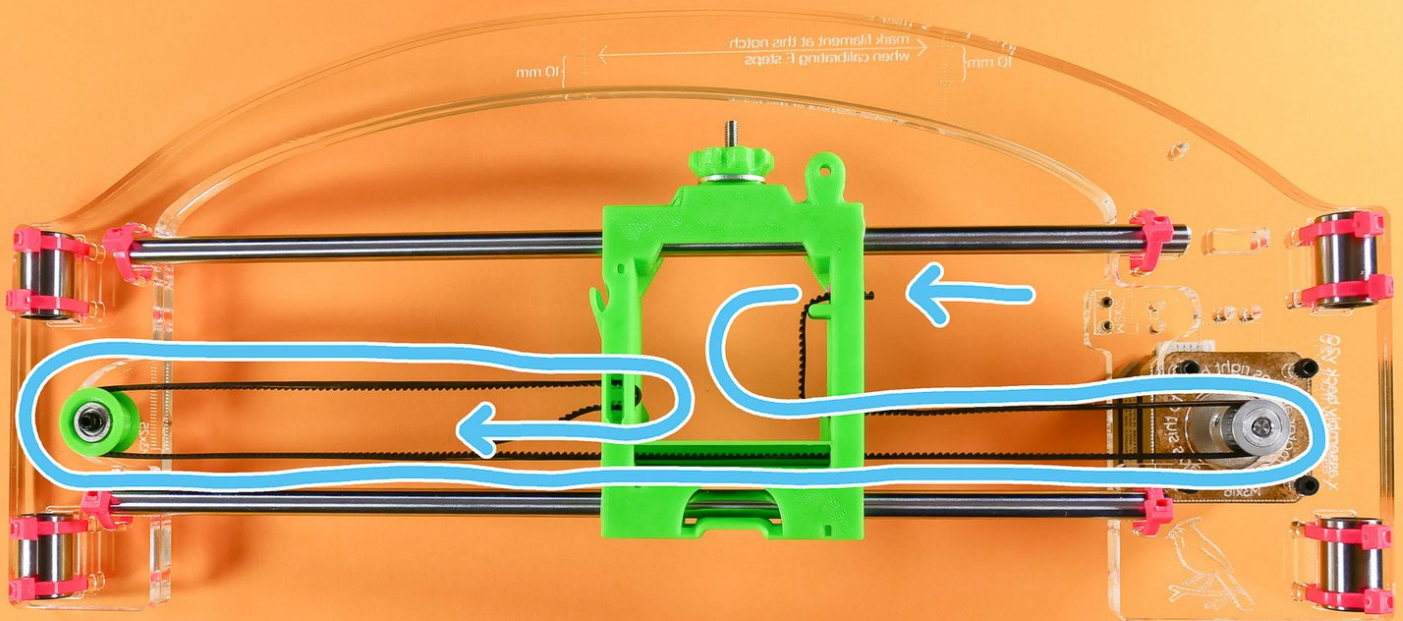





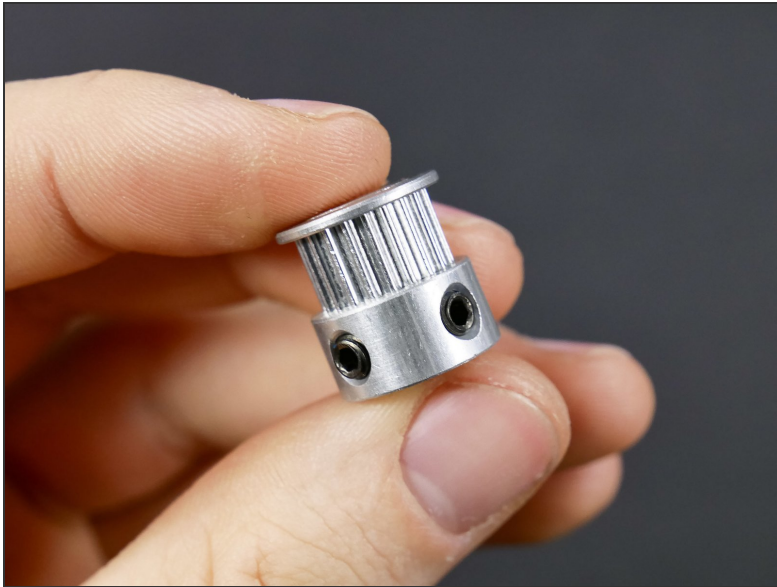
## 02. X Assembly Motion Platform



## Step 1 — ↳ Install the X Pulley

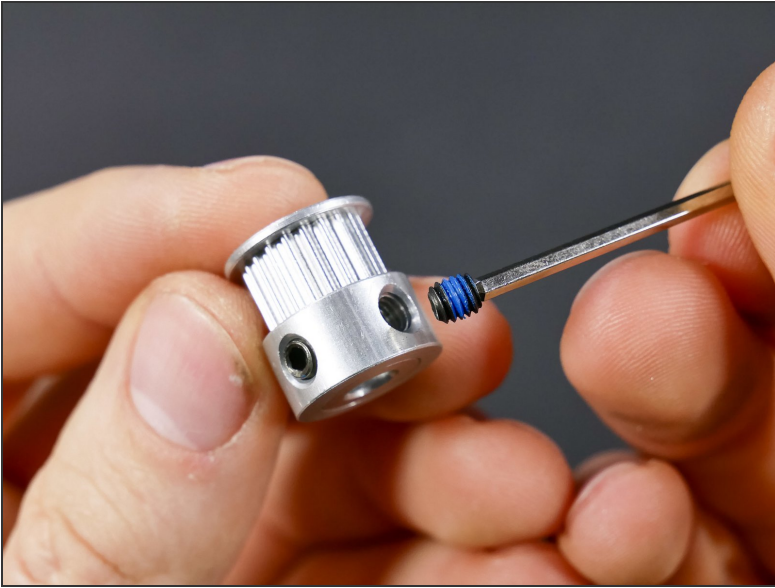
 This procedure is the *same* as installing the Y Pulley you did a while ago - just with the X Motor :-)

## Step 2



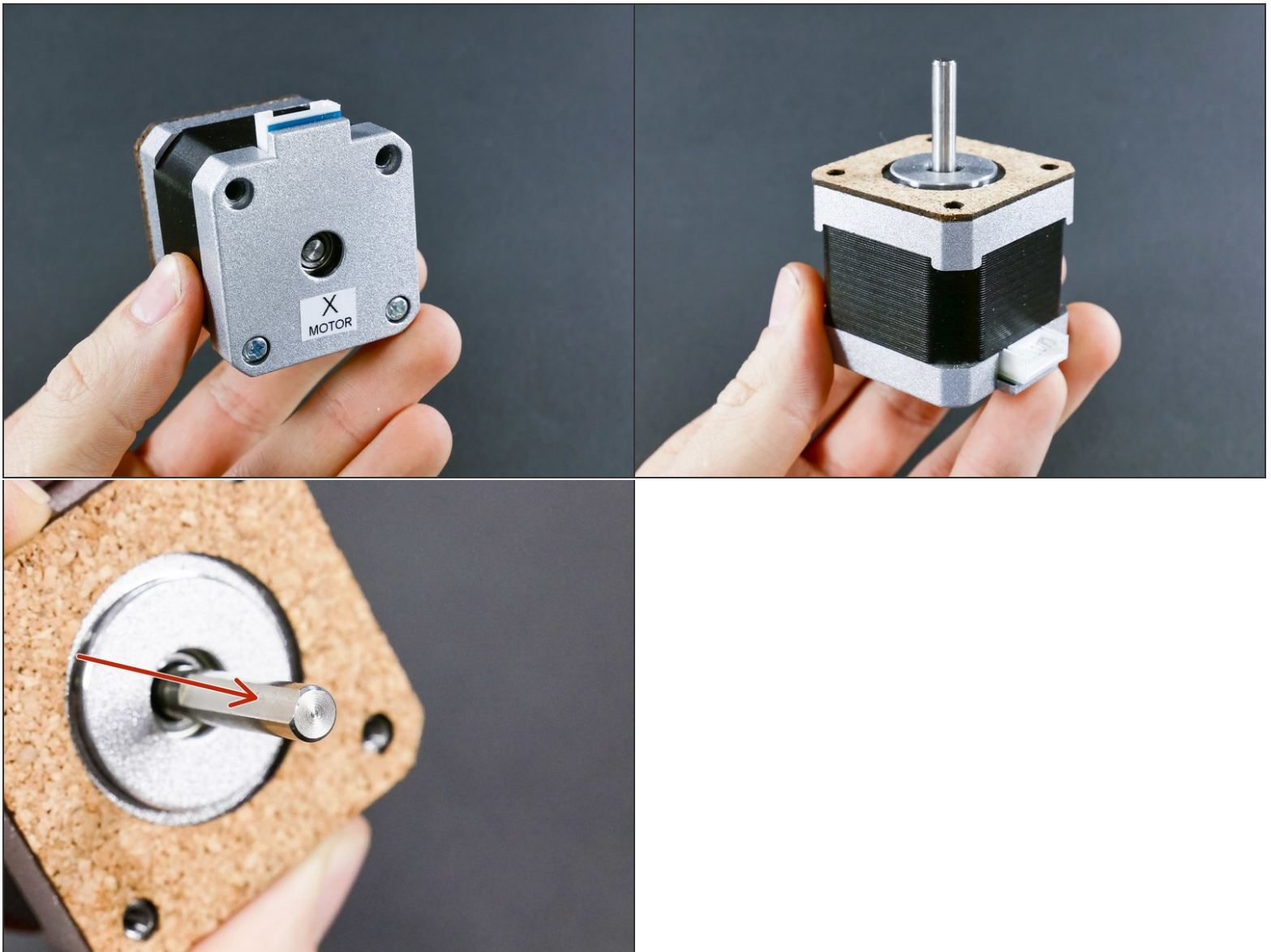
- Insert wisdom here.

