

TT-2.5/5.5





WARNING
警告

LASER FOCUS REDUCE HEAT AND GLARE WHICH CAN HARM HUMAN,ANIMALS AND OBJECTS.DO FOLLOW THE INSTRUCTION.MISUSE WILL BE AT YOUROWN RISK. 激光聚焦会减少热量和眩光，这些热量和眩光可能会对人，动物和物体造成伤害。请按照说明进行操作。滥用风险自负。



Avoid direct eye contact, may lead to blindness
避免直接目光接触，可能导致失明



Avoid exposure to body surface,it burns
避免暴露于身体，表面烧伤



Put base plate under the workpiece
将底板放在工件下方



Avoid combustible object or gas.
避免可燃物体或气体



Keep it away from incompetent people, such as children or pregnant women
远离儿童或孕妇



Do NOT take apart the laser without instructions
请勿擅自拆解激光器



Do NOT use it on material that reflects the light
请勿在反射光的材料上使用



Wear goggles while using
使用时戴上护目镜



Turn off the power when not use
不使用时请关闭电源

Warning: The laser engraving machine cannot directly act on any specularly reflective object.This can cause injury to the operator or burn the laser.

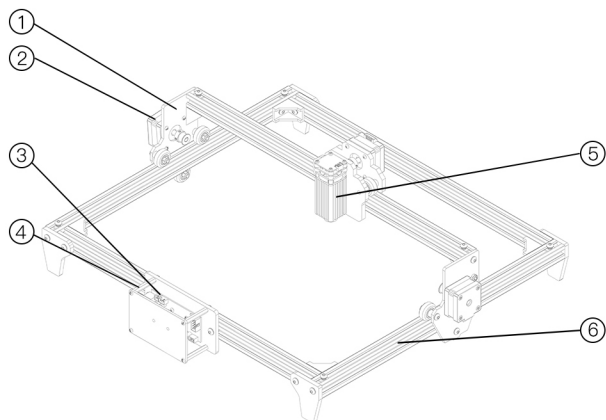
警告：激光雕刻机不能直接作用于镜面物体，这可能会对操作员造成伤害或激光灼伤。

- The product has a high engraving speed and is not recommended for industrial cutting. And the laser head is a consumable.
该产品雕刻速度快，不建议用于工业加工。而且激光头是消耗品。
- It is not recommended to look directly at the laser head when the machine is working.Also do not operate the laser head directly with your hands.Please wear goggles.To ensure personal safety, fireproof and away from the children’s environment.
在机器上工作时，不建议直接看激光头。请勿直接用手操作激光头。请戴上眼镜，以确保人身安全，防火并放在儿童接触不到的地方。
- The laser diode is a sensitive component, please take care to prevent static damage.(This product includes an electrostatic protection design, but there is a possibility of damage).
激光二极管是一个敏感组件，请注意避免静电损坏（该产品包括静电保护概念，但有损坏的可能）

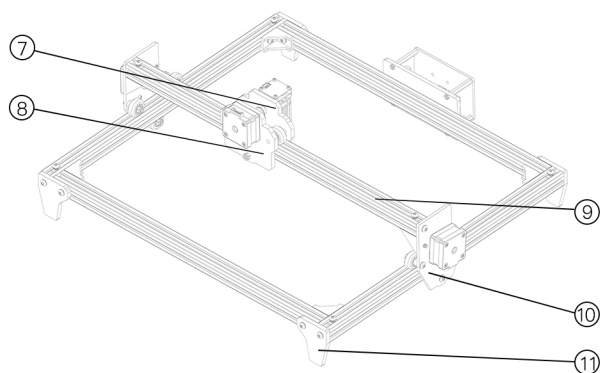
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GET TO KNOW YOUR LASER ENGRAVING MACHINE (了解你的激光雕刻机)



1. Right fixing plate of Y-axis motor/Y轴电机右固定板
2. 42 stepping motor/42步进电机
3. LKS mainboard/LKS主板
4. Nylon hexagon stud/尼龙六角螺柱
5. Laser output assembly/激光输出组件
6. Y-axis section bar(L450MM)/Y轴型材(L450MM)



7. X-axis laser head fixing plate/X轴激光固定板
8. X-axis motor fixing plate/X轴电机固定板
9. X-axis section bar(L494.8M)/X轴型材(L494.8M)
10. Left fixing plate of Y-axis motor/Y轴电机左固定板
11. Tripod (black)/脚架 (黑色)

MAIN PARAMETERS/机器参数

BASIC PARAMETERS/基本参数

Type: TT-2.5/5.5
(型号) (图腾)

Engraving accuracy: 0.1mm
(雕刻精度)

Machine size: 548*486*187mm
(机器尺寸)

Engraving speed : 8000mm/min
(雕刻速度)

Engraving range: 390*320mm
(雕刻范围)

Engraving method : USB connection
(雕刻方式) (USB联机)

Machine weight: 3.5Kg
(机器重量)

Supporting systems: MAC,Windows
(支持系统)

Laser power: 2500mW/5500mW (optional)
(激光功率) (可选)

Machine material: Aluminum Profile+Acrylic
(机器材质) (铝型材+亚克力)

Laser wavelength: 450nm±5nm
(激光波长)

Power supply: 12V 5A DC
(电源)

Output power: (12V 0.75A)7.5W (12V 2A)20W (optional)
(输出功率) (可选)

Power supply type: EU/US/UK/AU(optional)
(电源类型) 欧规 美规 英规 澳规 (可选)

Engraving material : Wood board、Plastic、Paper、Leather、Sponge paper
(雕刻材质) (木板、塑料、纸质、皮革、海绵纸)



























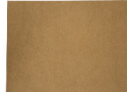


Engraving file format: NC、DXF、BMP、JPG、PNG、ETC
(雕刻文件格式)

Engraving mode : Graphic Engraving, Document Engraving, Scanning Engraving,
(雕刻模式) Outline Engraving, Pixel Carving (图形雕刻, 文件雕刻, 扫描雕刻, 轮廓雕刻, 像素雕刻)

Support software : Laser GRBL(windows system), LightBurn (Windows, MAC, Linux)
(支持软件) (仅限Windows系统)

Languages: Chinese, English, Italian, French, German
(语言) (中文, 英文, 意大利语, 法文, 德语)

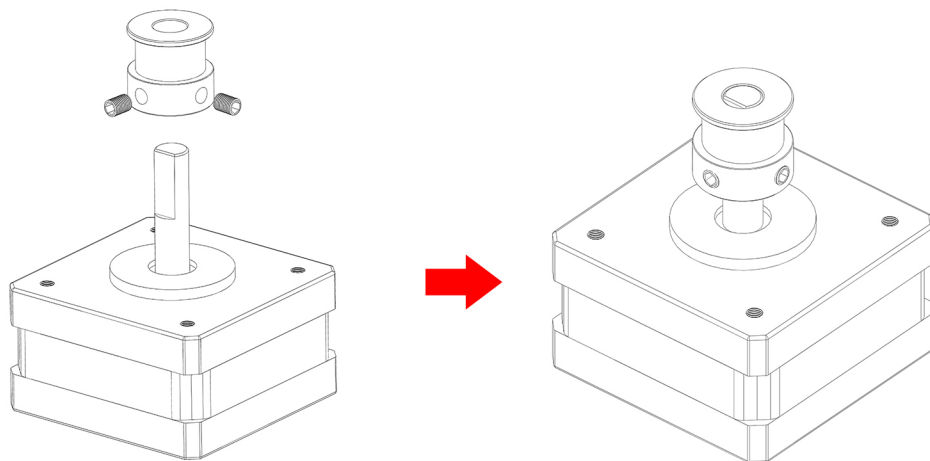
PARTS LIST/配件清单

<p>1 </p> <p>Gantry Frame x 4 三脚架</p>	<p>2 </p> <p>Y-axis motor left and right fixing plates x 2 (Y轴电机左右固定板)</p>	<p>3 </p> <p>X-axis laser head fixing plate x 1 (X轴激光头固定板)</p>	<p>4 </p> <p>X-axis motor fixing plate x 1 (X轴电机固定板)</p>
<p>5 </p> <p>Goggles x 1 (护目镜)</p>	<p>6 </p> <p>Power line x 1 (电源线)</p>	<p>7 </p> <p>Adapter x 1 (适配器)</p>	<p>8 </p> <p>Screw bag x 1 (螺丝包)</p>
<p>9 </p> <p>X-axis section bar (L494.8mm) x 1 (X轴型材)</p>	<p>10 </p> <p>Y-axis section bar (L450mm) x 4 (Y轴型材)</p>	<p>11 </p> <p>Motor line x 2 (电机线)</p>	<p>12 </p> <p>LKS mainboard x 1 (LKS 主板)</p>
<p>13 </p> <p>Mainboard backplane x 1 (主板底板)</p>	<p>14 </p> <p>Mainboard cover x 1 (主板盖板)</p>	<p>15 </p> <p>USB cable x 1 (数据线)</p>	<p>16 </p> <p>POM wheel x 9 (POM轮)</p>
<p>17 </p> <p>Belt synchronous wheel x 3 (皮带同步轮)</p>	<p>18 </p> <p>Workbag x 1 (工具包)</p>	<p>19 </p> <p>Black corner brace x 2 (黑色角码)</p>	<p>20 </p> <p>Silver corner brace x 4 (银色角码)</p>
<p>21 </p> <p>Eccentric nut x 3 (偏心螺母)</p>	<p>22 </p> <p>Isolation column x 8 (隔离柱)</p>	<p>23 </p> <p>Nylon column pack x 1 (尼龙柱包)</p>	<p>24 </p> <p>Nut bag x 1 (螺母包)</p>
<p>25 </p> <p>42 stepping motor x 3 (42步进电机)</p>	<p>26 </p> <p>Rubber synchronous belt x 1 (橡胶同步带)</p>	<p>27 </p> <p>Kraft paper x 1 (牛皮纸)</p>	<p>28 </p> <p>Laser head x 1 (激光头)</p>
<p>29 </p> <p>TF card package x 1 (TF卡包)</p>			

1.Pre-installation preparation/预安装准备

1.1 Motor assembly: Belt synchronous wheel 3PCS, Stepping motor 3PCS

(电机组件: 皮带同步轮 x3, 步进电机 x3)



