

MiniSB - TGB Lite Assembly Manual



About this manual

This manual will guide you through the assembly of the Mini-Stealthburner TBG-Lite Extruder Mount. This manual will depict the assembly of the right-handed version of the TBG-Lite. The Assembly process for the left-handed version is identical only flipped.

This manual assumes that you already know how to build a standard Mini-Stealthburner. If you don't, read the V0.2 Assembly Manual first.

The pictures of the cowlings are from the first release, these are currently outdated, but the assembly is otherwise the same. So don't be confused if your parts look slightly different.

Printed Parts

The STL-Files use the same naming system as the official Voron STLs, e.g. [a] denotes a part to be printed in accent-color, _xN denotes how many copies should be printed where "N" is the quantity.

Because the TBG-Lite does not have a way to retain a reverse bowden tube there is a included PTFE-Holder part which will retain the reverse bowden while printing.

Depending on your setup you want the "standard" strain relief plate or the umbilical plate if you are using Timmit's umbilical PCB. The spacers are the same for both, however depending on which motor you use you will need a different spacer length:

- LDO Motor: 22.40mm & 20.35mm
- Moons Motor: 21.90mm & 20.35mm

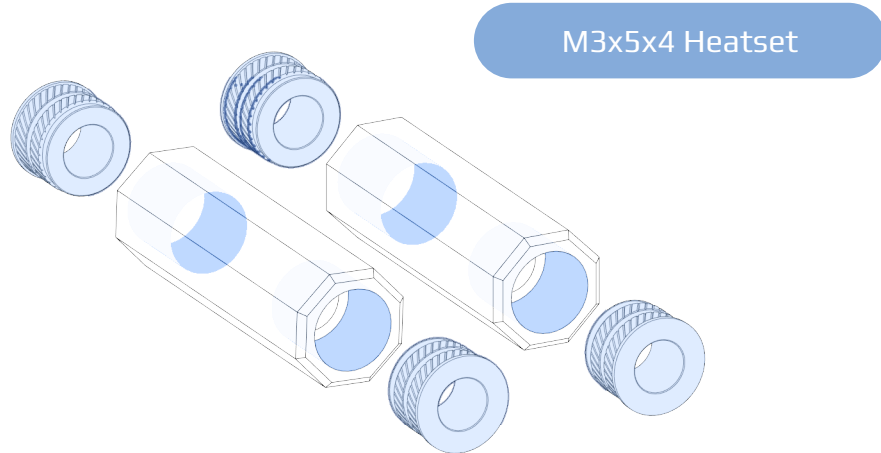
Spacers are provided in both a octagon shape and a round shape. The octagon spacers print along the layer lines and thereby have increased strength and are preferred over the round shape. Both Versions will work so choose whichever you like, this manual will only show octagon spacers for clarity.

| Part | Quantity | Notes |
|--|----------|--|
| M3x5x4 Heatset | 4 | |
| M3x35 BHCS | 2 | |
| M3x30 BHCS | 1 | |
| M3x20 BHCS | 1 | |
| M3x12 BHCS | 3 | |
| M3x6 BHCS | 2 | |
| M3x8 FHCS | 1 | |
| M3 Hexnut | 1 | |
| 3010 Axial Fan | 1 | |
| 3010 Blower Fan | 2 | |
| Hotend | 1 | There are a number of supported Hotends, check the V0.2 GitHub for options |
| TBG-Lite Extruder | 1 | |
| | | |
| Additional Parts for standard strain relief | | |
| M3x8 BHCS | 2 | |
| Additional Parts for Umbilical PCB | | |
| M3x8 BHCS | 2 | |
| M3x6 BHCS | 2 | |
| Additional Parts for CAN-Toolheads | | |
| M3x6 BHCS | 4 | |

Round vs Octagon

The octagon spacers tend to be stronger than the round spacers. Because of this they are the recommended spacers and will be used throughout this manual.

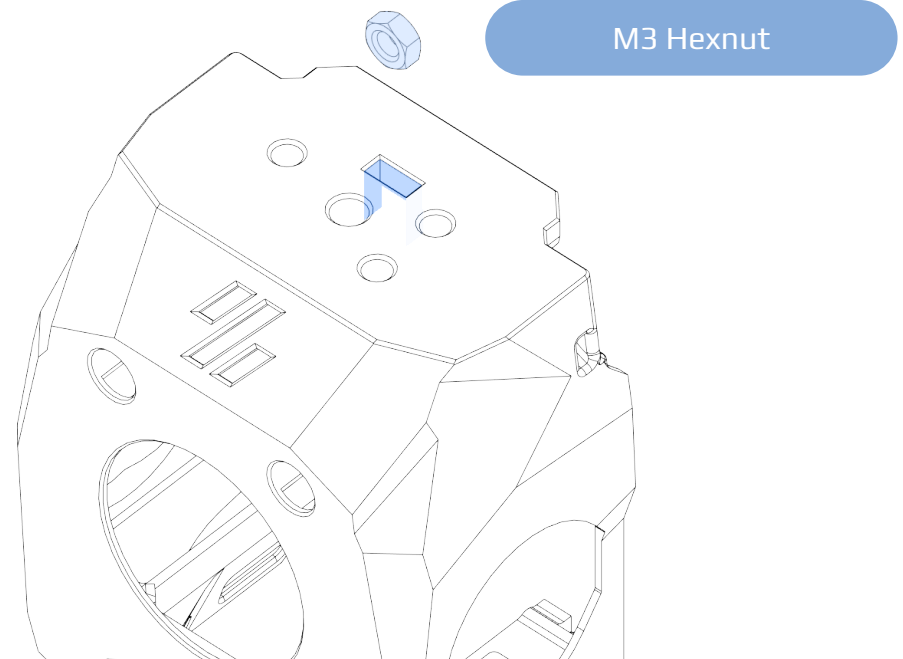
The assembly process is exactly the same with either variant.

