caribou3d

# 02. Assembly of the y-Axis

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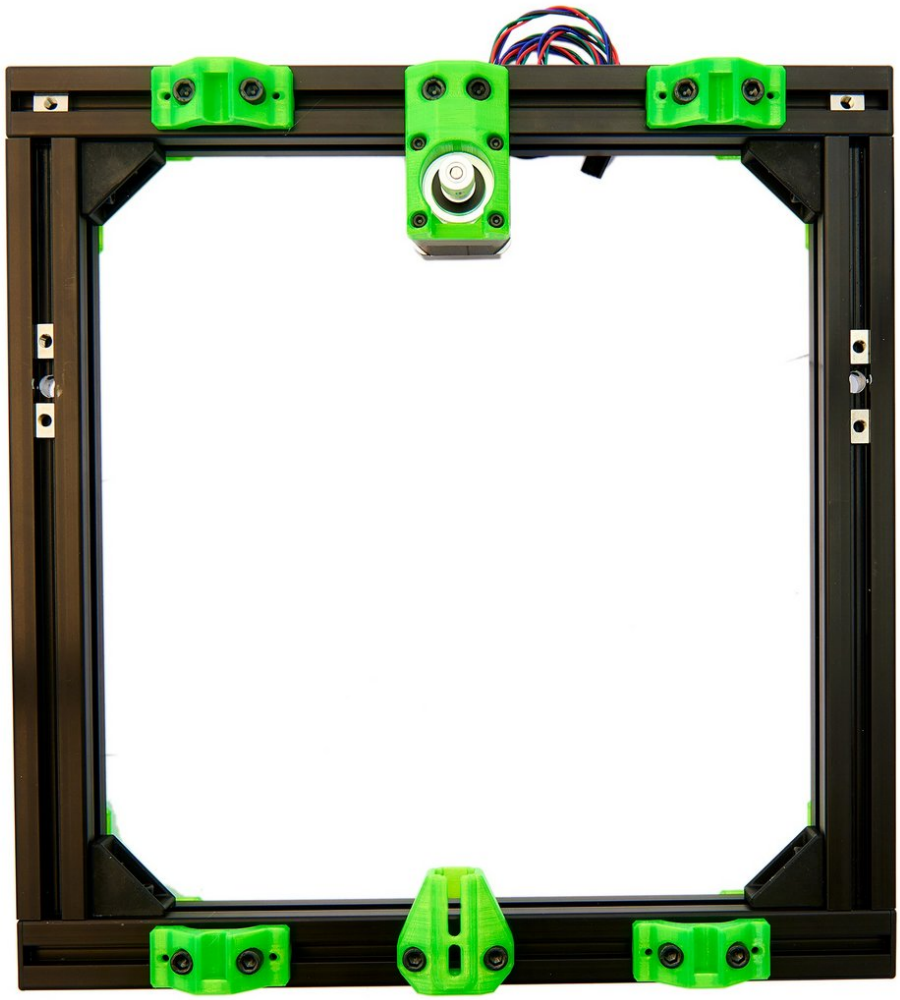
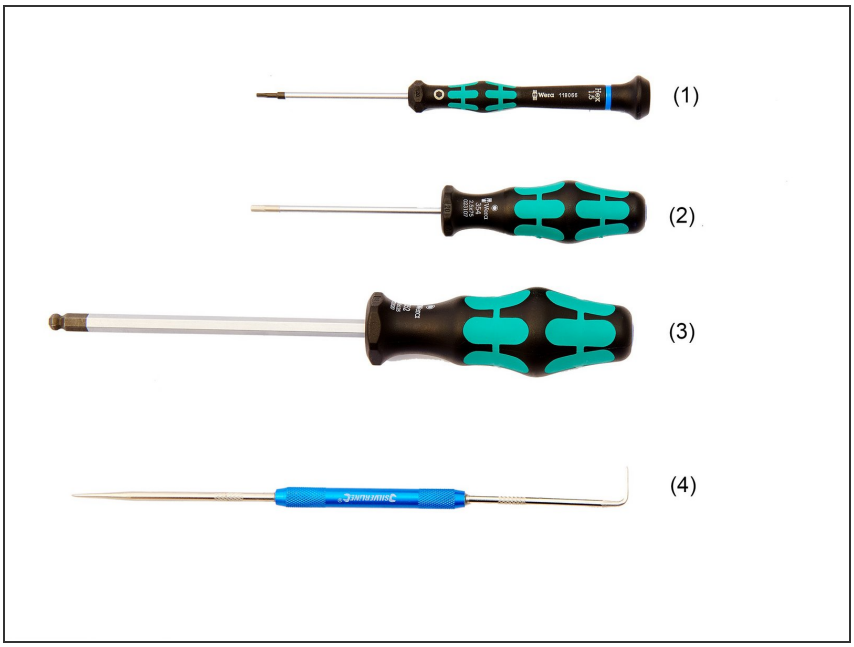
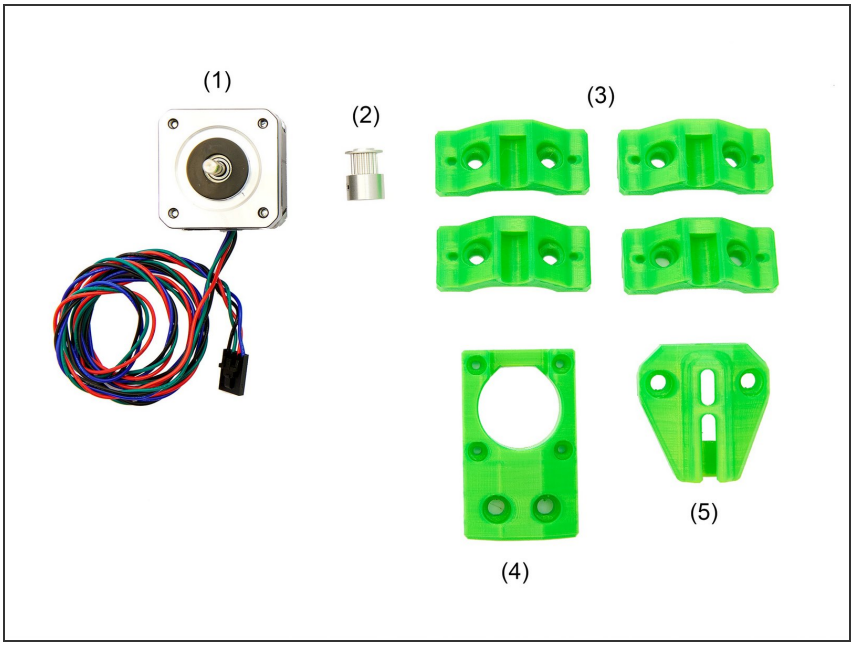