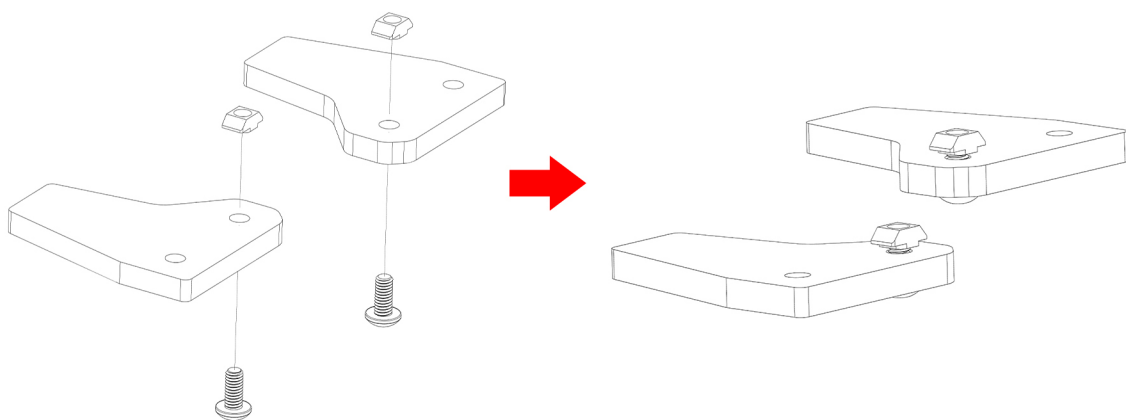
⚠ Note: the top of the synchronous wheel and the motor after installation is flush
注意: 同步轮与电机安装后顶部是平齐的

1.2 Installation of tripod T-nut

(脚架T型螺母的安装)

Tripod assembly: Tripod 4PCS, T nut 4PCS, Screw M5*10 4PCS

(脚架 x4, T型螺母 x4, 螺丝M5*10 x4)

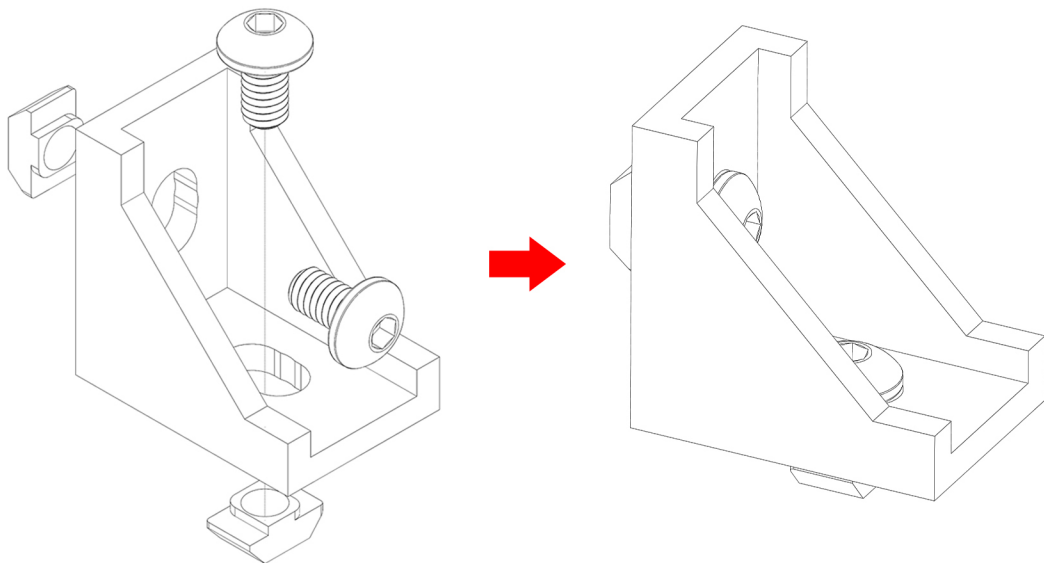


⚠ Pay attention when installing, install 2PCS on the left and 2PCS on the right (there is no distinction between the left and right tripod, so it is necessary to distinguish when installing T-nuts)

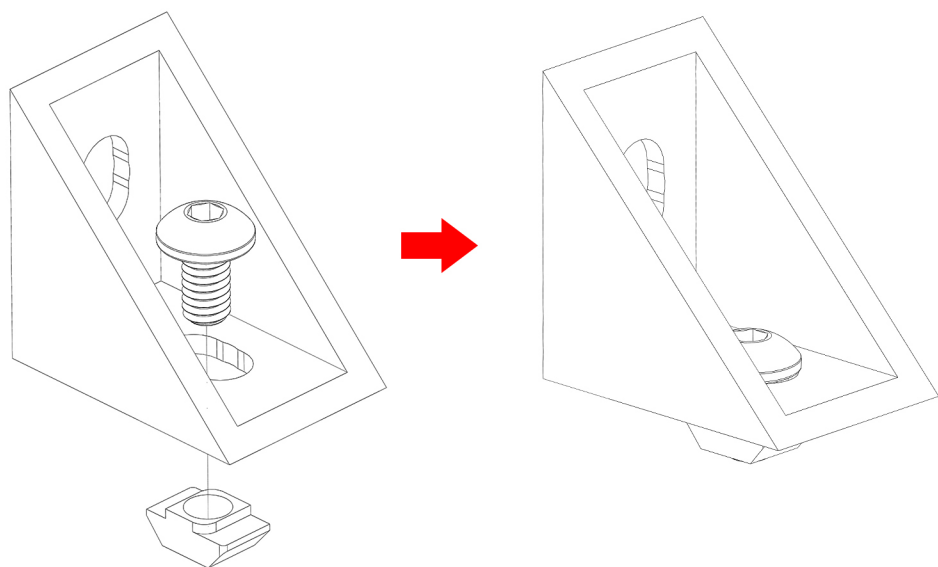
安装时注意, 左安装2PCS 右安装2PCS (脚架不分左右, 安装T型螺母时是要区分)

1.3 Installation of corner brace T-nut/角码T型螺母的安装

Silver corner brace assembly: Silver corner brace 4PCS, T-nut 8PCS, Screw M5*8 8PCS
(银色角码组件: 银色角码 x4, T型螺母 x8, 螺丝M5*8 x8)



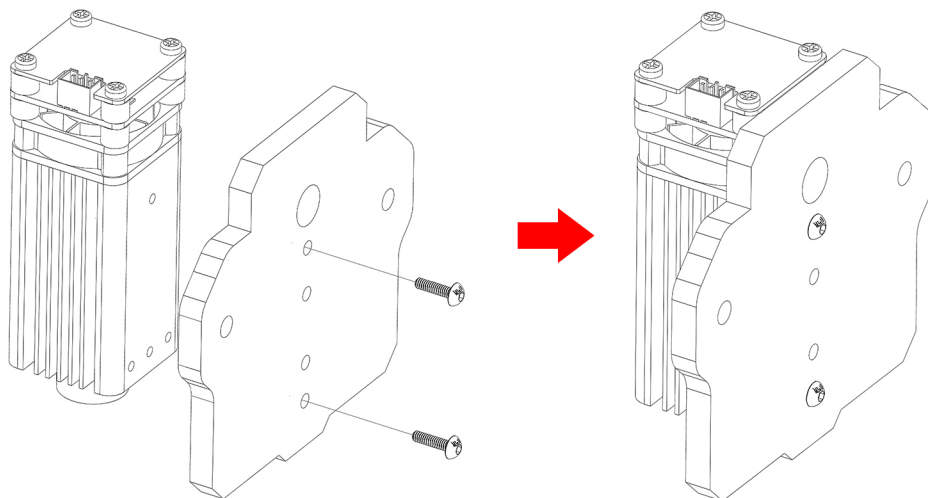
Black corner brace assembly: Black corner brace 2PCS, T-nut 2PCS, Screw M5*8 2PCS
(黑色角码组件: 黑色角码 x2, T型螺母 x2, 螺丝M5*8 x2)



2. Installation of laser head assembly/激光头组件的安装

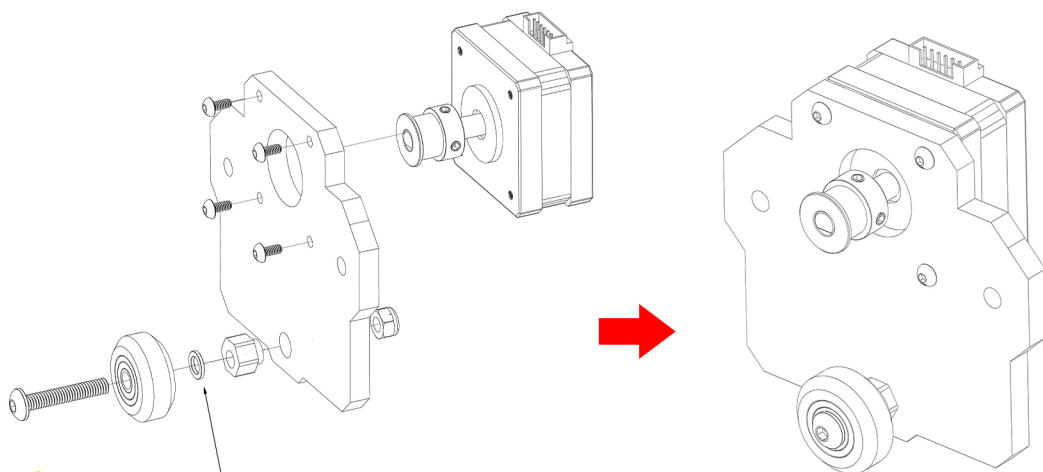
2.1 Installation of laser head:

X-axis laser head fixing plate 1PCS, Screw M3*10 2PCS, Laser head 1PCS
(激光头的安装: X轴激光头固定板 x1, 螺丝M3*10 x2, 激光头 x1)



2.2 X-axis motor fixing plate. Installation of motor assembly and POM wheel:

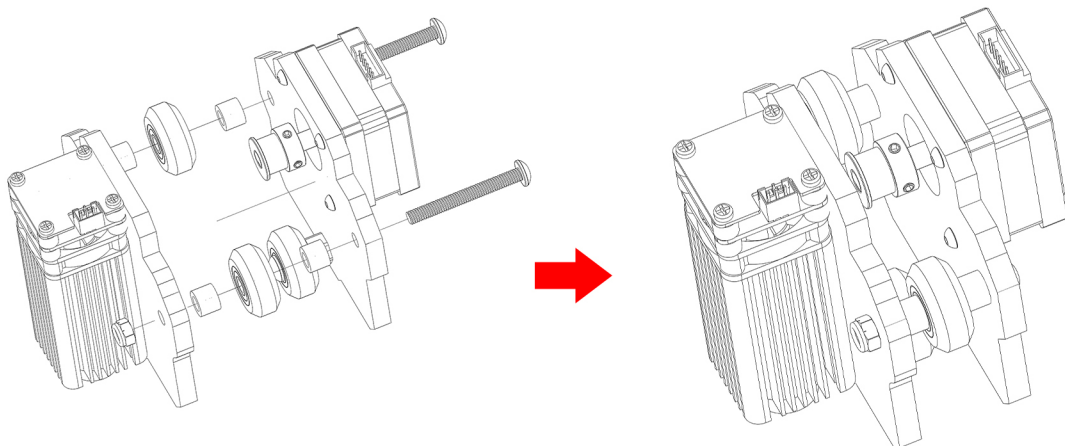
X-axis motor fixing plate 1PCS, Motor assembly 1PCS, Screw M5*30 1PCS, M3*10 4PCS
M5 self-locking nut 1PCS, Eccentric nut 1PCS, Brass gasket 1PCS, POM wheel 1PCS
(X轴电机固定板.电机组件以及POM轮的安装: X轴电机固定板 x1, 电机组件 x1, 螺丝M5*30 x1, M3*10 x4,
M5自锁螺母 x1, 偏心螺母 x1, 黄铜垫片 x1, POM轮 x1)



