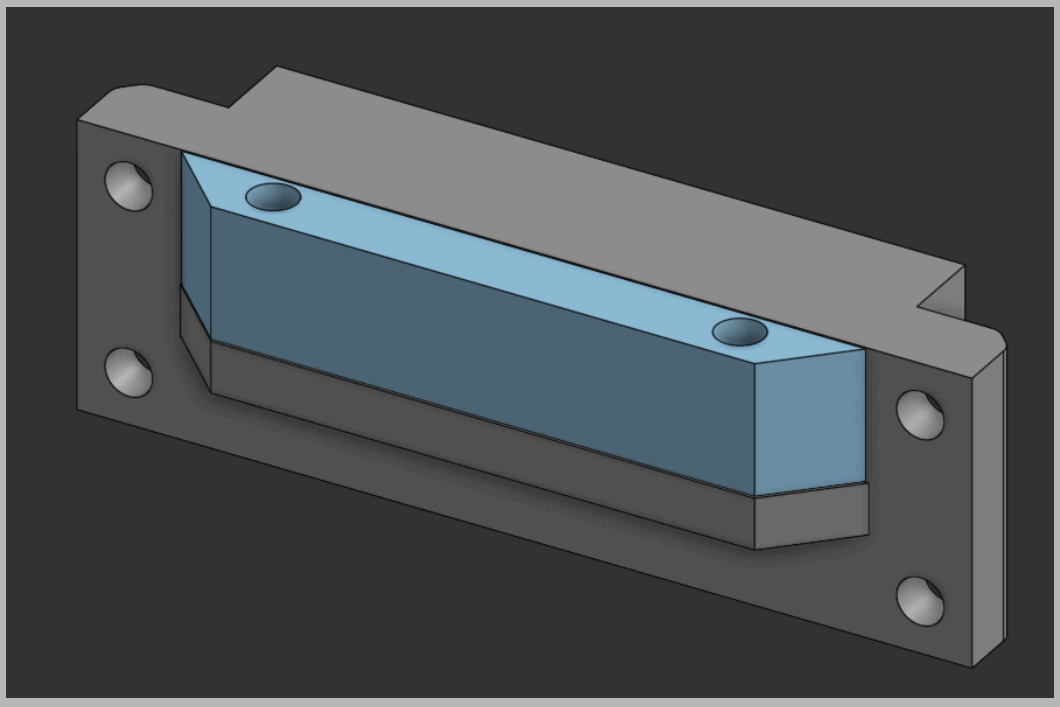
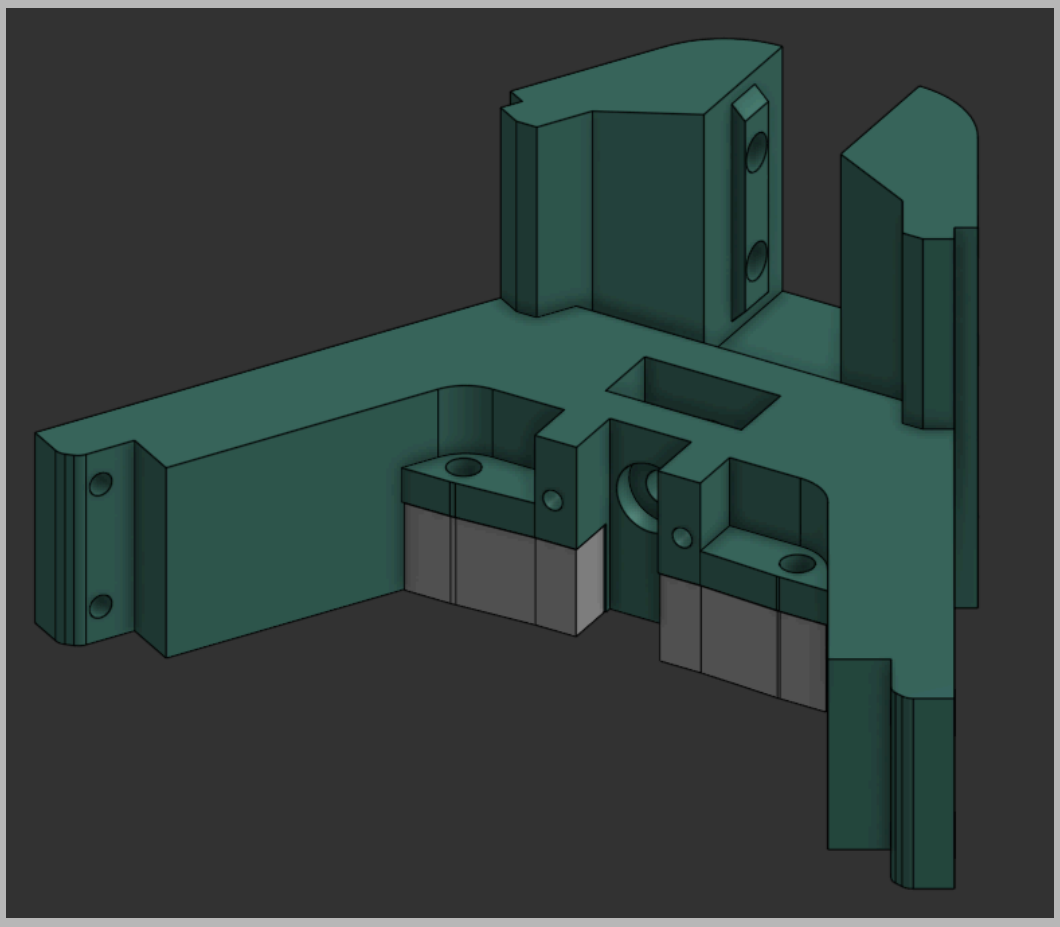
LDO Rolohaun Delta Flyer
Build manual (rough draft)