## Step 1 — Required Tools and Aids



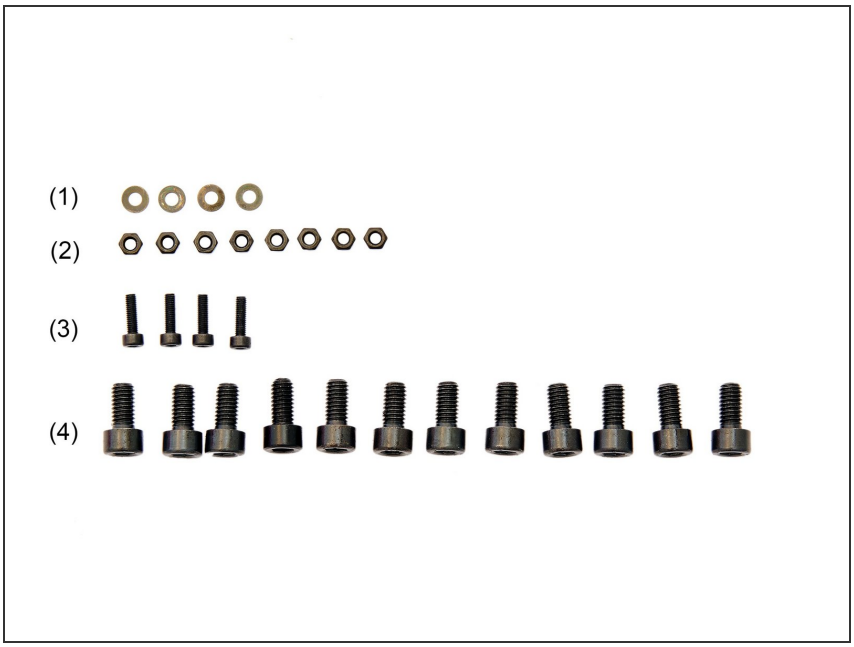

- (1) 1.5mmx60mm Hexagonal Micro Screwdriver for Electronic Applications
- (2) 2.5x75mm Hexagonal Screwdriver
- (3) 5.0x100mm Hexagon Ballpoint Screwdriver
- (4) Engineer Scriber