 Brass gasket can not be omitted
黄铜垫片不能漏装

2.3 Installation of laser head assembly:

POM wheel 2PCS, Isolation column 4PCS, Screw M5*40 2PCS, M5 self-locking nut 2PCS
(激光头组件安装: POM轮 x2, 隔离柱 x4, 螺丝M5*40 x2, M5自锁螺母 x2)

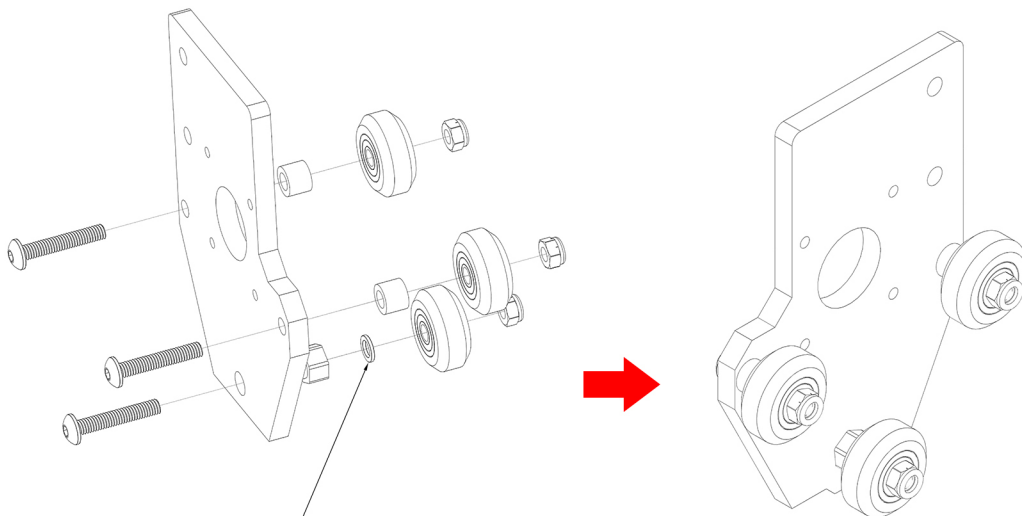


3. Installation of Y-axis left component/Y轴左组件的安装

3.1 Installation of POM wheel:

Screw M5*30 3PCS, POM wheel 3PCS, Eccentric nut 1PCS, Brass gasket 1PCS, Brass gasket 2PCS, Self-locking nut 3PCS

(POM轮的安装: 螺丝 M5*30 x3, POM轮 x3, 偏心螺母 x1, 黄铜垫片 x1, 隔离柱 x2, 自锁螺母 x3)

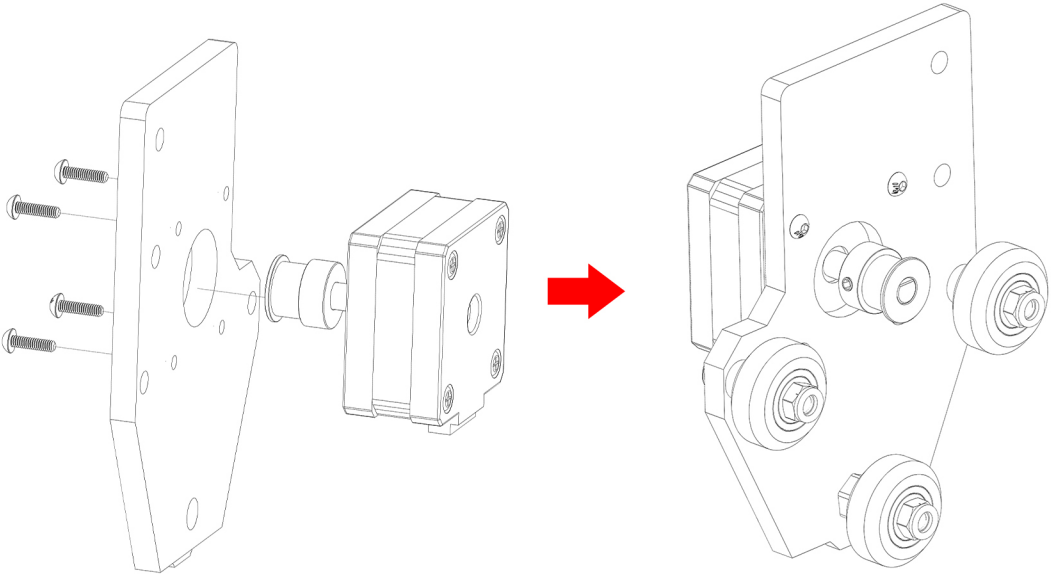


 Brass gasket can not be omitted
黄铜垫片不能漏装

3.2 Installation of motor assembly:

Motor assembly 1PCS, Screw M3*10 4PCS

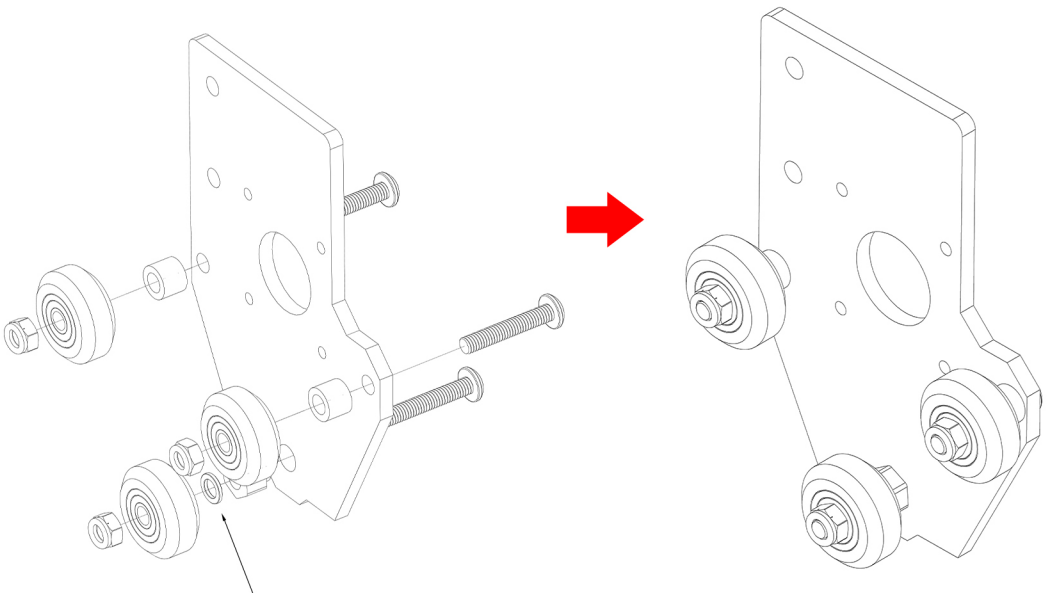
(电机组件的安装: 电机组件 x1, 螺丝M3*10 x4)



4. Installation of Y-axis right component/Y轴右组件的安装

4.1 Installation of POM wheel: Screw M5*30 3PCS, POM wheel 3PCS, Eccentric nut 1PCS, Brass gasket 1PCS, Isolation column 2PCS, M5 self-locking nut 3PCS,

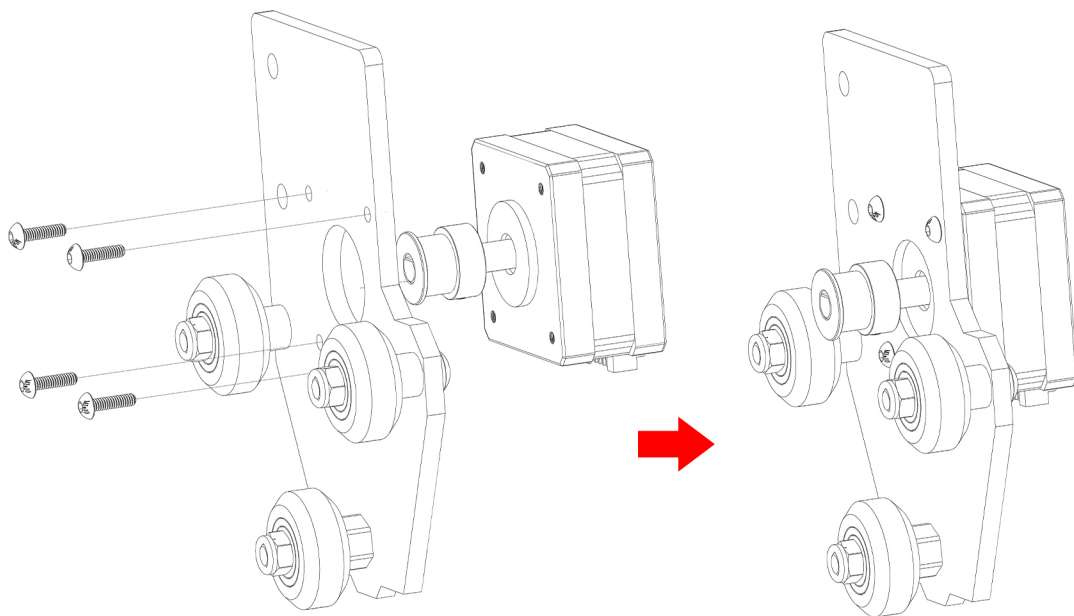
(POM轮的安装: 螺丝 M5*30 x3, POM轮 x3, 偏心螺母 x1, 黄铜垫片 x1, 隔离柱 x2, M5自锁螺母 x3)



