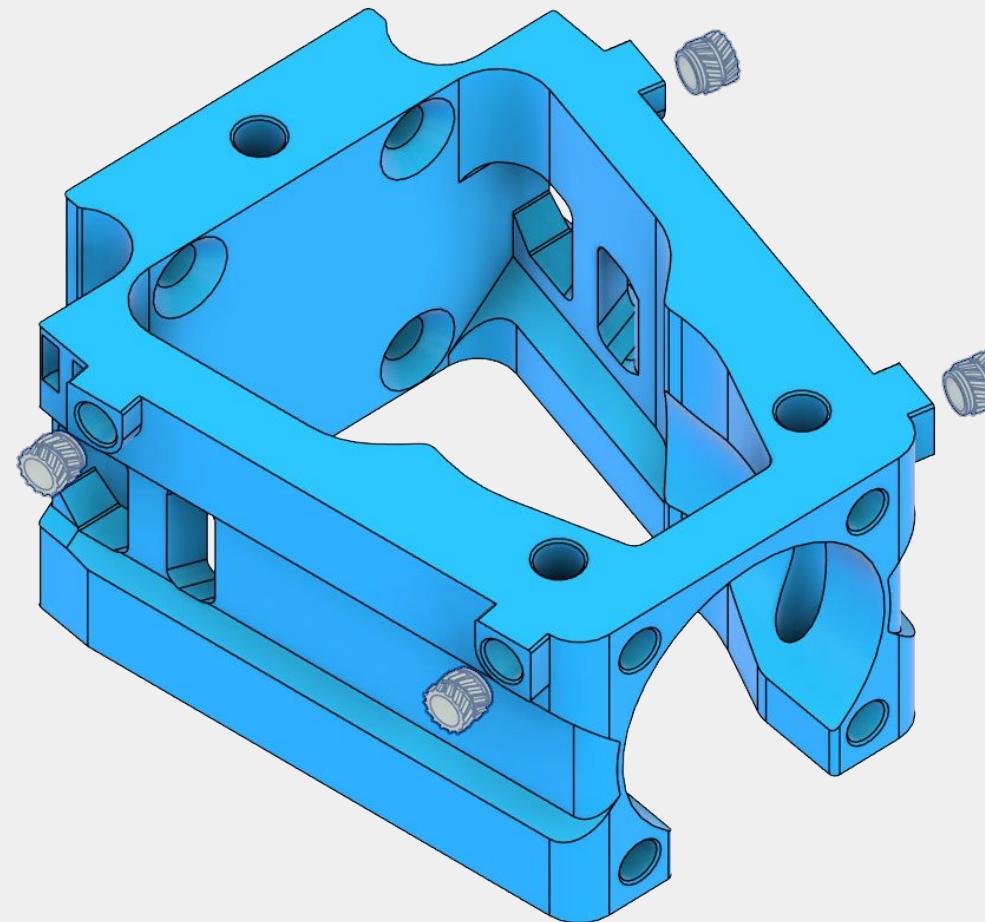
### EXTRUSION WIDTH

Recommended: Forced 0.4mm

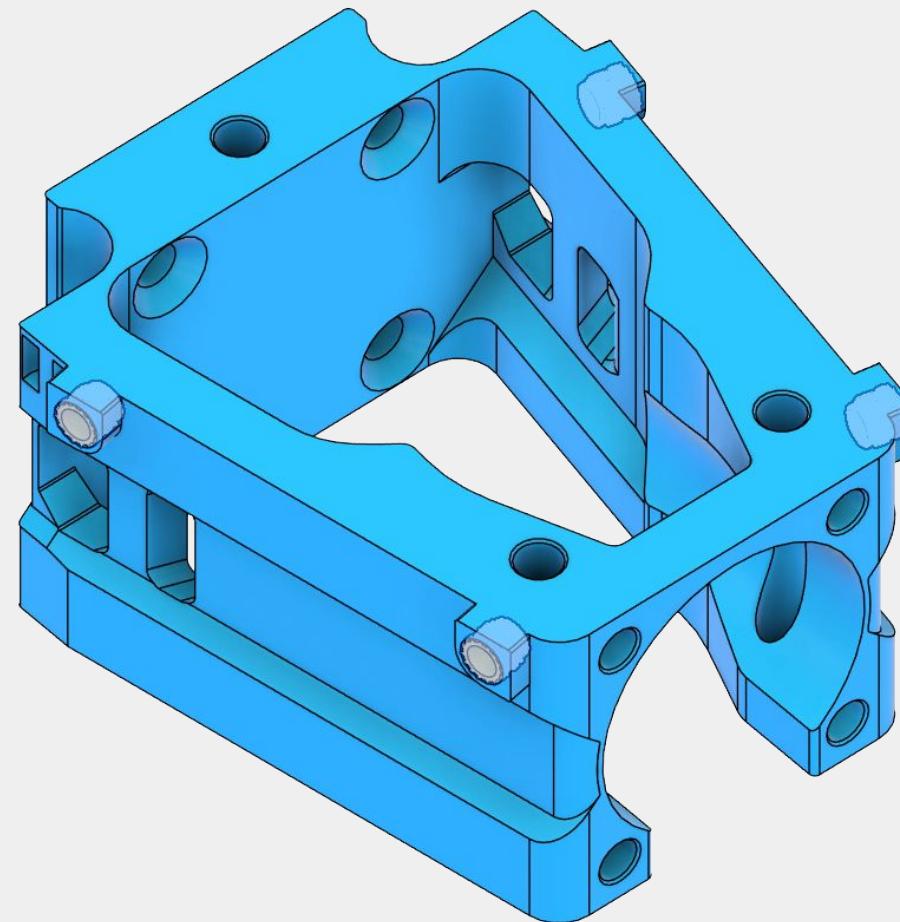
### SOLID TOP/BOTTOM LAYERS

Recommended: 5

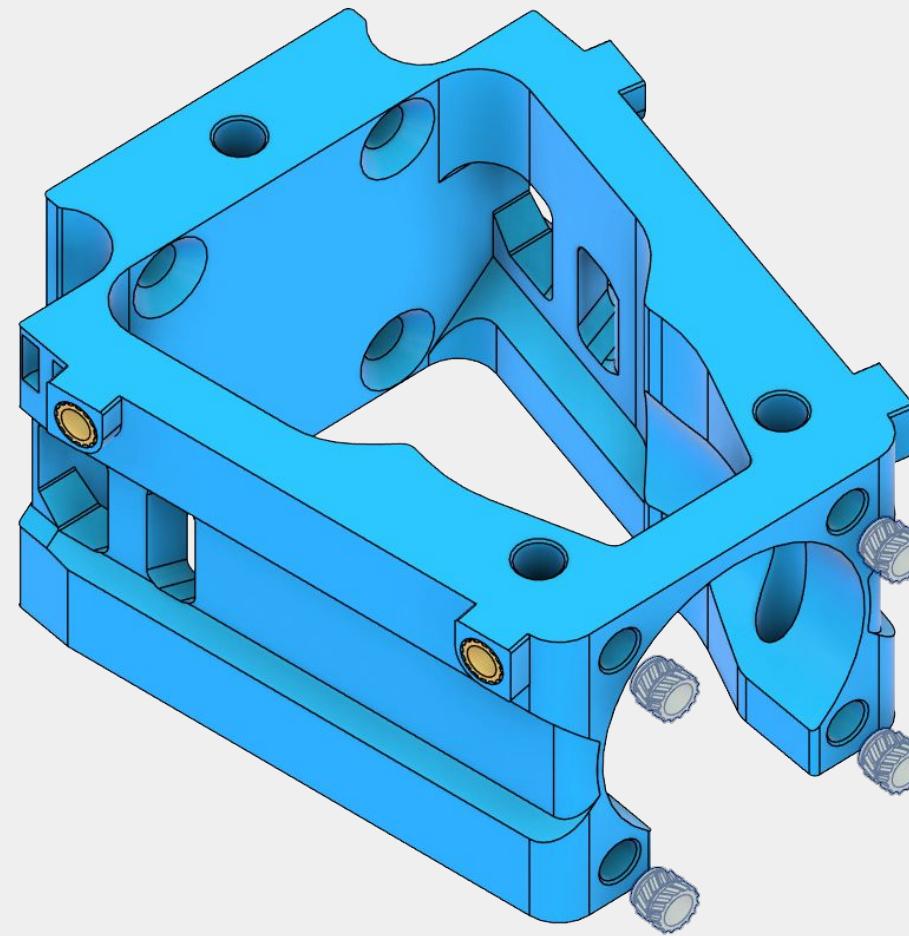
Melt in all four M2.5  
heat sets in the side  
core, use 250°C to not  
over melt the plastic.



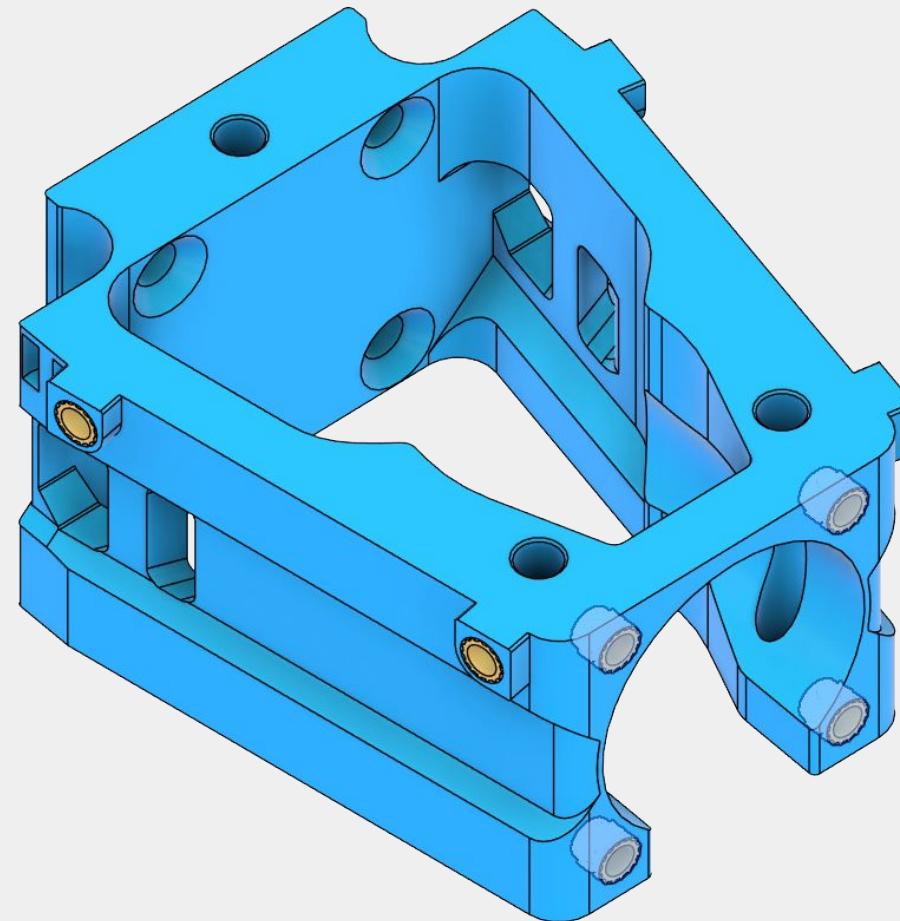
Make sure the heat sets  
are flush and install not  
at an angle.