## Step 2 — Assembling the Parts



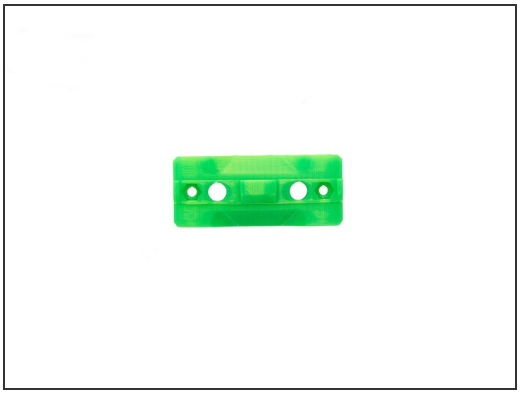

- (1) Stepper Motor
- (2) GT3 Toothed Pulley
- (3) **4x** y-Rodholder Bottom
- (4) y-Motorholder
- (5) y-Belt Tensioner

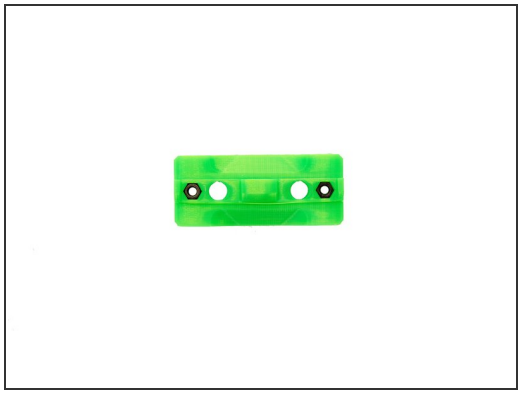
## Step 3 — Assembling the Screws




- (1) **4x** Black M3 Washers
- (2) **8x** M3 Self-Securing Nuts
- (3) **4x** M3x10mm Hexagon Socket Head Cap Screws
- (4) **12x** M6x12mm Hexagon Socket Head Cap Screws

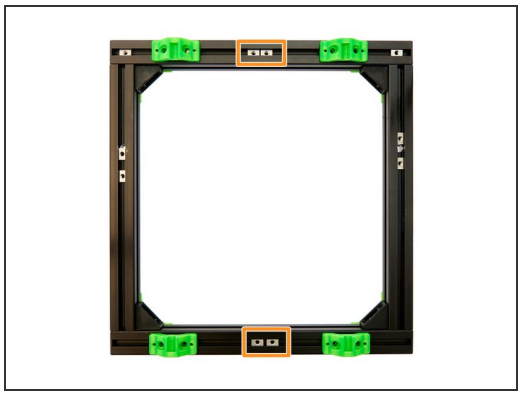
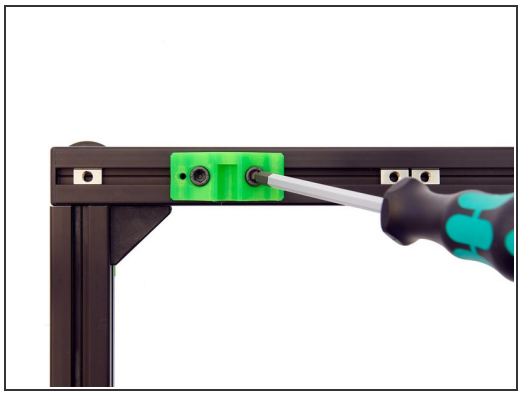
## Step 4 — Preparing the y-Rodholders





- Using an **Engineer Scriber**, insert **2x M3 Self-Securing Nuts** into each of the y-bar holders.
  - Alternatively, you can tighten the M3 Self-Securing Nuts with an **M3 Screw** from the other side.