## Step 3



**i** These little things are called **set screws** or **grub screws**. Our set screws also have a *blue nylon patch* that prevents loosening by vibrations (the patches are a kind of *threadlock*)

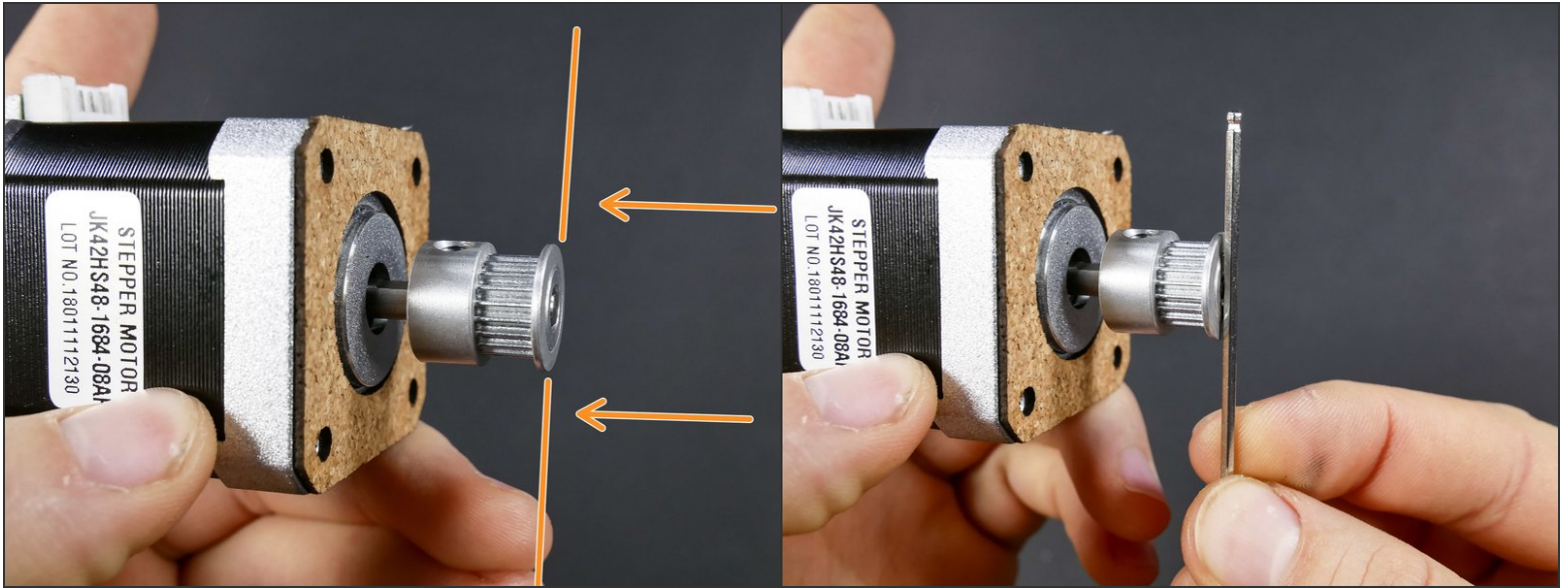
## Step 4



☞ Notice that the motor shaft has one **flat side**.



## Step 5



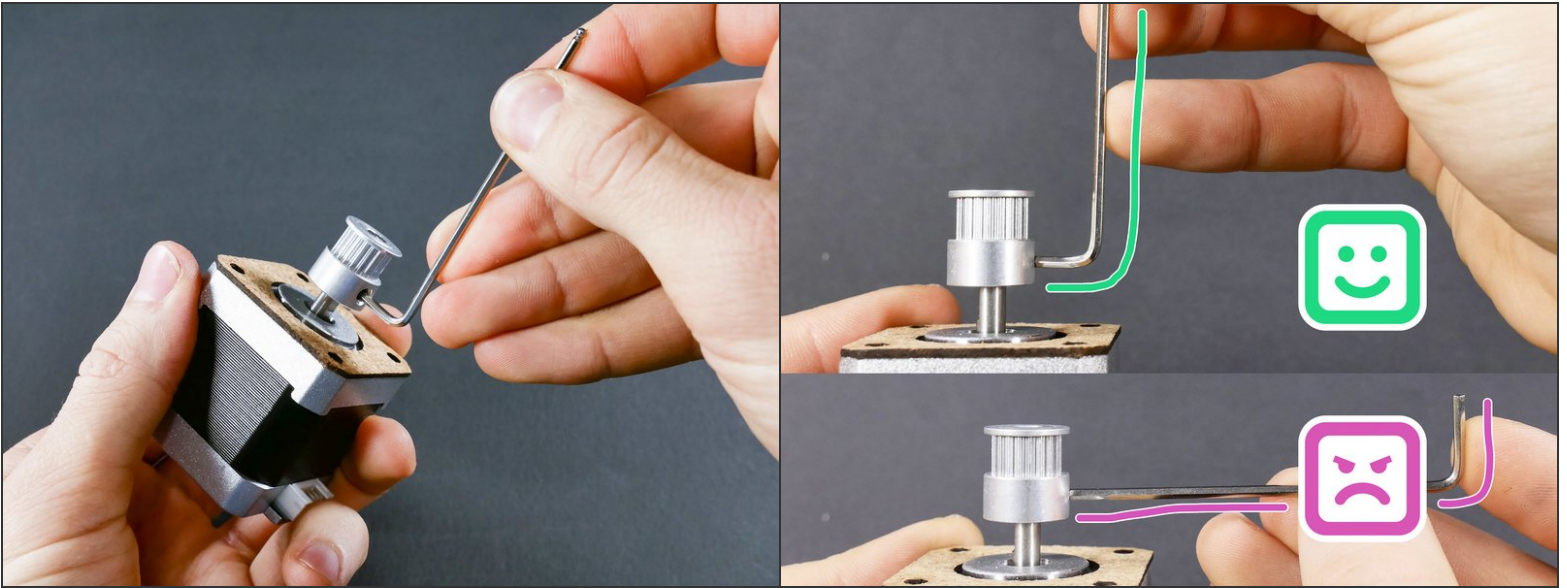
- Make the top of the motor shaft **flush** with the top of the pulley.

## Step 6



- ⚠ Rotate the pulley so that one **set screw** is against a **flat side** of the motor shaft. This is extremely important.

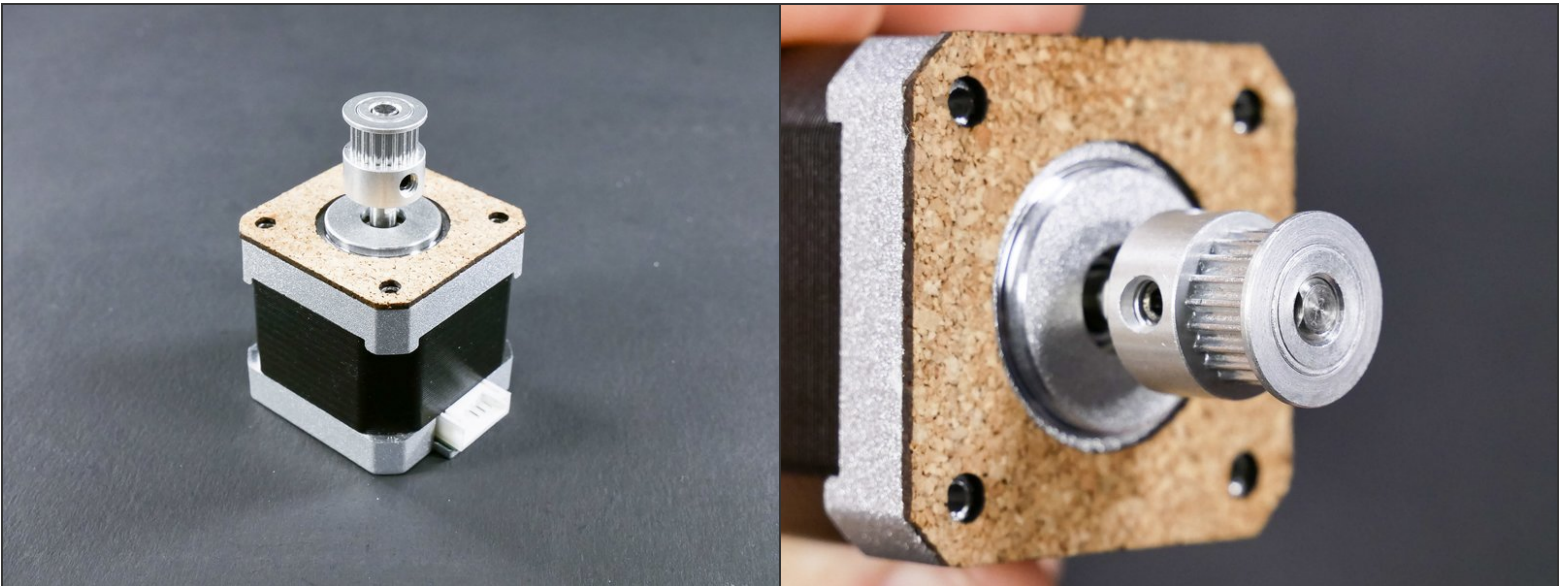
## Step 7



⚠ Tighten both set screws well using the long side of the hex key. We do not want these to be loose.

⚠ Tightening well does not mean tightening with unrestrained force. You can strip the set screw threads or its hex head if you use too much force.