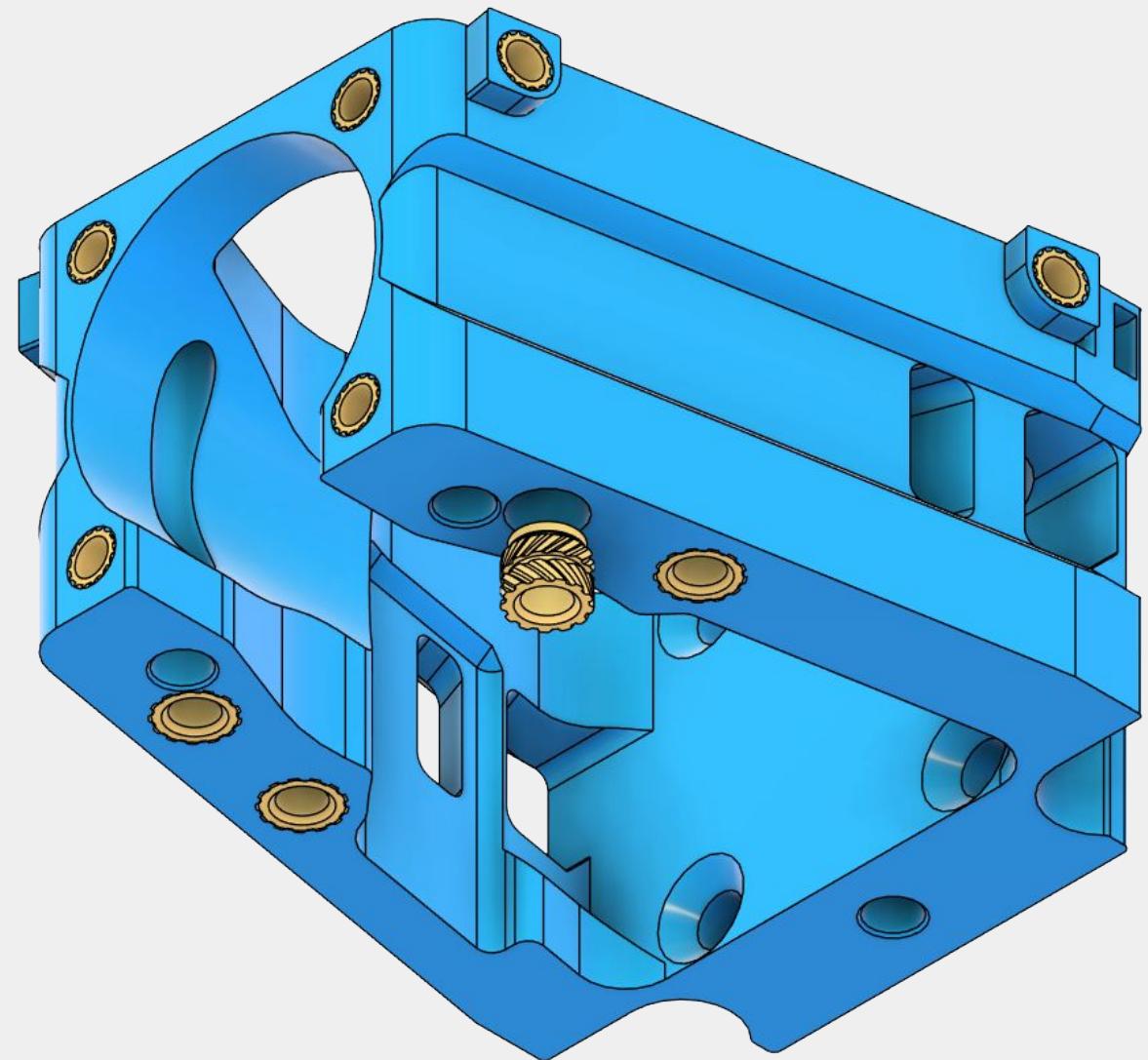
Melt in all four M2.5  
heat sets in the front of  
the core, use 250 C to  
not over melt the plastic.

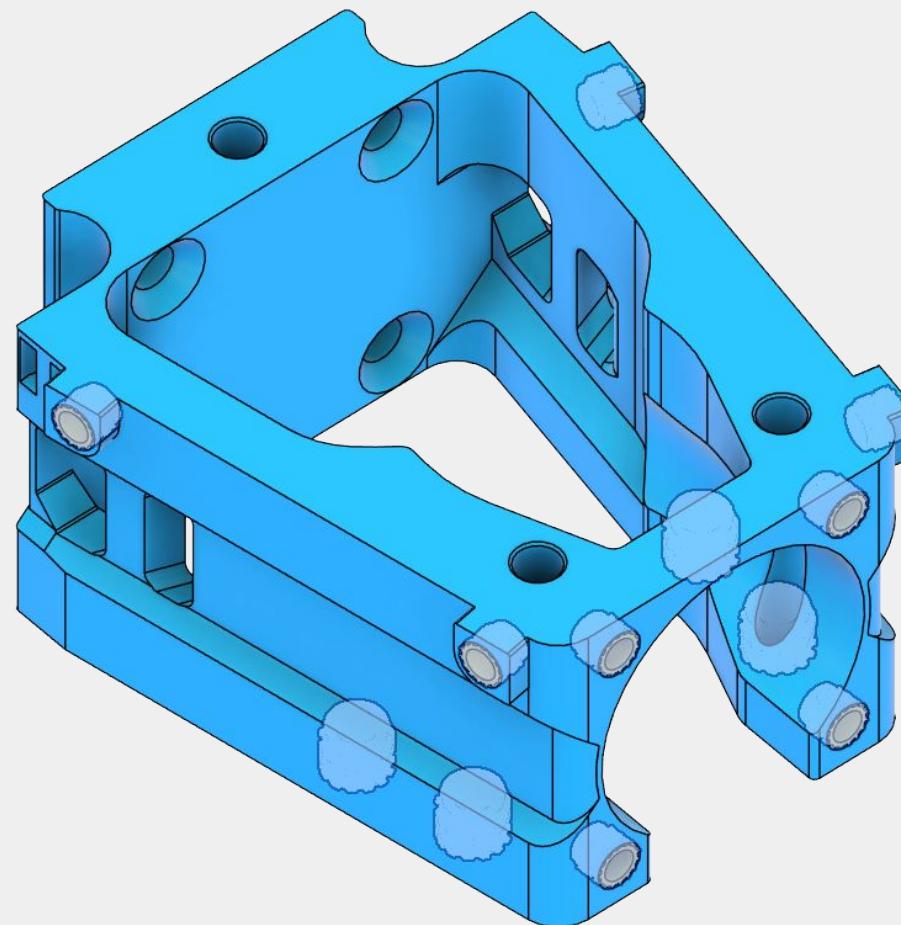


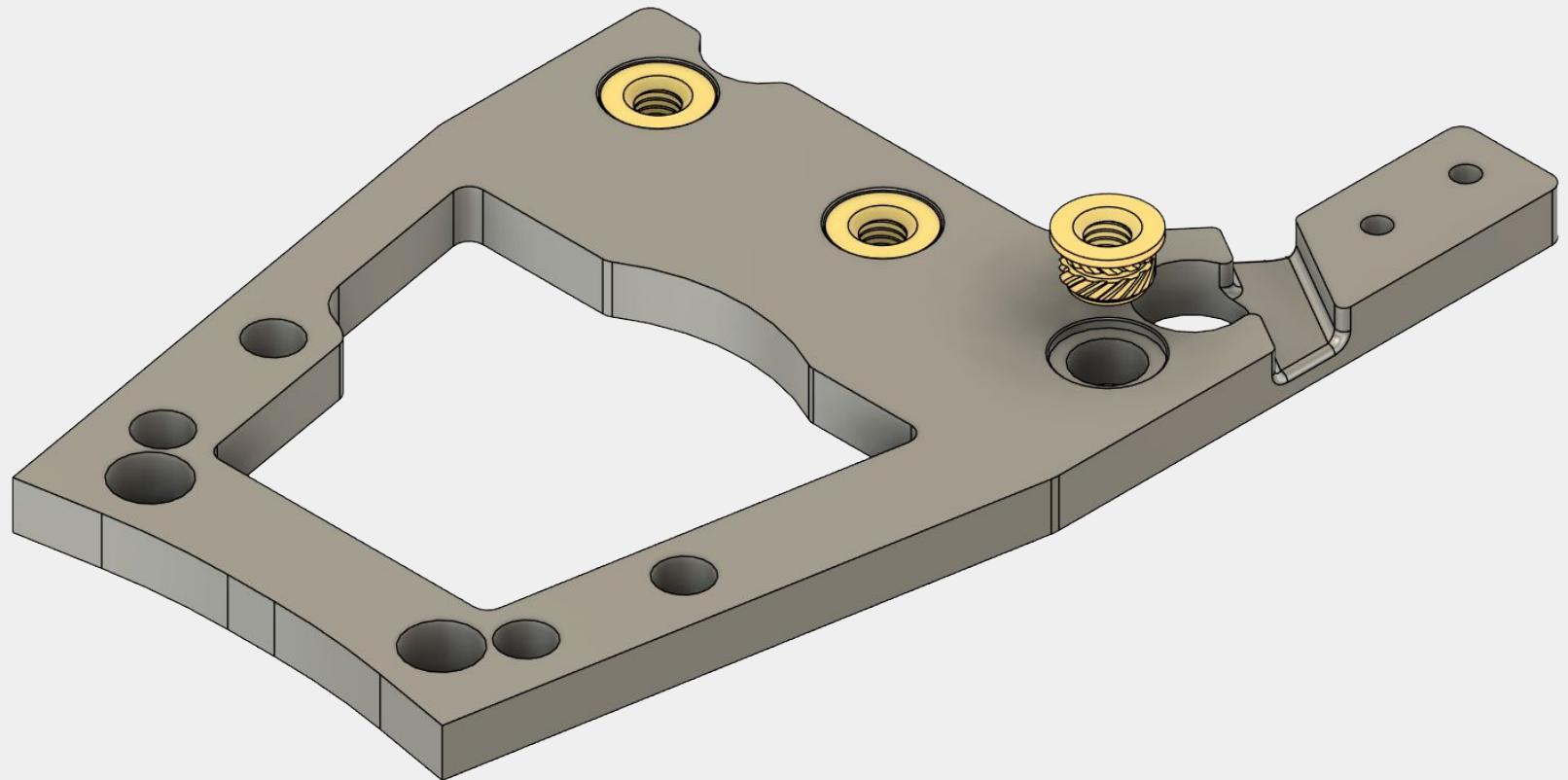
Make sure the heat sets  
are flush and install not  
at an angle.



Install four M3 heat-sets into the core.

