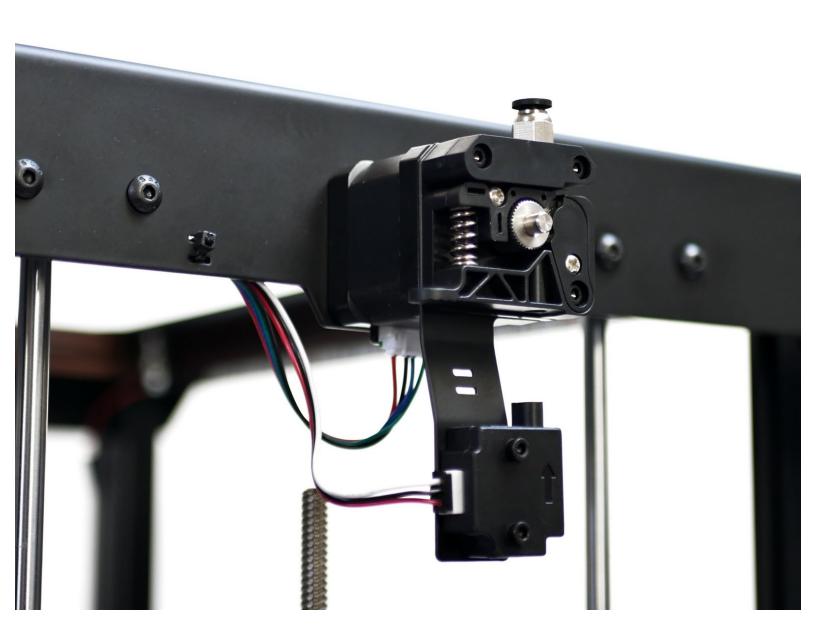
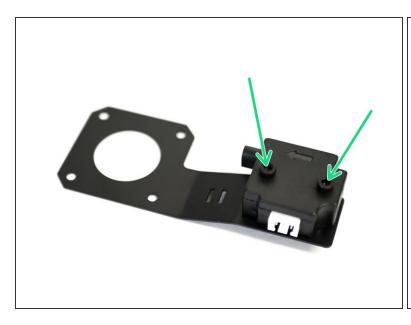
Makertech

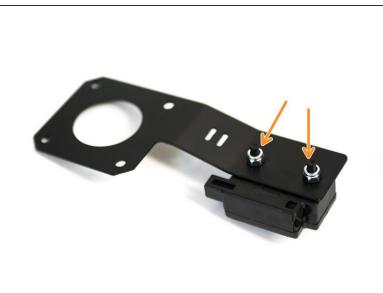
Stage 03: Extruders

Written By: Makertech



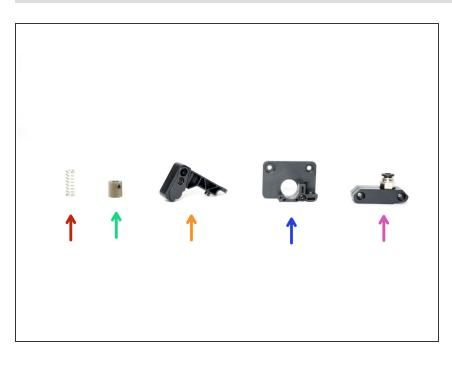
Step 1 — Filament Sensor Mount





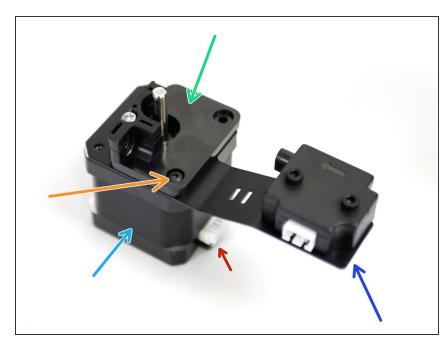
- (i) Take the filament sensor mount and fix a filament sensor onto it as shown.
 - M3 x 20mm
 - M3 Nyloc

Step 2 — The Extruder Components



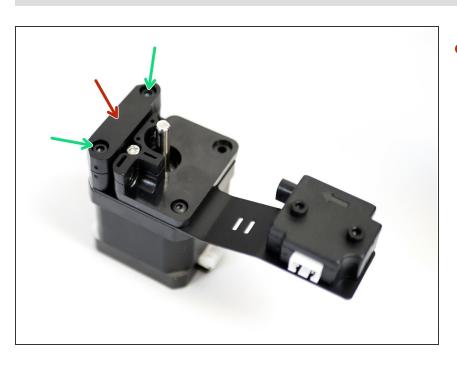
- Extruder Spring
- Drive Gear
- Idler Arm
- Back Plate
- Coupling Mount
 - This part may have split, it contains a brass nut also. The coupling is attached later.

