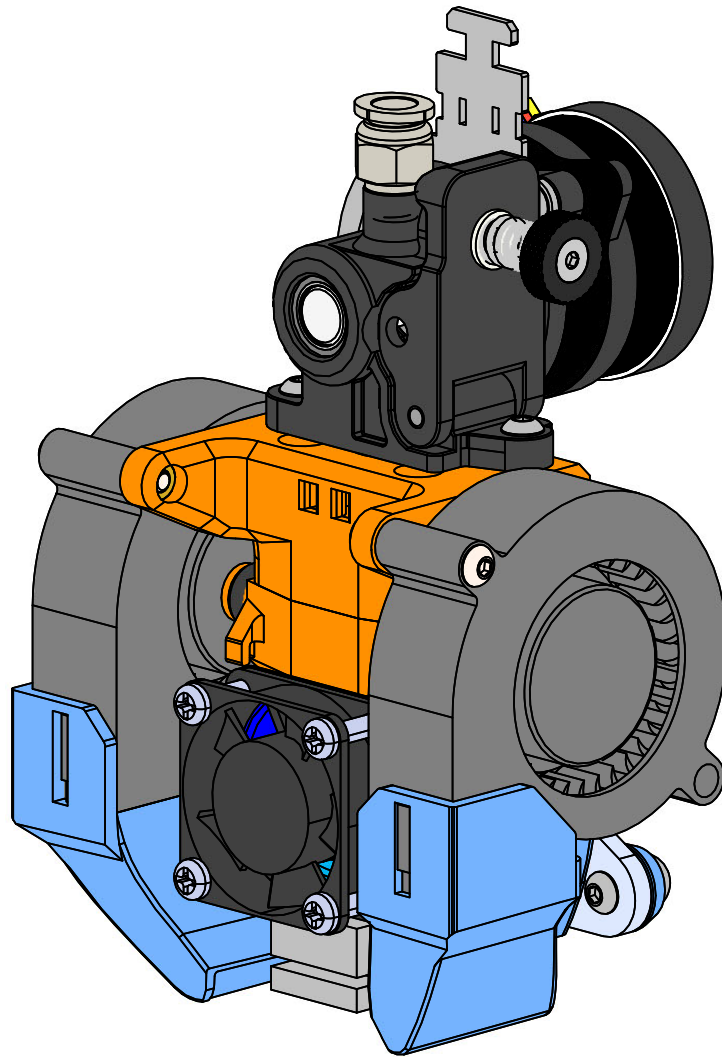


Threaded Heatsink Edition.
V6/V7 Compatible.



THR Baby Bullet Assembly



Created by:
Joshua Vasquez

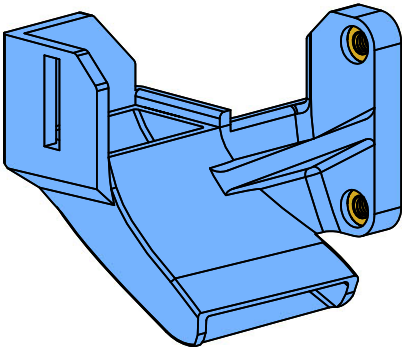
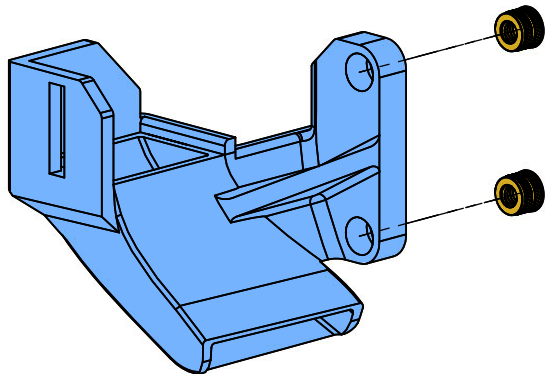
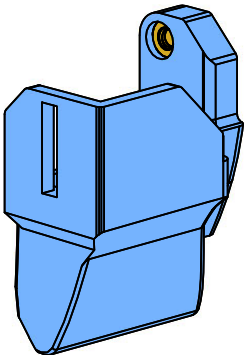
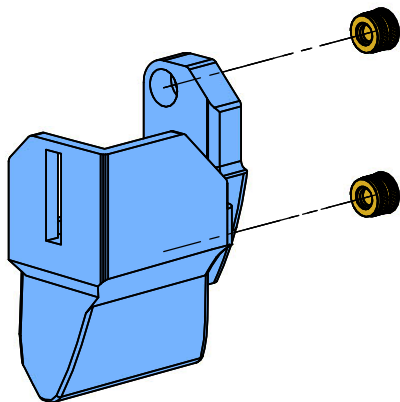
last edited:
3/26/2022

SCALE: 1:1


SHEET 1 OF 18

Install these heat sert inserts using the Plate Press Technique

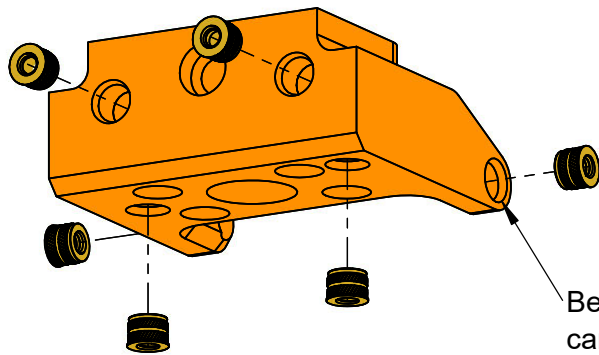
Be gentle as the heat from the installation tool can warp the flatness of the back surface of the part. If that happens, cool the part on a flat metal plate while applying gentle pressure to flatten it.



