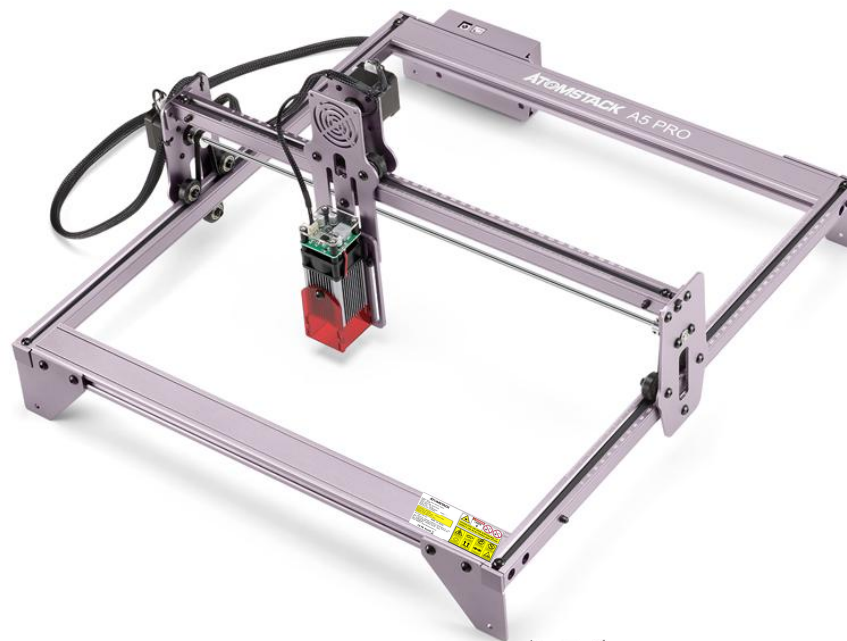


# ATOMSTACK A5 Pro Laser Engraver Installation Manual



- English
- Deutsche
- Français
- Italiano
- Español
- Polskie

CE FC RoHS FDA   **MADE IN CHINA**



# Part 1 : Security statement and warning

**Before Using the laser engraving, please read this safety guide carefully, it mentions situations that require special attention and includes warnings of unsafe practices that can cause damage to your property or even endanger your personal safety.**

1. This product is a laser engraver system components, must be installed in other manufacturers of laser engraver for use. And the product belongs to Class 4 laser products, the laser system itself must meet the requirements of IEC 60825-1 latest version, otherwise the product is prohibited to be used.
  2. Your laser engraver shall have a protective housing which, when in place, prevents human access to laser radiation.
  3. If a protective housing is equipped with an access panel which provides "walk-in" access then:
    - a) means shall be provided so that any person inside the protective housing can prevent activation of a laser hazard that is equivalent to Class 3B or Class 4;
    - b) a warning device shall be situated so as to provide adequate warning of emission of laser radiation equivalent to Class 3R in the wavelength range below 400 nm and above 700 nm, or of laser radiation equivalent to Class 3B or Class 4 to any person who might be within the protective housing;
    - c) where "walk-in" access during operation is intended or reasonably foreseeable, emission of laser radiation that is equivalent to Class 3B or Class 4 while someone is present inside the protective housing of a Class 1, Class 2, or Class 3R product shall be prevented by engineering means.
- NOTE Methods to prevent human access to radiation when persons are inside the protective housing can include pressure sensitive floor mats, infrared detectors, etc.
4. The laser itself has a protective cover, the protective cover is fastened by screws. When the laser is installed on the laser engraver, the protective cover should be checked to be reliably locked, and can not be removed in the energized state;
  5. The housing of the laser engraver should have an interlock function. When the housing is opened or removed, the laser can be automatically turned off.
  6. The laser engraver should have an emergency stop button, which can immediately stop the output of the laser when pressed under unexpected circumstances;
  7. The laser engraver should have a reset button, which can resume work under the condition of confirming safety after lifting the interlock or emergency stop;
  8. Laser engraver should use physical keys, dongle, password system and other ways to manage and control, to prevent personnel without security training operation of this kind of equipment;
  9. On the laser engraver any window or channel that can actively observe or passively receive the laser radiation should be set up warning marks;
  10. If the laser burns the skin or eyes, please go to a nearby hospital for examination and treatment immediately

## Part 2: Disclaimer and warning

This product is not a toy and is not suitable for people under 15 years of age. Do not allow children to touch the laser Module. Please be careful when operating in scenes with children.

