KING GUBBY DESIGNS

Sculpfun S30
Z Axis Adjuster

INSTALLATION MANUAL

Included Parts For Z Axis

Carriage Plate

Module Plate

Module Adapter Plate

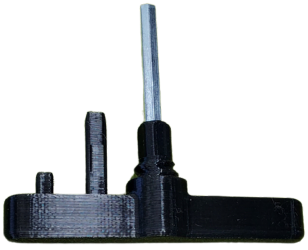
Carriage Anchor Plate

M6 Bolt

Barrel Nut

Bolt Clip

4mm T Handle Wrench



6 x M3 Screws

6 x M4 Screws

4 x M4 Hex Nuts

8 x M3 Hex Nuts

2 x M4 Countersunk Screws

2 x M3 16mm Screws

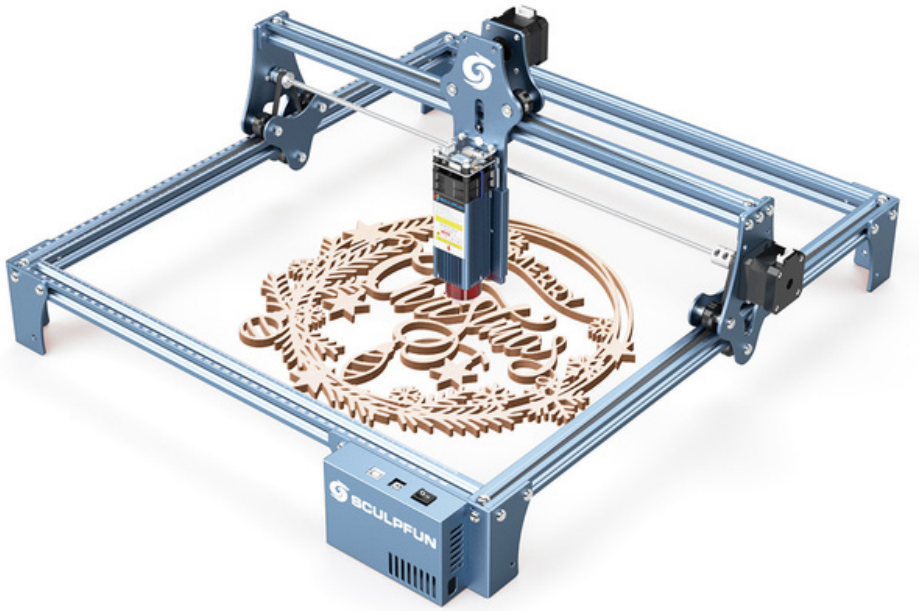
End Stop Extension

Not needed for all models

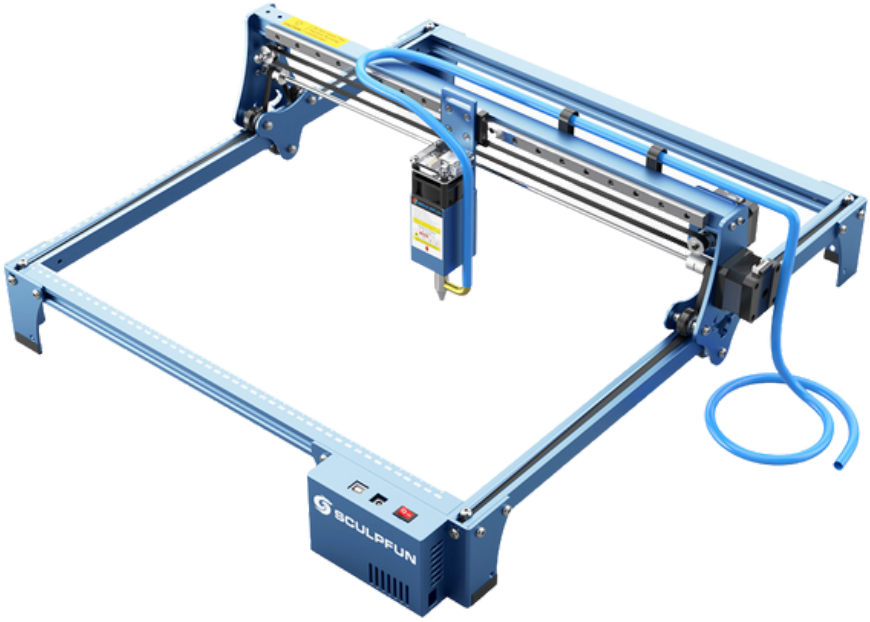
2 x M2.5 Hex Nuts

2 x M2.5 Screws

This product is for the Sculpfun S30 & Pro Max (10w & 20w)



