Hybrid 2

The picture is for reference only,the actual product shall prevail

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Contents

Hybrid 2

Part 1 Packing List – Common
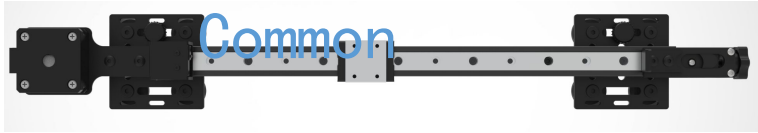
X Gantry

2040-Bottom track

2020-Bottom left track

2020-Bottom right track

2020-Column track x2

One has 4pcs M4X8 screws and 4pcs T-nuts

Corner Bracket x2

Tool kit

Screw M5x20mm X6

Rotary Extension Cable

Limit Switch Cable

Motor Cable

Laser Module Cable

Devil1

Power Supply

Power Adapter

Power cable

Belt Clip
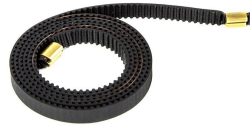
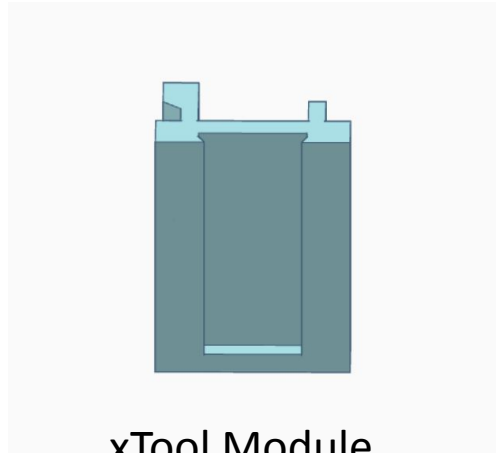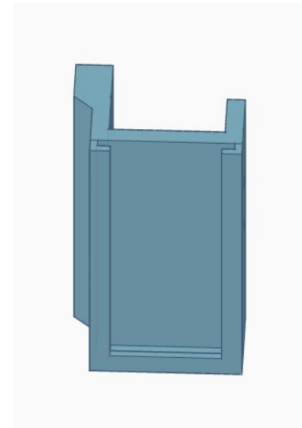**GT2 Belt**

Screw 3x6mm x4

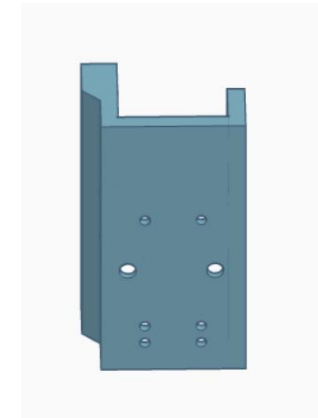**Screw 3x8mm x4**
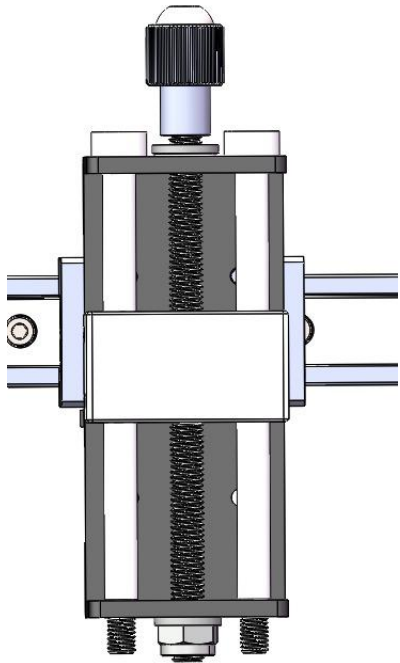
Z Adjust

xTool Module Adapter*

Atomstack Module Adapter*

TwoTrees/Laser Tree Module Adapter*

Countersunk Screw 3x8mm x4*
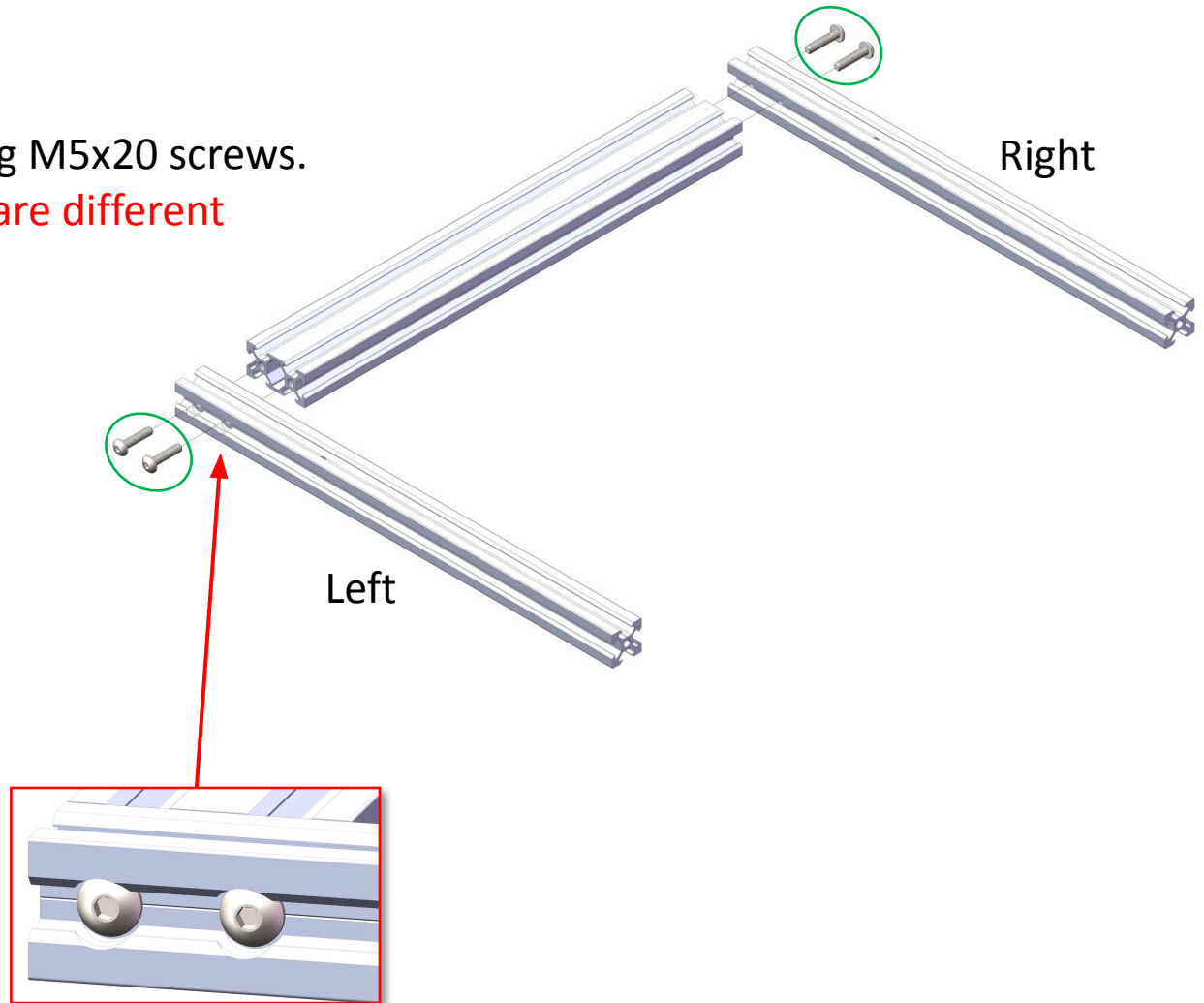
*Depending on kit purchased

Step 1

Parts Required:

------Screw M5x20mm X4

------2020-Bottom left profile

------2020-Bottom right profile

------2040-Bottom profile

Assemble the three profiles using M5x20 screws.