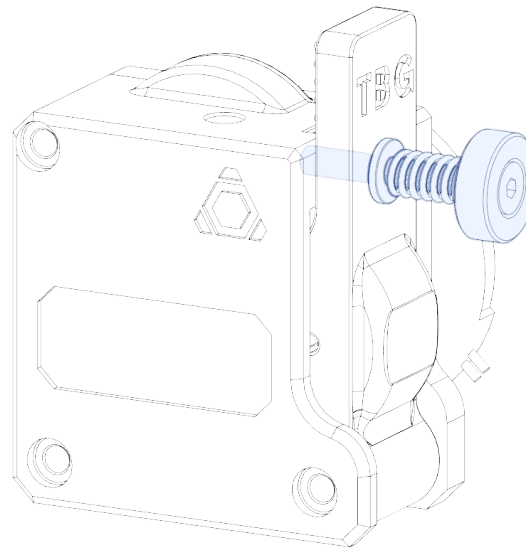
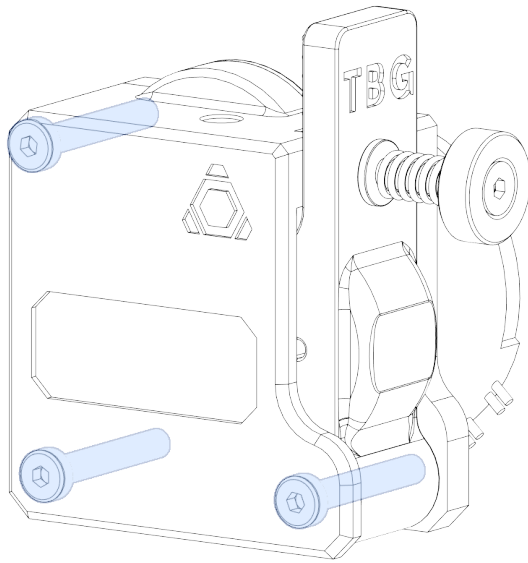


Different Cowling

This Manual will use the “minified” variant of the cowling for better clarity.

However the assembly process is exactly the same with the “standard” cowling.





Screw replacement

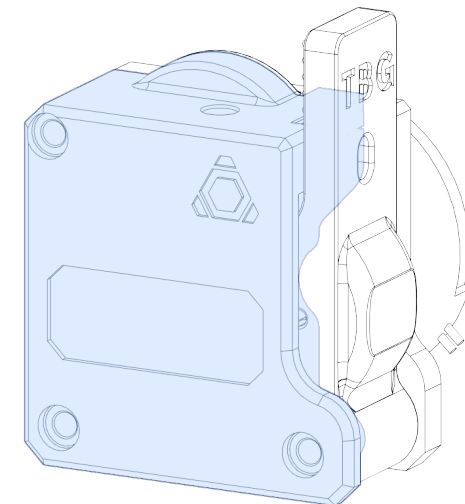
We need to replace the 2 top screws on the TGB-Lite to make space for the Spacers and PTFE-Holder.

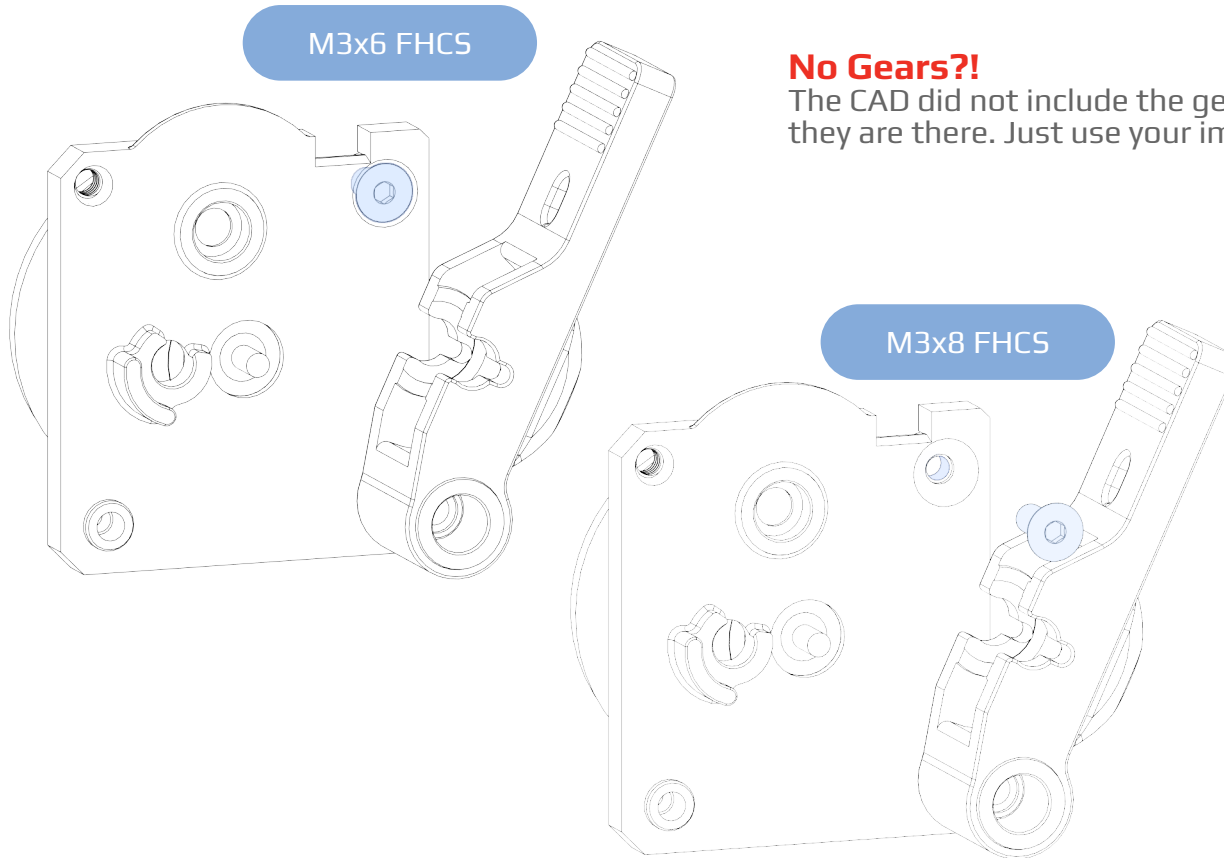
Sadly you will have to disassemble most of the extruder for this:

Start by removing all 3 front screws, you'll reinstall the bottom 2 later.

Remove the Thumbscrew

Carefully remove the front housing, if any of the square nuts fell out reinsert them.

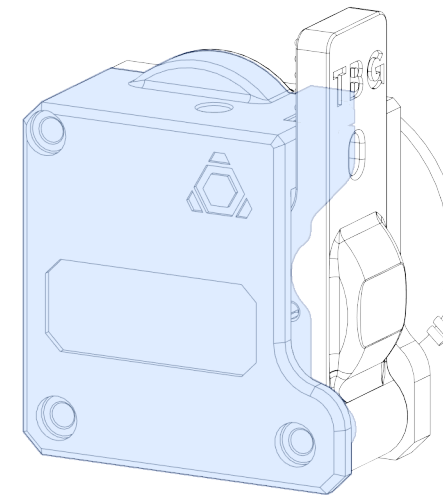


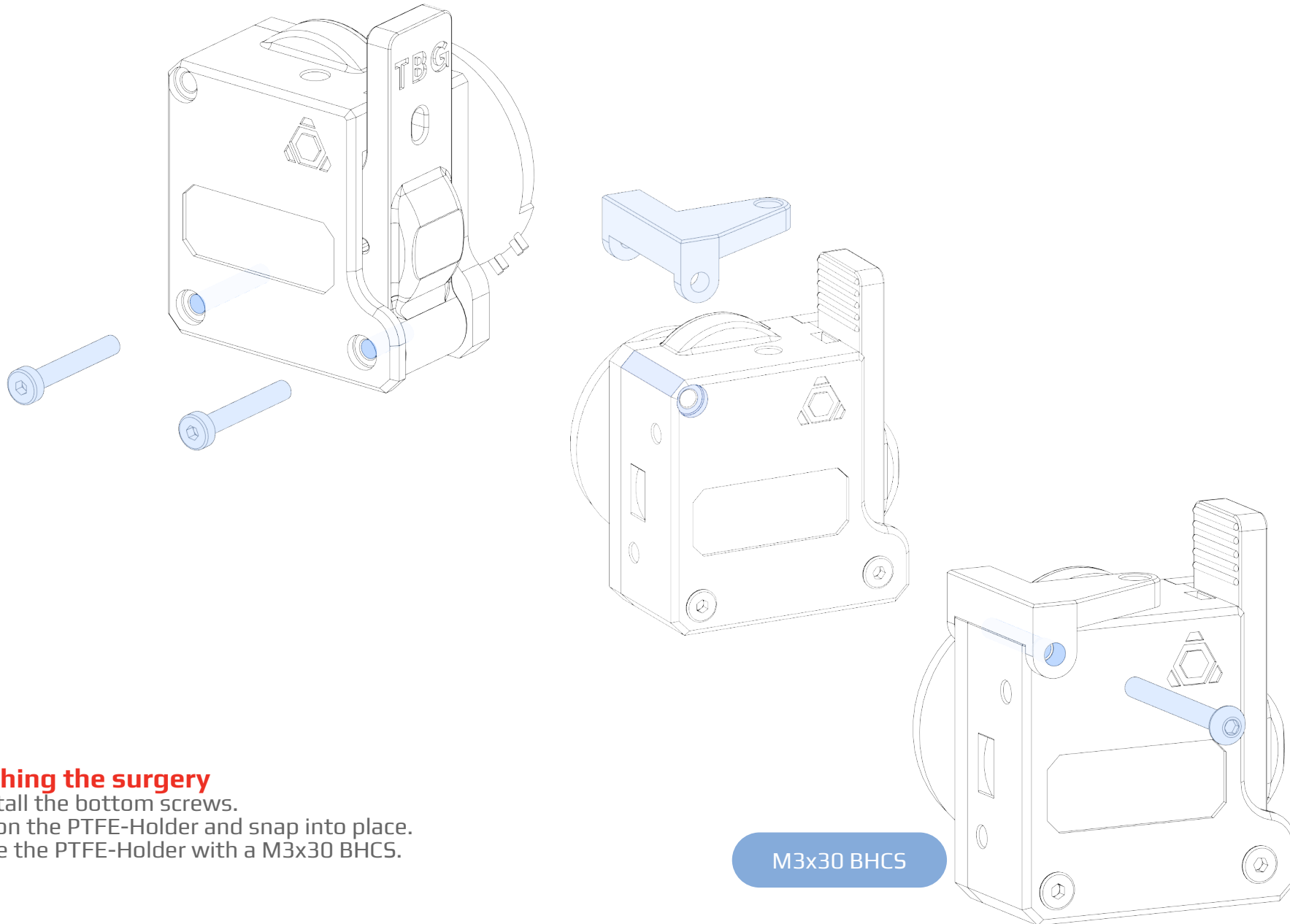


Screw replacement the 2nd

Rotate the idler lever out of the way and remove the stock M3x6 FHCS motor screw and replace it with a M3x8 FHCS.