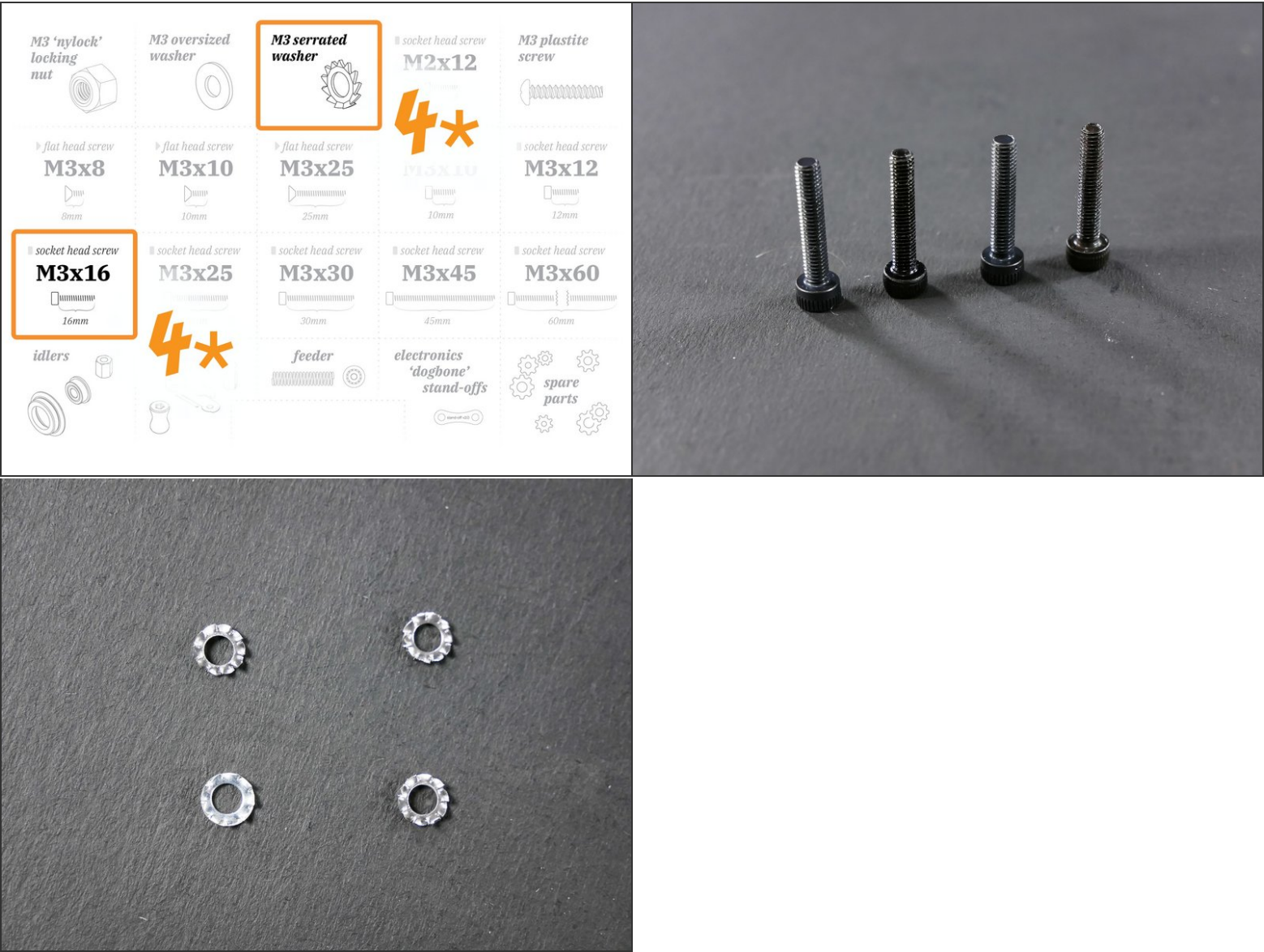
## Step 8 — Tadaaa!



- Insert wisdom here.