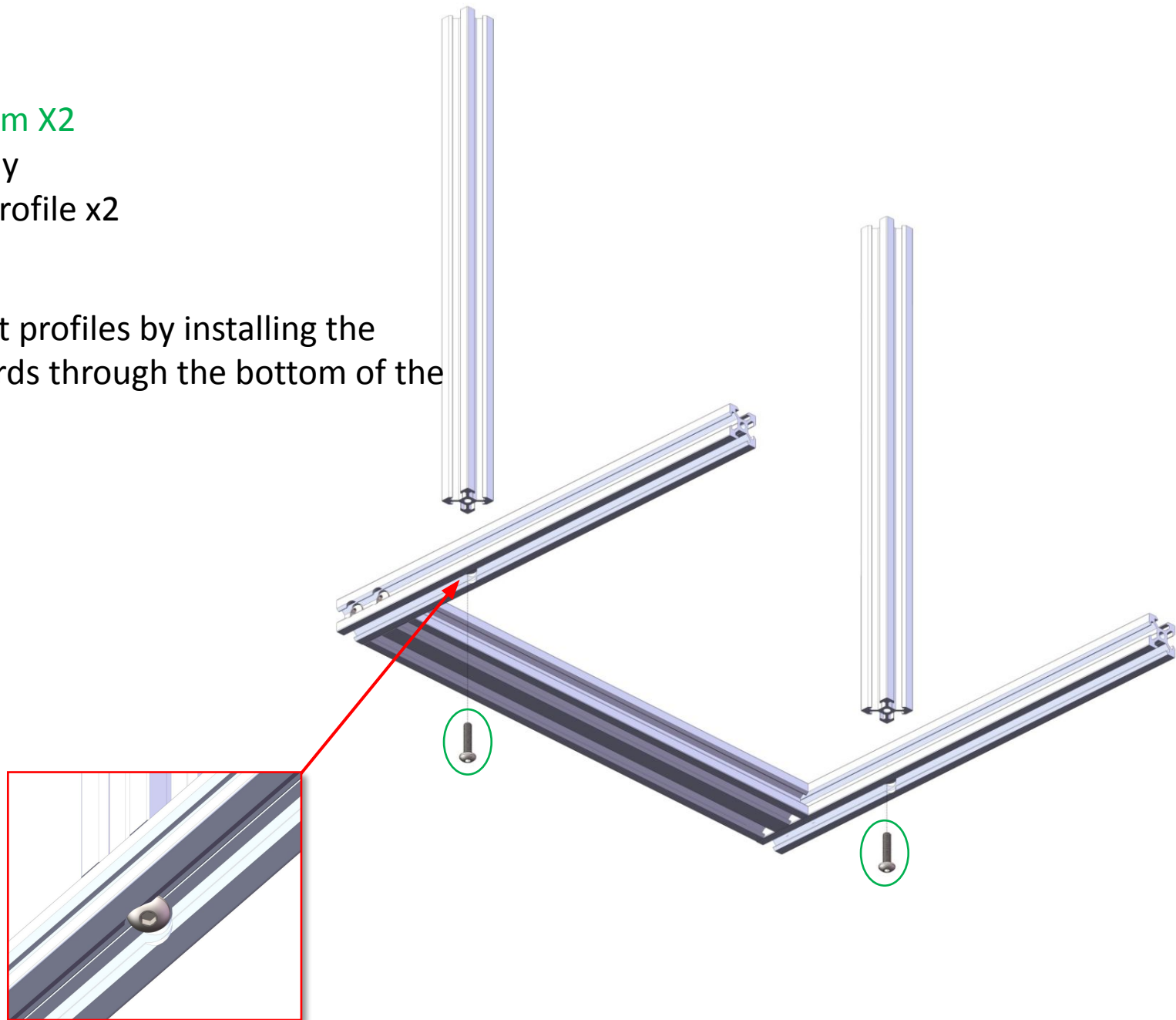Note: The left and right profiles are different

Right

Left

Step 2

Parts Required:

------Screw M5x20mm X2

------STEP 1 Assembly

------2020-Column profile x2

Assemble the upright profiles by installing the M5x20 screws upwards through the bottom of the base.
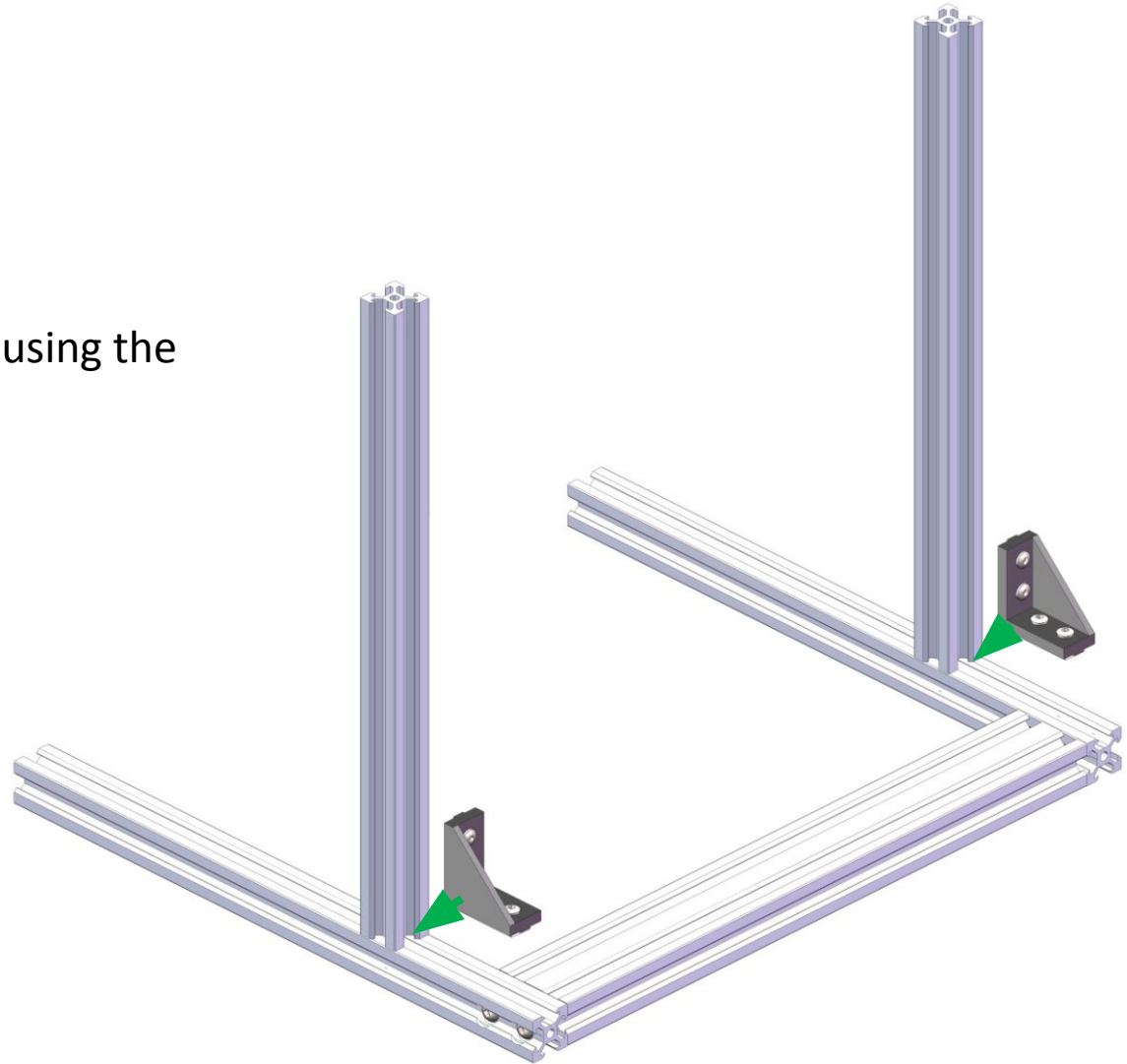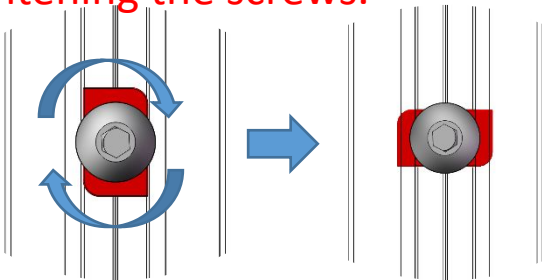
Step 3