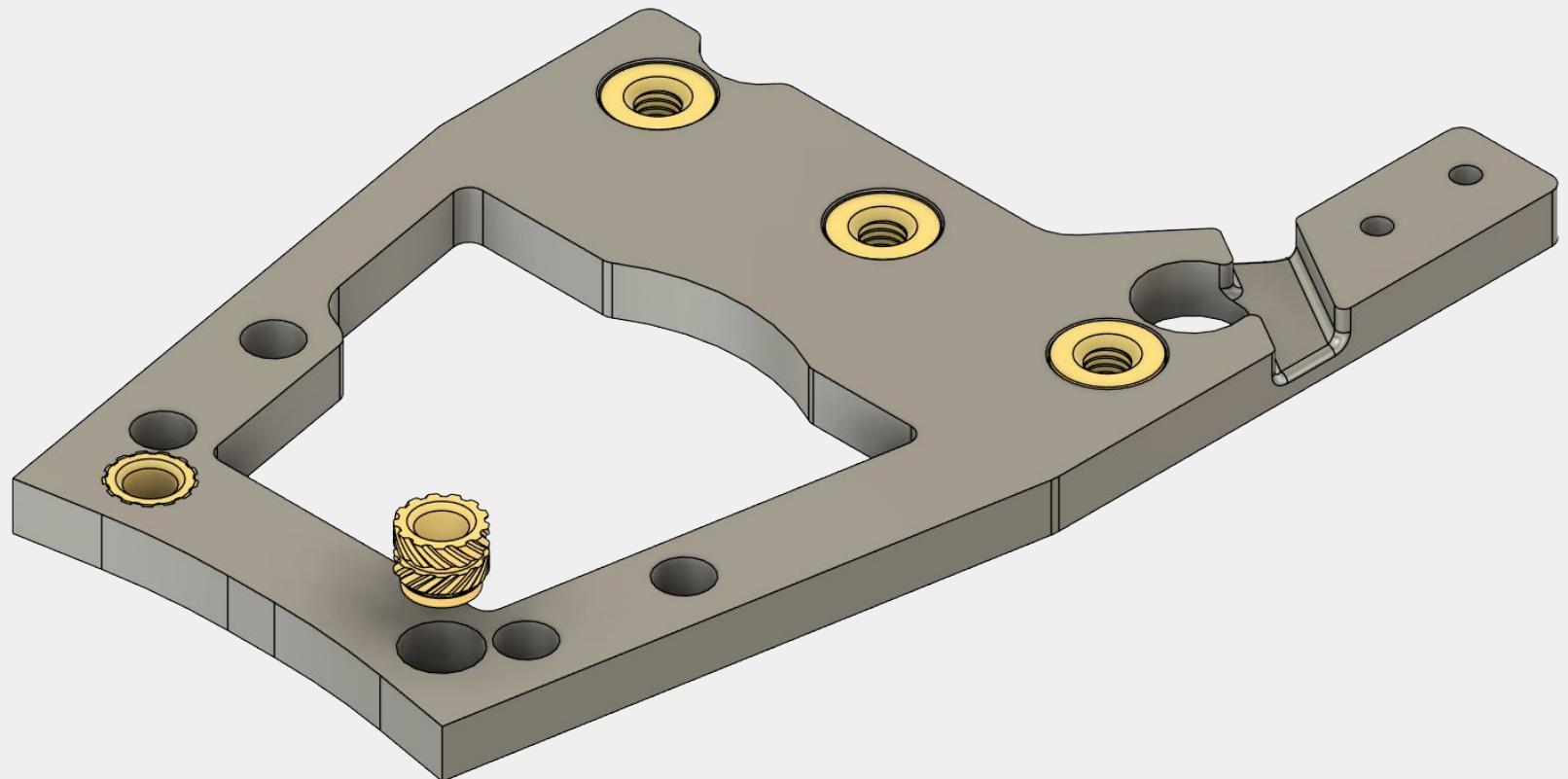




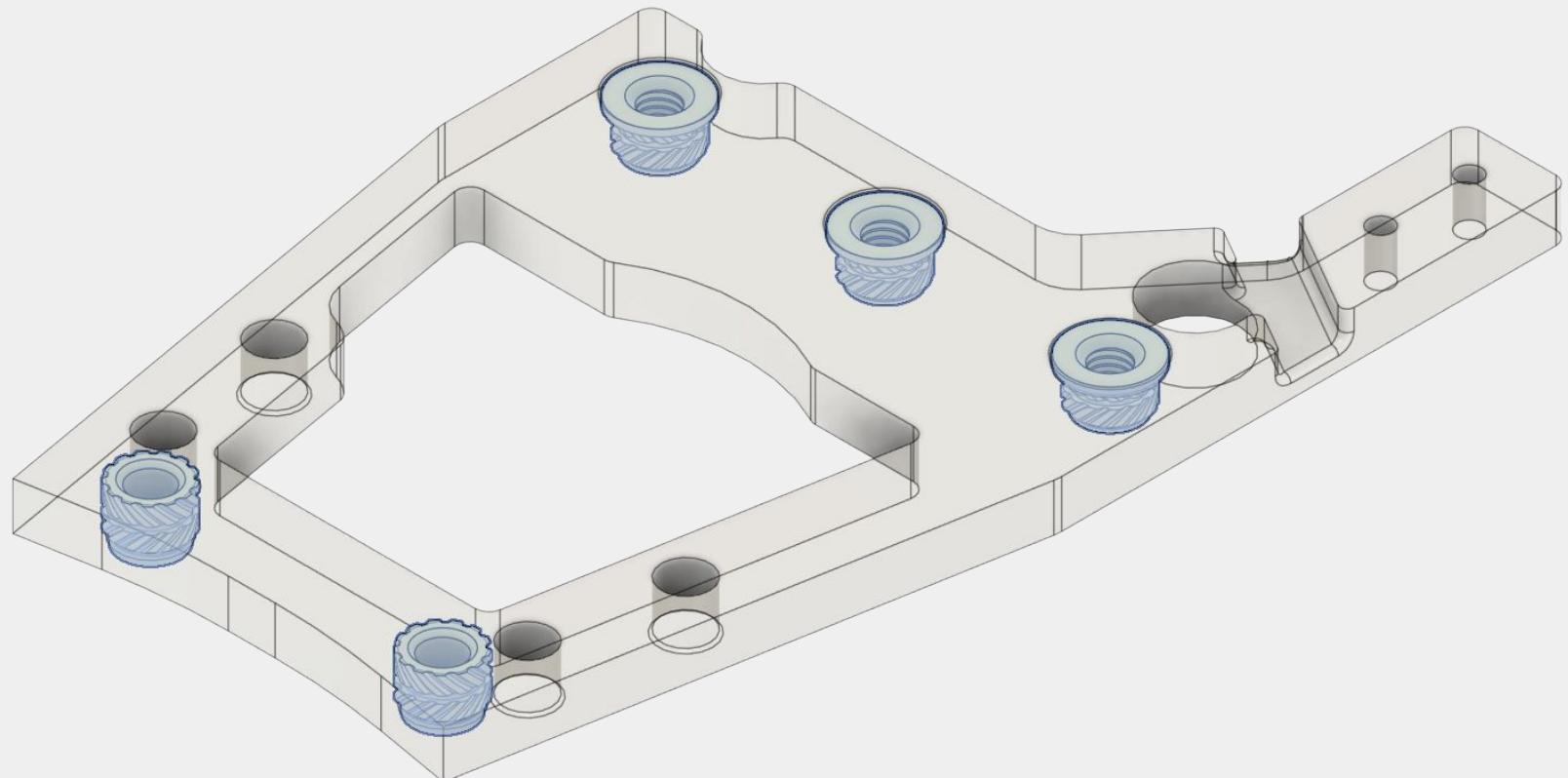


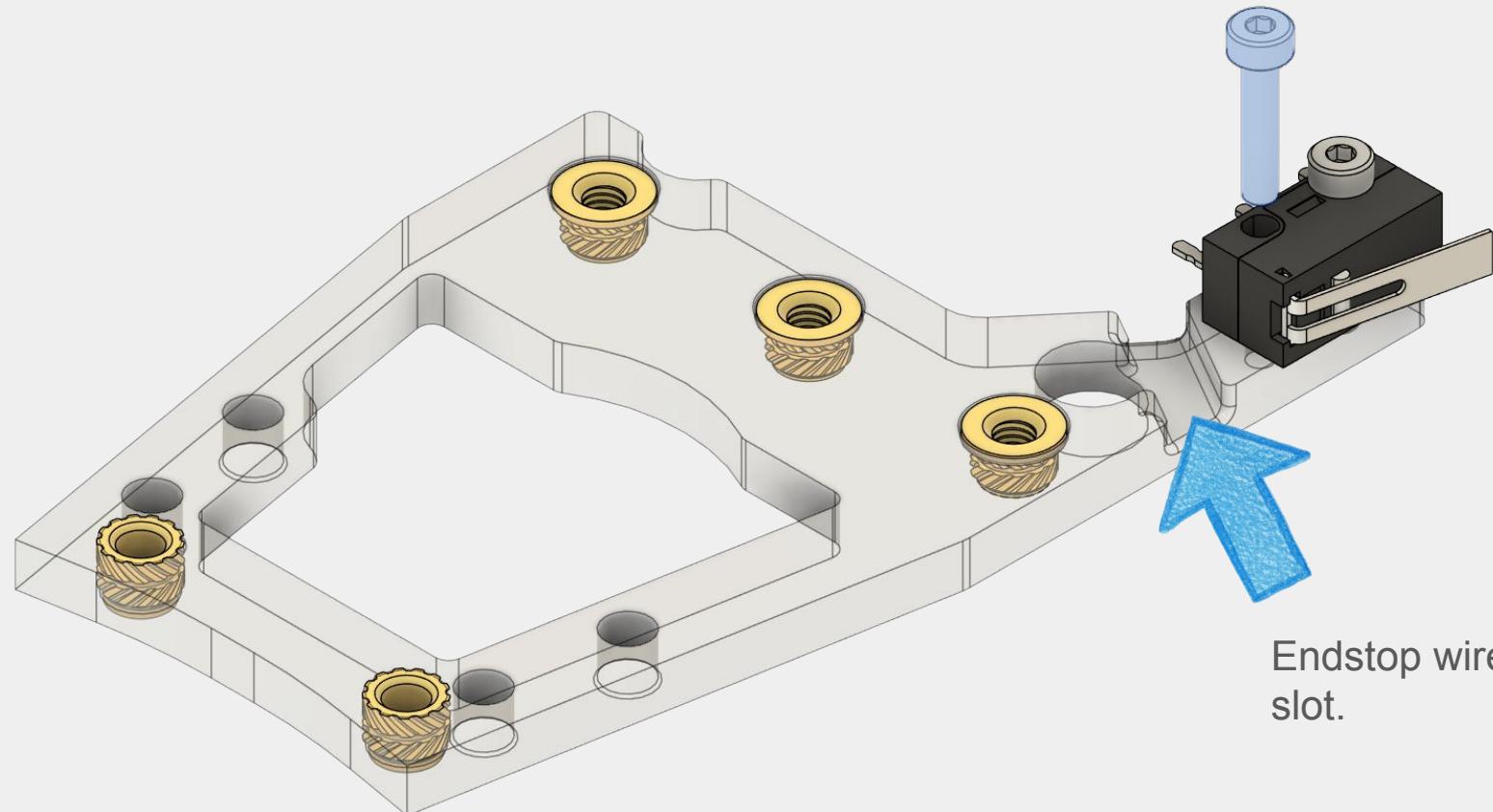
Note: HYPERSETS™ are a flanged form of a heat set insert.

Three-HYPERSETS



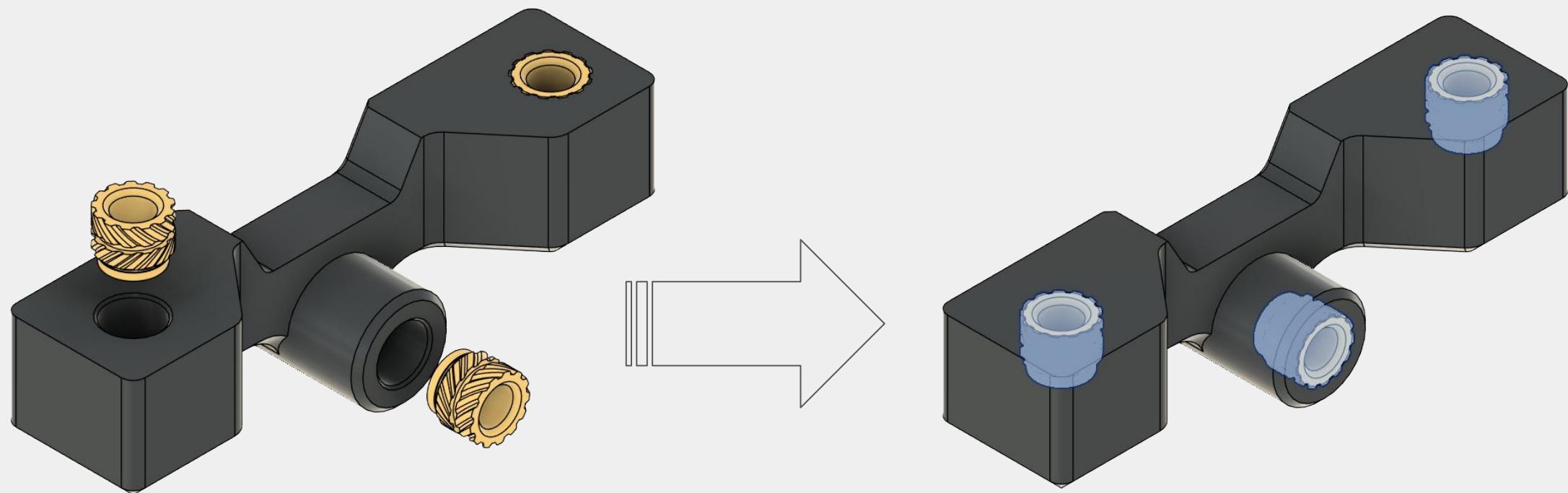
2-M3 HEATSETS



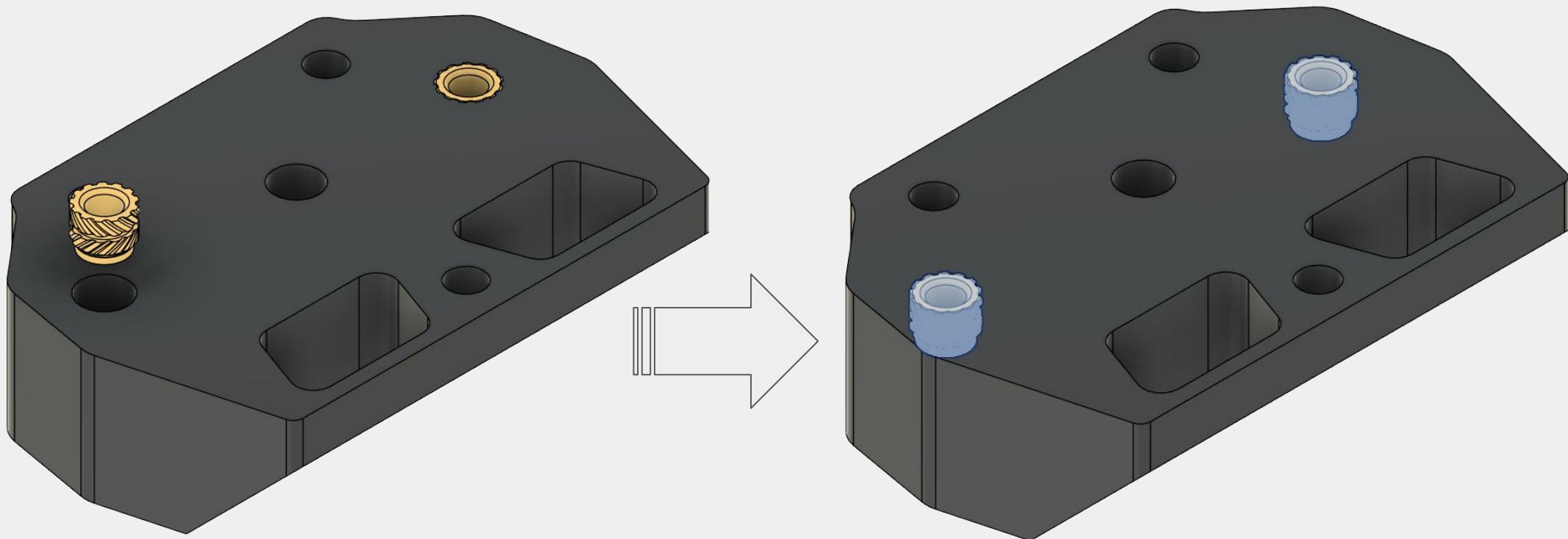


Endstop wires go in this slot.