There is a more detailed but incomplete version HERE if you prefer that.

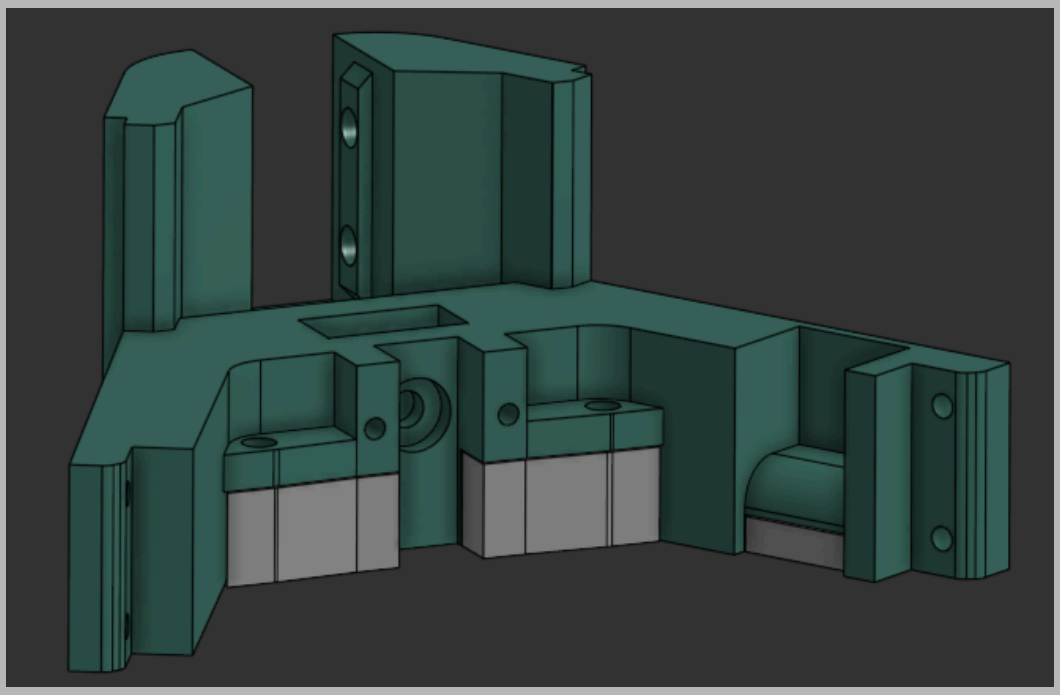
1. Glue the arms together, use the M3x30 threaded rods, keep the joints oriented identical on each end.
2. Prepare the printed parts by removing all the built in supports.
    a. Top_Frame(middle)



