

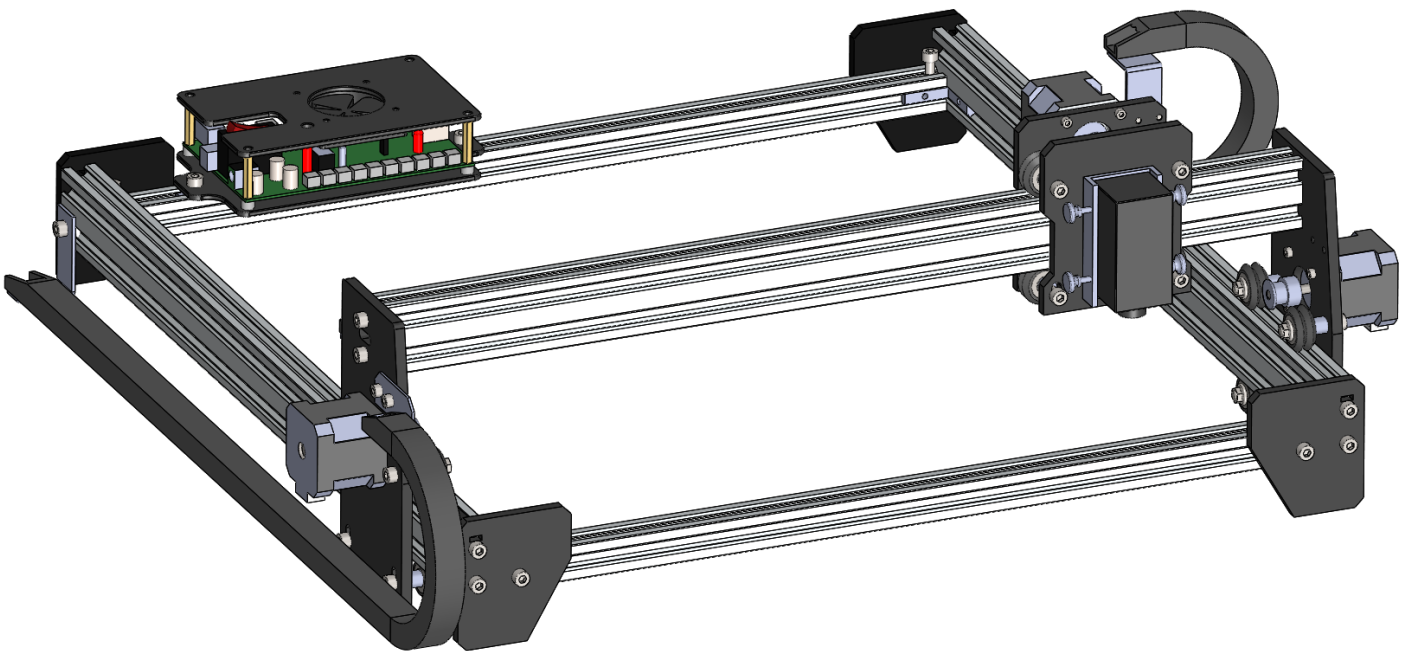


FoxAlien

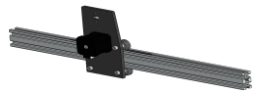
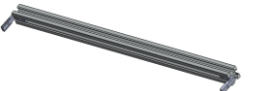


