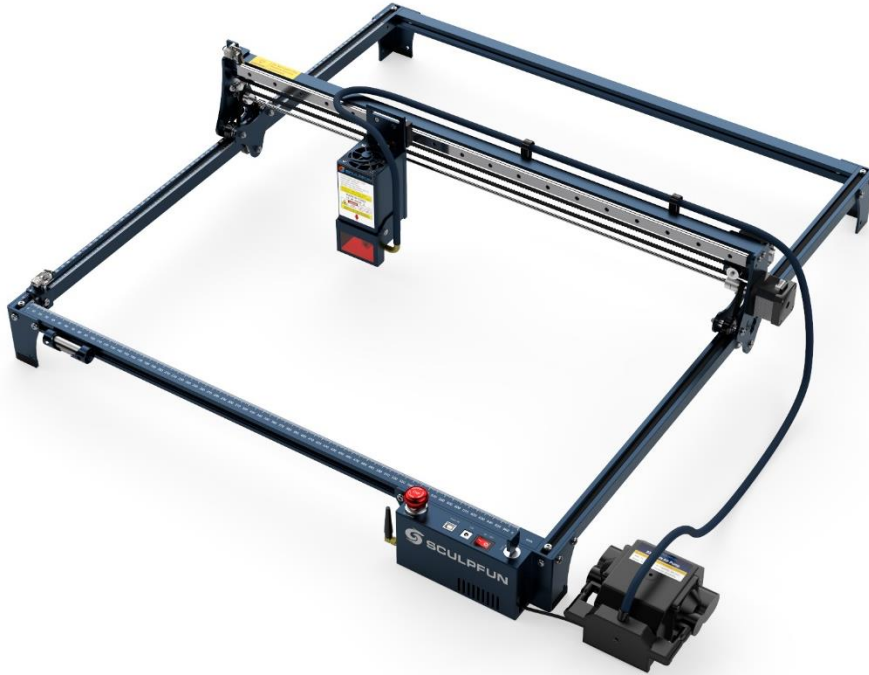


SCULPFUN S30 Ultra Series Laser Engraver Assembly Instructions

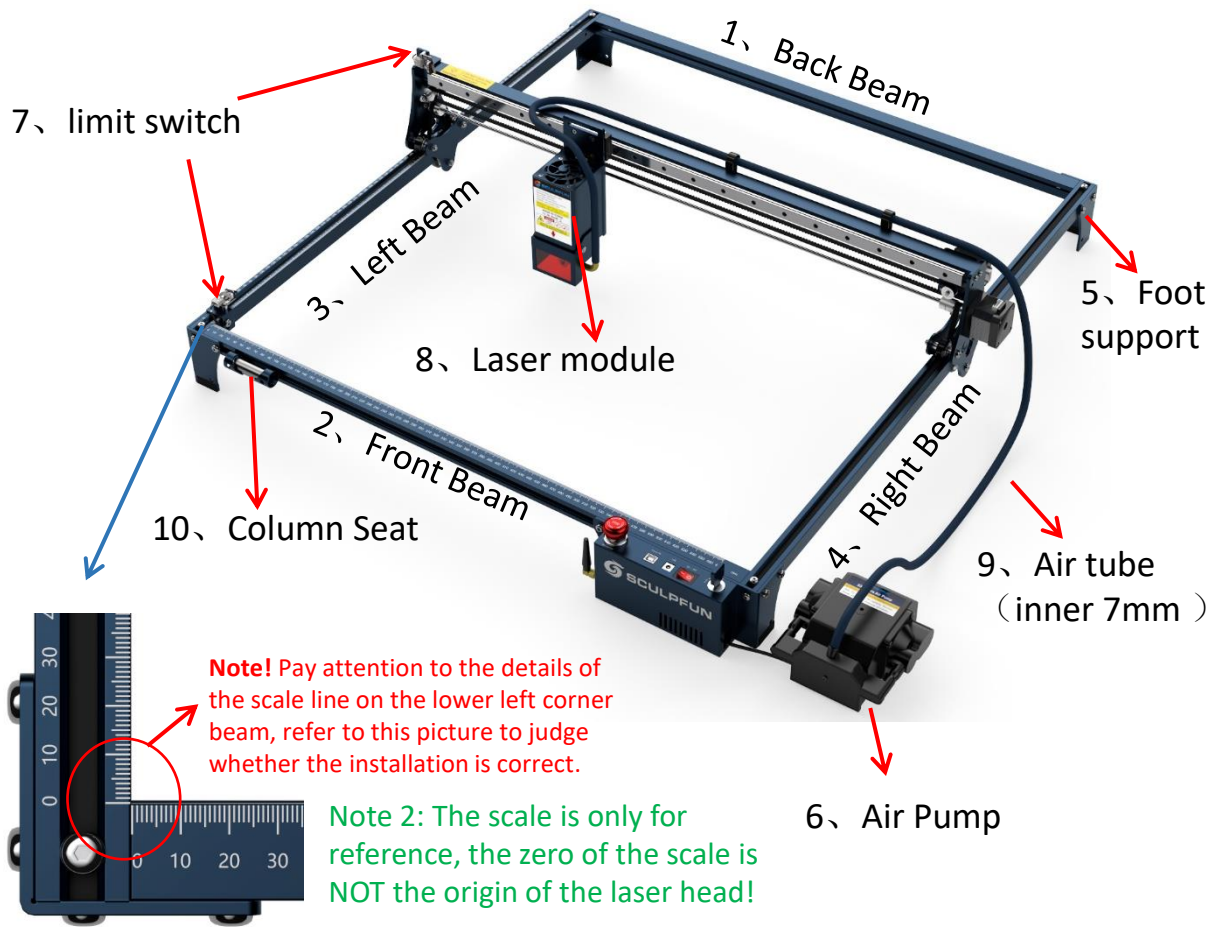


- English
- Deutsch
- Français
- Italiano
- español
- Polski



**MADE IN
CHINA**

Preview the main parts



Main Unit:

- 1、 Back Beam