 **Brass gasket can not be omitted**
黄铜垫片不能漏装

4.2 Installation of motor assembly: Motor assembly 1PCS,ScrewM3*10 4PCS

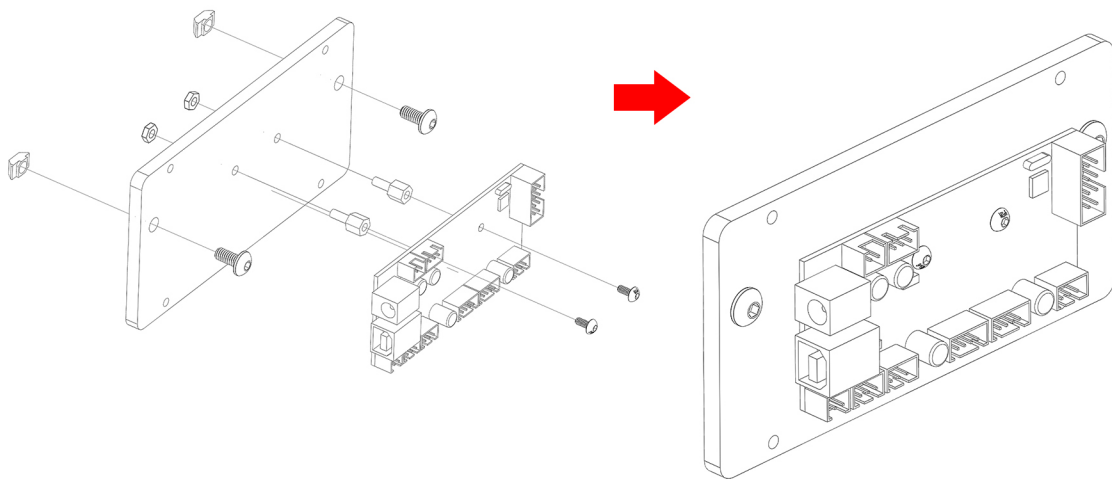
(电机组件的安装: 电机组件 x1, 螺丝M3*10 x4)



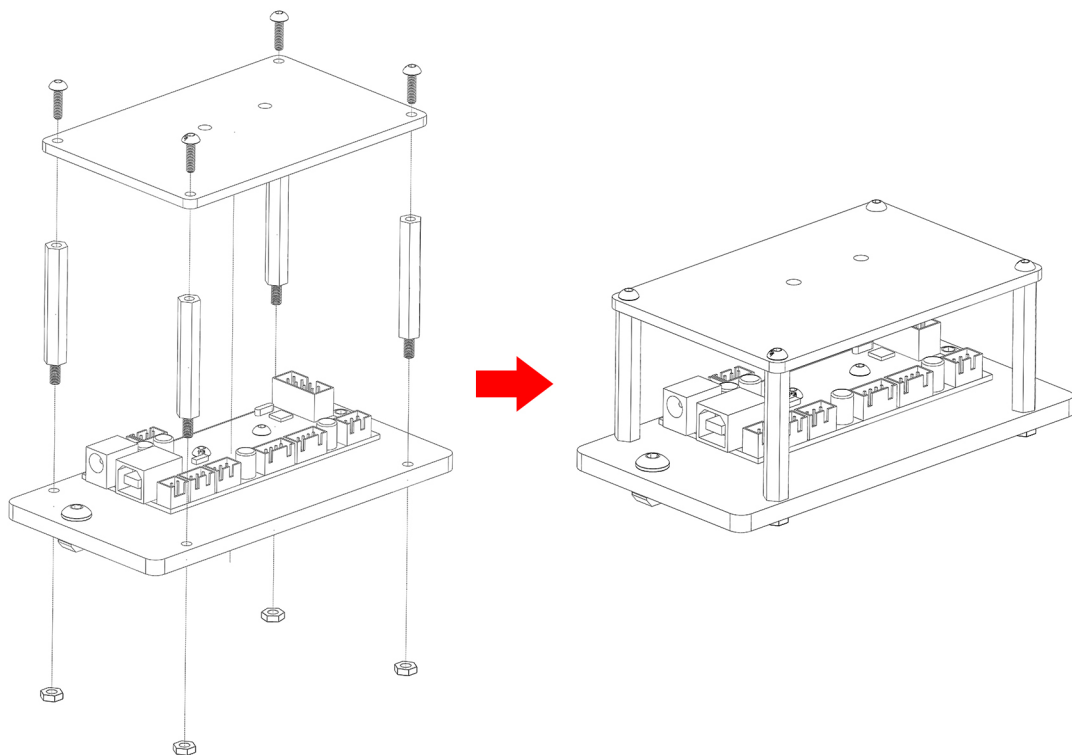
5. Installation of mainboard components/主板组件的安装

5.1 T-nut installation of PCB board: Screw M5*8 2PCS, M3*6 2PCS, LKS mainboard 1PCS, Mainboard backplane 1PCS, Nylon hexagon stud (M3*6+6) 2PCS T-nut 2PCS M3 hexagonal nut 2PCS

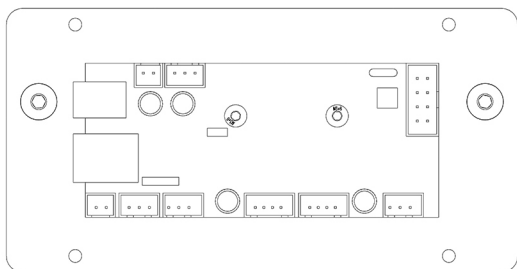
[PCB板 T型螺母安装: 螺丝 M5*8 x2, M3*6 x2, LKS主板 x1, 主板底板 x1, 尼龙六角螺柱(M3*6+6) x2, T型螺母 x2, M3六角螺母 x2]



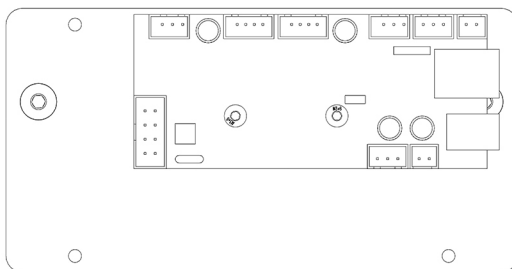
5.2 Installation of mainboard cover: Screw M3*10 4PCS, Main corner brace 1PCS,
T-nut M3 hexagon nut 4PCS, Black nylon column x4
(主板盖板的安装: 螺丝M3*10 x4, 主板盖板 x1, M3六角螺母 x4, 黑色尼龙柱 x4)



正确/Correct



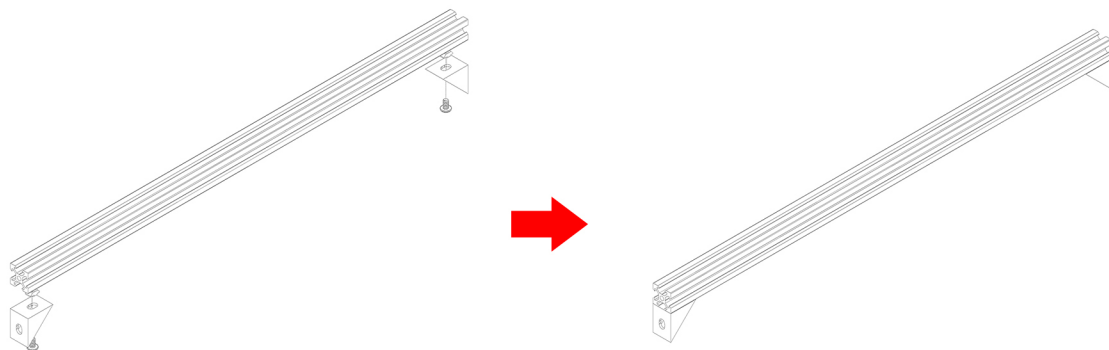
错误/Error



6. X-axis laser head assembly and belt installation/X轴激光头组件以及皮带的安装

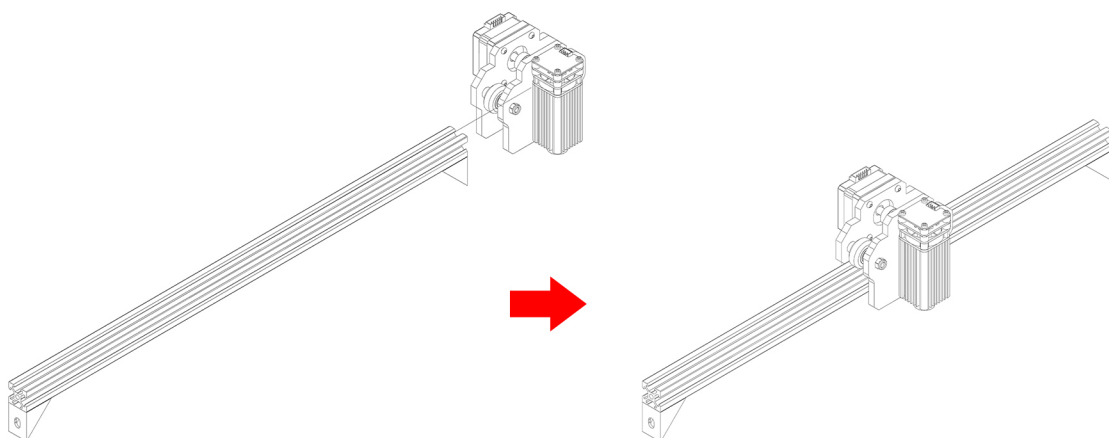
6.1 Silver corner code x2, Screw M5*8 x2, T-nut M5 x2

(银色角码 x2, 螺丝M5*8 x2, T型螺母M5 x2)



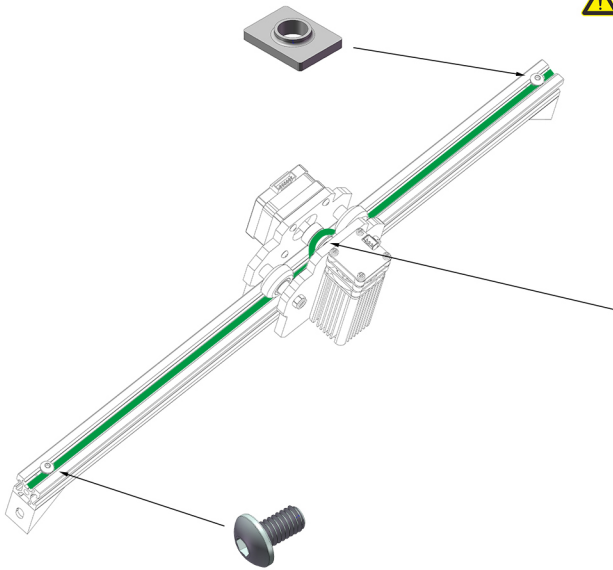
6.2 Installation of laser head assembly: laser head assembly X1, X-axis profile (L494.8mm) X1

[激光头组件的安装: 激光头组件 X1, X轴型材(L494.8mm) X1]



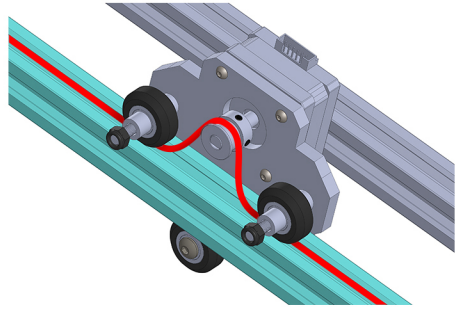
6.3 X-axis belt installation: Belt pressure plate x2, Belt x1, ScrewM5*8 x2

(X轴皮带的安装：皮带压板 x2, 皮带 x1, 螺丝M5*8 x2)



Note: When fixing the belt, first lock the fixing screw at one end, and then tighten the belt at the other end before screwing. After belt installation is completed, slide POM wheel to check whether it slides smoothly. If the sliding is loose or the resistance is great, it needs to be adjusted by eccentric nut (the adjustment diagram is as follows). The eccentric nut is tightened clockwise, otherwise it is loose.