This product is a laser module, visit <http://www.atomstack3d.com/laserengraverdownload> for complete "user manual" and the latest instructions and warnings. Shenzhen AtomStack Technologies Co., Ltd. (Atomstack) reserves the right to update this Disclaimer and Safe Operation Guidelines.

Please be sure to read this document carefully before using the product to understand your legal rights, responsibilities and safety instructions; Otherwise, it may bring property loss, safety accident and hidden danger of personal safety. Once you use this product, you shall be deemed to have understood, accepted and accepted all terms and contents of this document. User undertakes to be responsible for his or her actions and all consequences arising therefrom. User agrees to use the Product only for legitimate purposes and agrees to the entire terms and contents of this document and any relevant policies or guidelines that AtomStack may establish.

You understand and agree that AtomStack may not be able to provide you with the cause of the damage or accident and provide you with AtomStack's after-sale service unless you provide the original engraving or cutting files, engraving software configuration parameters used, operating system information, video of the engraving or cutting process, and operational steps prior to the occurrence of a problem or failure.

AtomStack is not liable for any and all losses arising from the user's failure to use the product in accordance with this manual.

Atomstack has the ultimate right to interpret the document, subject to legal compliance. Atomstack reserves the right to update, modify, or terminate the Terms without prior notice.

## Part 3: Installation Steps

Step1. Install the contour of the engraving machine

Step2. Install X axis assembly, control box and support frame

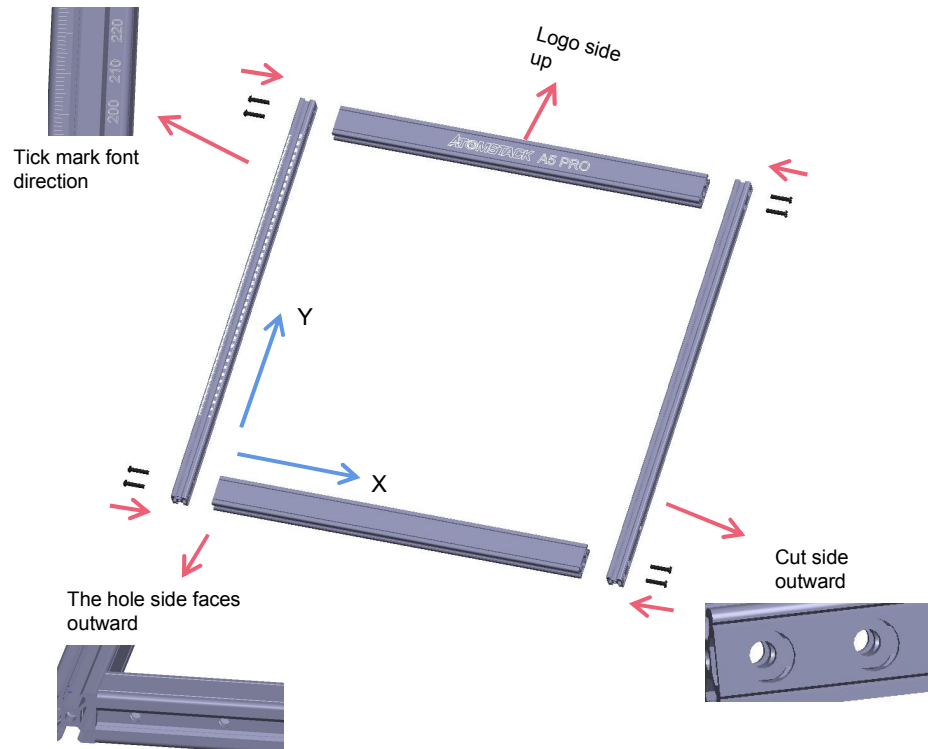
Step3. Install belt and aluminum profile end cap