- 2、 Front Beam
- 3、 Left Beam
- 4、 Right Beam
- 5、 Foot support
- 6、 Air Pump
- 7、 limit switch
- 8、 Laser module
- 9、 Air tube
- 10、 Column Seat

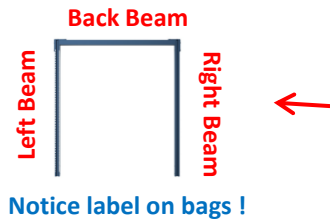
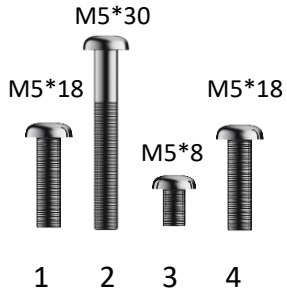
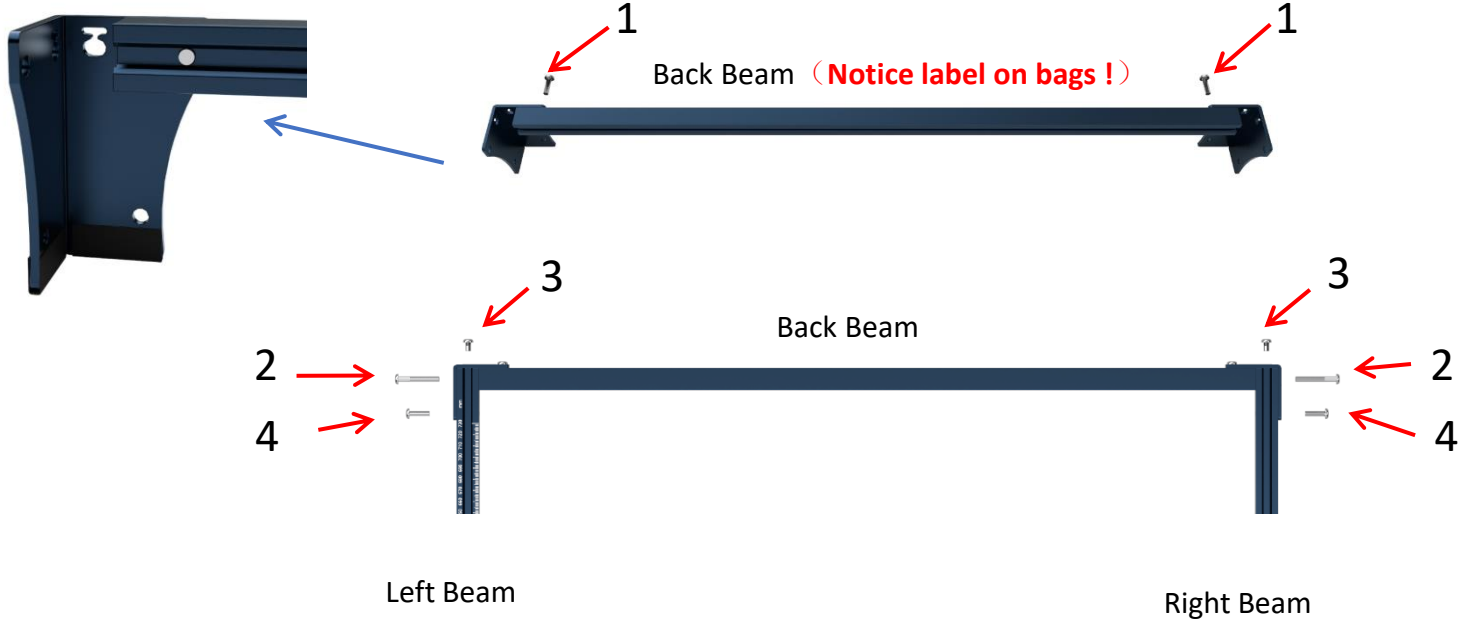
Note!