LASER ENGRAVING MACHINE

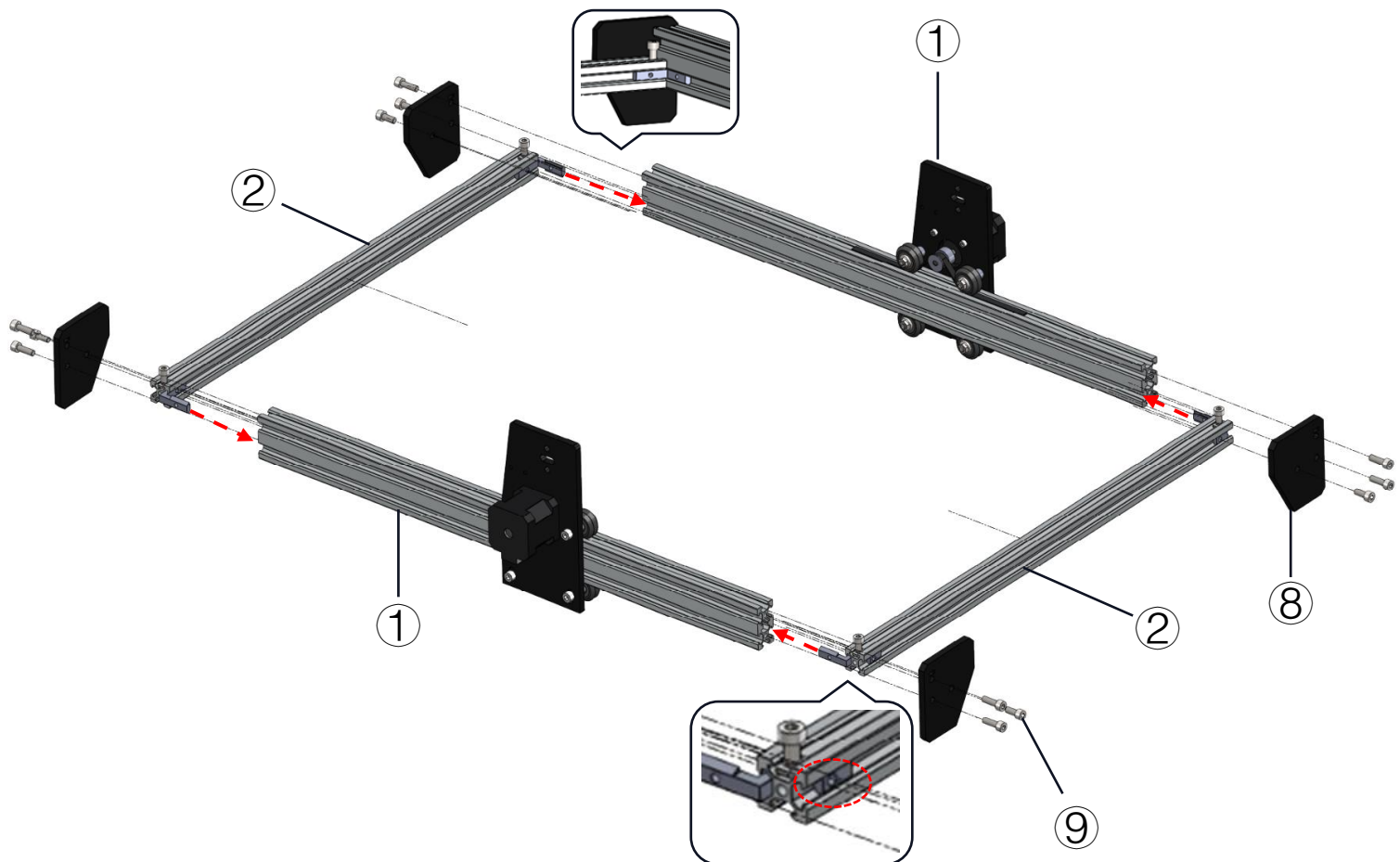
LE-4040

USER MANUAL


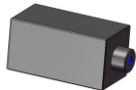



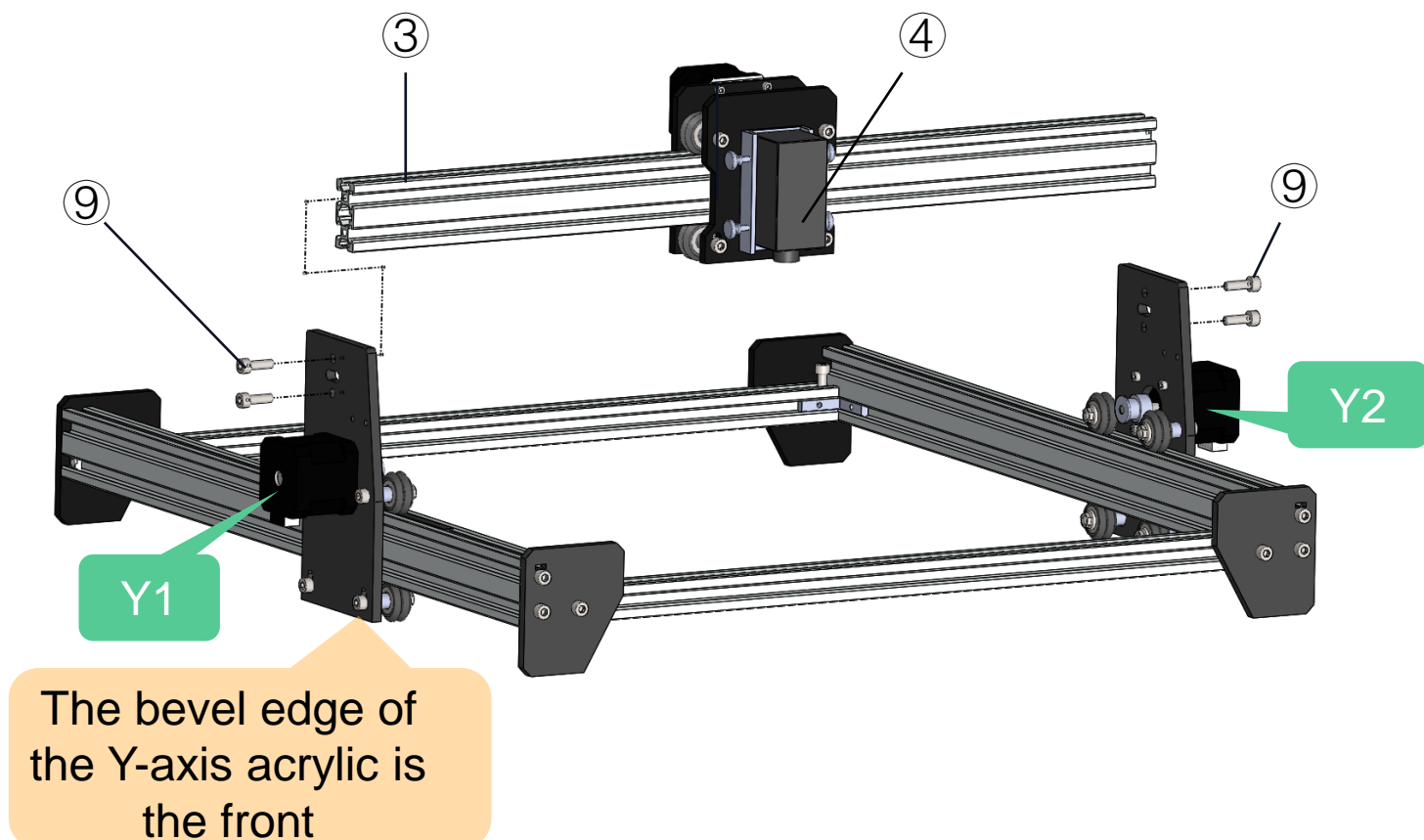
Part-1 Base Installation

Required Parts	No.	Name	QTY	Picture
	①	Y-axis Aluminum Profile	2	
	②	X-axis Aluminum Profile	2	
	⑧	Acrylic Sheet	4	
	⑨	Bolt M5*12	12	
Installation Steps	Step1	Assemble X and Y axis aluminum profiles together as the picture shown below. Tighten the set screws with hex wrench.		
	Step2	Assemble 4pcs acrylic sheets as the picture shown below. First, fix a M5*12 bolt to the nut pre-installed in the X-axis aluminum profile. Then fix another two M5*12 bolts to Y-axis aluminum profile.		




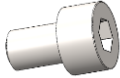
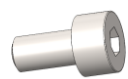
Part 2 Gantry Installation

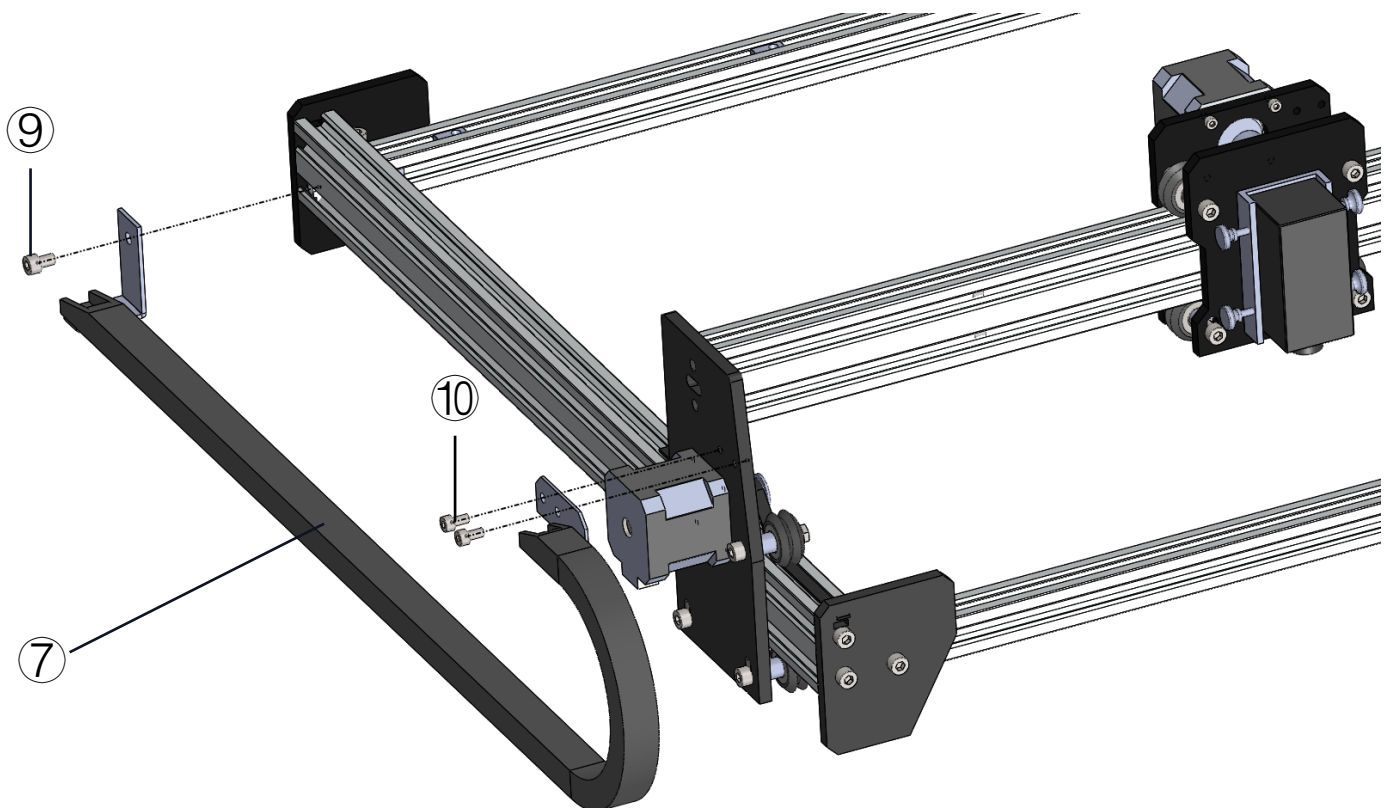
	No.	Name	QTY	Picture
Required Parts	③	X-axis Gantry	1	
	④	Laser Module	1	
	⑨	Bolt M5*12	4	
Installation Steps	Step1	Assemble X-axis Gantry as the picture shown below. Fix it to Y-axis aluminum profile with 4pcs M5*12 bolts.		
	Step2	First loosen the knobs on the laser holder, and then put the laser module in; fasten the knobs to fix the position.		