Step4. Install laser and laser protective cover

Step5. Install the Y-axis limit column and adjust the X and Y-axis eccentric screws

Step6. Install the cable and fix the cable

# Step 1



## Step1 Required components:



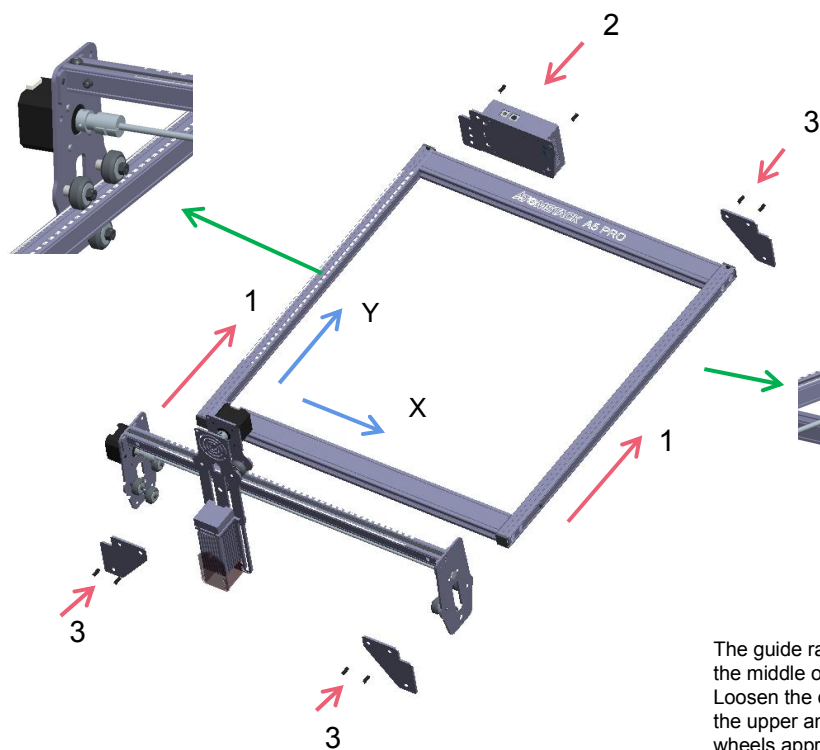
### Installation Manual:

1. Find the four large profiles in the picture above, place the four profiles as shown, and pay attention to the direction of the profiles.
2. Tighten the M5 screw in the shaft, and judge whether you have installed it correctly through the enlarged view details.

### Nota:

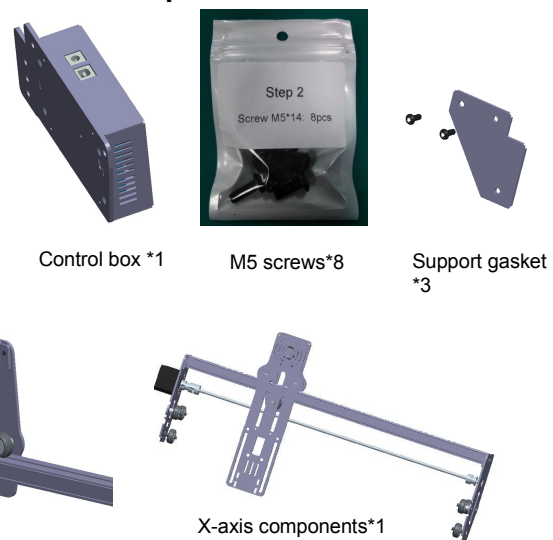
- a. Place the screws, but do not tighten them.
- b. Then tighten the screws diagonally.
- c. Tools required, M5 Allen key+M5 screws.

