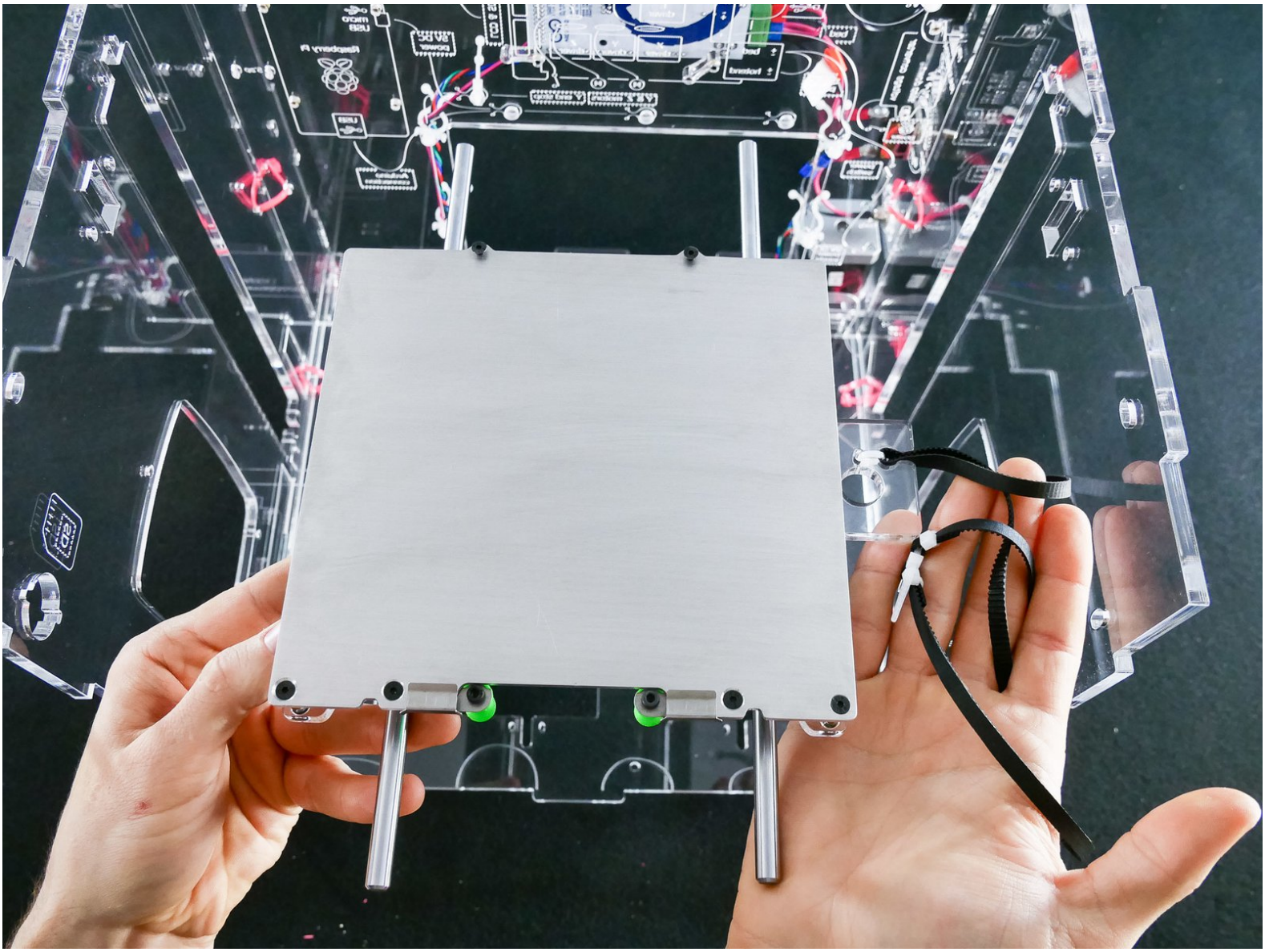
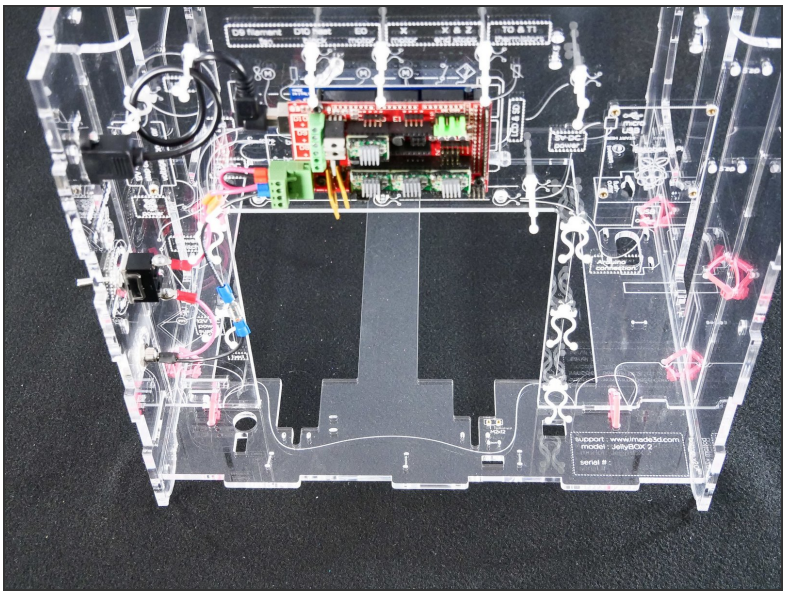
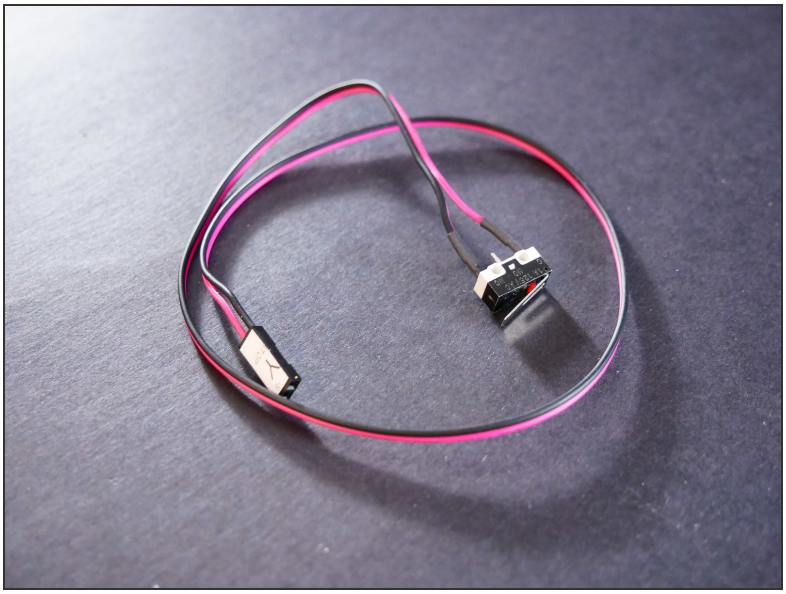
01. Install the Y Assembly



Step 1 — ↳ Y Endstop



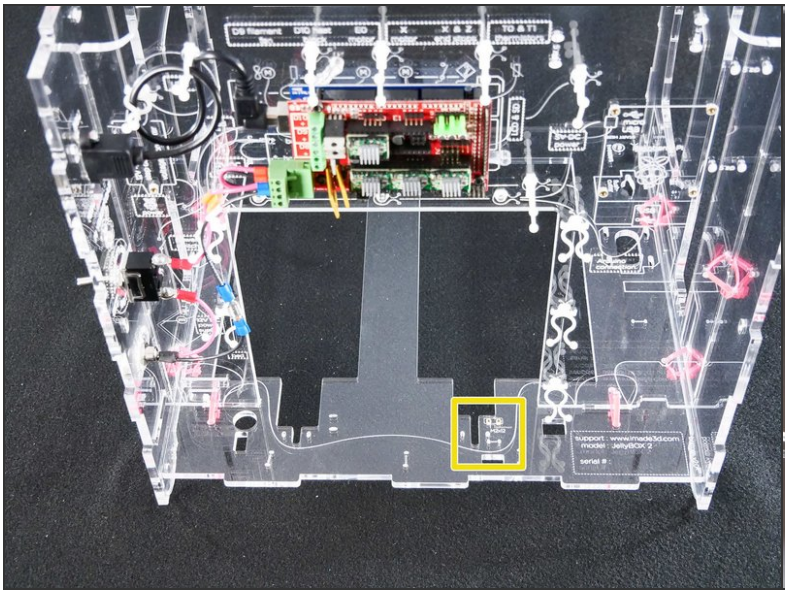
Step 2

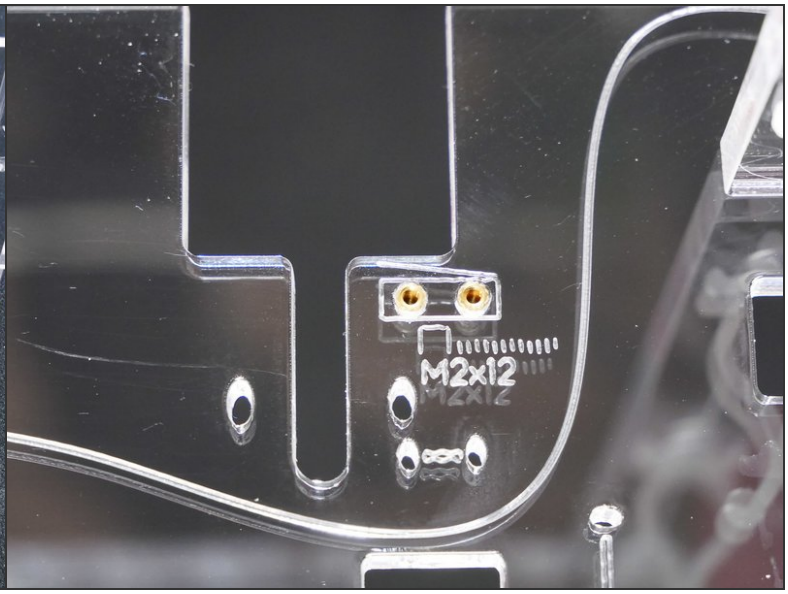


Step 3

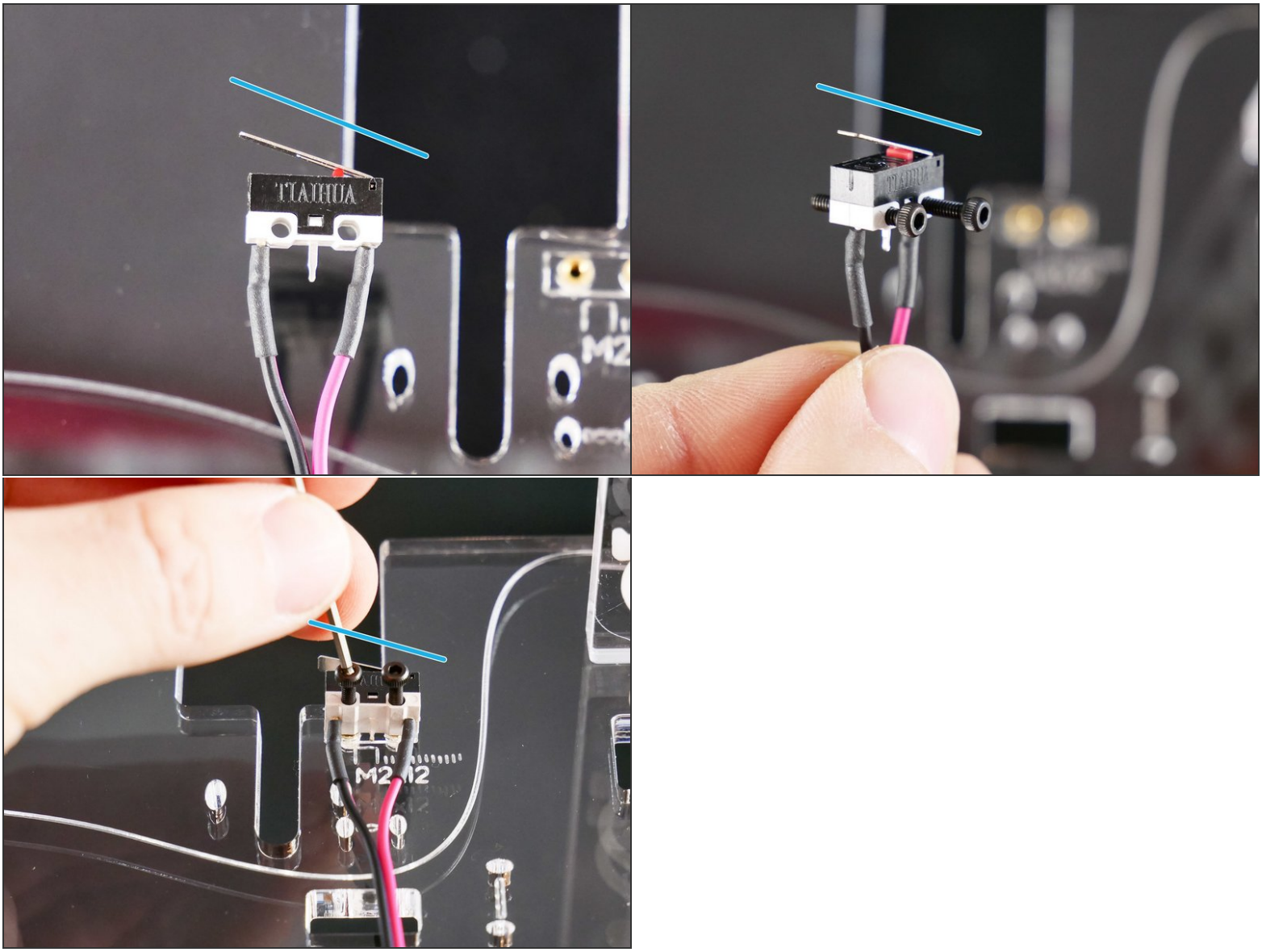
- M2x12 (these are the tiniest)

Step 4



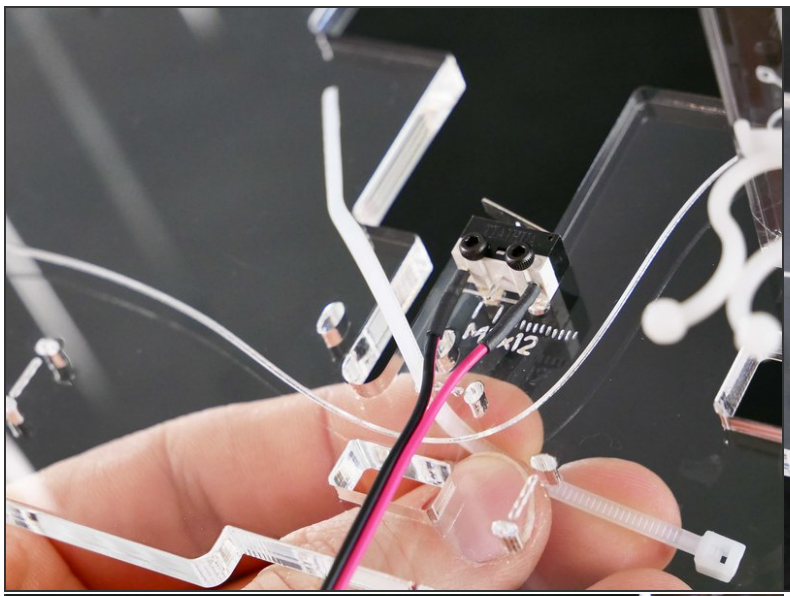


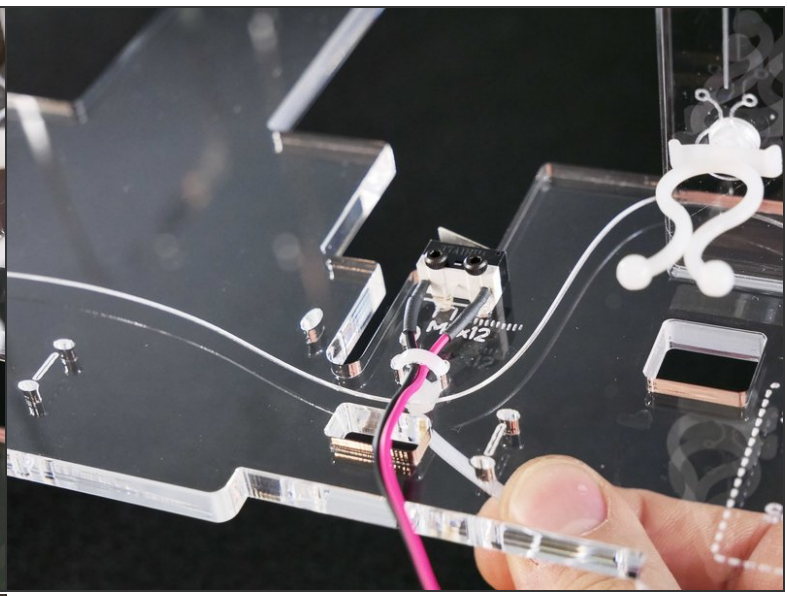
Step 5

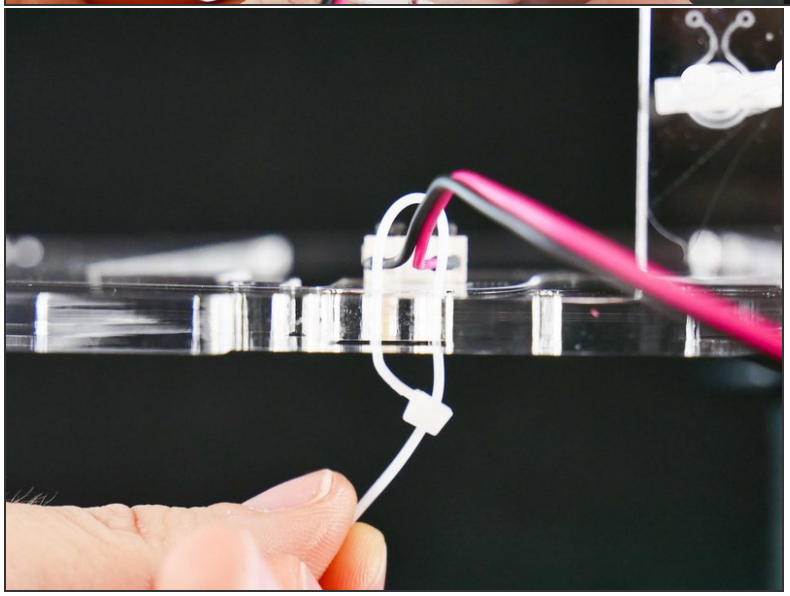


- The switch **reed** needs to point towards left.

Step 6

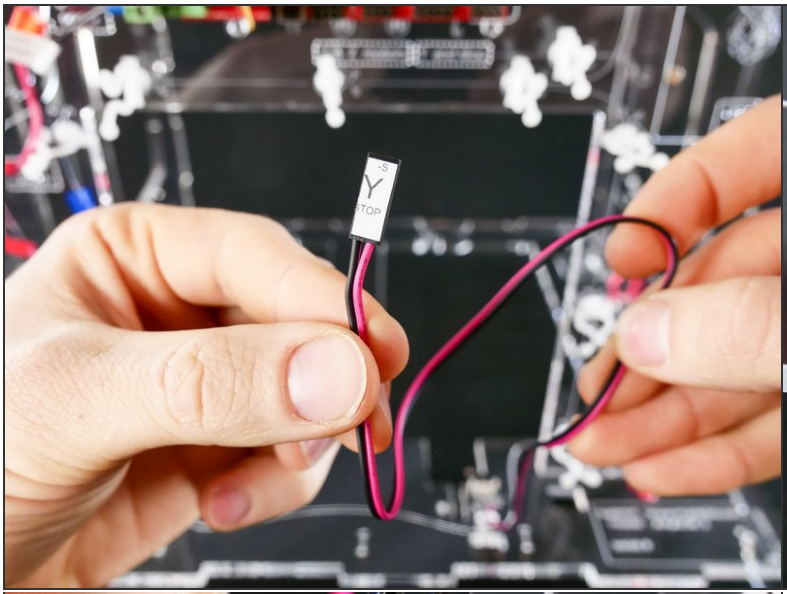


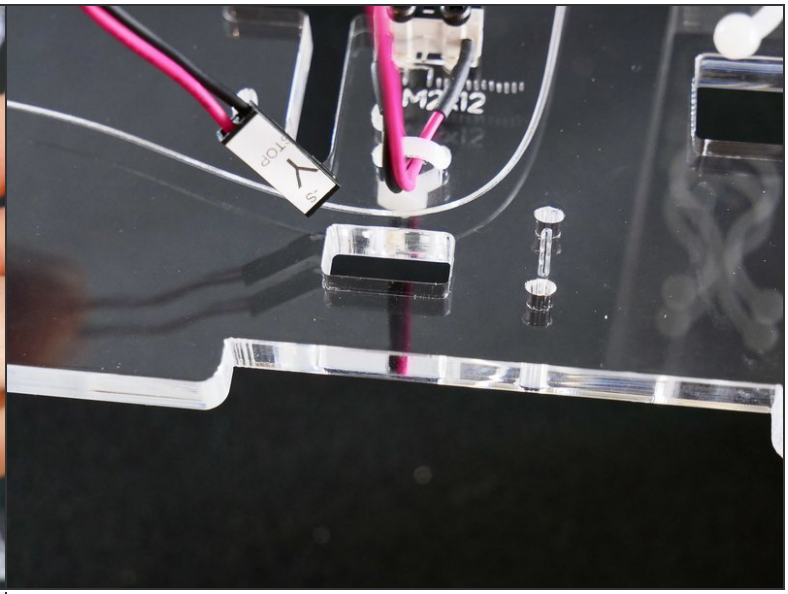


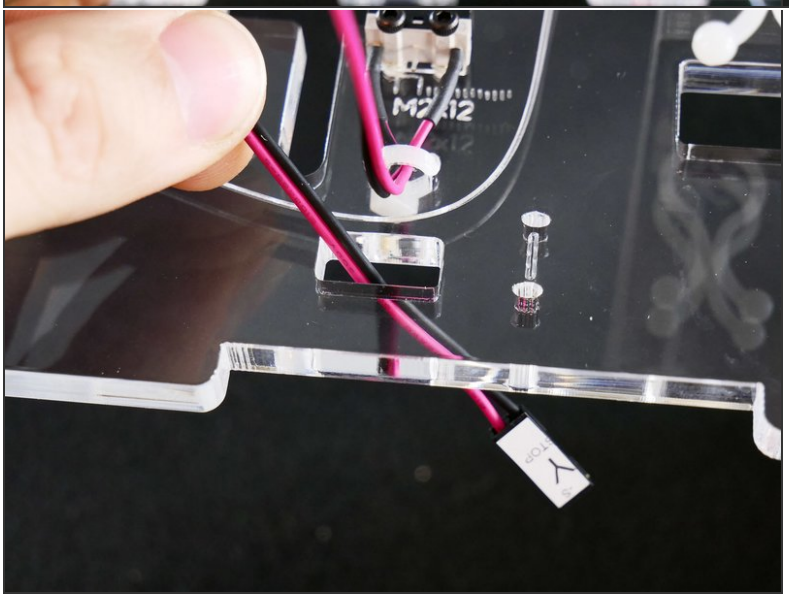


⚠ [Update] This zip tie (and the holes in the Bottom) was removed in early 2018 to speed up the build. Simply **skip it.**