Part 3 Drag Chain Installation


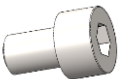
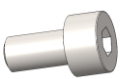
- Y-axis Drag Chain

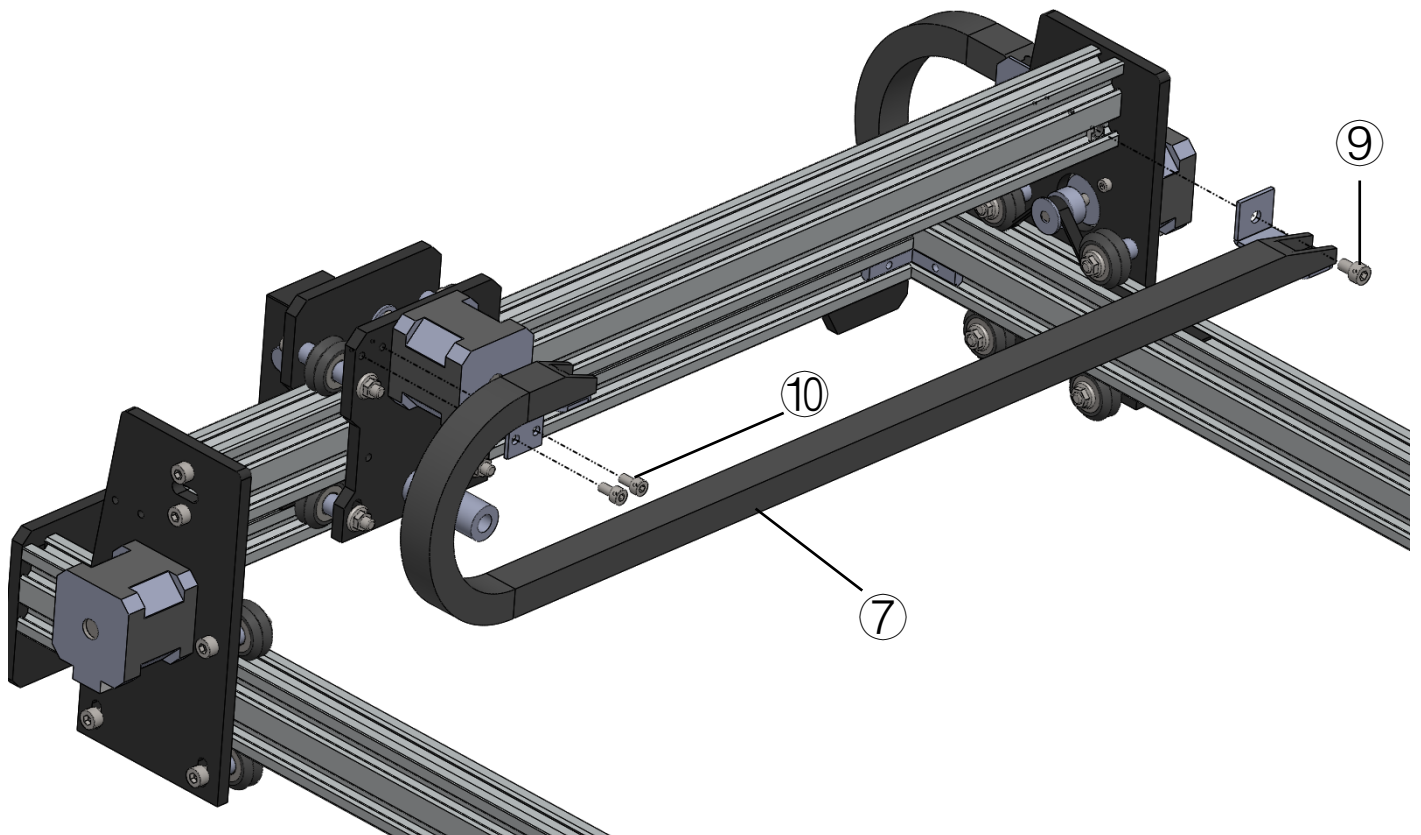
Required Parts	No.	Name	QTY	Picture
	⑦	Bundled Drag Chain (Y-axis)	1	
	⑨	Bolt M5*8	1	
Installation Steps	⑩	Bolt M4*8	2	
	Step1	Fix the Y-axis drag chain to the acrylic sheet with 2pcs M4*8 bolts. Fix the tail to nut pre-installed in the Y-axis aluminum profile with M5*8 bolt.		




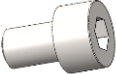
Part 3 Drag Chain Installation

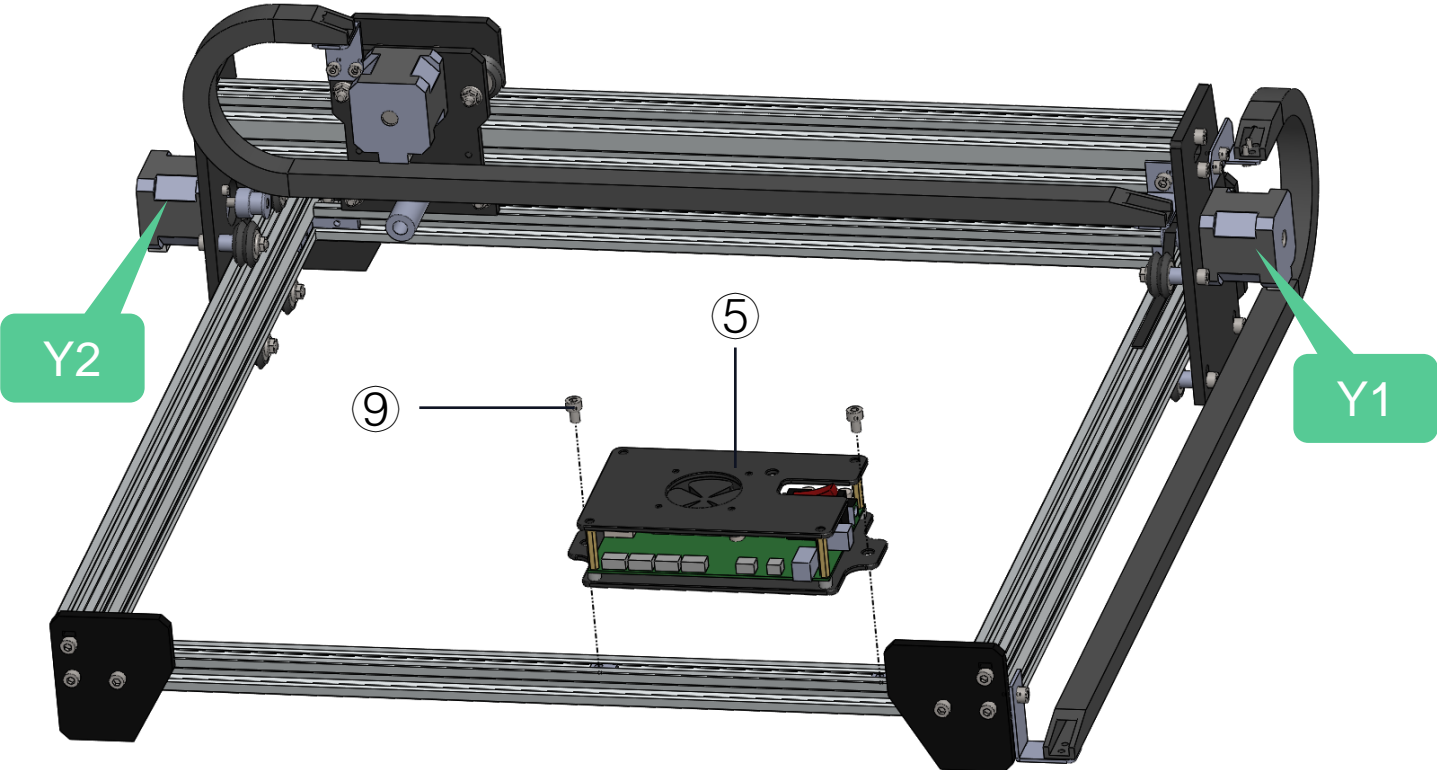
- X-axis Drag Chain

Required Parts	No.	Name	QTY	Picture
	⑦	Bundled Drag Chain (X-axis)	1	
	⑨	Bolt M5*8	1	
Installation Steps	⑩	Bolt M4*8	2	
	Step1	Fix the X-axis drag chain to the acrylic sheet of X-axis with M4*8 bolt. Fix the tail to nut pre-installed in the X-axis aluminum profile with M5*8 bolt.		



