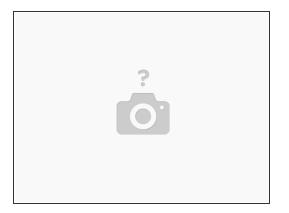
Makertech Stage 05 - Tool Carriage

Written By: Makertech

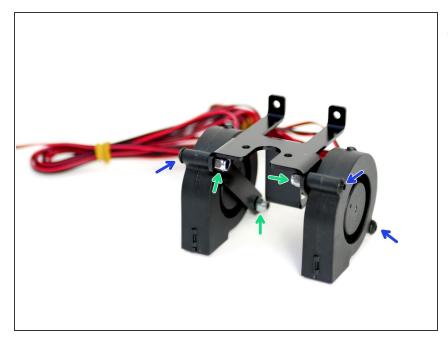


Step 1 — Dual Switching Extruder



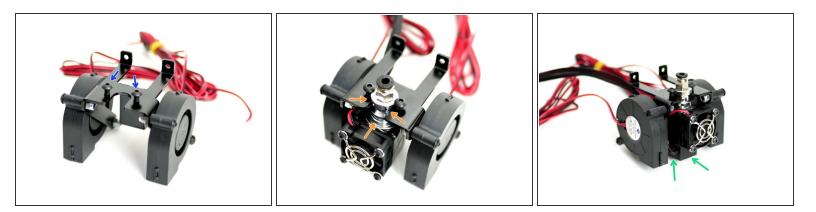
(i) If you are building the Dual Switching Extruder complete **only steps 7 and 8** of this stage.

Step 2 — Print Fans to Hotend Mount



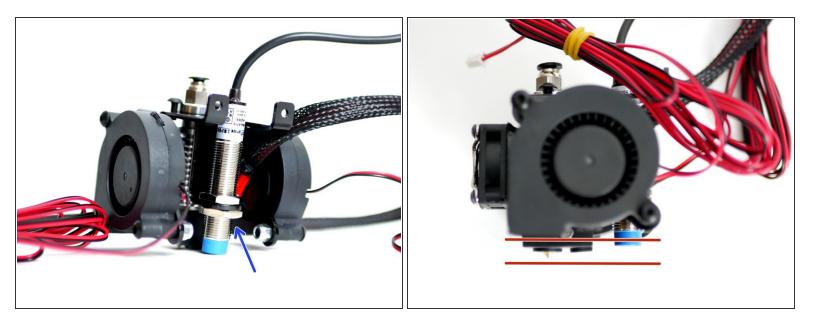
- (i) Fix both of the blower fans to the sides of the Hotend Mount.
 - M4 x 22mm
 - M4 Nyloc Nut

Step 3 — Mounting the HotEnd



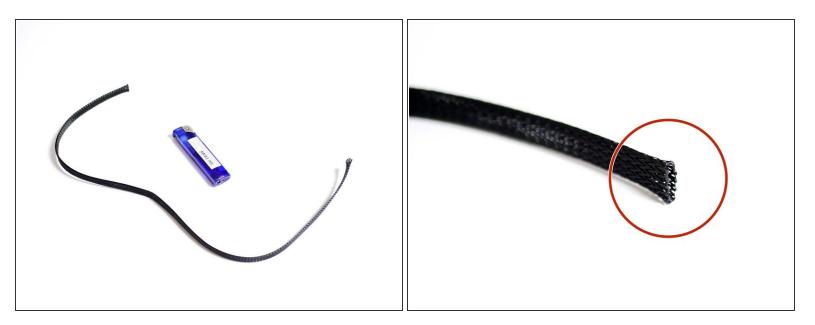
- Thread two M4 x 8mm bolts onto the top of the HotEnd bracket.
- Slide the HotEnd in and clamp it down with the two M4 bolts.
- Keep the this side of the HotEnd parallel with the front of the Hotend Mount
- Make sure that the cables from the Hotend are facing the left side.

Step 4 — Bed Levelling Probe



- Clamp the probe onto the back of the Hotend Mount.
- Keep the bottom of the probe a few millimeters **above** the tip of the nozzle.

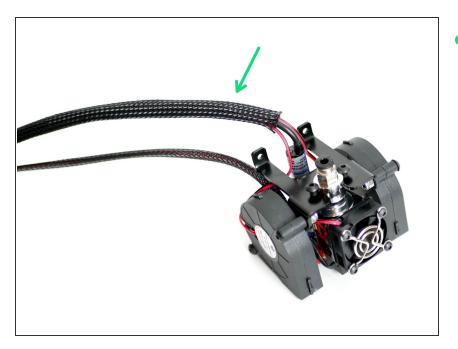
Step 5 — Braided Cable Sleeving Prep.



(i) Cut 1 meter of the braided cable sleeving.

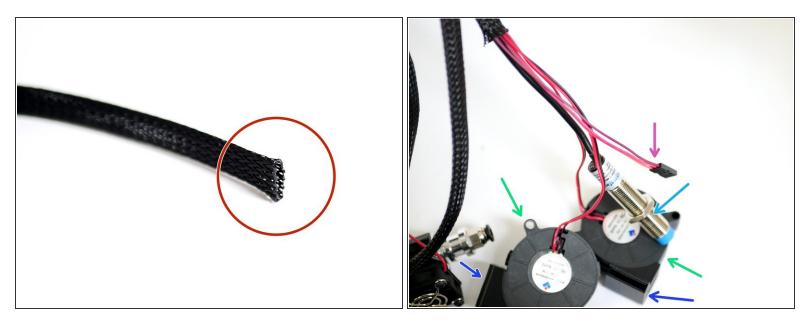
• Melt the ends with a lighter to prevent fraying.

Step 6 — Braided Cable Sleeving



 Slide the cable sleeving over the blower fan and probe cables.

Step 7 — Braided Cable Sleeving (Dual Extruder Only)



(i) Cut 1 meter of cable sleeving.

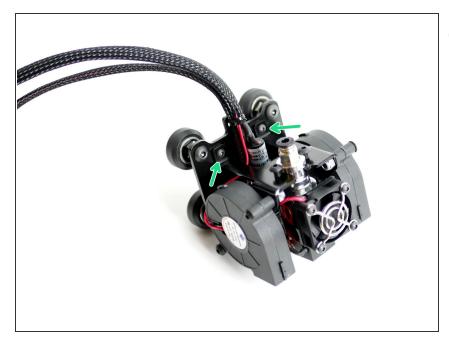
- Melt the ends with a lighter to stop them from fraying.
- (i) Slide the sleeving over the cables from:
 - Blower Fan (x2)
 - Probe
 - Servo Cable (From the Dual Extruder Upgrade box)
- You can also snap on the fan shrouds here too.
- (i) Place this assembly to one side for now.

Step 8 — Y-Carriage Rollers



- (i) Assemble Y-Carriage rollers as shown in the images:
 - Four M5 x 25mm bolts
 - Two M5 Spacers
 - Two Eccentric Spacers
 - Four M5 Washers
 - Roller Assembly
 - Two M5 Nylocs Tighten Firmly
 - Two M5 Nylocs Tighten Loosely (eccentric spacer should still be able to turn)

Step 9 — HotEnd mount to Y-Carriage



- *i* Fix the HotEnd Mount assembly onto the Y-Carriage.
 - M3 x 8mm bolt

Step 10 — Fan Shrouds



• Snap both of the 3D Printed Fan Shrouds onto the Blower Fans.