Put the front housing back on and make sure all square nuts are still in place.



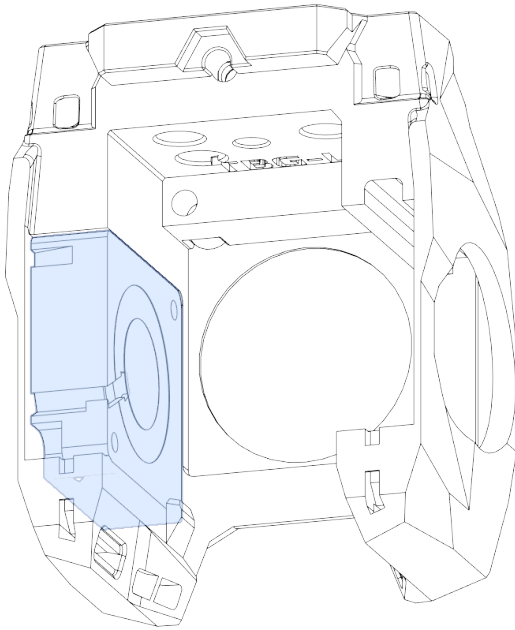


Finishing the surgery

Reinstall the bottom screws.

Push on the PTFE-Holder and snap into place.

Secure the PTFE-Holder with a M3x30 BHCS.



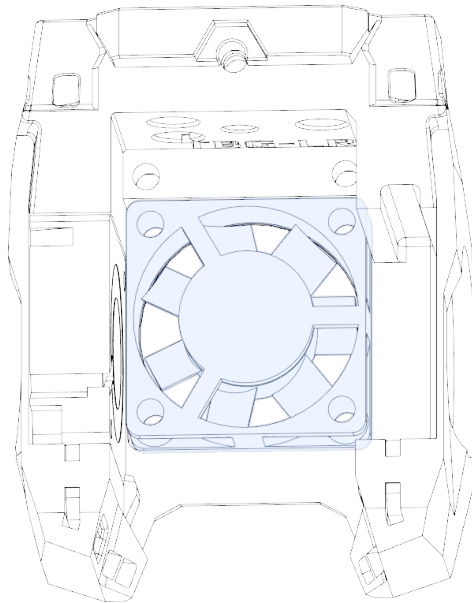
3010 Blower Fan

Fans

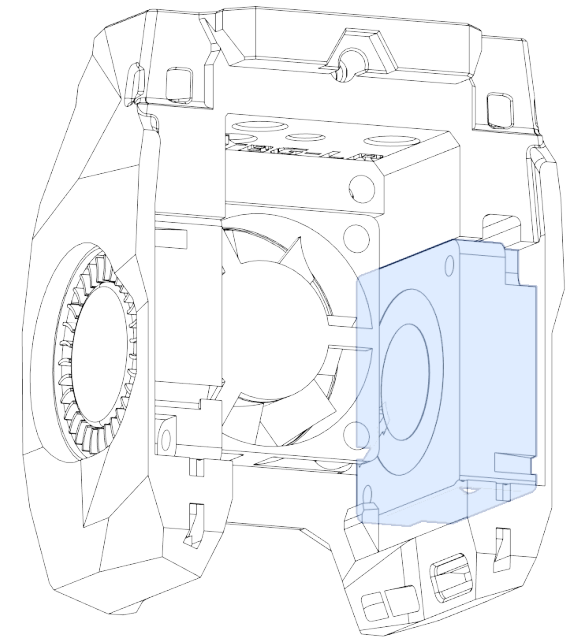
Install all the fans by sliding them in, just like with a normal Mini-Stealthburner.

Route the wires along their intended cutout.