Part 4 Control Board Installation

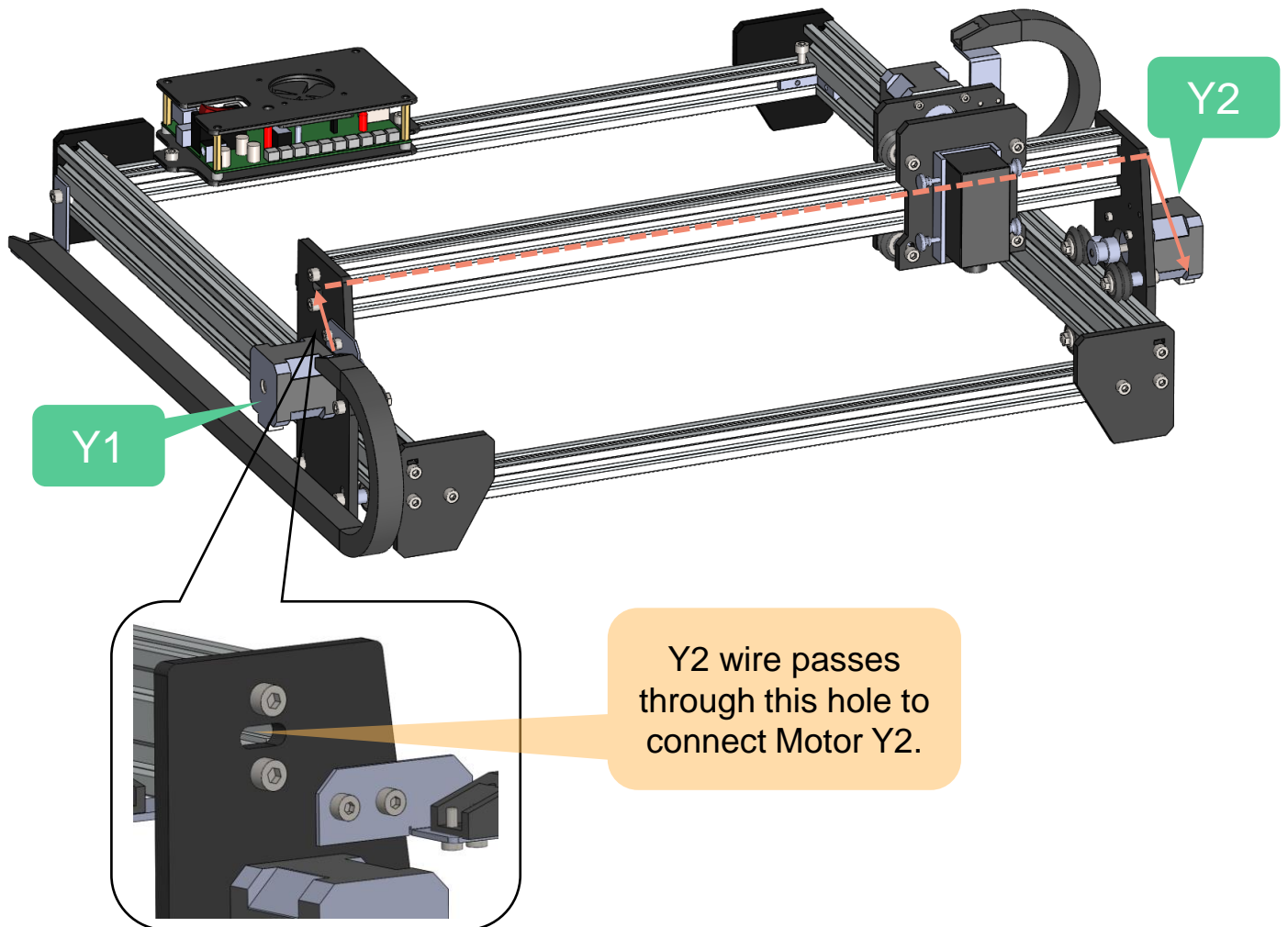
	No.	Name	QTY	Picture
Required Parts	⑤	Control Board	1	
	⑨	Bolt M5*8	2	
Installation Steps	Step1	Fix the control board to the nut pre-installed in the X-axis aluminum profile with M5*8 bolts.		



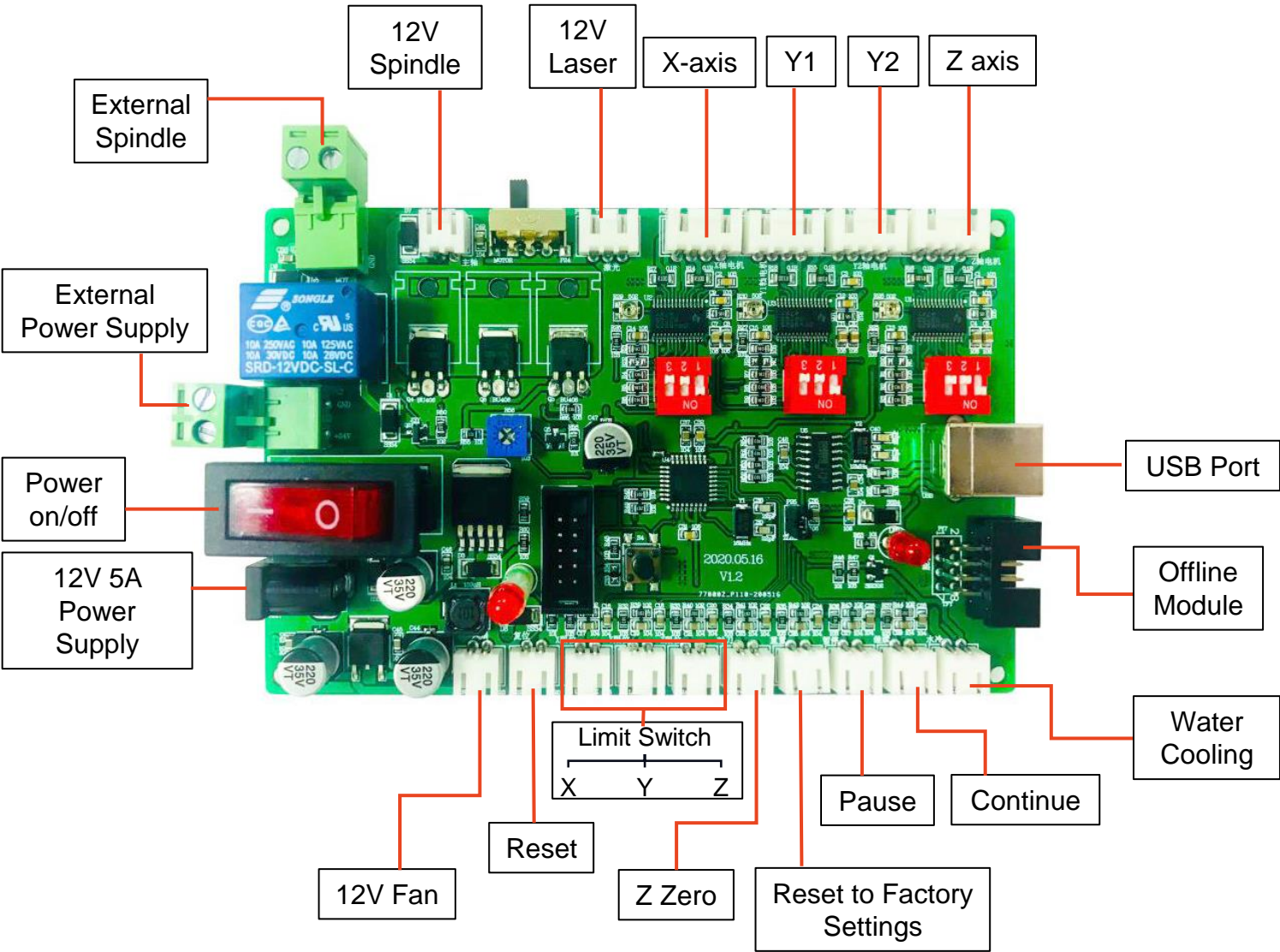
Part 5 Wiring

- X/ Y-axis & Laser Wiring

- Wires are pre-bundled into the drag chain.
- Please connect the wires according to the tags after the drag chain is fixed.

