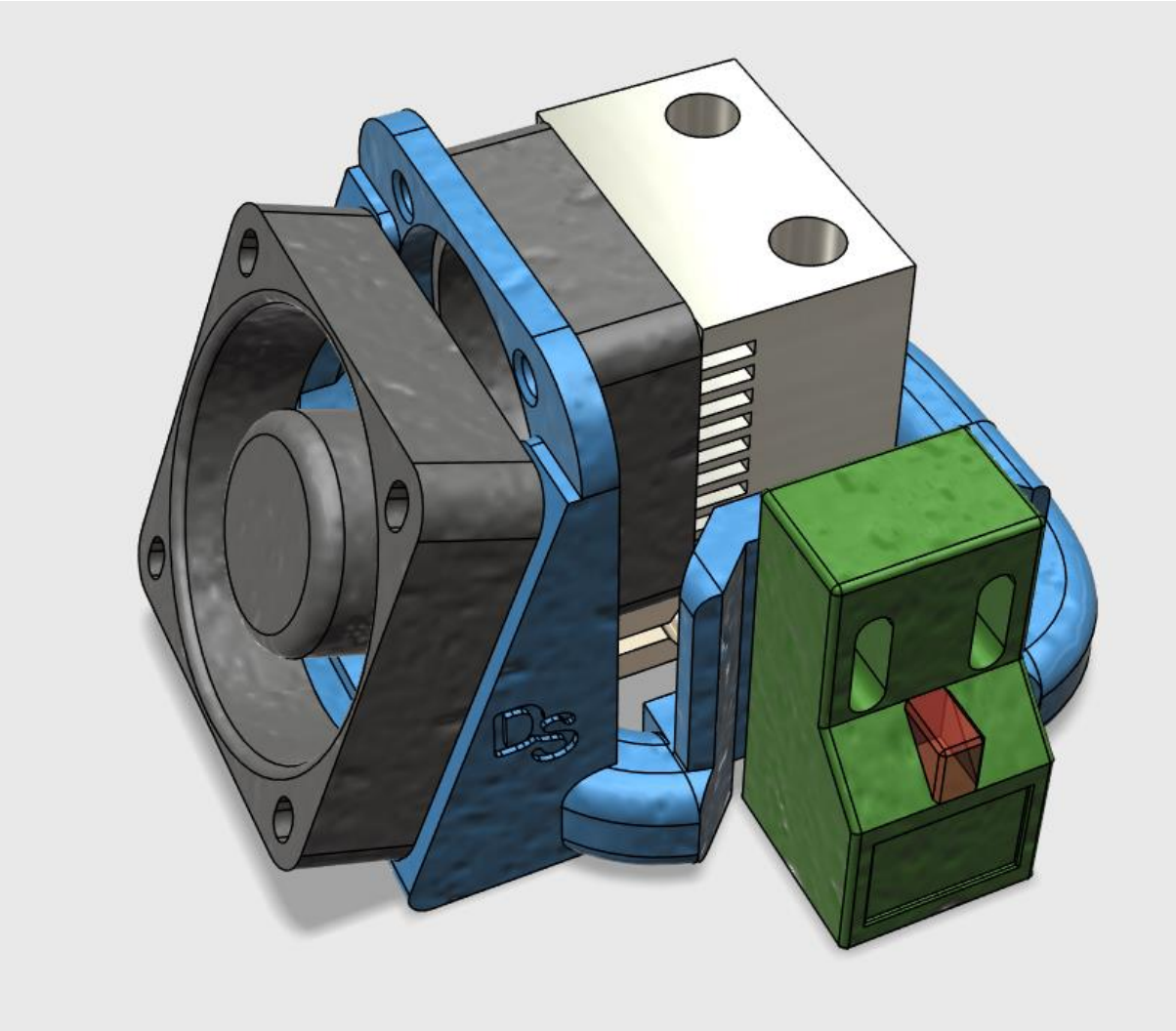