This picture is the total picture after the assembly is completed. In the subsequent steps, if you are unclear about the installation details, you can check it with this picture.

Note! Pay attention to the details of the scale line on the lower left corner beam, refer to this picture to judge whether the installation is correct.

Note 2: The scale is only for reference, the zero of the scale is NOT the origin of the laser head!

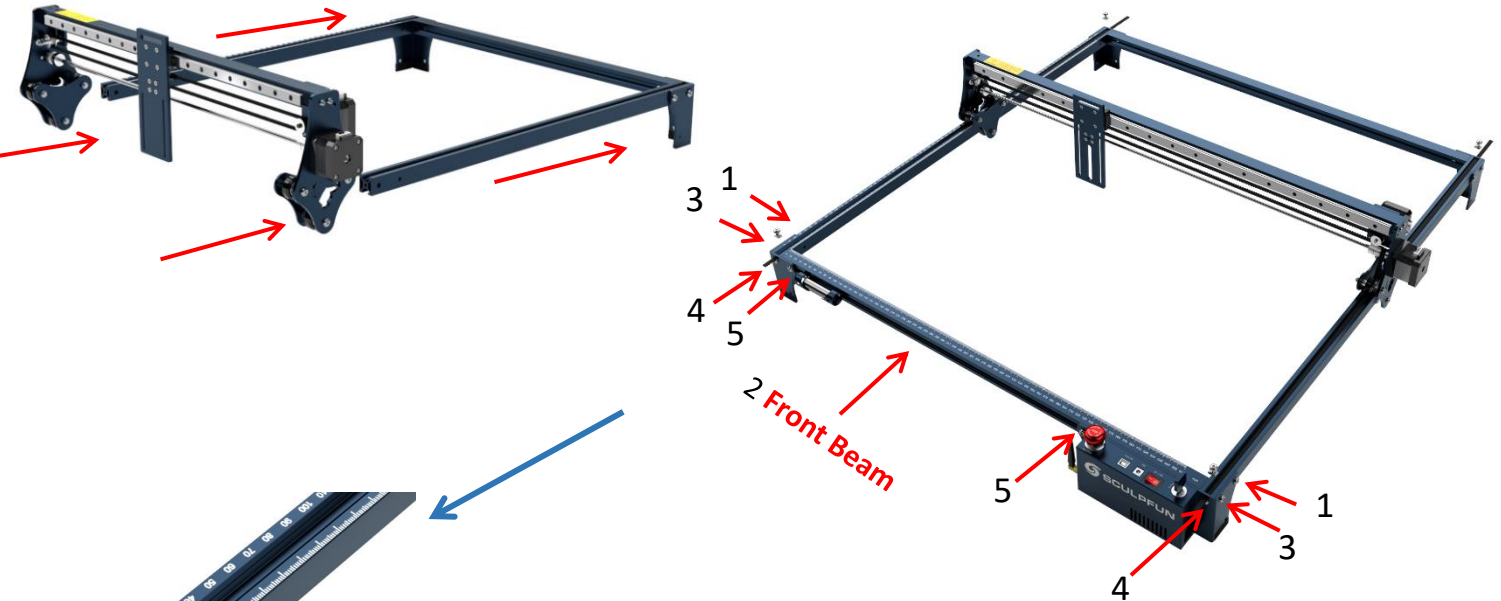
Step 1 Assemble the back, left and right beams