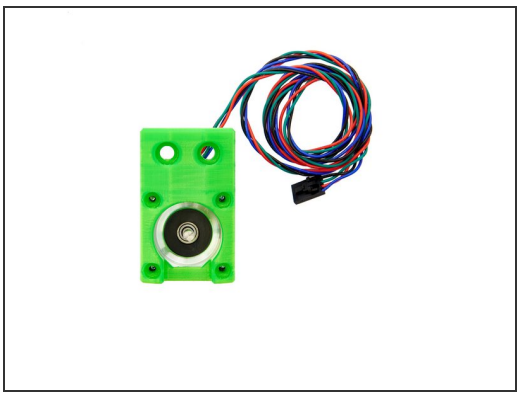
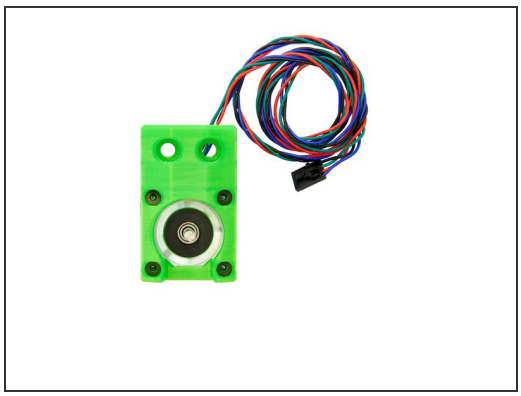
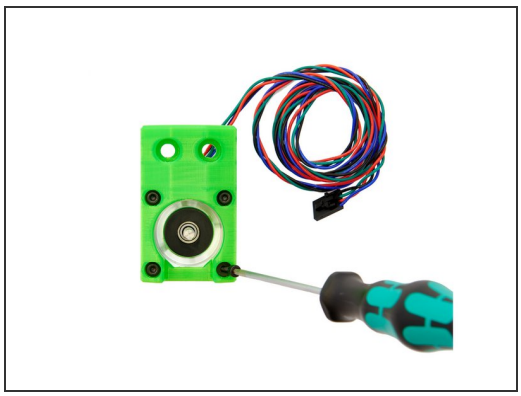
## Step 5 — Installing the y-Rodholders

- Align the T-Nuts and the frame as shown in figure 1.
- Now, place the four y-rodholders on the frame (see figure 3), assigning each hole to a T-Nut.
- For the x-axes, make sure that there are **2x T-Nuts** between the two y-rodholders.
- The y-rodholders are now screwed on using **8x M6x12mm Hexagon Socket Head Cap Screws**.

⚠ These screws are initially only loosely tightened, as the y-rodholders need to remain movable.

## Step 6 — Assembling the y-Motorholder

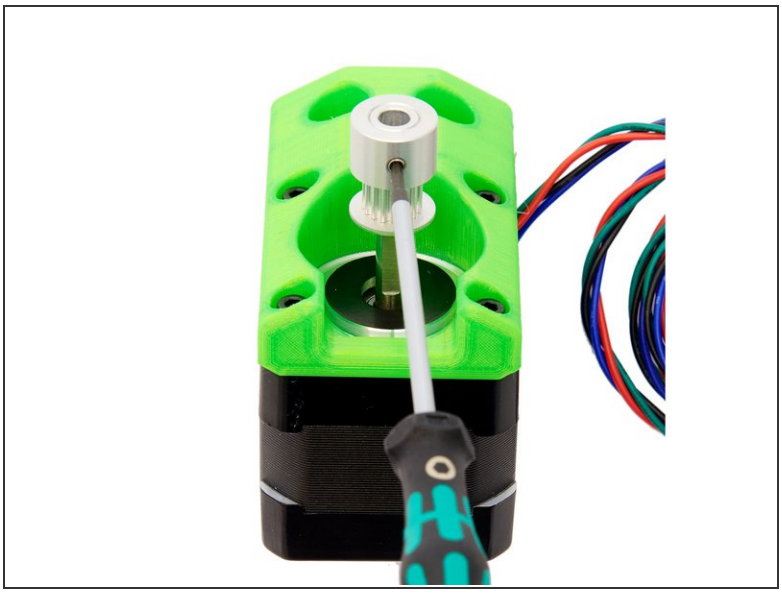




- Place the y-motorholder on to the stepper motor.

⚠ Make sure the cables are leading to the holes for the M6 screws.

- Then, attach the motor to the y-motorholder. Use the **4x M3 Washers** and the **4x M3x10mm Hexagon Socket Head Cap Screws** to fasten it.

