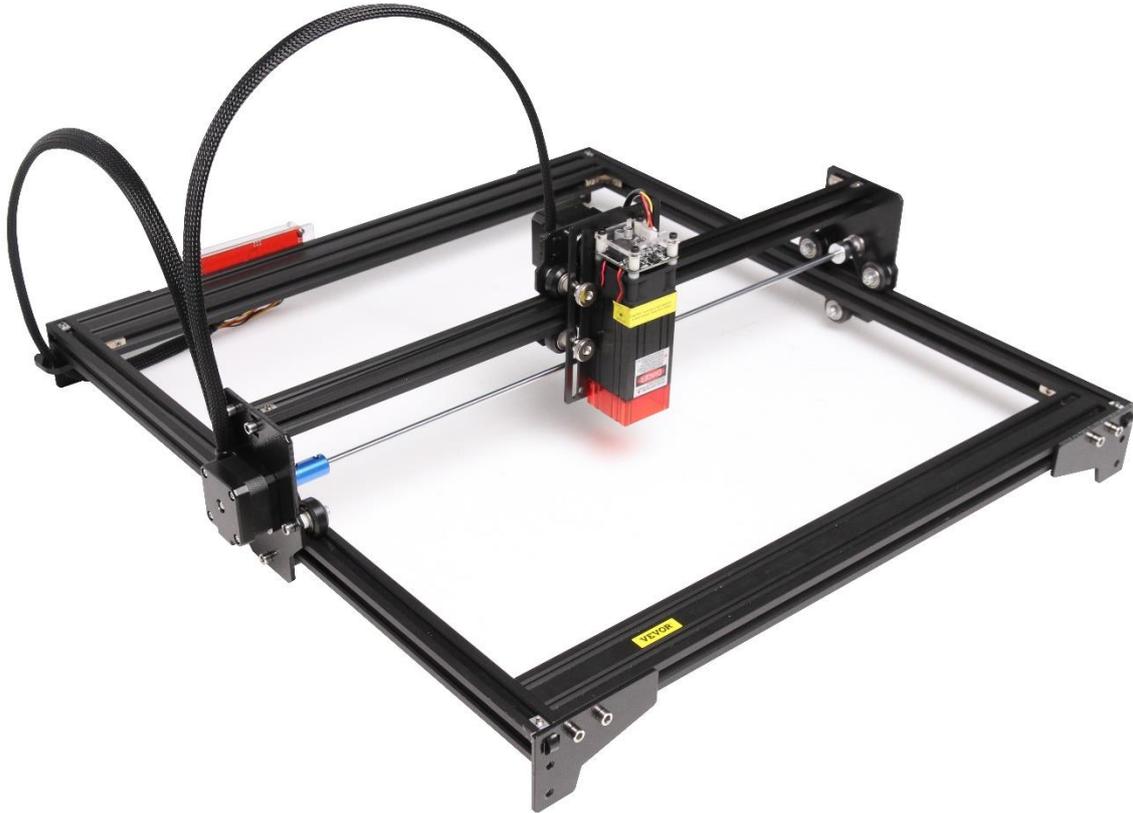
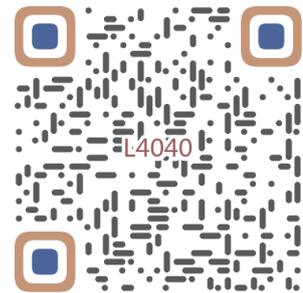


# L4040 Laser Engraving Machine



## Warning

- Strictly prohibit laser radiation of the eyes!
- Strictly prohibit watching laser without wearing protective glasses!
- Strictly prohibit using by children!
- Strictly prohibit using this machine unattended!