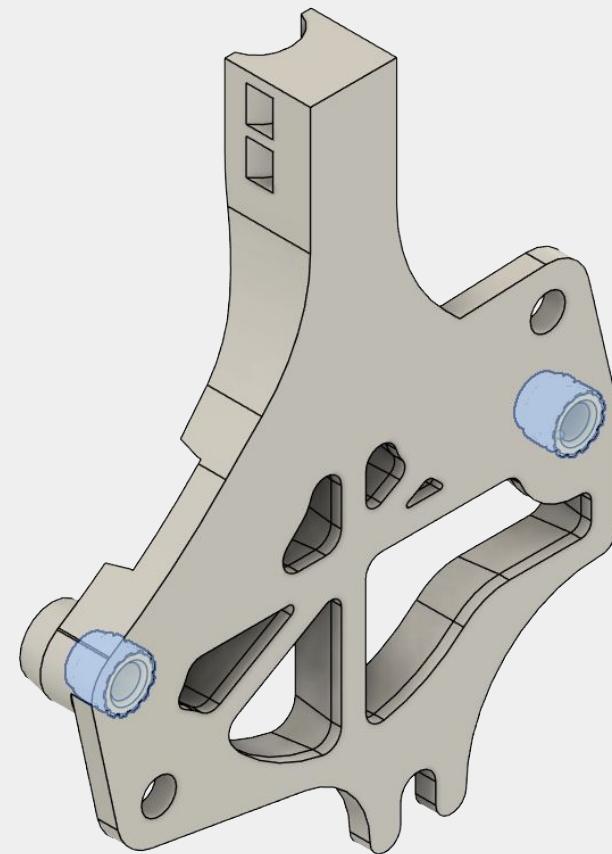
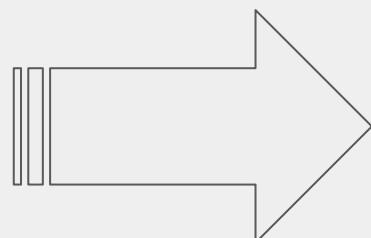
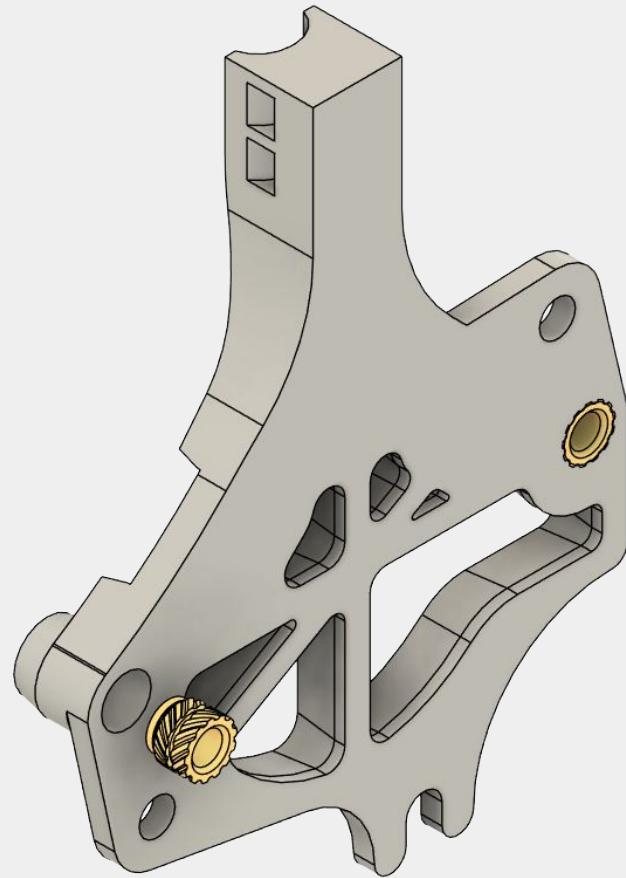
2-M2X10MM SHCS



Three-M3 heat-sets



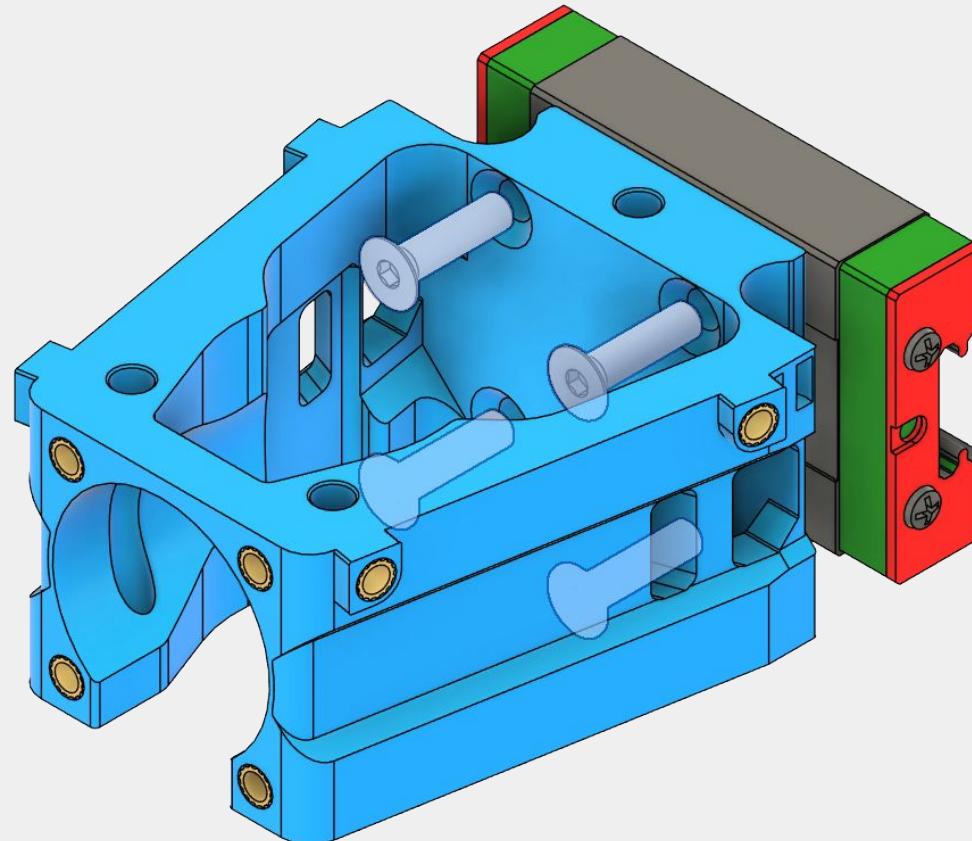
Two-M3 HEAT-SETS



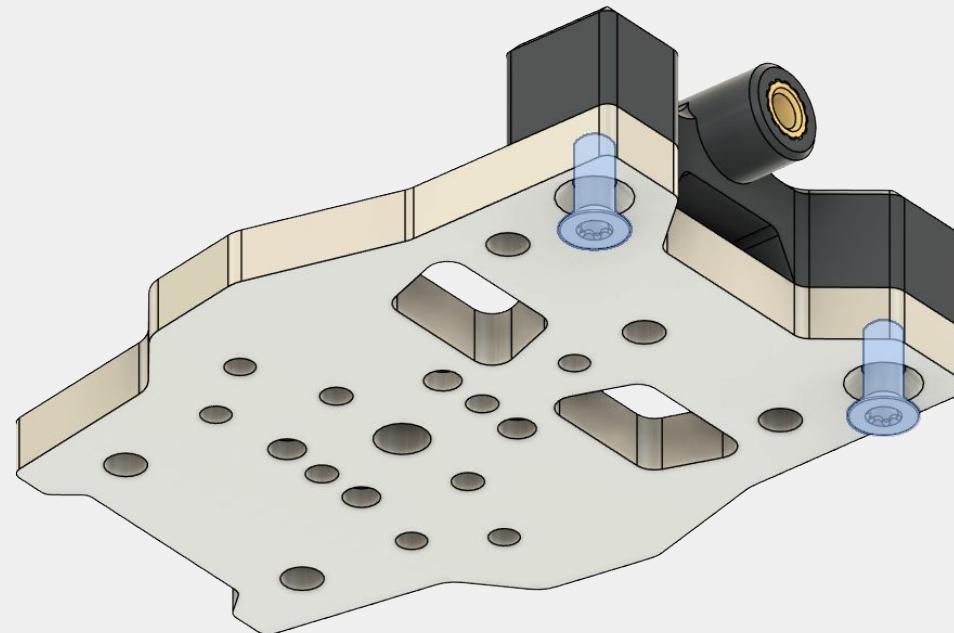
**Note:** Sherpa mini can mount does not need heat sets.

Two-M3 HEAT-SETS

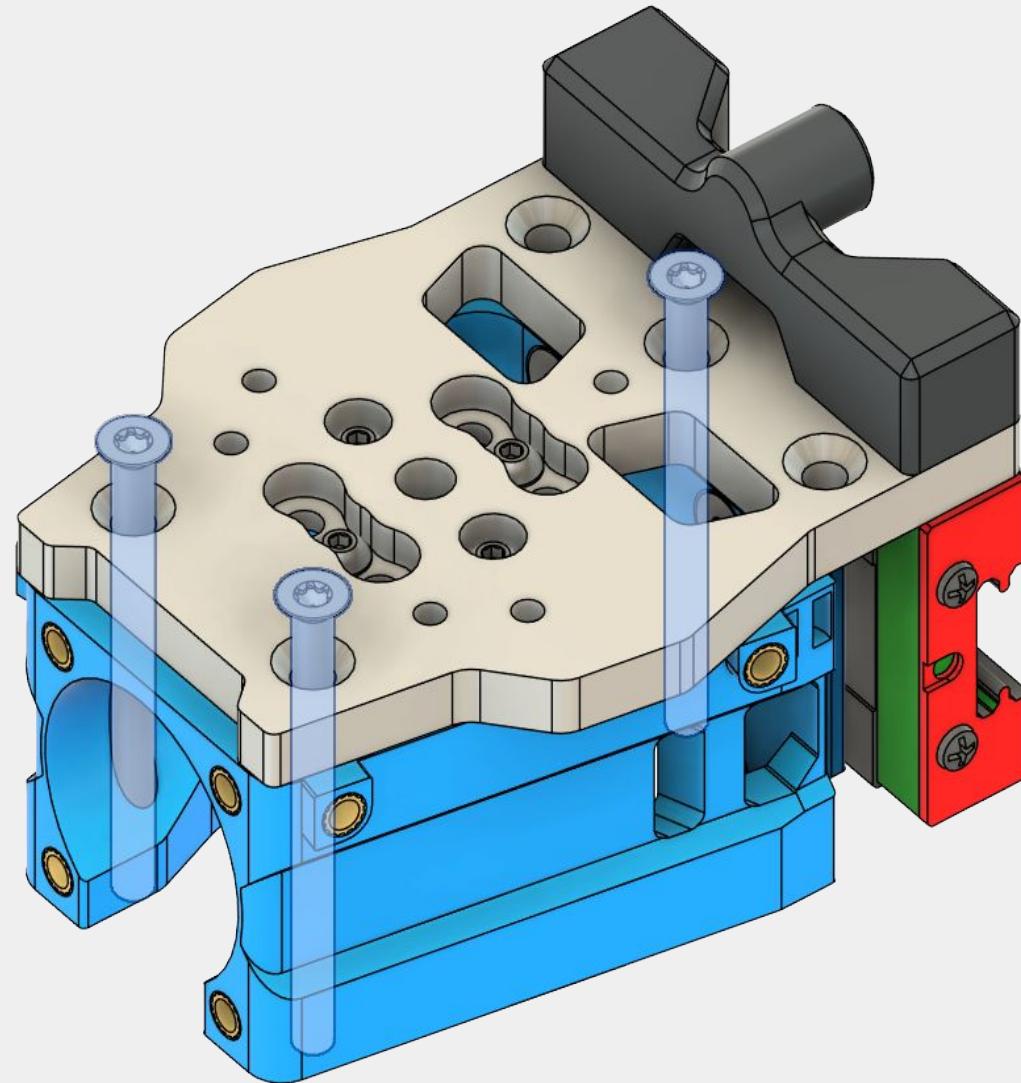
Mount core with  
four M3x12 screws.



Mount canbus brace  
with two M2x8  
countersunk screws.

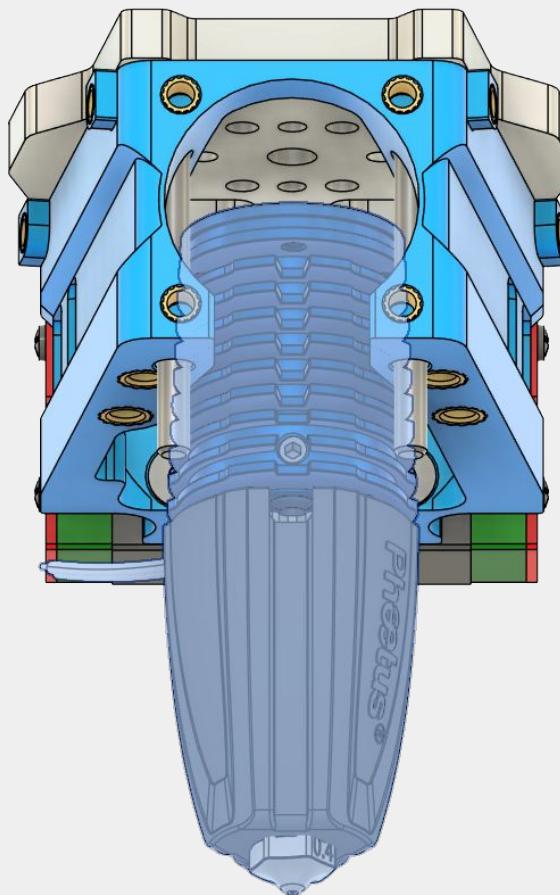


Insert three of the five  
M3X40mm countersunk  
Screw though the top  
plate.