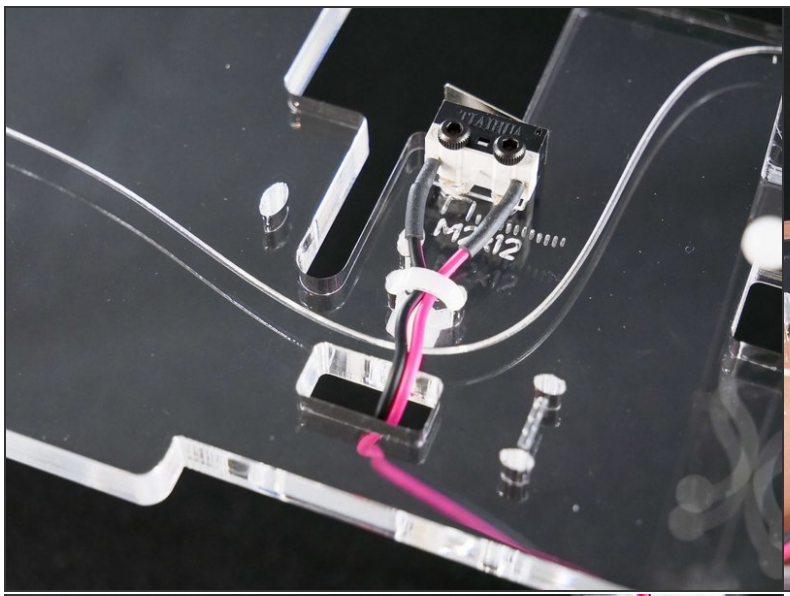
Step 7

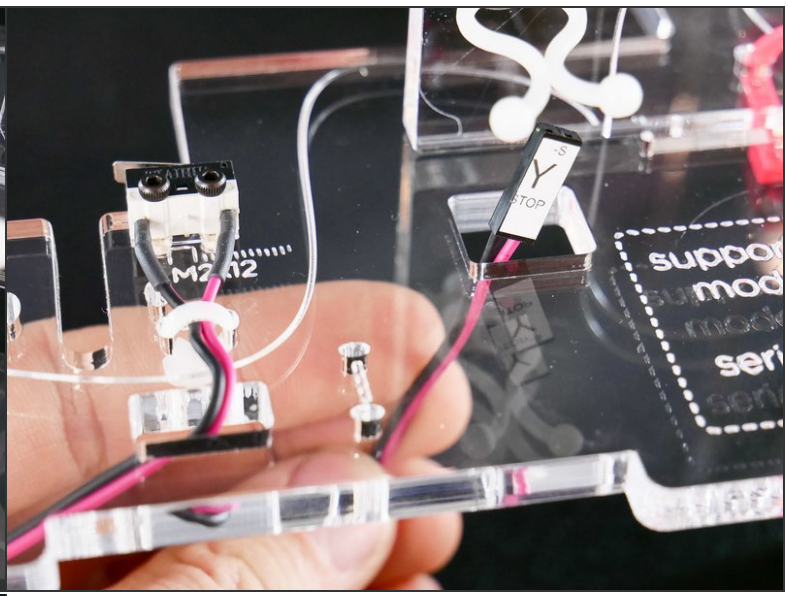


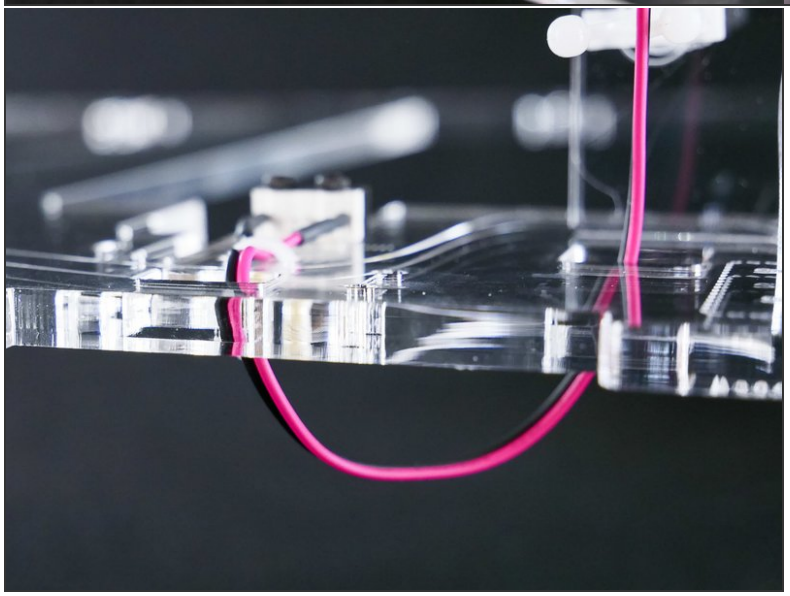




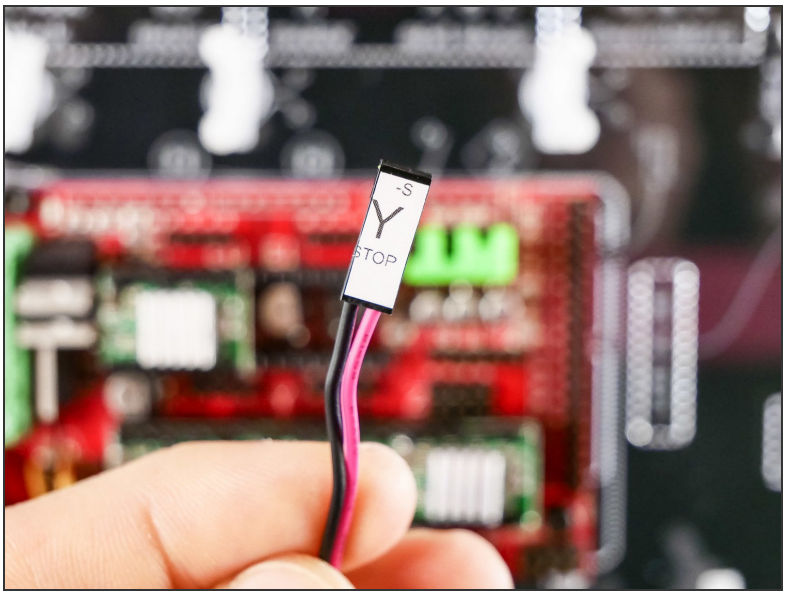
Step 8



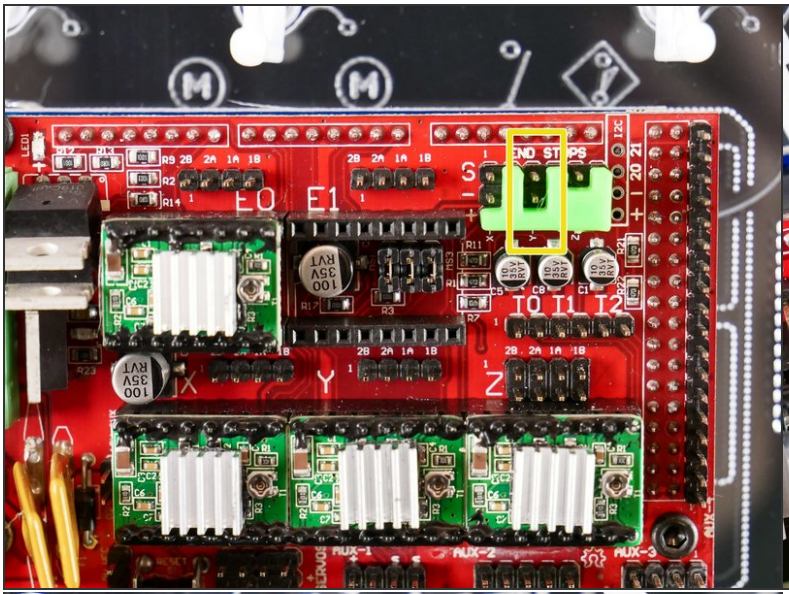


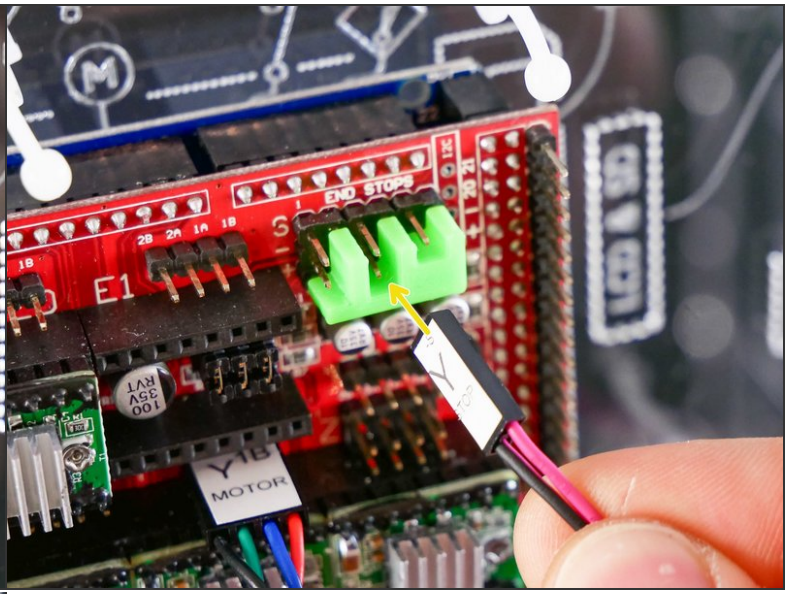


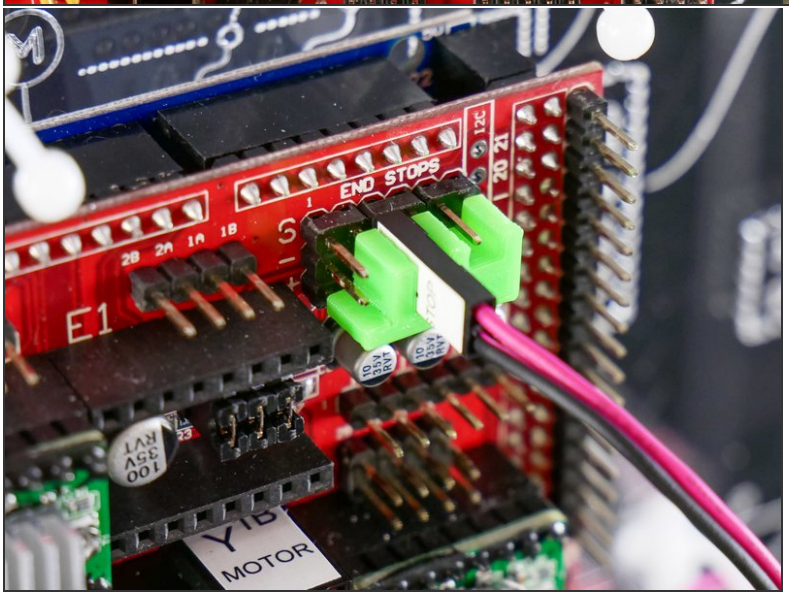
Step 9



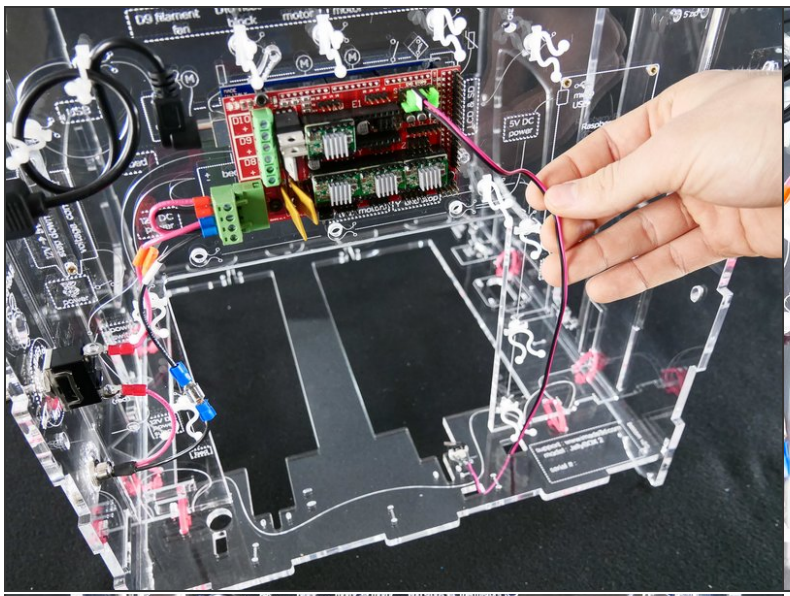
Step 10

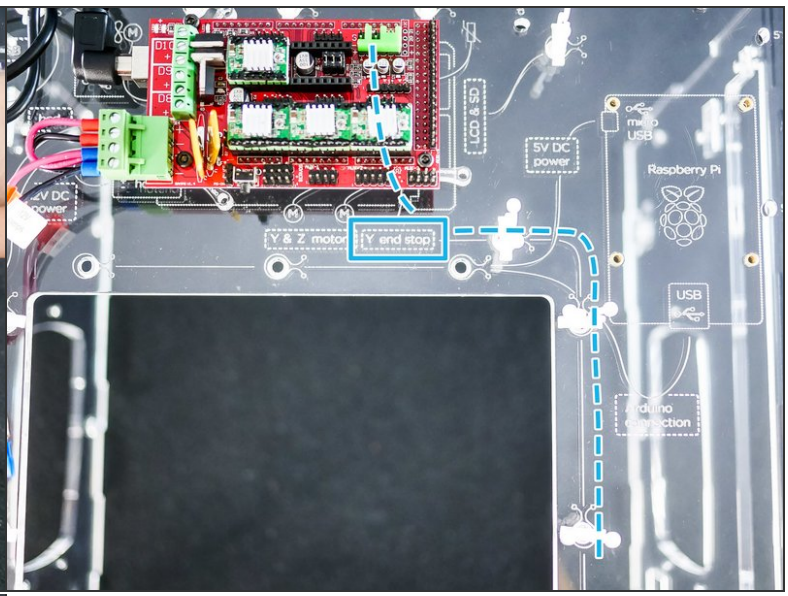

END STOPS
E0
E1
I0 I1 I2
X
Y
Z
AUX-1
AUX-2
AUX-3

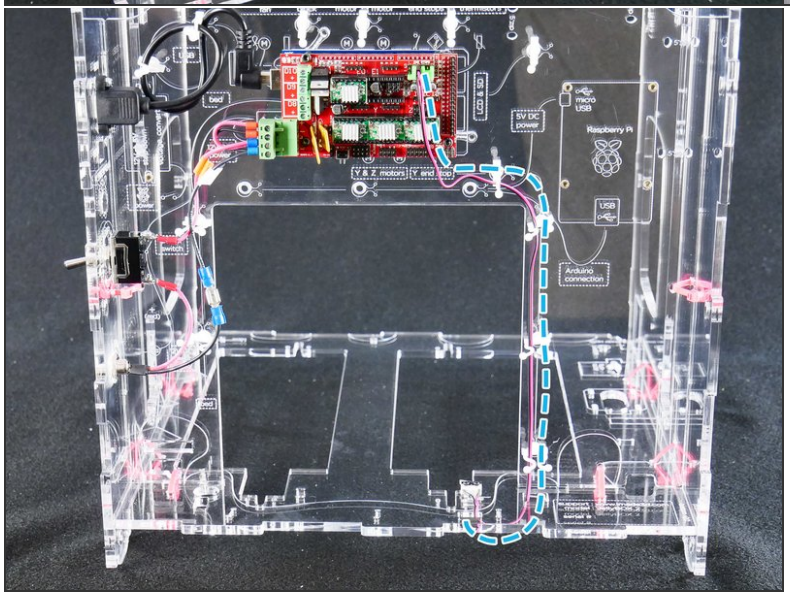

END STOPS
E1
Y
MOTOR


END STOPS
E1
MOTOR

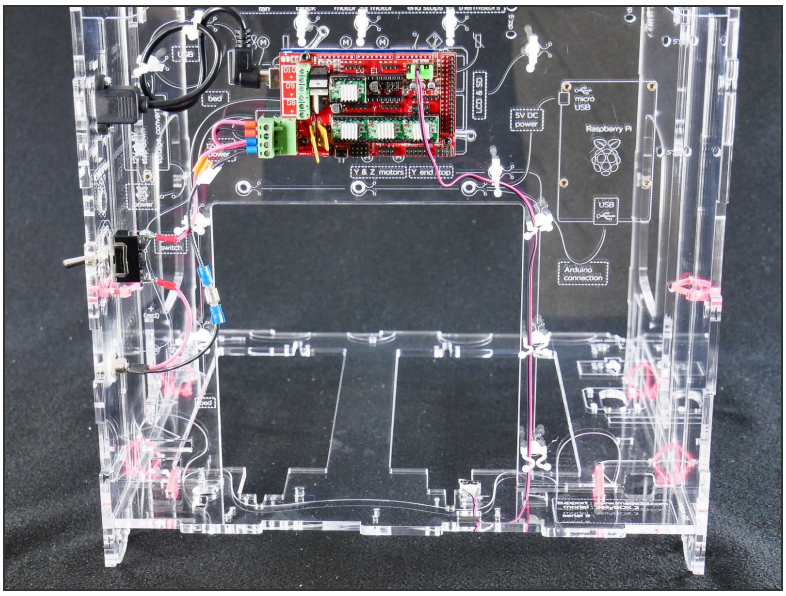
Step 11



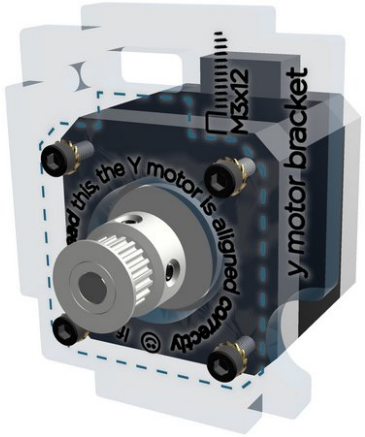

5V DC power
Raspberry Pi
USB
Y & Z motors
Y end stop

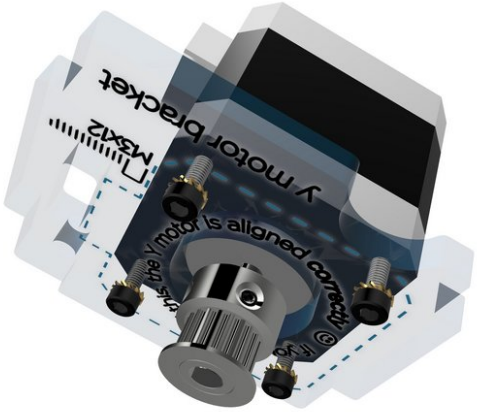

5V DC power
Raspberry Pi
USB
Arduino connection

Step 12 — Looking good!