This will not work for the Sculpfun S10

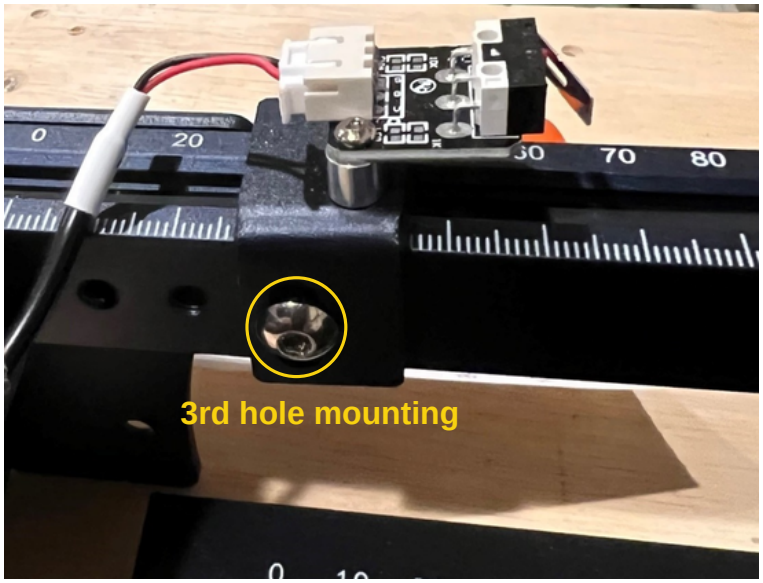


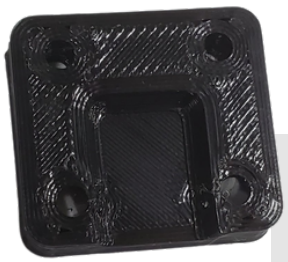
IMPORTANT

You need to check your home stop before turning on your laser, after installing the Z Axis. This is to avoid damage to your laser.

- **With Z Axis Adjuster installed, home laser by hand**
- **Observe the space between your front rail and your module**
- **If the module comes in contact with the front rail, without hitting the home stop contact switch, you will need to move the contact switch to a position that renders it effective (engages it)**
- **Some of the sculpfun rails have 2 available end stop threaded holes and some have 3. If yours has 3, you will need to move the screw to the hole closest to the gantry.**
- **if your rail only has 2 hole options, you will need to use our end stop extender.**
- **If you only have 2 holes, please contact us and we will walk you through getting the extender installed.**
- **Retighten your belt(s)**

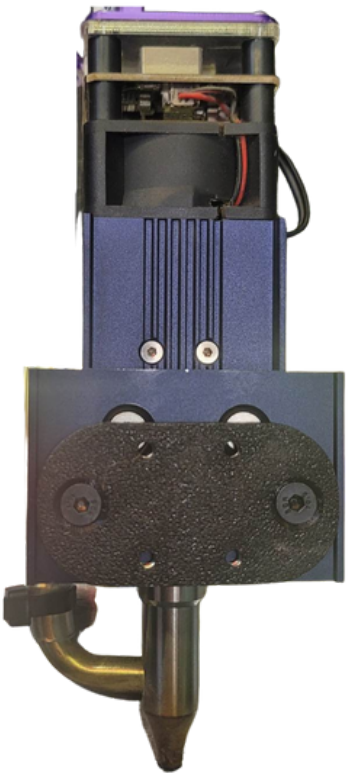
If the switch is activated and the module does not come in contact with the front rail you do not need to move your home stop





1st step: Prepping the Module Adapter

Insert the M3 nuts into the available hexagons on the King Gubby Module Adapter. Then, remove the Sculpfun module and attach the adapter plate to the module as pictured. The M3 nuts will be placed face-down, against the module. Below you will see examples of the module plate attached to the 10w and 20w modules.



10w module

20w module

Module Plate Prep

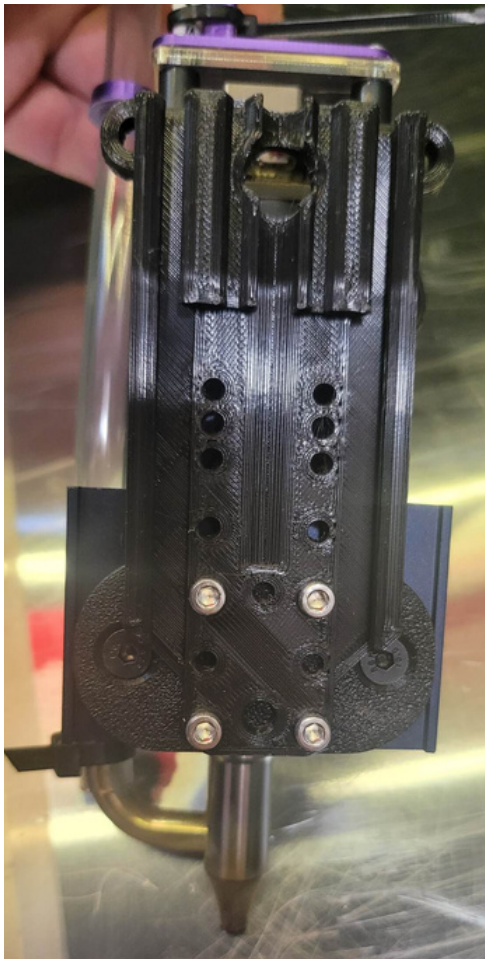
Due to slight size variance in the barrel nuts, we recommend that you make sure that you can easily slide your barrel nut into the module plate before beginning the install process. Try pushing the nut through the designated hole. This fit is supposed to be very snug, that being said, you may need to "work it" through a few times to get the hole sized correctly. By doing this, you will make your life easier later on in the install process. If it is hard to force through with your thumbs, set the module plate flat on a table and use something like a hammer or screwdriver butt to force the barrel nut into the hole. If there is too much 'play' in this connection point, it will cause the module to move during burns, so it is important to not widen this hole unless you absolutely cannot get the barrel nut it. And if you do open it up, do the least amount NEEDED.