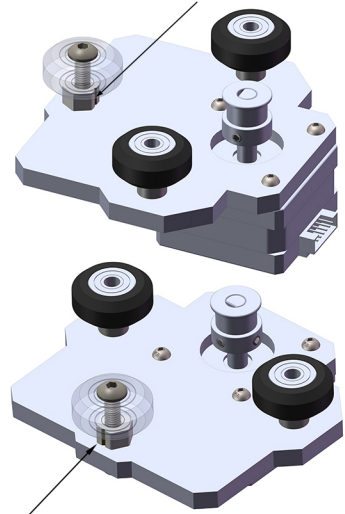
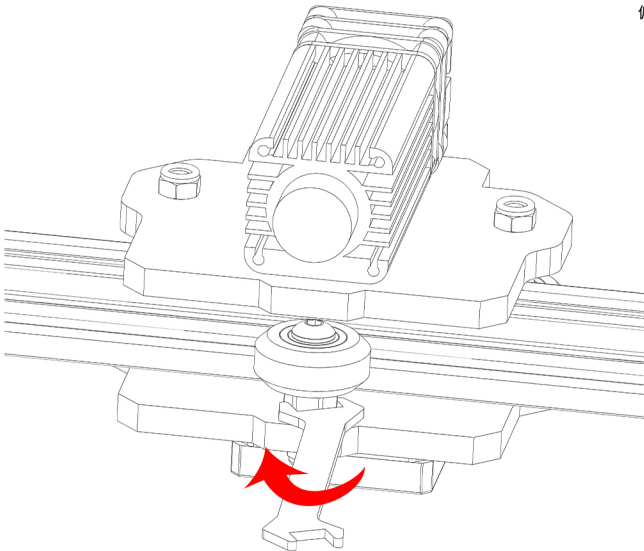
注意：皮带固定时先把一端固定螺丝锁紧，然后另外一端皮带拉紧后再锁紧螺丝。皮带安装完成后滑动POM轮，检查其滑动是否顺畅，如果滑动很松或者阻力很大，就需要通过偏心螺母来调节（调整示意图如下） 偏心螺母顺时针则拧紧，反之则松。



6.4 The judgment standard of eccentricity nut tightness is as follows/偏心螺母松紧度的判断标准如下

When the V groove of eccentric nut is in this direction, the distance between the three POM wheels is the minimum, that is, the state of tight.

偏心螺母V槽在此方向时，3个POM轮的距离为最小，即最紧的状态



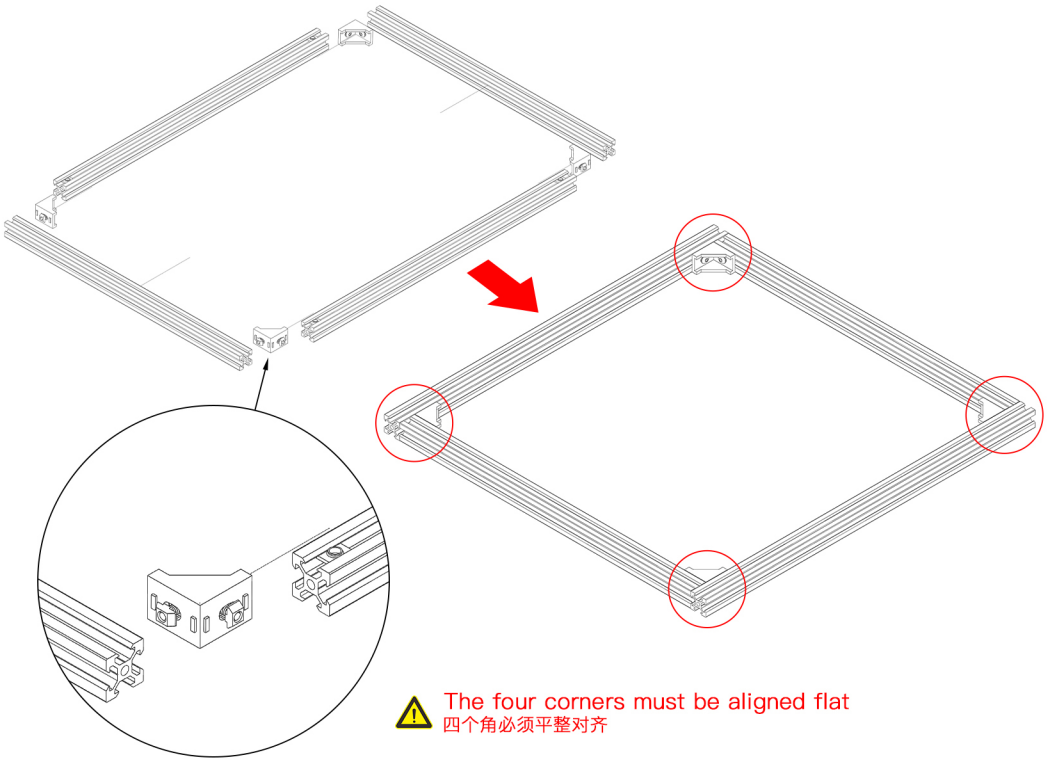
When the V groove of eccentric nut is outward, the distance between the three POM wheels is the largest, that is, the most loose state.

偏心螺母V槽外时，3个POM轮的距离为最大，即最松的状态

7. X-axis assembly installation/雕刻机框架的组件

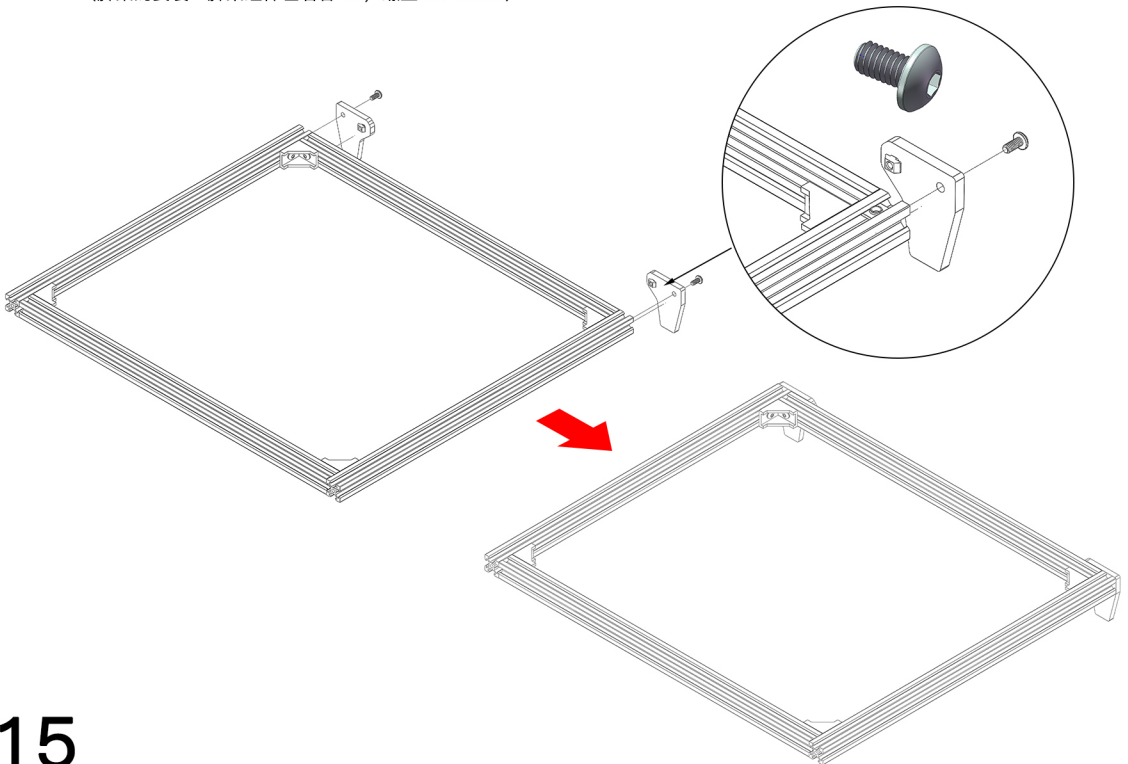
7.1 Components of profiles: Y-axis section bar(L450mm)4PCS,Silver corner brace assembly 4PCS

[型材的组件: Y轴型材(L450mm) x4, 银色角码组件 x4]



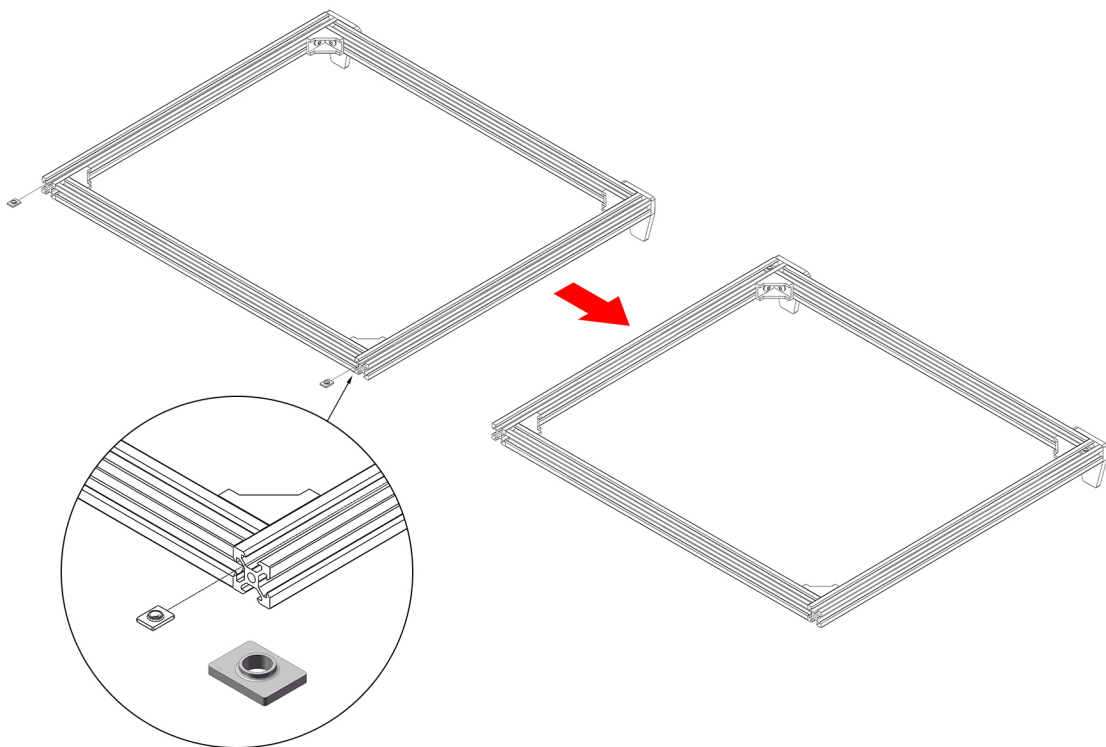
7.2 Installation of tripod: The left and right leg assemblies 1PCS, Screw M5*10 2PCS