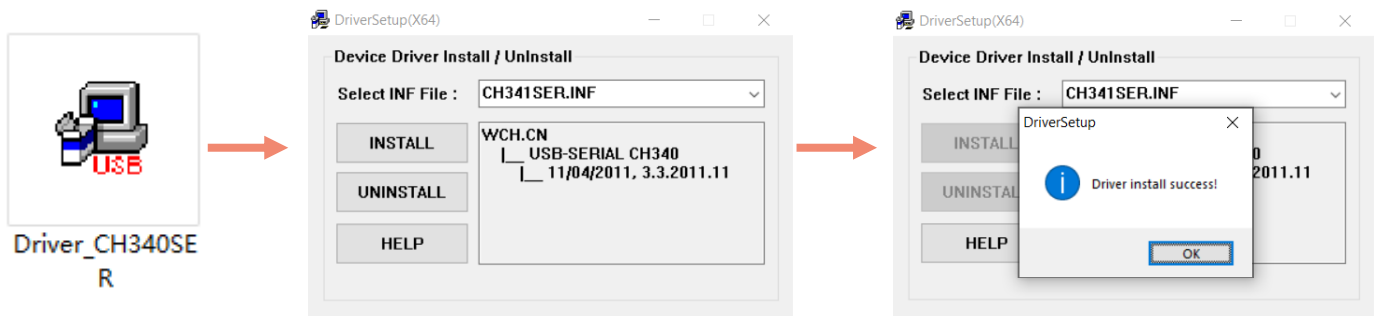


- Control Board Wiring



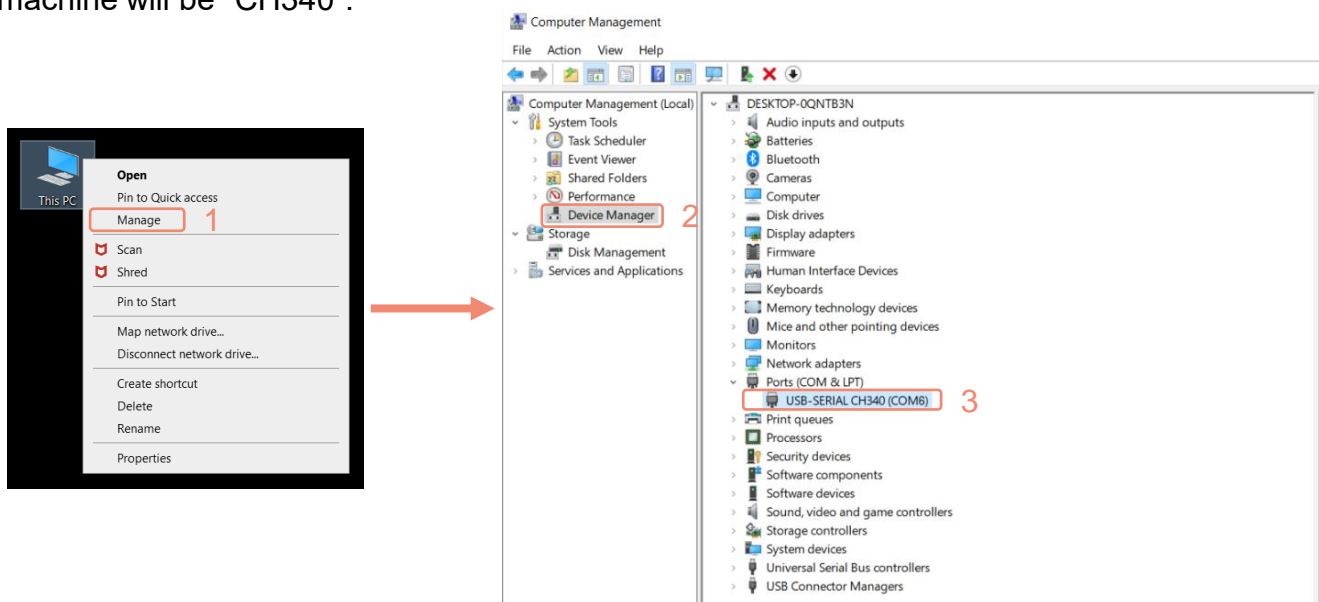
Part 6 Software & Debugging

1. Install the driver (Download from U disk):



2. To Determine your Machine's COM port:

- For Windows XP: Right click "My Computer"→ Select "Manage"→ Select "Device Manager".
For Windows 7: Right click "Computer"→ Select "Manage" → Select "Device Manager" from left pane.
- For Windows 10: Right click "This PC"→ Select "Manage" → Select "Device Manager" from left pane.
- In the tree, expand "Ports (COM & LPT)", your machine will be the USB Serial Port (COMX), where the "X" represents the COM number, for example COM6.
- If there are multiple USB serial ports, right click each one and check the manufacturer, the machine will be "CH340".



3. Download and install the software:

3.1 Click the link to download the free control software: <http://lasergrbl.com/>

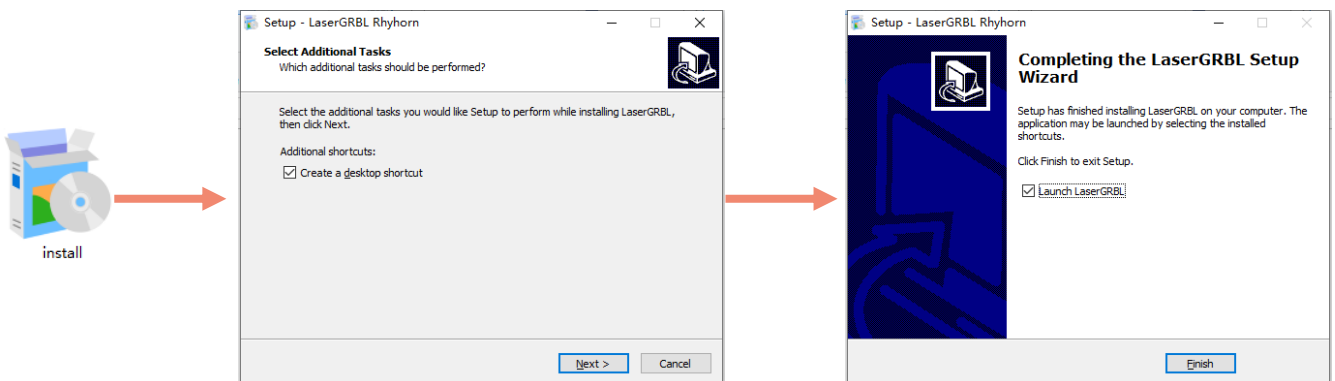


There was a problem with version 3.2.0. It has a bug with image size on centerline tool when the new "adaptive mode" for vectorization is activated.

But the biggest issue seems to be that the auto-update of this version no longer works, so **those with version 3.2.0 would do well to manually update to the latest version 3.3.0 which solves both problems.**