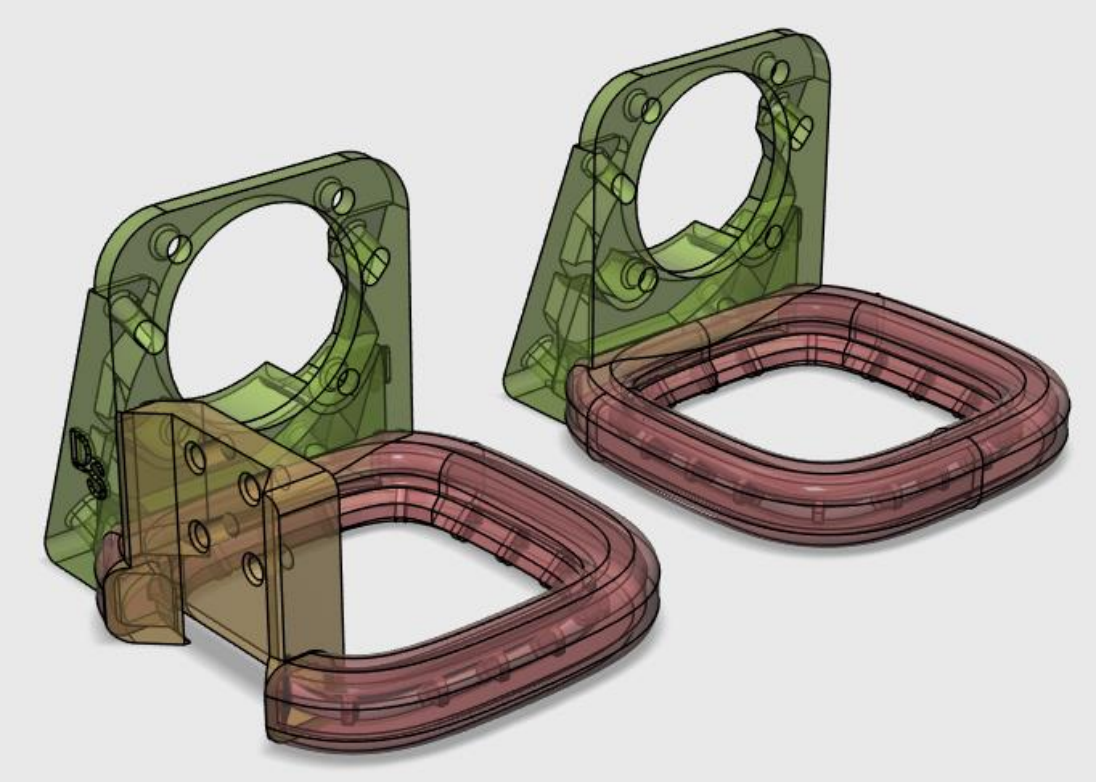
LPA_Fanduct_Tarantula