Parts Required:
------Corner Bracket x2
------STEP 2 Assembly

Fix the Corner Brackets onto the profile using the supplied screw and T nuts

Note: T-nut needs to be put into the profile V-slot vertically first, and then make the T-nut tighten inside the profile by tightening the screws.
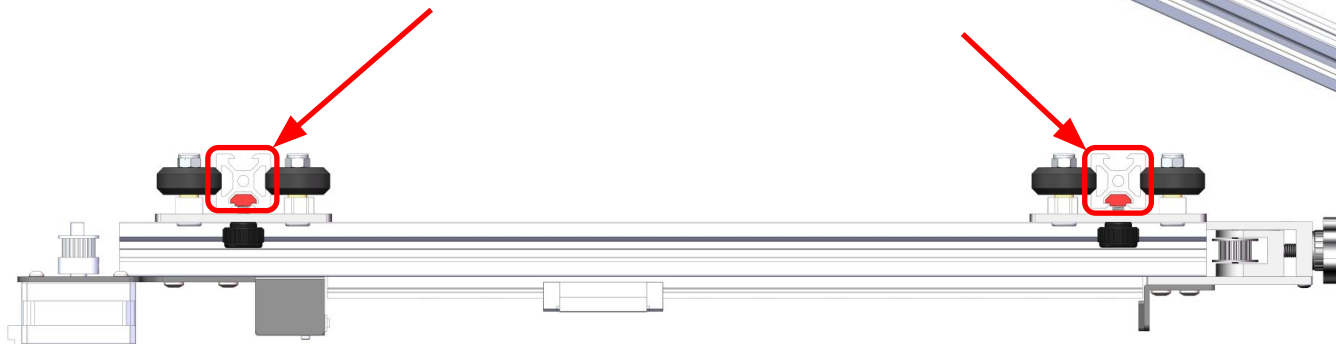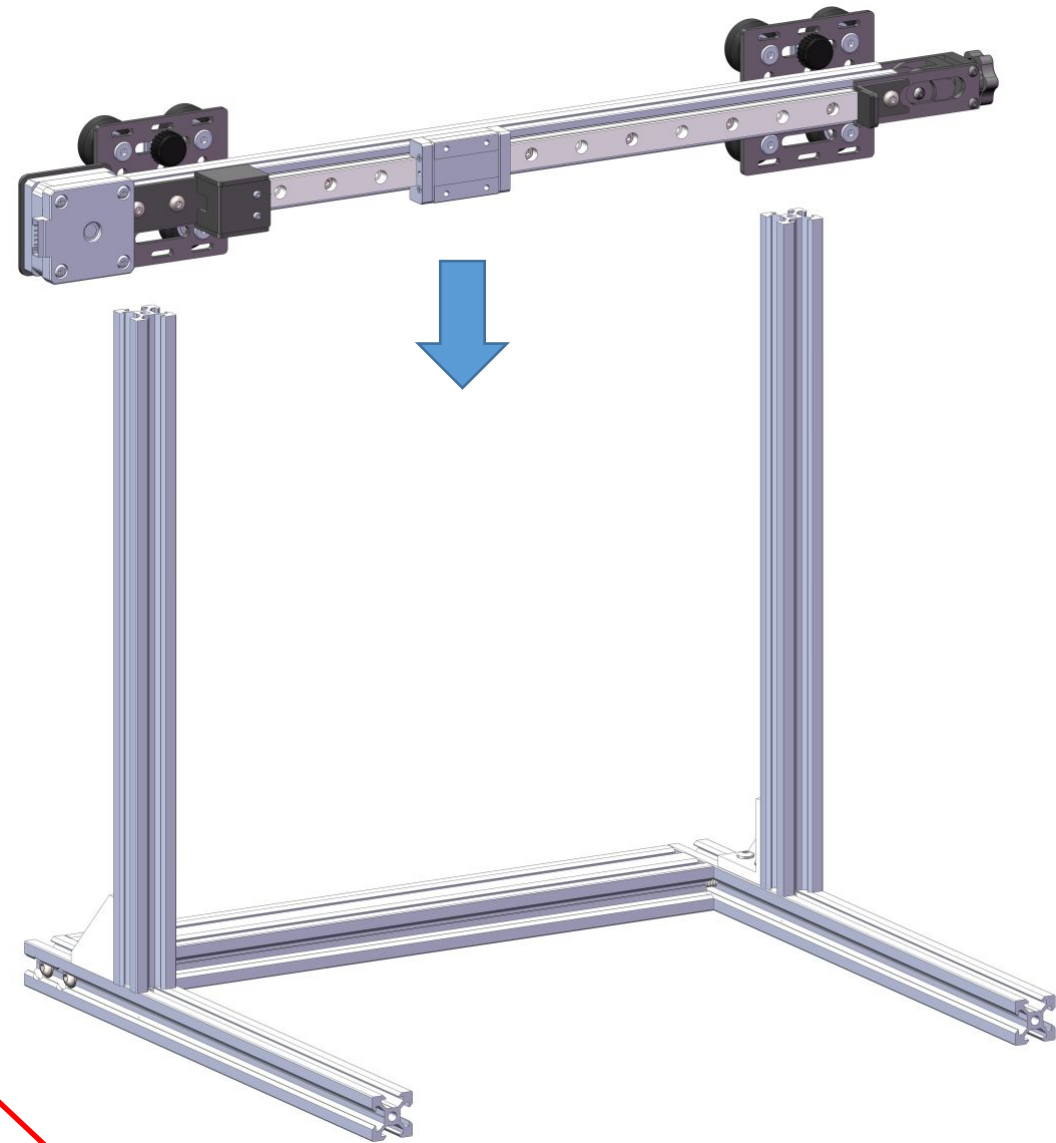
Step 4 1/2

Parts Required:
------STEP 2 Assembly
------X Gantry

Adjust the square nut and POM wheel above the X-axis crossbar, align the profile slot and push it into the X-axis crossbar

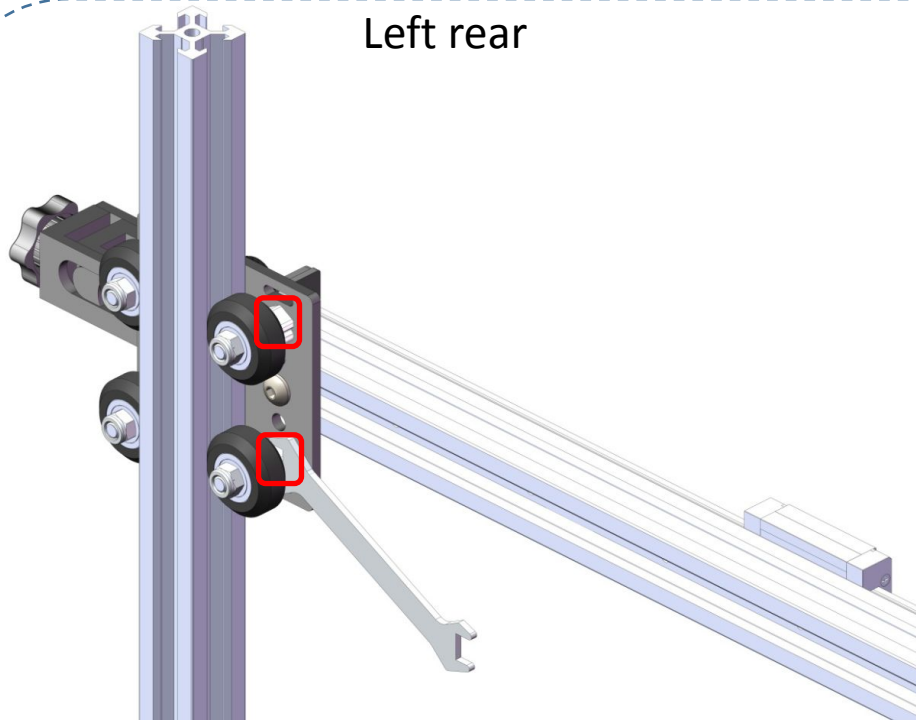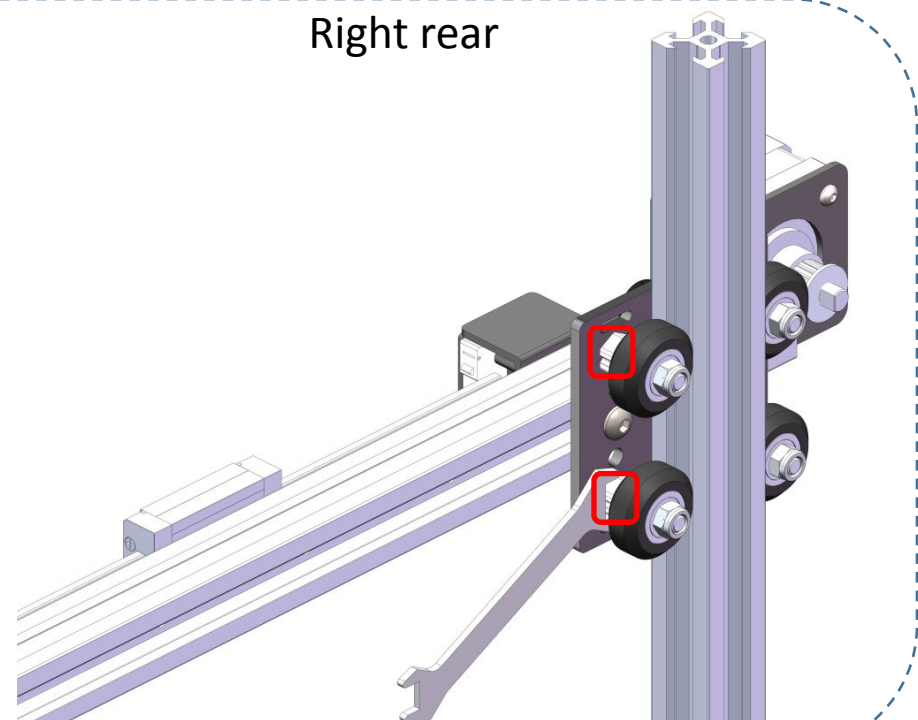Note: If assembly is difficult, see next page for adjustment details