ITEM NO.	DESCRIPTION	QTY.
2	M3 Tapered Heat Set Insert	4
3	Left Fan Shroud	1
4	Right Fan Shroud	1

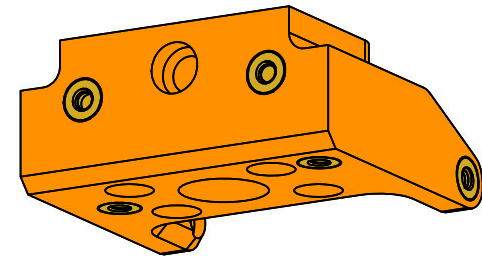
Heat Set Insert Installation 1		
	Created by:	last edited:
	Joshua Vasquez	3/26/2022
	SCALE: 1:1	SHEET 2 OF 18

Install these heat set inserts using the Plate Press Technique

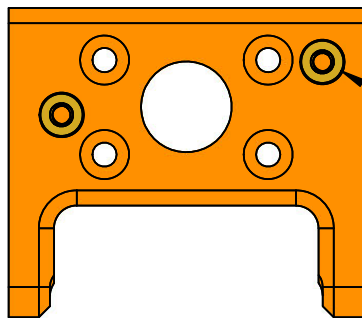


Be gentle installing these front heat set inserts as they can warp this corner of the plastic.

If you see this plastic warping, you can still push it back to it's original form while the plastic is still warm.




Top View

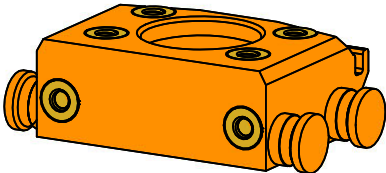
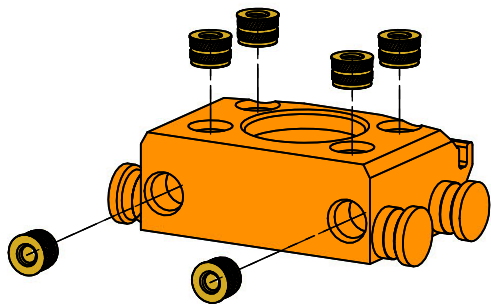


Note that the top inserts go in opposite corners.


ITEM NO.	DESCRIPTION	QTY.
1	M3 Tapered Heat Set Insert	6
2	Top Base Piece	1

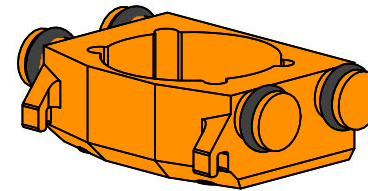
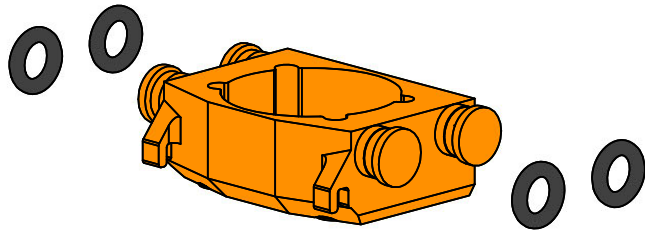
Heat Set Insert Installation 2		
	Created by: Joshua Vasquez	last edited: 3/26/2022
	SCALE: 1:1	SHEET 3 OF 18

Install these inserts like before.




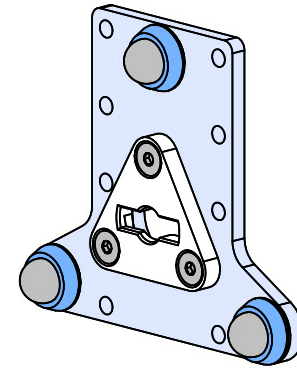
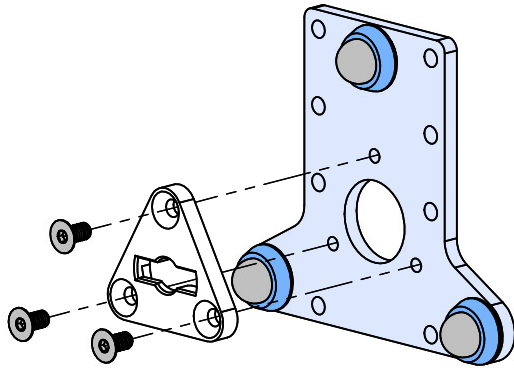
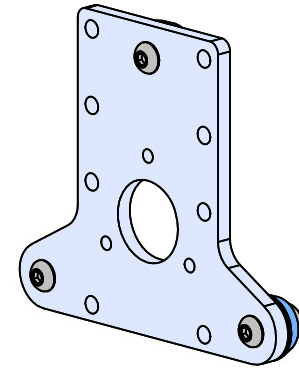
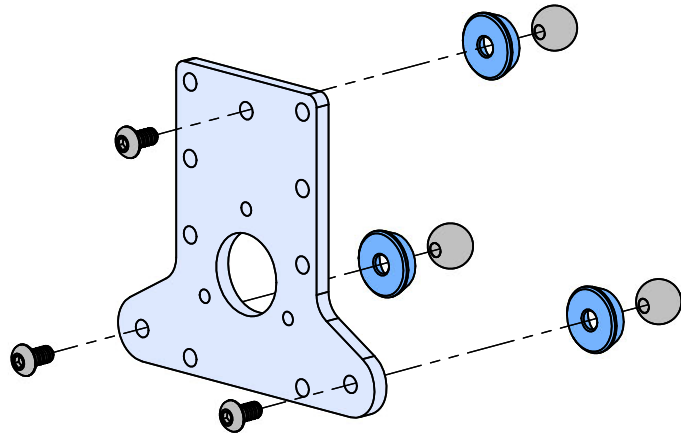
ITEM NO.	DESCRIPTION	QTY.
1		1
2	M3 Tapered Heat Set Insert	6

Heat Set Insert Installation 3		
	Created by: Joshua Vasquez	last edited: 3/26/2022
	SCALE: 1:1	SHEET 4 OF 18




ITEM NO.	DESCRIPTION	QTY.
2	M3 Tapered Heat Set Insert	6
3	5x9x2 O-Ring	4

O-Ring Installation		
	Created by: Joshua Vasquez	last edited: 3/26/2022
	SCALE: 1:1	SHEET 5 OF 18

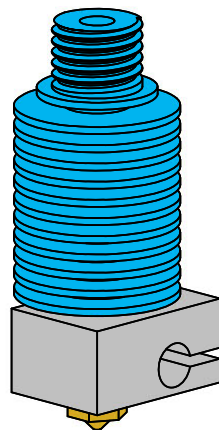


ITEM NO.	DESCRIPTION	QTY.
1	M3 Buttonhead Screw, 6mm long	3
2	M3 Flathead Screw, 6mm long	3
3	M3 Threaded 8mm Tool Ball	3
4	Tool Ball Cup	3
5	Wedge Plate	1
6	Tool Plate	1

Tool Plate Assembly		
	Created by:	last edited:
	Joshua Vasquez	3/26/2022
	SCALE: 3:4	SHEET 6 OF 18

Put together an E3DV6 Assembly based on E3D's Assembly Guide.