Step 9 — ↪ X Motor



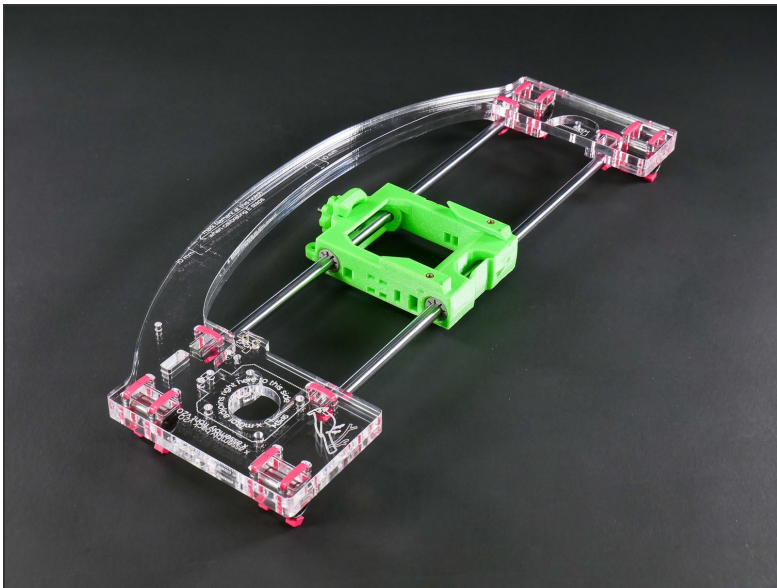
● M3x16

## Step 10



- M3x16

## Step 11

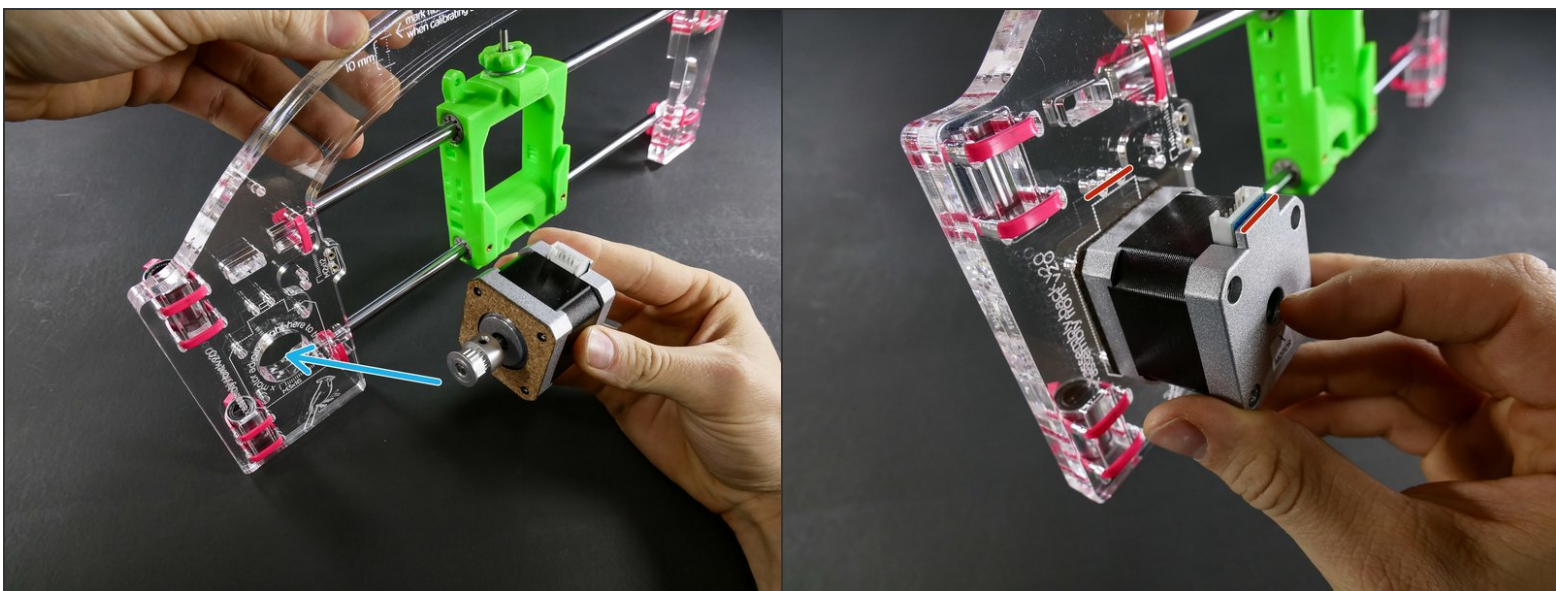




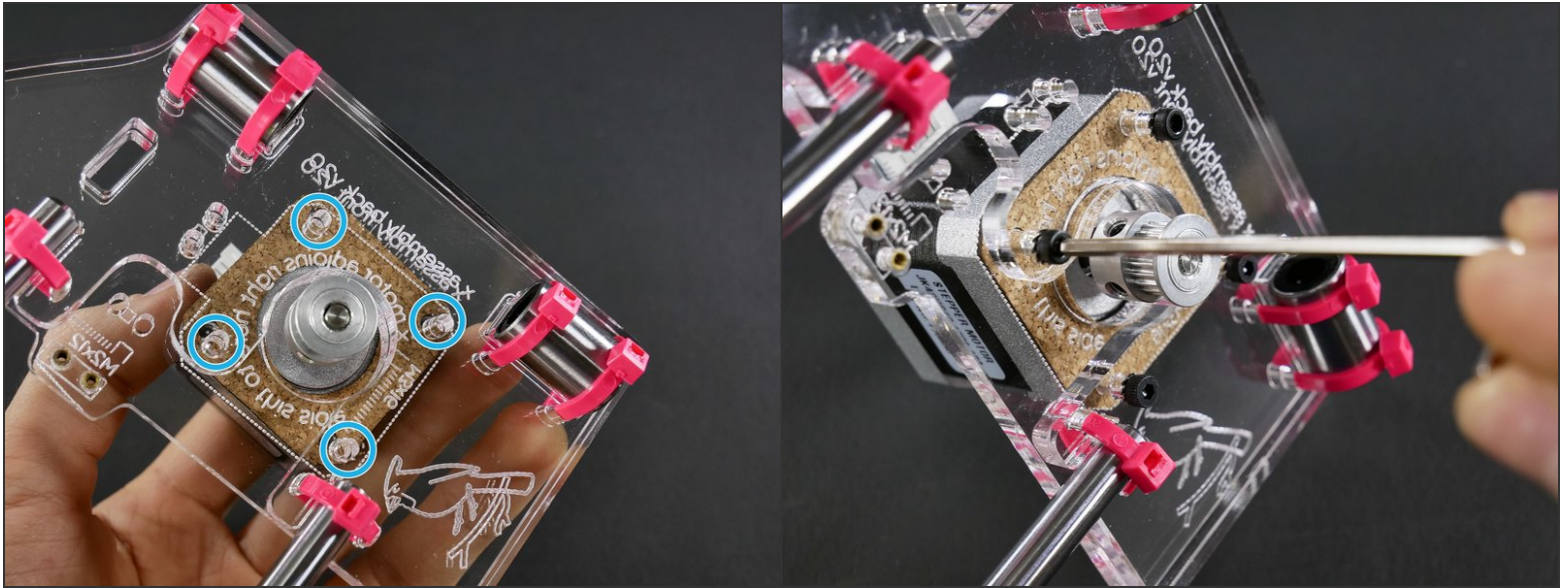
## Step 12



## Step 13

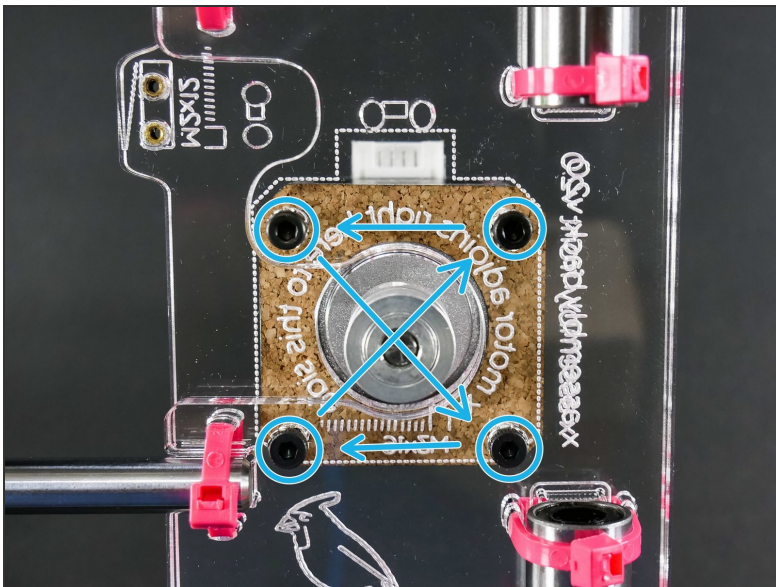


## Step 14



- M3x16

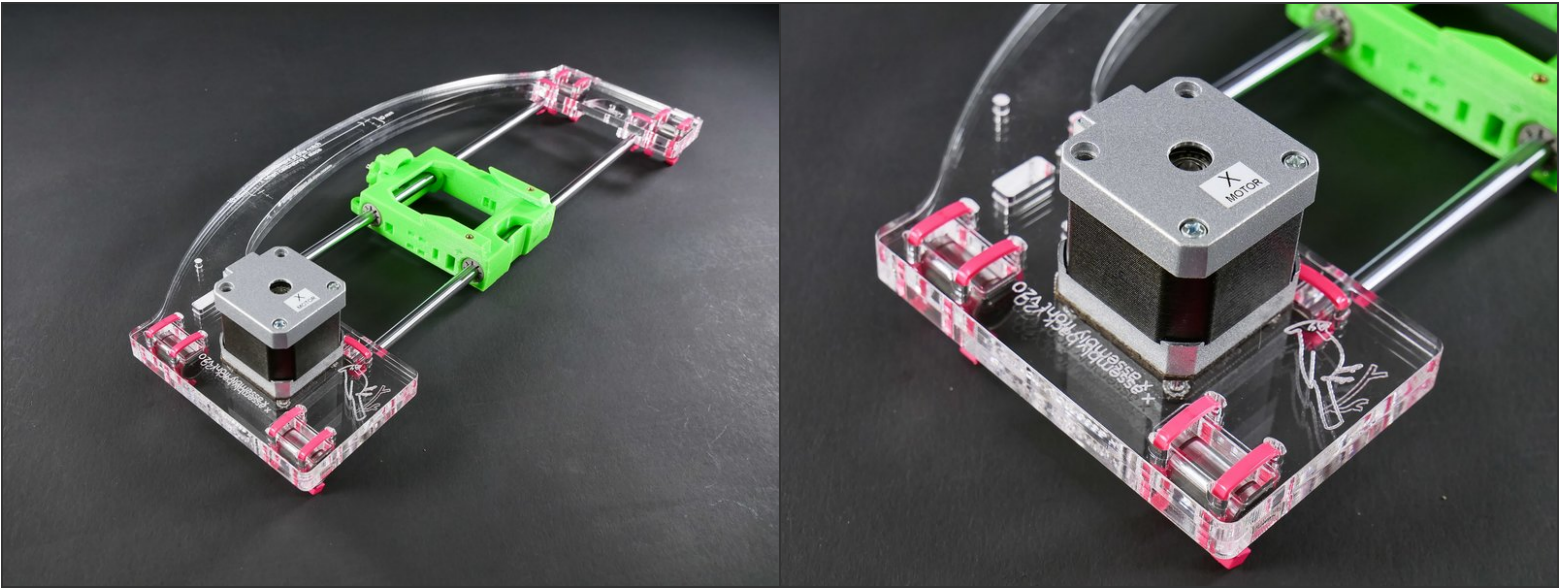
## Step 15 — ✂ Technique: Cross Tightening



- Avoid alignment issues by tightening the screws **little by little in a diagonal pattern**.
- This is called "cross-tightening", and you should do it *every time*\* you have more than one screw to tighten.
- \* *even when you're not building a JellyBOX*
- Fancy a [▶ VIDEO?](#)



Step 16 — It's done!



