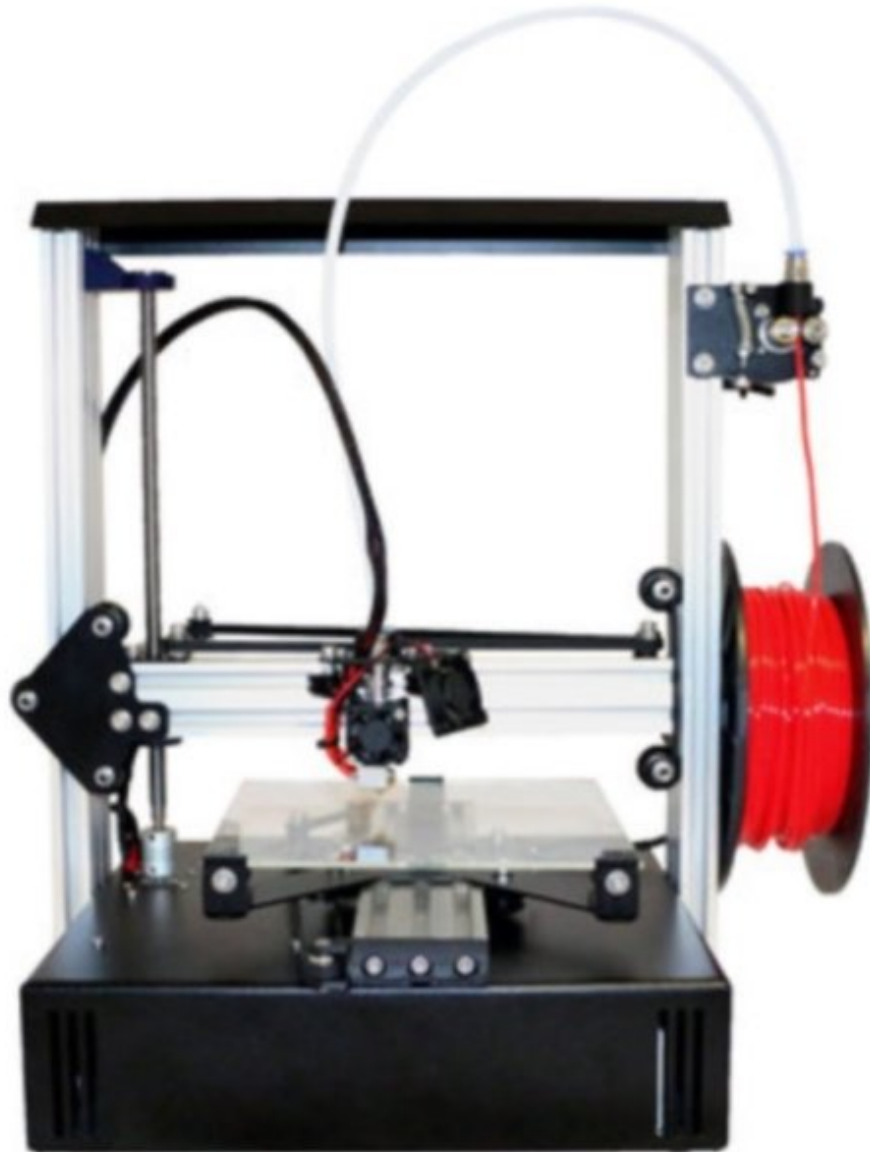# Maker's Tool Works

Fusematic Build Guide

Instructions for the building of the FuseMatic 3D Printer.

Written By: Roy

INTRODUCTION

Thanks for your purchase of the Maker's Tool Works FuseMatic!

We are currently working to update the FuseMatic build documentation to the Dozuki format. If you find a section particularly difficult and have a better way of achieving a build section we ask you to provide comments so we can make the build as easy as possible for all FuseMatic users.

🔧 TOOLS:

- Screwdriver (1)
- Allen Wrenches (3)
- Plier (1)
- Scissor (1)
- Wire Stripper (1)
- Drill (1)
- Xacto Hobby Knife (1)
- Small File (1)