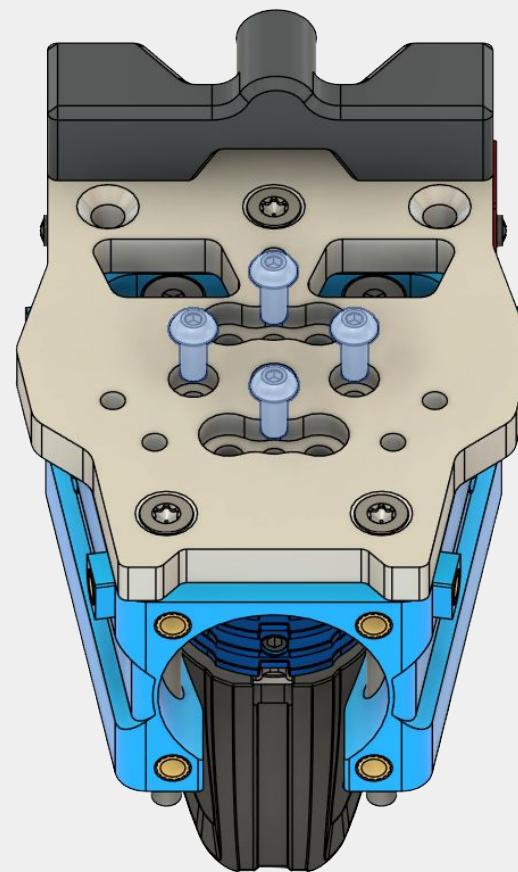


Align hotend into the core with wire exiting on the left.

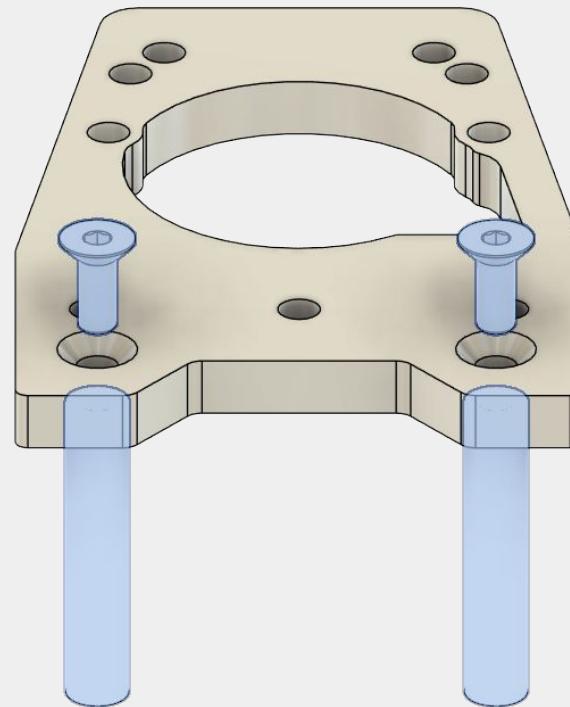
**Note:** you may need to rotate the Heat Block for the wire to exit to the correct position.



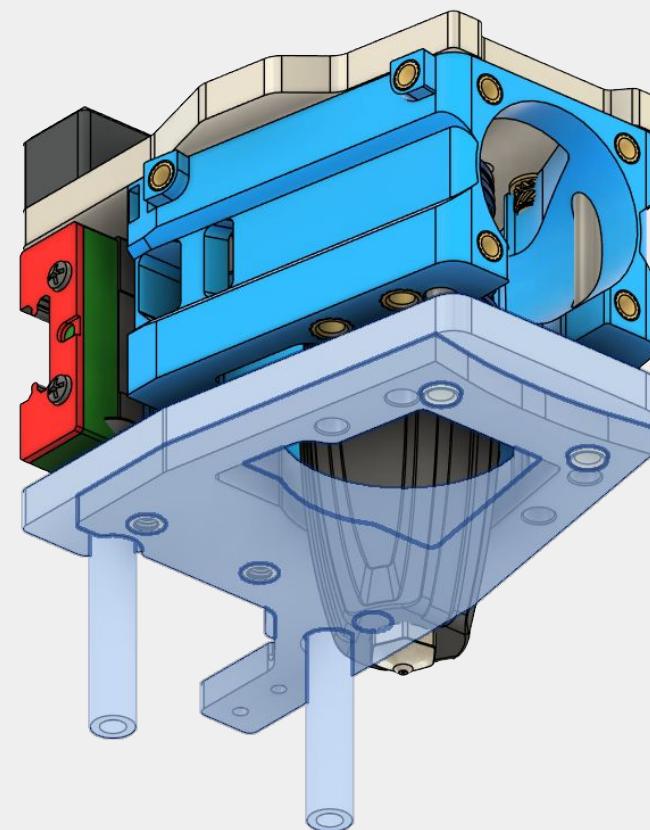
Mount Hotend with  
4 M2.5x6 screws.



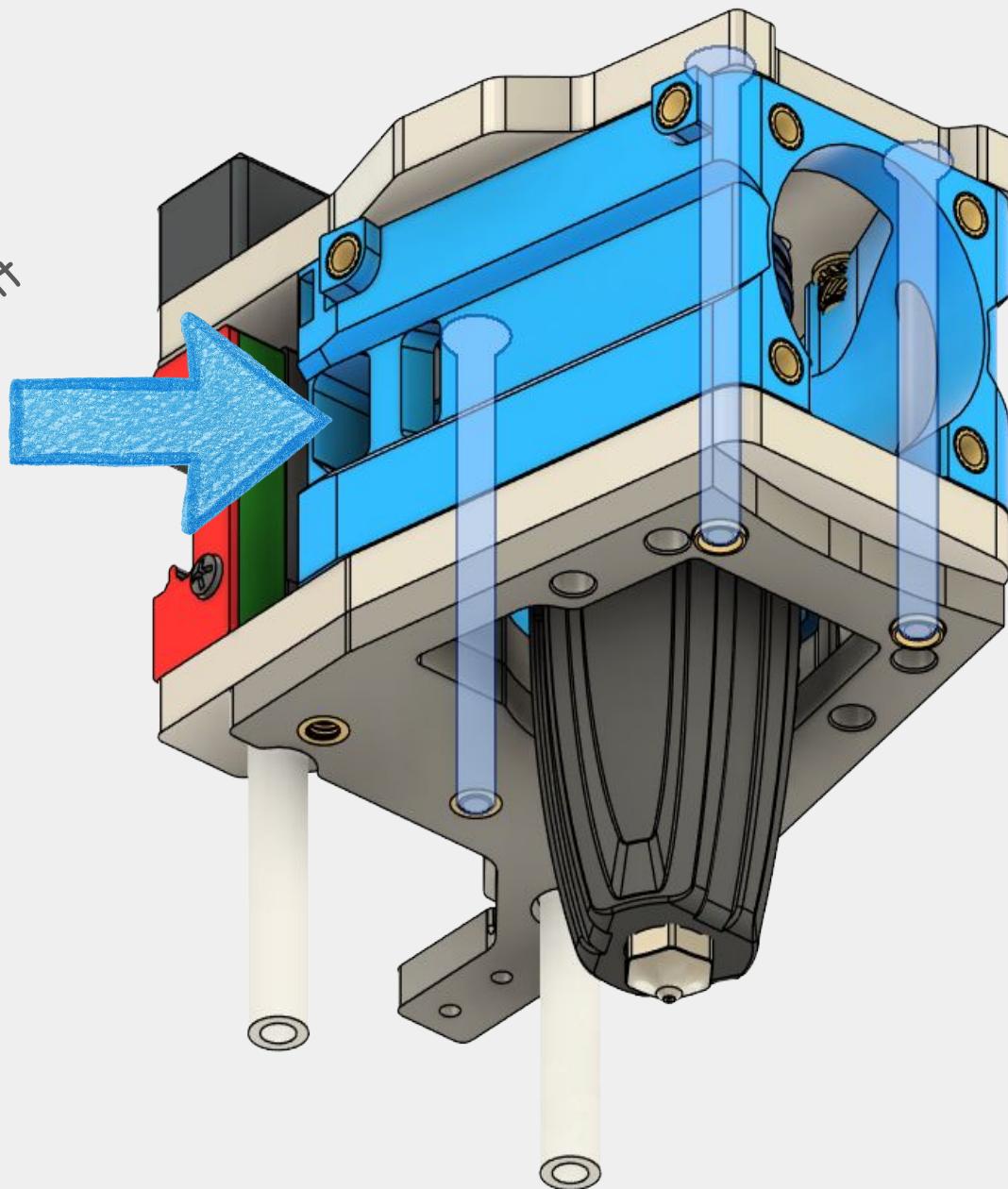
Install two M3X8  
countersunk torx  
into the beacon  
standoffs.



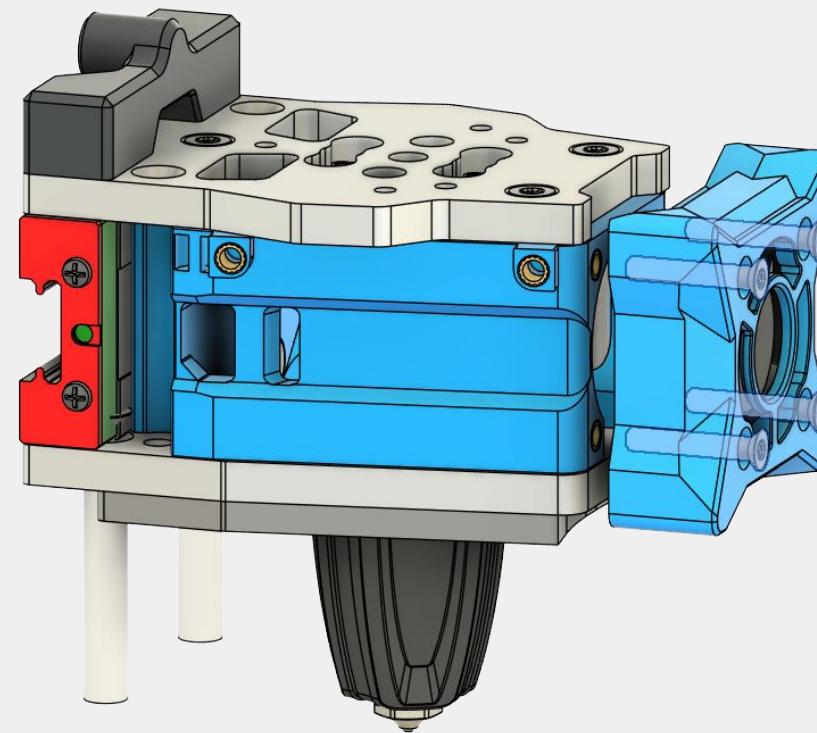
Position the bottom plate and spacer to the core.