Note:

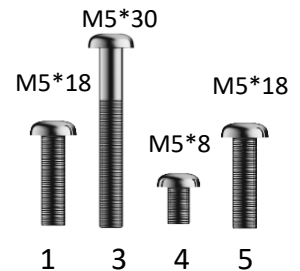
1. Find the required tool and screw model before starting assembly: T-shaped hexagon wrench, **Step1 Screw bag**, left/right/back frame beams, tripod*2.
2. **Notice label position!** There is label paper on the beam, and the label is placed in the position as shown on the left.
3. When assembling, ensure that the edges of the beam and the tripod are neatly parallel and tight.
4. The picture on the left is the frame after Step1 is assembled.

Step 2 Assemble X beam set and front beam

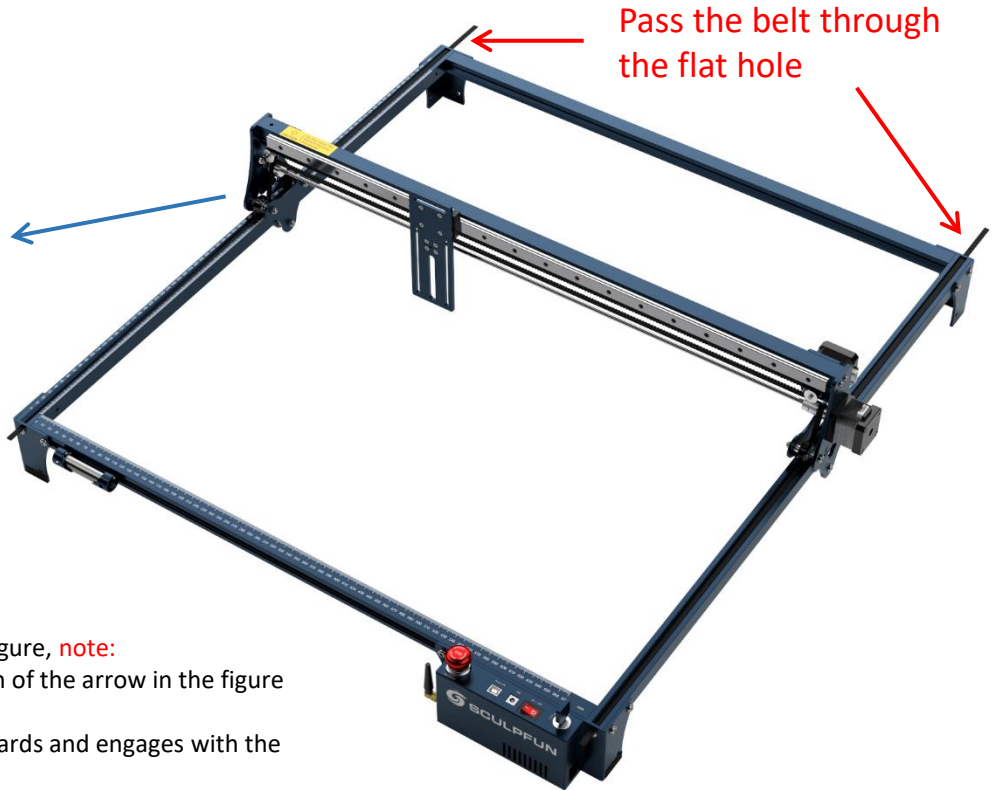


Assembly steps:

- 1、 Push the X beam assembly into the U-shaped frame, **paying attention to the direction of white logo** !
- 2、 Required components: tripod*1, motherboard tripod, front frame beam, Step3 screw pack, T-shaped hexagonal wrench.
- 3、 Assemble the tripod, main board tripod, and front frame beam according to the right figure, install them in the order of step 12345, and tighten the screws 1/3/4/5 in the order.