Once done, remove the barrel nut from the plate and continue with instructions.

Contact Us:
KingGubbyDesigns@gmail.com

Attaching the King Gubby Module Plate

Attach the King Gubby Module Plate to the (now installed) Module Adapter. Use 4 of the provided M3 screws to screw the plate into the 4available M3 nuts that are sandwich between the module adapter and the module. We suggect higher mounting positions, but play with them to find which mounting holes works best with your setup.



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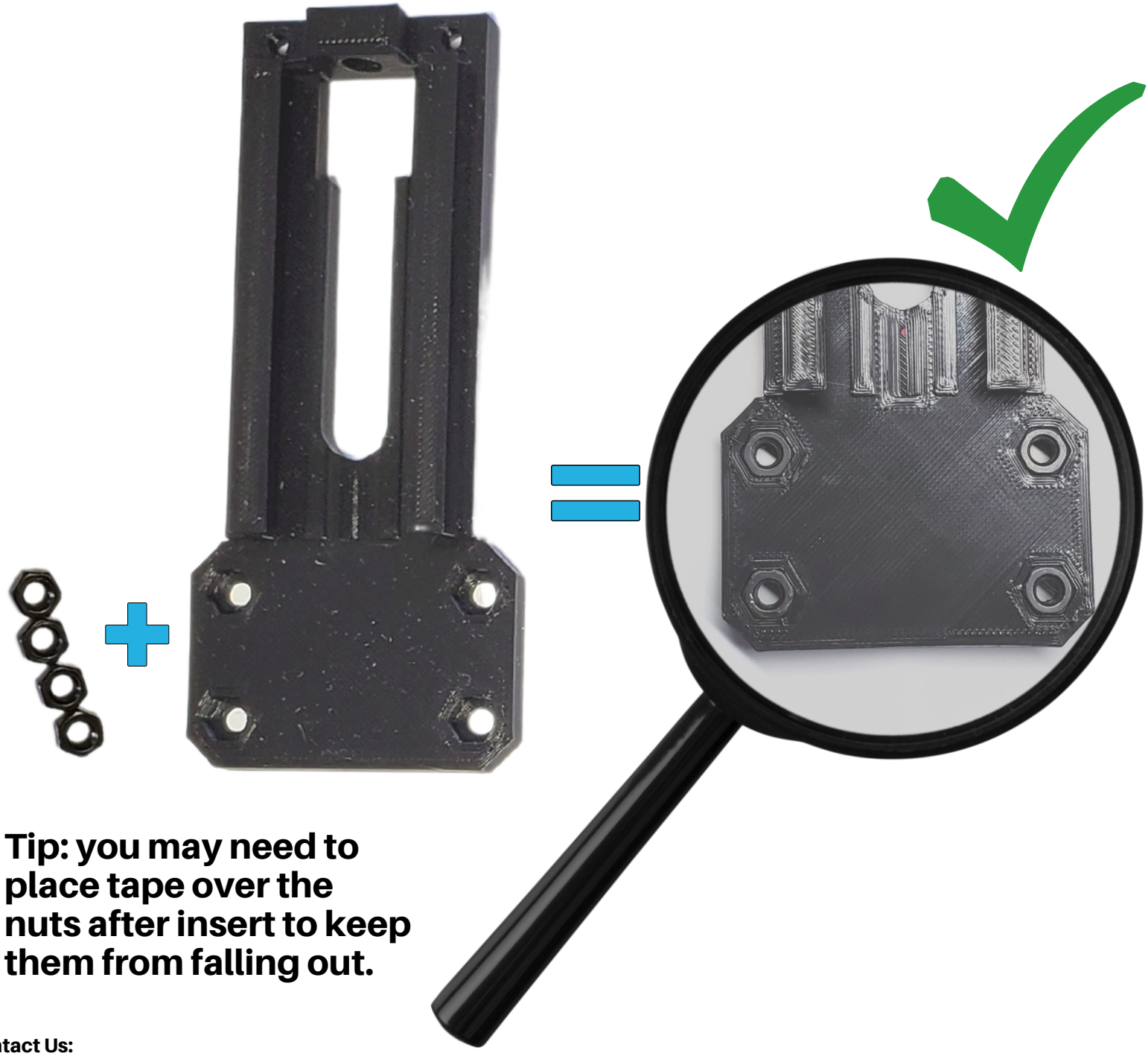
Prepping the Carriage Plate

Insert the M4 nuts into the available hexagons on the carriage plate. If the nuts do not pressure fit into the holes, you can use some tape to keep them in place while you are mounting.