Step 4 2/2

If it is difficult to push the wheel into the profile, you can use an open-end wrench to adjust the eccentric nut on the inside of the carriage (adjust the eccentric nut V slot in the loosest state when putting into the X-axis, so that the eccentric nut V slot is far away from the profile; after putting into the X-axis, slowly rotate and adjust the eccentric nut, and each time you adjust it, you need to observe that all POM wheels fit the profile and move without jamming)

When all POM wheels fit the profile and can move smoothly and the X-axis has no obvious shaking, the adjustment is finished.

In total, there are four eccentric nuts that can be adjusted.
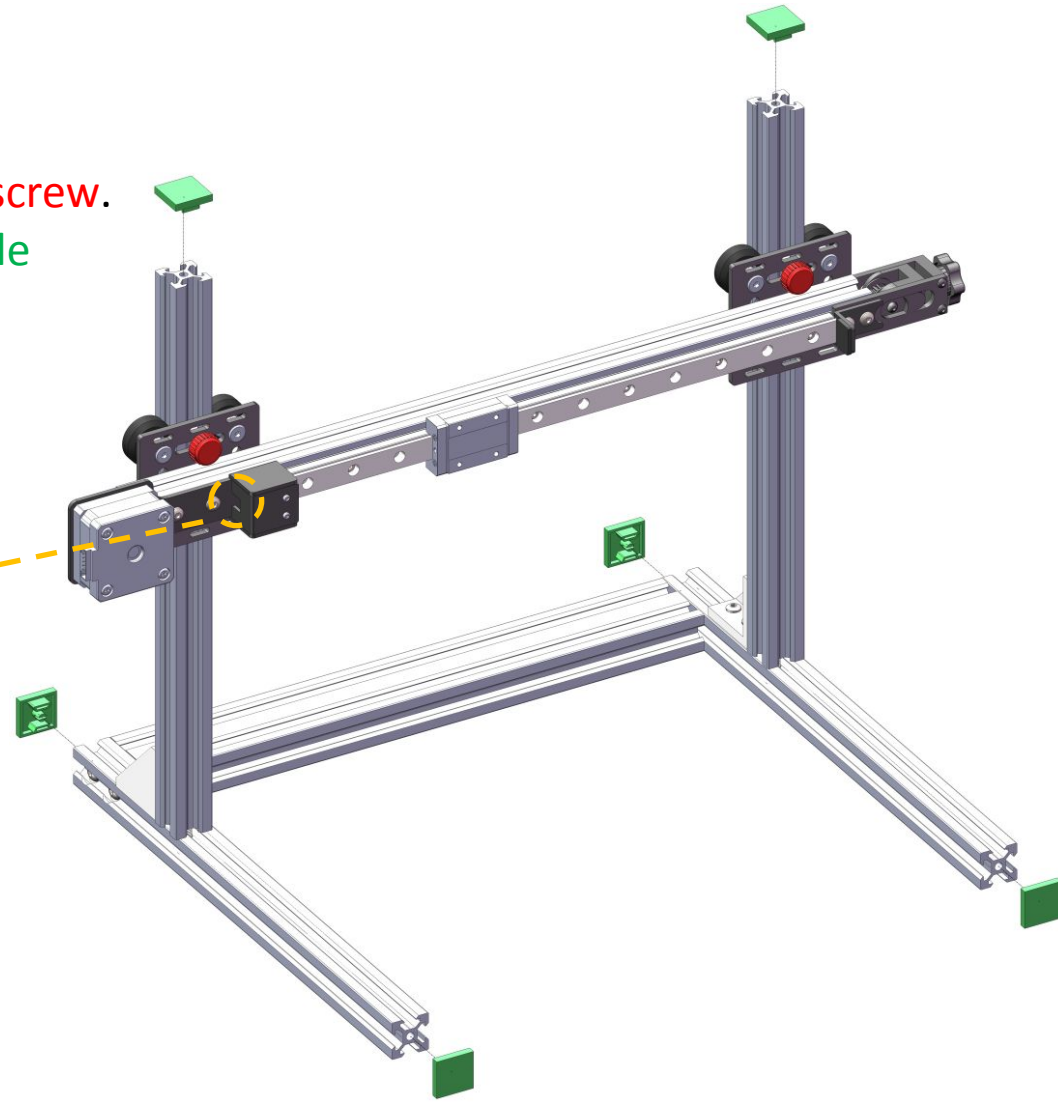
Left rear

Right rear

Step 5

Parts Required:

------STEP 4 Assembly

------Profile cover x6

------Limit Switch Cable

Adjust the Z-axis height and tighten the hand screw.
Finally the profile end is pressed into the profile cover.
Connect to limit switch cable.

Step 6 - xTool & Atomstack Module

Parts Required:
- ------STEP 5 Assembly
- ------Belt Clip
- ------xTool Module Adapter
- ------Screw M3x8mm x4
- ------Screw M3x6mm x4
- ------GT2 Belt