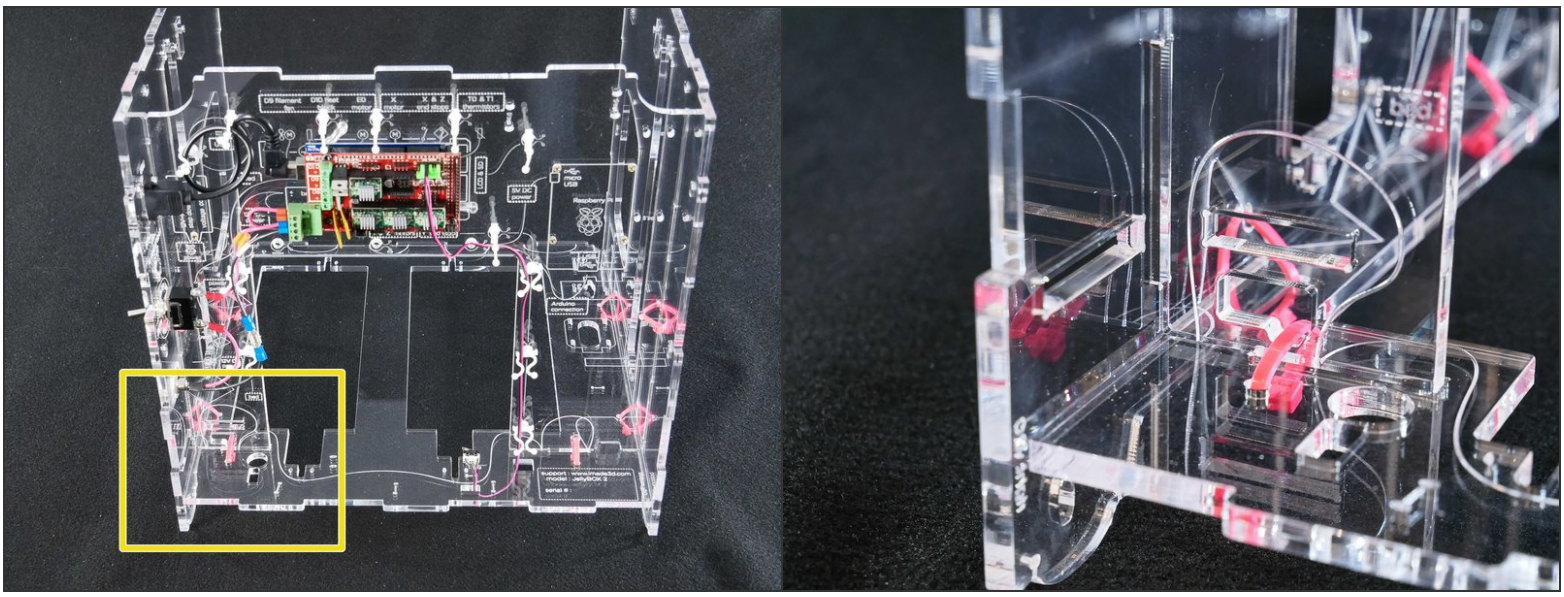


Step 13 — ↳ Insert the Y Motor Bracket

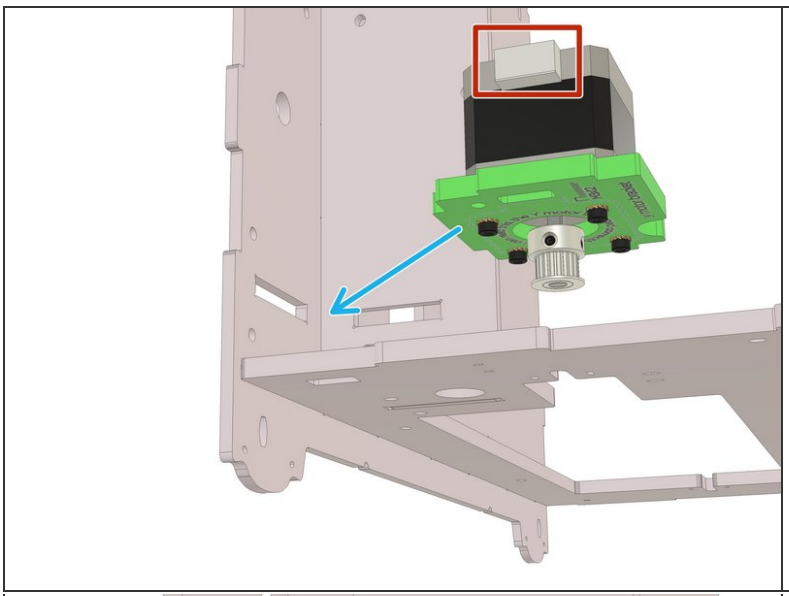


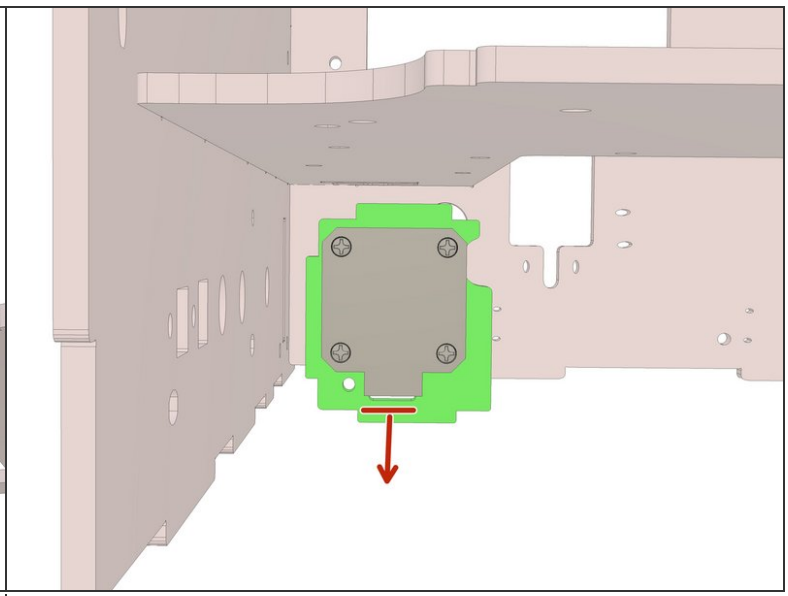


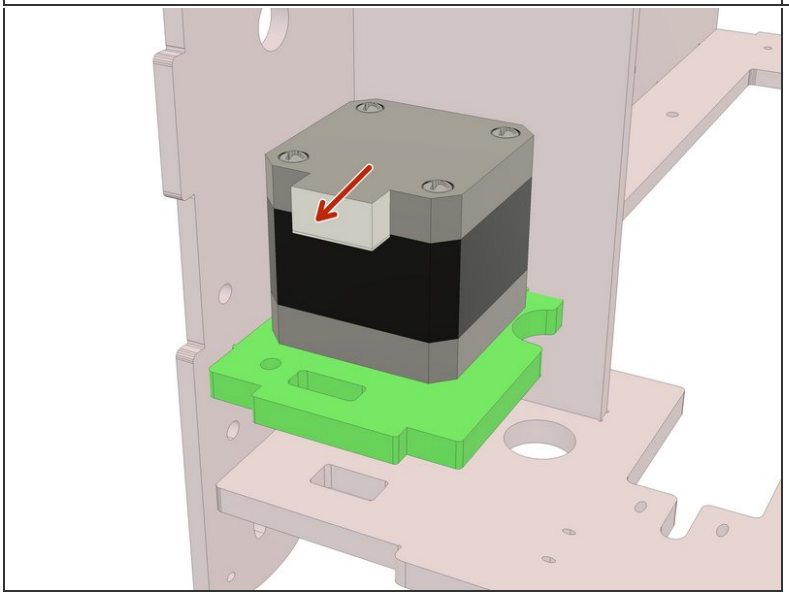
Step 14



Step 15



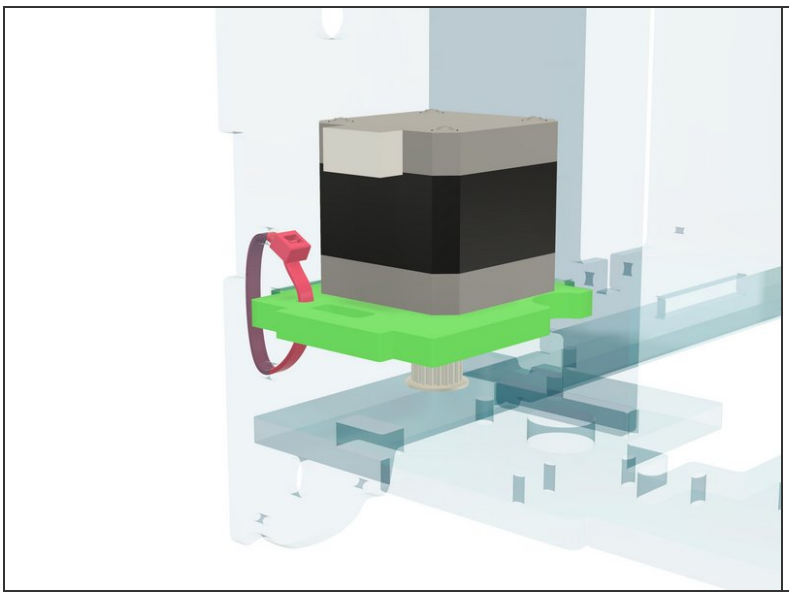


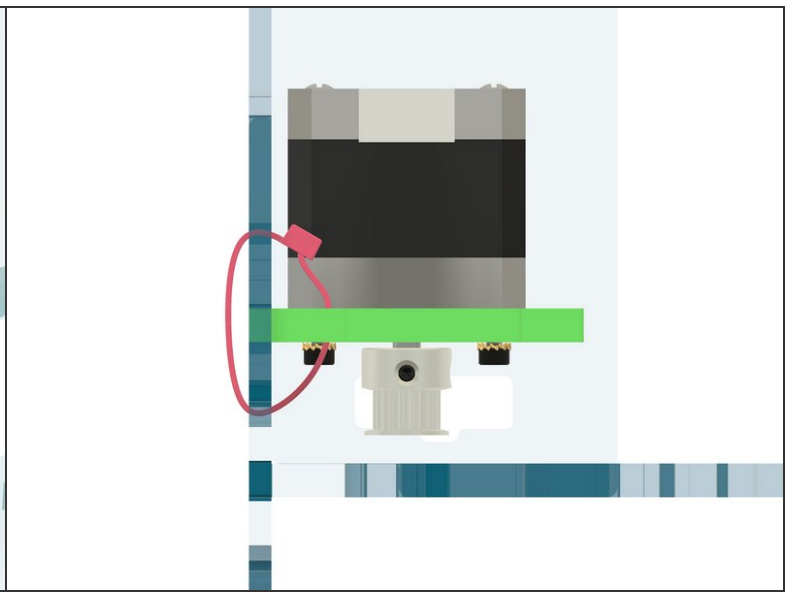


⚠ Point the motor connector towards the **back**.

⚠ This part has changed in JellyBOX 2.1.b.b; in some images you may still find the older version that points to the right. Rest assured, yours should be pointing towards the back.

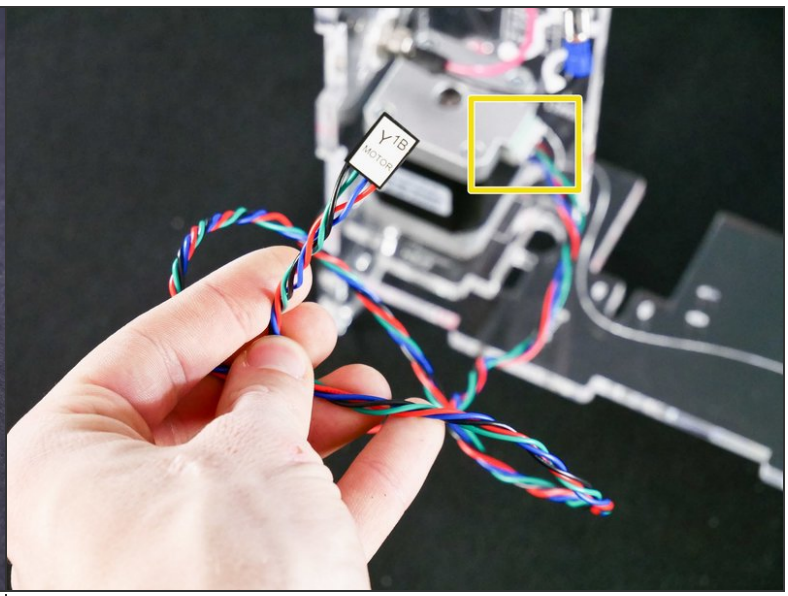
Step 16

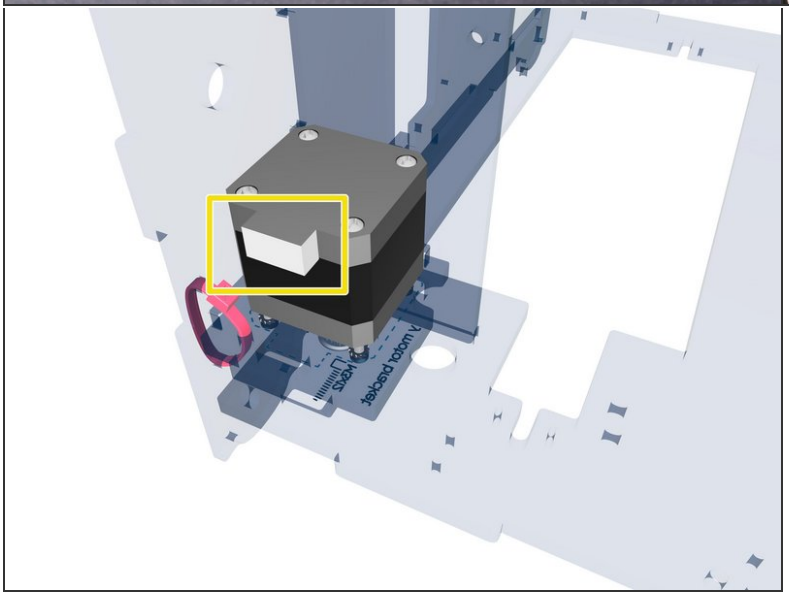




- 5" zip tie

Step 17

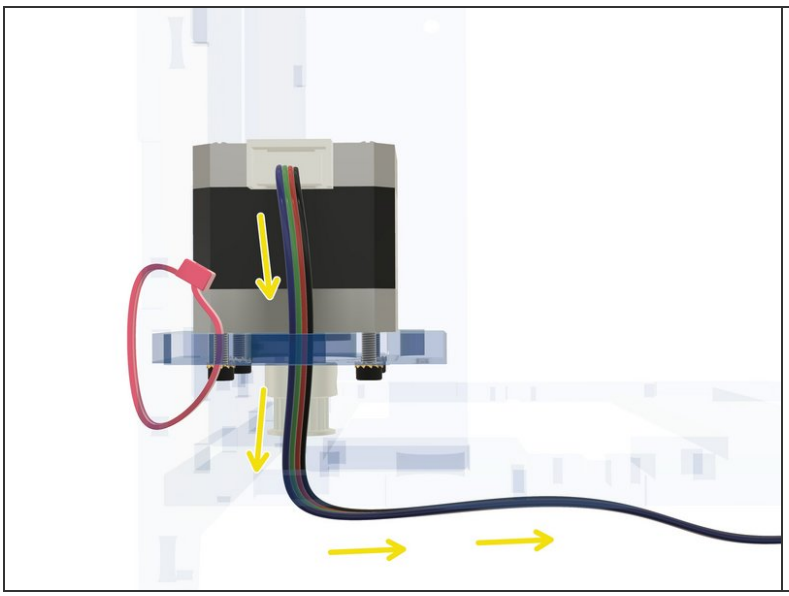


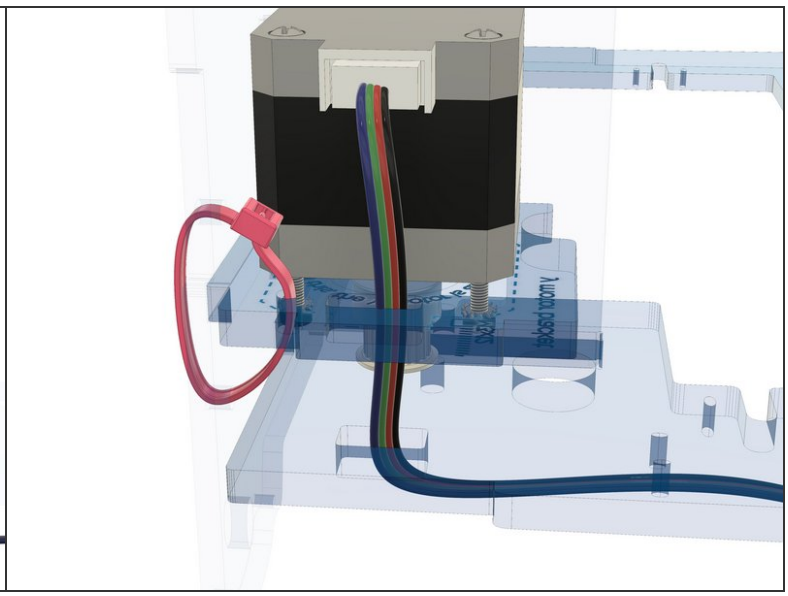


- Connect the y motor cable to the y motor.

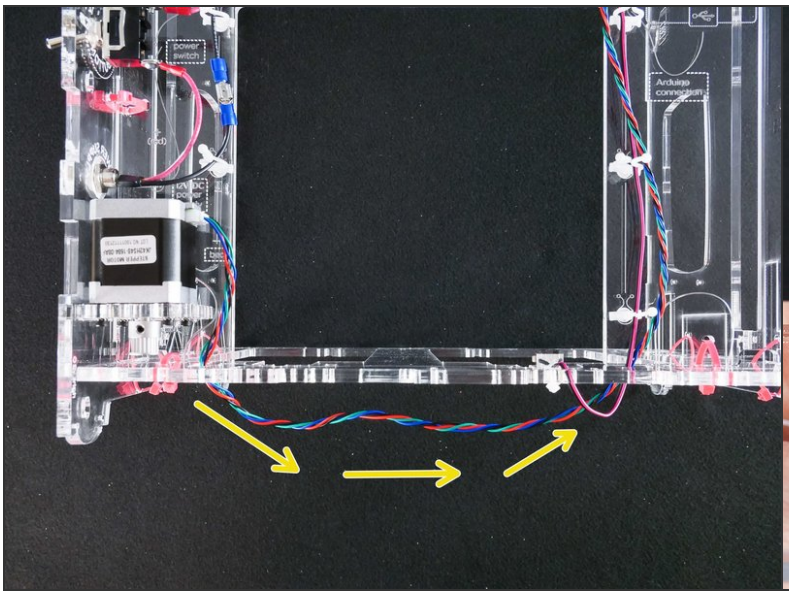
⚠ *In JellyBOX 2.1.b.b, the motor connector is facing the back.*