Tip: you may need to place tape over the nuts after insert to keep them from falling out.

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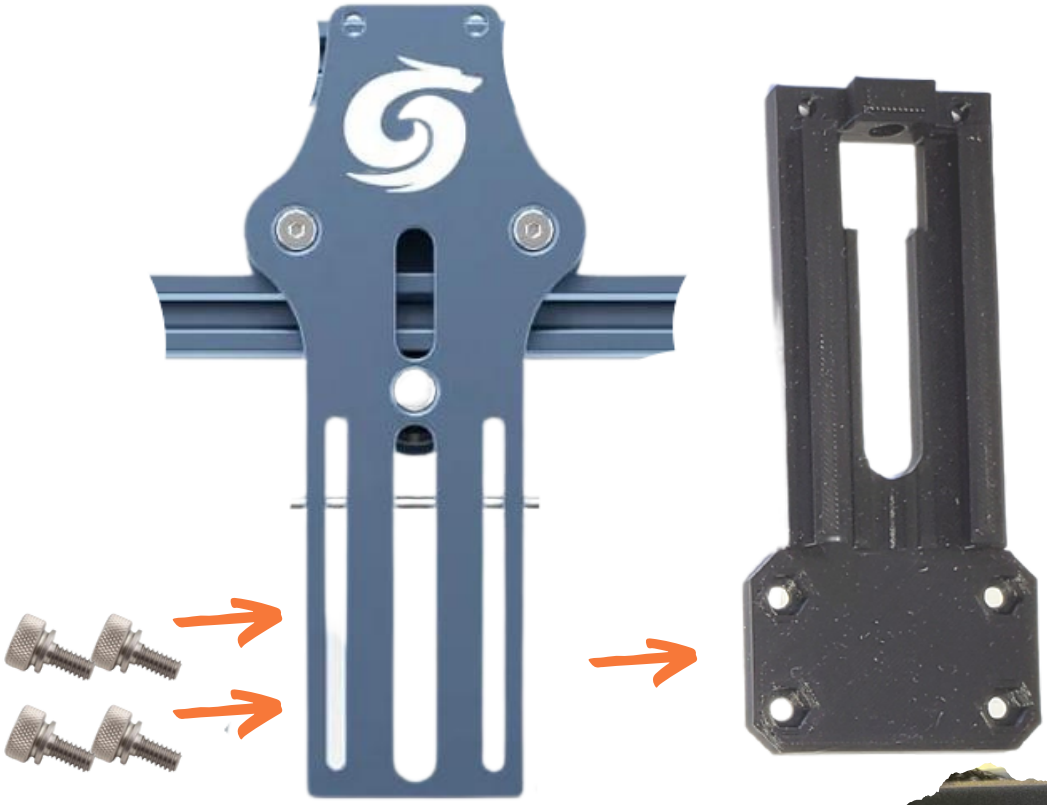
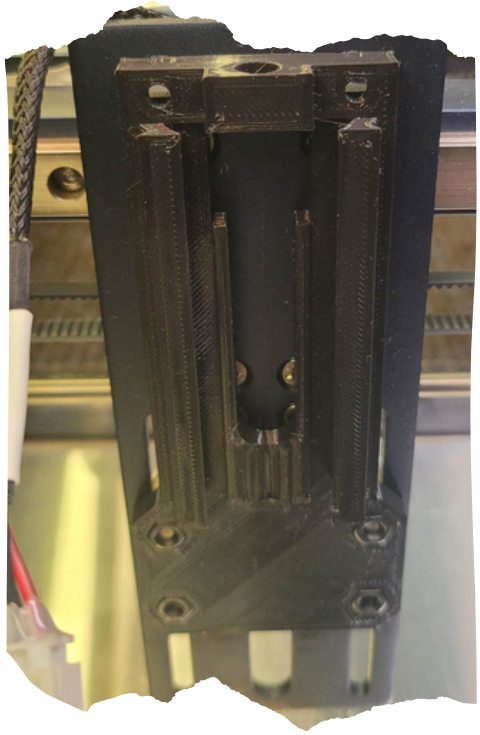
Installing the Carriage Plate

Attach the Carriage Plate to the laser carriage by using the four stock carriage 'thumb' screws or our provided M4 screws. Slide them through the Sculpfun Carriage Slider Plate slots and tighten through the King Gubby Carriage plate at the 4 x M4 nuts.