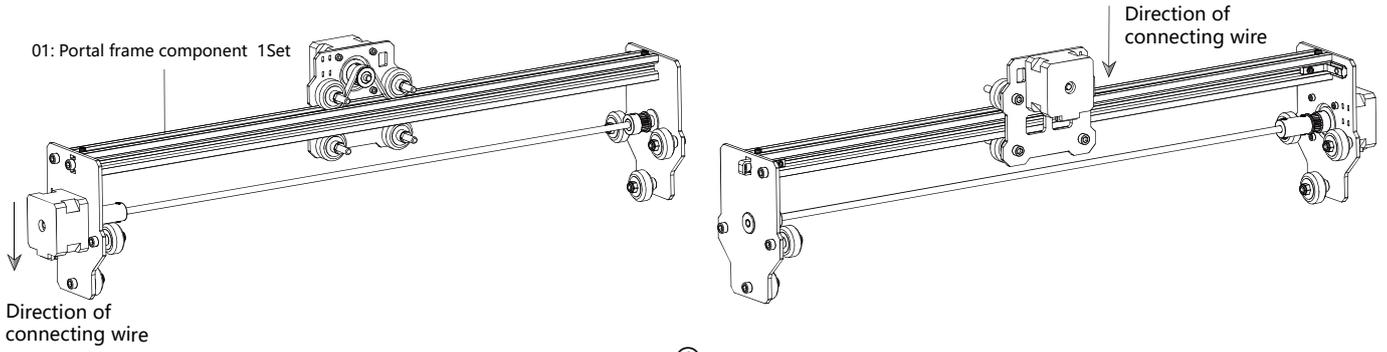


Scan for assemble video

**1. Parts List**

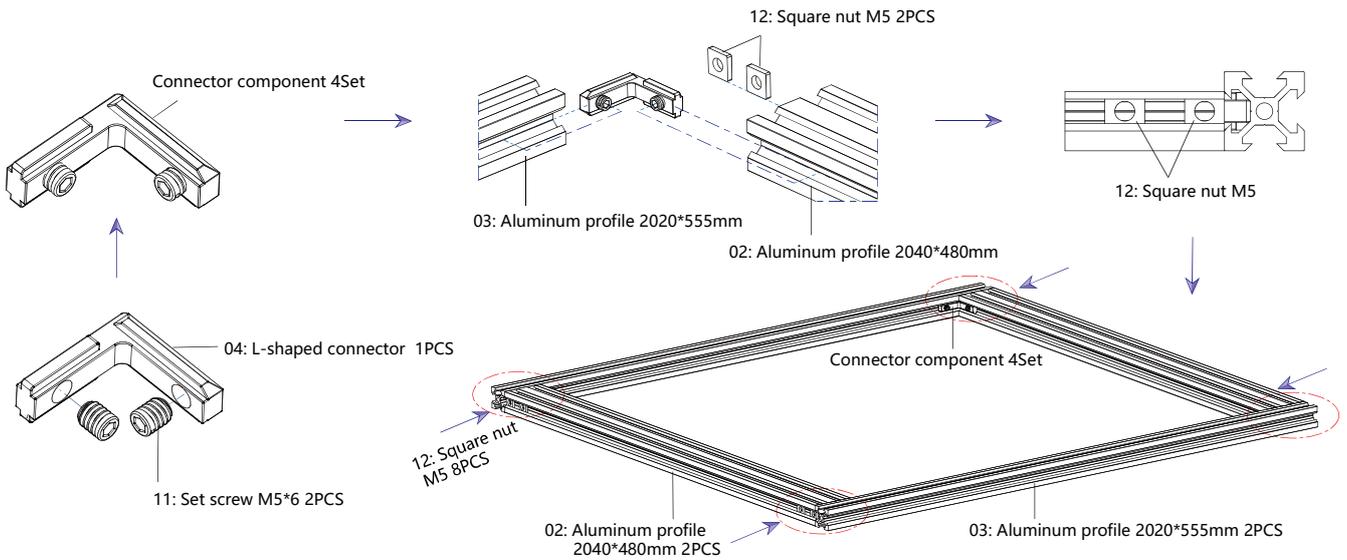
4040 Parts List				
Part No	Part Name	Explanation	Quantity	Picture
01	Portal frame component	Already assembled	1Set	
02	Aluminum profile (X)	2040*480mm	2	
03	Aluminum profile (Y)	2020*555mm	2	
04	L-shaped connector	L-shape	4	
05	Acrylic plate B for X-Part	—	1	
06	Leg	—	4	
07	Fixed wire block	—	1	
08	Synchronous belt	2GT, length 620mm	2	
09	Inner hexagon screw	M5*8	10	
10	Inner hexagon screw	M5*10	1	
11	Set screw	M5*6	12	
12	Square nut	M5	12	
13	Manual nut	M5	4	
14	Ship nut	M5-10	3	
15	Control board package	VIGO-13	1	
16	Wiring harness and protective pipe	—	1Set	/
17	Cable ties	—	8	
18	Power supply and power line	12V DC	1Set	
19	Inner Hexagon Wrench	4/2.5/2mm	1Set	
20	Nut Wrench	8#	1	
21	USB cable	—	1	
22	Protective glass	—	1	
23	Non-slip mat	—	1	/
24	Instruction manual	—	1	/
<b>Laser package (Optional)</b>				
L1	Laser kit	Optional	1Set	/
M1	Inner hexagon screw	M3x6	4	
<b>Control board package (15)</b>				
C1	Control board	VIGO-13	1	/
C2	Acrylic plate for control board A	—	1	
C3	Acrylic plate for control board B	—	1	
C4	Column	Φ3*7	4	
C5	Inner hexagon screw	M3×18	4	
C6	Nut	M3	4	