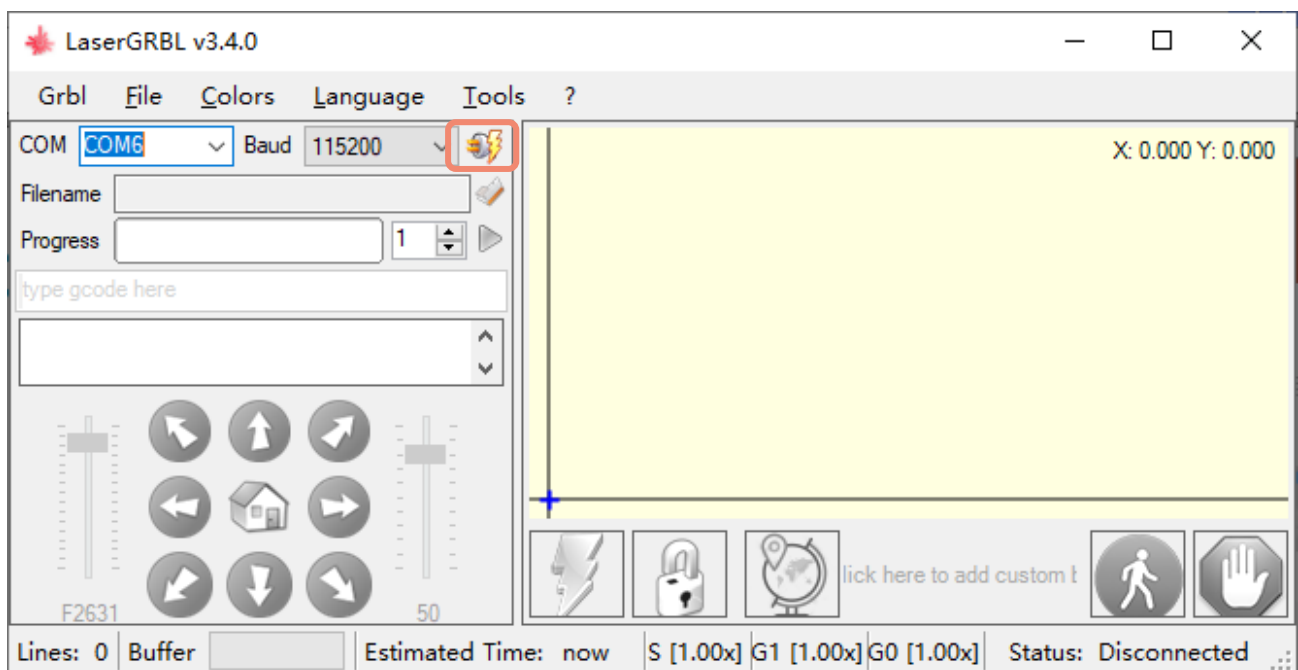


3.2 Double click to install.

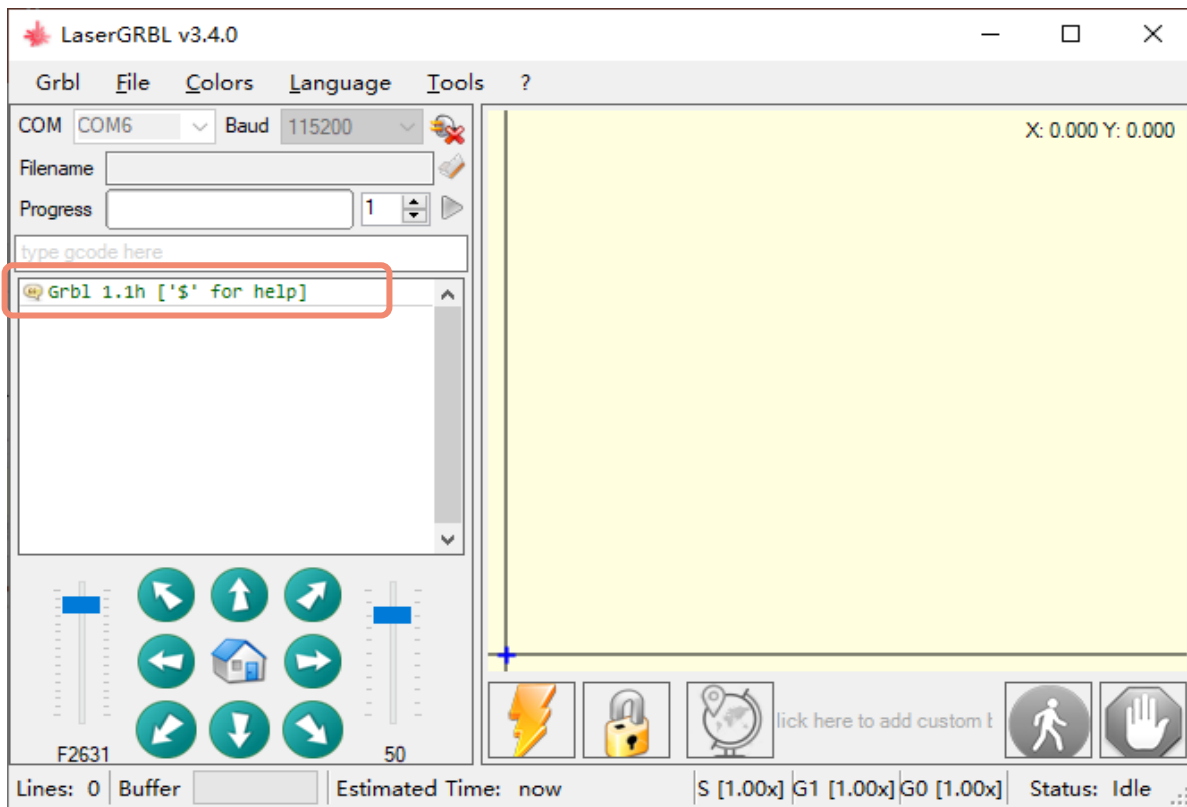


4. Debugging:

4.1 Connect the control board to the PC via USB, select the COM port recognized by the PC.
Click the "connect" icon.



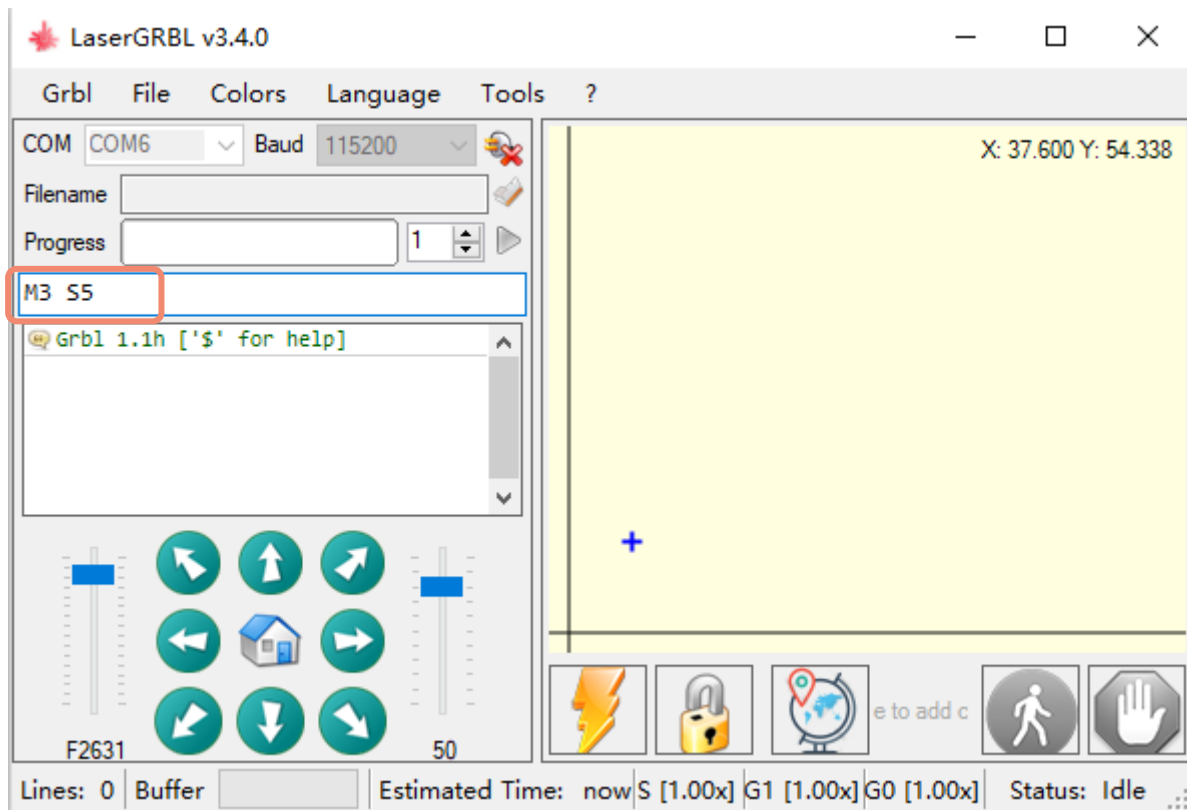
4.2 If the connection is successful, console window prints “Grbl 1.1h ['\$' for help]”.



4.3 Place wood or other materials under the laser head. Enter “M3 S5” in the command window, and then press Enter. The laser will be turned on with low power.