Include the Heater and Thermistor but not the PTFE
Tube and not the fan shroud.



E3D V6 Assembly

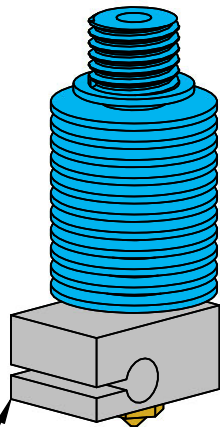
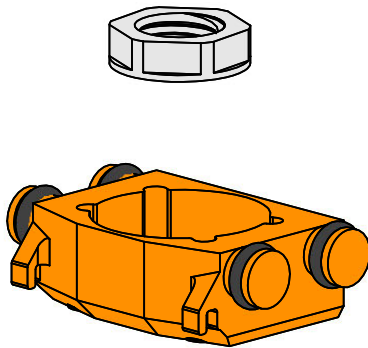


Created by:
Joshua Vasquez

last edited:
3/26/2022

SCALE: 1:1

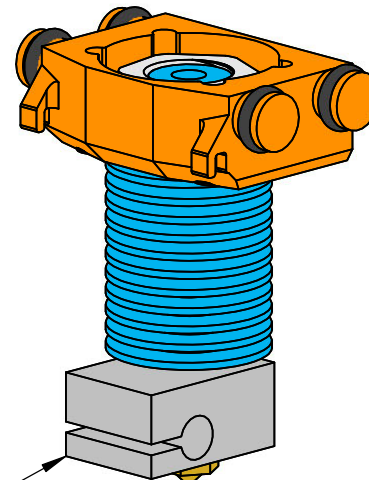
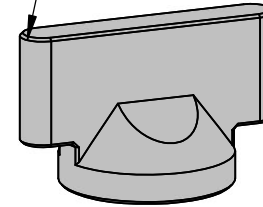
SHEET 7 OF 18



Note the orientation.

ITEM NO.	DESCRIPTION	QTY.
1	Bottom Base with Inserts	1
2	Hotend with PTFE Tube Installed	1
3	M12 Threaded Heatsink Nut	1
4	Threaded Heatsink Wrench	1

Use the nut tightener to secure the heatsink.
Remove the tightener when done.



Do not use this part of the hotend as a way to hold onto the assembly while tightening or the heatbreak will snap. Instead, hold onto it from the heatsink.

Hotend Installation

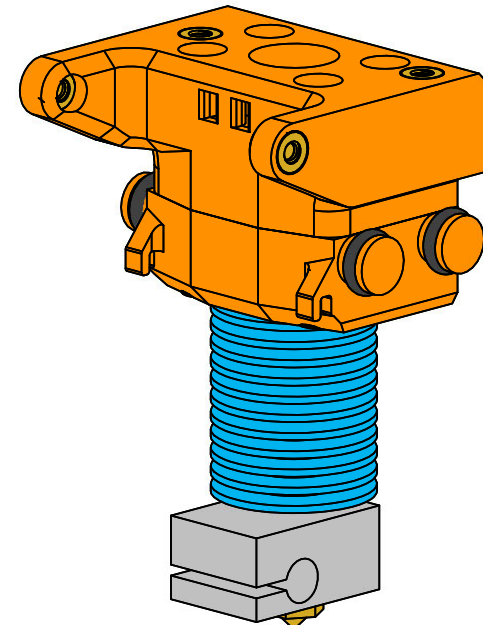
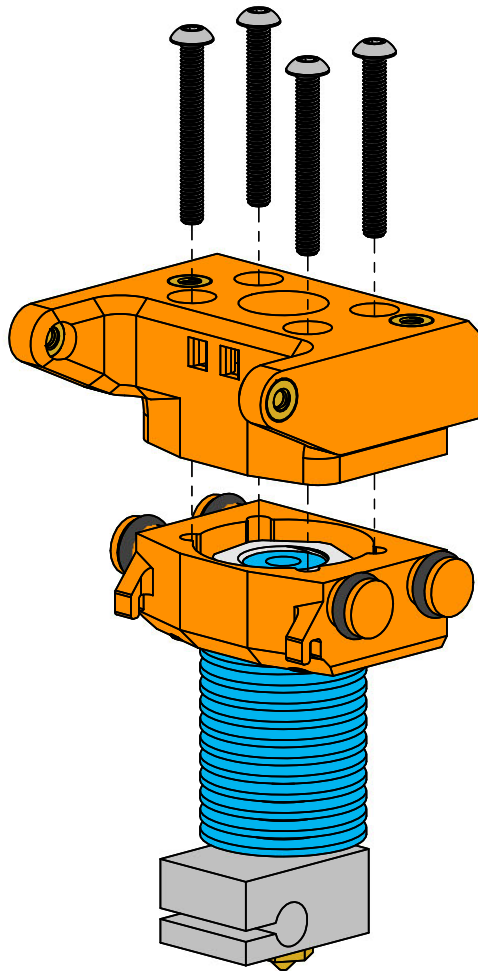