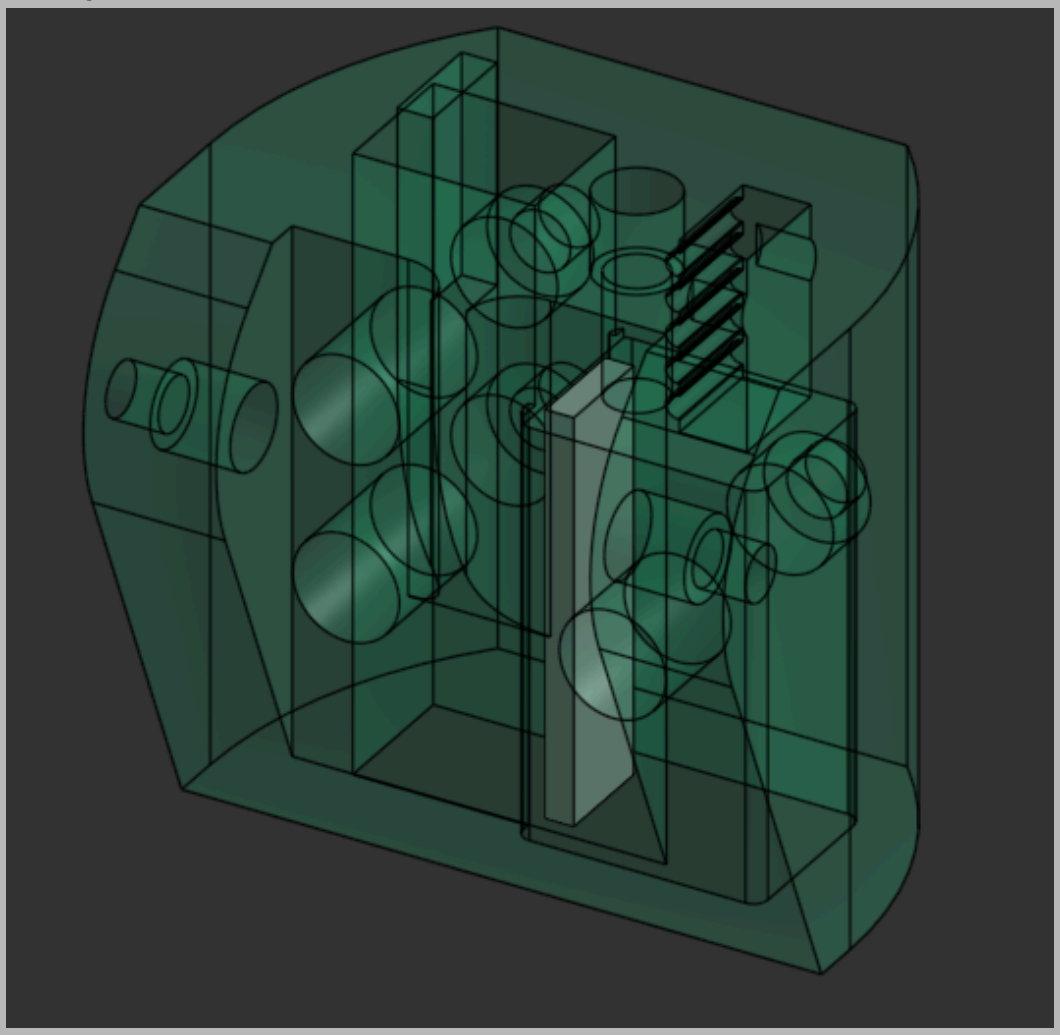
b. Top_Frame_A and B



c. Top_Frame_C

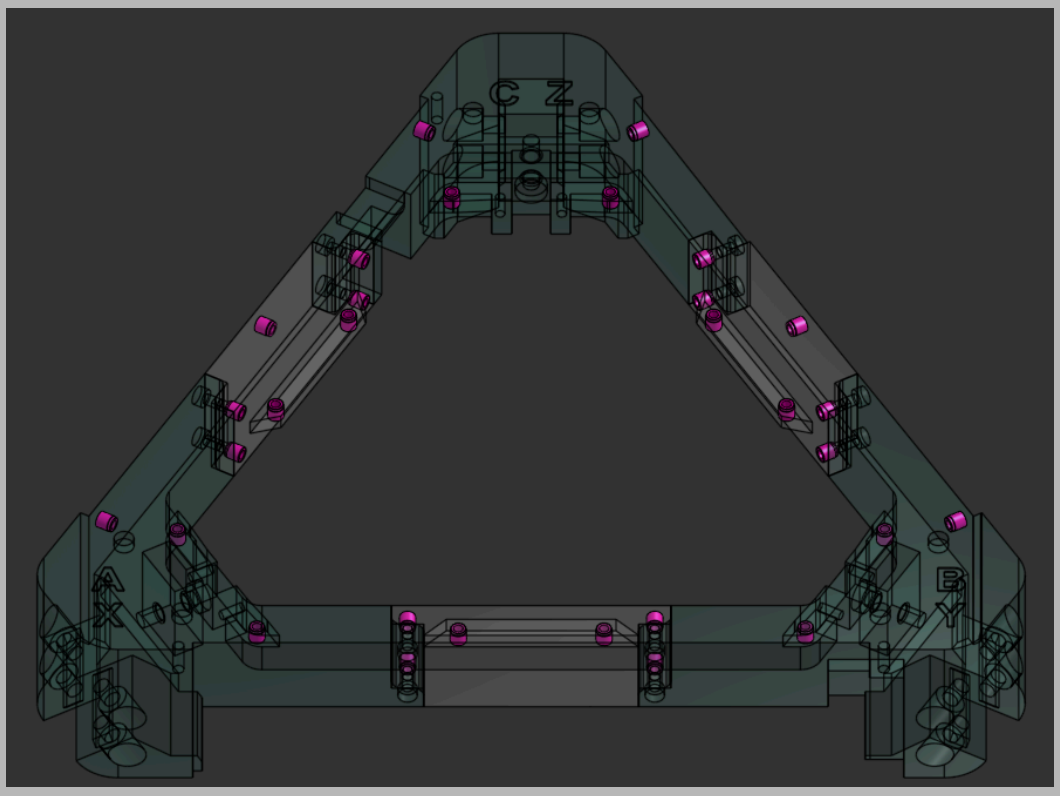


