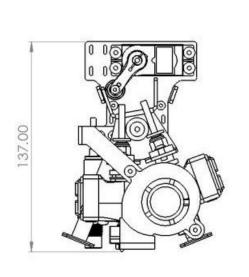
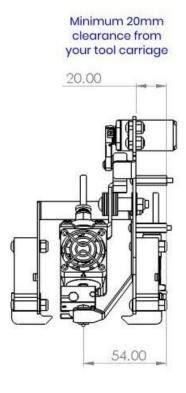
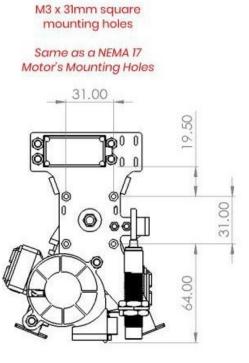
## Makertech

# DSE Only - Stage 01: Preparing your Printer

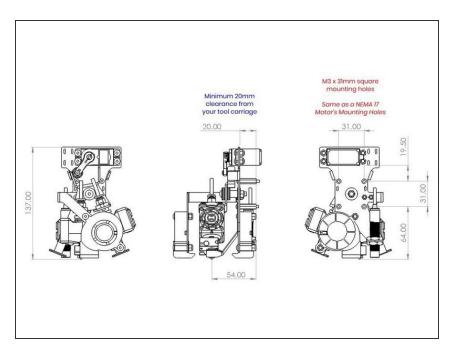
Written By: Makertech





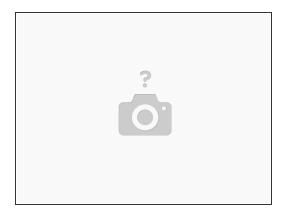


#### Step 1 — 3D Model of the Dual Switching Extruder



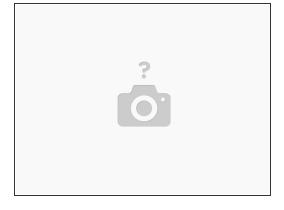
- Before installing you may find it helpful to model the DSE (Dual Switching Extruder) in CAD before beginning your installation.
- DSE STEP Model

#### **Step 2** — Bowden Extruder Preparations



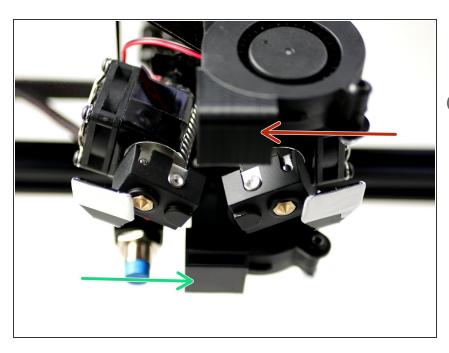
- Make sure you have space for mounting two bowden extruders onto the frame of your printer.
- Make sure the extruders have a clear path for the PTFE tubing that will lead to the Hotends.
- Make sure there's also a clear path for the wiring from the extruders to your control board also.
- Cable lengths: 2M (12V may vary)
- PTFE tube length: 60CM

#### Step 3 — DSE Assembly Mounting Checks



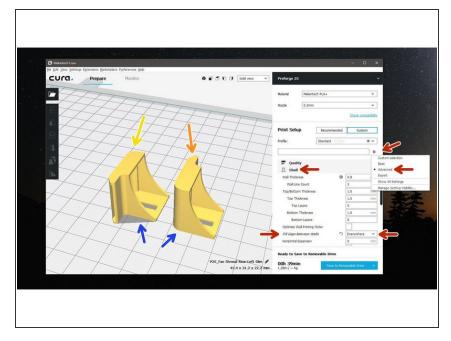
- The Entire DSE assembly will be fixed to your printers' tool carriage by 4 M3 bolts.
- The mounting holes should be spaced 31mm square.
- Spacing around the carriage should also be considered.
- If your printers gantry is a piece of 2020 aluminium extrusion you may be able to use the Proforge 2S tool carriage, available for separate purchase <a href="here">here</a>.

### Step 4 — Fan Shrouds



- (i) Fan shrouds can be found here, you can download and print them first before making modifications to your current setup.
- DSE Rear Fan Shroud
- DSE Front Fan Shroud

#### Step 5 — Printing the Fan Shrouds



- When arranging the models in Cura make sure to have the large flat side flat against the build platform.
- From the setup menu check
   Advanced, scroll down to the Shell
   tab and set Fill Gaps Between Walls
   to Everywhere.