Created by:
Joshua Vasquez


last edited:
3/26/2022

SCALE: 1:1

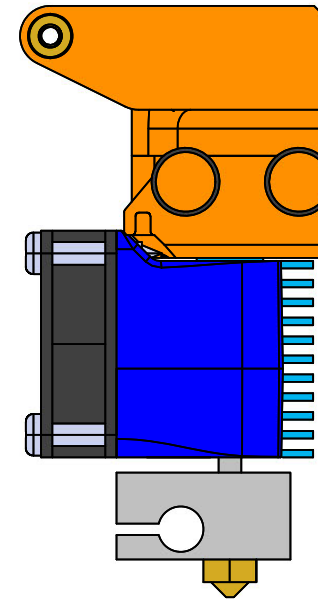
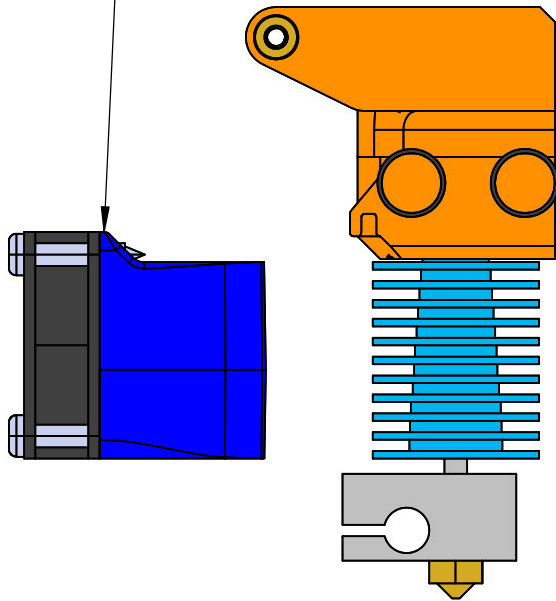
SHEET 8 OF 18



ITEM NO.	DESCRIPTION	QTY.
1	Top Base Piece with Inserts	1
4	M3 Buttonhead Screw, 25mm long	4

Hotend Base Assembly 1		
	Created by: Joshua Vasquez	last edited: 3/26/2022
	SCALE: 1:1	SHEET 9 OF 18

Note the orientation.



Hotend Base Assembly 2



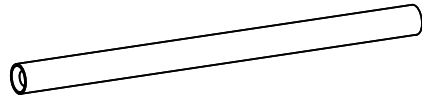
Created by:
Joshua Vasquez

last edited:
3/26/2022

SCALE: 1:1

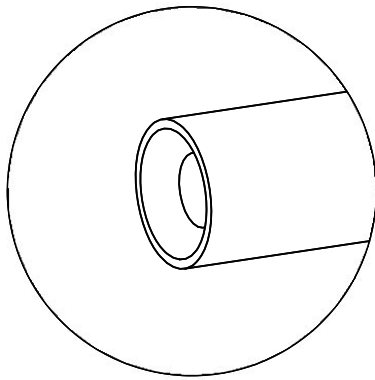
SHEET 10 OF 18

Use a PTFE Tube Cutter to cleanly cut the PTFE tube to the length specified below.



60.5mm for E3DV6 hotends.
45mm for E3D Revo6 hotends.

Ensure that the resulting cut is clean on both ends.



OK!



Not OK!

With a box cutter blade or chamfering tool, shape one end of the PTFE Tube.

Ensure that the PTFE Tube is clean on both ends and there is no debris anywhere in the tube or at the tips.

Warning: it is **absolutely critical** that the PTFE tube is cut cleanly and has **no debris**. Any small flakes of PTFE tube will result in horrific tool jams that are hard to debug

E3D PTFE Assembly

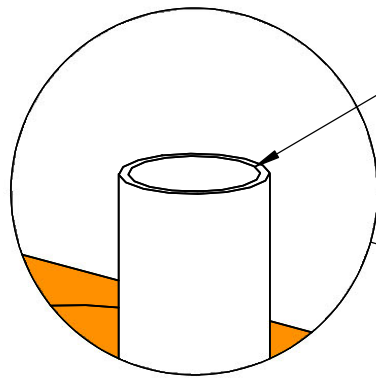


Created by:
Joshua Vasquez

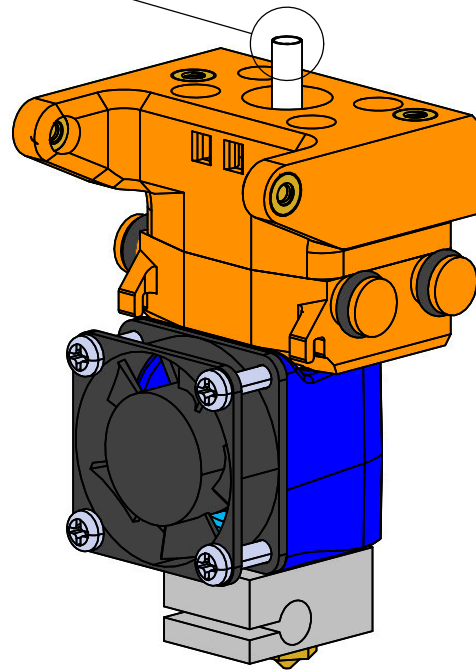
last edited:
3/26/2022

SCALE: 1:1

SHEET 11 OF 18



Install the PTFE Tube all the way until it hard-stops.
Note that the chamfered side should be sticking out.