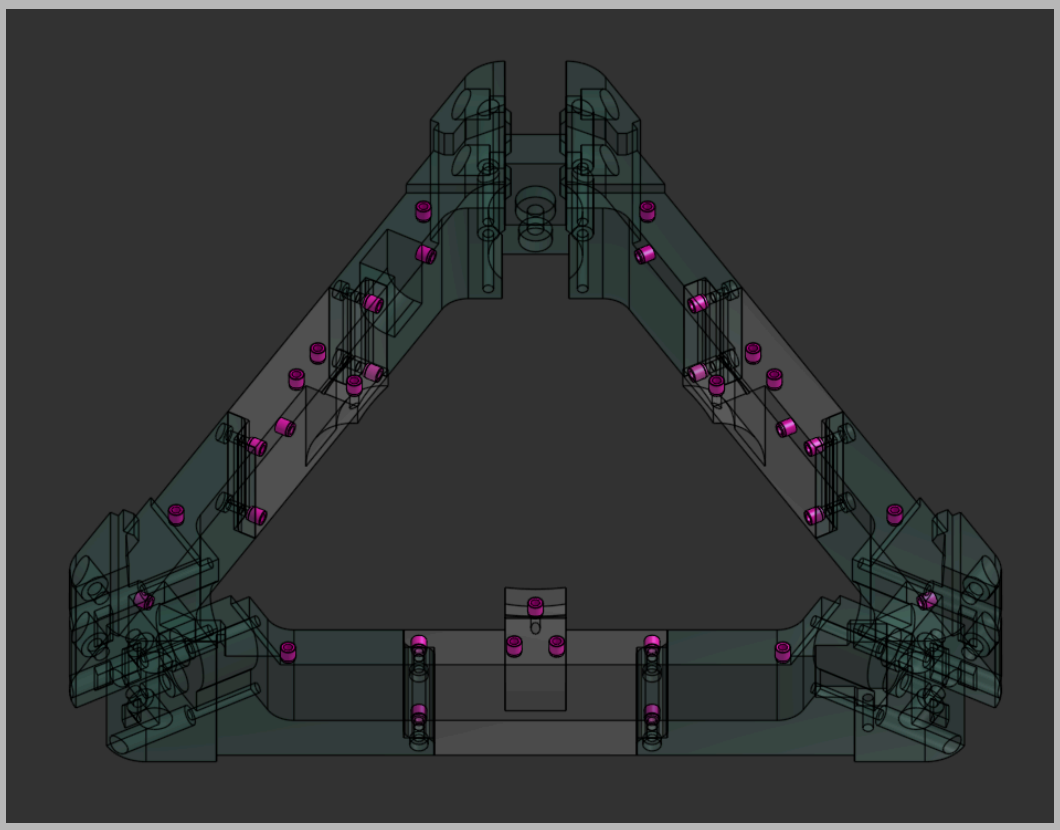
d. Carriage



3. Insert headsets into the following pieces:

a.

