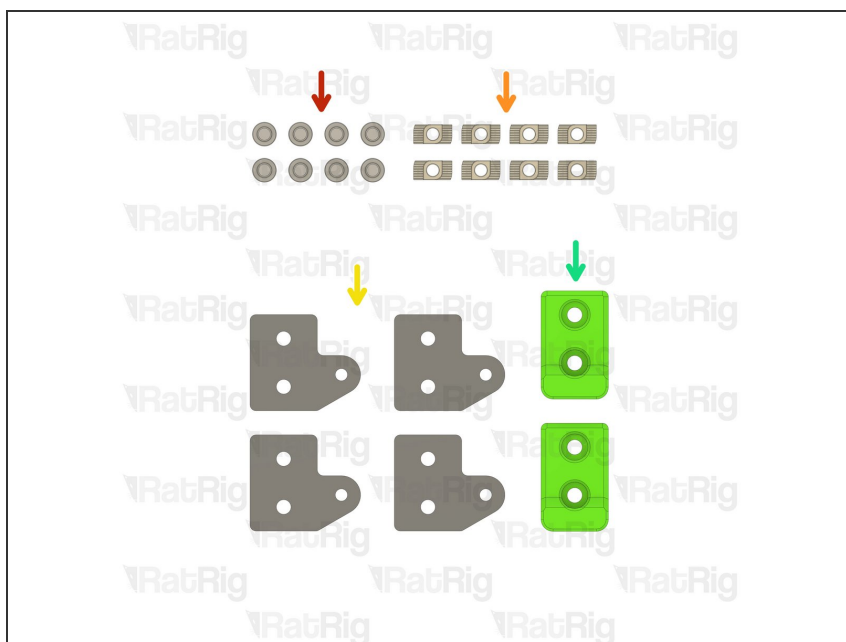


Rat Rig

04. CoreXY Idler Assemblies

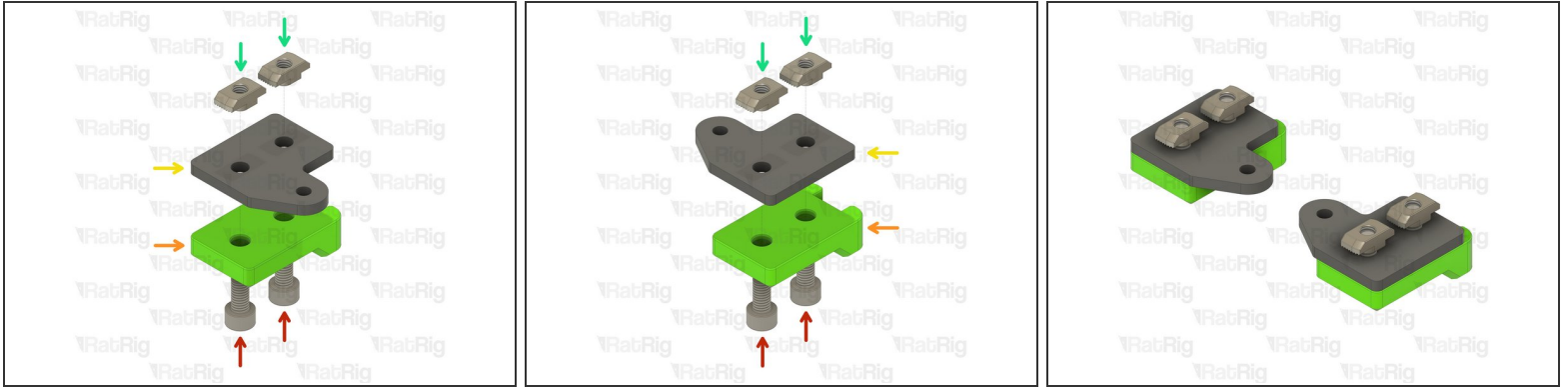
Written By: Simon Davie



Step 1 — Prepare the frame CoreXY idler parts

- 8x M6x12 Cap Head Screw
- 8x 3030 Drop-in T-Nut - M6
- 4x idler_plate_enclosure_2.0 plate
- 2x y_min_bumper printed part