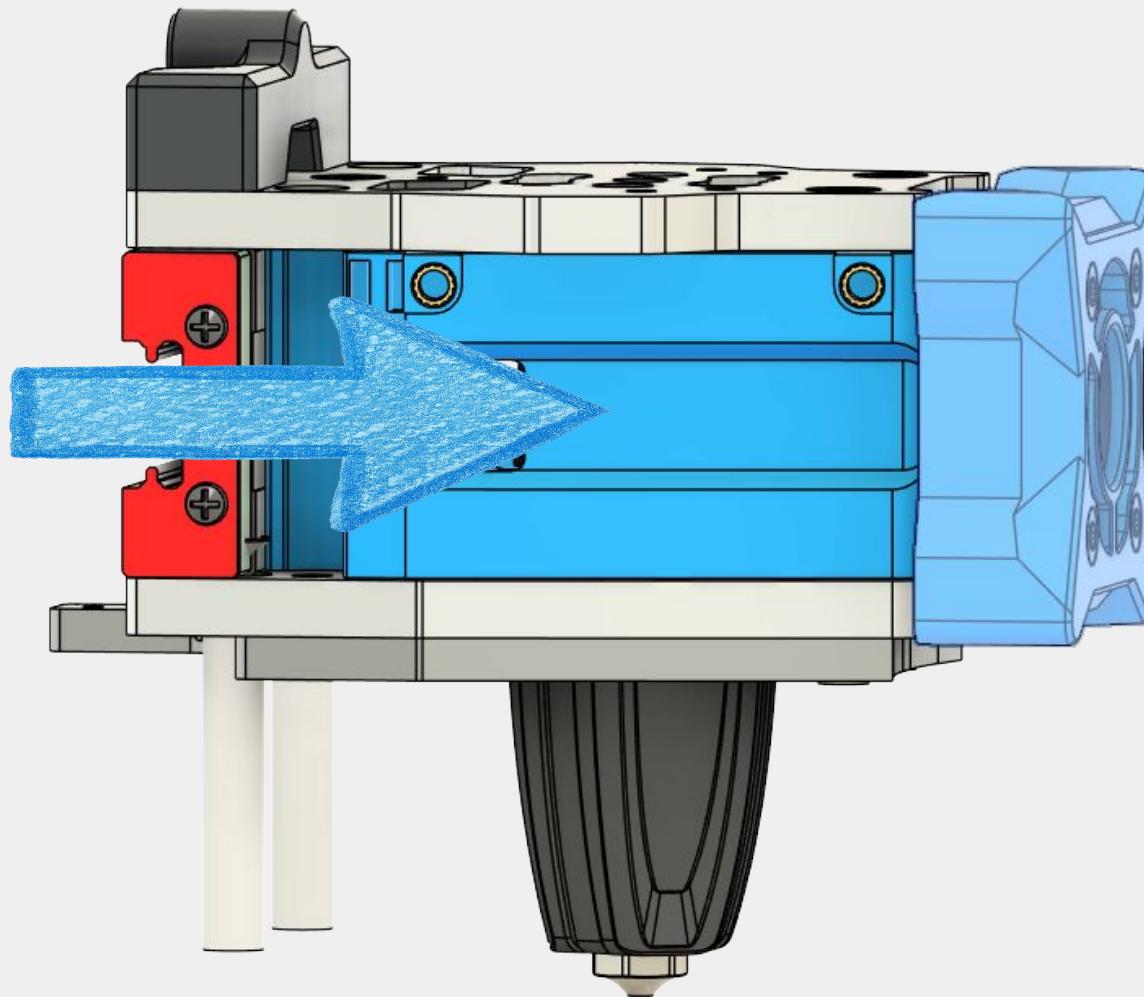
Hotend wires should exit  
here



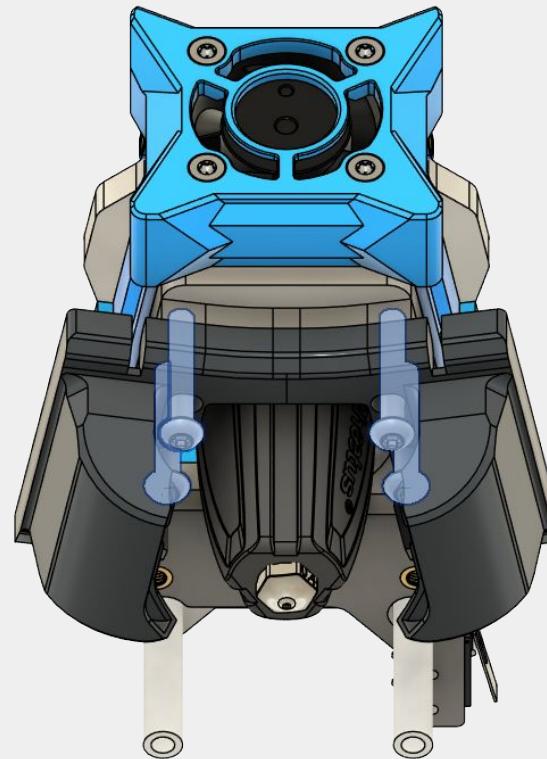
Install the 2510 fan in  
the cover then install  
four M2.5x16  
Countersunk Torx.



USE FOR FAN  
WIRES

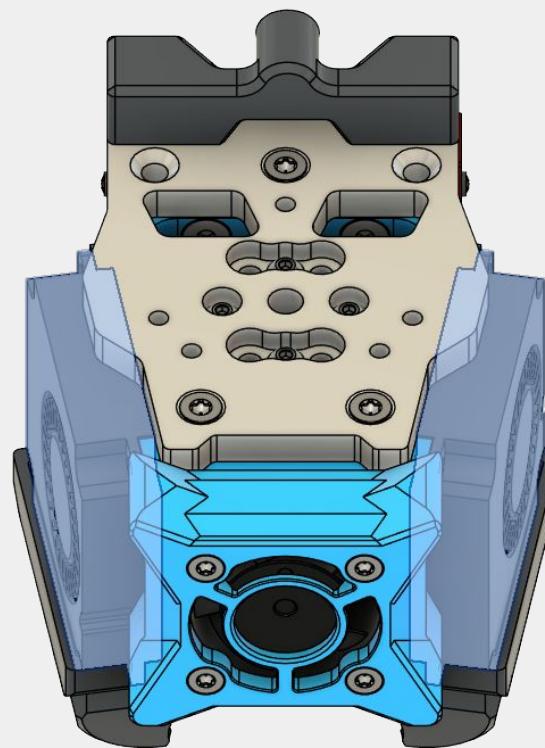


Install four M3x20  
button head Torx.

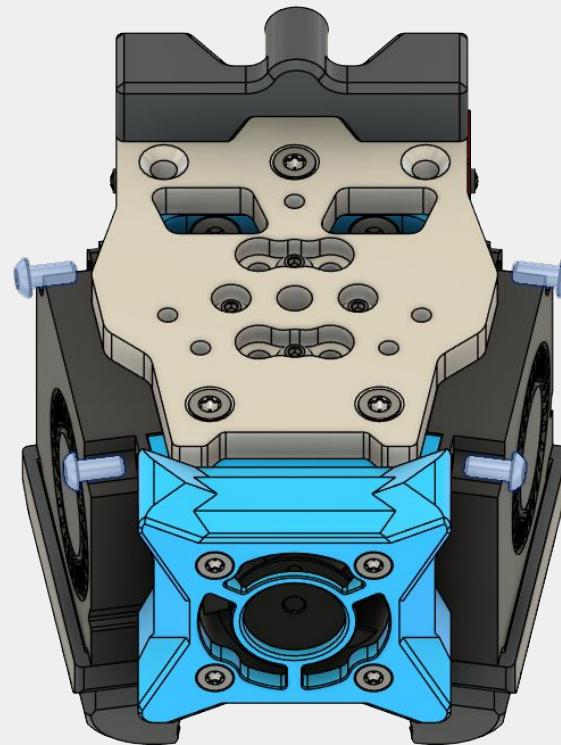


Angle the 4010 fans into the ducts first and press the fans into the core.

Note: you may need to loosen the fan duct screws for the fan to fit.

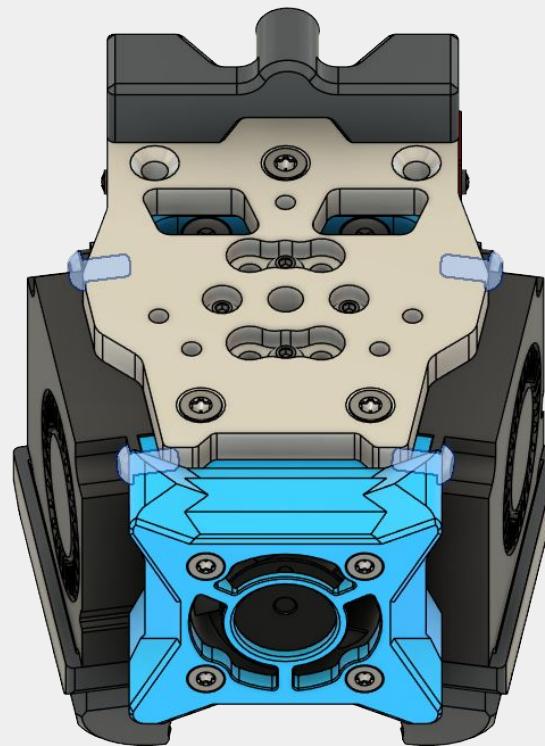


Install four M2.5x6  
Button Head Torx.

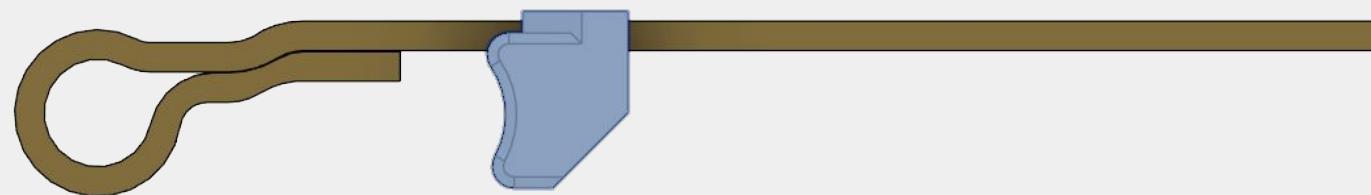


Finger tighten all four  
M2.5x6 Button Head  
Torx.

**Note:** don't over torque



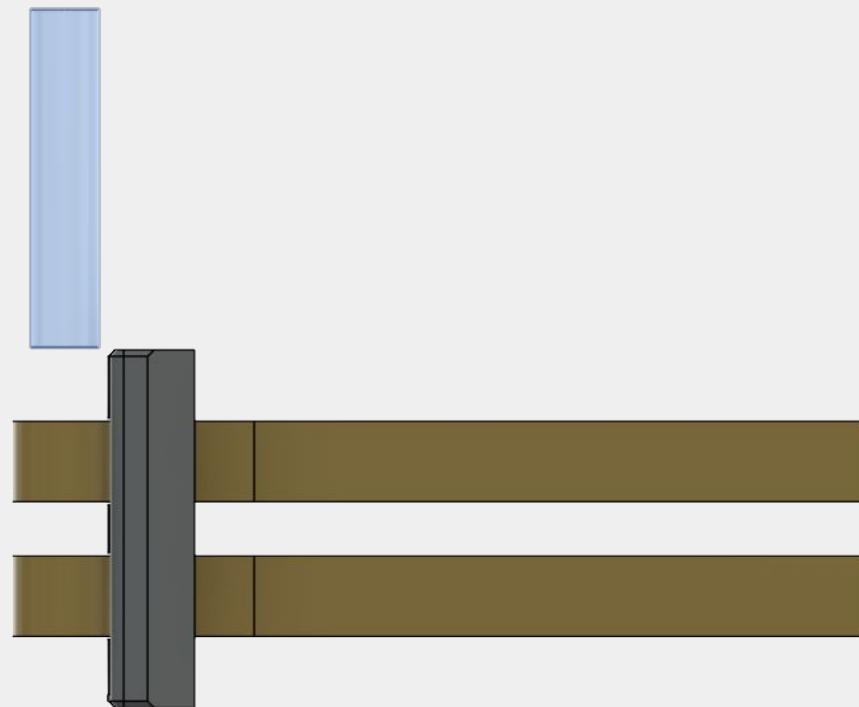
Insert the end of the belt into the belt tie then fold the belt the belt with the teeth together.



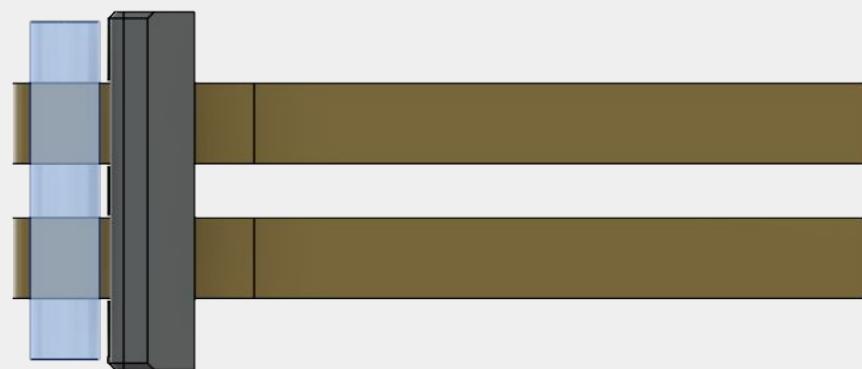
Slide the belt tie over  
the folded over belt  
loop.