## 2. Machine Assembly

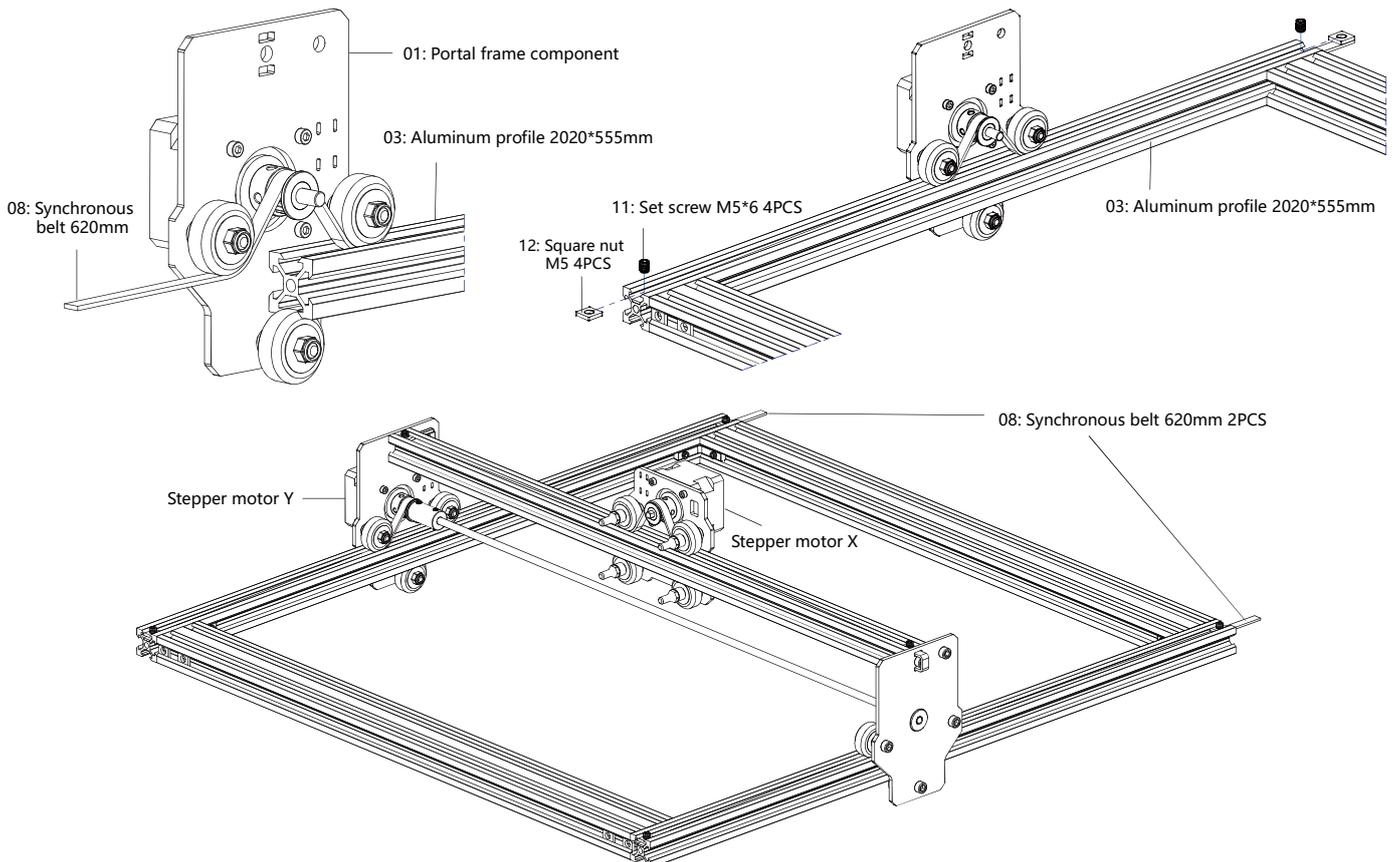


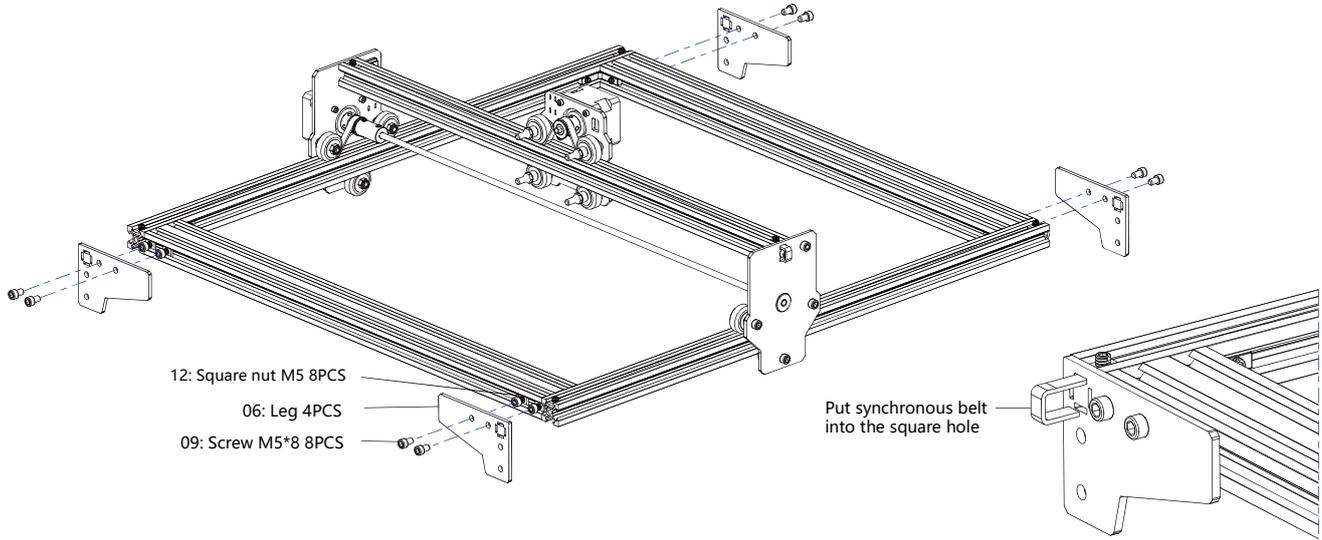
①

②