Step 3 Install the belt



Installation steps:

Install the belt to the position shown in the figure, **note**:

1. The belt should be installed in the direction of the arrow in the figure above.
2. The tooth pattern of the belt faces downwards and engages with the gears.
3. Please pass the belt through the flat hole, **there should be an extra part of the belt at one end** for easy pulling and tightening of the belt.

We suggest you don't cut off the extra belt after Step 4, this is good for the future maintenance.

Step 4 Install T nut



Do not screw through the nut



1

Put the T nut into the groove, the long side is parallel to the groove, Strongly press the T nut while rotating the wrench clockwise to make the long side of the T nut perpendicular to the groove.

Tighten the screws and keep the long side of the T-nut perpendicular to the groove.

Installation steps:

1. First install the T-nut on one side as shown in the figure.
2. Install the other end of the T-nut on the other side, and note that the long side of the T-nut is perpendicular to the groove after installation. After the installation is complete, the belt is in a tight state. For extra belts, if you are not familiar with the use of belts, we suggest that you do not cut off the extra belts.

If you finally tilt the laser frame by 45 degrees, the gantry should run down slowly but steady.



2

Put the T nut into the groove, the long side is parallel to the groove, Strongly press the T nut while rotating the wrench clockwise to make the long side of the T nut perpendicular to the groove.



Do not tighten the T nut, pull the belt with your hand to make the belt tight.

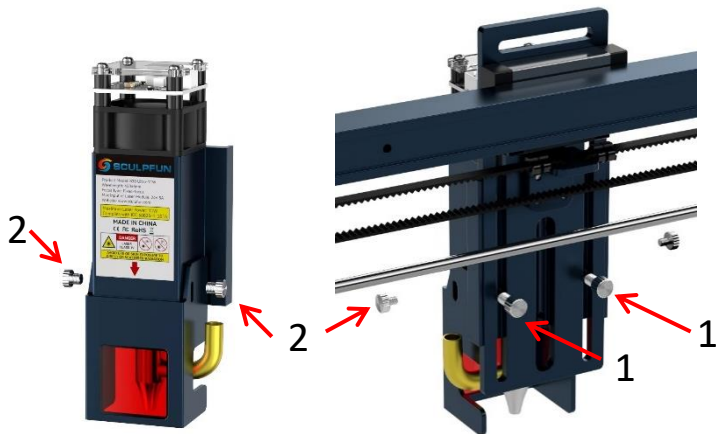


pull tightly

With the belt tightened, tighten the screws to keep the long side of the T-nut perpendicular to the groove.

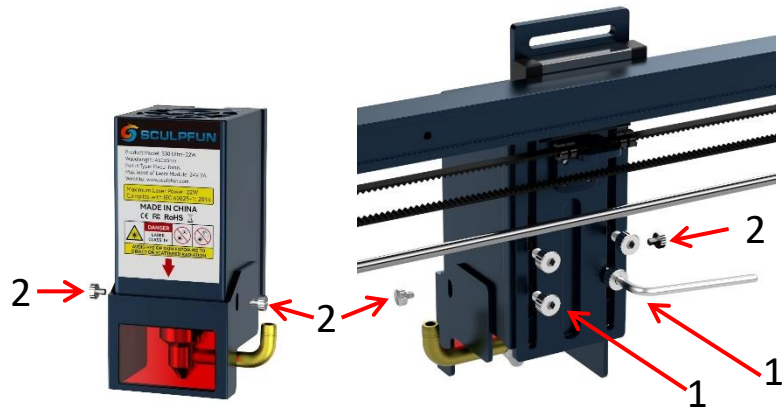
Step 5 Install laser module and Laser shield

S30 Ultra-11W



The laser is light, and it can be tightened by hand to ensure that it will not loosen