Step 3 — Extruder Assembly



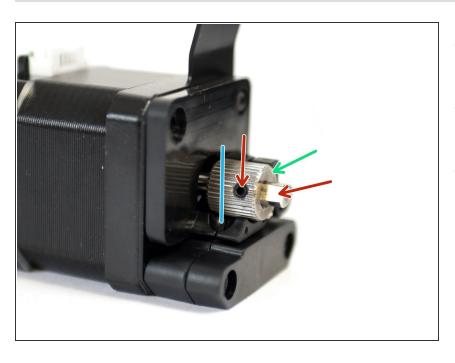
- (i) Take the following components and secure together with one M3 x 6mm bolt.
 - NEMA 17 Motor
 - Filament sensor mount assembly
 - Extruder Backplate
 - M3 x 6mm Bolt
- Note the orientation of these components. In particular, the connector on the NEMA 17 motor.

Step 4 — Extruder Assembly Cont.



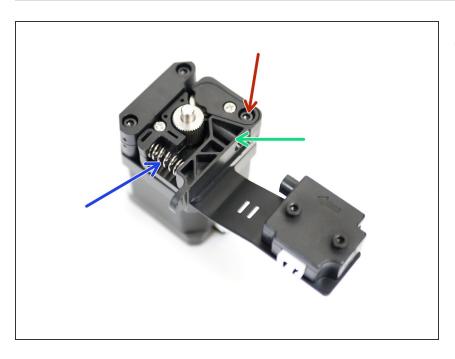
- Fix the coupling mount to the Motor face.
 - M3 x 16mm bolt

Step 5 — Extruder Assembly Cont.



- Slide the drive gear onto the motor's shaft.
- Secure the grub screw against the flat of the shaft.
- Align the gear so that the teeth line up with the path of the filament.

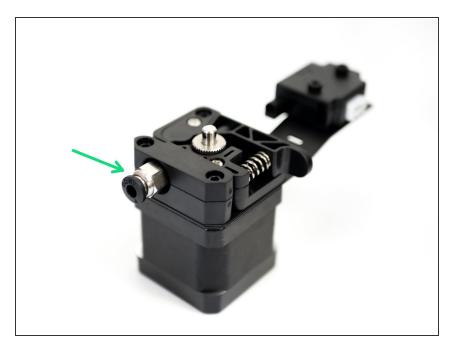
Step 6 — Idler Arm



- Fix the Idler arm to the assembly.
 - M3 x 16mm bolt
 - Spring

Stage 03: Extruders Guide ID: 99 - Draft: 2022-05-20

Step 7 — **Pneumatic Coupling**



 Fix the pneumatic coupling onto the extruder assembly.

Step 8 — NEMA 17 Bolts



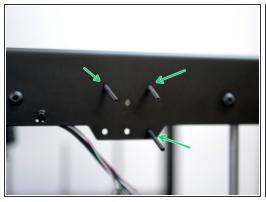
 From the rear of the NEMA 17 motor remove three of the four bolts as shown. Stage 03: Extruders Guide ID: 99 - Draft: 2022-05-20

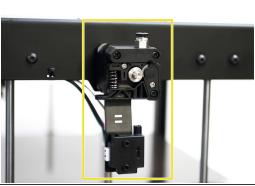
Step 9 — Mounting Bolts



(i) Take three M3x40mm bolts and slide onto each an M3x2mm spacer.

Step 10 — Extruder Assembly to Top Panel



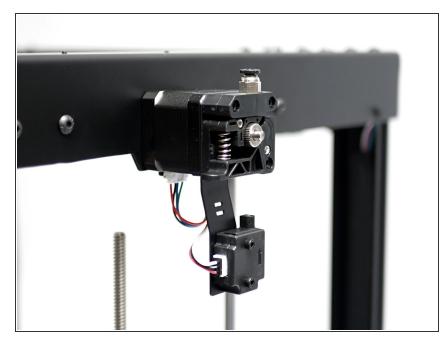




- Slide the bolts in through the mounting holed on the Top Panel, from the inside.
- Secure the Extruder assembly to the frame of the Proforge 3.
- Finally, connect the motor and sensor cables.

Stage 03: Extruders Guide ID: 99 - Draft: 2022-05-20

Step 11 — Second Extruder



(i) Repeat the previous steps for the second extruder on the right side of the printer.