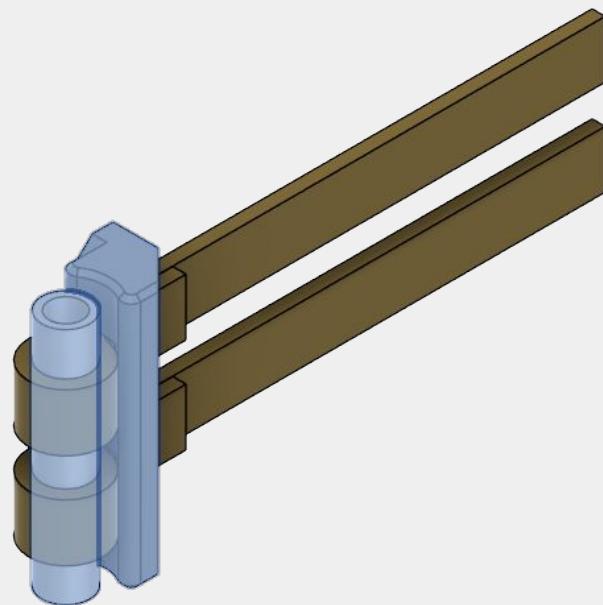


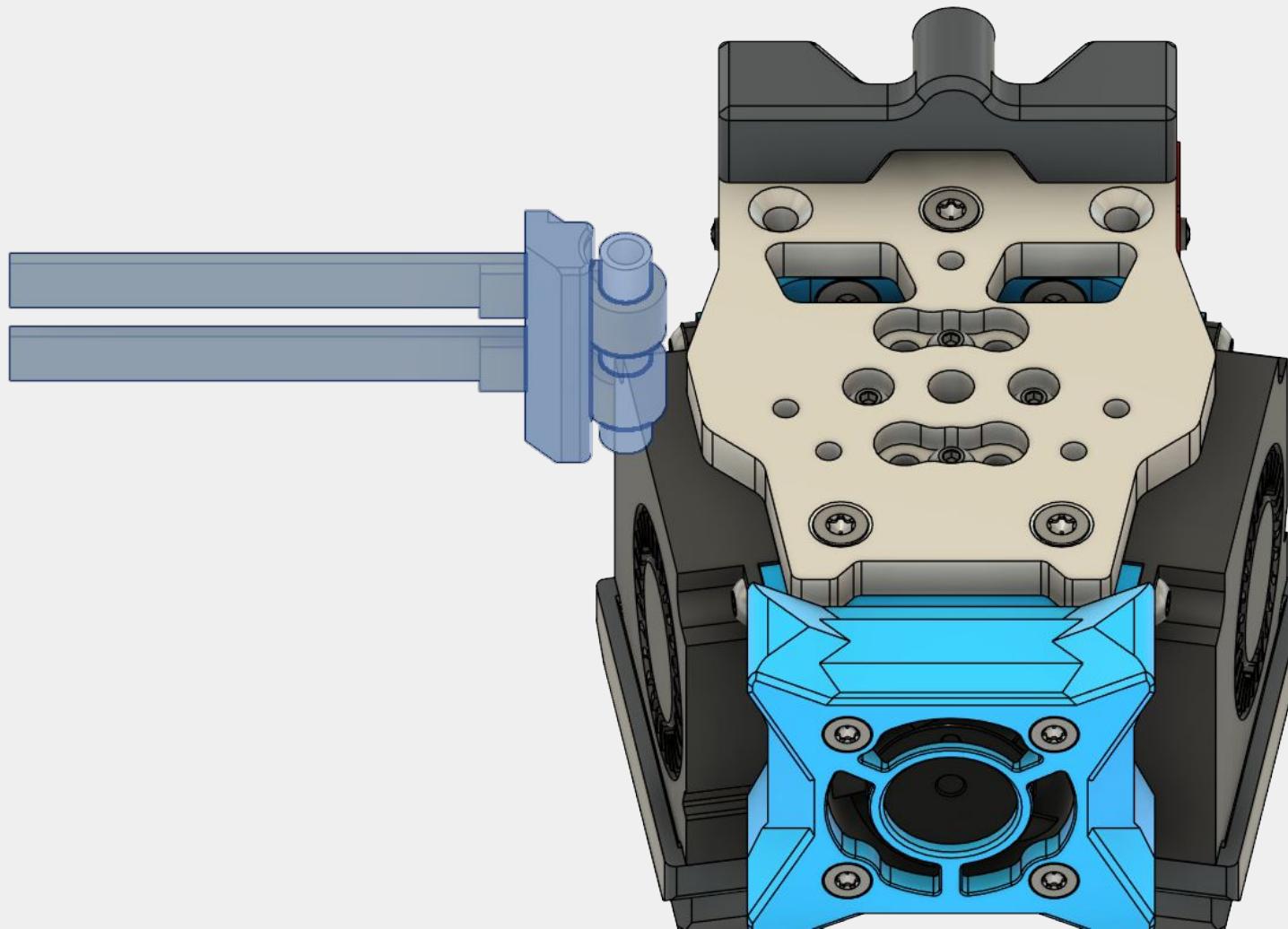
Slide the 25mm spacer  
through the belt loop.



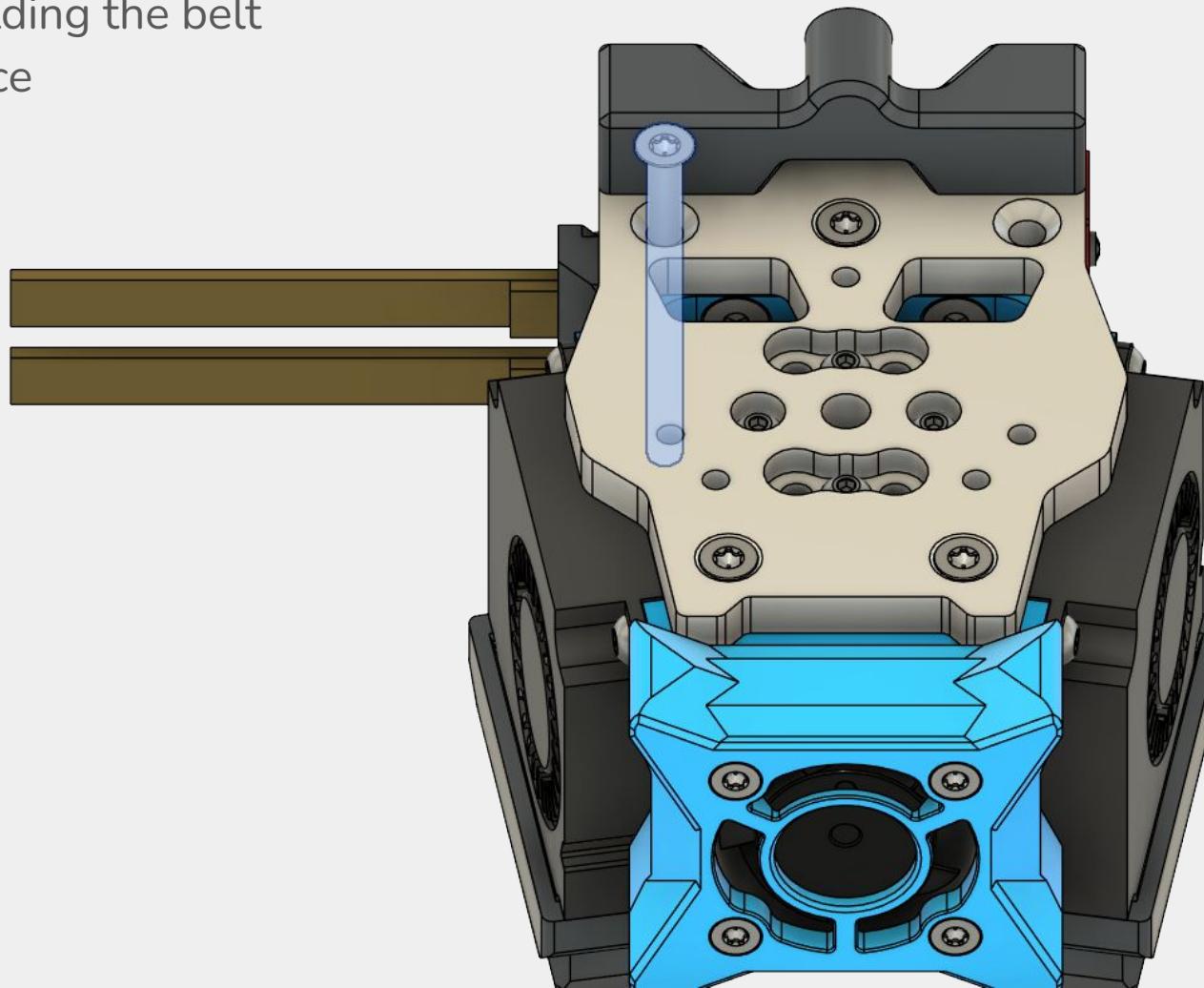
Center the spacer then  
pull the belts tight over  
the spacer.