S30 Ultra-22W/S30 Ultra-33W



The laser is heavy, please use a hex wrench to fix it to prevent loosening



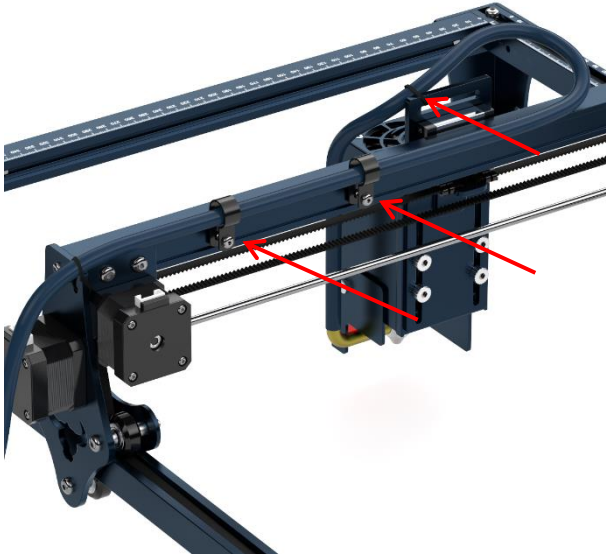
1 . M4 hand screw



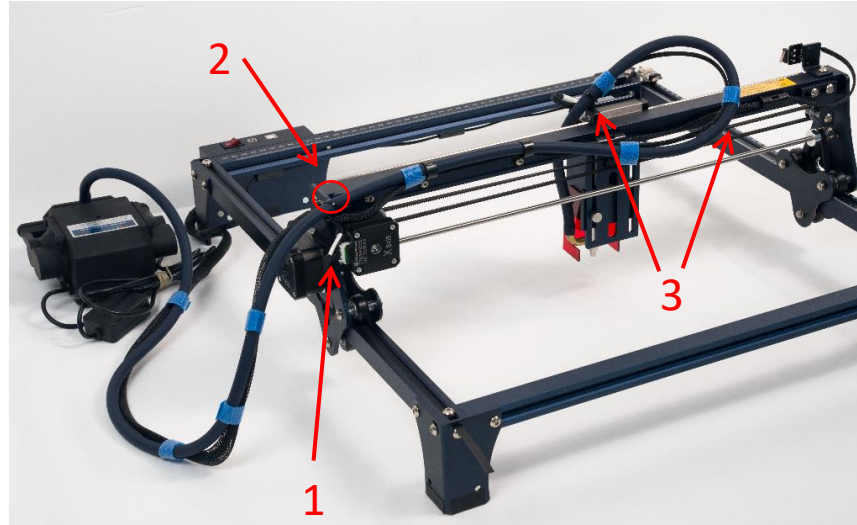
2. M3 hand screw

Install laser module and Laser shield by hand screws

Step 6 Install air pipes and cables



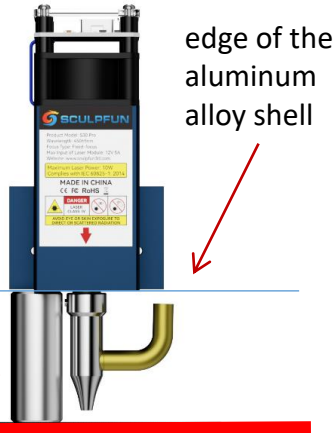
Install the blue air tube on the machine, fix it on the X beam with screws and brackets, the air tube is finally inserted on the nozzle, after installation you need to slide the laser to confirm that the air tube is in a loose state.



1. Connect the motor and cable, **note: the X and Y motor are marked on the terminals. Install the laser cable.**
2. Fix the cable on the machine hole with black cable tie. Keep cables slack.
3. Fix the air tube and cable with sticky strips to ensure that they are tied together. Slide the lasers to confirm that they are in a relaxed state.

Important Using Tips

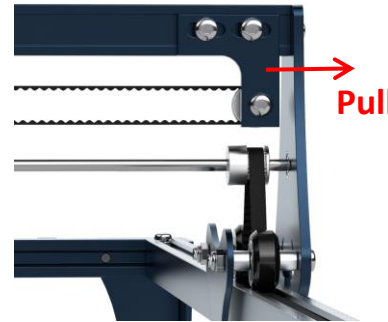
Measuring aluminum column: S30 Ultra-11W is 50mm, S30 Ultra-22W /S30 Ultra-33W is 40mm



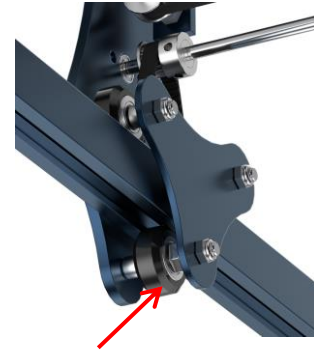
the surface of the engraved object

Focusing principle:

- 1、 The focal length of the SCULPFUN laser module is fixed and cannot be changed .
- 2、 The specific position of the laser focus is 50mm/40mm directly below the edge of the aluminum alloy shell of the laser module.
- 3、 We provide a **measuring aluminum column** to help find the laser focus.
- 4、 When the laser is focused on the surface of the engraved object, it will exert its maximum engraving effect.