Step 2 — Assemble the lower CoreXY idlers



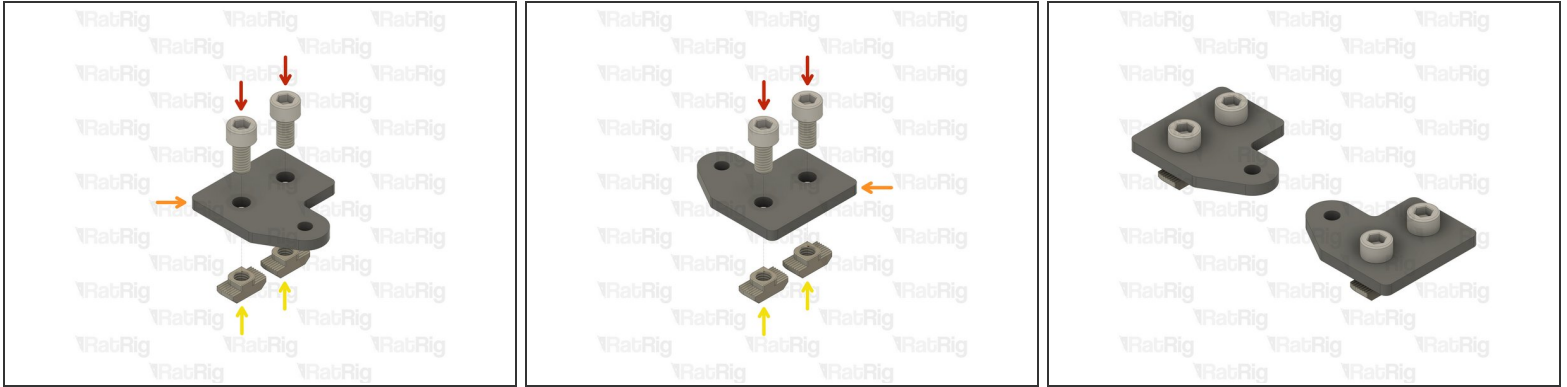
- M6x12 Cap Head Screw
- y_min_bumper printed part
- idler_plate_enclosure_2.0 plate
- 3030 Drop-in T-Nut - M6

ⓘ Loosely thread a 3030 T-Nut onto each of the M6x12 screws. Do not tighten them at this point

⚠ Pay attention to the different orientation of the idler plates

ⓘ Set these assemblies aside until **Step 4**

Step 3 — Assemble the upper CoreXY idlers



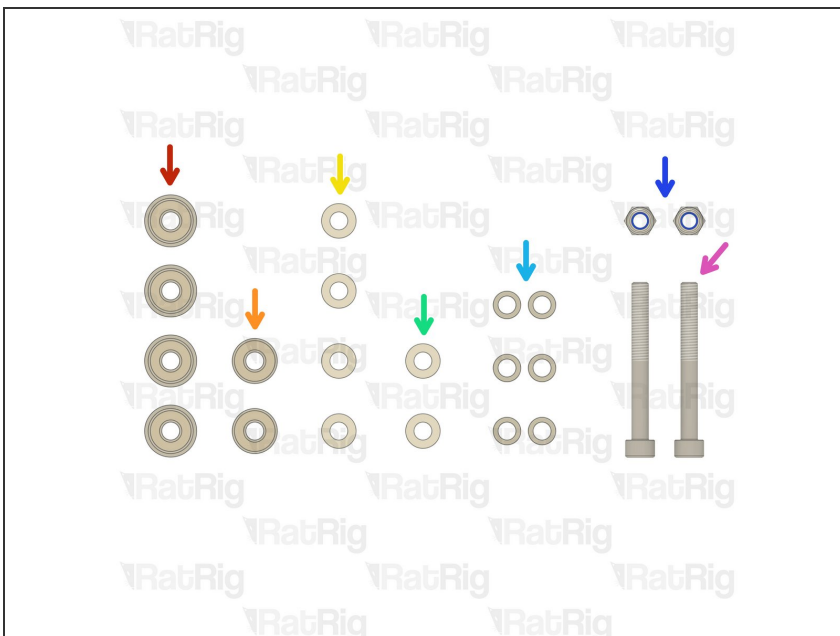
- M6x12 Cap Head Screw
 - idler_plate_enclosure_2.0 plate
 - 3030 Drop-in T-Nut - M6
- ① Loosely thread a 3030 T-Nut onto each of the M6x12 screws. Do not tighten them at this point
- ⚠ Pay attention to the different orientation of the idler plates
- ② Set these assemblies aside until **Steps 7 & 9**