Step 17 — ↪ Prep an Idler

M3 'nylock' locking nut

M3 oversized washer

M3 serrated washer

socket head screw M2x12

M3 plastite screw

flat head screw M3x8

flat head screw M3x10

flat head screw M3x25

socket head screw M3x10

socket head screw M3x12

socket head screw M3x16

socket head screw M3x25

socket head screw M3x30

socket head screw M3x45

socket head screw M3x60

idlers

2\*

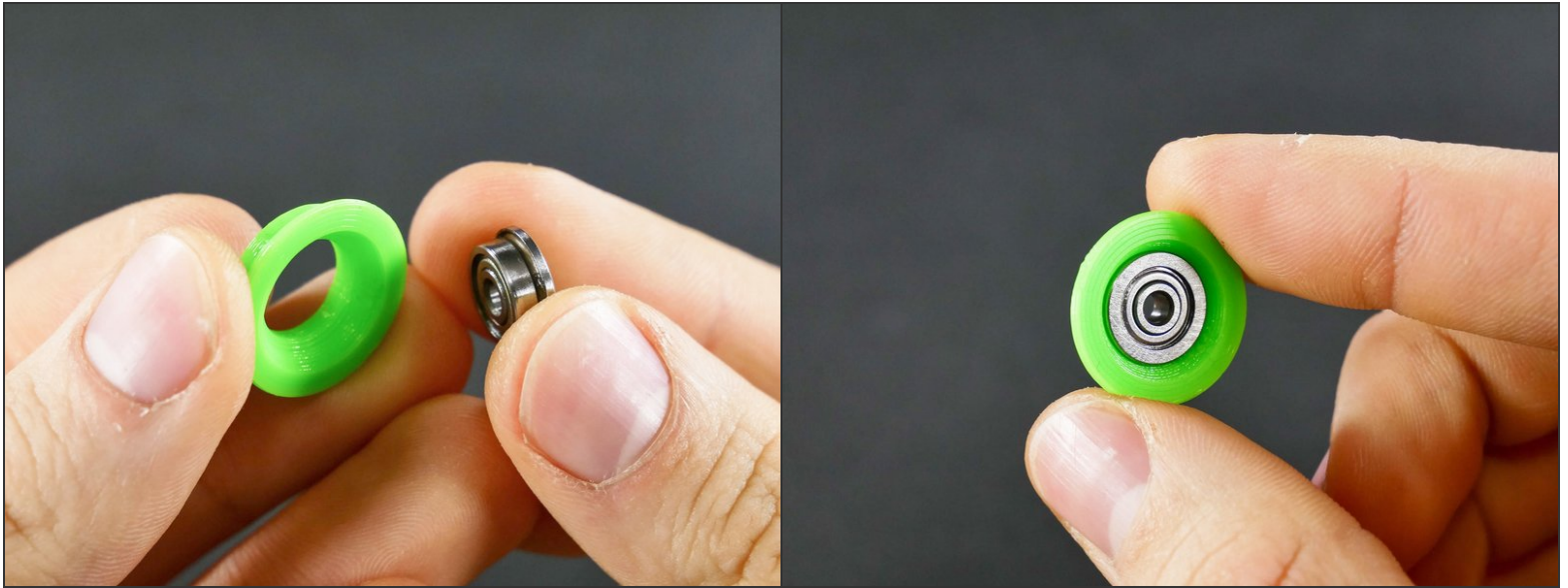
feeder

electronics 'dogbone' stand-offs

spare parts



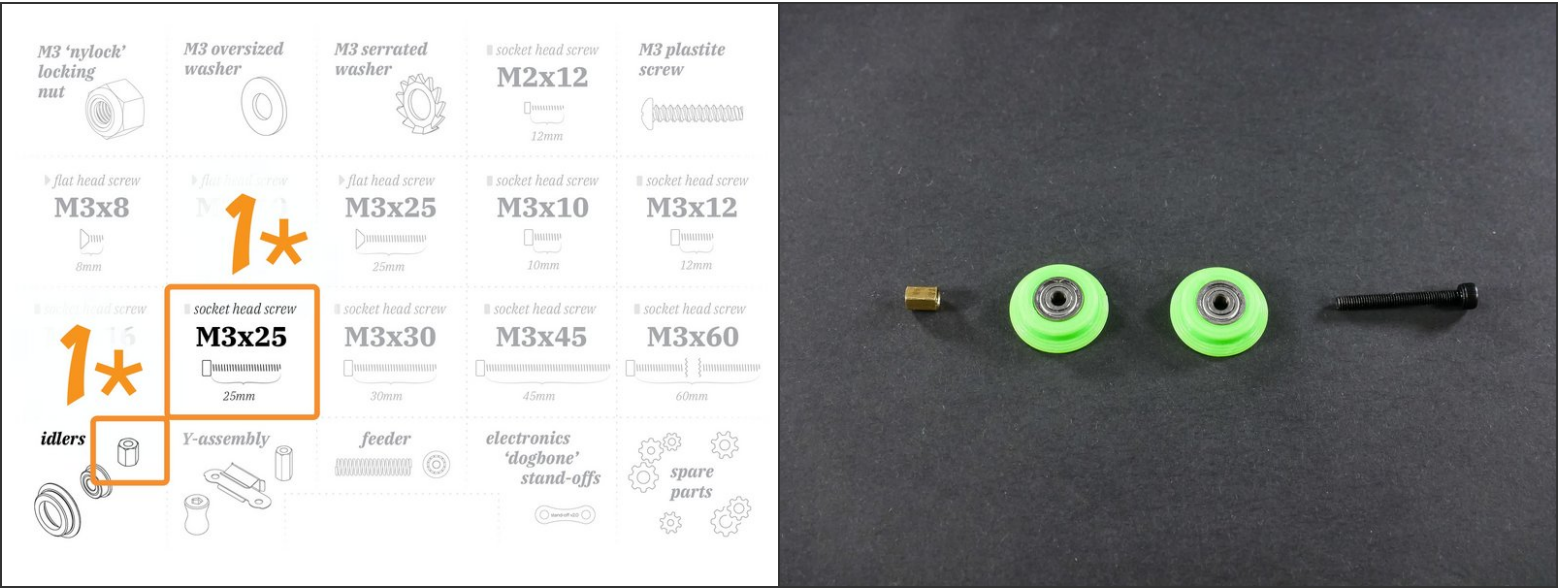
## Step 18



## Step 19



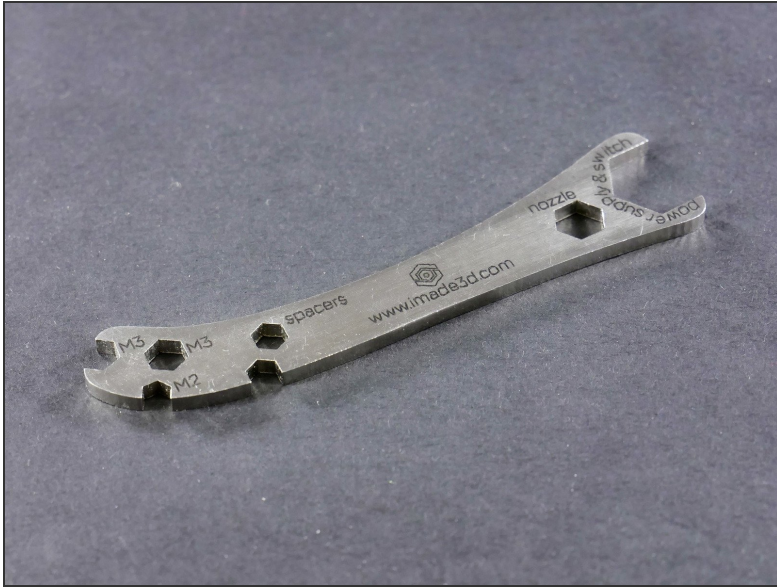