Hotend Base Assembly 3

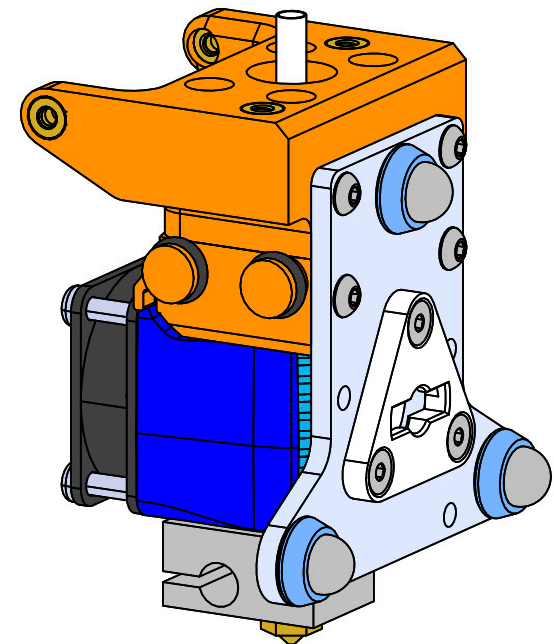
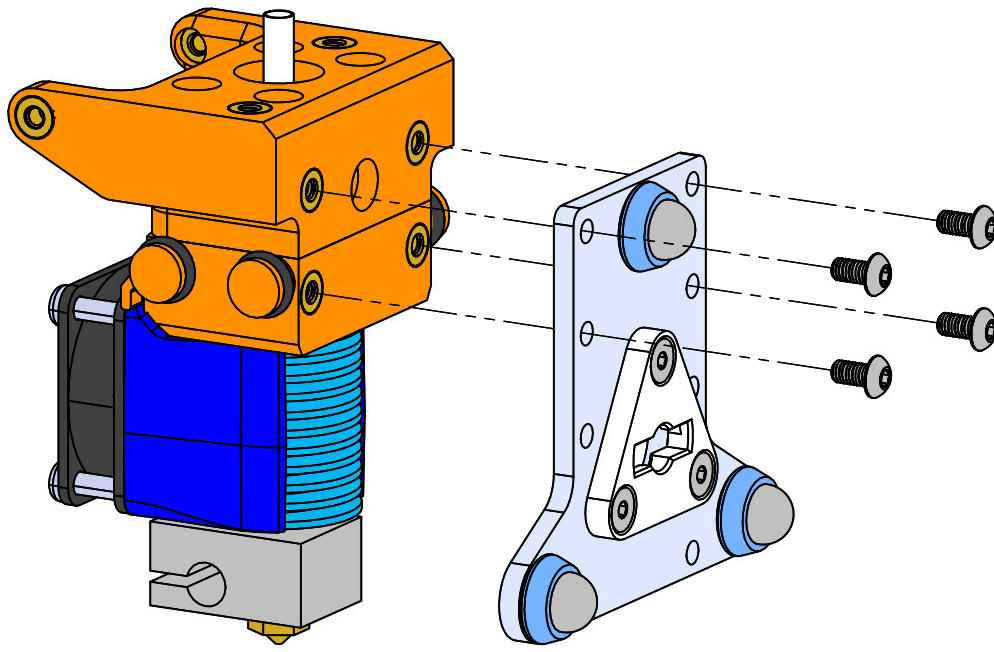


Created by:
Joshua Vasquez


last edited:
3/26/2022

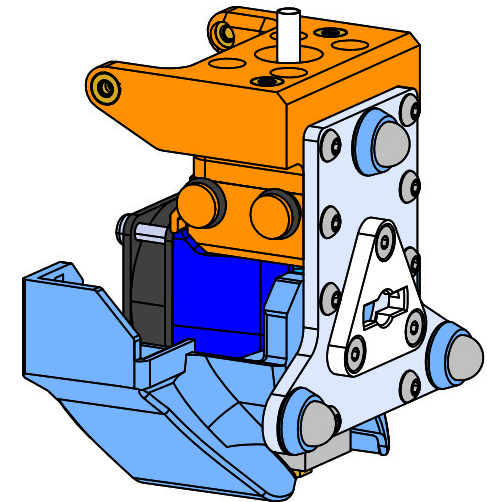
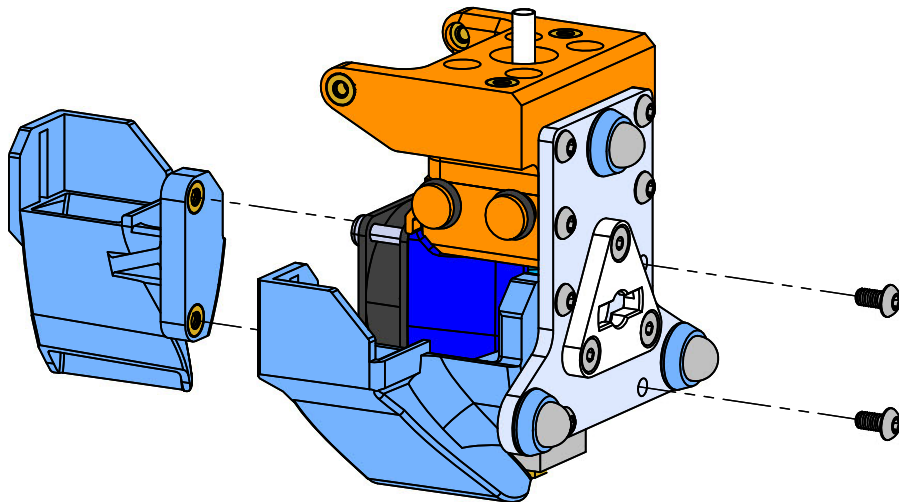
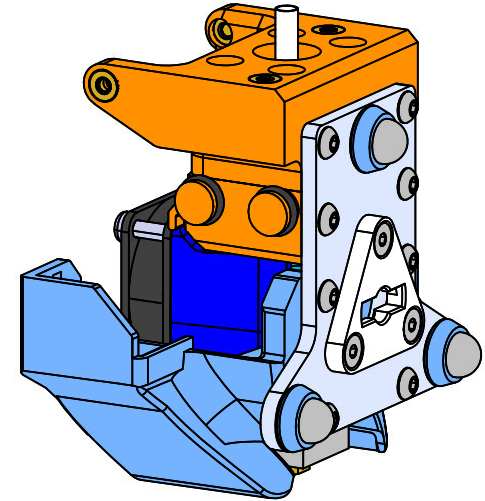
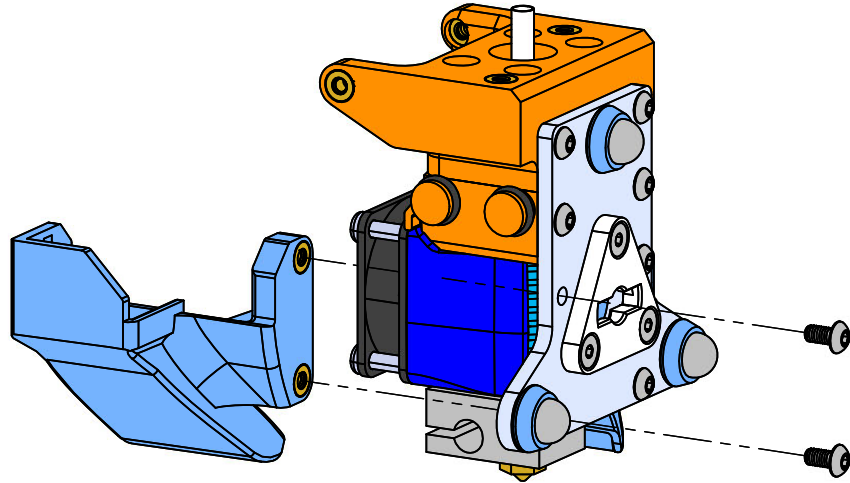
SCALE: 1:1