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Step 1 — Getting Started
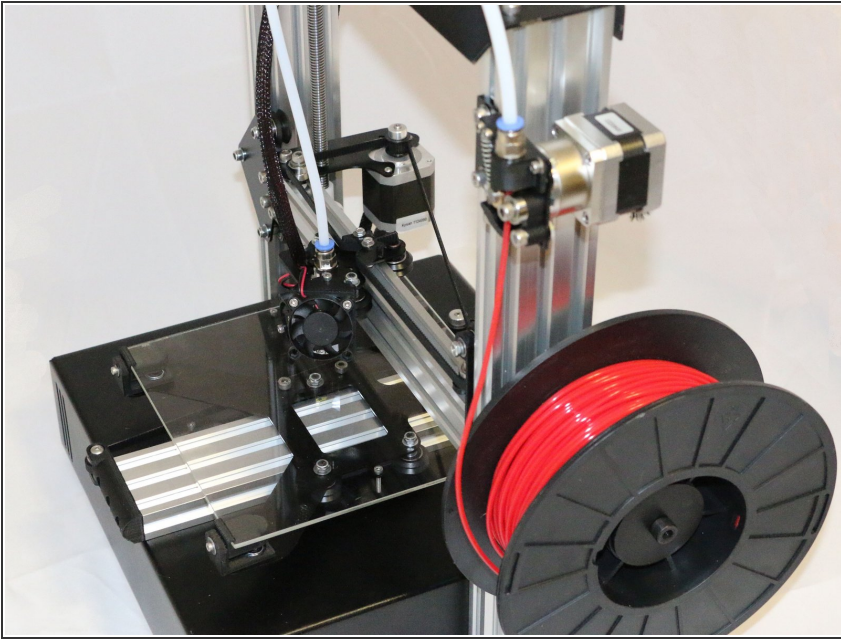
- There are a few different types of screws used: SHCS: Socket Head Cap Screw, BHCS: Button Head Cap Screw, FHCS: Flat Head Cap Screw.

- The T-nuts are installed with the protrusion toward the extrusions

Step 2 — Attaching the Y Rail

- Line 4 T-nuts in middle rail spaced roughly equal with 4 3-hole sets on case.

- Place 4x M5-8 SHCS into the T-nuts in middle hole with washer in all 4 spots. Tighten all nuts by hand.

- Align the rail square with edge of case then tighten the M5-8 SHC

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Step 3 — Mounting the Vertical Extrusion
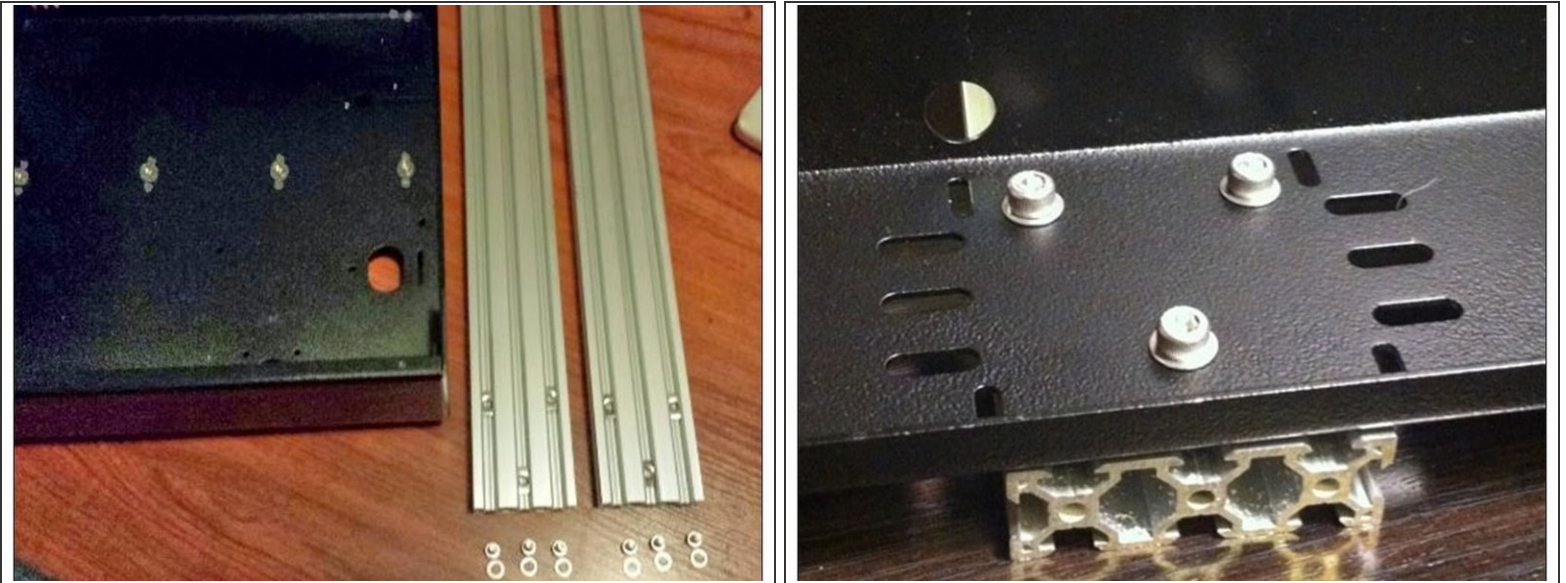
- Identify the threaded ends of the 450mm extrusions, this is the top.

- Insert 3 M5 T-nut into a 450mm extrusion, repeat on the other extrusion.

- Set the Main Case Top over the extrusion aligning the 3 holes with the T-nuts and attach it loosely using 3 M5-8 SHCS with washer.

- Repeat with the other extrusion on the other side.

- Square the vertical extrusion. Either using a square or a flat surface. They should be as vertical and parallel as possible, later on the addition of the top frame will help.

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