Step 20



Step 21



## Step 22



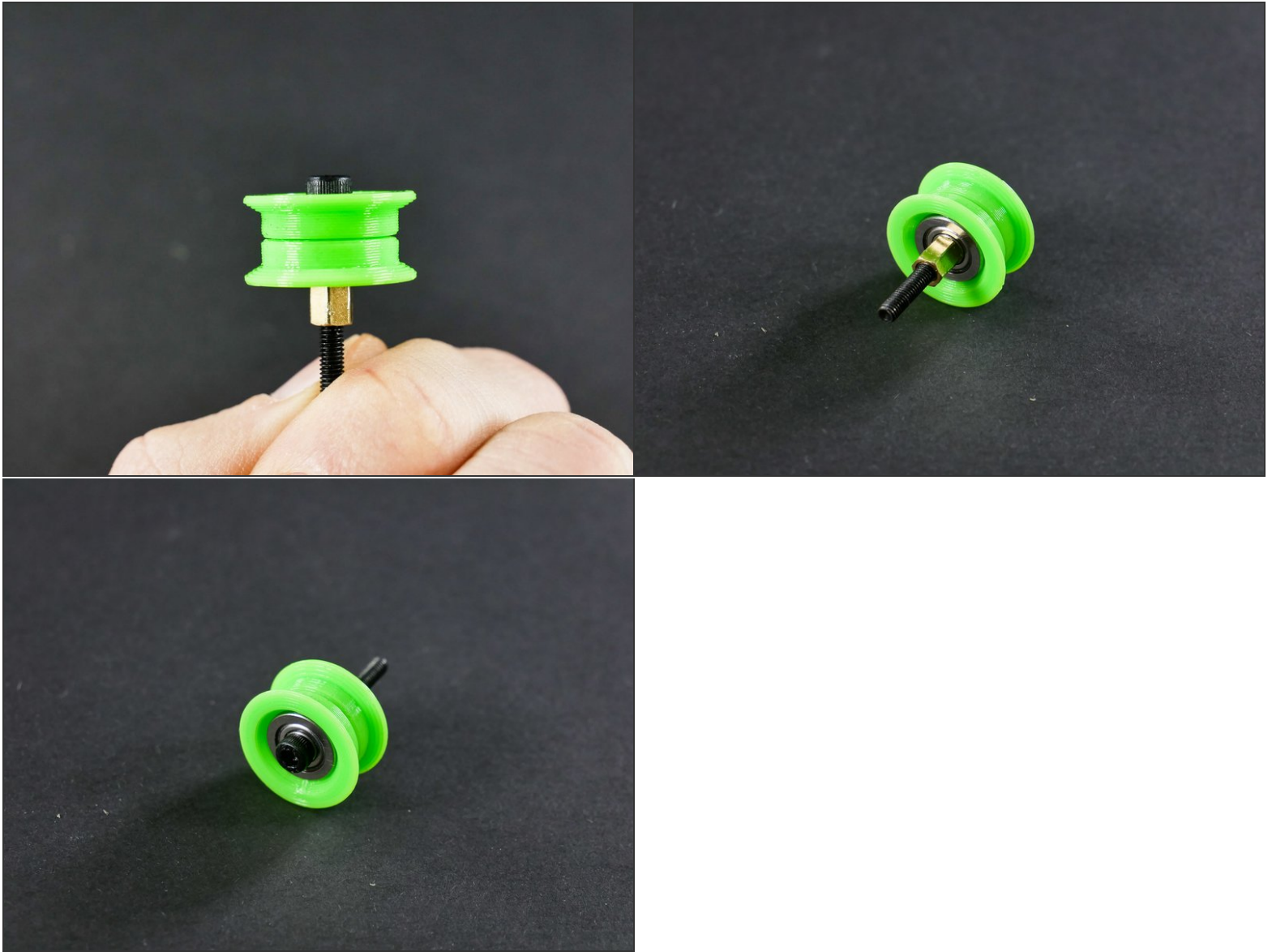
## Step 23



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




## Step 24 — Looking good!




Step 25 — ↪ Install the X Idler


M3 'nylock' locking nut




M3 oversized washer





1\*





2\*


































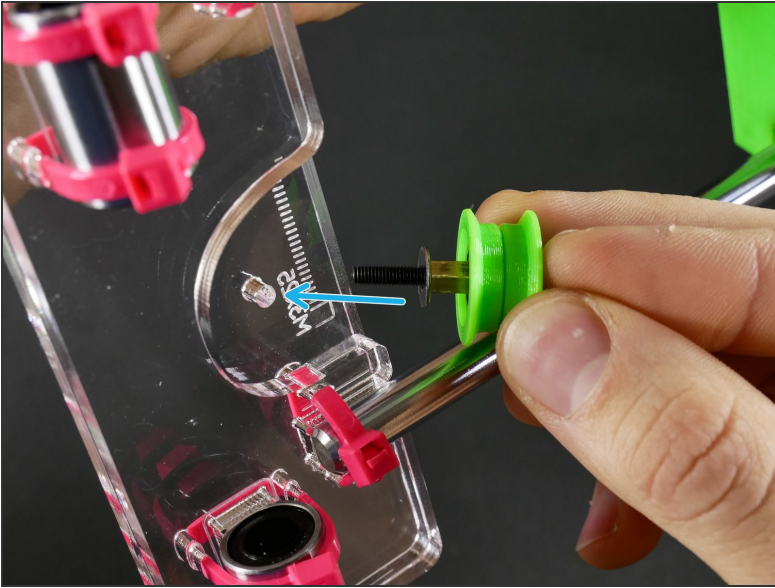




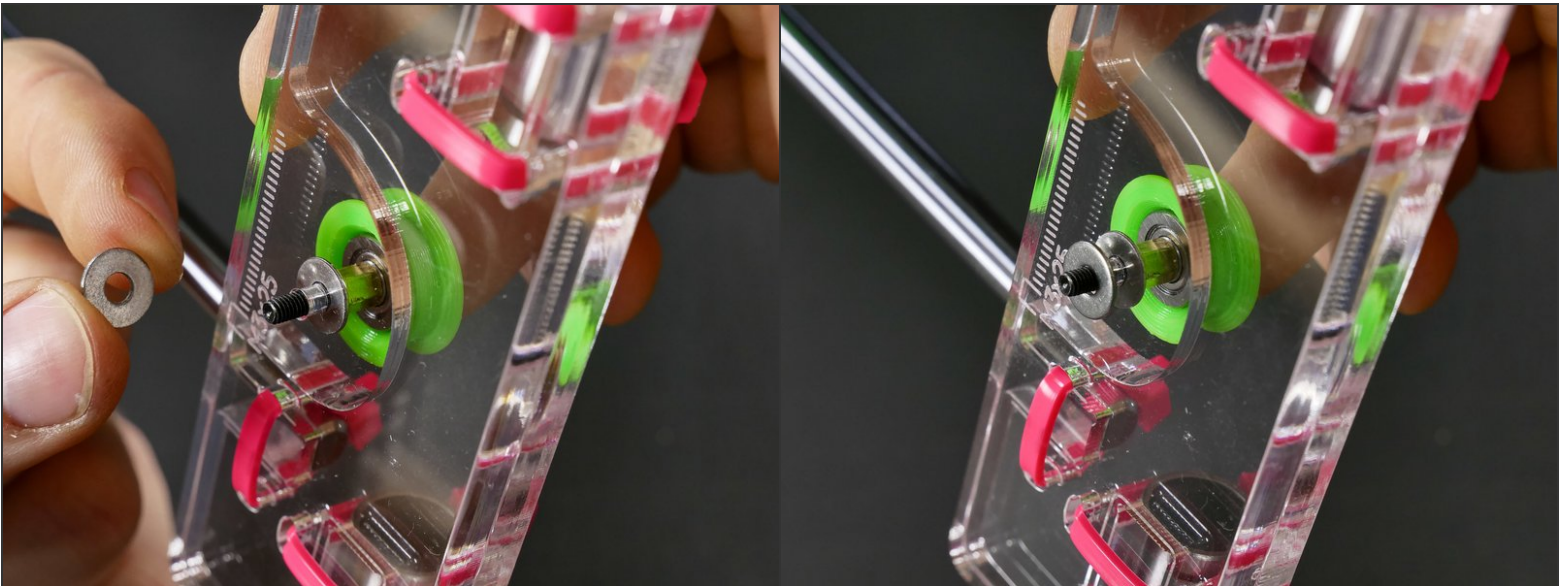
Step 26



## Step 27

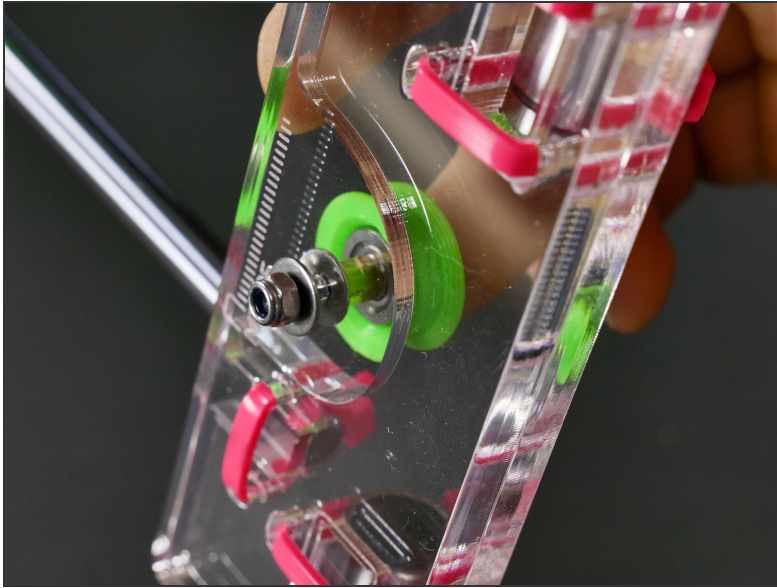


## Step 28

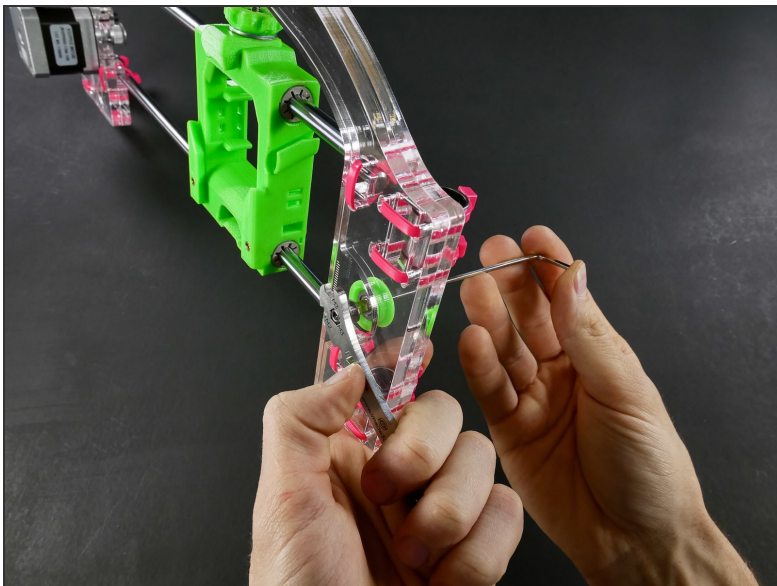




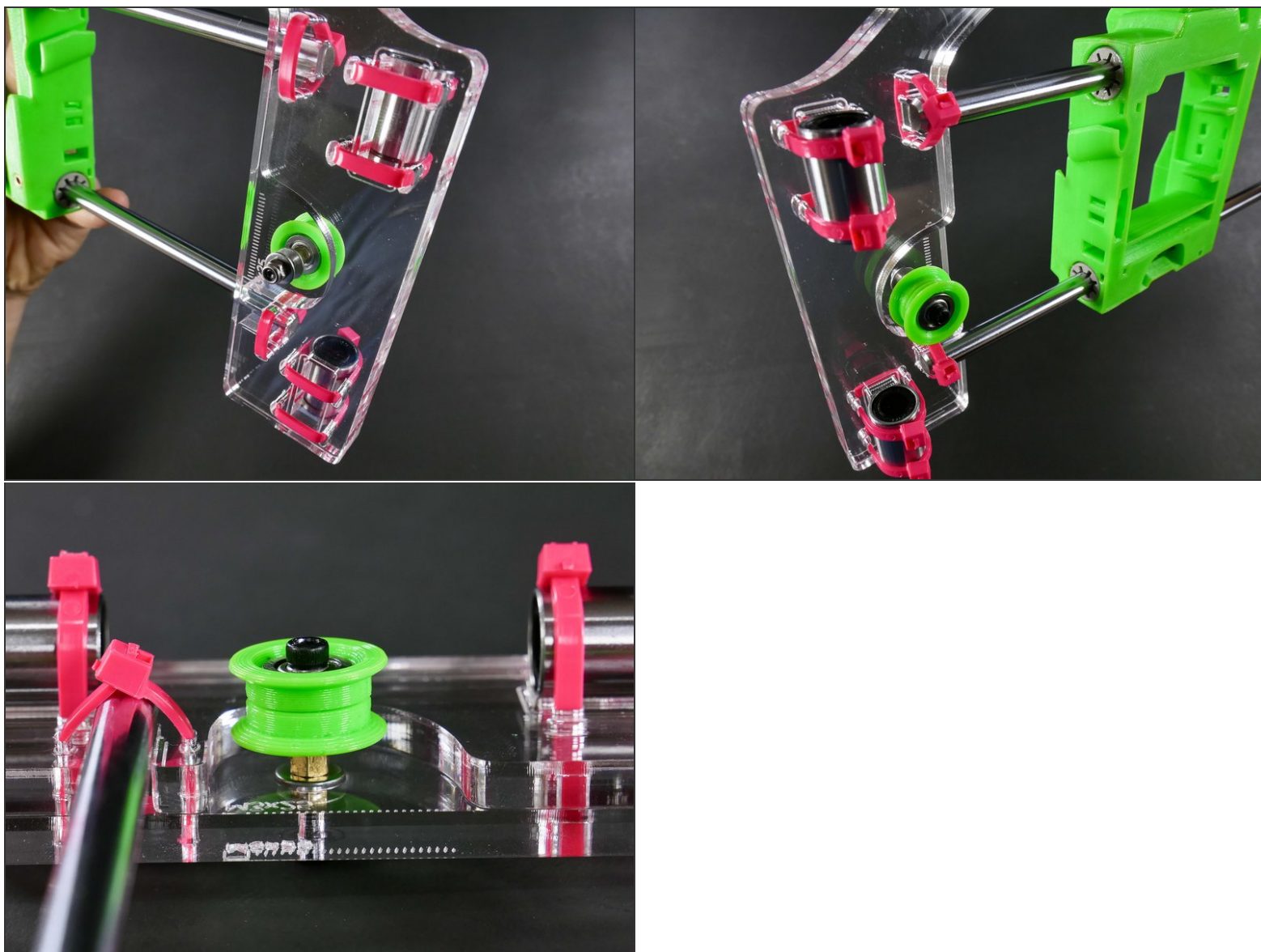