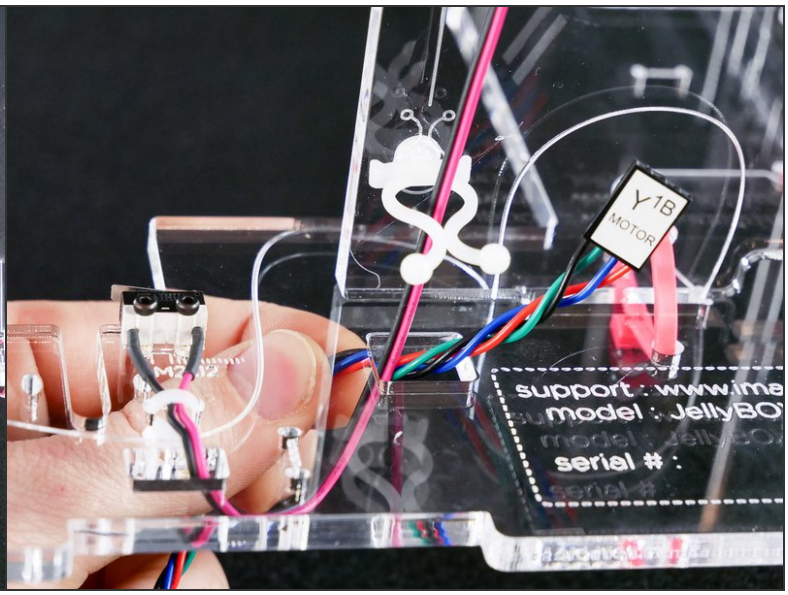
Step 18



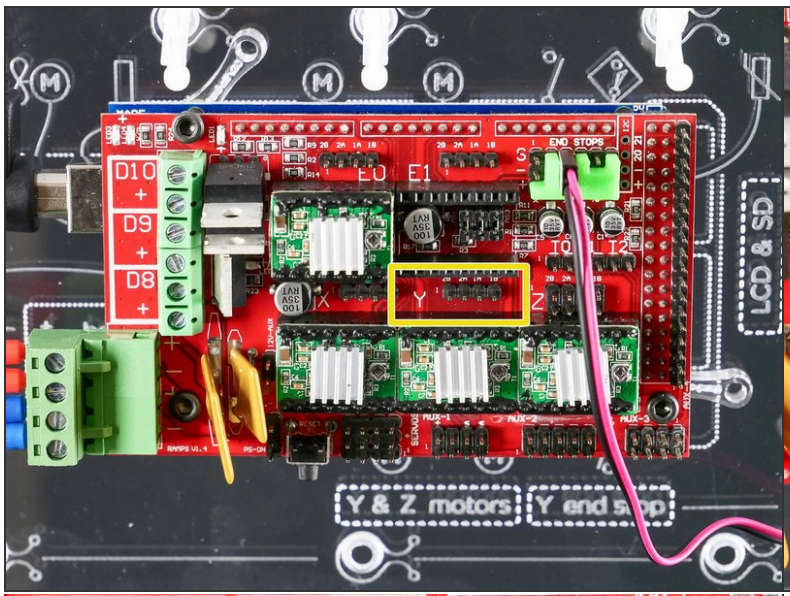


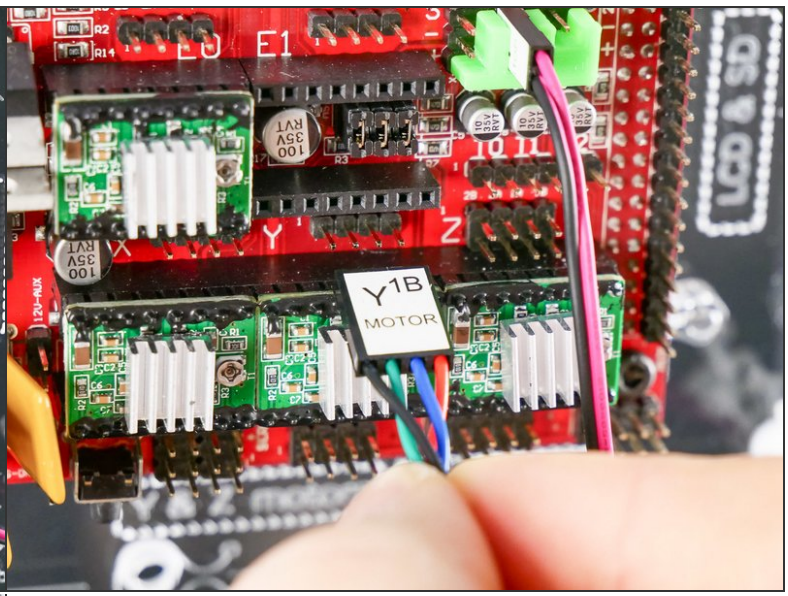
Step 19

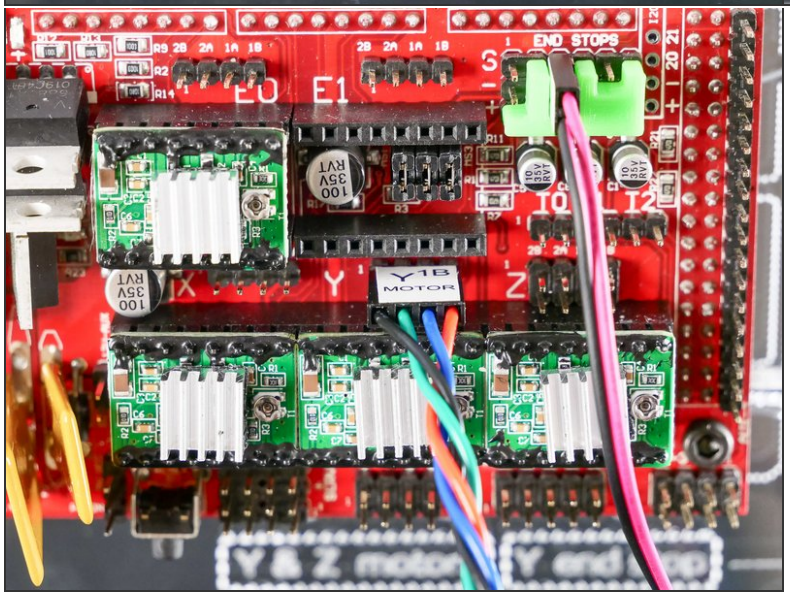




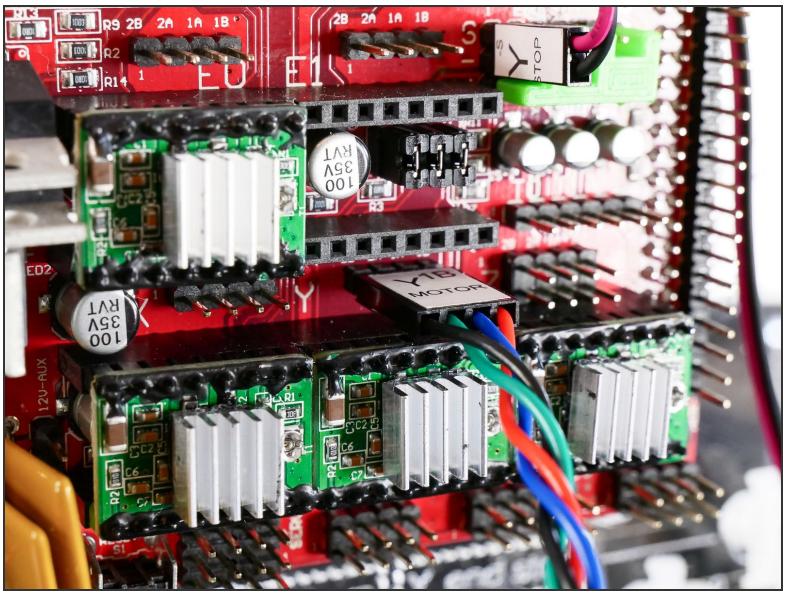
Step 20


D10
D9
D8
END STOPS
E0
E1
Y
LCD & SD
Y & Z motors


E0
E1
Y1B
MOTOR

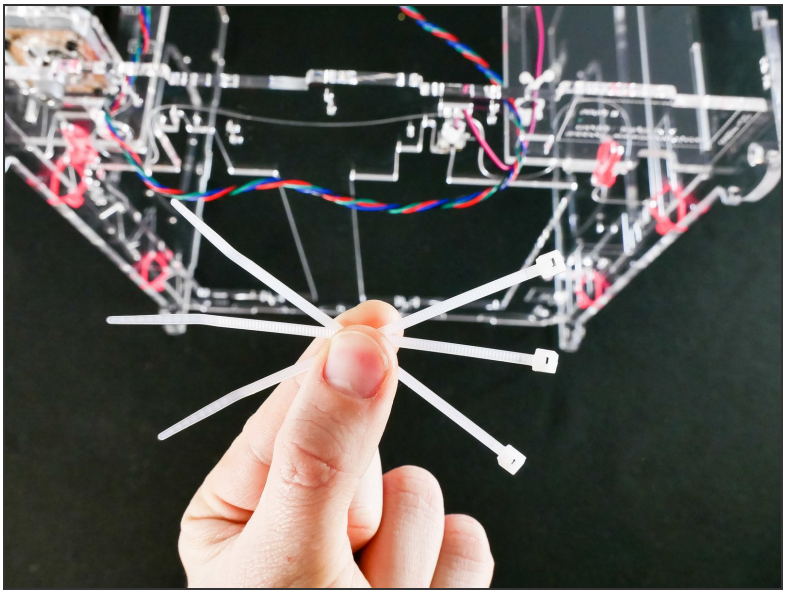

END STOPS
E0
E1
Y1B
MOTOR

Step 21

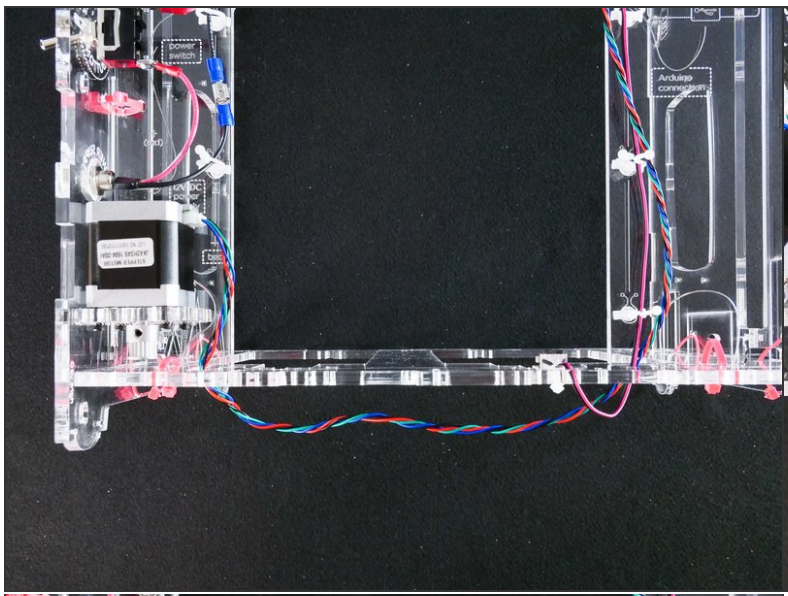


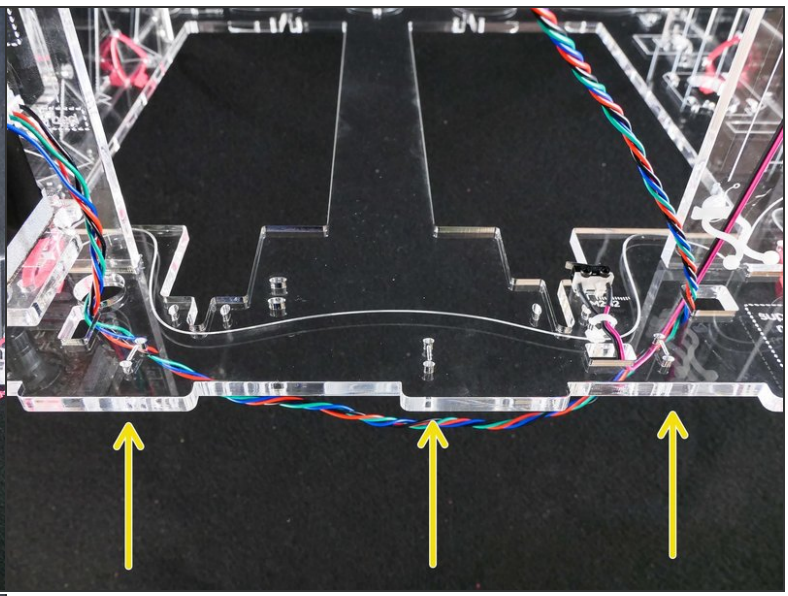
- Check ✓

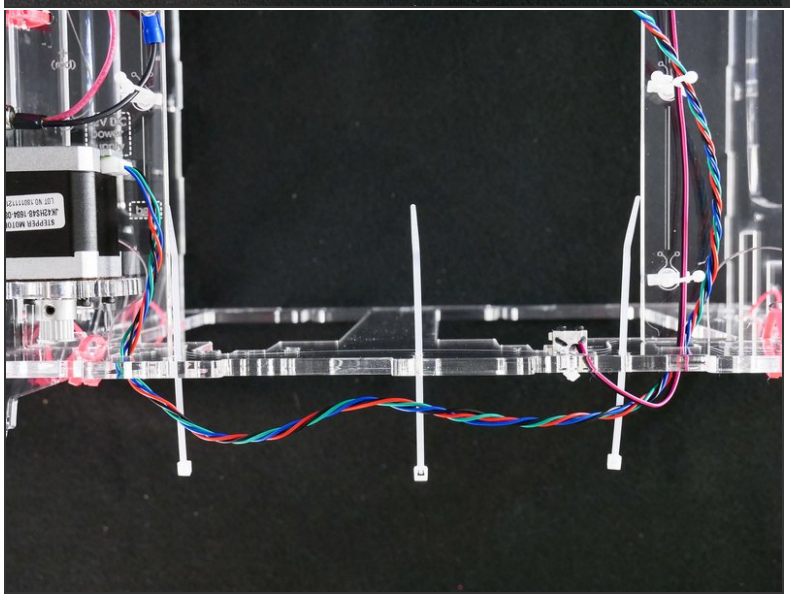
Step 22



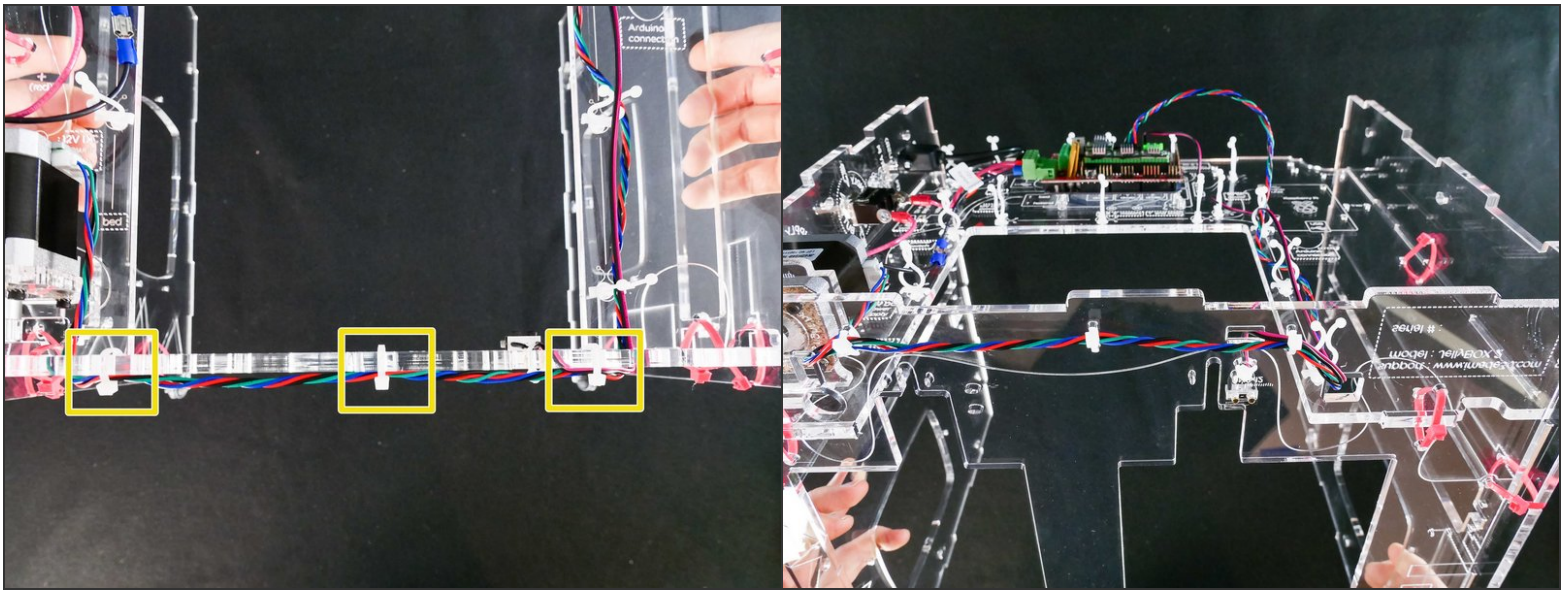
Step 23



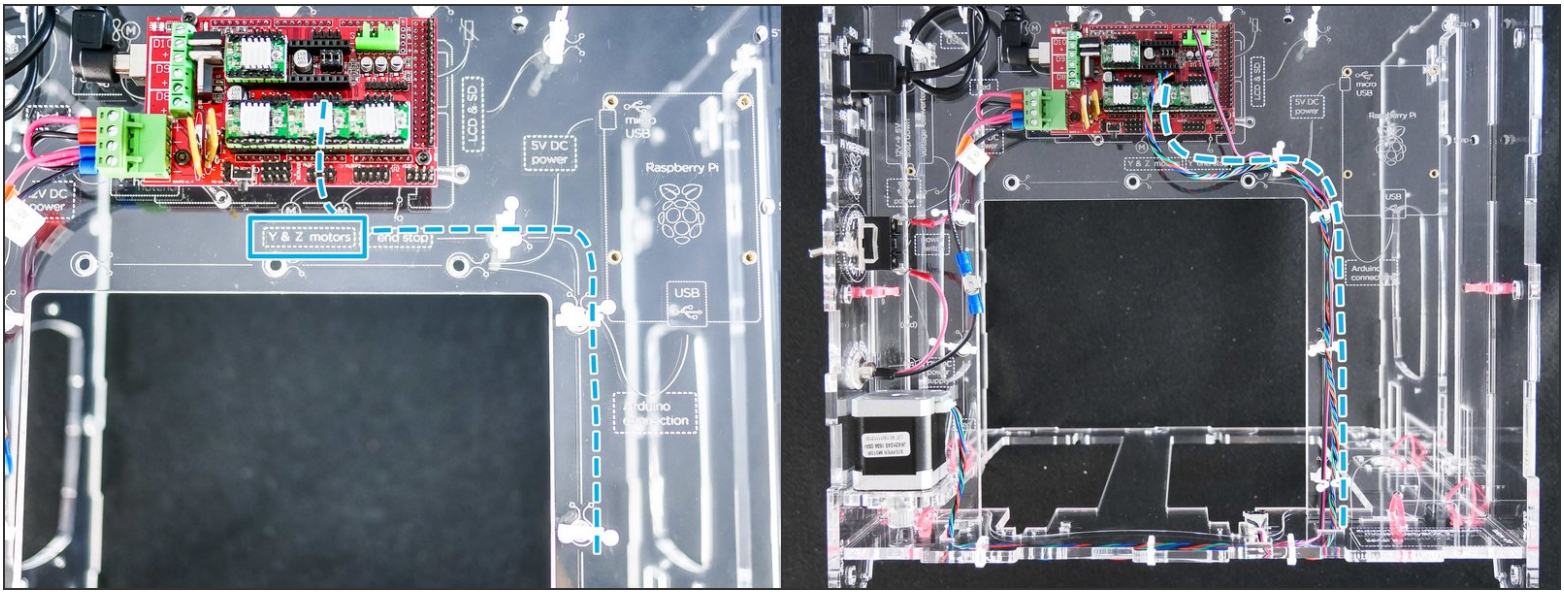




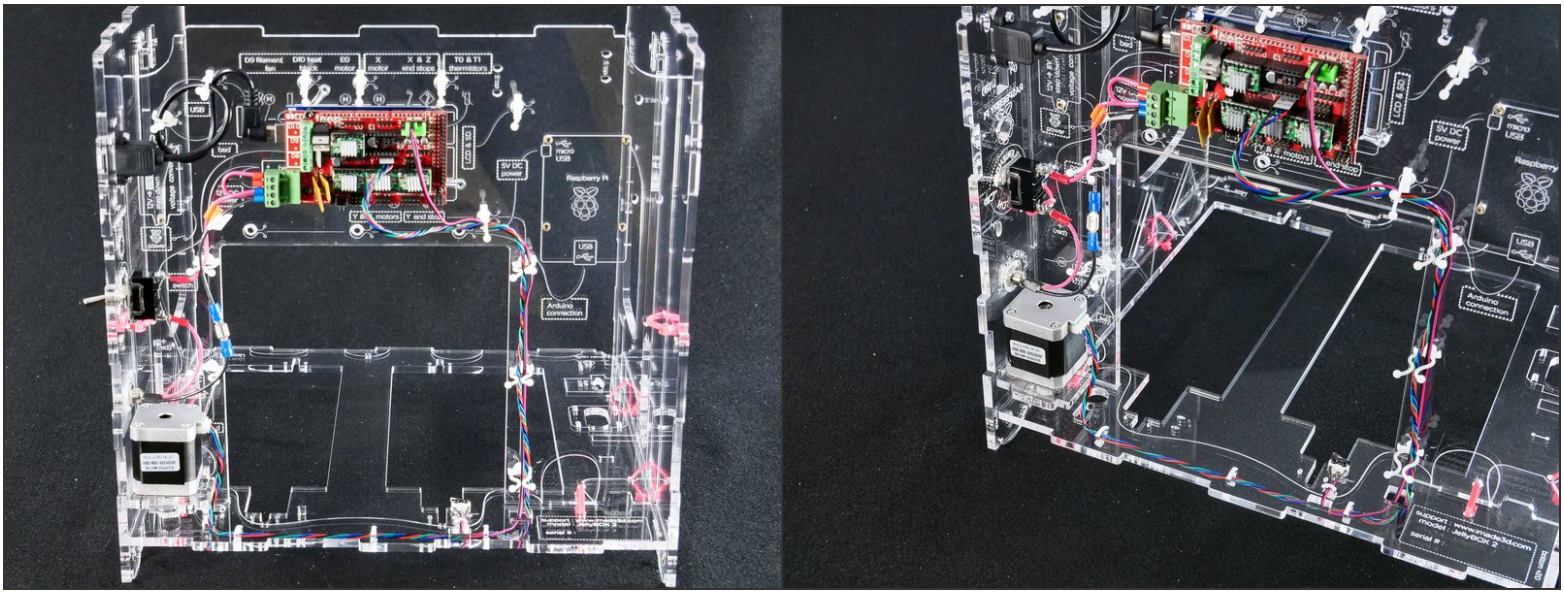
Step 24



Step 25

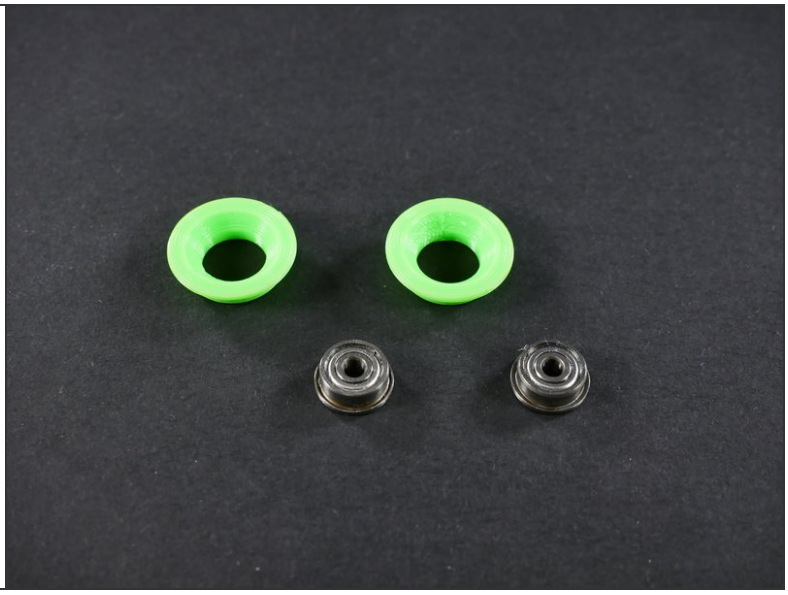


Step 26 — Looking good!