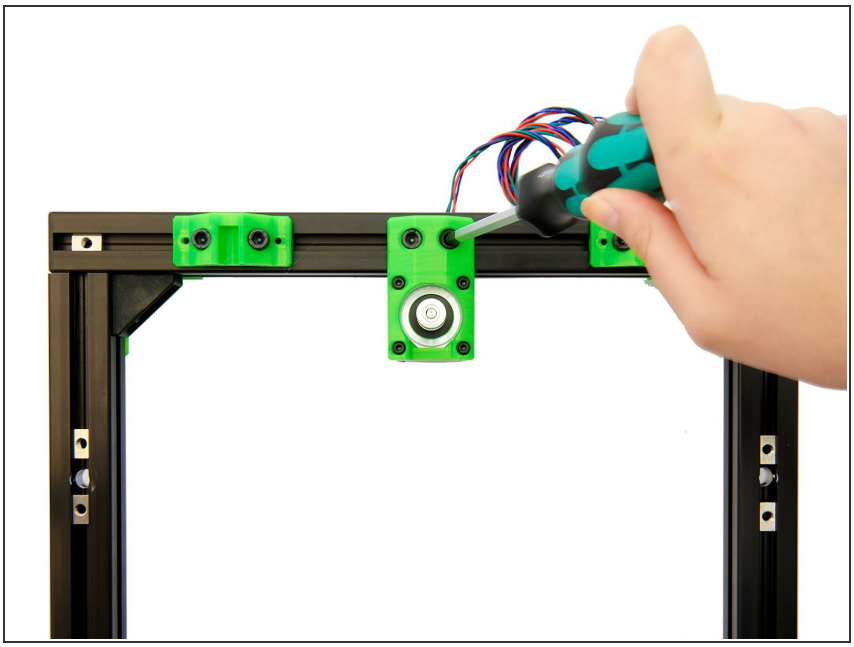
## Step 7 — Installing the GT3 Pulley



- Slide the GT3 pulley onto the motor shaft of the stepper motor.
  - The GT3 pulley has two grub screws. Ensure that one of these screws is aligned with the flat surface of the shaft. Then, tighten both grub screws.

⚠ To avoid friction, leave a small gap between the pulley and the motor surface.

## Step 8 — Installing the y-Motorholder



- Attach the assembled y-motorholders to the **2x T-Nuts** between the two y-rodholders in the rear x-axis. Use **2x M6x12mm Hexagon Socket Head Cap Screws** for this.



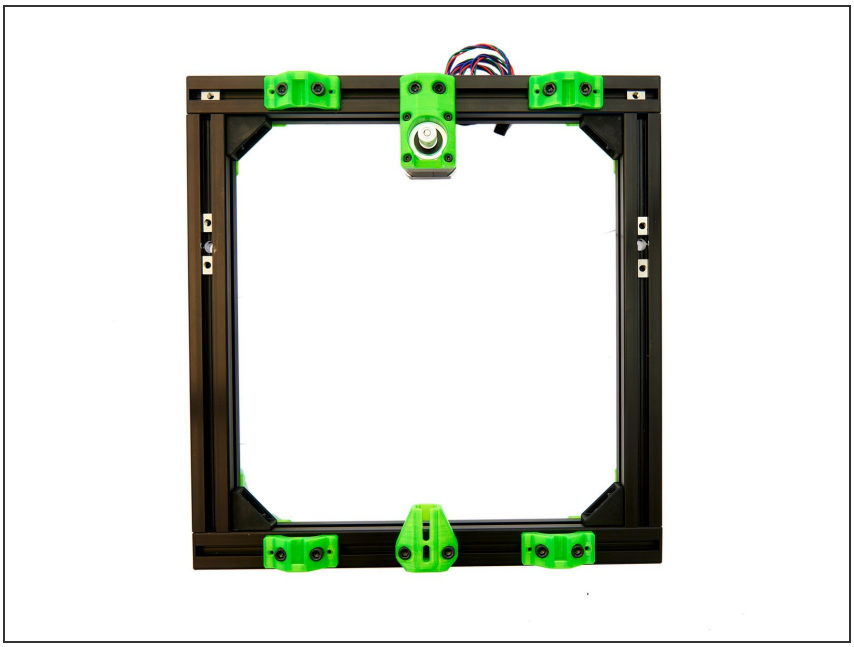
 

## Step 9 — Installing the y-Belt Tensioner

- Place the y-belt tensioner on **2x T-Nuts** in the front x-axis and fasten it loosely with **2x M6x12mm Hexagon Socket Head Cap Screws**.

ⓘ Both the y-motorholder and the y-belt tensioner must be easily movable on the corresponding x-axes.

## Step 10



ⓘ The setup of the y-axis is now complete.

ⓘ If you are building a printer with MK52 blocks, continue with the manual 03.1. Assembly and Installation of the Heatbed Carriage for MK52-Blocks.

ⓘ If you are building a printer with MK52 carriage, continue with the manual 03.2. Assembly and Installation of the Heatbed Carriage (for MK52)