## Step 29



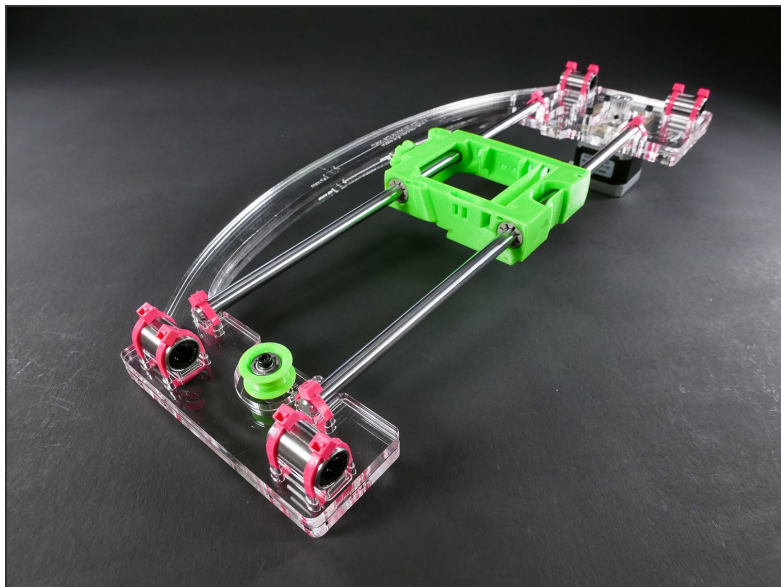
## Step 30



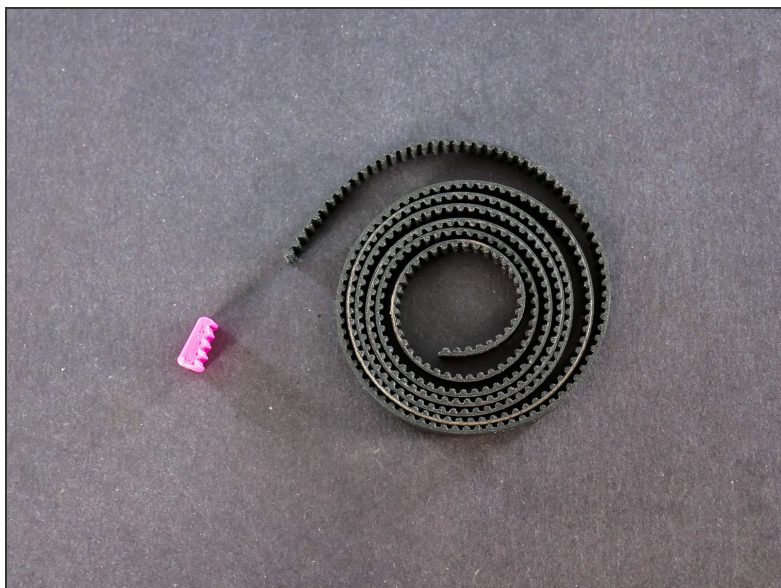
## Step 31



## Step 32 — It's done!

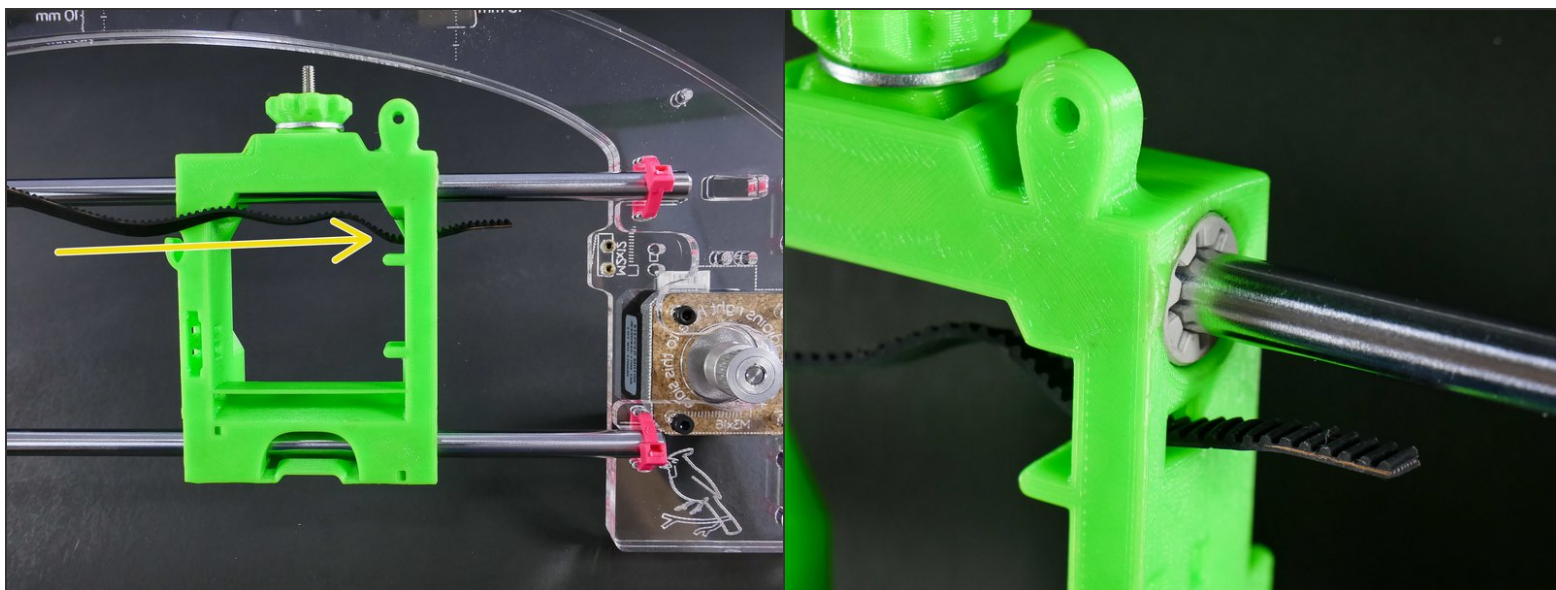


## Step 33 — ↳ X Belt

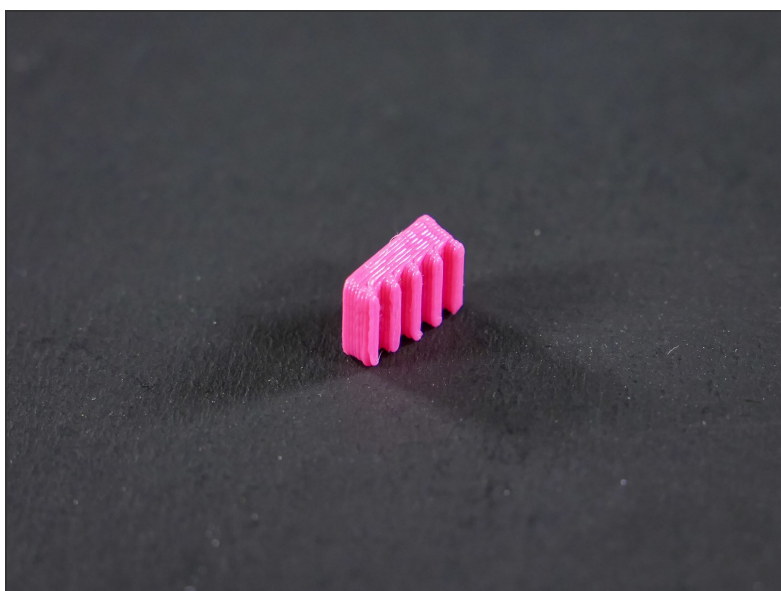




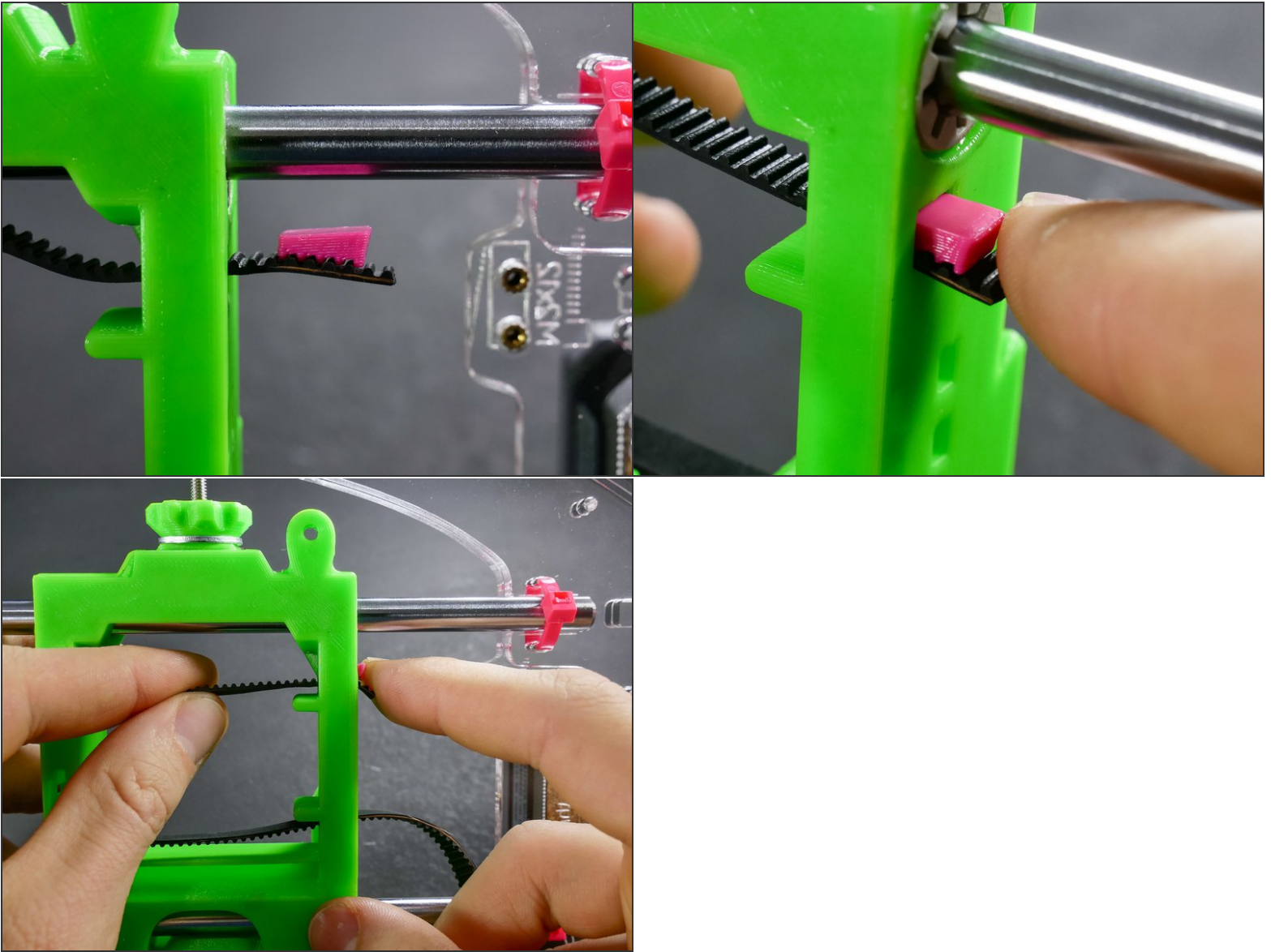
## Step 34



## Step 35

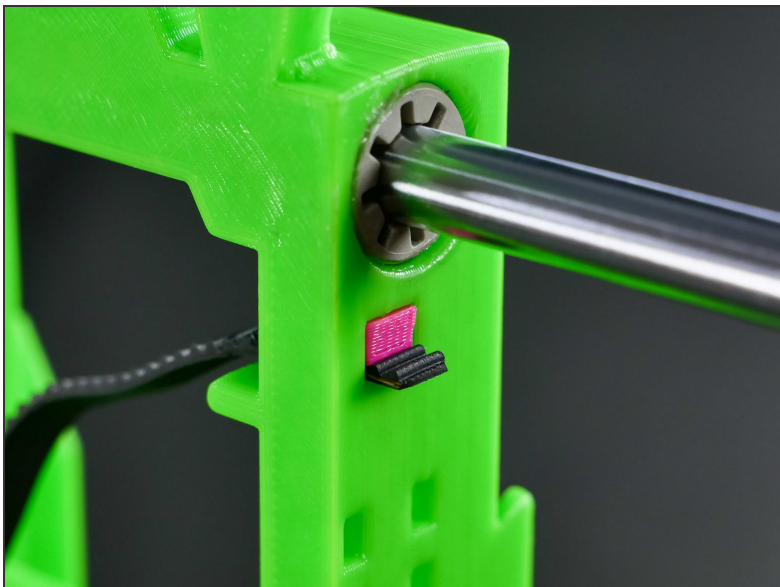


## Step 36



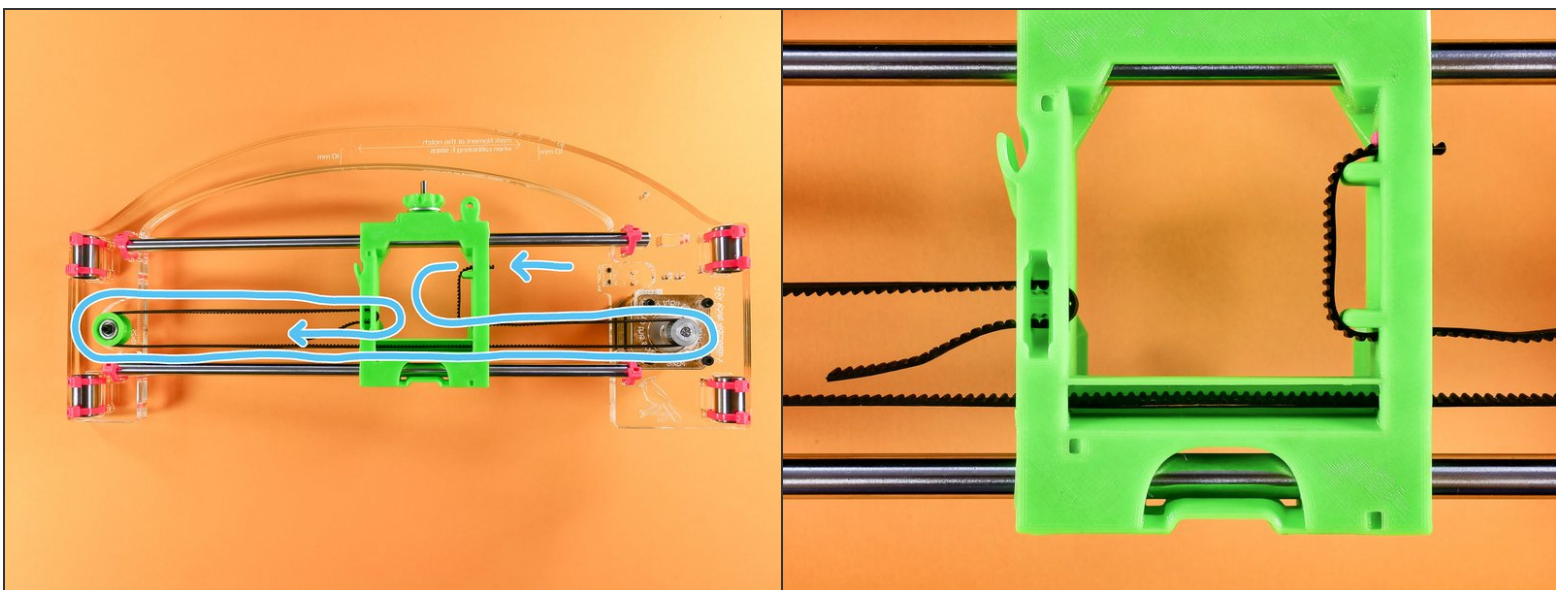
- The position of the wedge on the belt is not precise - you only need to make sure *to fit the belt teeth into the wedge teeth.*

## Step 37



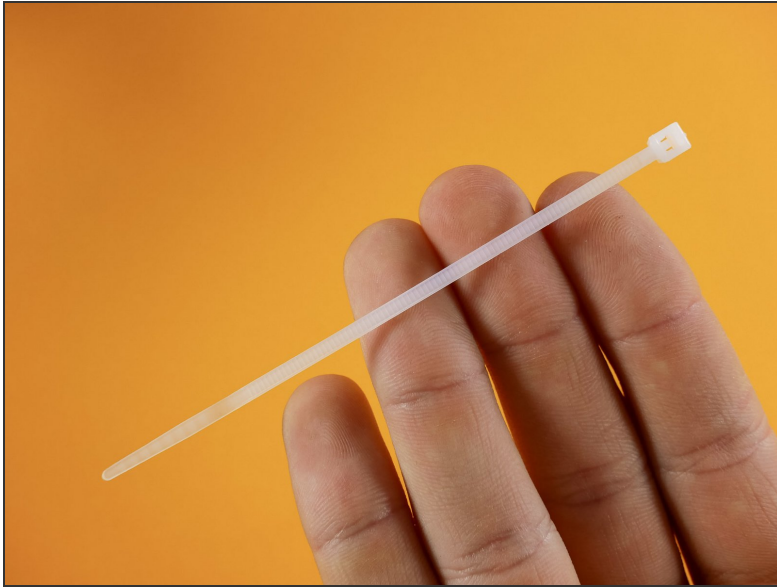