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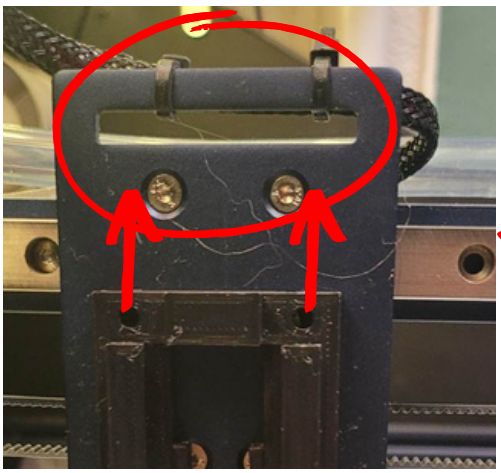
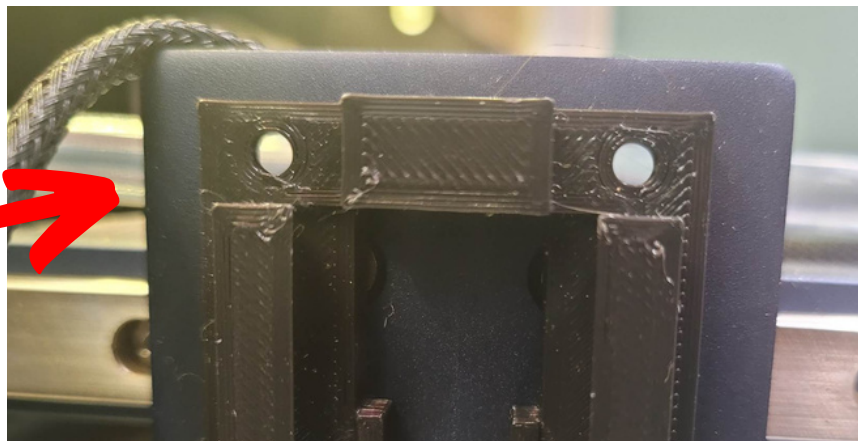
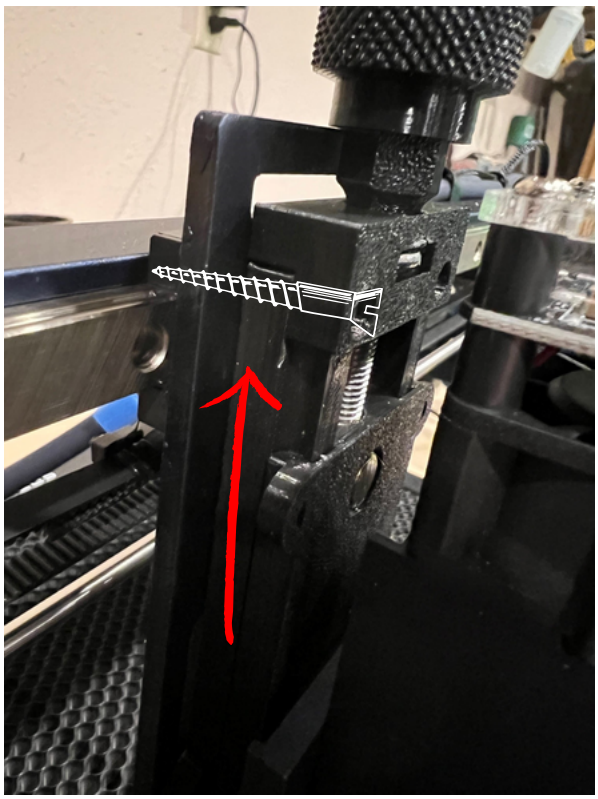
Note:

Align the holes at the top of the King Gubby Carriage Plate with the zip tie mounting hole/strip at the top of the stock carriage plate. You will be putting screws through this later.





In this picture the carriage would need to be moved up, but this is the general idea. A pic of this done correctly is needed too.



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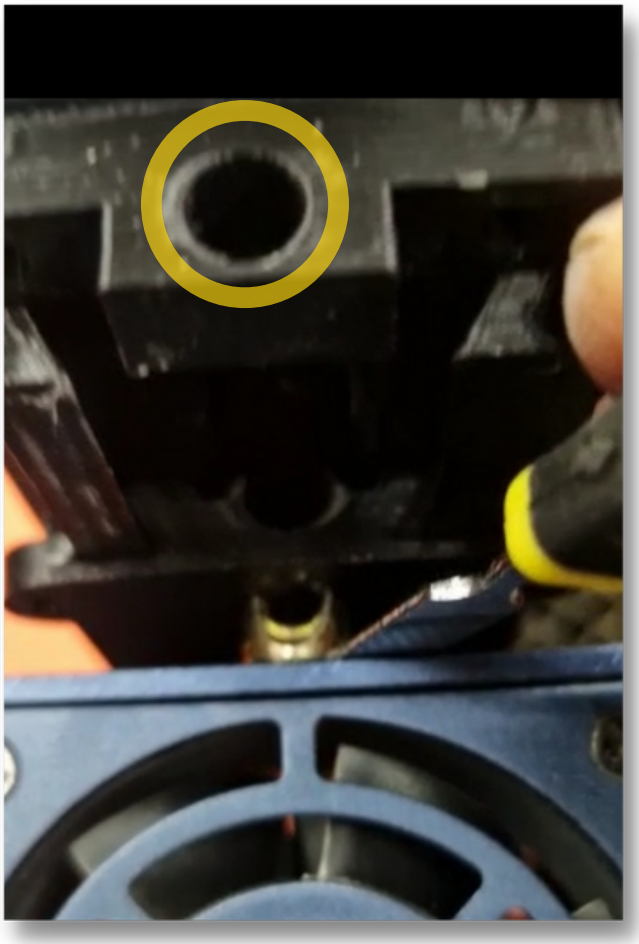
Note: Barrel Nut Adjusting

Press the barrel nut through far enough to leave room to slide the 2 King Gubby plates together at the dovetails (see image on the left). Once the plates have been slid together, use a flathead screwdriver to press it back through a bit. The threads on the barrel nut will need to align with the hole at the top of the carriage plate (circled below).