M3: Laser ON

S5: Laser output power 5, the minimum and maximum value is 0 ~ 1000

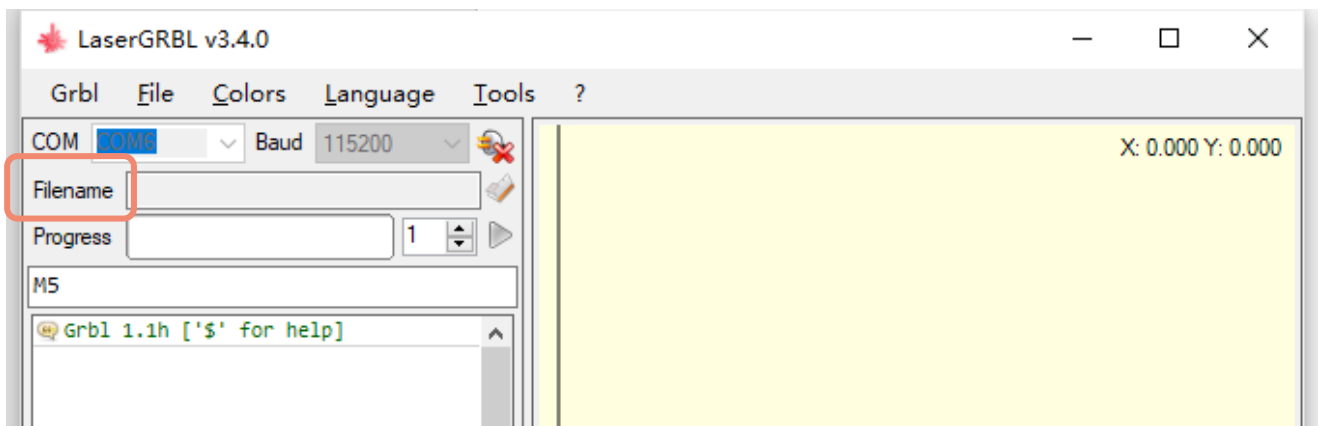


4.4 Rotate the lens to focus until the spot is focused to the minimum.

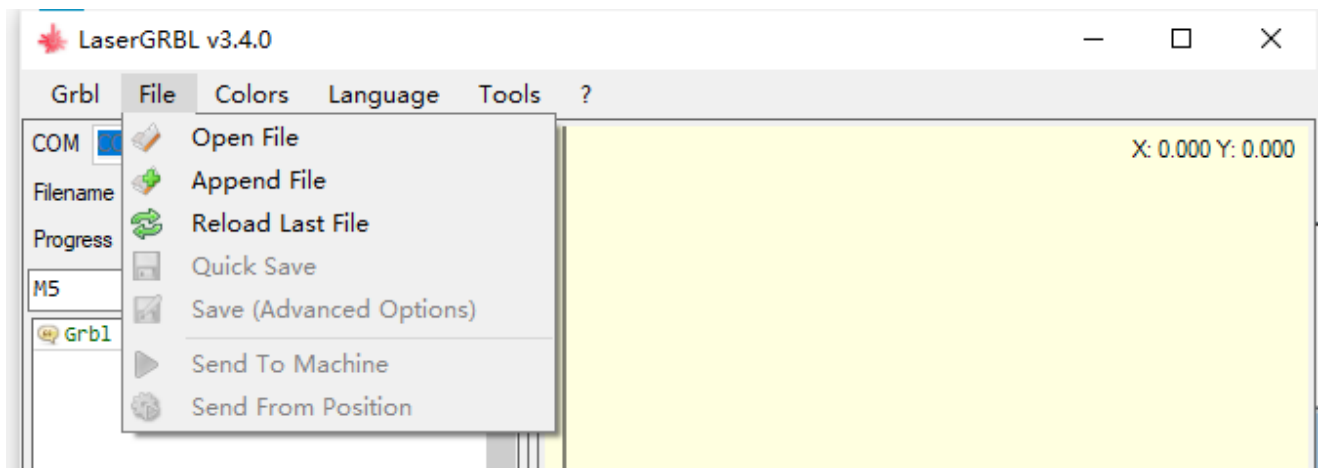


4.5 Enter "M5" in the command window to turn off the laser.

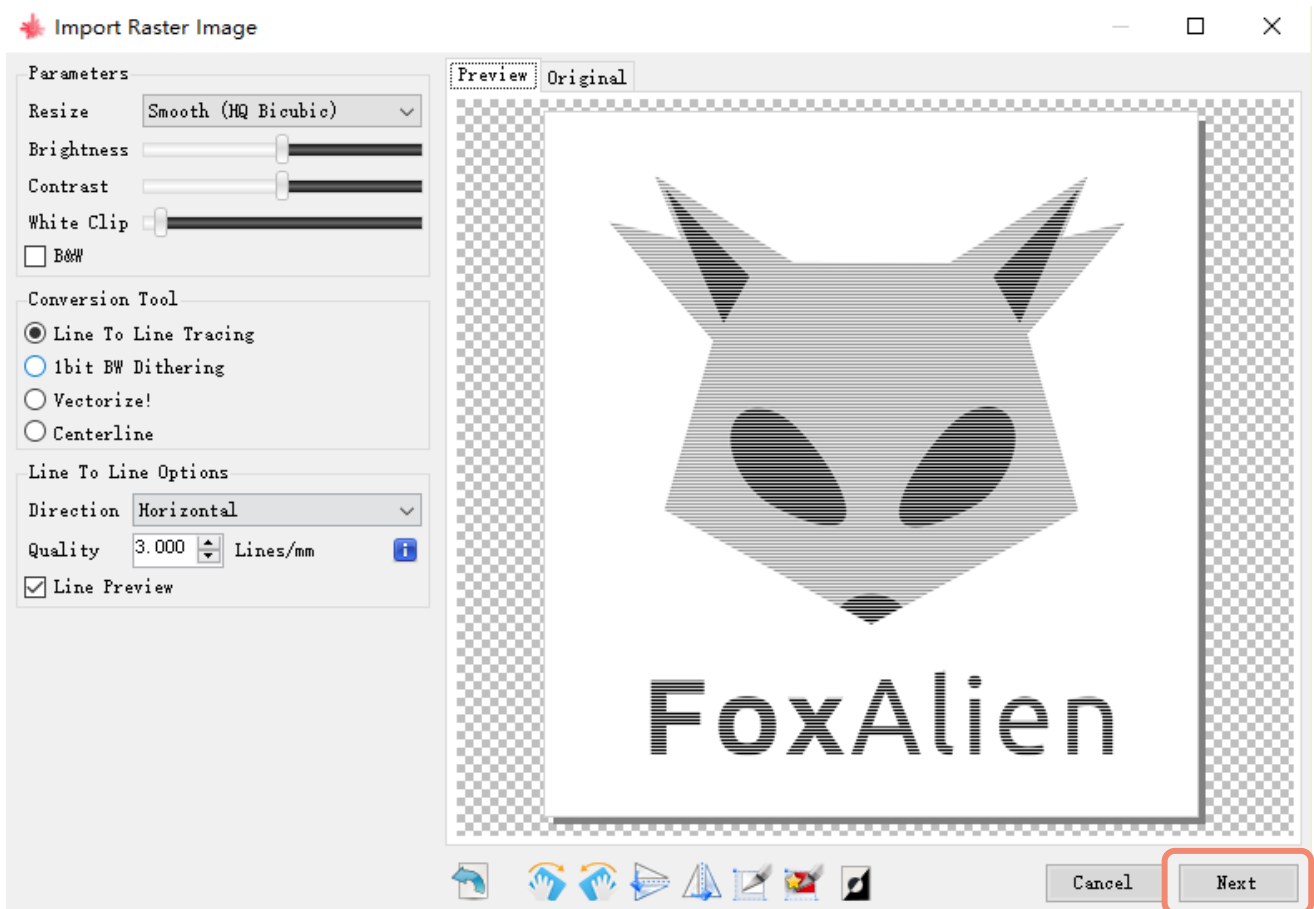
M5: Laser OFF



4.6 File → Open File: Open GCODE file or Image format file.

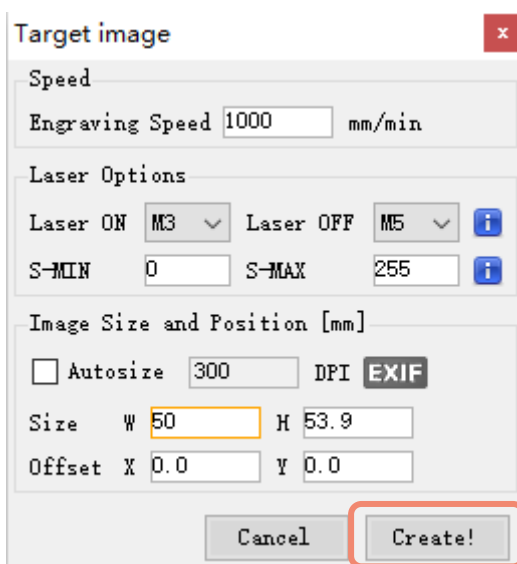


4.7 Setting parameters, click Next



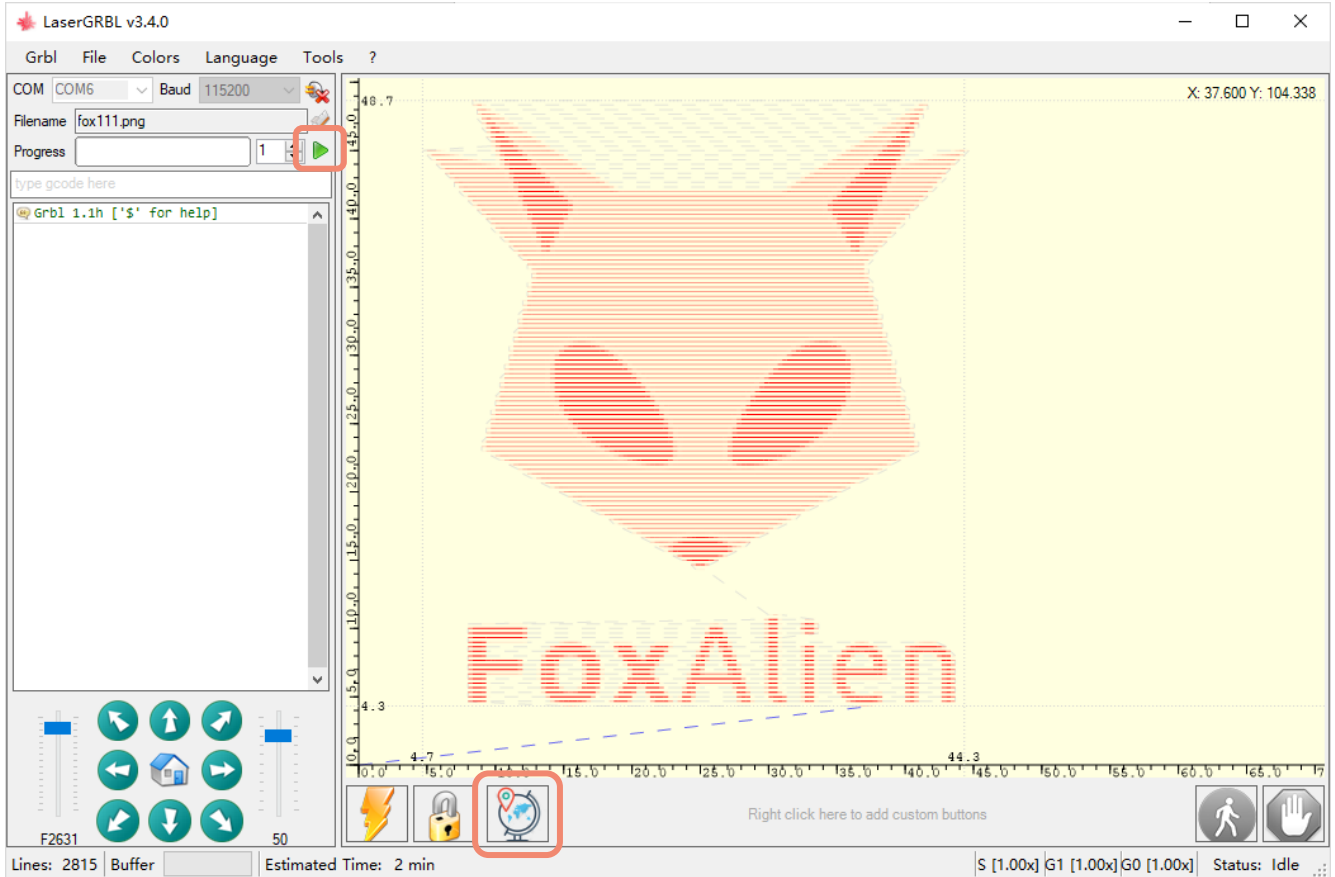
4.8 Set the Speed and S values.

!! Note: Different materials require different engraving speed and S value. You may need to try several times to find appropriate value.