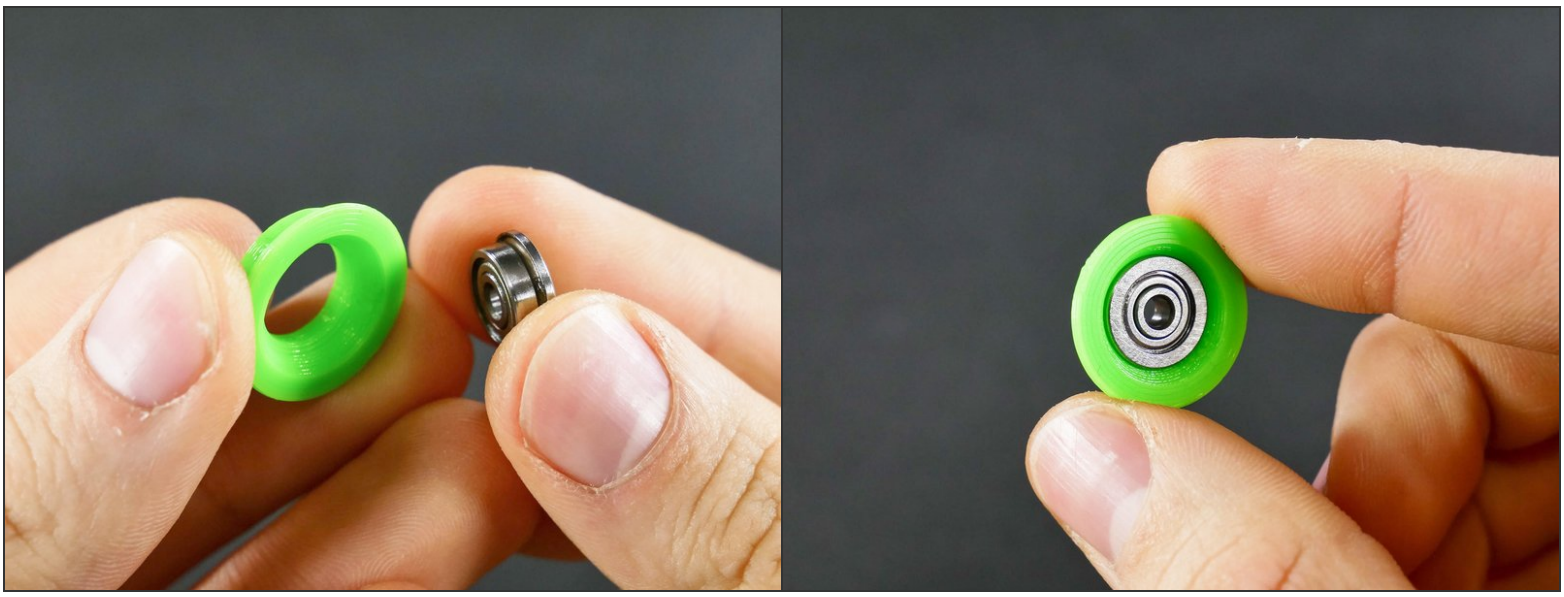


- *(Unlike in this picture, your JellyBOX 2.1.b.b motor is facing towards the back.)*

Step 27 — ↳ Prep an Idler

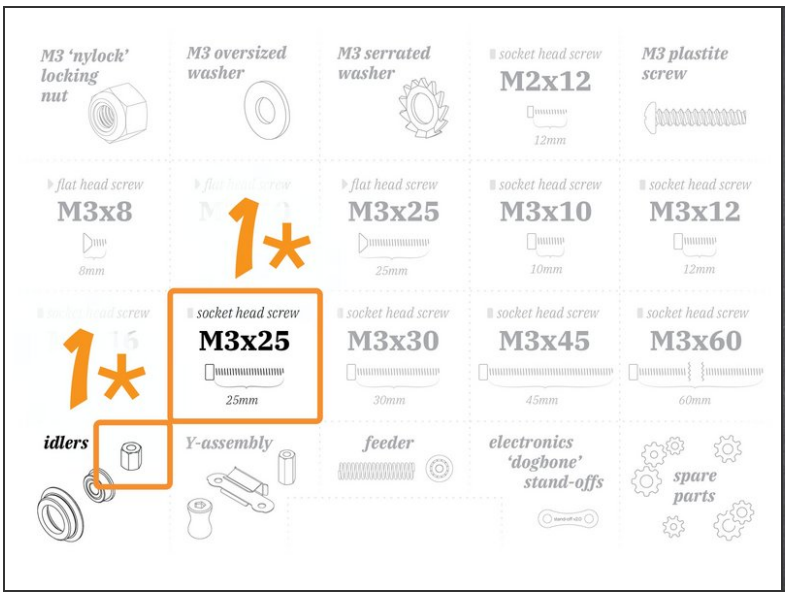


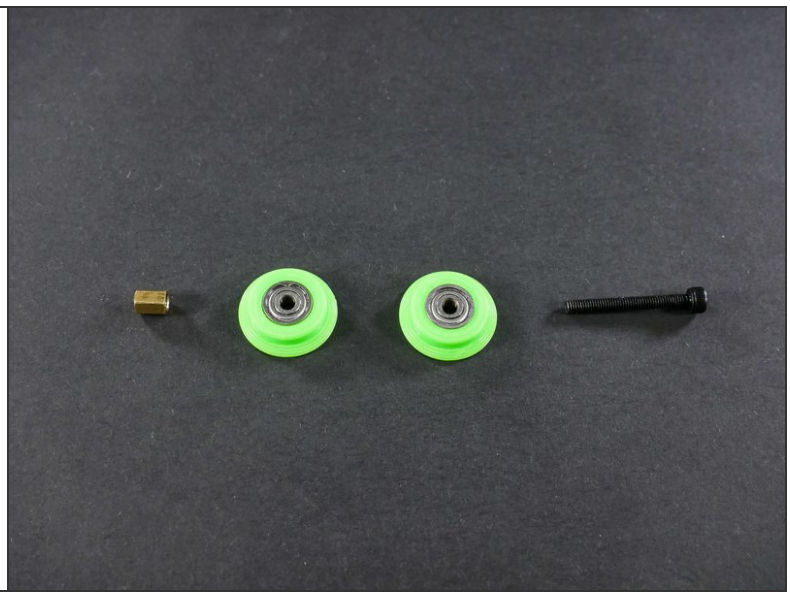
Step 28



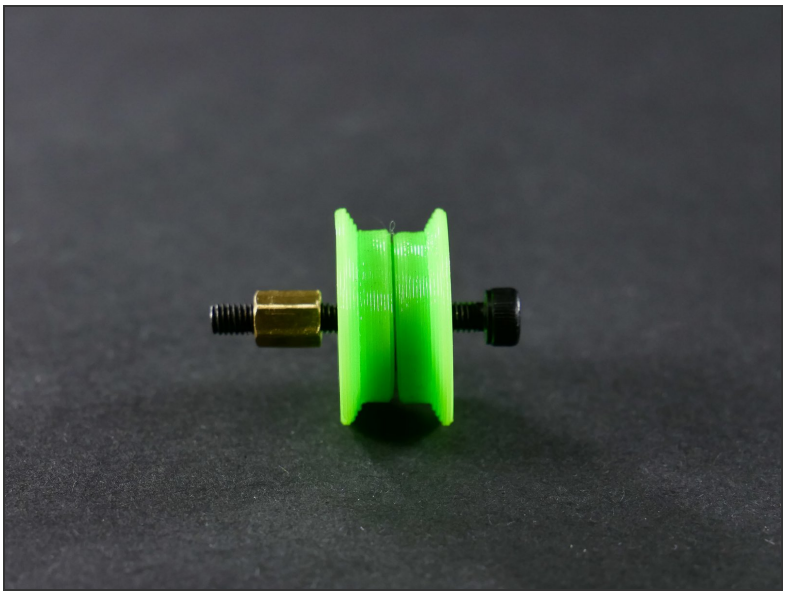
Step 29

Step 30

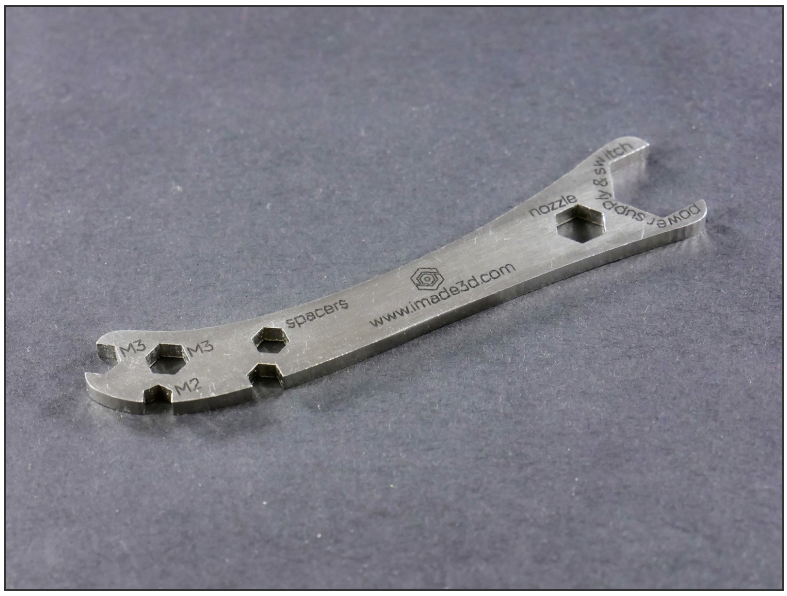




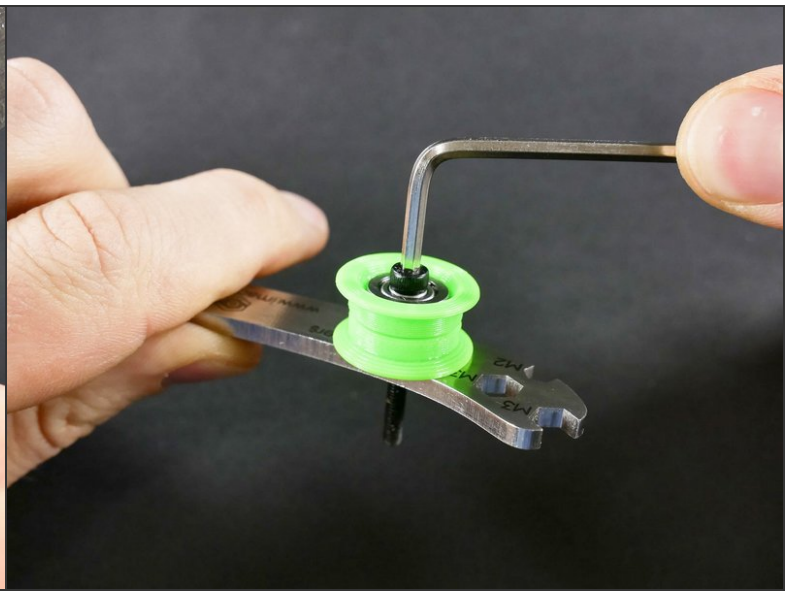
Step 31



Step 32



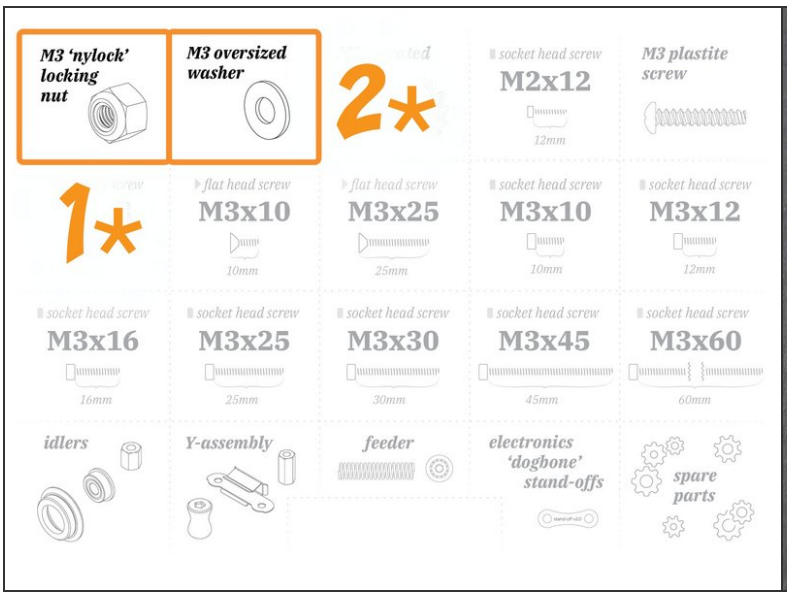
Step 33

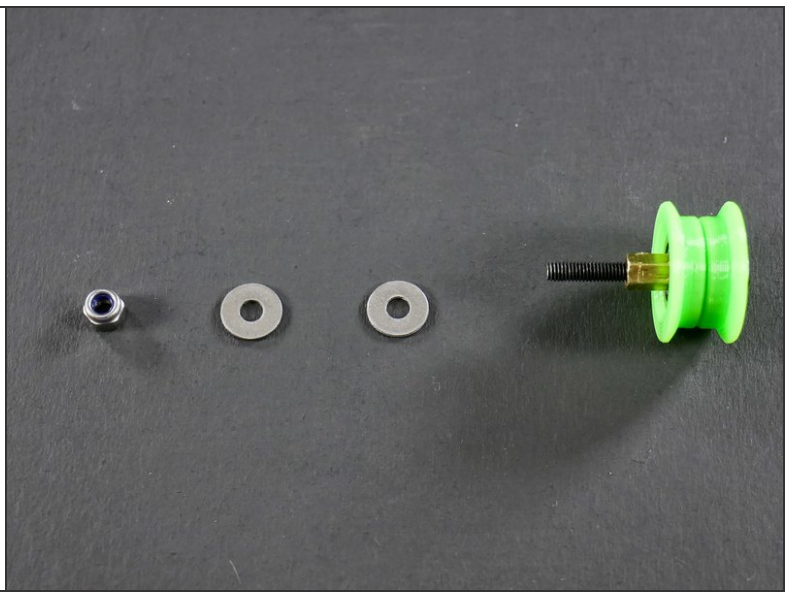


- Tighten well.
  - This is metal-on-metal tightening, so you do not have to be as gentle as usual.

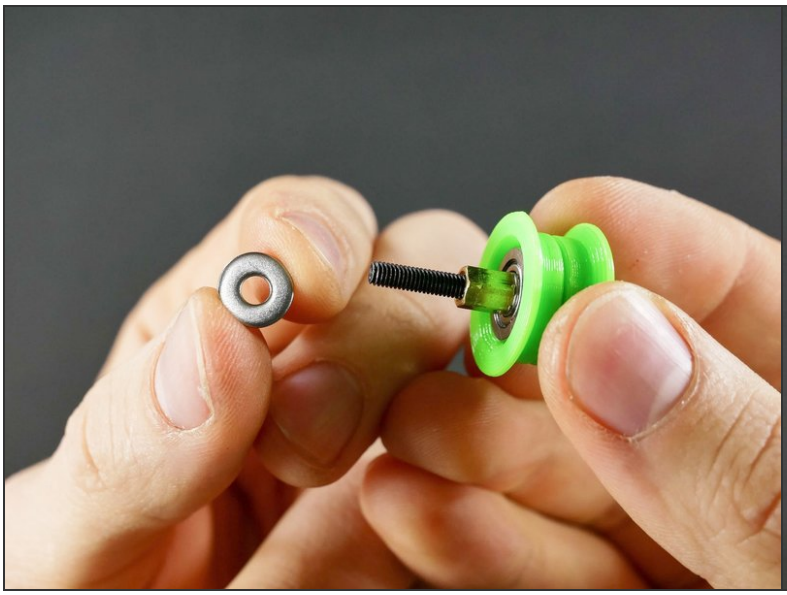
Step 34 — Looking good!