# Step2



The guide rail passes through the middle of the 3 rollers. Loosen the distance between the upper and lower guide wheels appropriately.

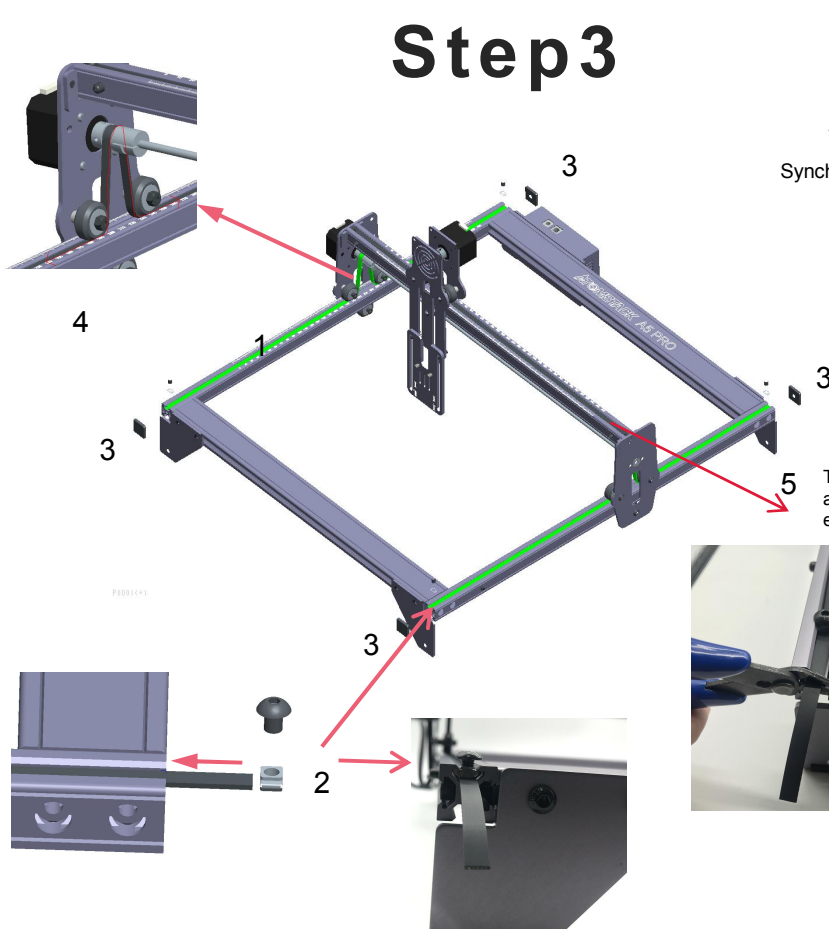
## Step2 Required components:



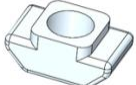



### Installation Manual:

1. Push the X-axis component into the base frame in the direction shown in the figure. Adjust the eccentric nut appropriately.
2. Install the control box as shown.
3. Use an M5 Allen key to install 3 Support gasket.

# Step3

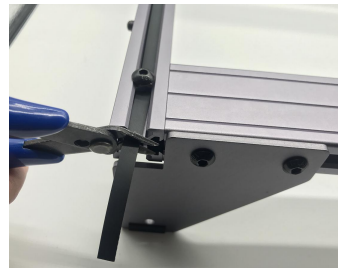


-   
Synchronous belt \*2
-   
Profile end cover \*4
-   
Type T Nut \*4
-   
Type T Nut Lock screws\*4