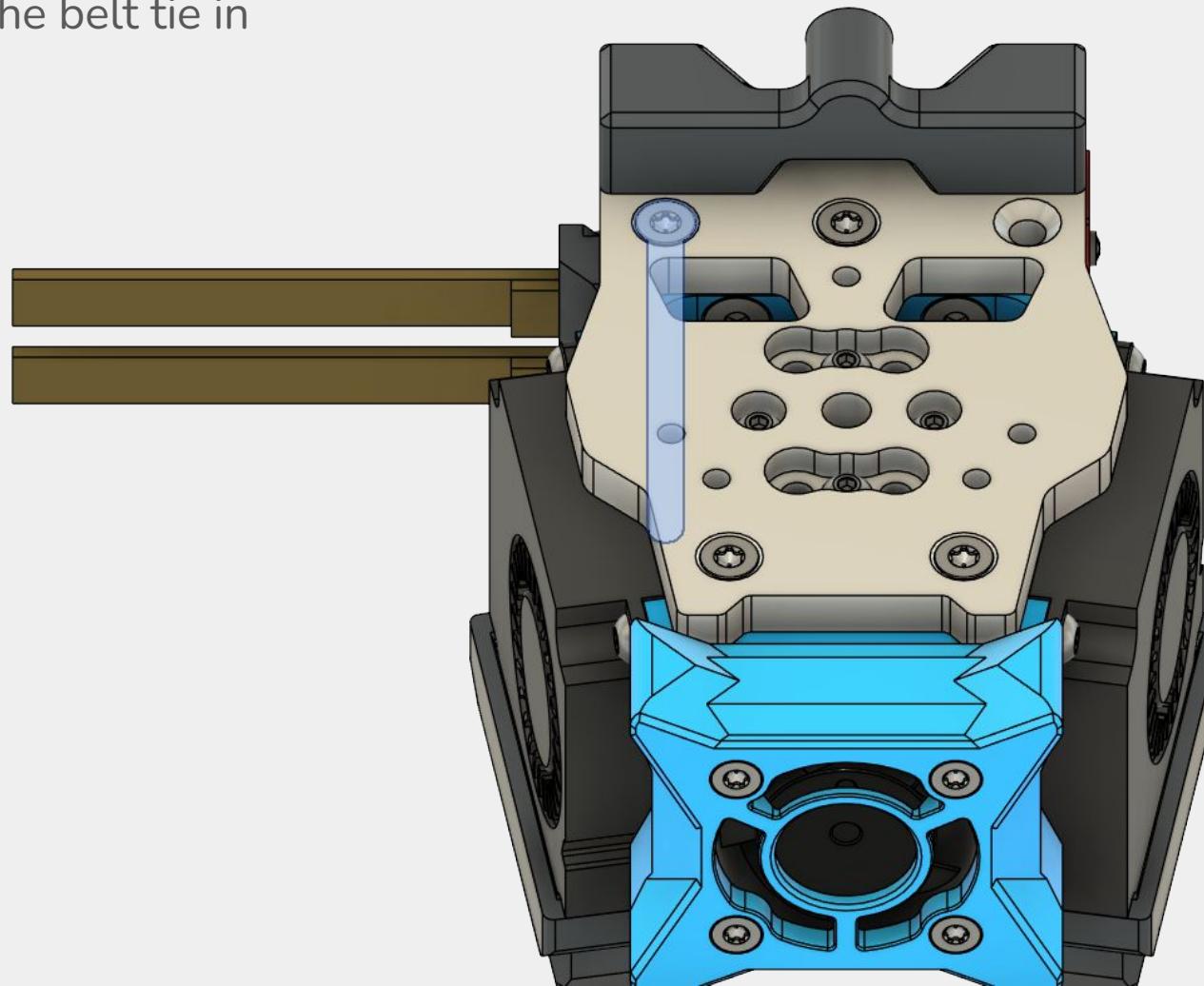


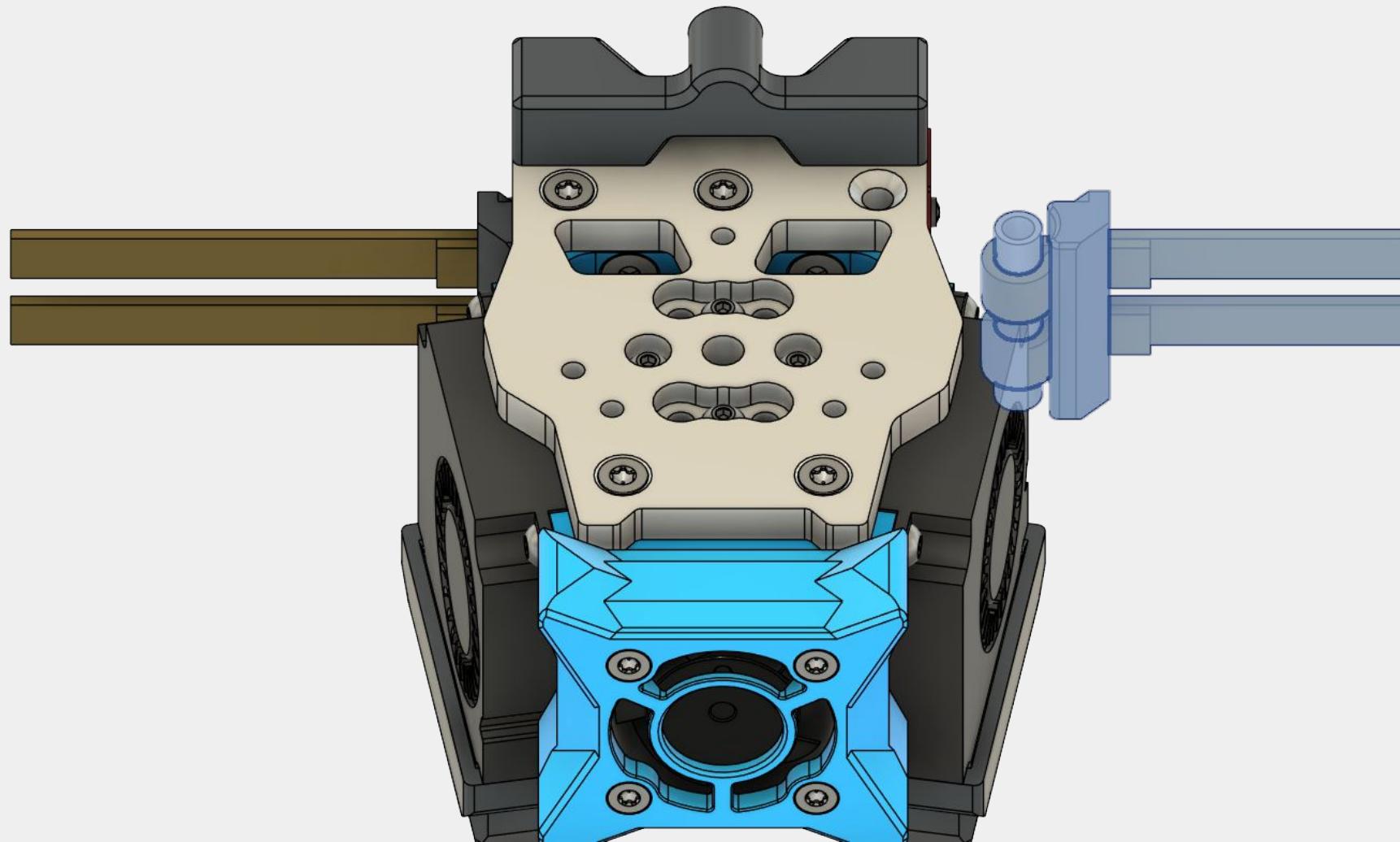


Insert a M3x40mm  
countersunk Torx  
while holding the belt  
tie in place

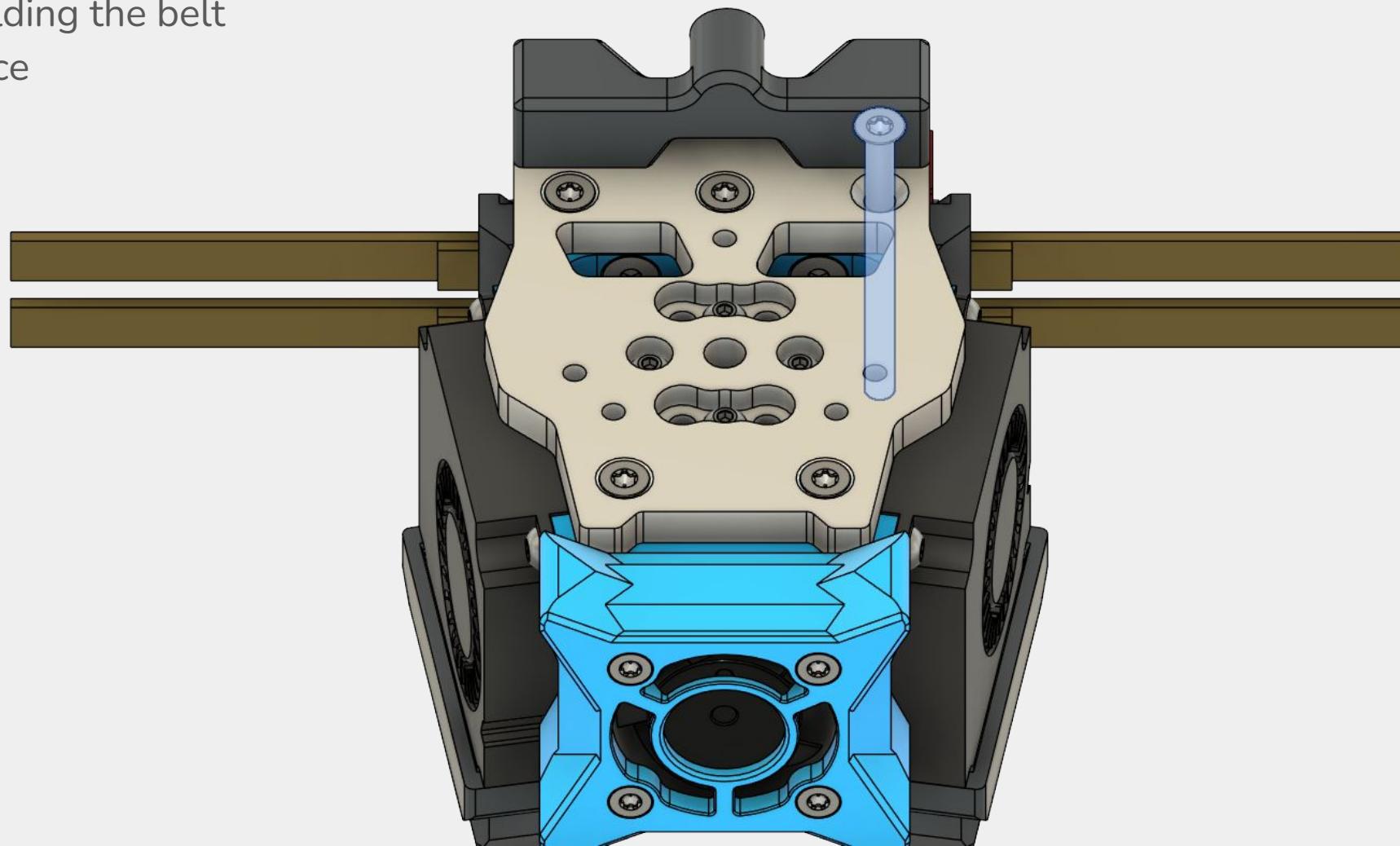


Tighten the M3x40mm countersunk Torx while holding the belt tie in place

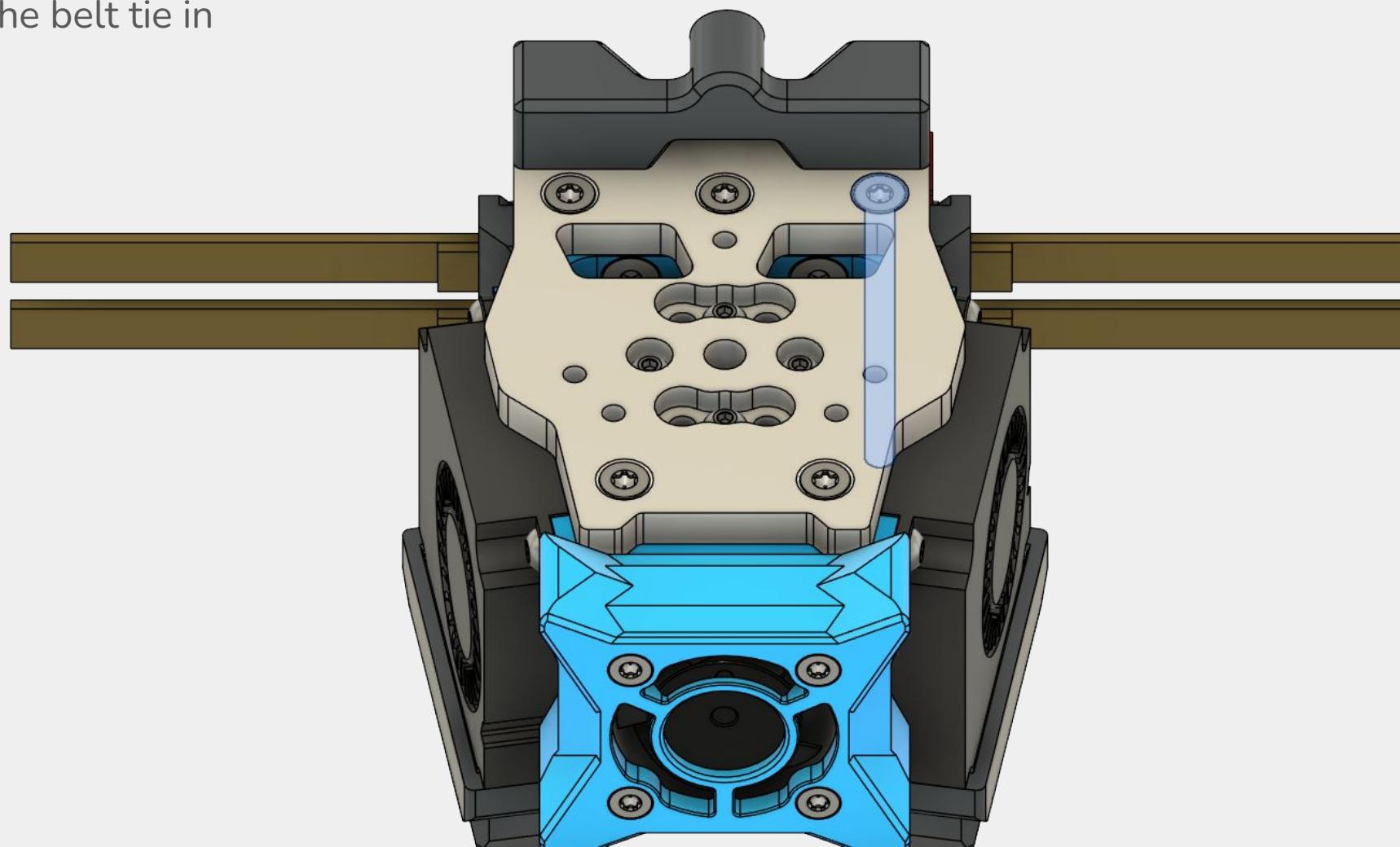




Insert a M3x40mm  
countersunk Torx  
while holding the belt  
tie in place

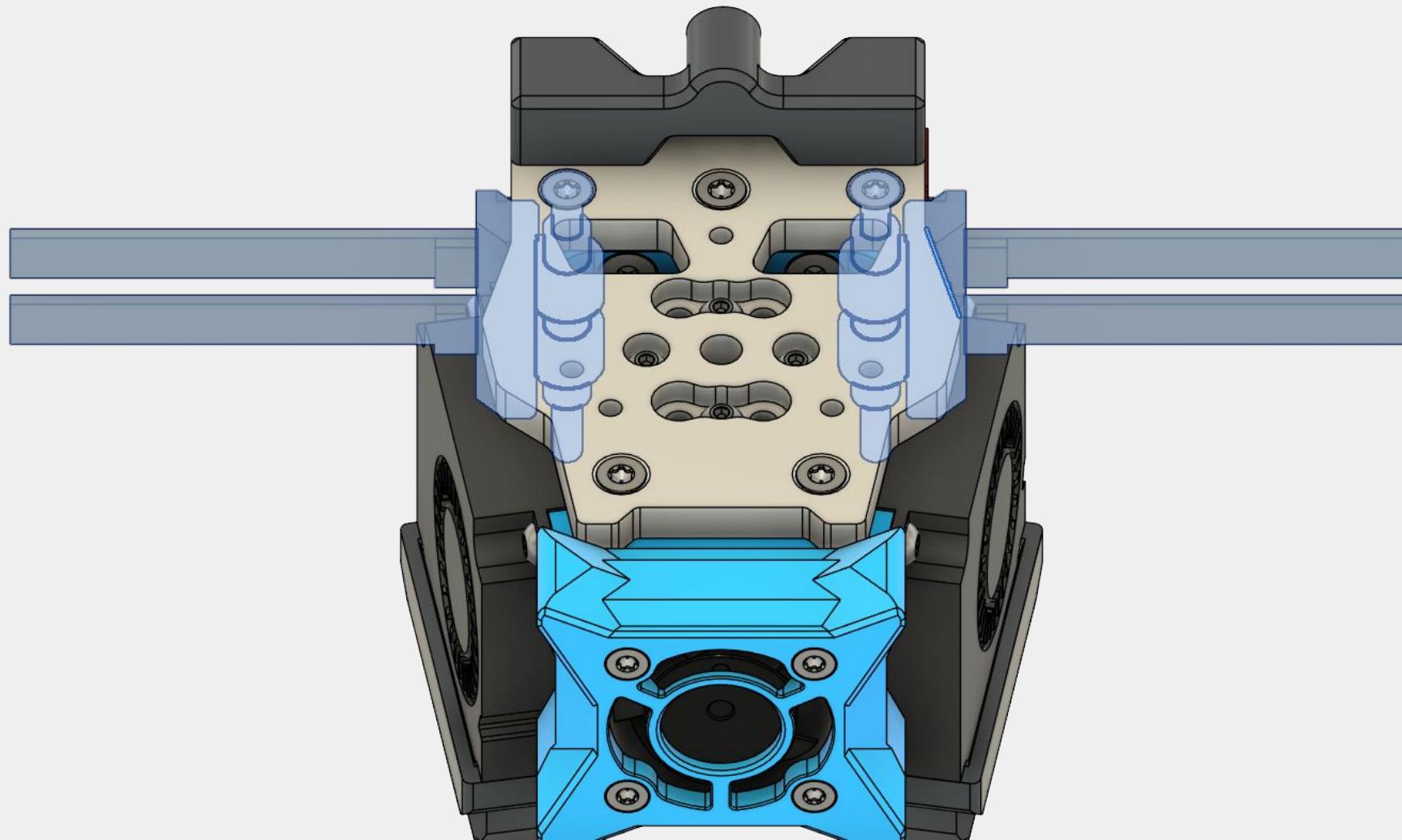


Tighten the M3x40mm countersunk Torx while holding the belt tie in place



BELTS INSTALLED

WWW.BEAVERTONMILESTONEHOBBY.COM



# REFERENCES

WWW.BEAVERTONMILESTONEHOBBY.COM

<https://github.com/Frix-x/klippain-shaketune>

<https://ellis3dp.com/Print-Tuning-Guide/>

Toolhead inspired by:

<https://github.com/Armchair-Heavy-Industries/Xol-Toolhead>

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## WEBSITE

WWW.BEAVERTONMILESTONEHOBBY.COM

## GITHUB

<https://github.com>

## DISCORD

<https://discord.gg/gZVXSz9fXj>