Step 35 — ↳ Install the Y Idler

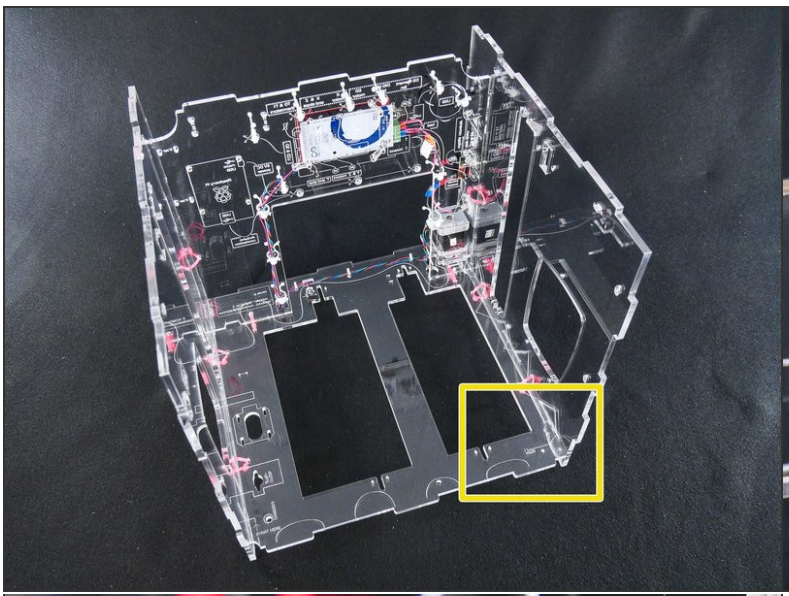


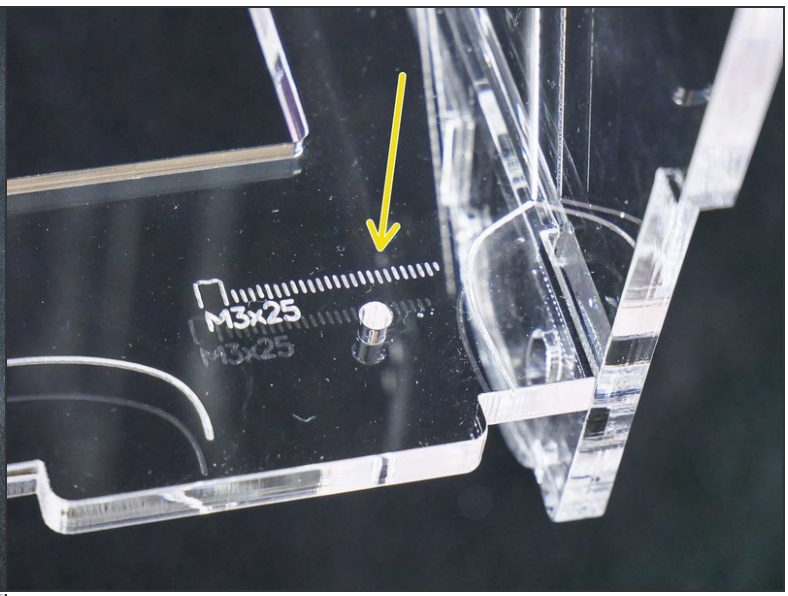


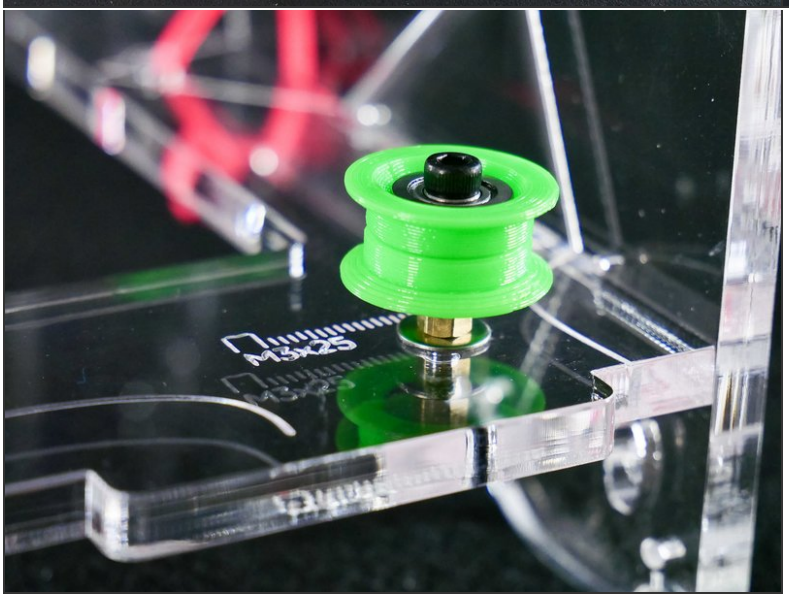
Step 36



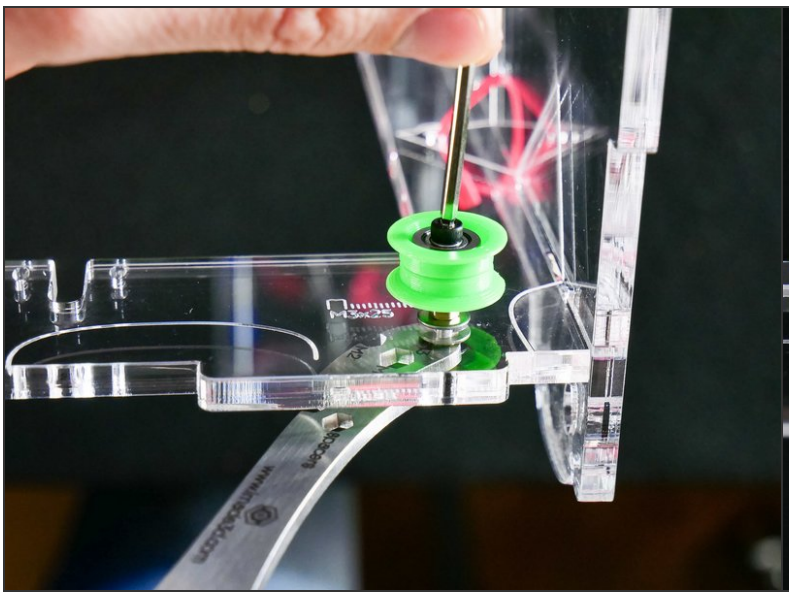
Step 37

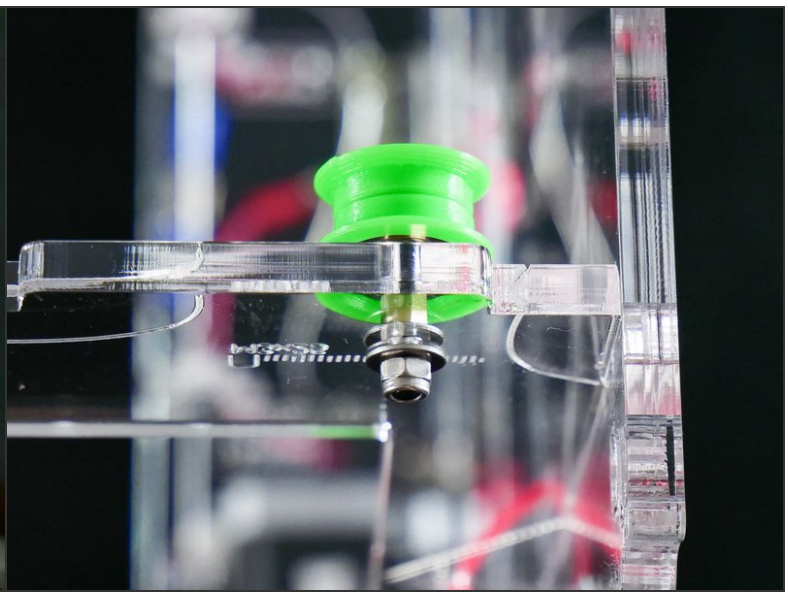




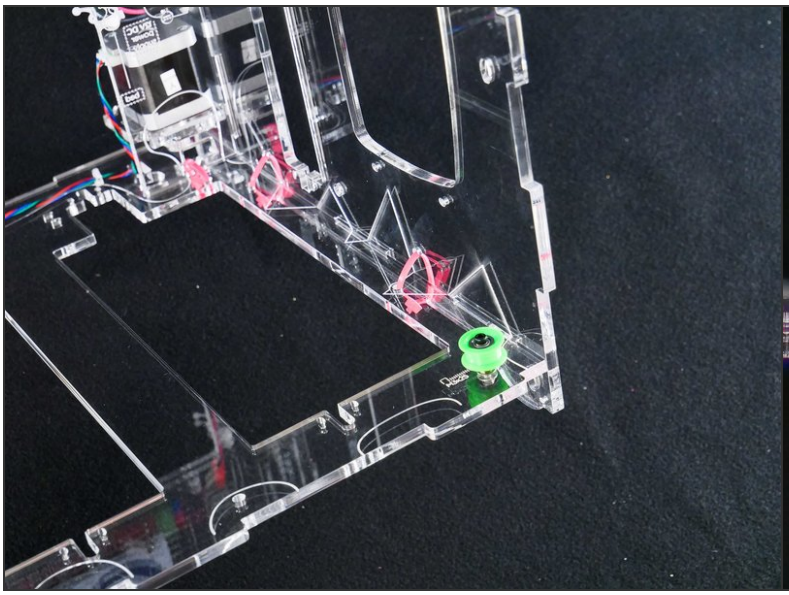


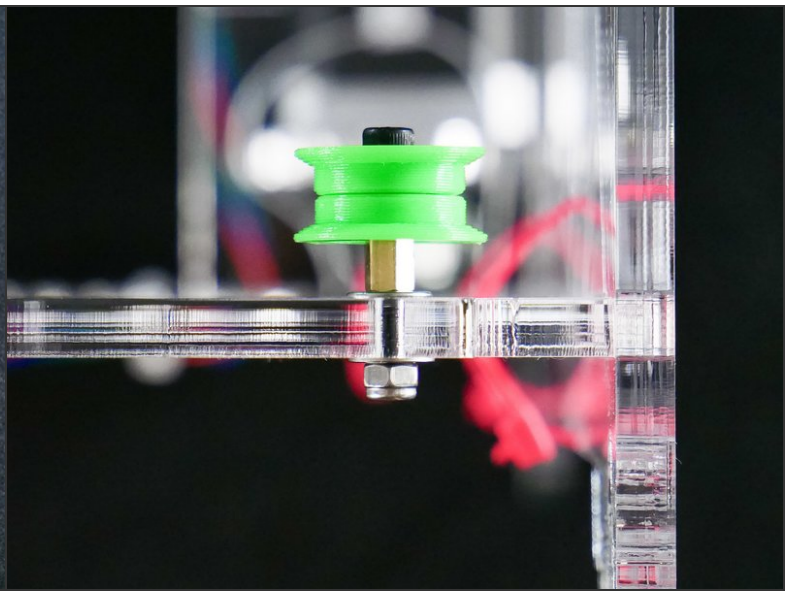
Step 38





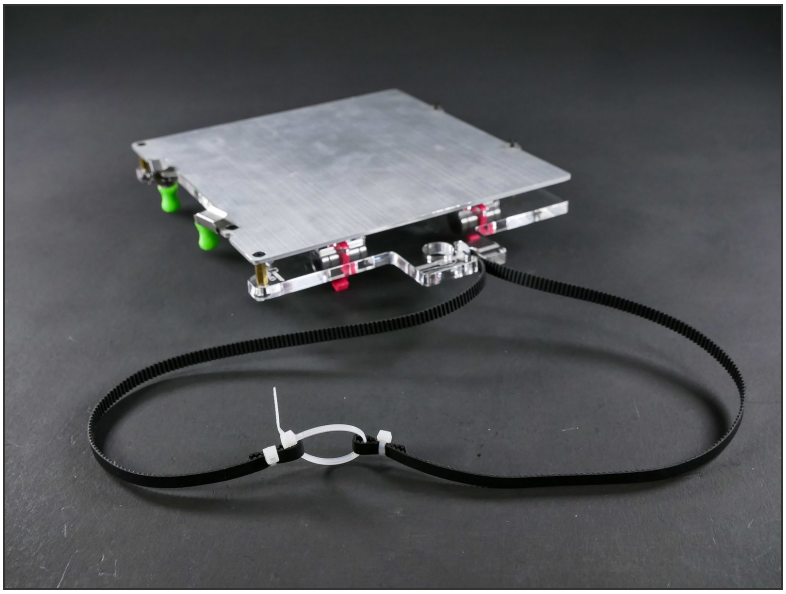
Step 39 — Looking good!



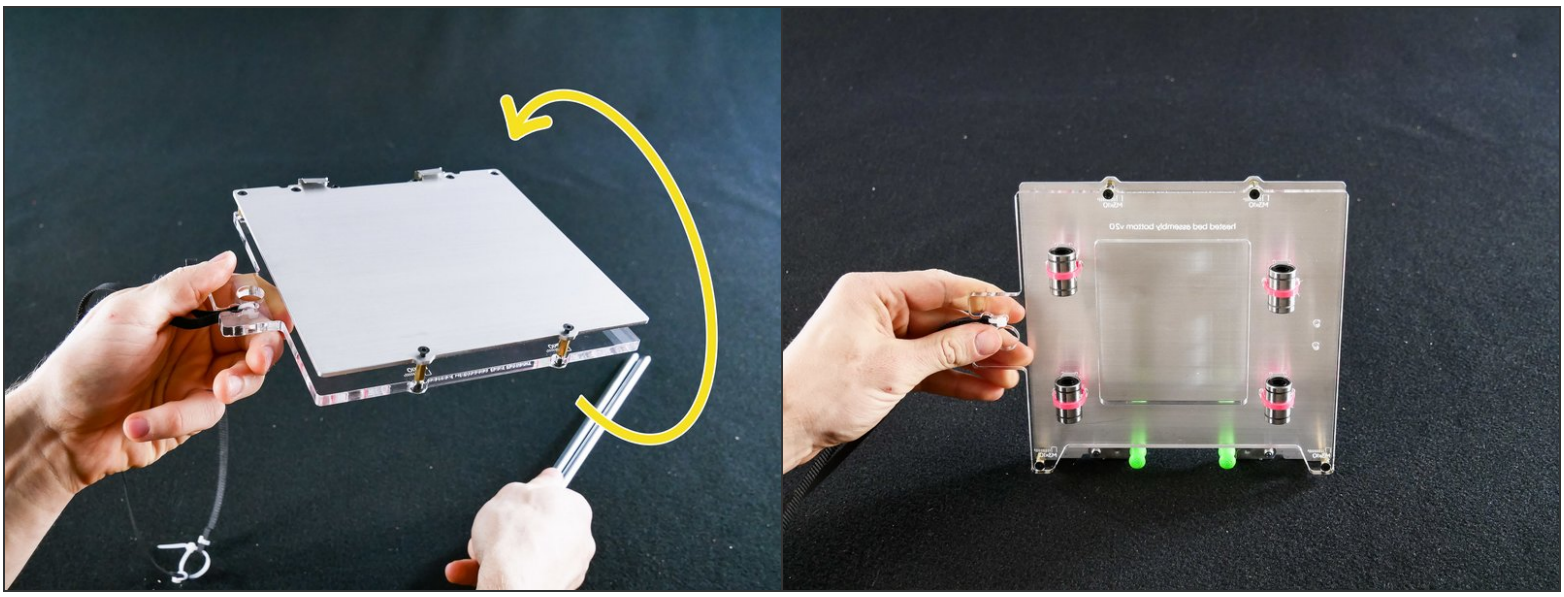


Step 40 — ↳ Insert the Y Assembly

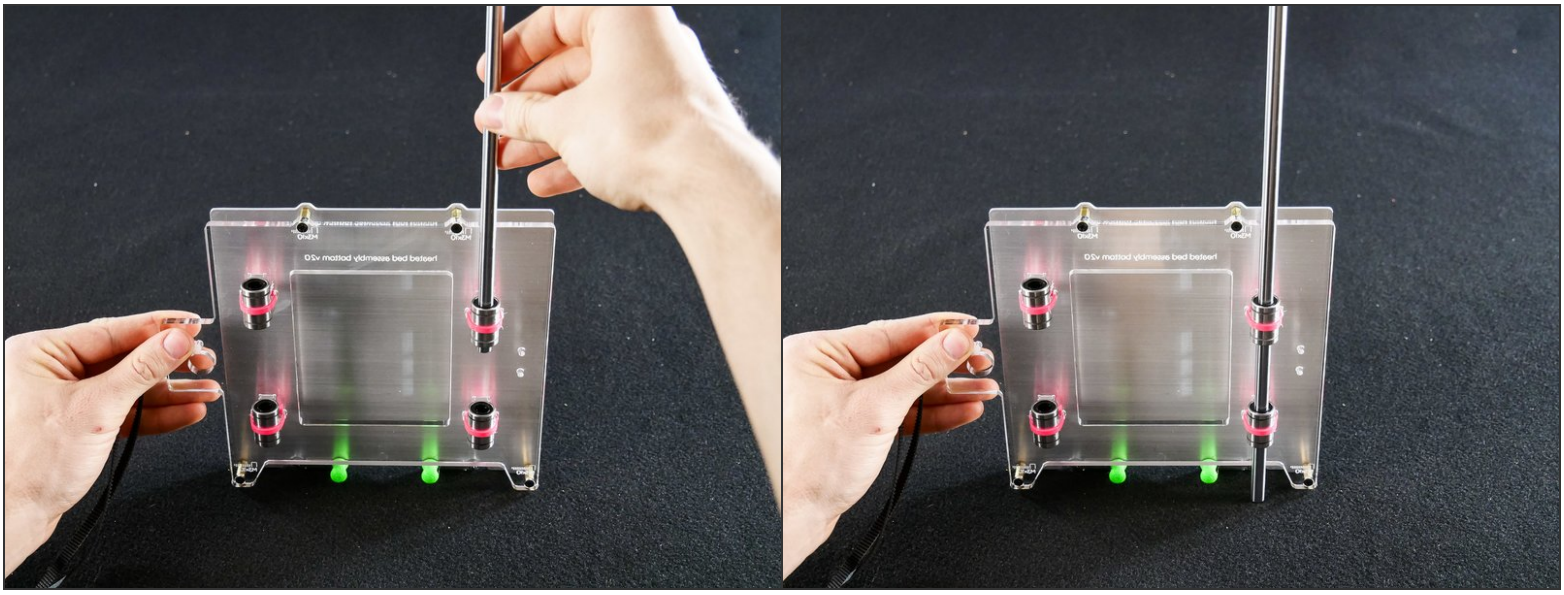
Step 41



Step 42

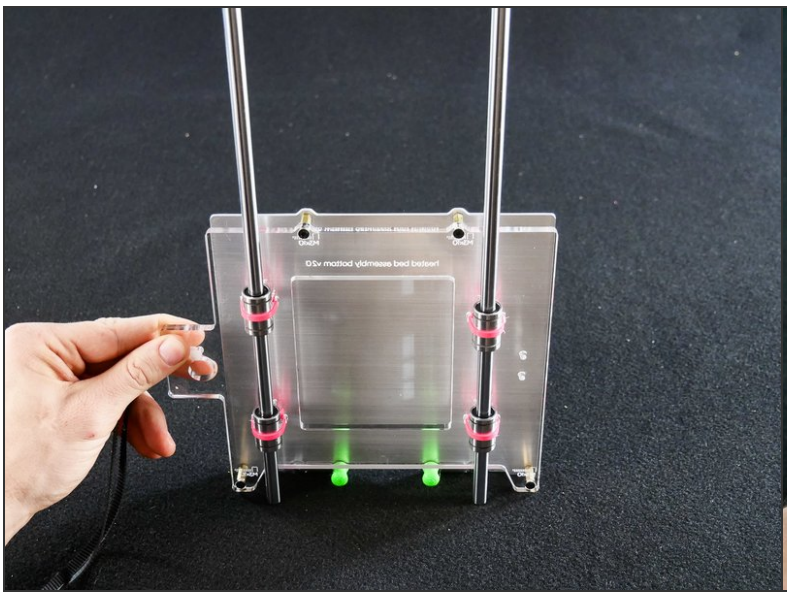


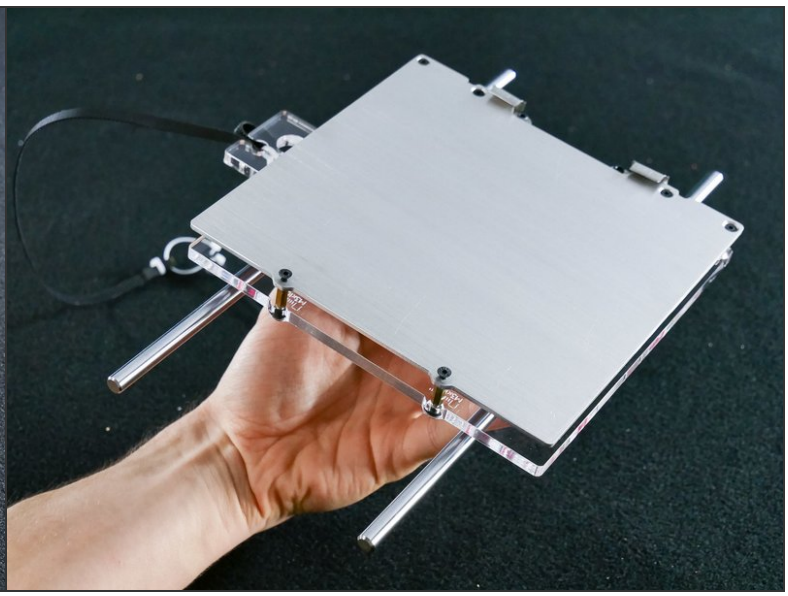
Step 43



⚠ Be **gentle**. Do no force the rods and keep them straight or*you may damage the ball bearing by knocking some balls out.*