Current : Version 3.5

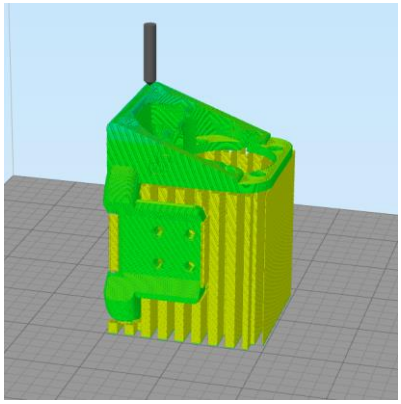
- Sensor-mount support designed by Doron Shalev : 360° airflow continuity
- Version without sensor support (side printing)
- Stronger support (green part)
- Compatible with stock and E3Dv6 hotends
- Beta versions for 8mm Inductive/Capacitive sensors and BLTouch (see below)

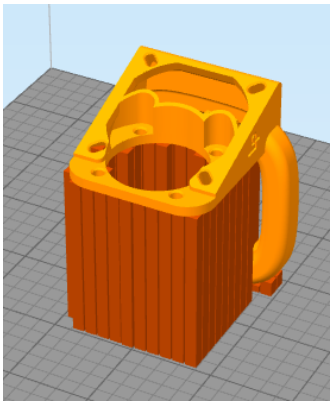


Printing Guide :

Side Way :

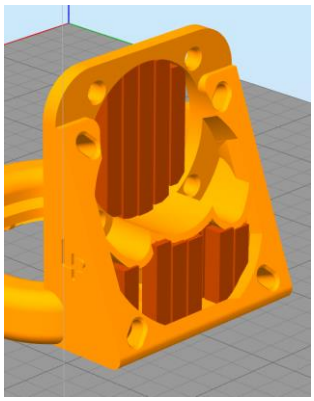
For best looking result, you can print it on the side (recommended by Doron):

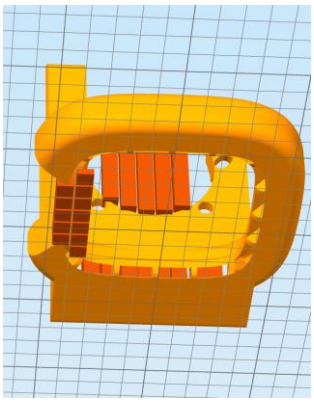




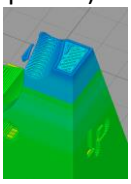
- Support size : 4mm
- Very longer time to print due to supports but better result and less retraction risk as the duct lay on the front.
- Not any support needed in the ring (ensure there's no or they will be hard to remove).

Natural Way

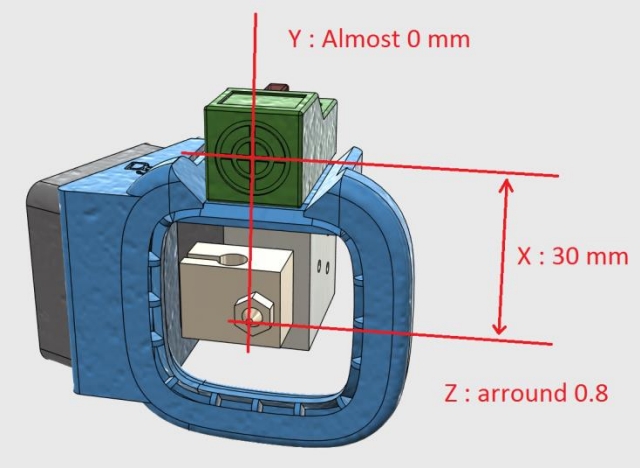




- Support size : 4mm
- Ensure you don't have any support inside the ring otherwise it will be impossible to remove them.
- Supports for the 30mm hole are not mandatory if you've already have a fanduct.
- If you can, you can lower the speed to >30% on Layers 10 to 12 and from 176 to 186 (at the top where a very little part will be printed in the "air" – but no consequence) :



Implementation in Firmware



In Auto Level configuration :

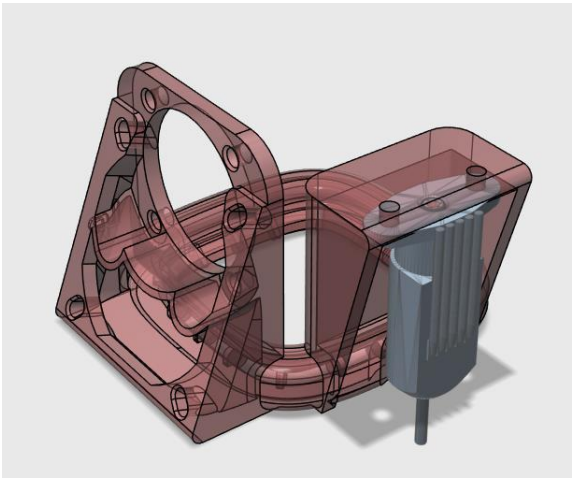
X_PROBE_OFFSET_FROM_EXTRUDER=30
Y_PROBE_OFFSET_FROM_EXTRUDER=0
Z_PROBE_OFFSET_FROM_EXTRUDER=0.8

Special thanks to Pest Vic for the initial design and idea and to Doron Shalev who found the solution for the 360° airflow continuity.