- You may cut off the excess if you wish.

## Step 38

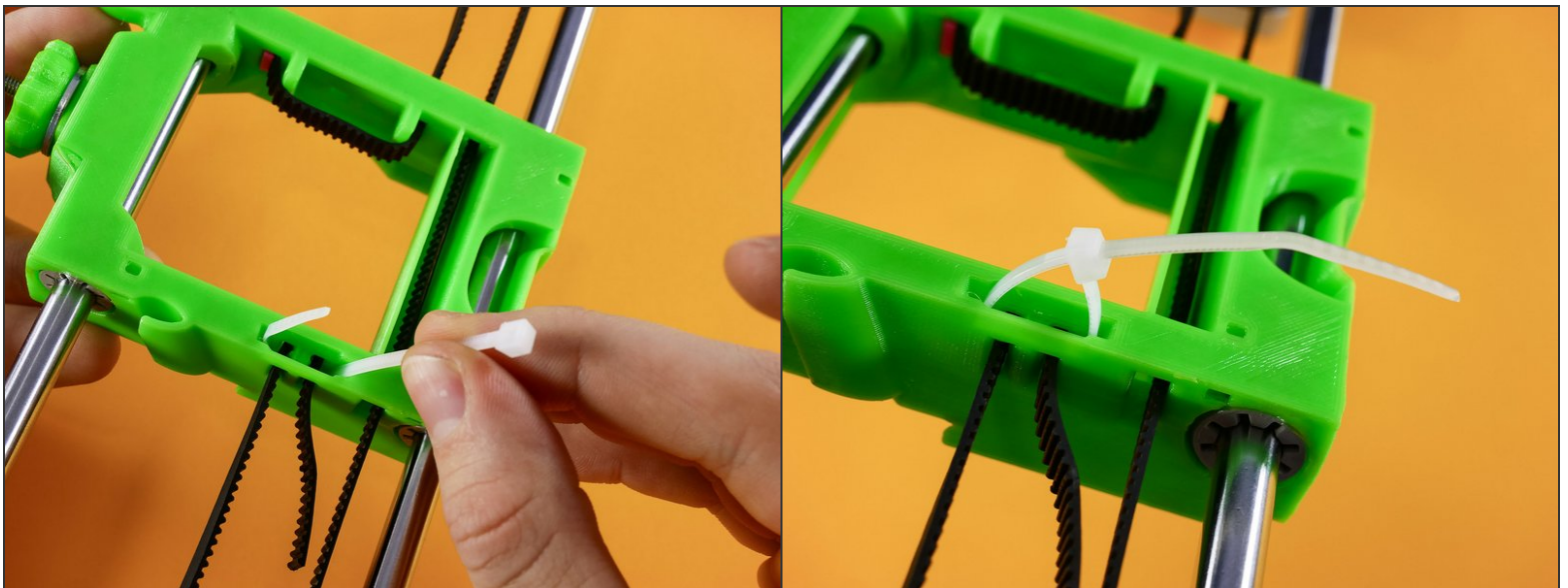




## Step 39

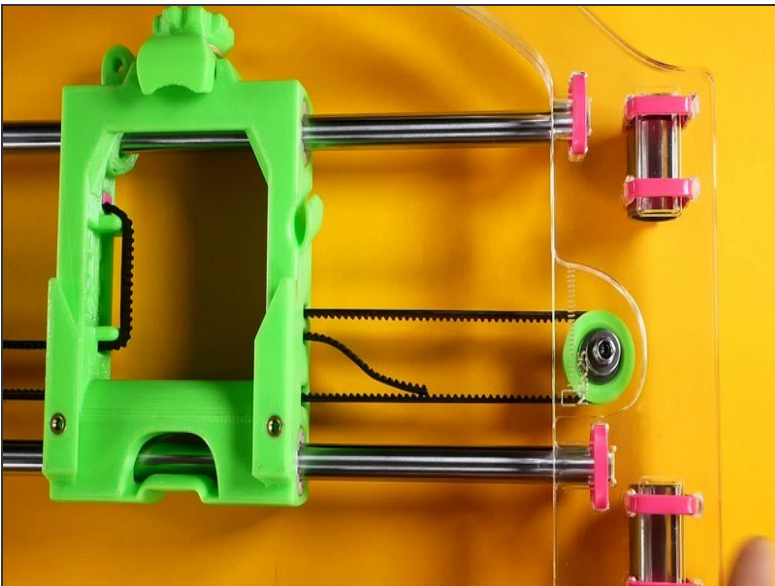


## Step 40



**Step 41 — ► Video: Secure the X Belt (25s)**

- ► Video: Secure the X Belt (25s)

**Step 42 — ► Video: Clip the X Belt (35s)**

- ► Video: Clip the X Belt (35s)

## Step 43



- $\approx$  Leave a bit less than a centimeter ( $3/8$  inch) of the x belt intact in case you ever need to dis-or-re-assembly your JellyBOX.

## Step 44 — ► Video: X Mechanical Checkpoint #1



- ► Video: X Mechanical Checkpoint #1