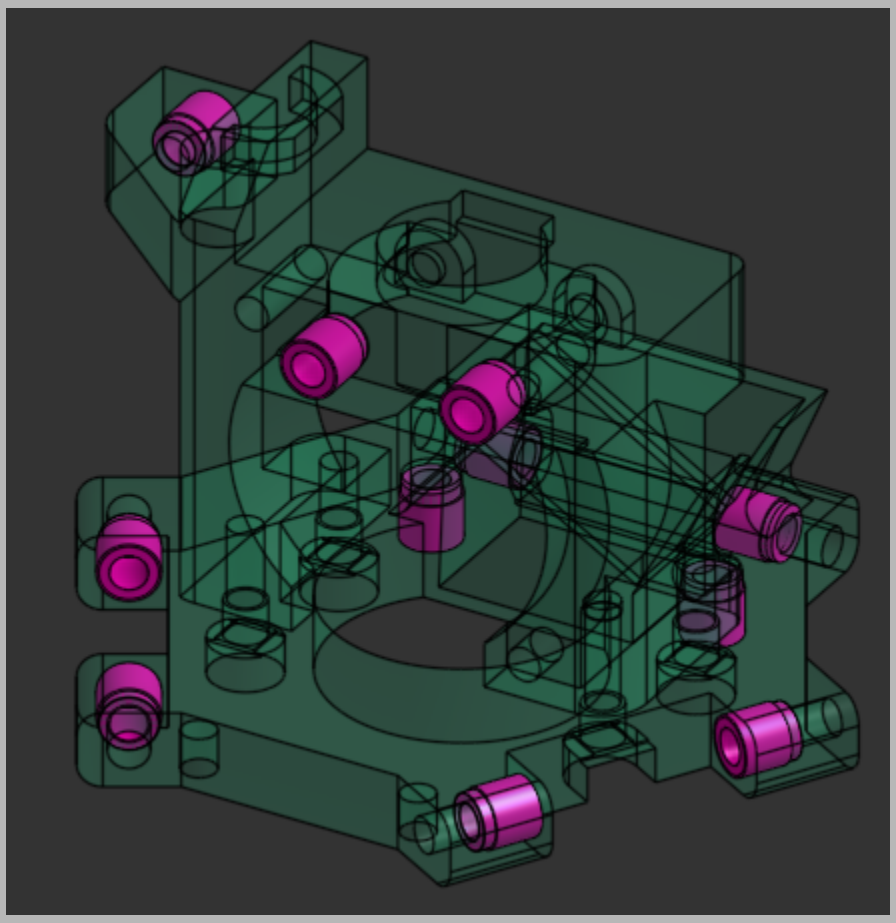




Updated_Top_Frame_A.stl	

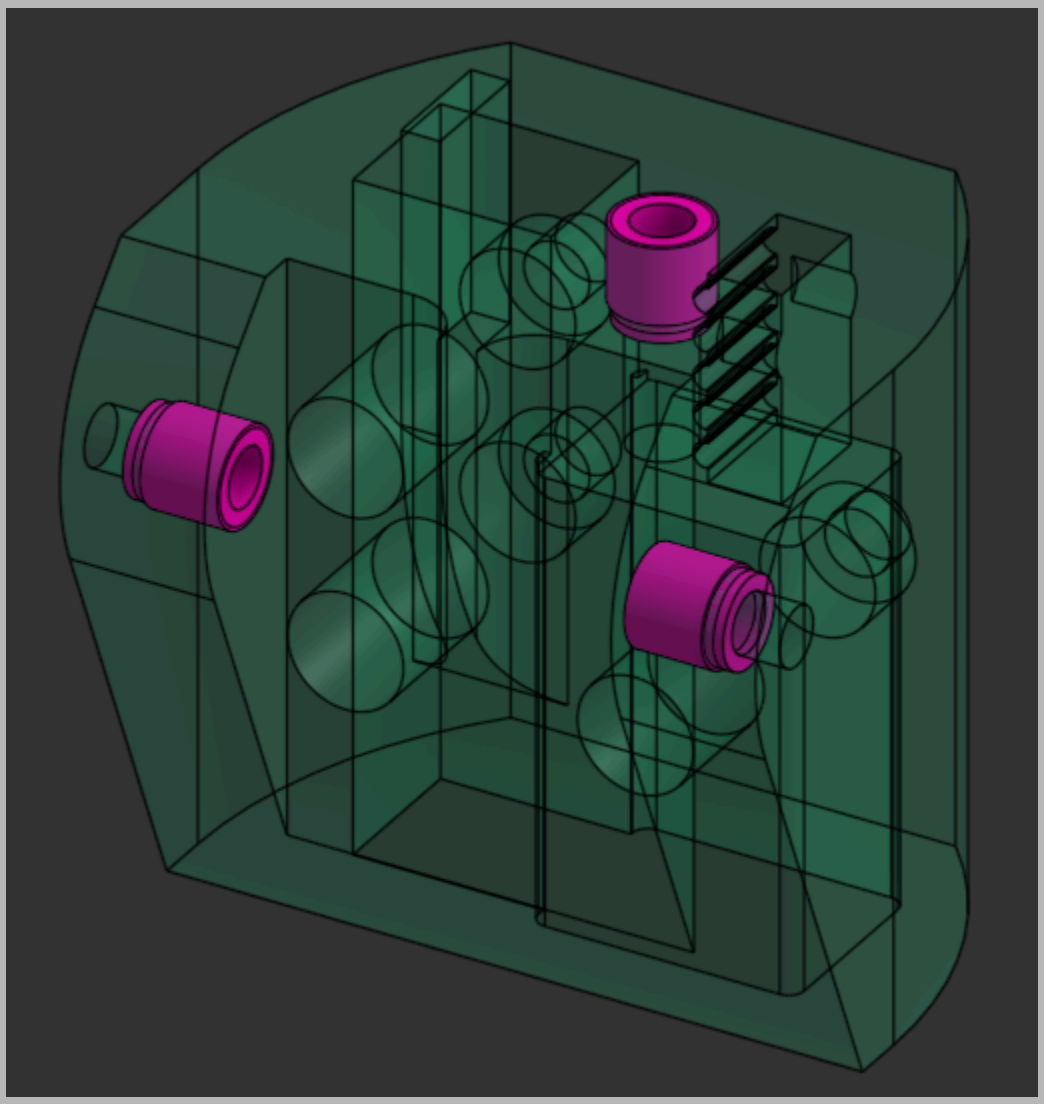
Updated_Top_Frame_B.stl	
Updated_Top_Frame_C.stl	
Updated_Bottom_Frame_A.stl	
Updated_Bottom_Frame_B.stl	
Updated_Bottom_Frame_C.stl	
Updated_Top_Frame_Middle.stl	
2 x Updated_Top_Frame_side_with_support.stl	
2 x Updated_Bottom_Middle.stl	
Updated_Bottom_Frame_Center.stl	