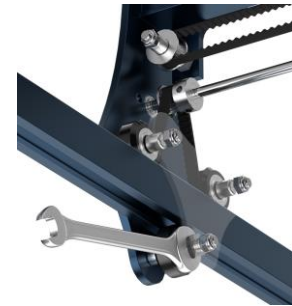
X-axis controller



Eccentric nut

How to adjust the tension of X and Y belts

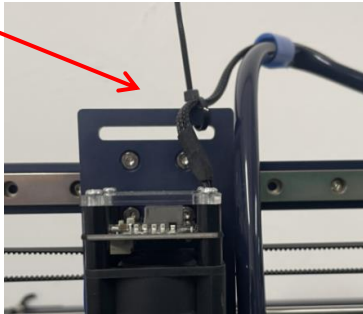
1. For the X-axis, just loosen the screw, tighten it to one side, and then fix the screw.
2. For the Y-axis, you need to adjust the hexagonal eccentric nut next to the bottom roller, which can control the tightness of the Y-axis. In addition, the tightness of the Y-axis belt also affects the Y-axis. You can lift the machine at an angle of 45° . If the beam slides smoothly, it means that the Y-axis is proper.



Adjust with wrench

Laser head/Limit Switch Installation Guide

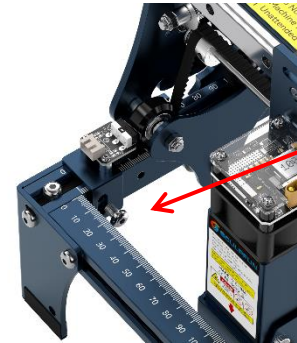
Important Note:
Laser Cables must be tied to the frame



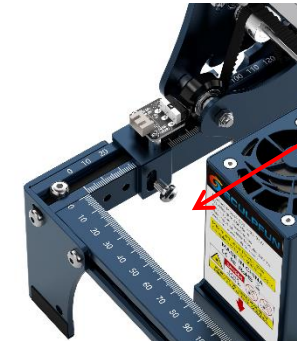
Use clips to fix limit switch cables on machine



X Limit Switch



S30 Ultra-11W
Y limit installed
in the first hole



S30 Ultra-22W
S30 Ultra-33W
Y limit installed
in the third hole

Y Limit Switch



IMPORTANT: There is a detailed video tutorial on how to use the automatic air assist and limit switches on the official "SCULPFUN" YOUTUBE, for the first time using machine, it is strongly recommended that you watch the video to save time.

<https://www.youtube.com/c/SCULPFUNReal/videos>

Column Seat/Air Pump/Sealing strip/Non-slip mat Installation Guide



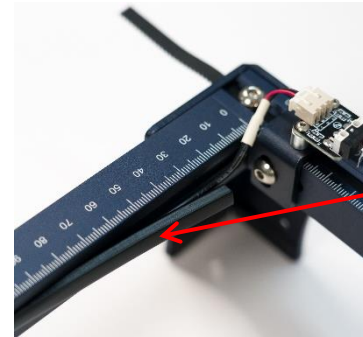
Column Seat installation



Place the air pump where it won't suck in dirt particles. Do not put it into the enclosure and not close to the laser.



Air Pump connect



**sealing strip:
Storage
X limit wire
Located in
the front beam**



**Non-slip mat:
Installed on
foot support**



IMPORTANT: There is a detailed video tutorial on how to use the automatic air assist and limit switches on the official "SCULPFUN" YOUTUBE, for the first time using machine, it is strongly recommended that you watch the video to save time.