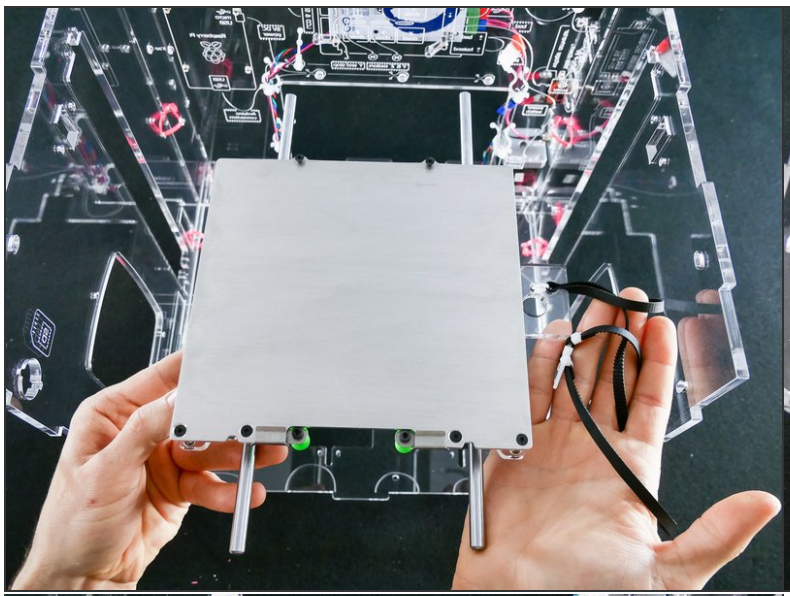
Step 44

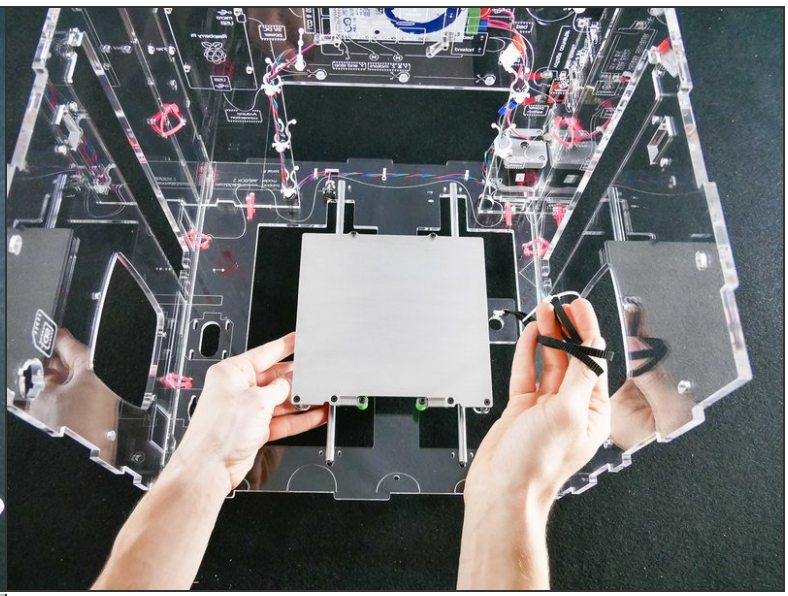


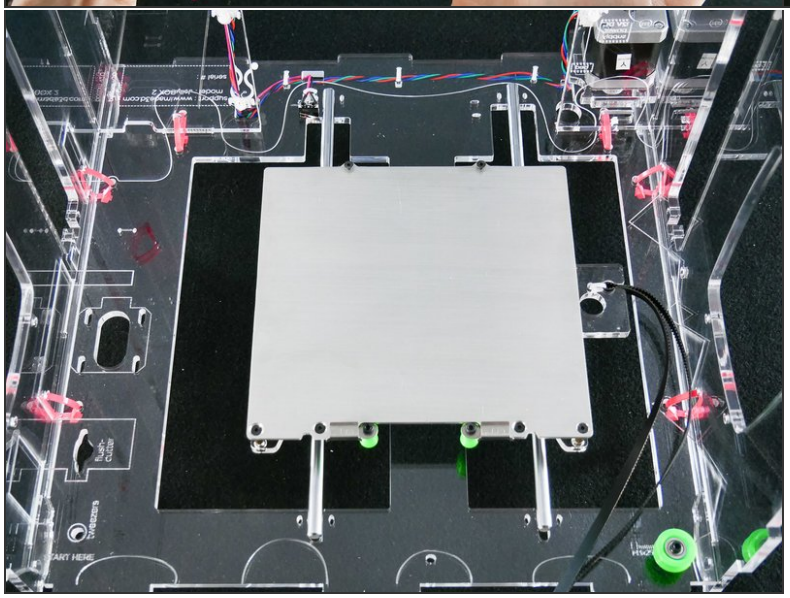


- Check ✓

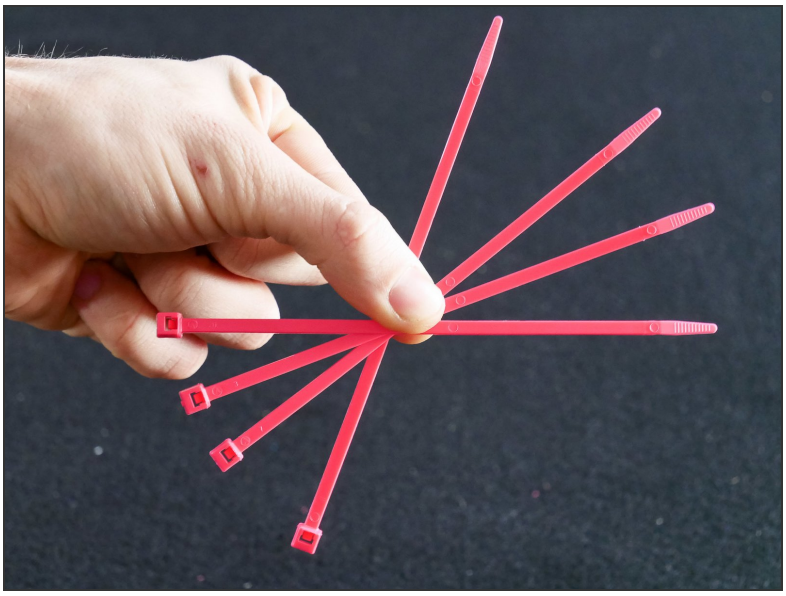
Step 45



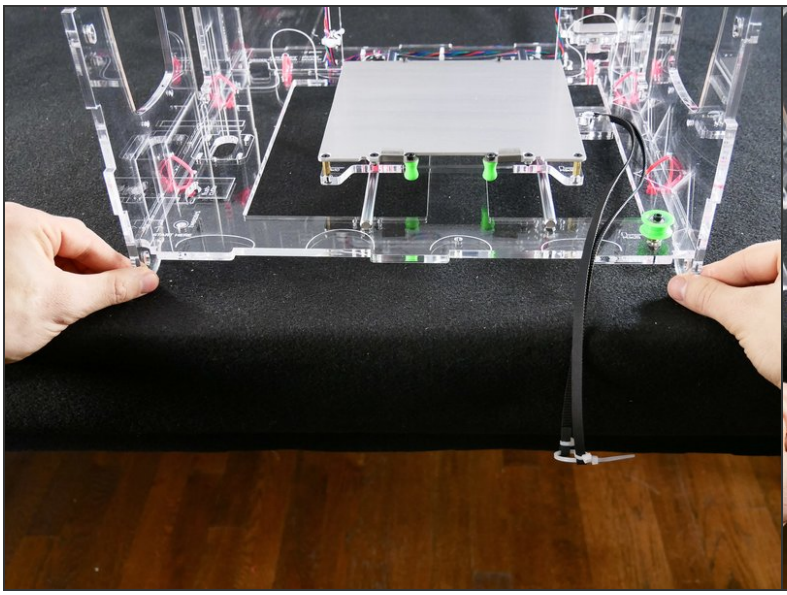


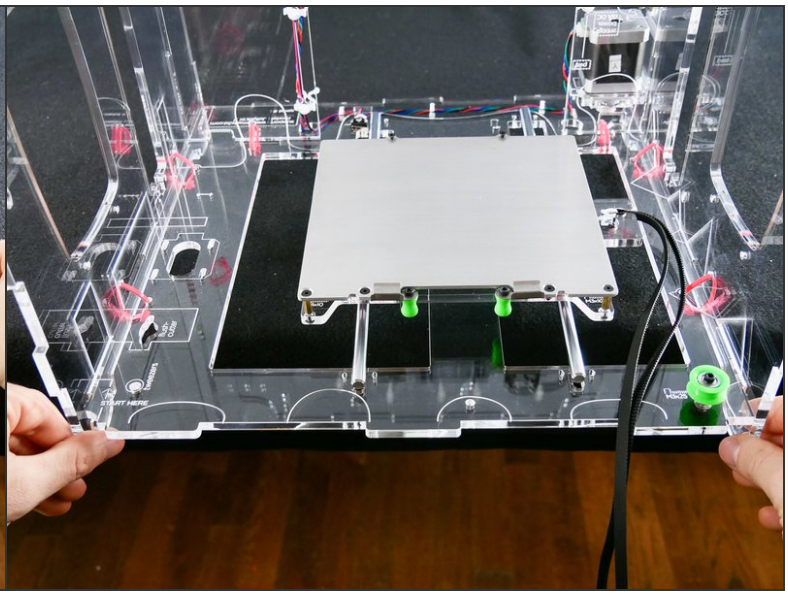


Step 46



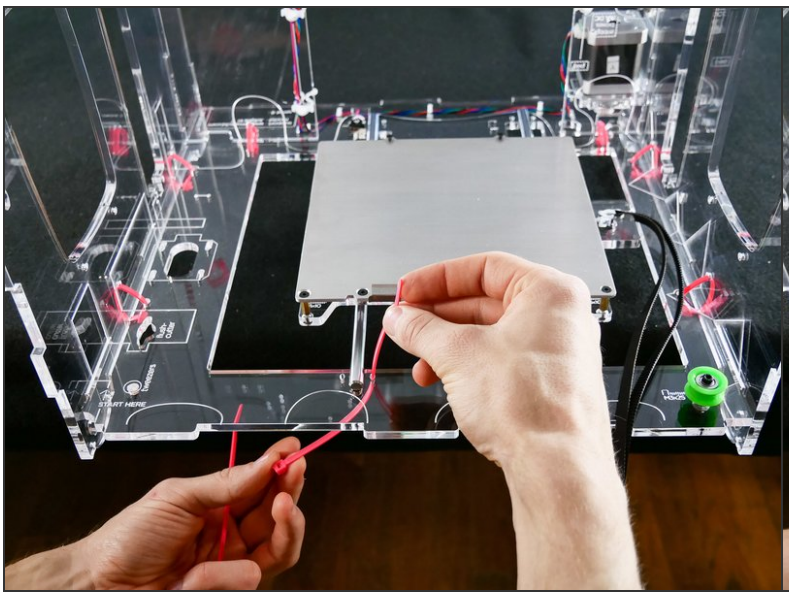
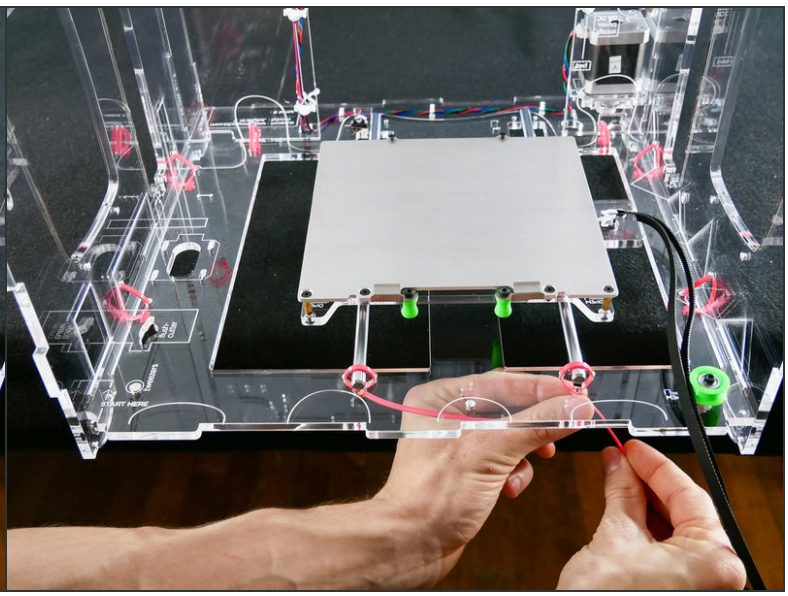
Step 47



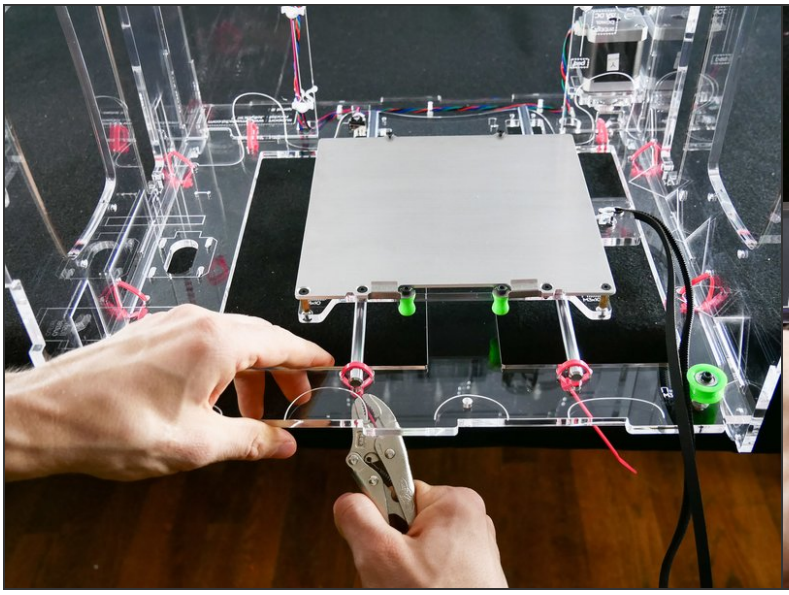
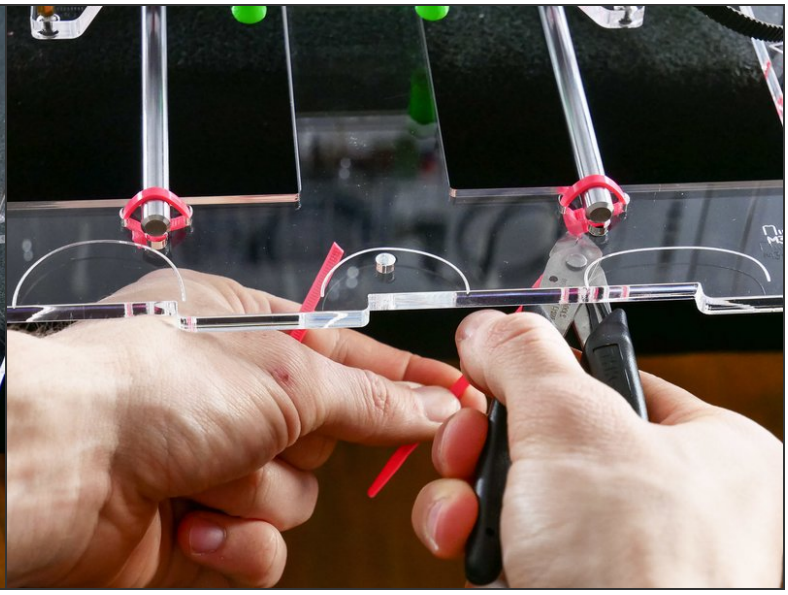


- Place your JellyBOX over the **edge** of a table.

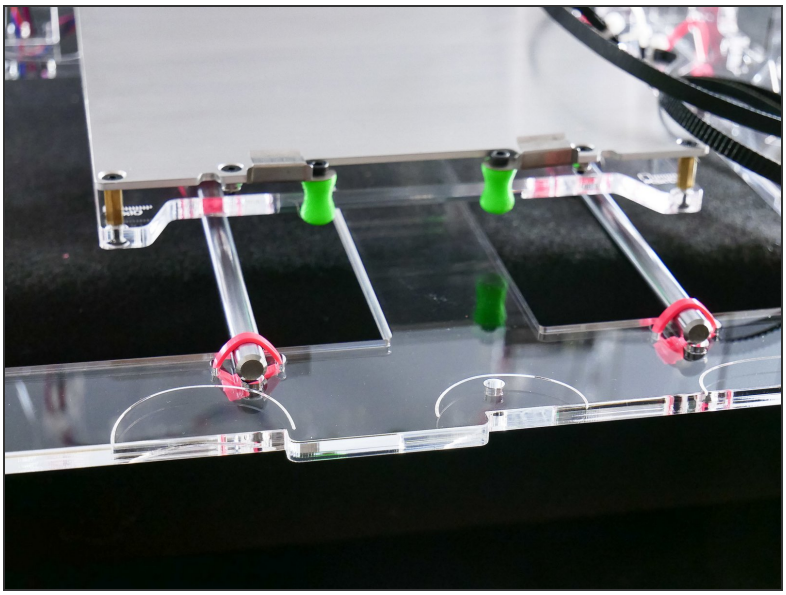
Step 48

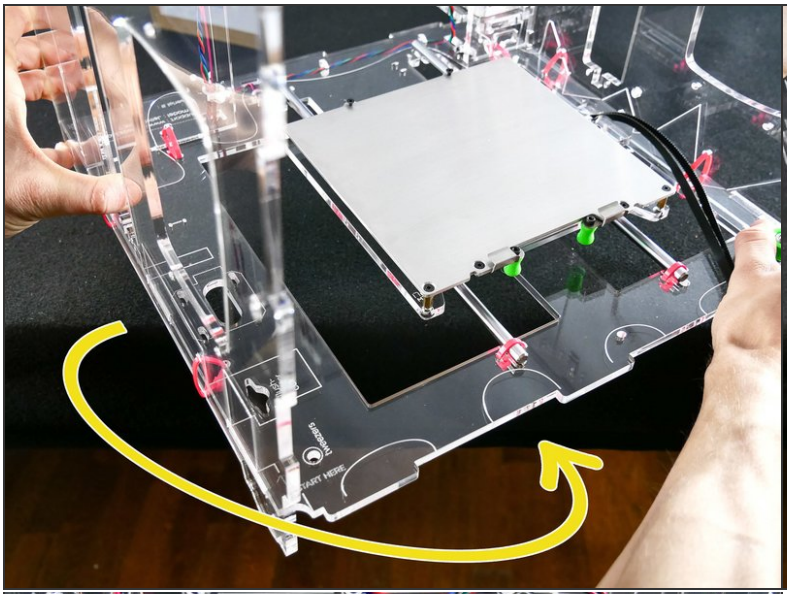
Step 49

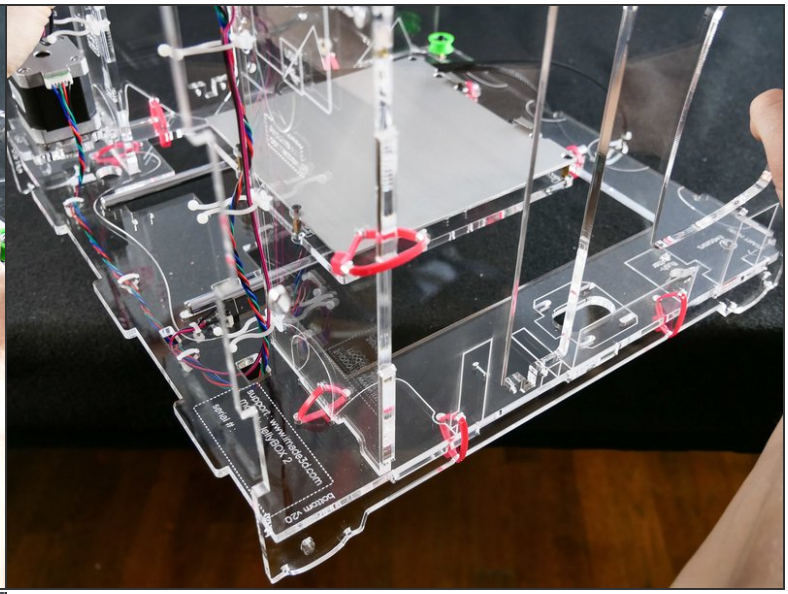



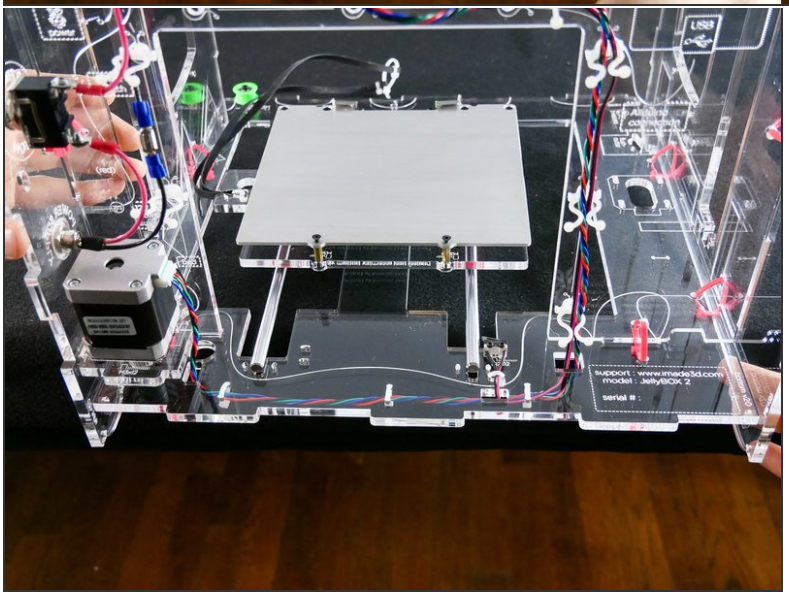
Step 50



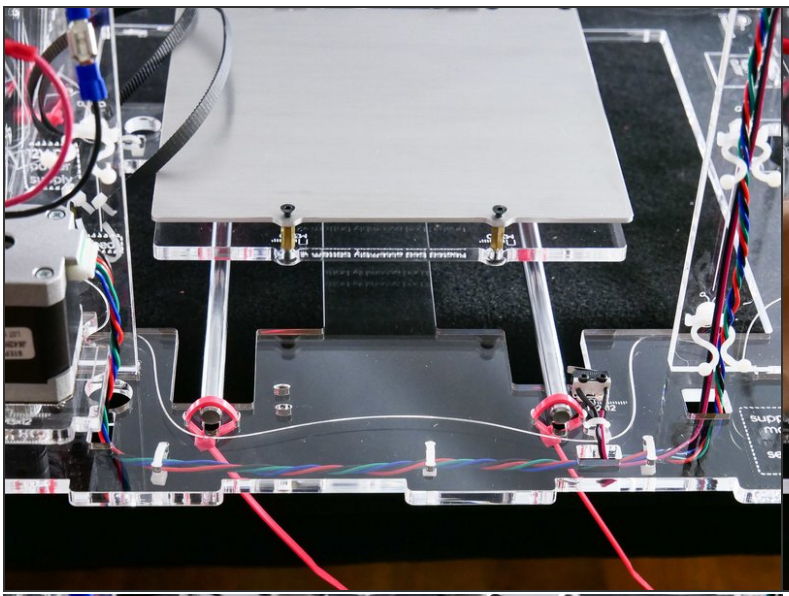
Step 51

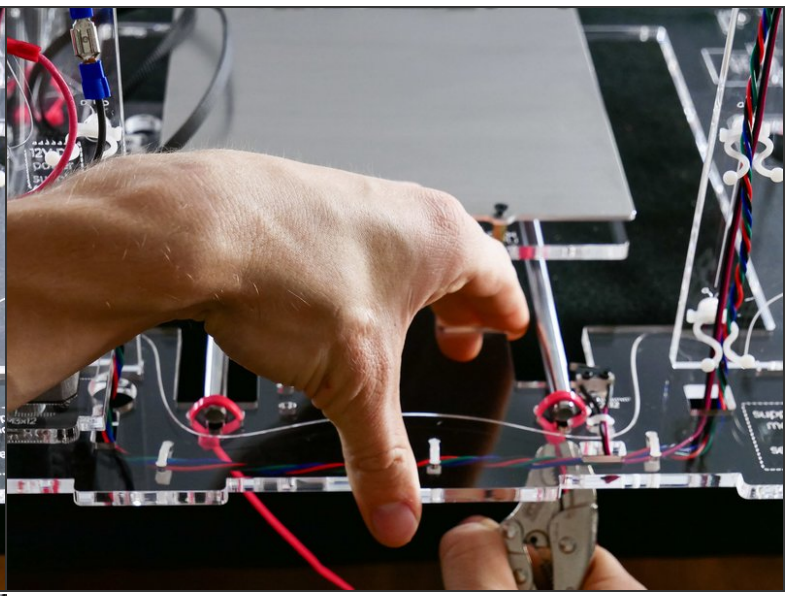


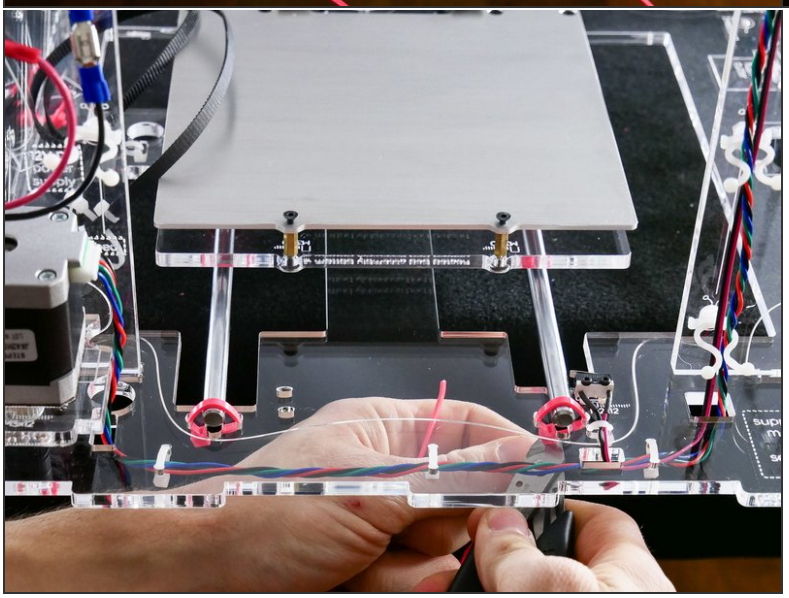




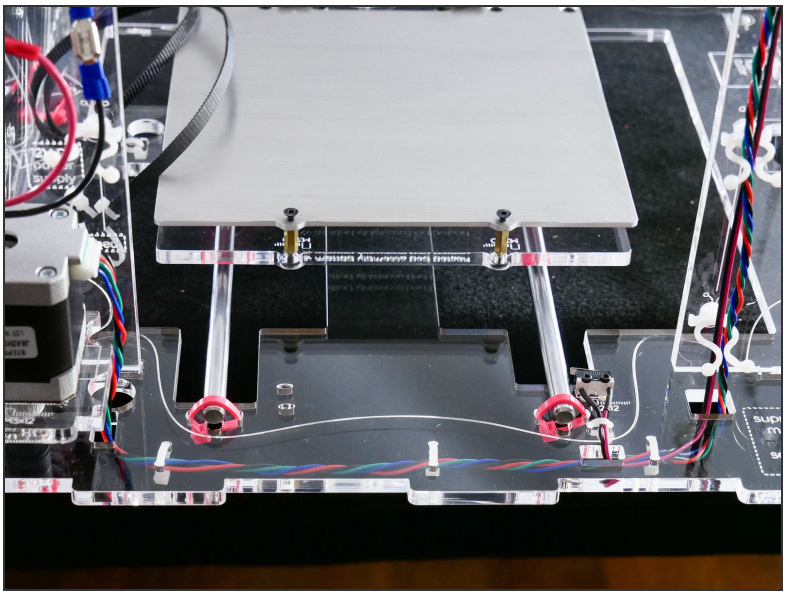
Step 52



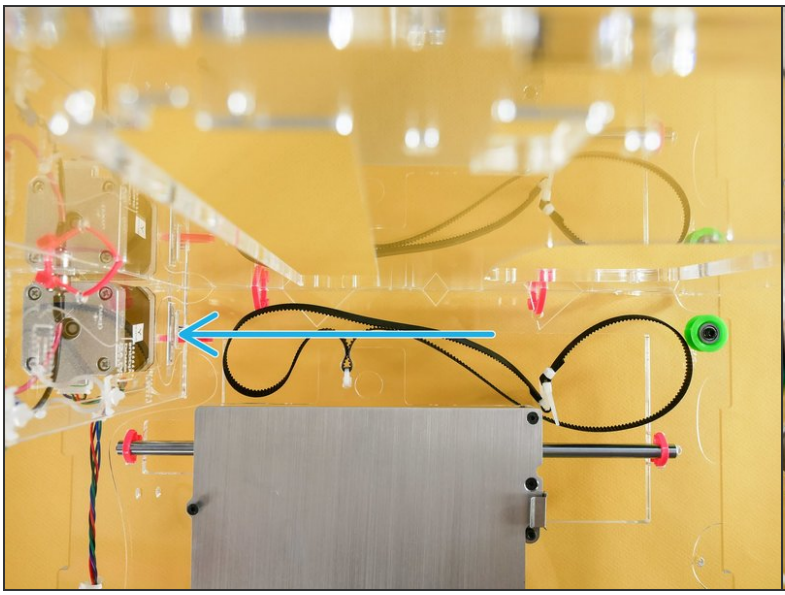


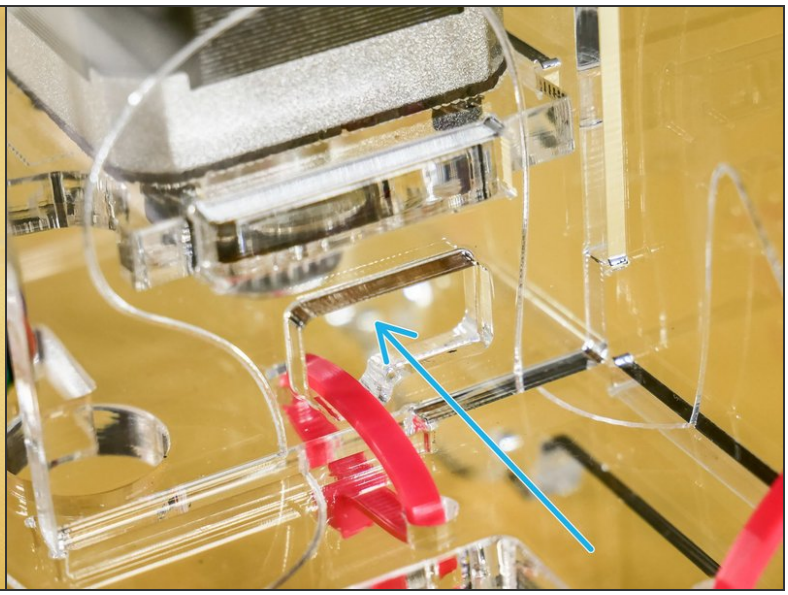


Step 53 — Looking good!