Make sure the slit on the barrel nut is facing away from the module and the slit is running parallel to the dovetails.



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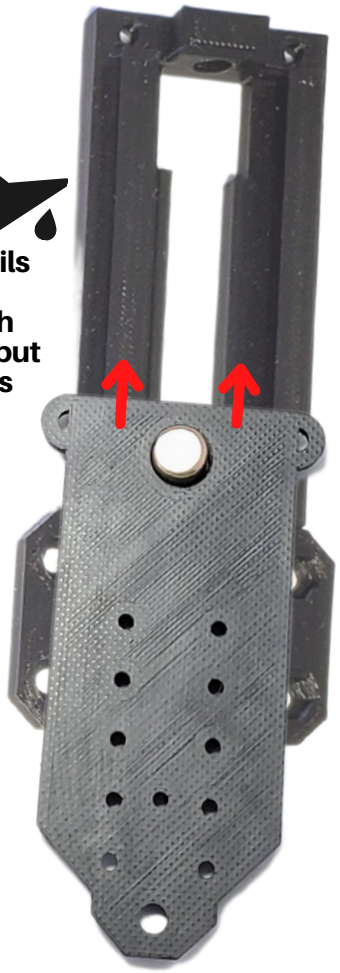
Assembling the Z Axis

Now, slide the module plate (with module attached) onto the carriage plate (attached to carriage) via the dovetail channels. Realign the barrel nut as mentioned in the last page. Then, slide the M6 bolt (75mm) through the hole in the top of the carriage plate, and screw about 3/4 of the way up the barrel nut.

Oil the dove tails on both sides. Preferably with dry lubricant, but any lubricant is acceptable



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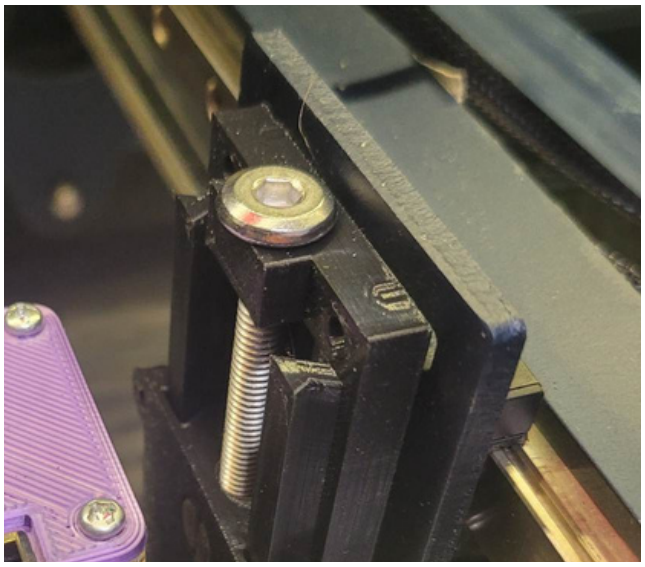
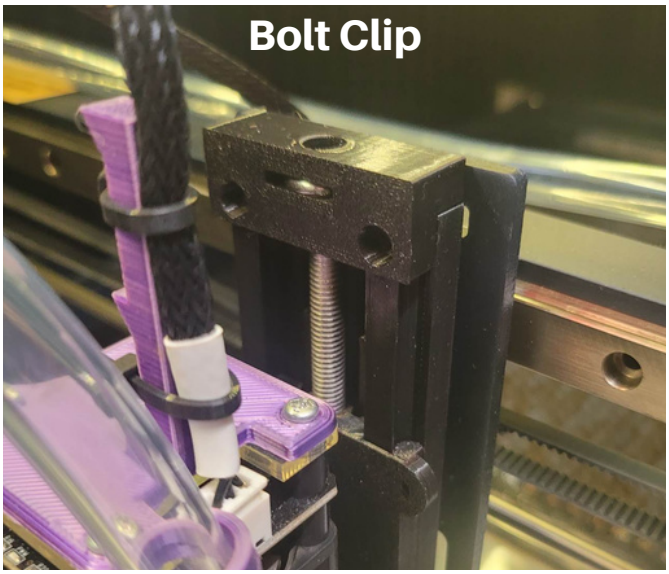
Z Bolt