(脚架的安装: 脚架组件左右各 x1, 螺丝M5*10 x2)



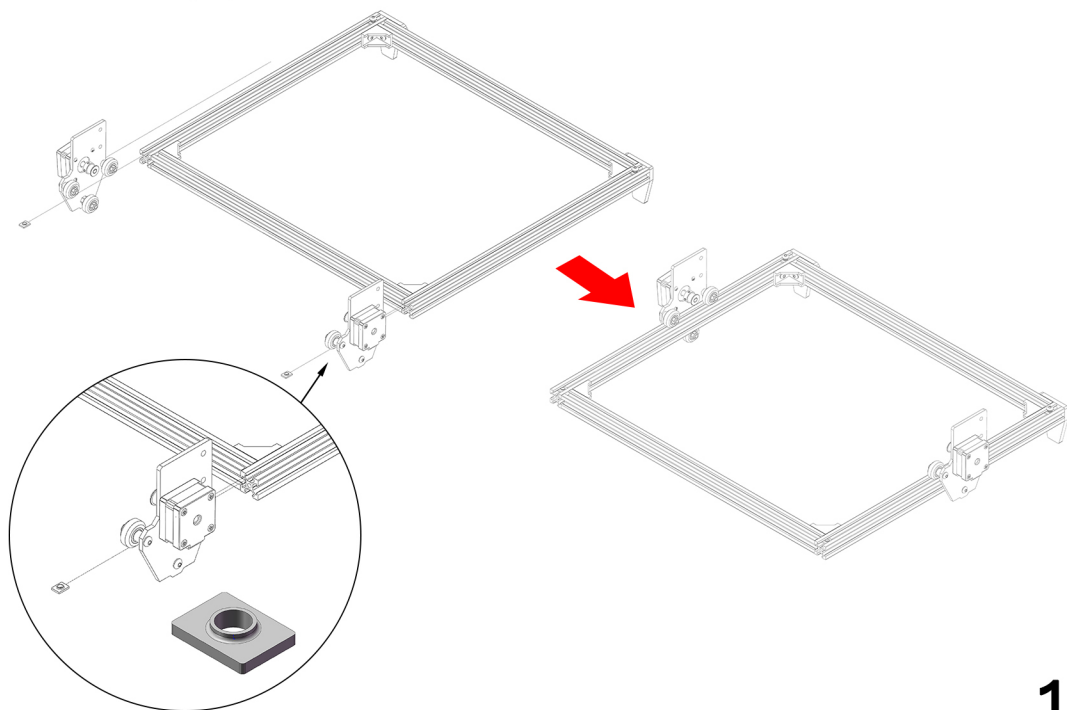
7.3 Installation of Y-axis belt pressing plate: Belt pressing plate 2PCS

(Y轴皮带压板的安装: 皮带压板 x2)

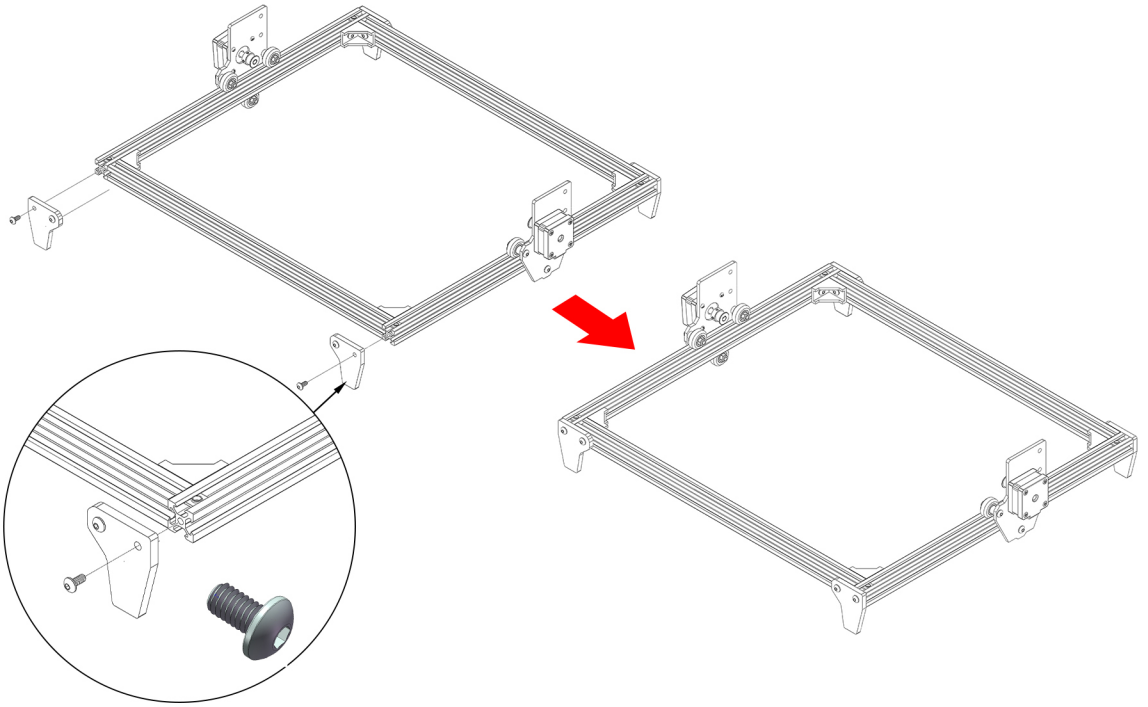


8. Assembly of frame components, Y-axis left and right components and foot pads/框架组件与Y轴左右组件以及脚垫的组装

8.1 Assembly of left and right components of Y axis: Belt pressure plate x2, Y axis motor left part x1, Y axis motor right part x1 (Y轴左右组件的组装: 皮带压板 x2, Y轴电机左件 x1, Y轴电机右件 x1)

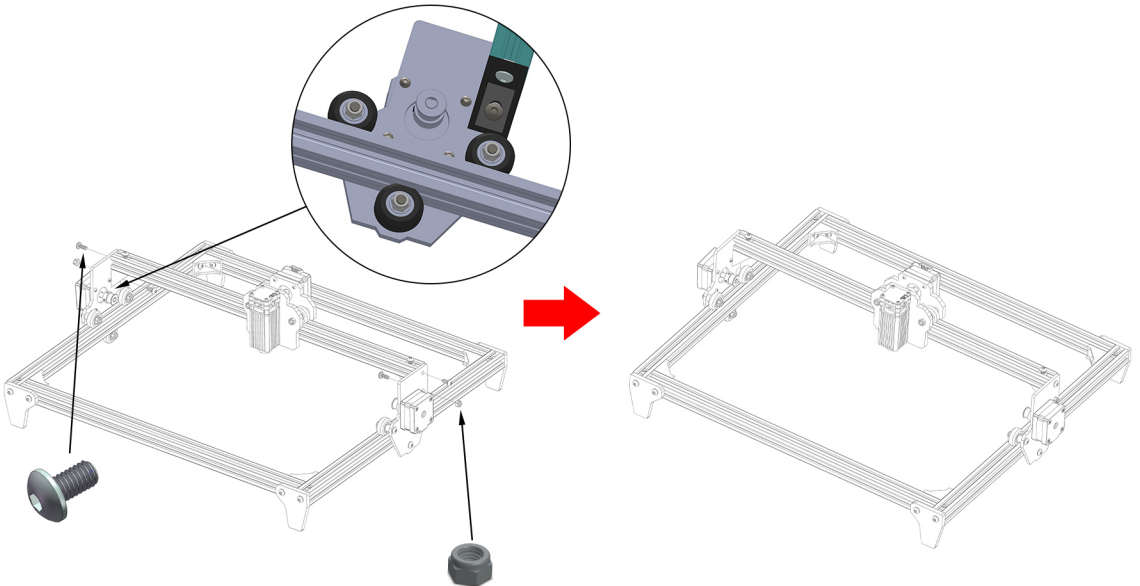


8.2 Foot pad assembly: Tripod assembly left and right x1, screws M5*10 x2
(脚垫的组装: 脚架组件左右各 x1, 螺丝M5*10 x2)



9. Installation of X-axis Beam Assembly/X轴横梁组件的安装

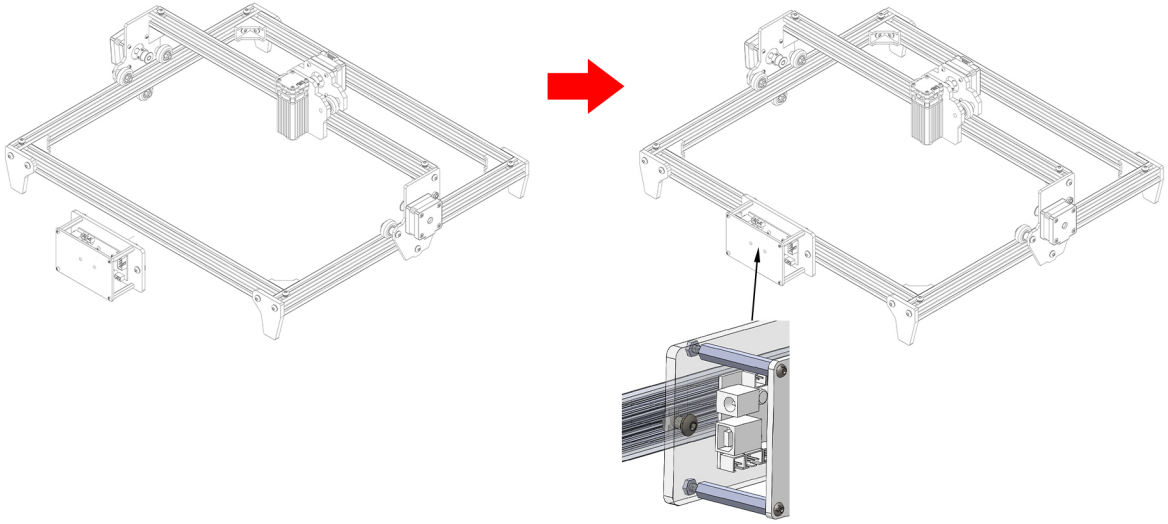
M5 Self-locking nut x2, ScrewM5*12 x2, ScrewM5*10 x2
(M5自锁螺母 x2, 螺丝M5*12 x2, 螺丝M5*10 x2)