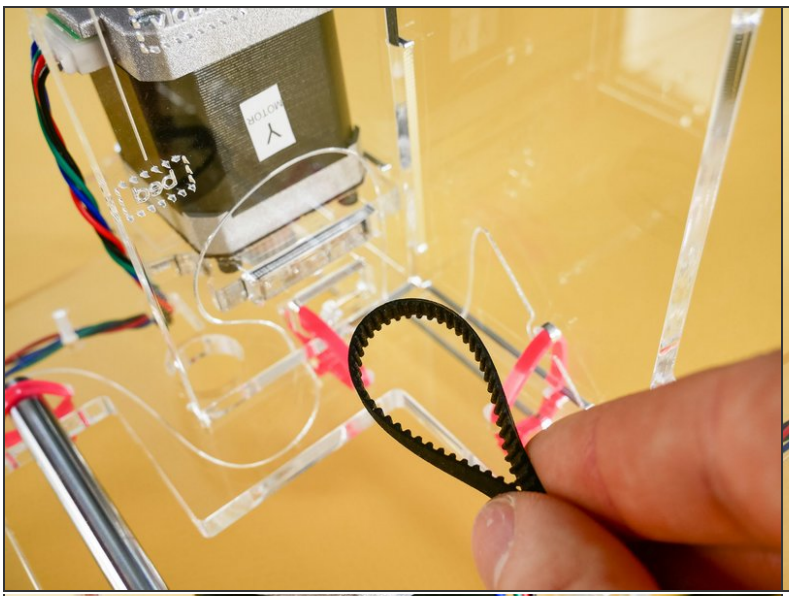


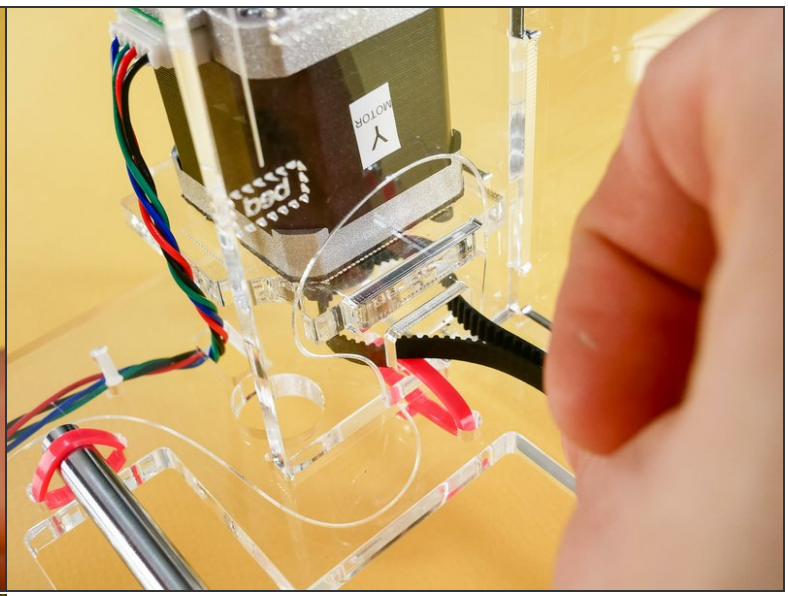
Step 54 — ↳ Install the Y Belt

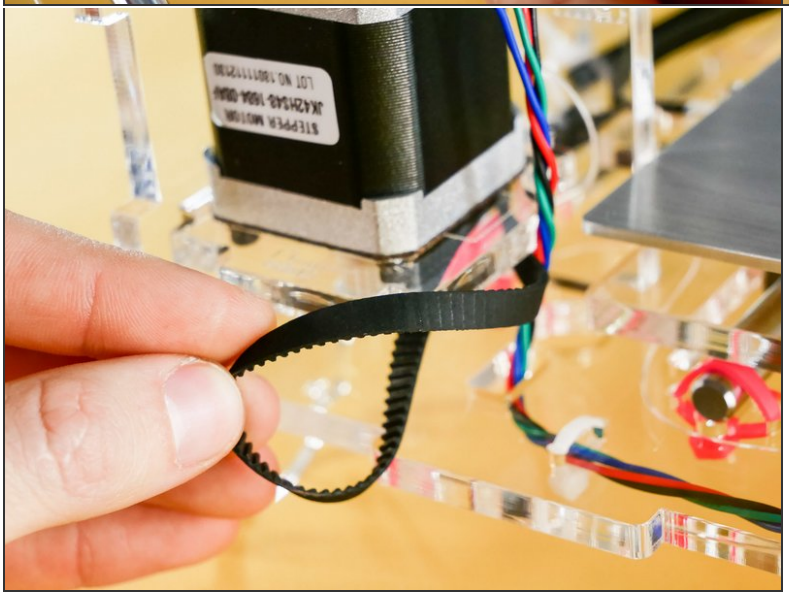




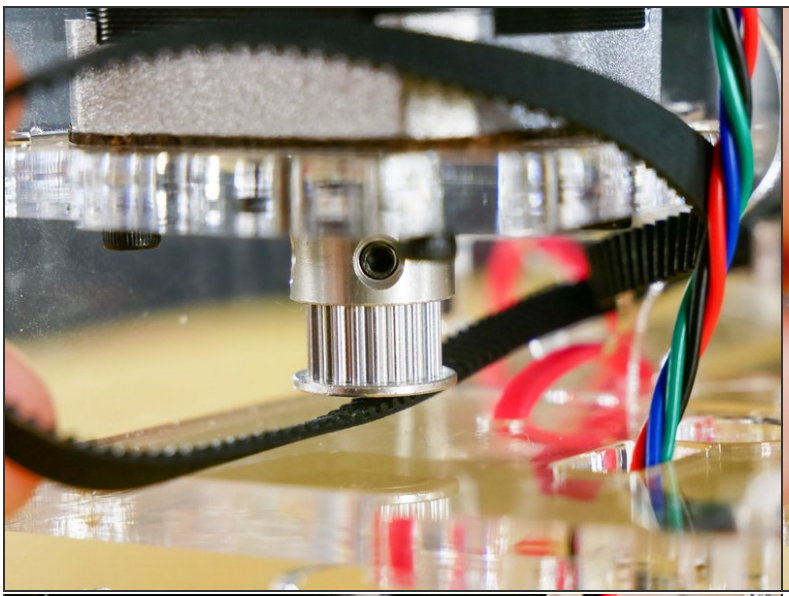
Step 55

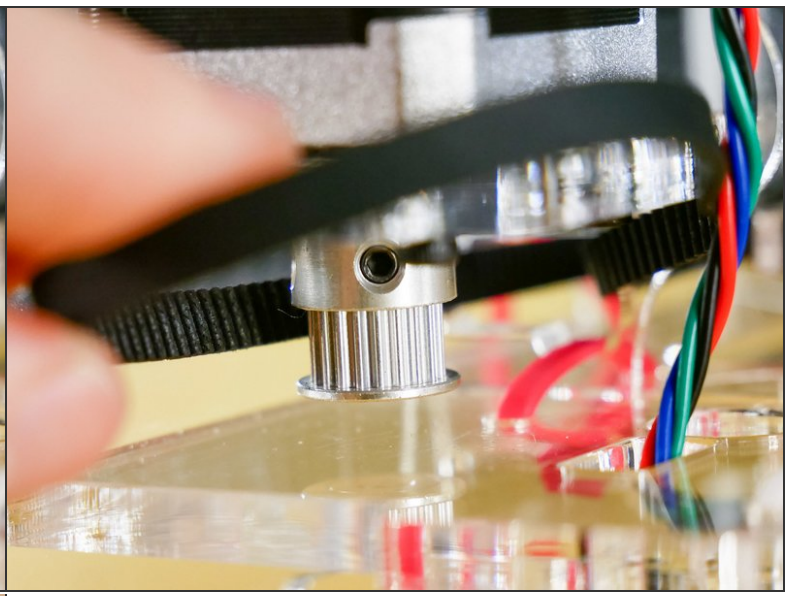


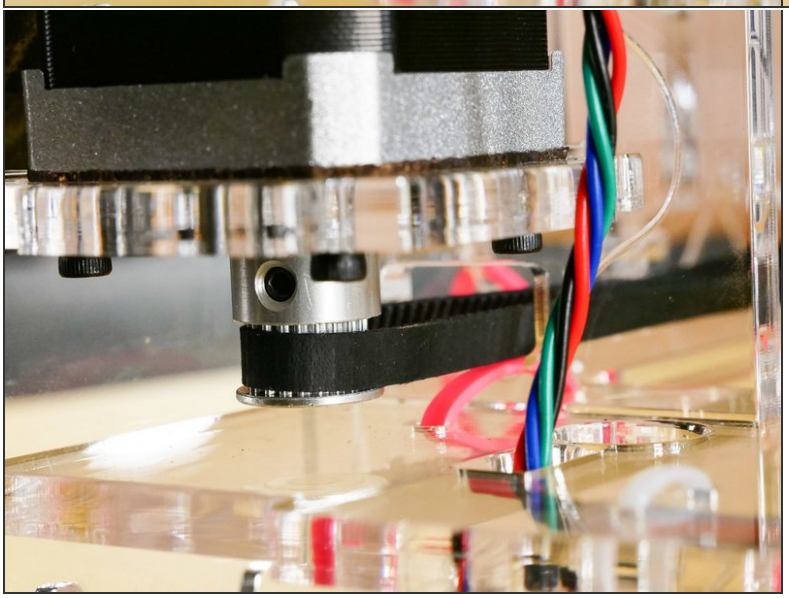




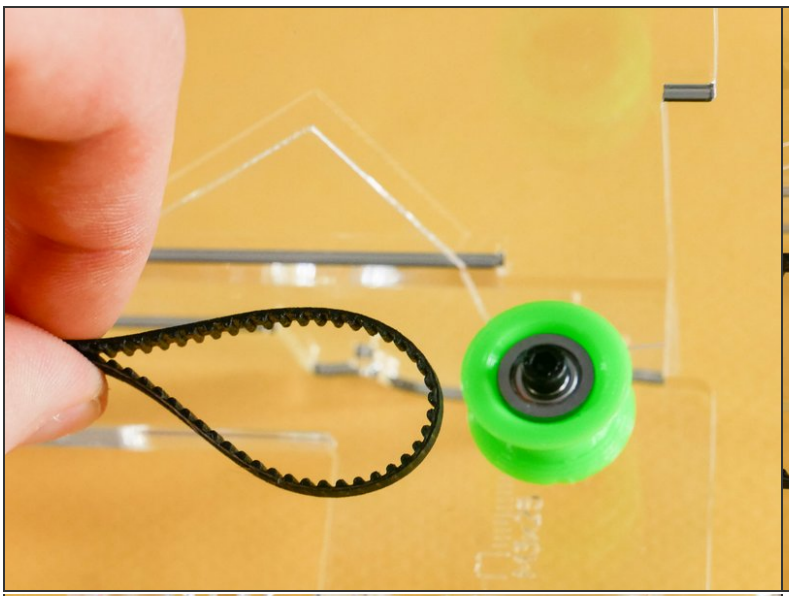
Step 56

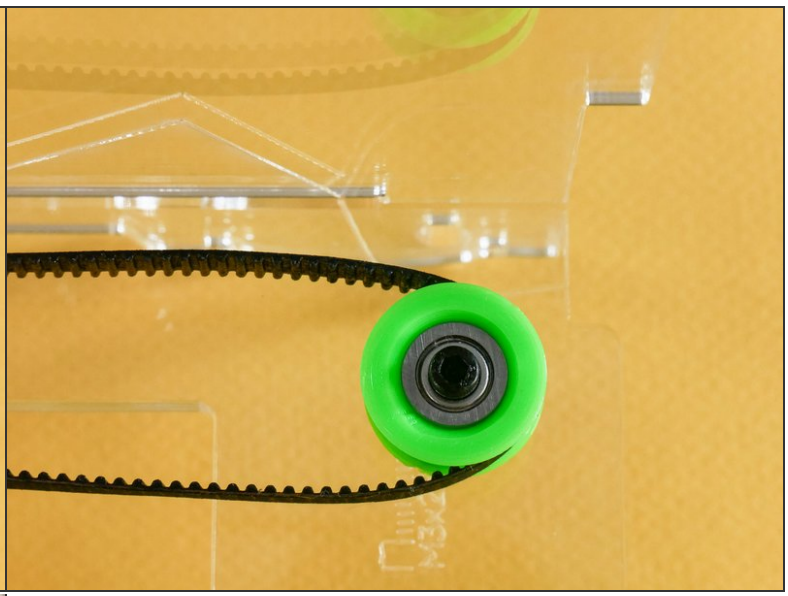


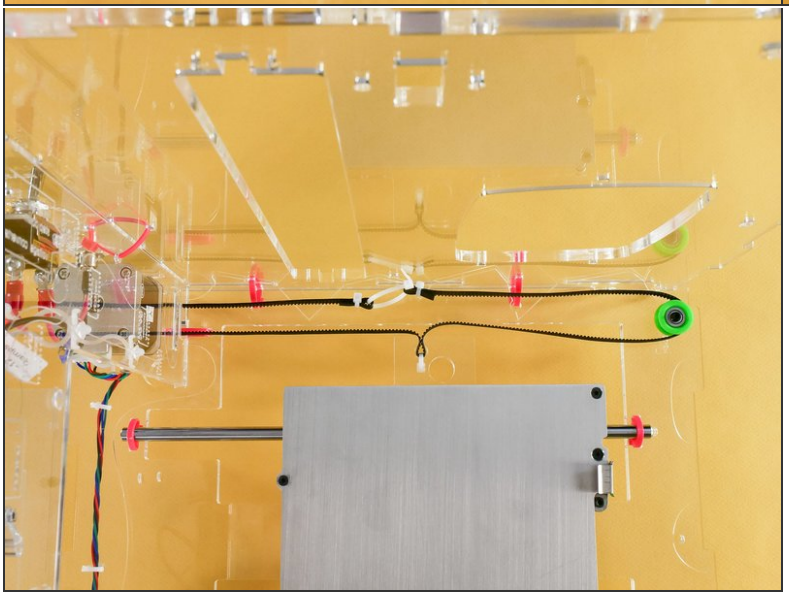




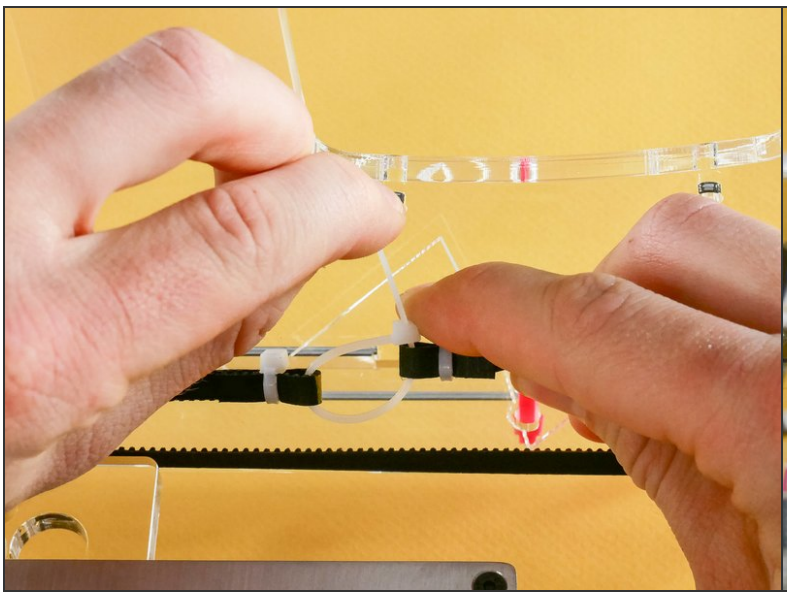
Step 57

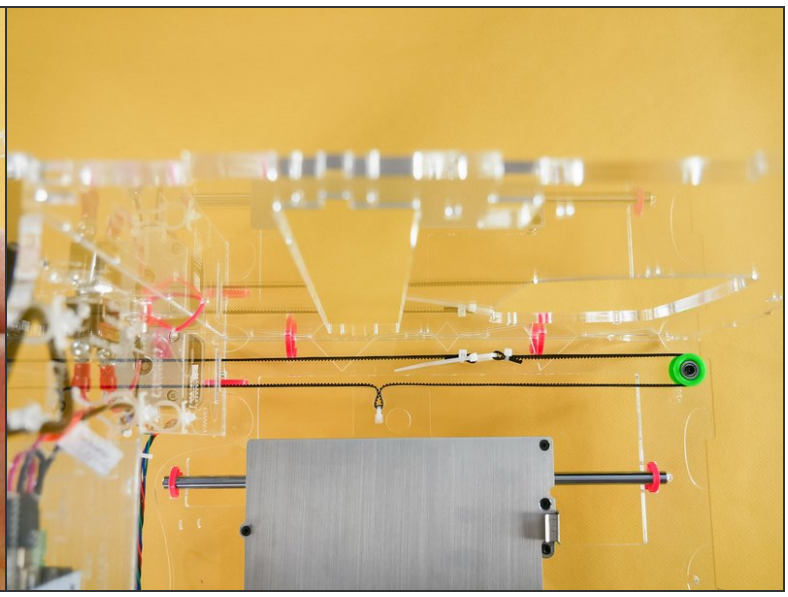






Step 58

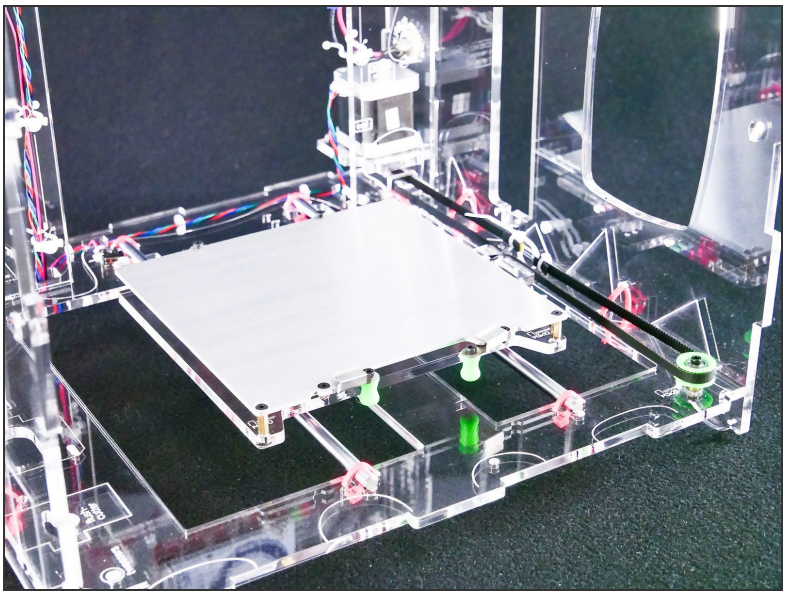




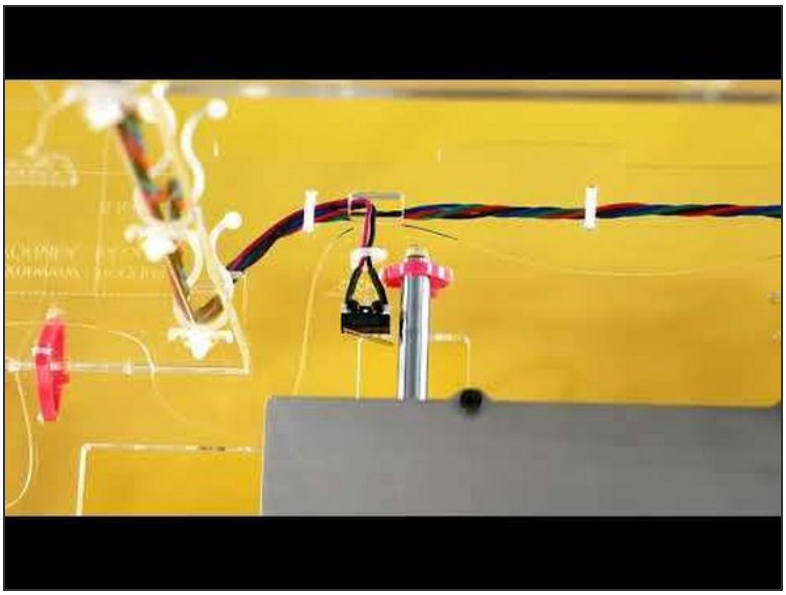
- Lightly tension the belt.

⚠ We'll dial in the belt tension later, when the whole frame is finished.

Step 59 — Looking good!



Step 60 — ▶ Video: Y Mechanical Checkpoint (25s)



- ▶ Video: Y Mechanical Checkpoint (25s)

⚠ Do not move too fast. You are generating current by forcing the motor to rotate. If you generate too much current, you could damage your electronics; namely the drivers.

⚠ Make sure that the Y EndStop gets engaged by one of a Y Assembly bearings. There's an audible **click.**

- Make sure the Y assembly is moving smoothly.