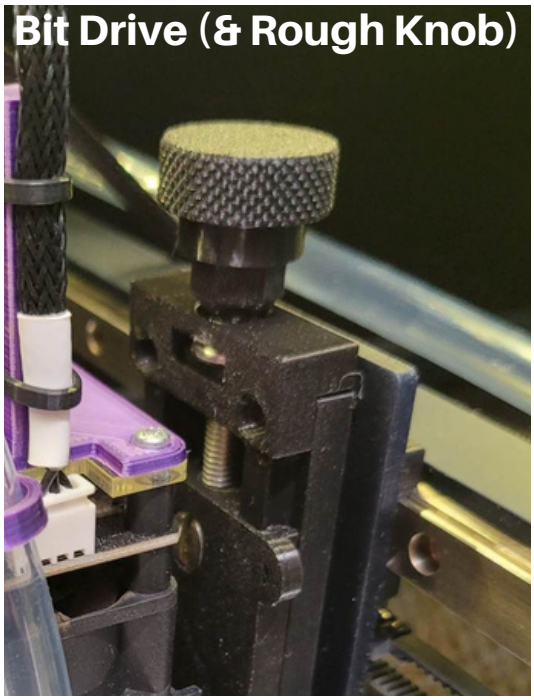
Make sure the top of the bolt is touching the top of the carriage plate



Apply the Bolt Clip or Bit-Drive

Place either the Bolt Clip or Bit-Drive (if you purchased knobs) over the top of the bolt head and line up the holes in the Bolt Clip with the holes in the top of the Carriage Plate.





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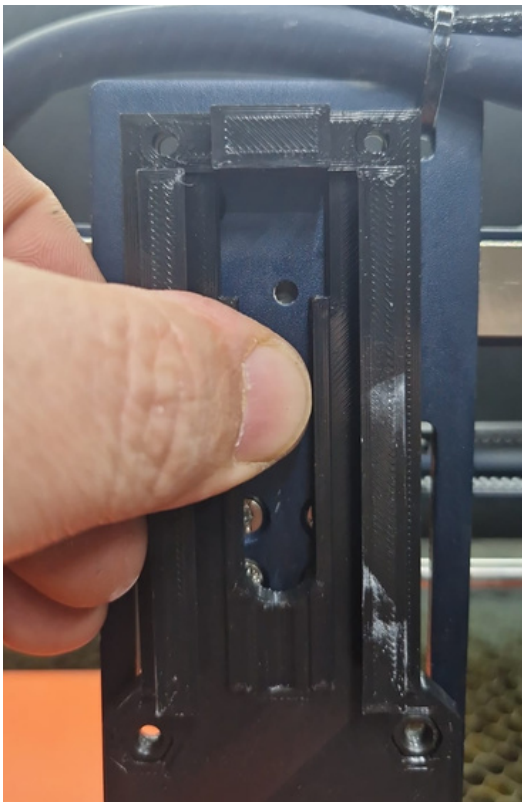
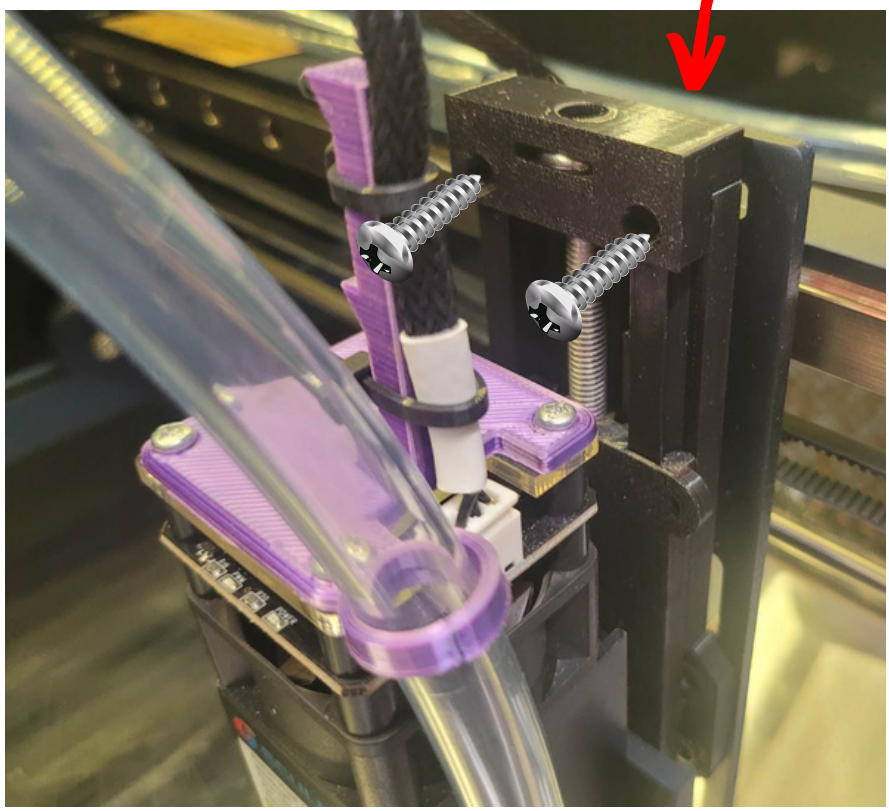
Carriage plate and Bolt Clip Fastening

Align the 2 holes at the top of the King Gubby carriage plate with the zip tie slit at the top of the Sculpfun (metal) carriage plate. Put the 18mm screws through the bolt clip, through the 2 holes (circled below), through the zip tie slit, and into the nuts on the back side of the Carriage Anchor Plate. The Carriage Anchor Plate will have the nuts inserted and facing away from the metal plate.