Beta Versions for other Sensors

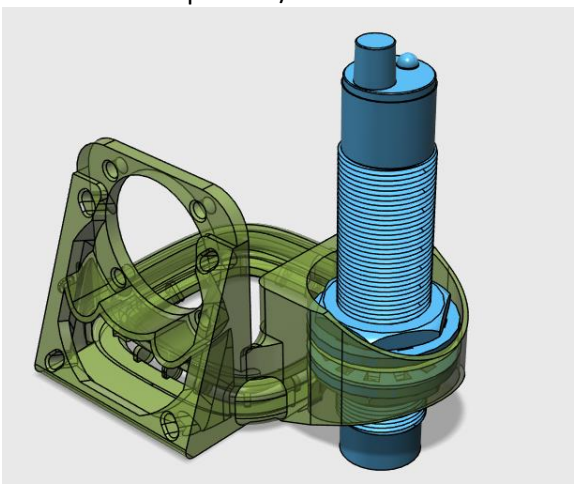
I've designed versions for BLTouch and 8mm Capacitive/Inductive sensors but I've not tested them as I don't own these sensors. You may try them and provide me your feedback :

BL Touch Version



X_PROBE_OFFSET_FROM_EXTRUDER=35
Y_PROBE_OFFSET_FROM_EXTRUDER=0
Z_PROBE_OFFSET_FROM_EXTRUDER=TBD

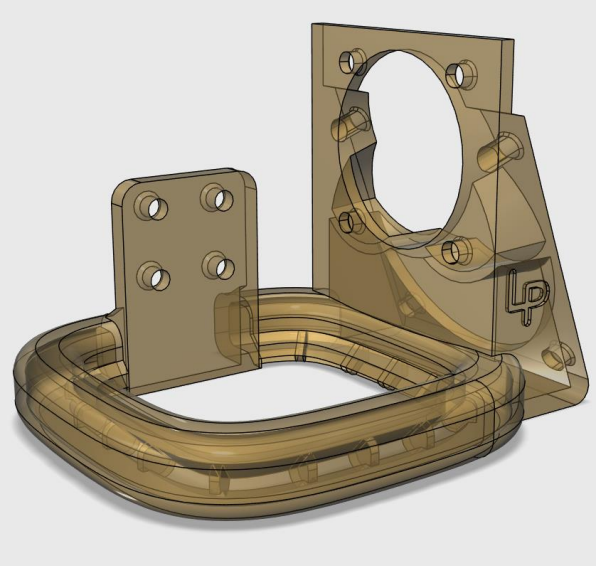
8mm Capacitive/Inductive Version



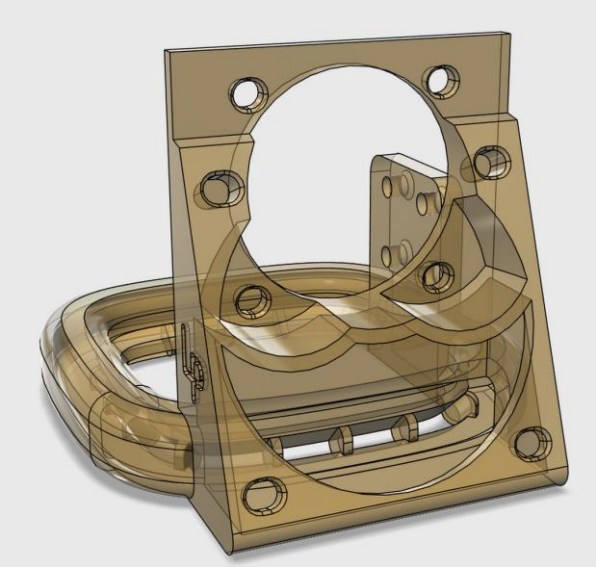
X_PROBE_OFFSET_FROM_EXTRUDER=38.5
Y_PROBE_OFFSET_FROM_EXTRUDER=0
Z_PROBE_OFFSET_FROM_EXTRUDER=TBD