b.



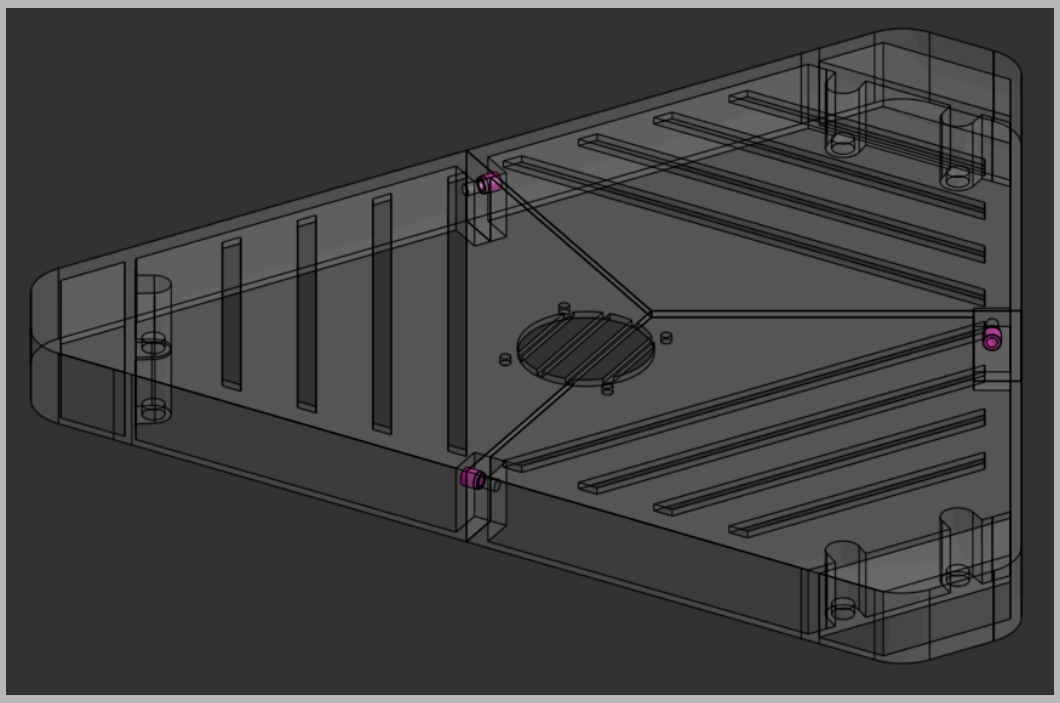
Effector.stl	
TR6_Hotend_Mount_LDO.stl	

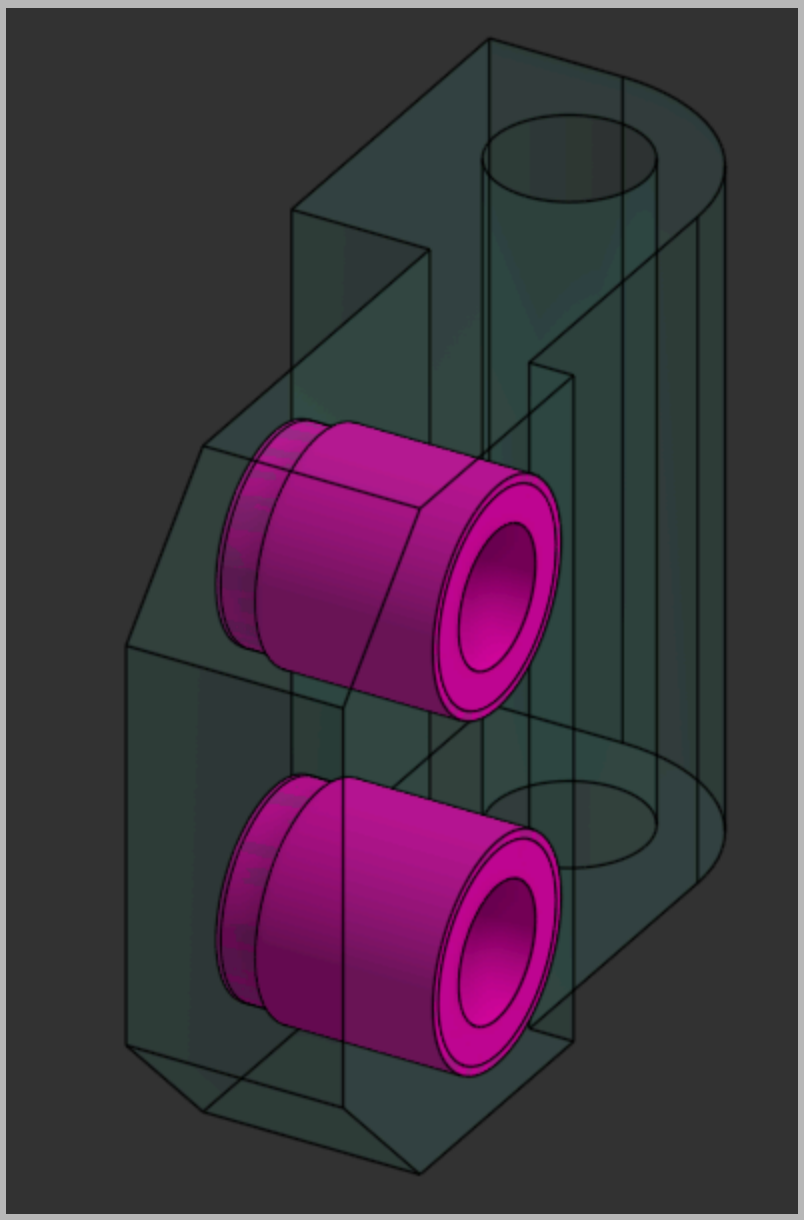
c.