Place Belt Clip on X gantry linear block

Place Z Adjust over Belt Clip

Use M3x8mm x4 to attach Belt Clip and Z Adjust to linear block, two per side

Use M3x6mm x 4 to attach Module Adapter to Z adjust, two per side
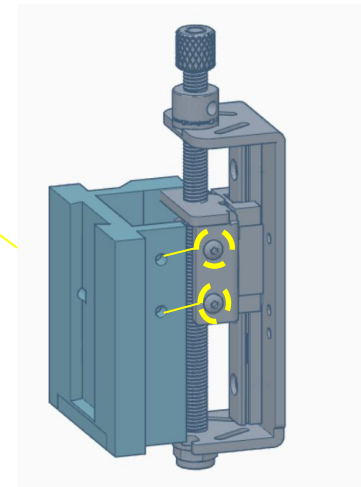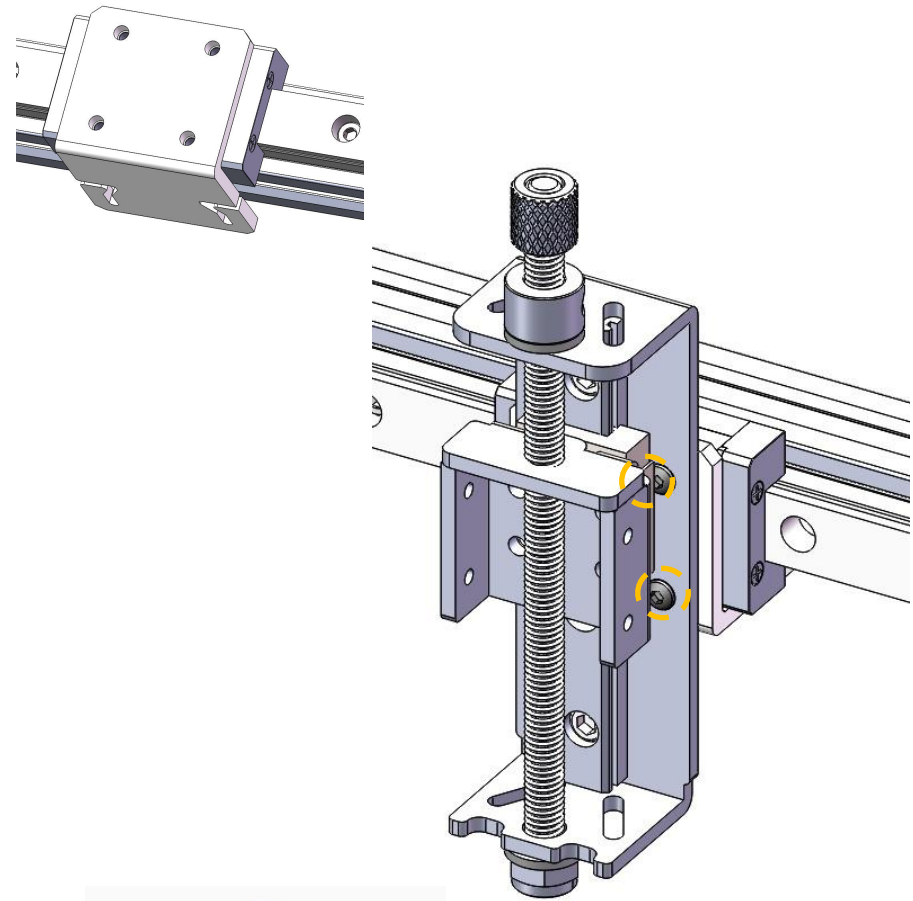
Mechanical Assembly

Step 6 – TwoTrees & LaserTree Modules

Parts Required:
- ------STEP 5 Assembly
- ------Belt Clip
- ------xTool Module Adapter
- ------Countersunk Screw 3x8mm x4
- ------Screw M3x8mm x4
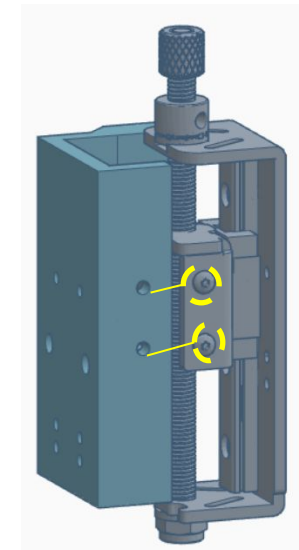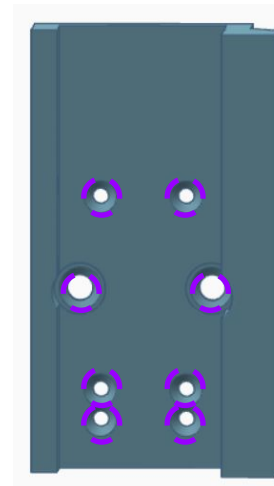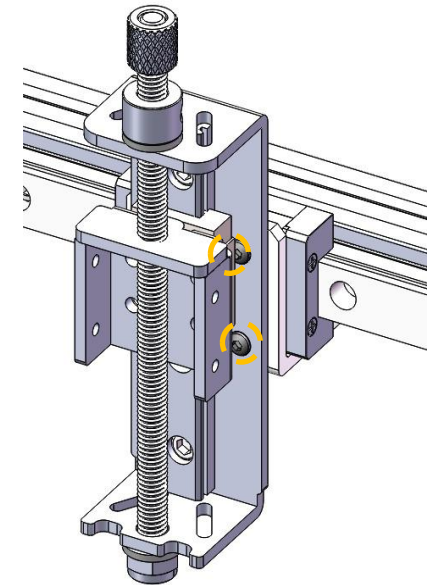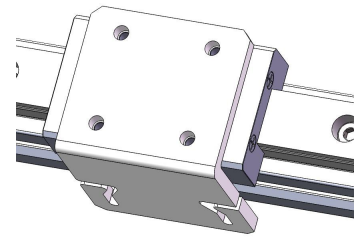- ------Screw M3x6mm x4
- ------GT2 Belt

Place Belt Clip on X gantry linear block

Place Z Adjust over Belt Clip

Use M3x8mm x4 to attach Belt Clip and Z Adjust to linear block, two per side

Use Countersunk M3x8mm x4 to attach module to Module Adapter, matching holes

Use M3x6mm x 4 to attach Module Adapter to Z adjust, two per side

Step 6 - Belt
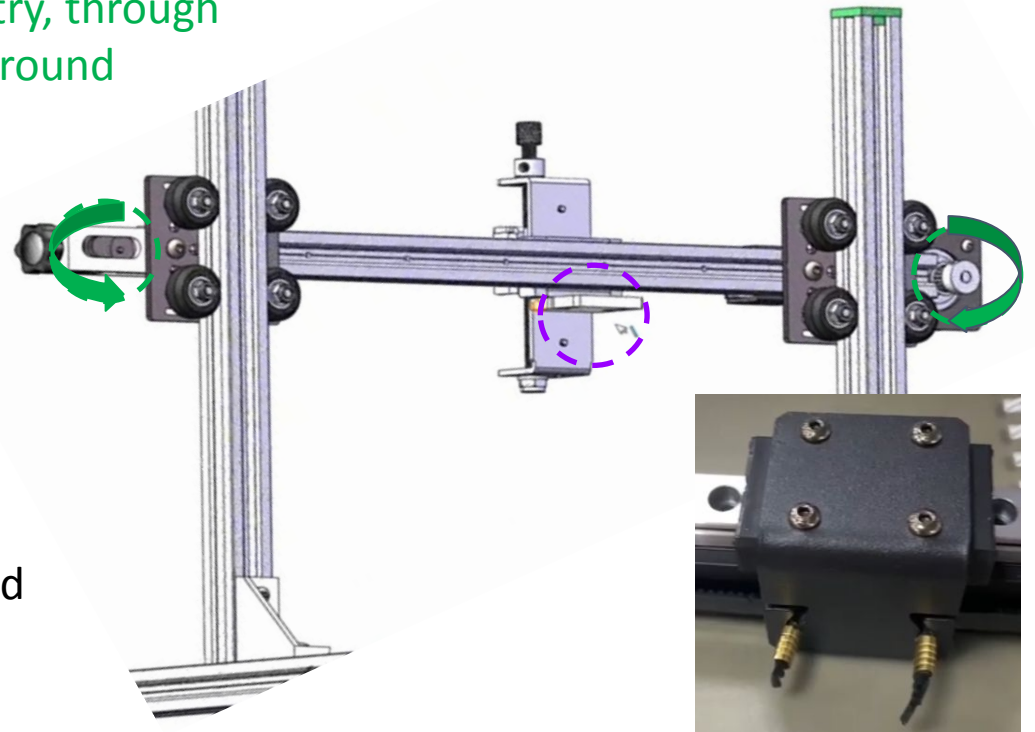
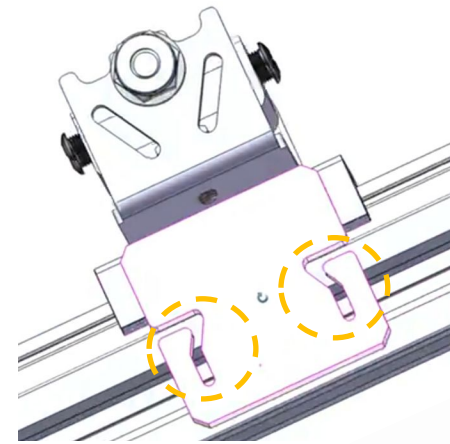Parts Required:
------STEP 6 Assembly
------GT2 Belt

Identify slots on bottom of belt clip

Install belt so that it runs across the X gantry, through the tensioner at the left (per image) and around gear on the right (per image).