Previous : Version 3.0 RC1

- Enlarged holes for 30mm stock fan.
- Upper part of 40mm fan support removed
- 2 holes added for sensor mount (initial ones were a little too low)
- Strengthened upper part of 40mm fan support



Side view



Rear view

Improvements :

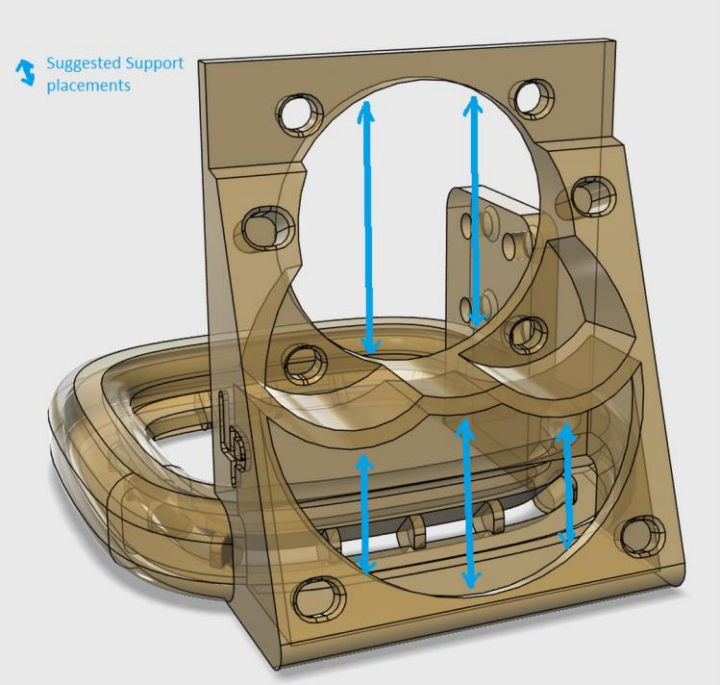
- Heat break airflow correctly ensured
- Less support needed when printing : only needed for the airflow separator on 40mm fan mount.
- Version without sensor-support added

Drawbacks or expectations :

- Still no way found to ensure 360° cooling.
- Not tested with E3DV6 (but should work)
- Not tested with Chimera dual-head (but may work)

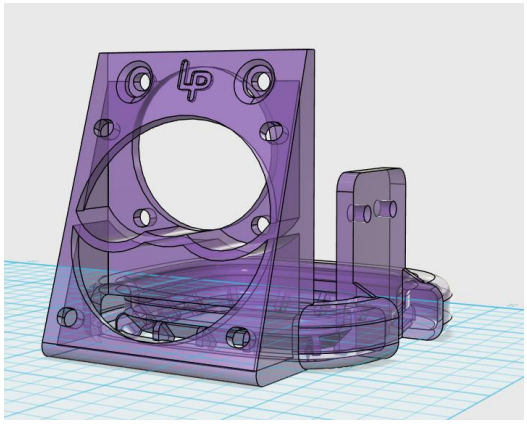
Printing advices :

- For S3D users : don't use Support-Auto-Generation feature otherwise the air-ring will be full of un-removable supports (I talk per experience ^^).
- Only the airflow separator would need supports but if you're already equipped with a fanduct, it may not be necessary (I personally printed it without)