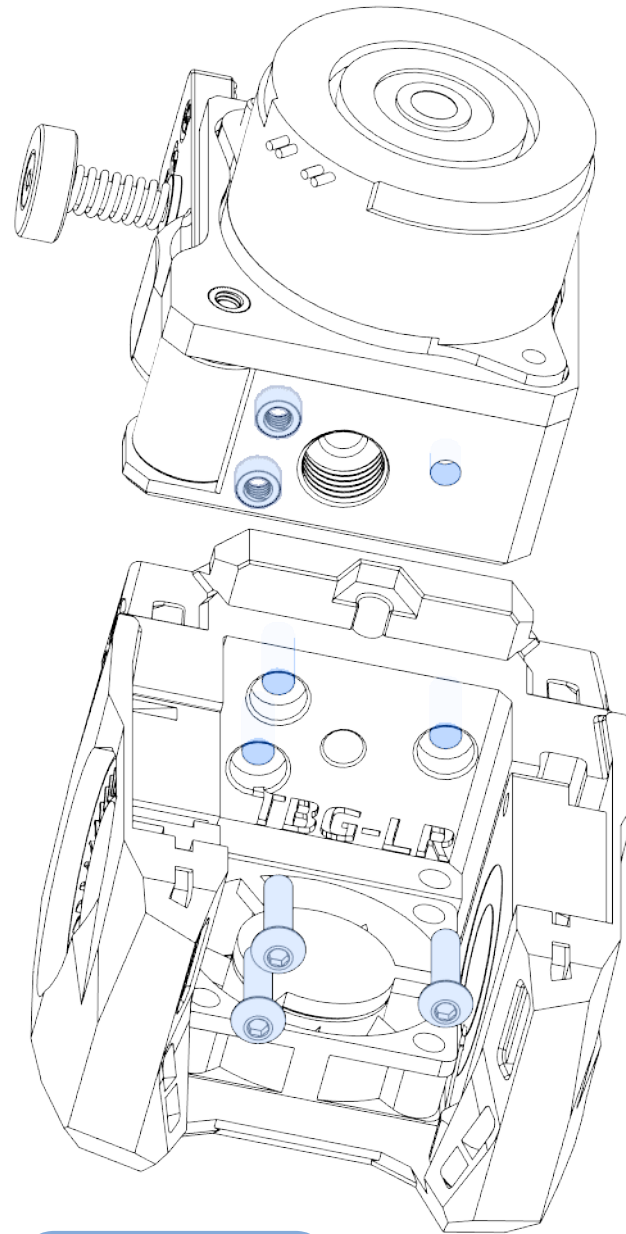
When in doubt check the Voron V0.2 Manual.



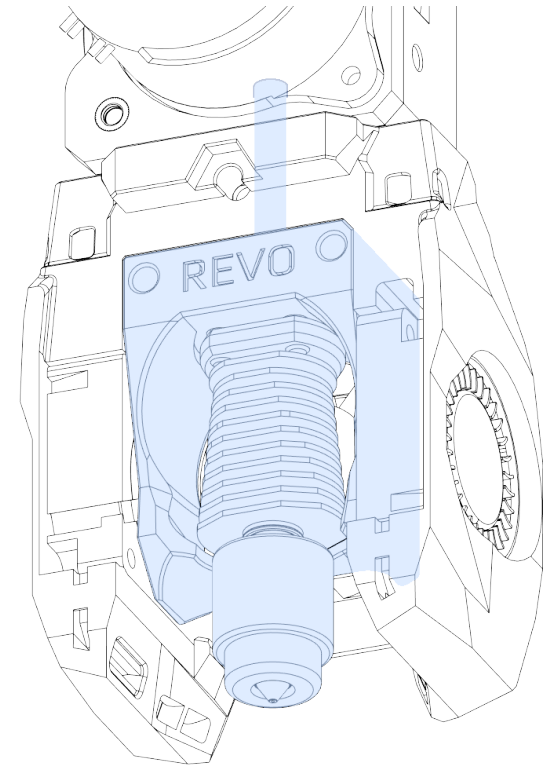
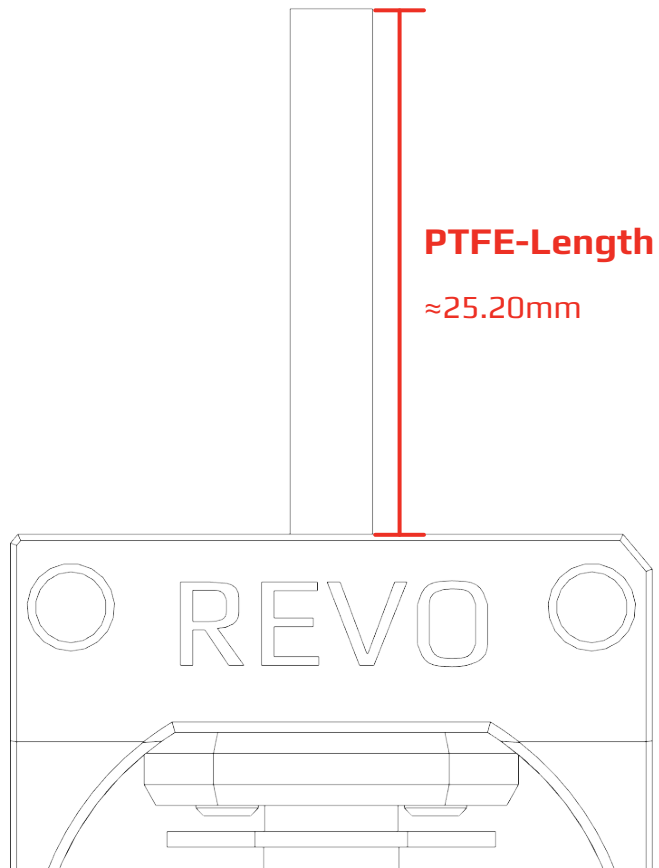
3010 Axial Fan



3010 Blower Fan



M3x12 BHCS



Hotend

Install your Hotend.