SHEET 12 OF 18




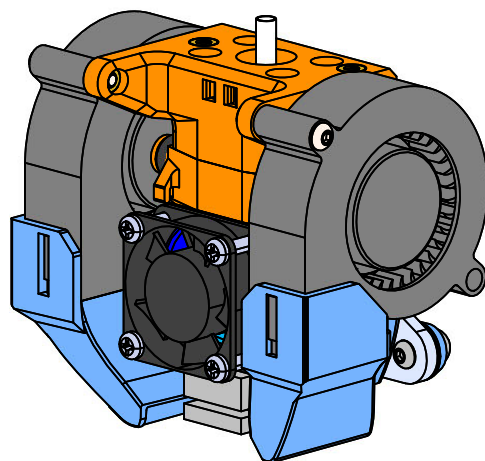
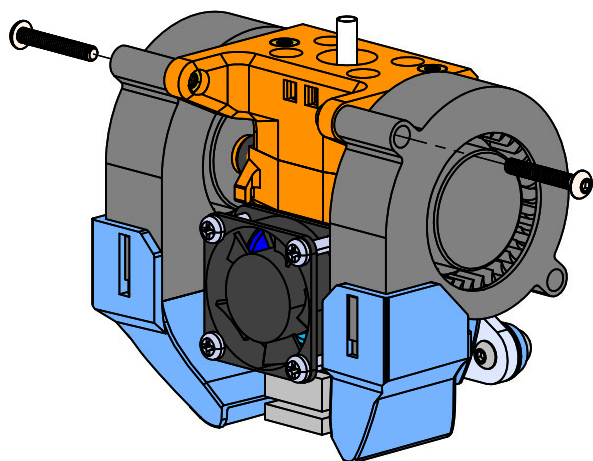
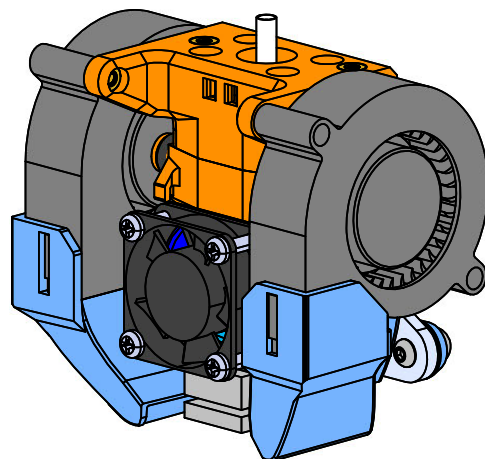
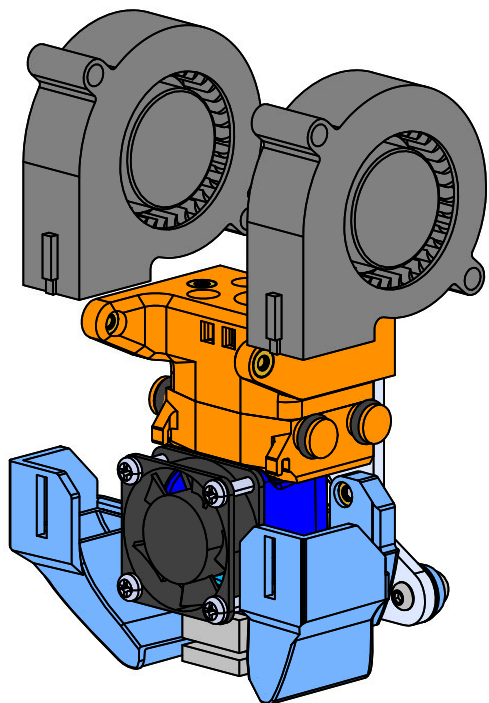
ITEM NO.	DESCRIPTION	
1	M3 Buttonhead Screw, 20mm long	4
2	Base Tool Plate Assembly	1

Hotend Assembly Installation		
	Created by:	last edited:
	Joshua Vasquez	3/26/2022
	SCALE: 1:1	SHEET 13 OF 18



ITEM NO.	DESCRIPTION	
1	M3 Buttonhead Screw, 6mm long	4
2	Right Fan Shroud with Inserts	1
3	Left Fan Shroud With Inserts	1

Fan Shroud Installation		
	Created by: Joshua Vasquez	last edited: 3/26/2022
	SCALE: 3:4	SHEET 14 OF 18



ITEM NO.	DESCRIPTION	
1	M3 Buttonhead Screw, 20mm long	2
2	5015 Blower Fan	2
7	Hotend Assembly	1