Suggested Support placements

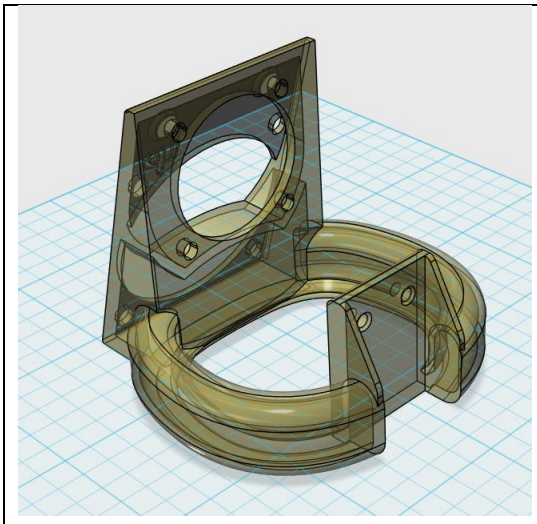
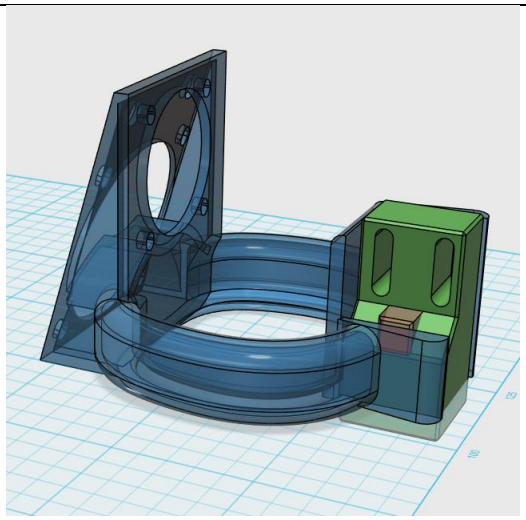
Previous : Version 2.0

- Complete review of the ring : smaller but thicker
- Addition of ring feet to avoid usage of support on this part.



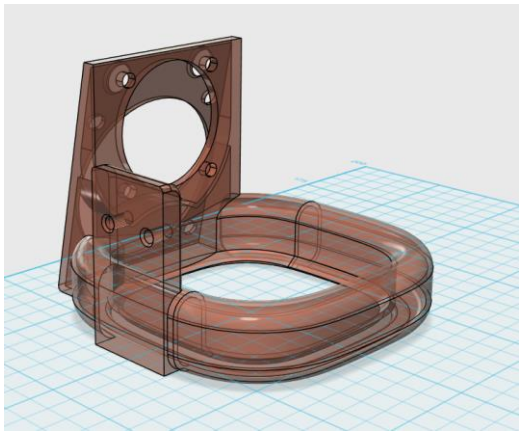
Previous : Versions 1.5S & 1.5F

- Stronger support for sensor

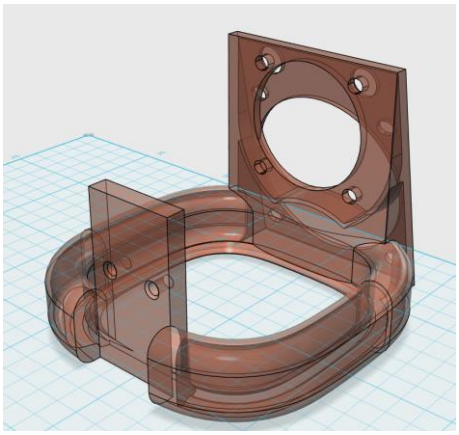
	
V1.5F	V1.6F

Previous : Versions 1.0S & 1.0F

- Full redesign – more rounded airflow donut.
- Sensor mount does not block the airflow on S version (Side) but still on F version (Front)



V1.0S



V1.0F

Obsolete Versions : Mount support on S version vas too eccentric and no way to adjust sensor height on F version.

Version 0.1

- Adaptation of Pest Vic's fanduct to add a support for the stock sensor (used for bed levelling)