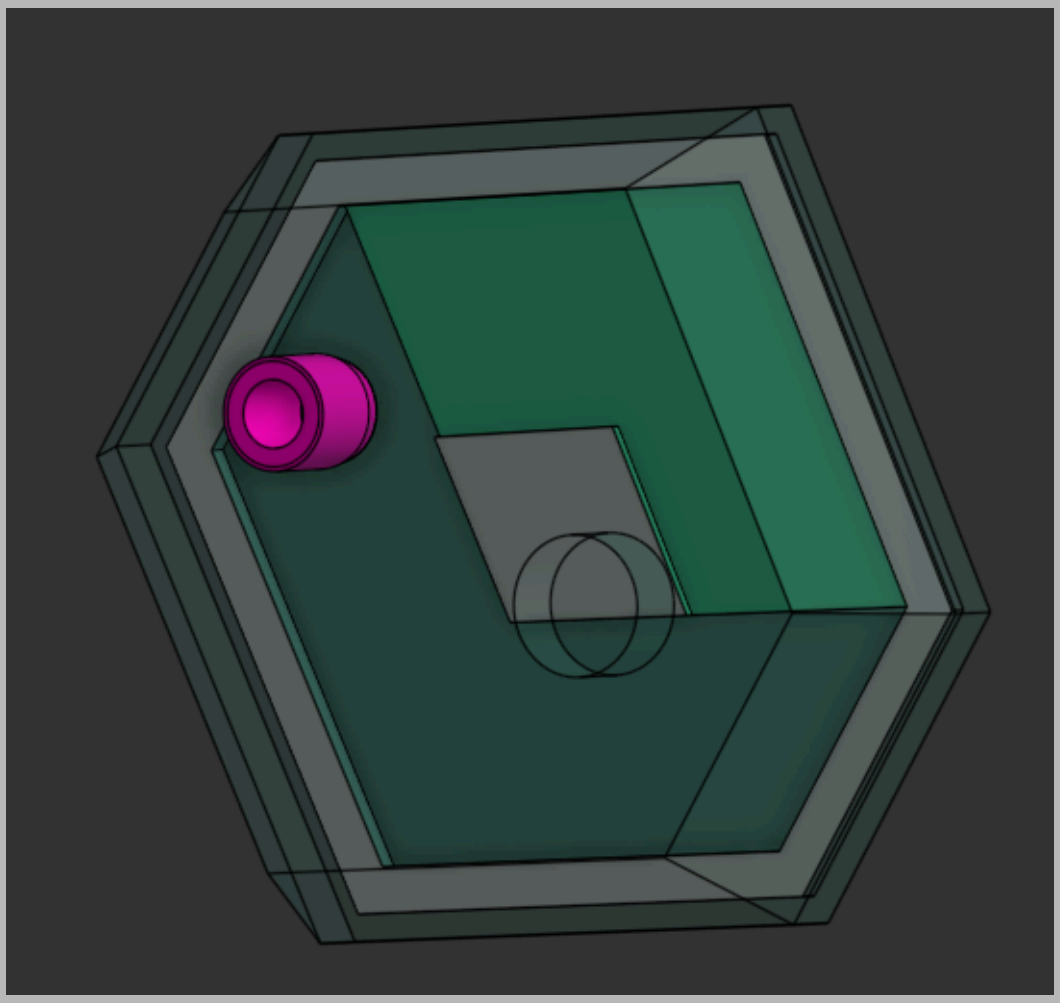


3 x Tensioner.stl	

d.







Top_Cover_A.stl	
Top_Cover_B.stl	
Top_Cover_C.stl	
Handle.stl	
2 x Hinge.stl	

4. Start by assembling each upright corner.
    a. Insert the F695 bearings into the lower frame corners, put the GT2 pulley on the motor, setscrew towards the motor. Attach the motor to the frame corner using 4xM3x30 screws.
    b. On the top frame corners, attach the GT2 idler with a M5x16 screw, then attach the optical endstop with the black protrusion in toward the M5 screwhead using 2xM3x12 screws.
    c. Attach the 2020 extrusion to the top frame corner using 4xM5x10 screws and T-nuts then attach the MGN9 rail using 5xM3x8 screws and t-nuts.

    d. Attach the 4 corner panel pieces to each upright, but do not attach the two front corner panels on the “B” corner, these are attached later after the doorhinges. The front lower panel cover on the “A” upright has a hole for a magnet.
    e. Finally, attach the bottom corner piece to the extrusion using 4xM5x10 screws and t-nuts.
    f. Attach the carriages to the MGN9 rails using 3xM3x6 screws.
    g. Using the Apex clips, fasten the belt to the tensioner, put the tensioner into the carriage(apex clip down) and route the belt down around the pulley, back up through the carriage, around the top idler and back into the carriage, attached with another apex clip. Use a M3x30 screw to tension the belt to the carriage.
5. Bolt the frame together, remember to have the middle frame pieces without headsets on the outside towards the front.
6. Add the small sticky feet to the bottom of the frame.
7. Attach the heated bed to the frame using 3xM3x16 screws and 3xM4 thumbscrews as spacers between the bed and the frame.(I am not sure the state this arrives in, let me know)
8. Attach the 3 motor covers using M3x6 screws, note the one with the notch goes on the back “C” corner.
9. Attach the top electronics panels, these are marked. Text goes up.
10. Attach the TR6_hotend_mount to the Effector using 4xM3x8 screws.
11. Attach the hotend to the TR6_hotend_mount using 2xM3x16 screws.
12. Attach the 3010 hotend fan using 3xM3x16 screws.
13. Route the hotend and 5015 fan wires through the cable relief hole on the left side and attach the 5015 fan using a M3x20 screw.
14. Bolt the effector to the carriages using the arms and 12xM3x20 screws.
15. Attach the back left panel, then attach the BMG to it using 2xM3x10 screws and heatinserts as nuts on the inside. Good time to put the PTFE in. (cut to length)
16. Prepare the top electronics cover by bolting it together using 3xM3x8 screws and gluing in the 6 magnets. Now is also a good time to glue in the magnets on the top frame, keeping polarization in mind.
17. Install the DZ01 board in the electronics bay using 4xM3x6 screws.
18. Install the RGB strip to the inside of the chamber using 2 zipties on the top cover.(labeled)
19. Connect all the wires according to the wiring diagram.
20. Install klipper on the DZ01 and run through the first setup process using the install manual.
21. After initial setup, put in the 2 wire covers on the inside of the left panel using 8xM3x6 screws.
22. Install the right panel and finally the door, front right panel covers and doorhinges(2xM3x20 screw freely floating inside the hinge and the panel covers. Also install the doorhandle and glue in the 2 magnets for it.
23. Attach the spool holder on the back using 2xM3x8 screws, use some of the leftover PTFE tube in the spool holder arm. You can attach the power cable hook using M3x8 screws too, one on the top, one on the bottom, facing to the right side of the printer.