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If you didn't purchase knobs, but have seen how much easier they make adjusting your module, you can find our knob selection here

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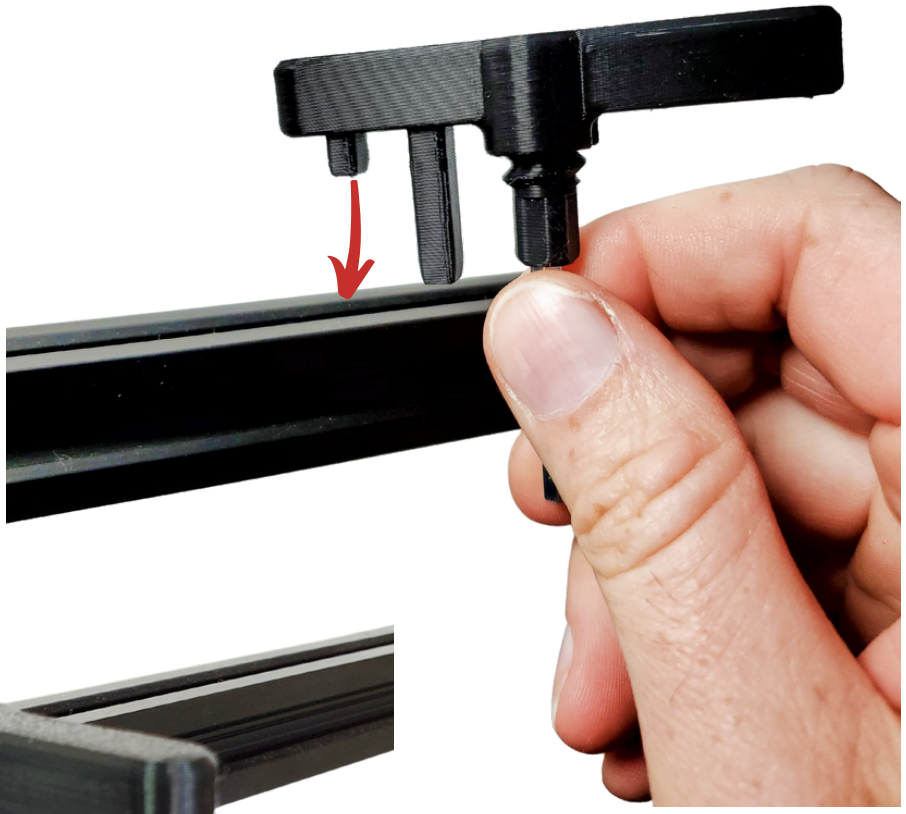
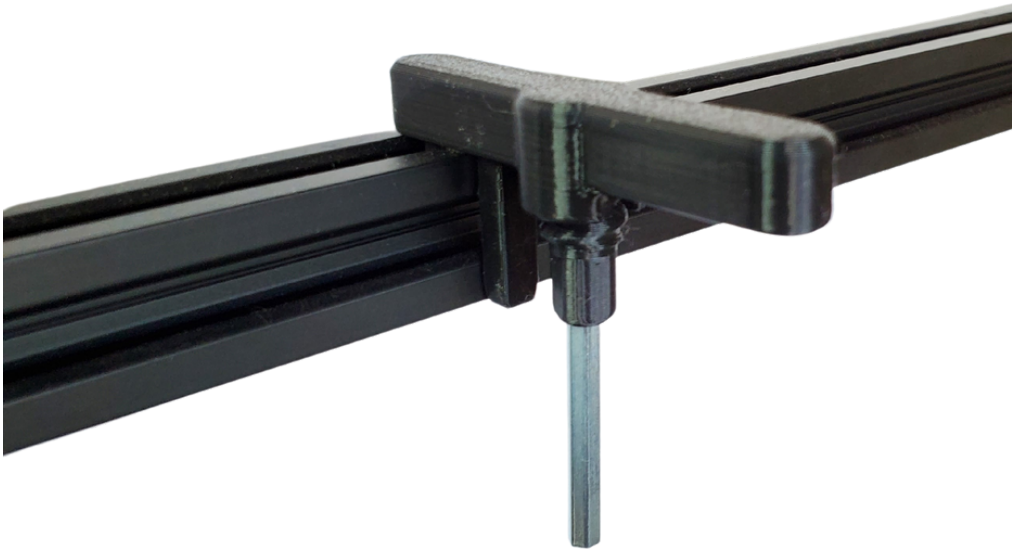
Oh and...

By the way, the reason the t-handle looks so funny is because it rests on your laser's aluminum extrusion. Keeps it out of reach of those tool trolls. It doesn't work all lasers, but might on yours...





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