Run belt under belt clip and through slot on each side so that the metal clasp catches on the belt clip to hold the belt in place

Use tensioner to tighten belt so that there is no slippage when module is moved back and forth rapidly
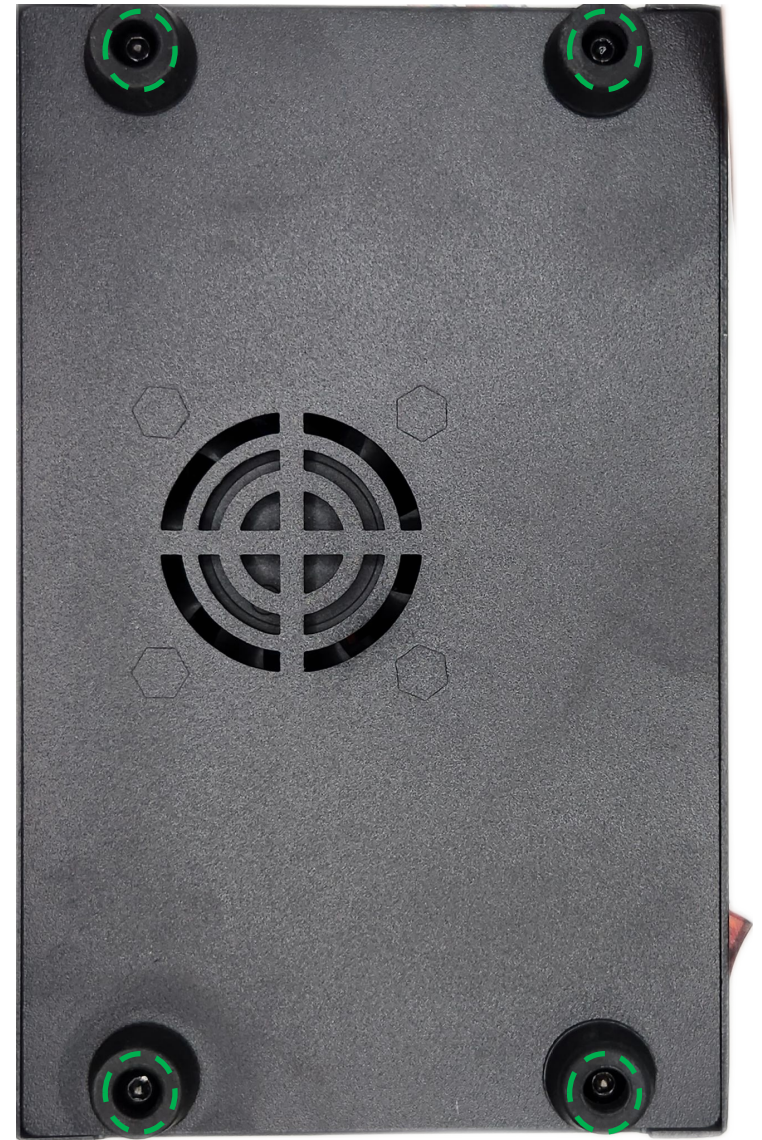
Step 1

Parts Required:
------Devil1

Remove four (4) screws from bottom of Devil1

Remove bottom plate of Devil1

Part 3 Electrical Assembly

Step 2: xTool
Module

Parts Required:

------Devil1

------**xTool** Laser Module

Cable
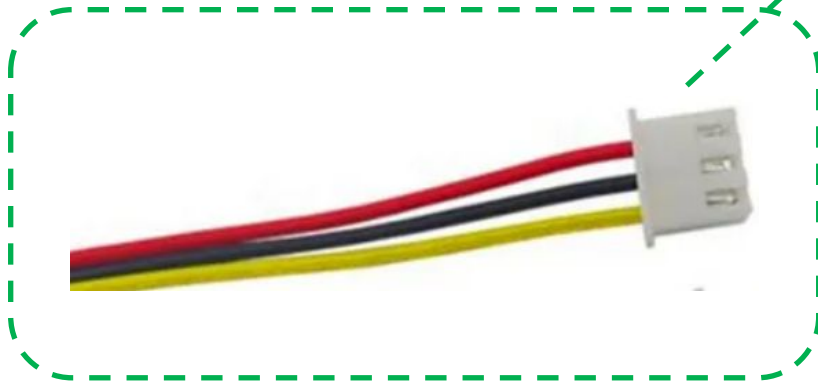
Connect Laser Module cable to Devil1

Step 2: Other Module

Parts Required:

------Devil1

------**TwoTrees, Laser Tree, Atomstack M40 & M50**
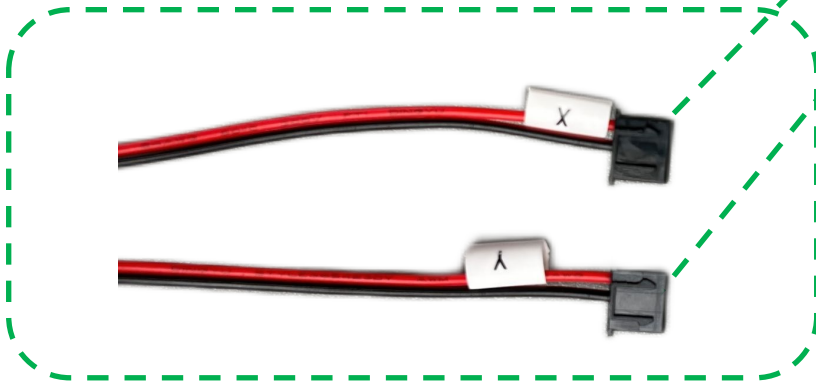
Laser Module Cable

Connect Laser Module cable to Devil1

Step 3

Parts Required:

------Devil1

------Limit Switch Cable

Connect Limit Switch Cable to Devil1

Step 4
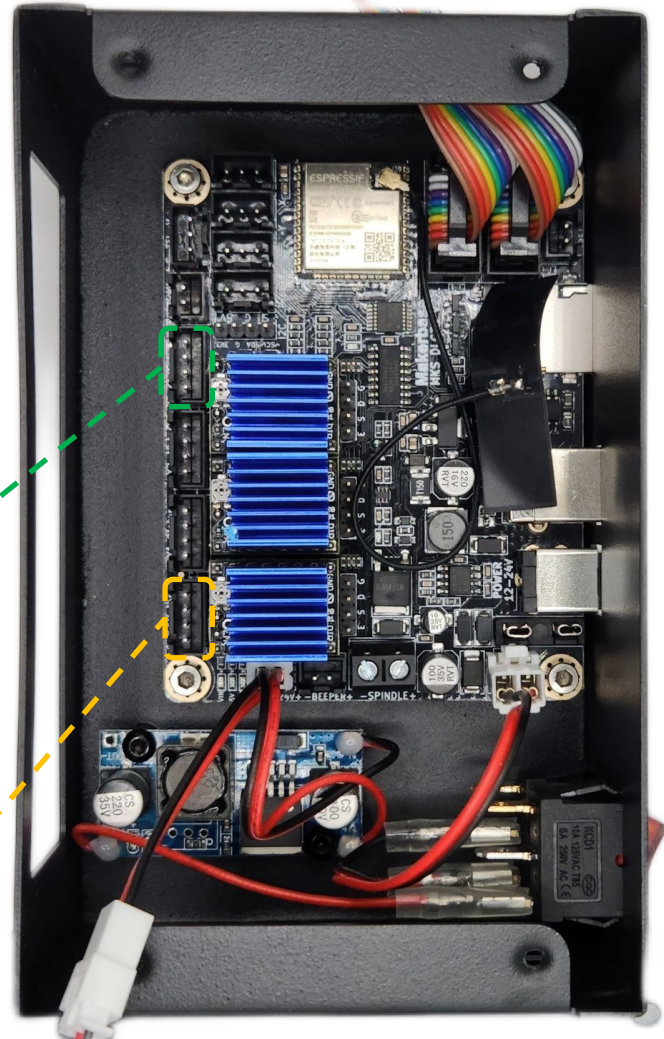
Parts Required:

------Devil1

------Rotary Extension
Cable

------Motor Cable

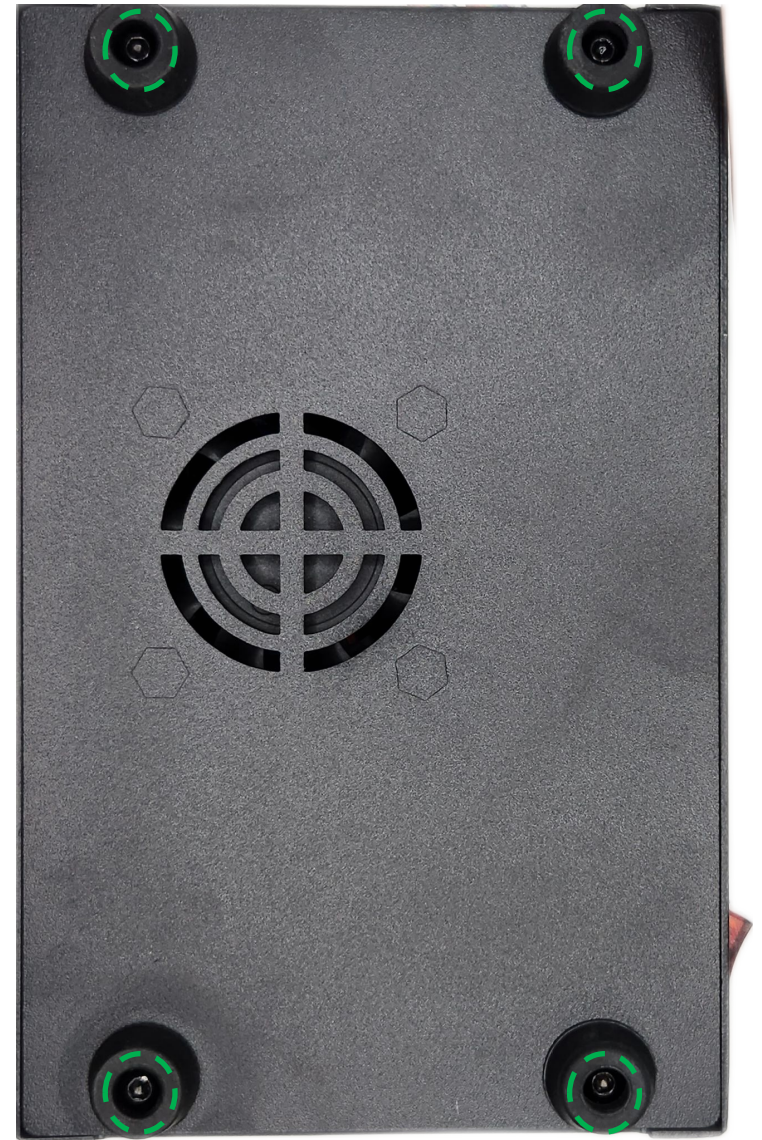Connect Rotary Extension Cable and Motor Cable to Devil1

Step 5

Parts Required:
------Devil1
------Four (4) screw
from Step 1

Replace bottom plate of Devil1

Replace four (4) screws from bottom of Devil1

Part 4 Lightburn Setup

Step 1

Required Files:

------Hybrid2 lbdev file

https://geeks-at-large.com/support/hybrid2-production-edition-support/

Before Proceeding, it is advisable to flash the Devil1 firmware to the latest version. Files and instructions can be found at the product support page link above
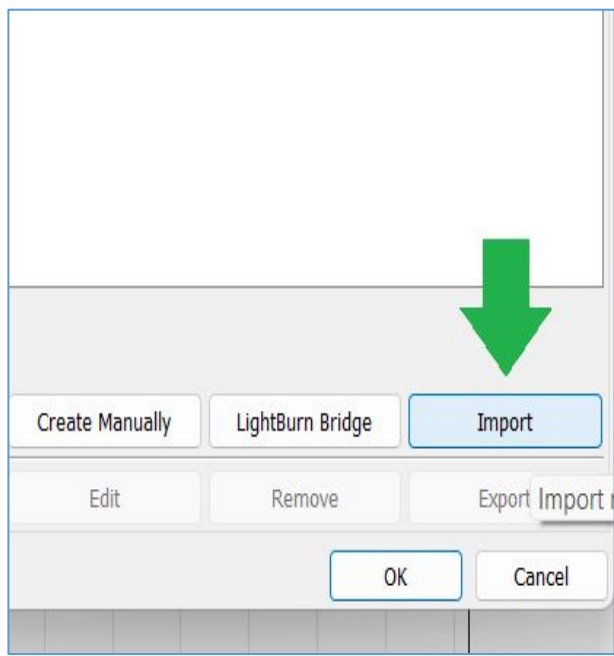
On the Laser tab in Lightburn, click the Devices button
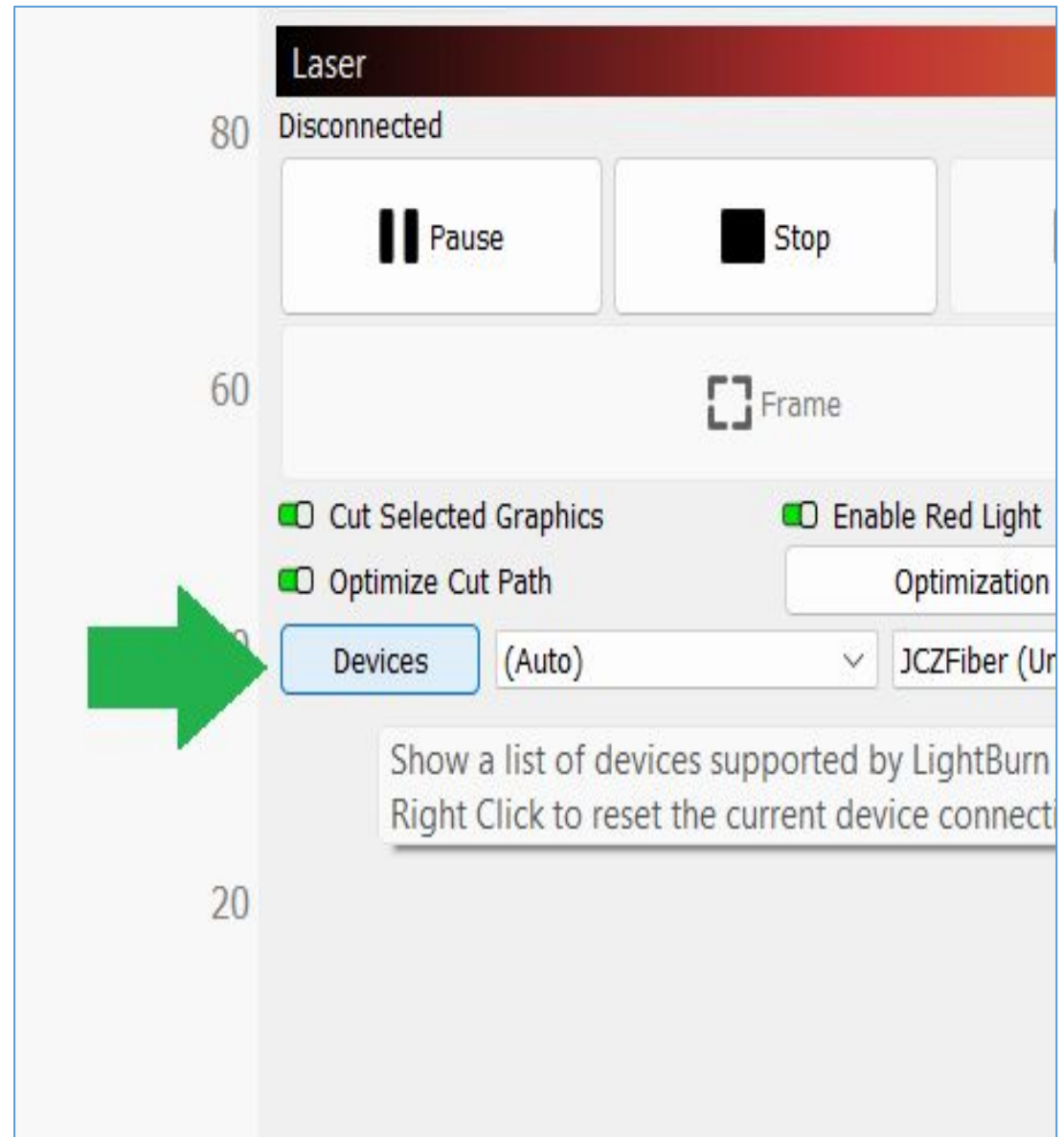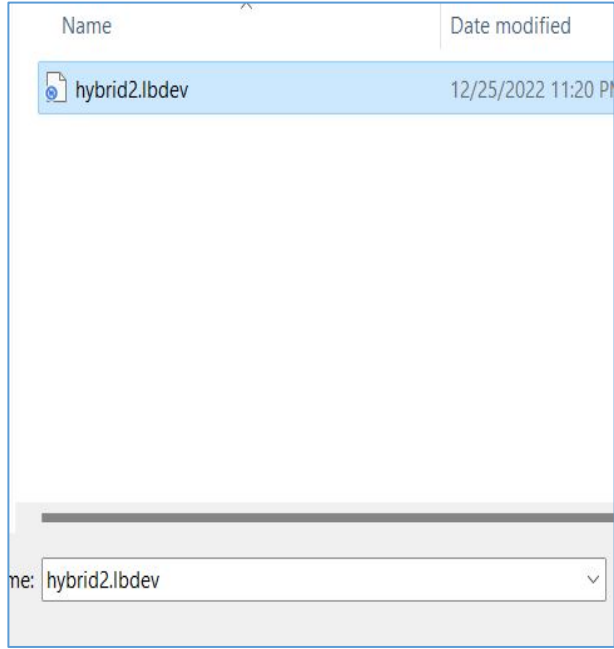
Step 2