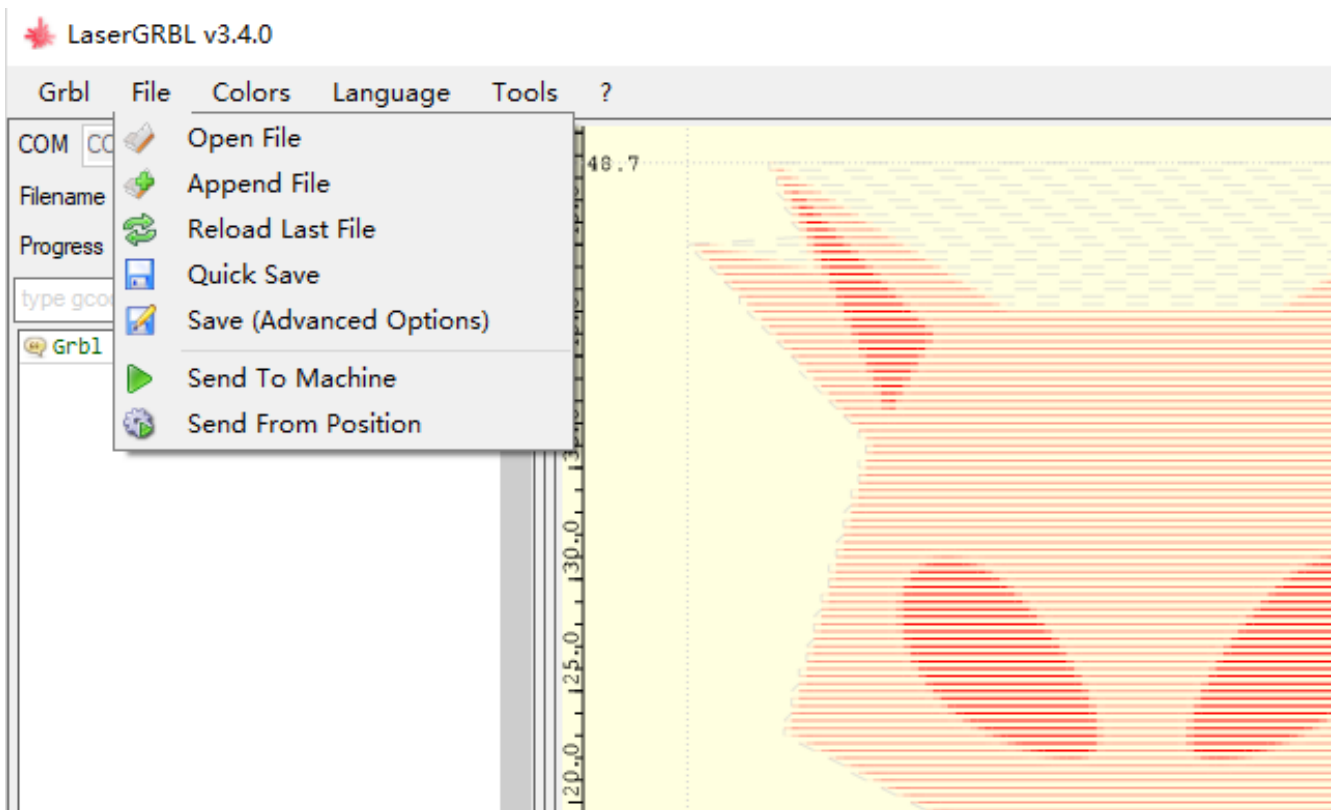


4.9 Set the zero point and click the button “Run Program” to start engraving.

(Machine power-on position is defaulted as the zero point.)



5.0 File->Save Program: Click to save GCODE file.



Warranty Terms

- I. This Limited Warranty covers a period of 12 months from delivery to Recipient.
- II. This Limited Warranty covers any defects in material or workmanship under normal use during the Warranty Period.
- III. This warranty covers the repair or replacement of the broken parts at our discretion.

If there is any difficulty during using, feel free to contact us for tech support.

E-mail:

support@foxalien.com