10. Installation of mainboard components/主板组件的安装

Mainboard assembly 1SET

(主板组件 x1)

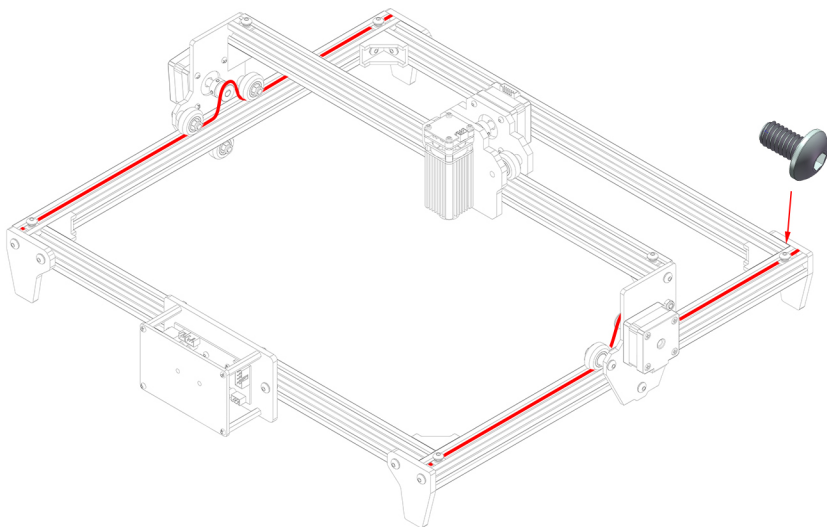



The fixed position of the motherboard can be installed according to your own needs, regardless of front and back
(主板固定位置可根据自身需求安装，不分前后)

11. Installation of Y-Axis Belt/Y轴皮带的安装

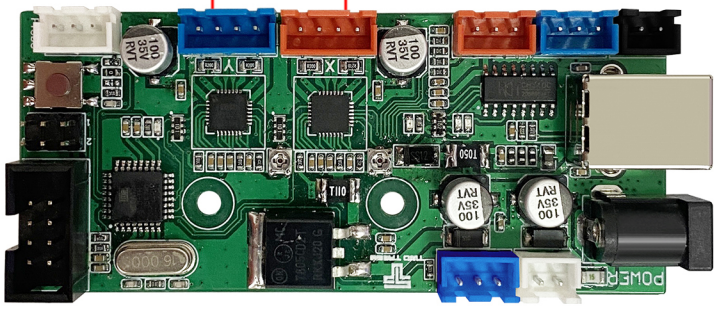
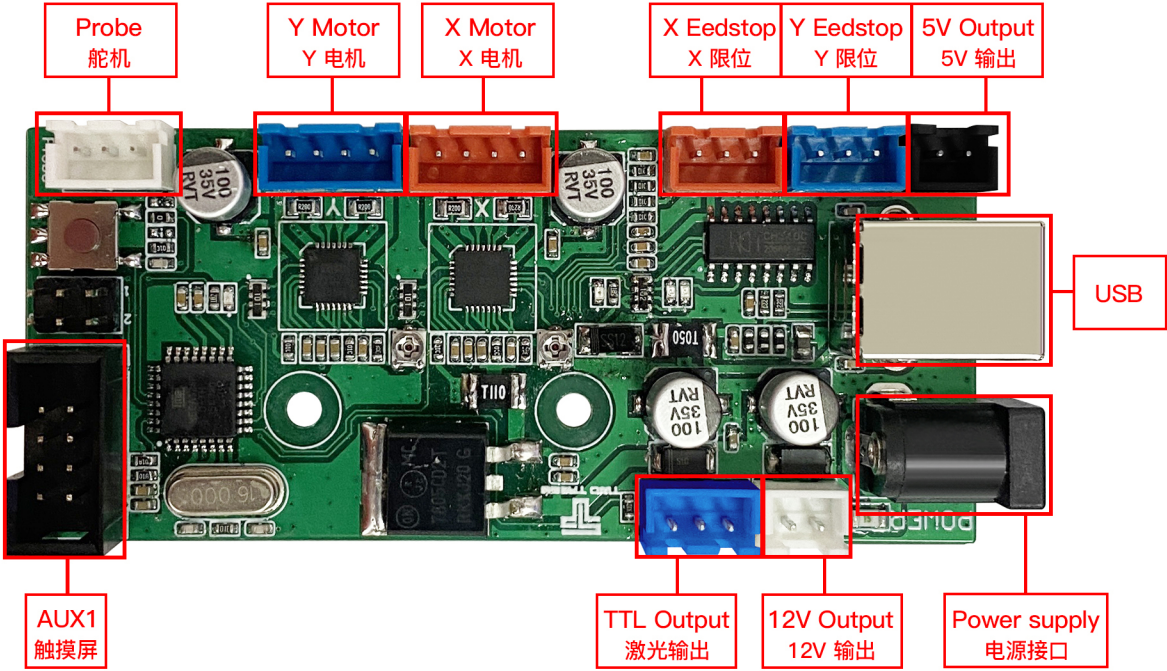
Y axis belt installation: Rubber synchronous belts 2 PCS, Screw bag M5*8 4PCS

(Y轴皮带安装: 橡胶同步带 x2, 螺丝包M5*8 x4)

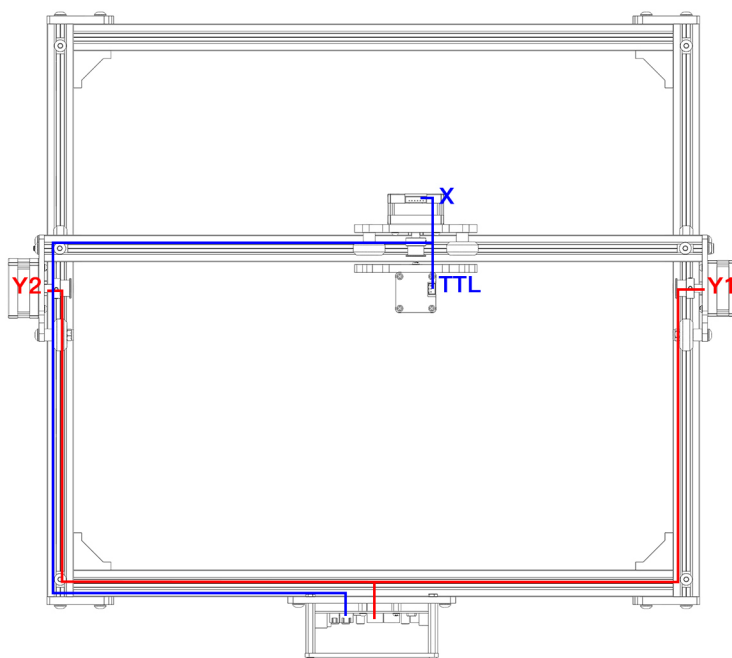


 After all installation steps are completed, please check whether all screws are locked, and check the installation correctness one by one according to the above steps.

PCB MOTHERBOARD PORT DESCRIPTION (PCB主板端口说明)



12. Wiring diagram/接线图

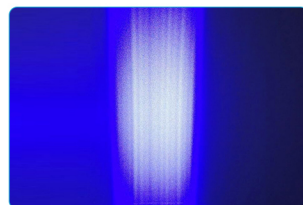


If the direction of the Y-axis motor is reversed, swap the Y1 and Y2 motor wires
(如果Y轴电机方向反了,将Y1与Y2电机线对调)

13. Laser focus adjustment and judgment/激光焦距调节以及判断

Adjustment method: adjust the focus of the knob at the bottom of the laser head, the correct spot size is 0.2mm.

(调节方法:调节激光头底部的旋钮进行聚焦,正确的光斑大小为0.2mm)



Laser focus error/激光聚焦错误



Laser focus is correct/激光聚焦正确

⚠️ Note: Remember to wear goggles during the adjustment process to prevent laser burns. When the light spot is reduced, smoke will appear first (when aiming at wood, it will burn to black), and when the light spot is adjusted to 0.2mm, the brightness will suddenly increase.
(注意要带护目镜,防止激光灼伤眼睛,光斑调小过程中会先出现烟雾(对准木头时会烧黑起烟),光斑调至0.2mm大小时亮度会突然增强)

FAQ CATALOG/FAQ 目录

SUMMARY OF QUESTION&ANSWER/问题与答案摘要

1. Where can I find the machine installation video?/哪里可以观看机器安装视频?

1.1 Method 1: In the TF card or U disk included in the package.

(方法1: 包装中附送的TF卡或U盘中)

1.2 Method 2: Our official website: <https://www.twotrees3d.com> and enter the "download" menu to download.

(方法2: 我们的官网: <https://www.twotrees3d.com> 进入 "download" 菜单)

2. What softwares can I use? How to download ?/可以使用什么软件, 怎么下载?

2.1 laserGRBL software, Open source, Only Windows system is supported.

(laserGRBL软件, 开源, 只支持Windows系统。)

2.2 lightburn software, which is paid and support Windows, Mac system.

(lightburn软件, 需付费, 支持Windows、Mac系统)

2.3 Download Method 1: In the TF card or U disk included in the package.

(下载方法1: 包装中附送的TF卡或U盘中)

2.4 Download Method 2: Our official website: <https://www.twotrees3d.com> and enter the "download" menu to download.

(下载方法2: 我们的官网: <https://www.twotrees3d.com> 进入 "download" 菜单)

3. How to operate LaserGRBL software?/怎么操作LaserGRBL软件?

3.1 Method 1: Check the tutorials of the TF card or U disk included in the package.

(方法1: 查看包装中附送的TF卡或U盘中的教程。)

3.2 Method 2: Official website download link: <https://www.twotrees3d.com>, enter "download" menu to download.

(方法2: 官网下载教程, 地址: <https://www.twotrees3d.com> 进入 "download" 菜单)

4. What should I do if the port COM of the engraving machine cannot be displayed normally?/无法正常显示雕刻机的端口COM, 怎么处理?

4.1 Need to install driver.

(需要安装驱动)

4.2 Method 1: Find the "CH340SER.EXE" installation file in the TF card or U disk, and install the driver file.

(方法1: 找到TF卡或U盘中的 "CH340SER.EXE" 安装文件, 并安装该驱动文件。)

4.3 Method 2: In the LaserGRBL software, click "Tools" in the menu bar, then click "Install CH340 Driver" in the drop-down list.