On the Devices window, click the Import button
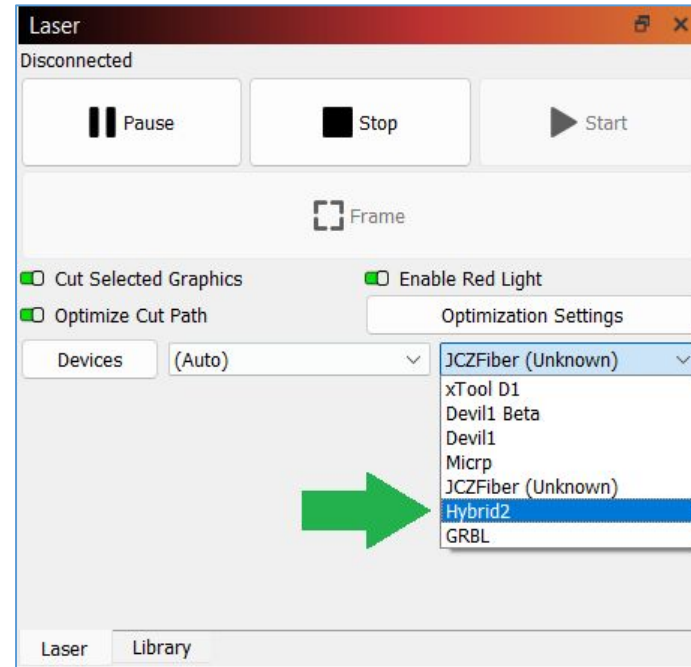
Step 3

Select the Hybrid2 lbdev file
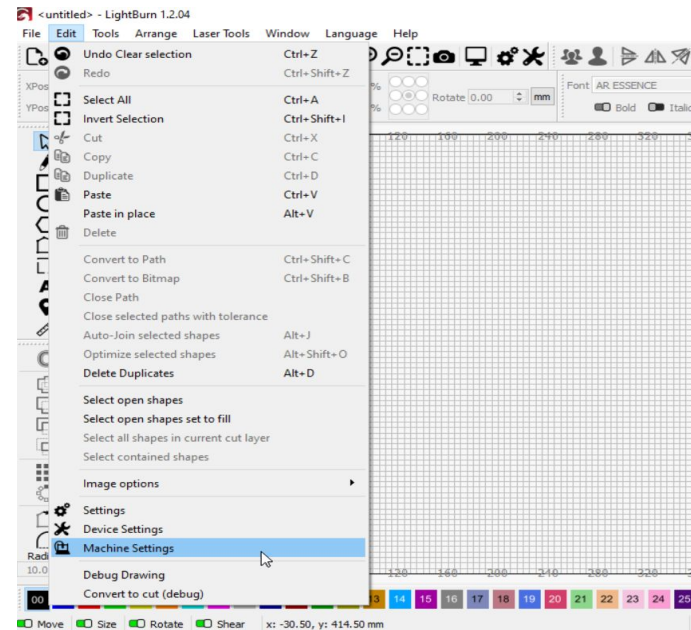
Click the Open button

Part 4 Lightburn Setup

Step 4

Select Hybrid2 from the list of devices on the Laser tab

Step 5

Click File, then Machine Settings

Required Files:

------Hybrid2 lbset file

https://geeks-at-large.com/support/hybrid2-production-edition-support/
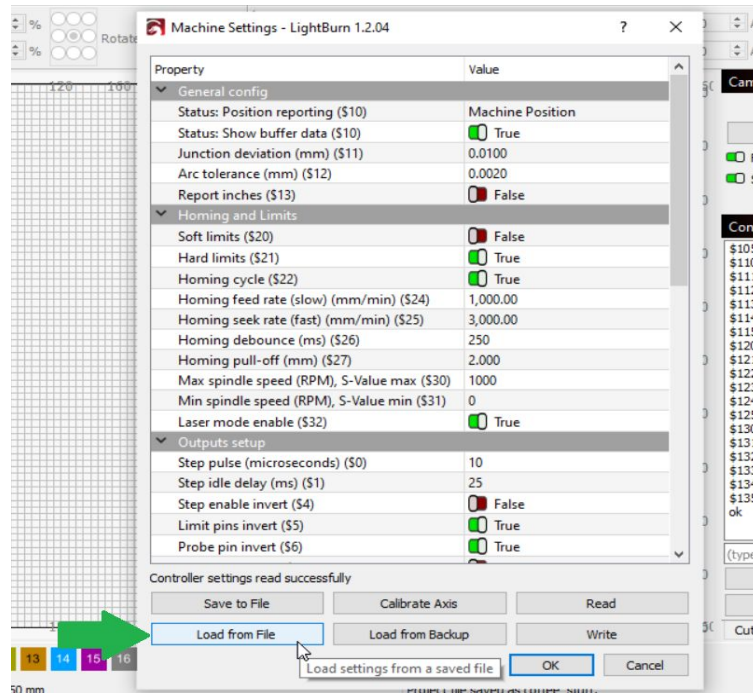
Step 6

In Machine Settings, click the **Load from File** button
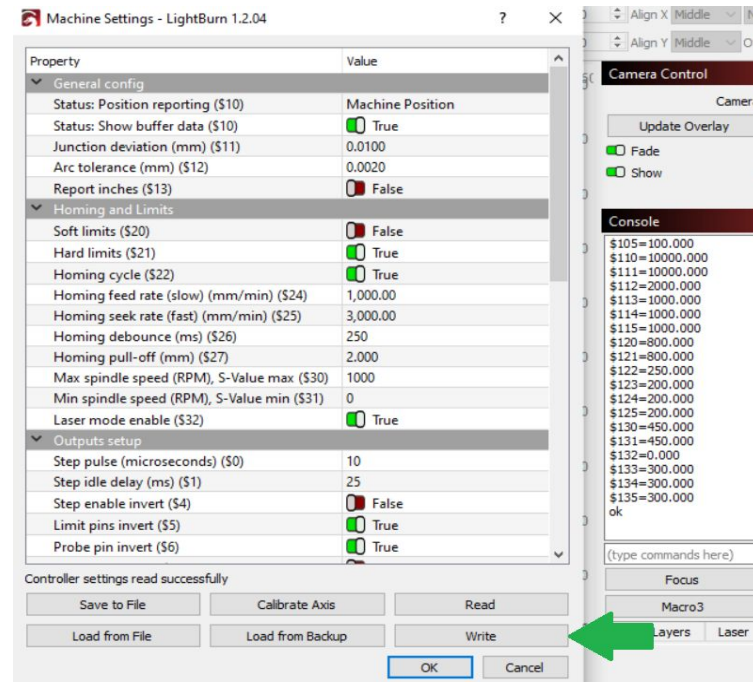
Select the downloaded lbset file

Step 7

Click **Write** button

Click **OK** button

Power Devil1 off and then back on

Step 8

Finished!