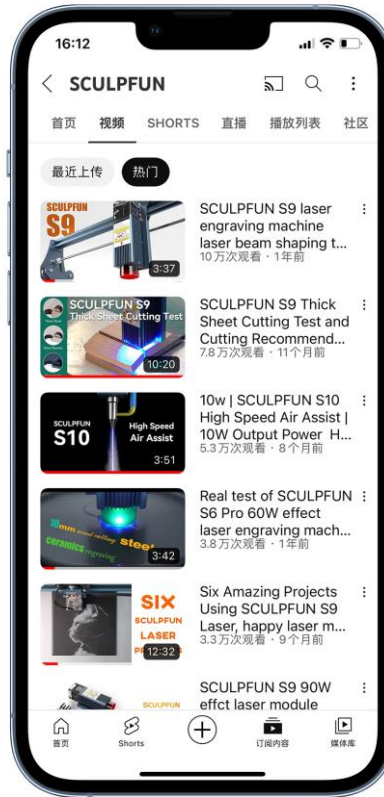
<https://www.youtube.com/c/SCULPFUNReal/videos>

How to Become a SCULPFUN Laser Expert



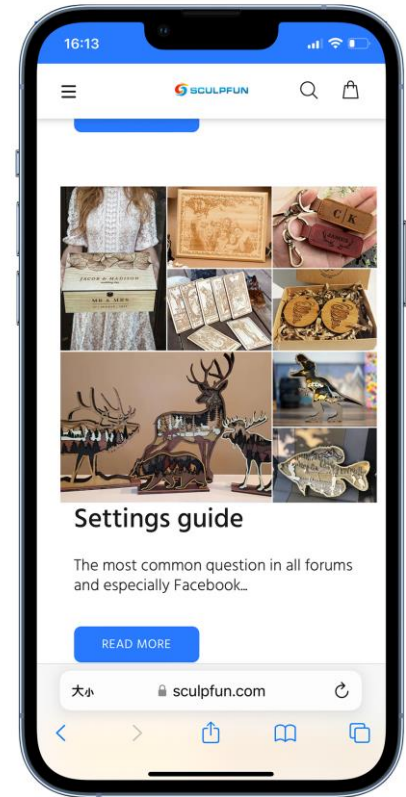
Stay with Experts and Learn

➤ Official Facebook Group:
<https://www.facebook.com/groups/sculpfunusers>



Watching and Doing

➤ Official YouTube:
<https://www.youtube.com/c/SCULPFUNReal/videos>



Free engraving files or experience tutorial sharing

➤ Official Website:
www.sculpfun.com



Sculp your fun !

Engraving software:

Use **LightBurn** for better cutting:

<https://lightburnsoftware.com/>

Learn more in User manual or YouTube.

**Manufacturer: Shenzhen Sculpfun
Technology Co., Ltd.**

**Address: Room 201, Building B, Jinzhicai Factory, No. 1,
Guihua Industrial Zone, Guanlan Street, Longhua District,
Shenzhen City, Guangdong China**

Scanner APP:

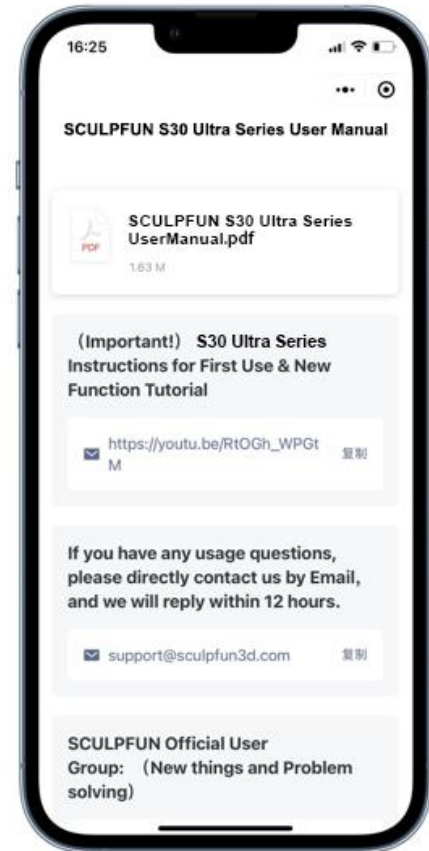
QR Code Reader
/Barcode Scanner
or any APP with scanner



Note: please scan the QR code to download the **User Manual**.

Including:

1. Installation video
2. First Use Tutorial
3. Laser repair tutorial,
including lens replacement



- For Laser Engraver technical support and service, please email: support@sculpfun3d.com
- Collaboration or test machine: please email: neil@sculpfun3d.com