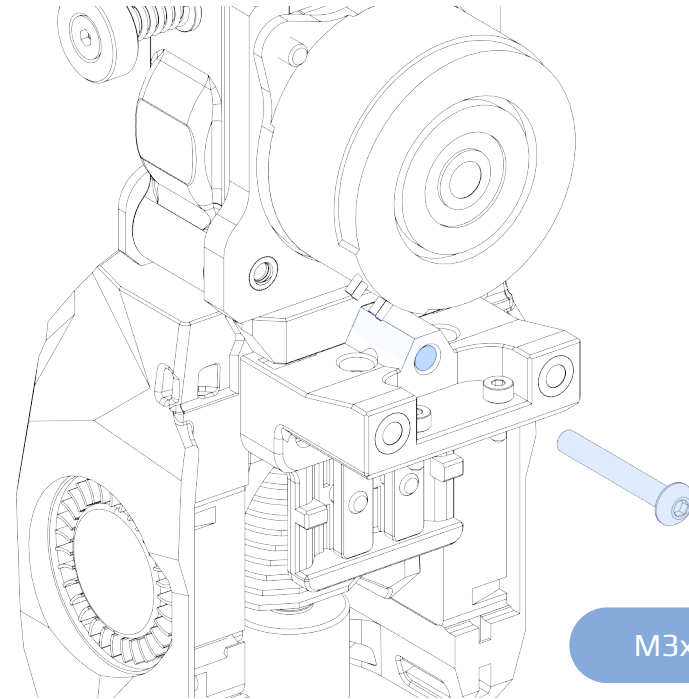
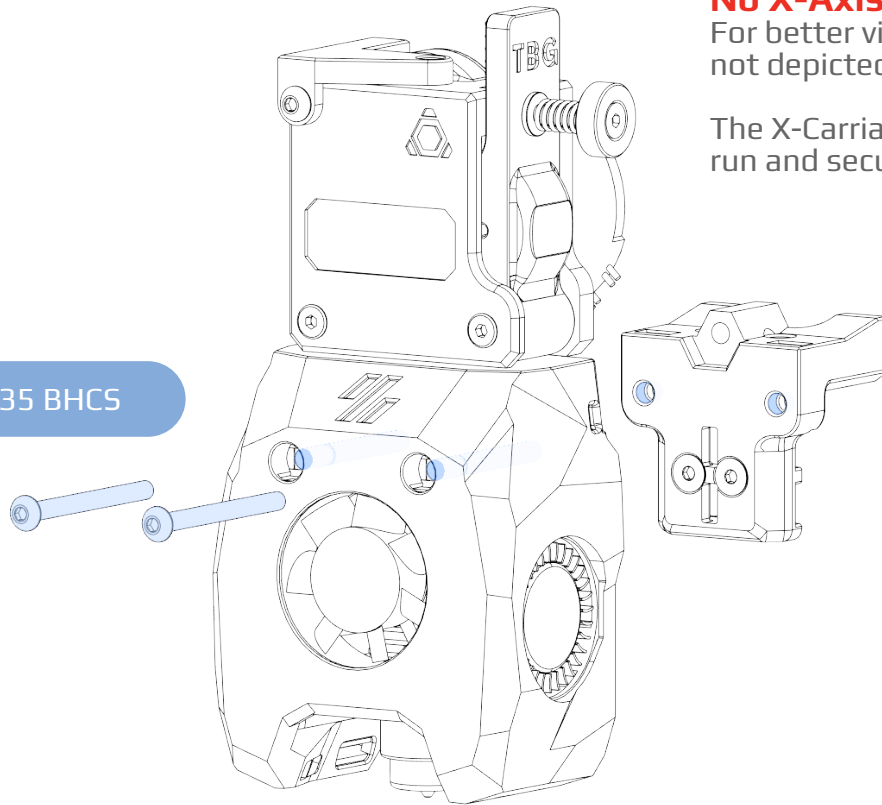
Make sure your PTFE-Tube is the right length.

No X-Axis?

For better visibility and CAD-Performance the x-Axis is not depicted in this manual.

The X-Carriage should already be installed and the belts run and secured.