Step 4 — Install the lower CoreXY idlers

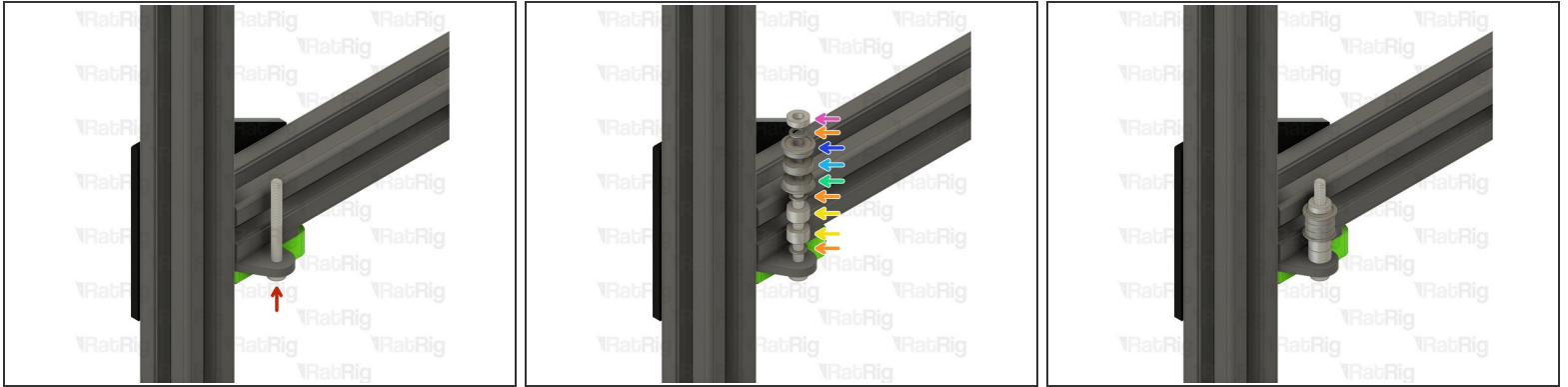


- Lower CoreXY idler assembly from **Step 2**
- Position the CoreXY idler assembly onto the V-Core 3 frame as shown
- Tighten the two M6x12 screws to secure the CoreXY idler assembly to the V-Core 3 frame
- ① Make sure the assembly is seated against the front 3030 extrusion before tightening the M6x12 screws
- Repeat these steps for the lower CoreXY idler on the other side

Step 5 — Prepare the CoreXY idler bearing parts



- 4x F695ZZ Ball Bearing
- 2x 695ZZ Ball Bearing
- 4x 6mm Aluminium Spacer
- 2x 3mm Aluminium Spacer
- 6x Mini Precision Shim
- 2x M5 Nylon Locking Hex Nut
- 2x M5x45 Cap Head Screw