(方法2: 在LaserGRBL软件中, 单击菜单栏 "Tools", 下拉列表中点击 "Install CH340 Driver"。)

4.4 Method 3: Download and install from the official website, address: <https://www.twotrees3d.com> and enter the "download" menu.

(方法3: 官网下载并安装, 地址: <https://www.twotrees3d.com> 进入 "download" 菜单)

5. What should I do if the LaserGRBL software cannot connect to the laser engraving machine?/ LaserGRBL软件无法连接激光雕刻机, 怎么处理?

5.1 Reselect the correct port. (tips: you can try all ports)

(重新选择正确端口 (提示: 可以把所有端口都试一下))

5.2 Baud rate selection: 115200

(波特率选择: 115200)

5.3 Close other software that occupies the port or opens repeatedly.

(关闭其他占用到端口或重复打开的软件)

5.4 Check whether the data cable connection is normal.

(检查数据线连接是否正常)

6. Q&A of Motor/电机问题

The motor is shaking. The direction is opposite to the actual direction and there is no response after power on.

(电机出现抖动.方向与实际相反已经通电后没有反应)

6.1 First of all, pls make sure that the wiring of the motor line or the motor terminal or the motherboard port is firm, whether there is loose phenomenon or bad contact, which can be Re-power test.

(首先确保电机线或电机端子处或主板端口处的接线是否牢固, 有无松动现象和接触不良, 可重新通电测试)

6.2 Swap the motor, If there is still no response after replugging, test it after swapping the defective motor with the normal motor of the motherboard port . After the test, make the motor fault judgment. (A. Motor line problem B. Drive problem C. Motor problem)

(对调电机, 如果重新插拔后还没反应, 可在主板端口处把有问题的电机和正常的电机对调测试, 测试后做出电机故障判断, (A.电机线问题 B.驱动问题 C.电机问题)

A. Motor cable issue: After confirming that the motor is ok, test it after swapping the defective motor cable with the normal motor cable of the motherboard port. If there is no issue, then it means the motor cable problem. If it still doesn't work, then check the driver.

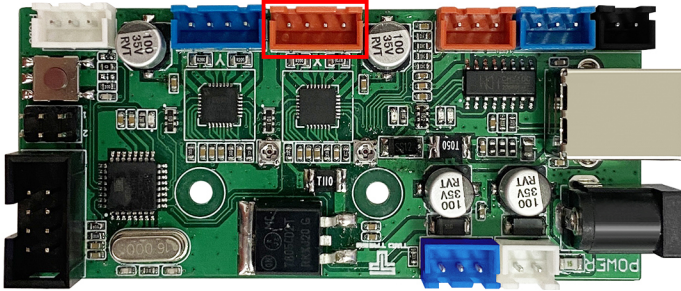
(电机线问题: 在确认好电机没问题后, 在主板和电机上把有问题的线跟没问题的电机线对调之后测试一下, 如果没问题那么表示是电机线的问题, 如果还是不行的话那再检查一下驱动)

B. Drive problem: Under the premise of confirming that the motor and the motor line are no problem, check the motor drive again. There may be a problem with the drive and a new drive needs to be replaced.

(驱动问题: 在确认好电机跟电机线都没问题的情况下, 在检查一下电机驱动, 有可能是驱动出现问题, 需要更换新的驱动)

6.3 Swap the motor cable on the main board (as shown in the figure). If it is Y-axis jitter, you can swap it with the good end (X-axis motor socket). At the same time, the wiring on the motor also needs to be changed to the corresponding motor, and power on, Then move the motor to test.

(对调主板上的电机线(如图中所示), 如果是Y轴抖动则可以和好的一端进行对调 (X轴电机插口), 同时电机上的接线也需要换到相应的电机上, 然后通电移动测试)



7. Engraving issue/ 雕刻问题

Common problems and solutions for engraving machines: 1. Engraving is misplaced, 2. Engraving patterns are reversed, 3. Engraving patterns are irregular.

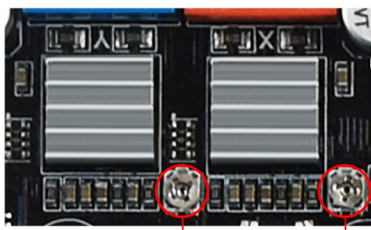
(雕刻机常见的问题以及解决方法: 1.雕刻错位, 2.雕刻图案颠倒, 3.雕刻图案不规则)

7.1 The engraving misalignment is caused by the mismatch of software configuration parameters, which causes the engraving machine to run too fast.

(雕刻错位是由于软件配置参数不匹配导致雕刻机运行速度过快)

7.2 Solution: Reconfigure the software parameters and run the engraving machine to see if it can return to normal. If it does not recover, it may be that the motor drive voltage does not match. Check the drive voltage with a multimeter (the normal value of the X-axis drive voltage is 0.8V, Y The normal value of the shaft drive voltage is 1.4V.) The driving voltage adjustment method is as follows: Vref measures the intermediate voltage between Gnd and the voltage meter. Rotate the potentiometer clockwise to decrease the current, and counterclockwise to increase the current.

(解决方法: 重新配置软件参数, 运行雕刻机看是否能恢复正常, 如果没有恢复, 则有可能是电机驱动电压不匹配, 通过万用表检查驱动电压的大小 (X轴驱动电压正常值是0.8V, Y轴驱动电压正常值是1.4V.), 驱动电压调节方法如下: Vref测量GND和电压器的中间电压, 旋转电位器顺时针方向减小电流, 逆时针反向则增大电流)



Y-axis motor drive voltage adjustment

(Y轴电机驱动电压调节)

X-axis motor drive voltage adjustment

(X轴电机驱动电压调节)

7.3 The engraving pattern is reversed due to incorrect software configuration parameters.

(雕刻图案颠倒由于软件配置参数错误导致的)

Method: Re-import LaserGRBL through the configuration file in TF card.

(方法: 通过TF卡中配置文件重新导入LaserGRBL)

7.4 Irregular carving patterns are caused by machine assembly problems.

(雕刻图案不规则是由于机器装配问题造成)

1.Please check whether the X axis of the engraving machine is parallel to the bottom frame and whether the bottom frame is parallel and the diagonal size.

(1.请检查雕刻机X轴是否与底部框架平行以及底部框架是否平行以及对角尺寸)

2.Please check whether the X-axis laser head module shakes. If there is shaking, please adjust the eccentric nut of the POM wheel to ensure that the laser head module slides smoothly.

(2.请检查X轴激光头模组是否有晃动, 如有晃动请调整POM轮的偏心螺母来保证激光头模组滑动是平稳的)

8.The carving effect is not good, how to deal with it?/雕刻效果不好, 怎么处理?

8.1 The focus position is wrong, adjust the focus according to the teaching video in the TF card, and then fine-tune the focus according to the actual situation.

(焦点位置不对, 参照TF卡中的教学视频调整焦点, 再根据实际微调调整焦点)

8.2 The power value is set incorrectly, 1000 is the maximum power, reset the engraving power. You can manually input the command "M3 S1000" to test the laser intensity.

(功率值设置不对, 1000为最大功率, 重新设置雕刻功率。可手动输入指令"M3 S1000"测试激光强度)

8.3 The engraving speed is incorrect, reset the speed.

(雕刻速度不正确, 重新设置速度)

AFTER-SALES SERVICE/售后服务

The shelf life is 12 months from the date of purchase.

1. Missing / damaged / defective parts
 - a. Within 7 days after the delivery date, we will replace any parts for free, including shipping costs.
 - b. 7 days after the delivery date, we will replace any parts for free. But customers need to pay the freight.
2. Customer damaged parts: The customer should pay for the parts cost and transportation costs.
3. The courier company lost, lost, damaged and defective parts.
 - a. Claims for lost or damaged goods must be reported to the carrier within the carrier 's claim window, The customer needs to notify us within 7 days after the delivery date.
 - b. For any parts lost or damaged during transportation, the customer should take photos or videos and Send us the information.
 - c. Once the carrier dispute is resolved, please provide us with all communications with the carrier. The customer is responsible Let us keep abreast of all correspondence with the carrier.
 - d. For missing parts, the customer should fill in the service order.
 - e. For damaged parts, the customer should fill in the service ticket and send the photo or video to us.
 - f. If the component is an LCD panel, power supply or motherboard, the customer should ship the component back to us and we will Send new parts.

保质期为自购买之日起12个月

1. 缺少/损坏/有缺陷的部件
 - a. 在交付日期后的7天内，我们将免费更换任何部件，包括运费
 - b. 在交货日期的7天后，我们将免费更换任何部件。但客户需要支付运费
2. 客户损坏部件：客户应支付部件成本和运输费用
3. 快递公司丢失，丢失，损坏和有缺陷的部件
 - a. 对于丢失或损坏的货物的索赔必须在承运人的索赔窗口内向承运人报告,客户需要在交货日期后7天内通知我们
 - b. 对于在运输过程中丢失或损坏的任何部件，客户应拍摄照片或视频并将信息发送给我们
 - c. 一旦承运人争议解决，请向我们提供与承运人的所有通信。客户有责任让我们及时了解与承运人的所有通信
 - d. 对于缺失零件，客户应填写服务单
 - e. 对于损坏的部件，客户应填写服务票，并将照片或视频发送给我们
 - f. 如果部件是LCD面板，电源或主板，客户应将部件运回给我们，我们将发送新部件。

LETTER FROM TWOTREES/感谢信

Dear Customers:

(亲爱的顾客)

Thank you for choosing the TT-2.5/TT-5.5 Engraving machine.

(感谢您购买图腾雕刻机)

This guide will guide you through the assembly and first run of the engraving machine.

(本指南将引导您完成组装和首次运行的雕刻机)

If you have any problems with the assembly, please contact us via

(如果您在组装过程中遇到任何问题, 请通过以下方式与我们联系)

Facebook: www.facebook.com/groups/twotrees3Dprinter/

(脸书: www.facebook.com/groups/twotrees3Dprinter/)

Website: www.twotrees3d.com

(网站: www.twotrees3d.com)

Service mail: service@twotrees3d.com

(服务邮箱: service@twotrees3d.com)

Our customer service team will contact you within 48 hours.

(我们的客户支持团队将在48小时内与您联系)

Sincerely yours

(感谢)

Two Trees team / 俩棵树 团队



3D打印机技术服务群
3D printer technical service group



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