Fan Installation



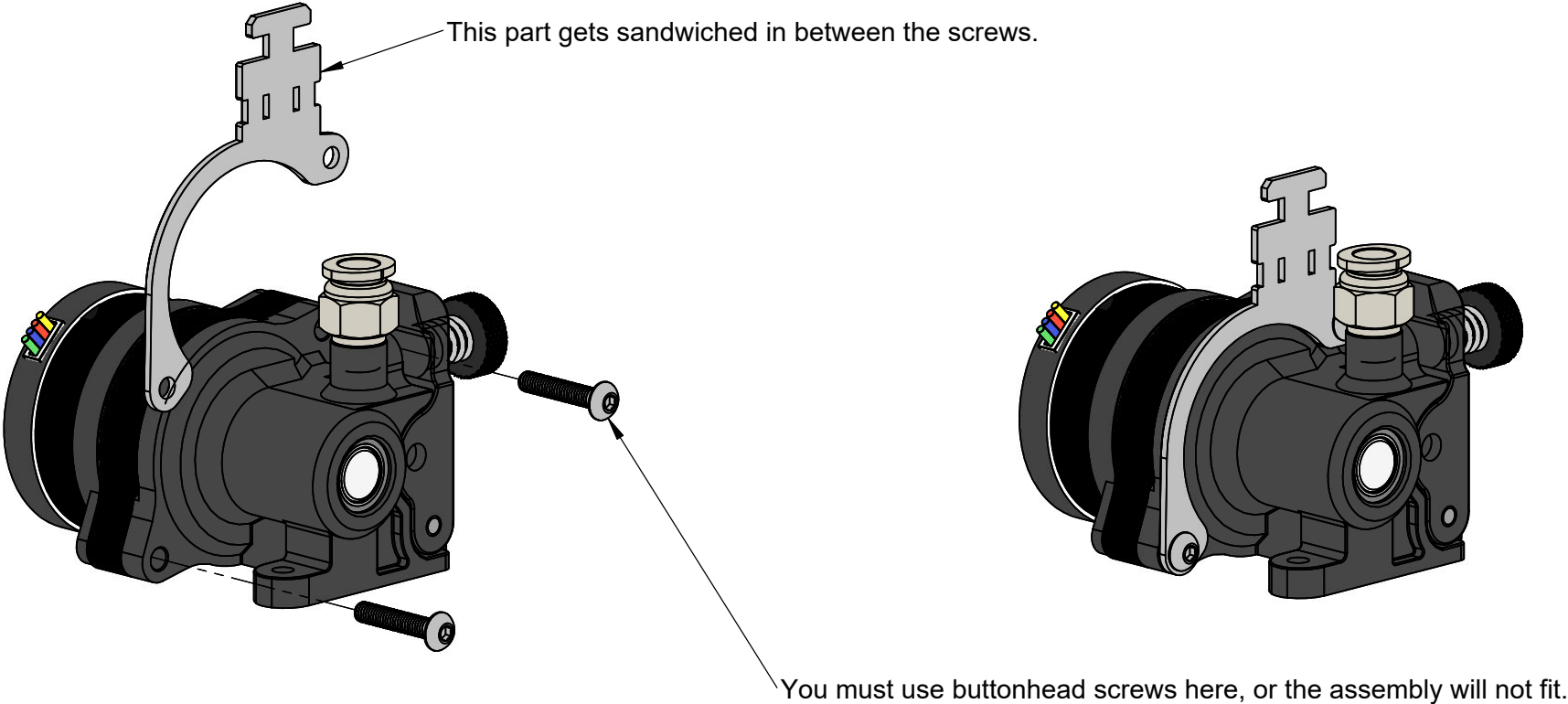
Created by:
Joshua Vasquez

last edited:
3/26/2022

SCALE: 2:3


SHEET 15 OF 18

This step is for the Orbiter 1.5. For Obiter 2.0 see the next page.



Note that the clearances for fitting these parts together are quite tight.

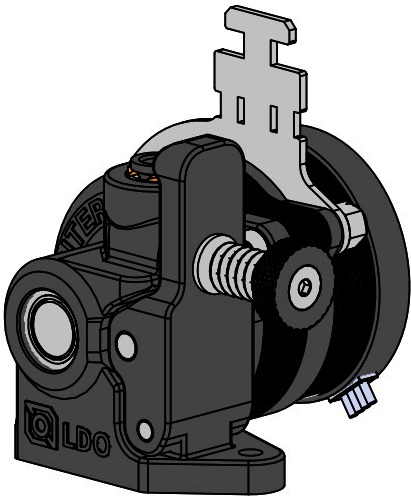
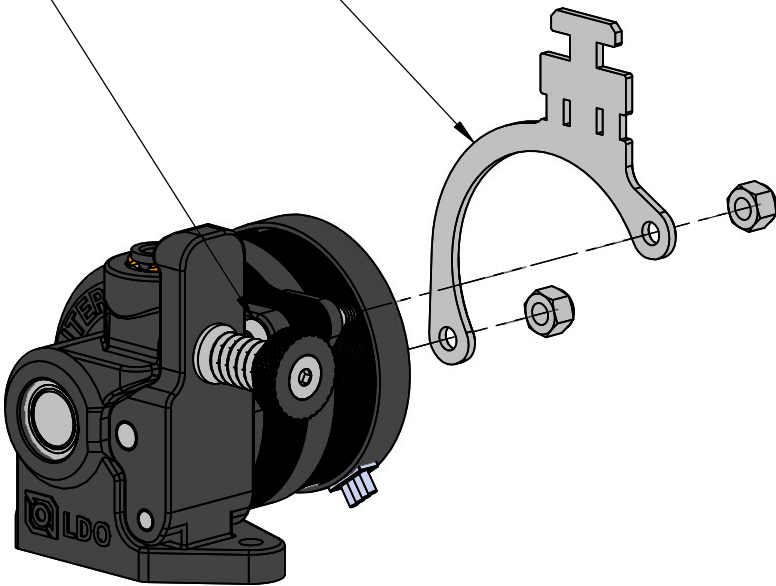
ITEM NO.	DESCRIPTION	QTY.
2	Orbiter 1.5 Assembly	1
3	Wire Harness Strain Relief	1
4	M3 Buttonhead Screw, 16mm long	2

Orbiter 1.5 Prep		
	Created by:	last edited:
	Joshua Vasquez	3/26/2022
	SCALE: 1:1	SHEET 16 OF 18

This step is for the Orbiter 2.0. For Obiter 1.5 see the previuos page.


Replace the included screws with wo M3, 18mm long screws.