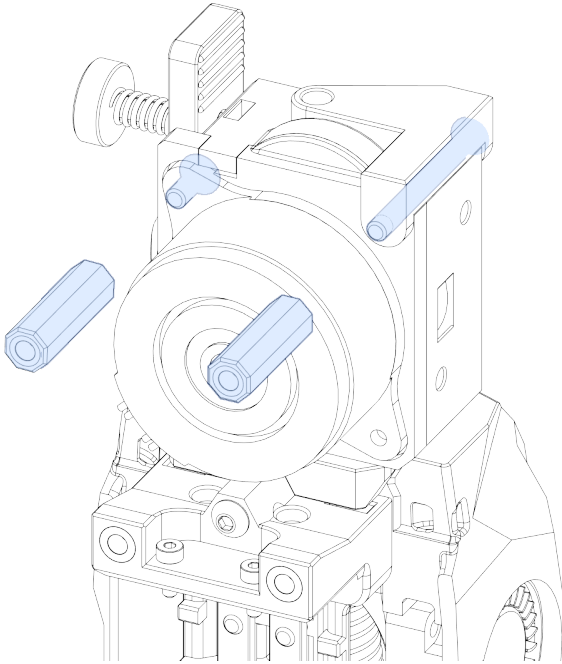
M3x35 BHCS



M3x20 BHCS

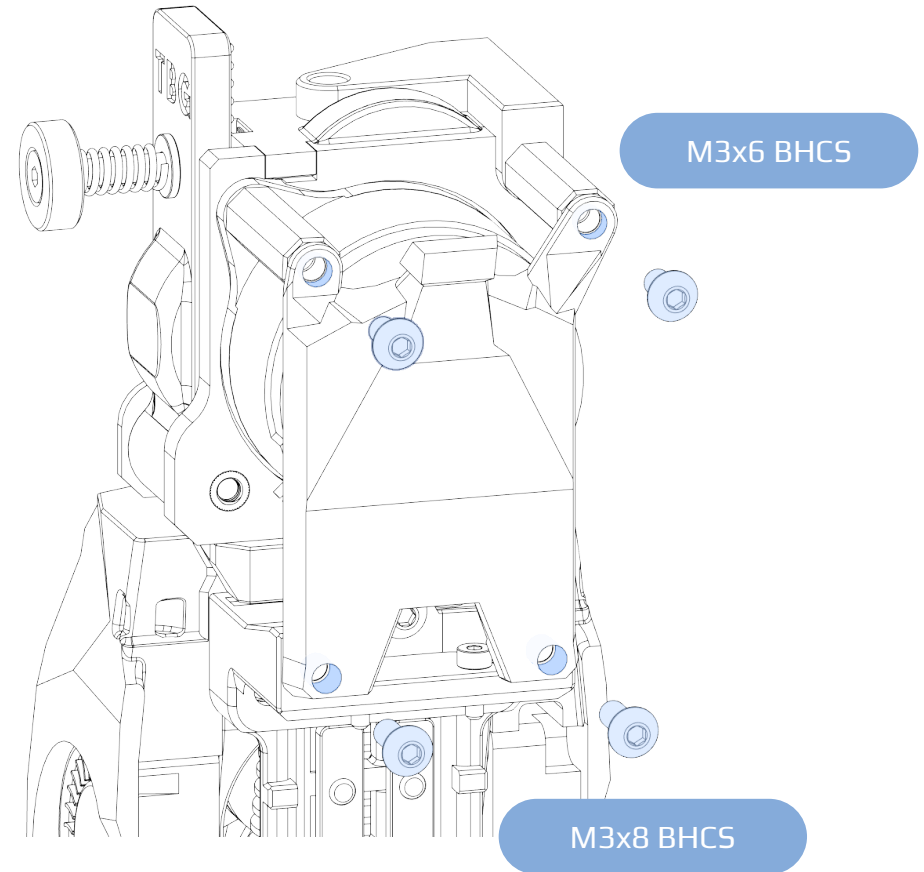
Out of M3x20 Screws?

If you don't have any M3x20 on hand a M3x25 BHCS plus a M3 Washer will also work.



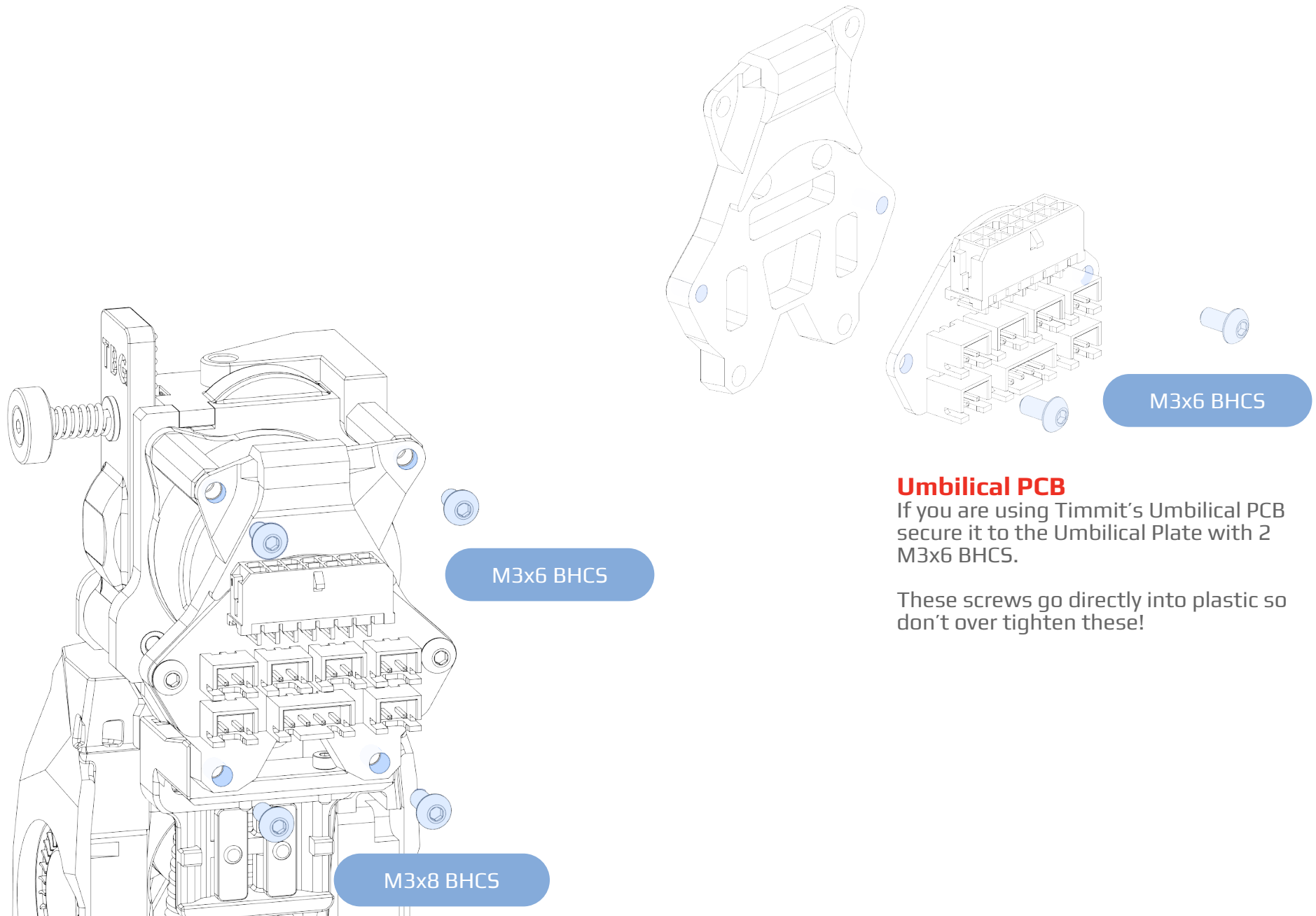
Spaceman

Attach the spacers to the top screws. The slightly longer spacer goes to the motor screw, the shorter one on the PTFE-Holder screw