## Step3 Required components:



5 Tighten the T nut and cut off the excess belt.



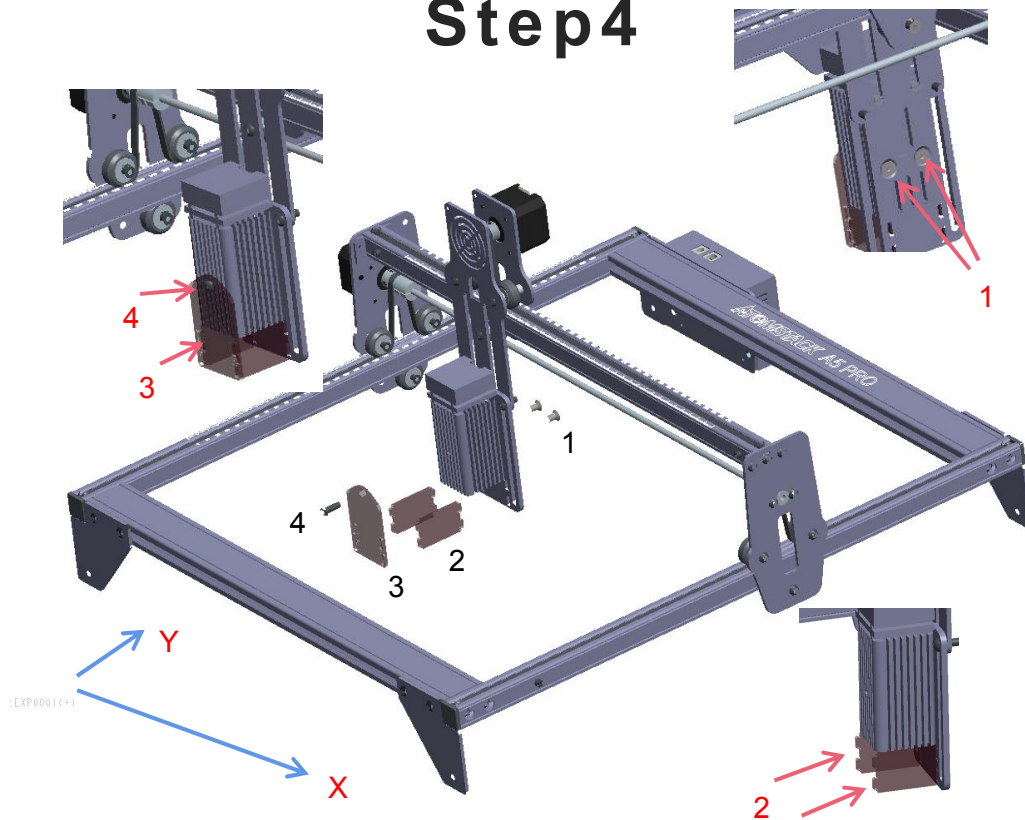
### Installation Manual:

1. Install two synchronous belts as shown in the figure. First tighten one end with a T-nut, then pass the other end through the roller on the X-axis assembly as shown in the figure, and finally tighten the other end and fix it with a T-nut.
2. T-nut fixing method (Push the T-nut from the groove on the end of the profile, and then use the screw to tighten the T-nut), the T-nut is as close to the end of the profile as possible, and cut off the excess belt.
3. Cover the profile end cover (the side of the end cap with protrusions is facing down)

### TIPS:

The installation of the Y-axis synchronous belt can refer to the installed synchronous belt on the X-axis assembly. Determine whether the timing belt is tight enough: press the position shown in Figure 4 with your fingers, and if there is no obvious deformation, it is tight enough. If the deformation is large, loosen one end of the T-nut and tighten the timing belt, and then tighten the T-nut.