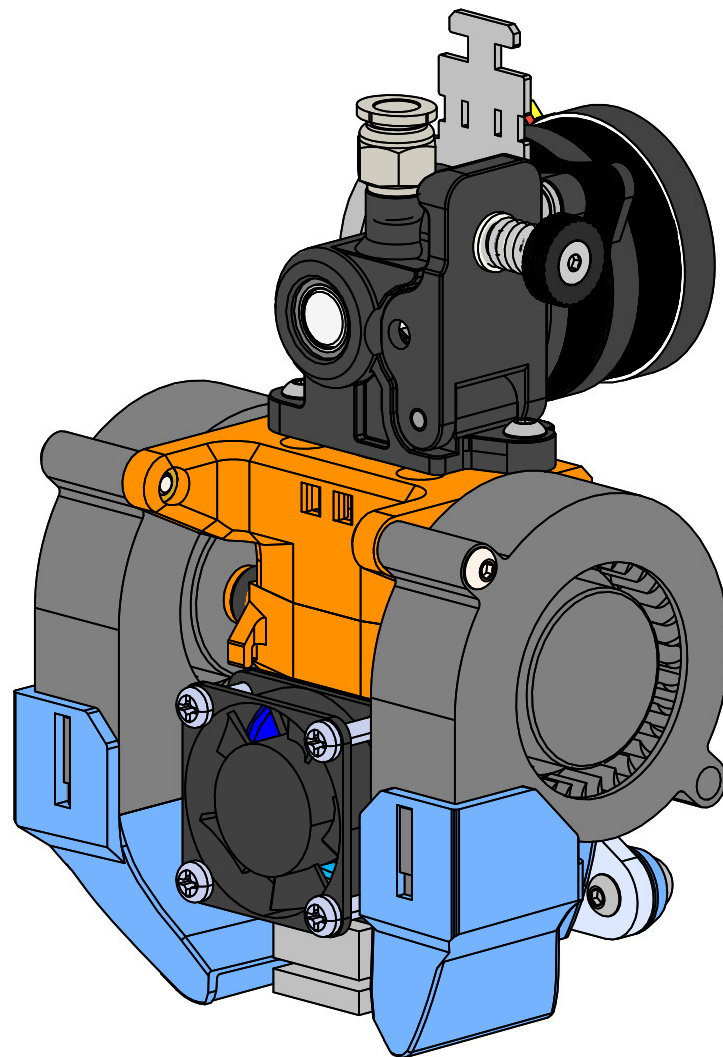
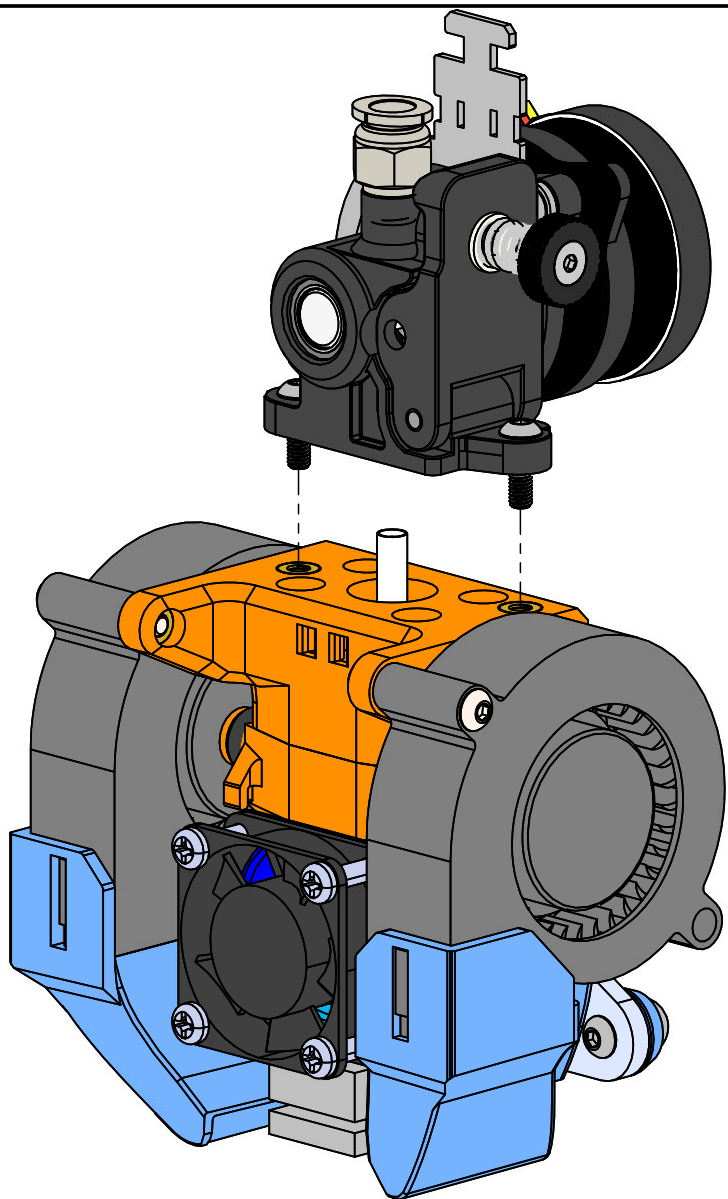
This part is distinct from the 1.5 version and attaches behind the motor bolt holes.




Note that the clearances for fitting these parts together are quite tight.

ITEM NO.	DESCRIPTION	QTY.
1	Orbiter V2.0	1
2	M3 buttonhead screw, 18mm long	2
3	Wire Harness Strain Relief	1
4	M3 Locknut	2

Orbiter 2.0 Prep		
	Created by:	last edited:
	Joshua Vasquez	3/26/2022
	SCALE: 1:1	SHEET 17 OF 18



ITEM NO.	DESCRIPTION	
9	M3 Buttonhead Screw, 10mm long	2

Orbiter Extruder Assembly		
	Created by:	last edited:
	Joshua Vasquez	3/26/2022
	SCALE: 1:1	SHEET 18 OF 18