Umbilical PCB

If you are using Timmit's Umbilical PCB skip to the next page without installing the strain-relief



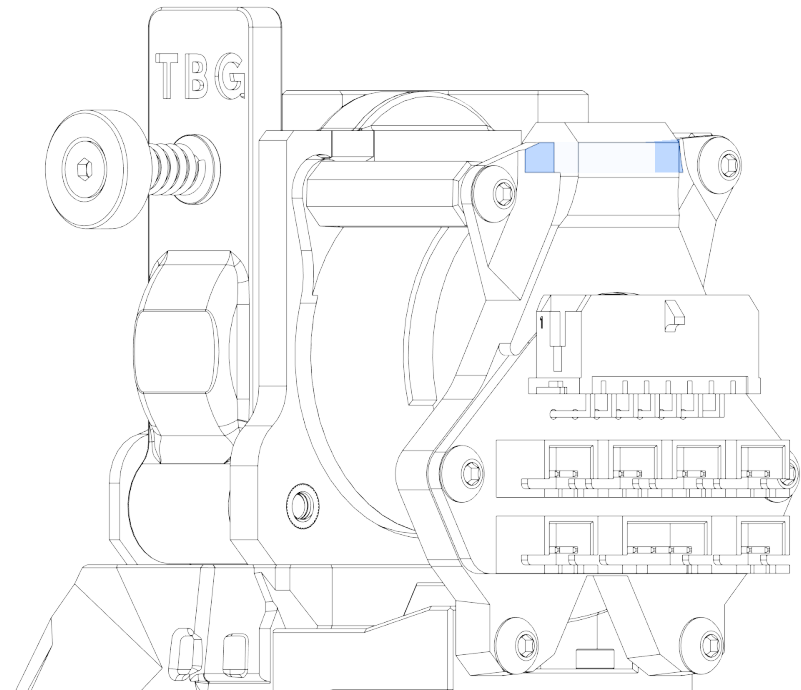
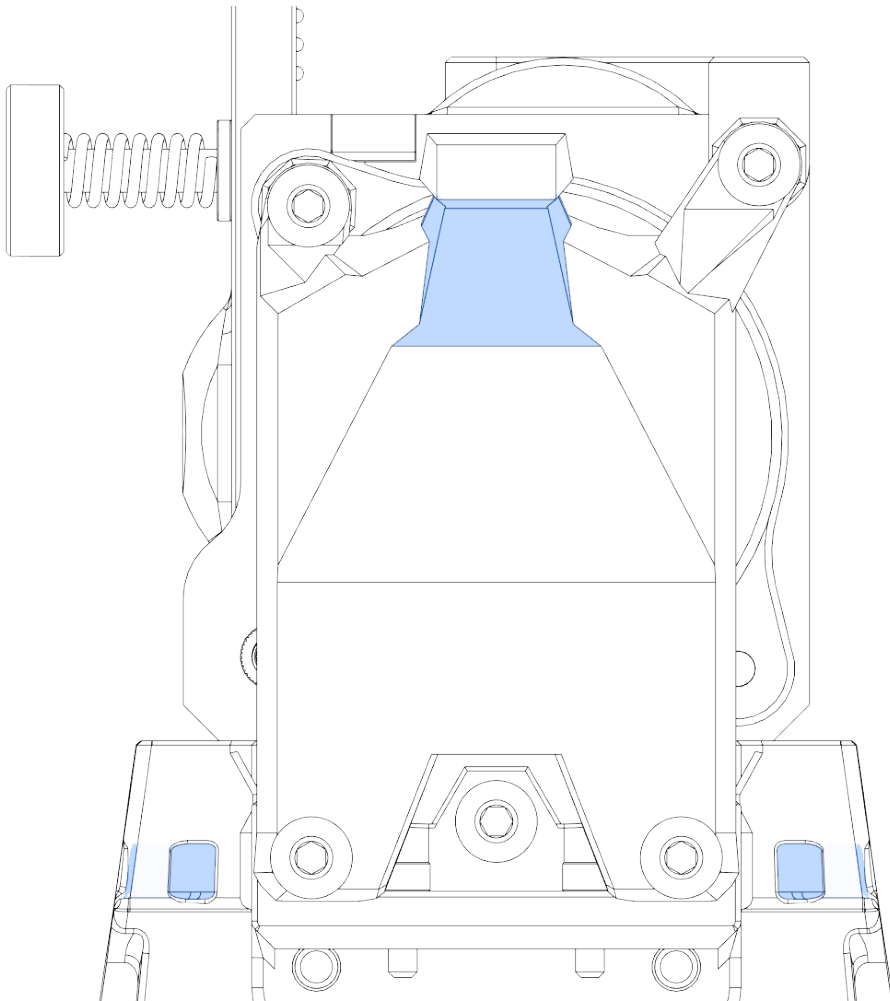
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Strain-Relief/Umbilical

Tidying things up

Wire up your Extruder, Hotend and Fans.

Secure the wires using the zip-tie loops on the Cowling and the Strain-Relief/Umbilical Plate



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