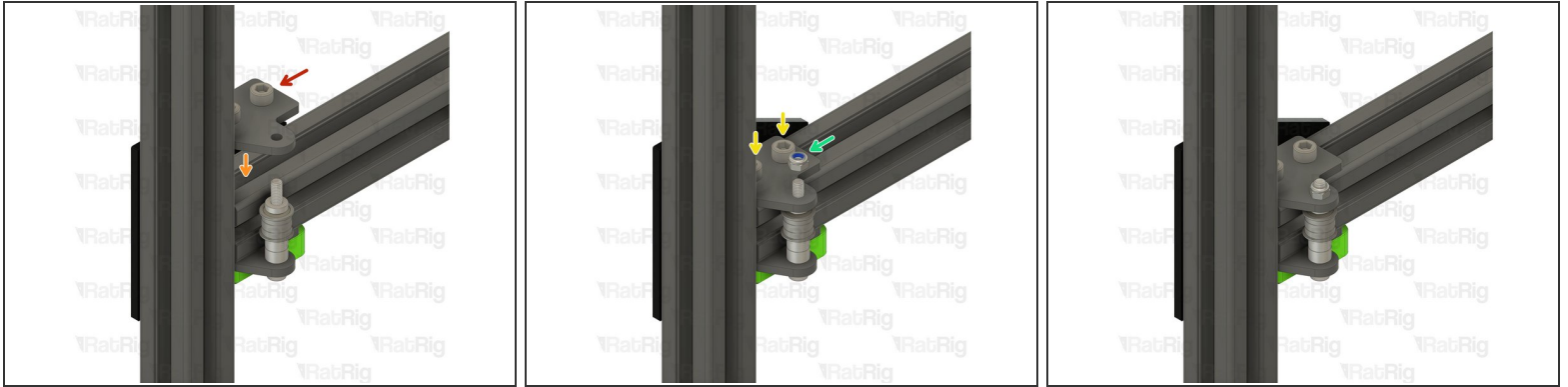
Step 6 — Assemble the left CoreXY idler - Part 1

- M5x45 Cap Head Screw

i Install the following components in the order shown in the image

- Mini Precision Shim
- 6mm Aluminium Spacer
- F695ZZ Ball Bearing (Flange at the bottom)
- 695ZZ Ball Bearing
- F695ZZ Ball Bearing (Flange at the top)
- 3mm Aluminium Spacer

Step 7 — Assemble the left CoreXY idler - Part 2



- Upper CoreXY idler assembly from **Step 3**
- Position the upper CoreXY idler assembly onto the V-Core 3 frame as shown
- Tighten the two M6x12 screws to secure the upper CoreXY idler assembly to the V-Core 3 frame
 - ⓘ Make sure the assembly is seated against the front 3030 extrusion before tightening the M6x12 screws
- M5 Nylon Locking Hex Nut
- ⓘ Fasten the M5 hex nut onto the M5x45 screw to secure the bearing assembly in place

Step 8 — Assemble the right CoreXY idler - Part 1

- M5x45 Cap Head Screw

i Install the following components in the order shown in the image

- Mini Precision Shim
- F695ZZ Ball Bearing (Flange at the bottom)
- 695ZZ Ball Bearing
- F695ZZ Ball Bearing (Flange at the top)
- 6mm Aluminium Spacer
- 3mm Aluminium Spacer

Step 9 — Assemble the right CoreXY idler - Part 2

- Upper CoreXY idler assembly from **Step 3**
- Position the upper CoreXY idler assembly onto the V-Core 3 frame as shown
- Tighten the two M6x12 screws to secure the upper CoreXY idler assembly to the V-Core 3 frame
 - ⓘ Make sure the assembly is seated against the front 3030 extrusion before tightening the M6x12 screws
- M6 Nylon Locking Hex Nut
- ⓘ Fasten the M6 hex nut onto the M5x45 screw to secure the bearing assembly in place

Step 10 — Next guide

- Continue with the next guide: [05. CoreXY Motor Assemblies](#)