# Step4



## Step4 Required components:

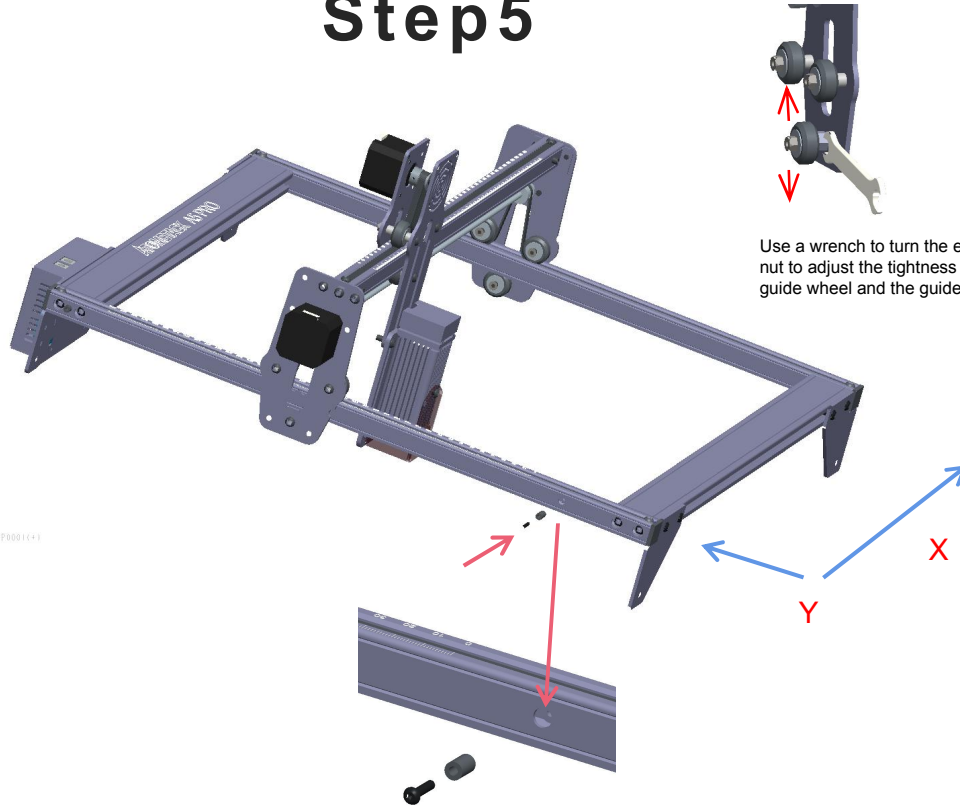


### Installation Manual:

1. Fix the laser head on the slider board with M5\*8 countersunk head screws. The screws must be tightened.
2. Insert the green protective covers on the left and right sides.
3. Insert the front green protective cover.
4. Fix the front protective cover with M5\*14 flat round head screws.



# Step5



Use a wrench to turn the eccentric nut to adjust the tightness of the guide wheel and the guide rail

## Step5 Required components:



M3\*14Screw\*2 Y-axis limit column \*2



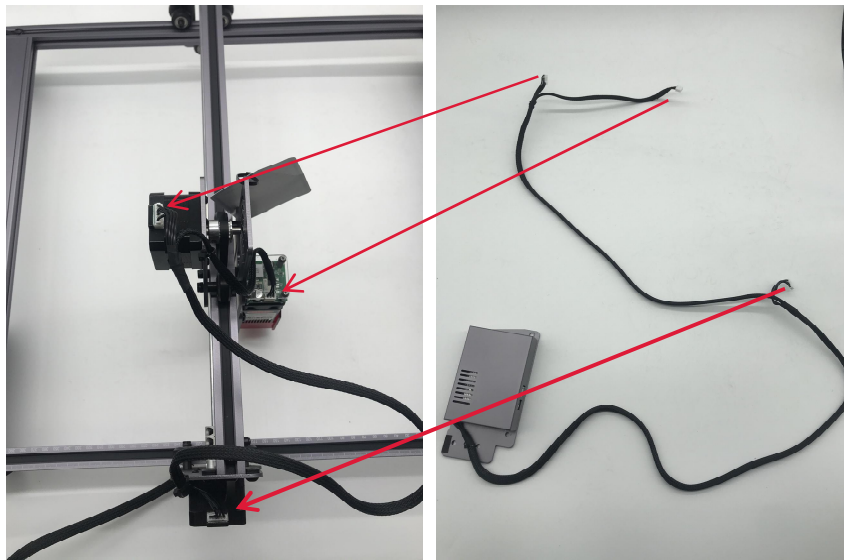
### Installation Manual:

1. As shown in the figure, fix the Y-axis limit column with M3\*14 screws on the left slide rail.
2. Adjust the eccentric nut to ensure that the X-axis and Y-axis move smoothly without shaking.

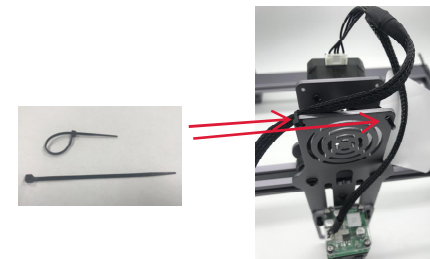
### TIPS :

How to determine the tightness of eccentric nuts?  
Under the condition of ensuring that the bracket does not shake, you can lift one end of the machine to an angle of 45 degrees with the horizontal plane, and release the X-axis or Y-axis bracket from a high place. If the bracket can slide at a constant speed to the end, the tightness is suitable.

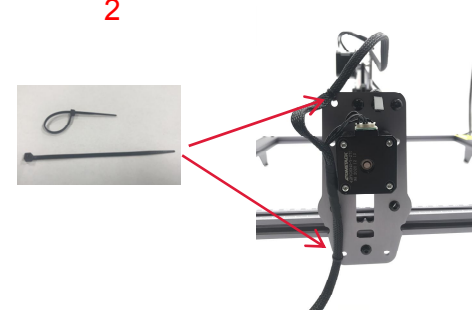
## Step6 Installation of terminal blocks and cable bundle



1



2



### Installation Manual:

1. Insert the three wire terminals as shown
2. As shown in the figure, tie the machine fixing hole and the cable bundle with a cable tie to prevent the wire terminal from loosening.

## **Part 4 : Cautions**

### **LASER BEAM CAN DAMAGE EYES**

Laser Light can damage the human eyes and skin. Do not expose the eye or skin to laser light directly. This Laser product has an optical lens and emits a collimated laser beam. The light from this product, both direct and reflected, is very harmful as it can propagate a long distance while maintaining high optical density. When handling the product, **wear appropriate safety glasses (OD5+)** to protect eyes from laser light including reflected and stray light. The reflected and stray light spilling into an unintended area should be attenuated and/or absorbed.

## Part 5: Maintenance instructions and warning

This product uses a highly integrated design and requires no maintenance. However, if the laser system installed with this product needs to be repaired or tuned, please:

1. Unplug the power cord on the laser, so that the laser is in a state of power failure;
2. If you need laser assistance for tuning, please:
  1. All present personnel wear protective glasses, **OD5+ protective glass is needed** ;
  2. Make sure there are no flammable or explosive materials around;
  3. The position and direction of the laser are fixed to ensure that the laser will not accidentally move and shine on people, animals, flammable, explosive and other dangerous and valuable objects during debugging.
  4. Don't look at lasers
  5. Do not shine the laser on the mirror object, lest the laser reflection cause accidental injury.



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View the multilingual instructions here:



Scanner APP:  
QR Code Reader  
/Barcode Scanner  
or any APP with  
scanner

### Customer Service:

➤ For detailed warranty policy, please visit our official website at:

[www.atomstack3d.com](http://www.atomstack3d.com)

➤ For Laser Engraver technical support and service, please email:

[support@atomstack3d.com](mailto:support@atomstack3d.com)

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