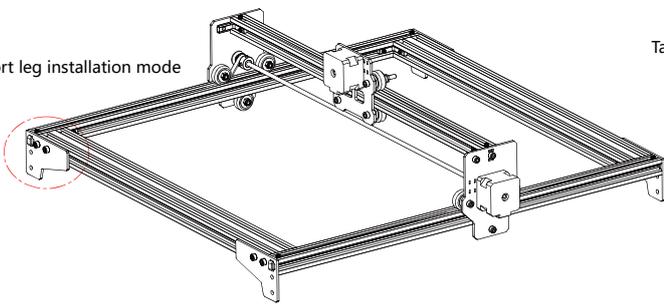


③

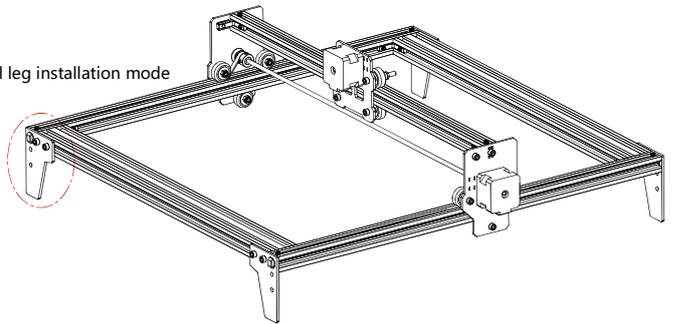




Short leg installation mode

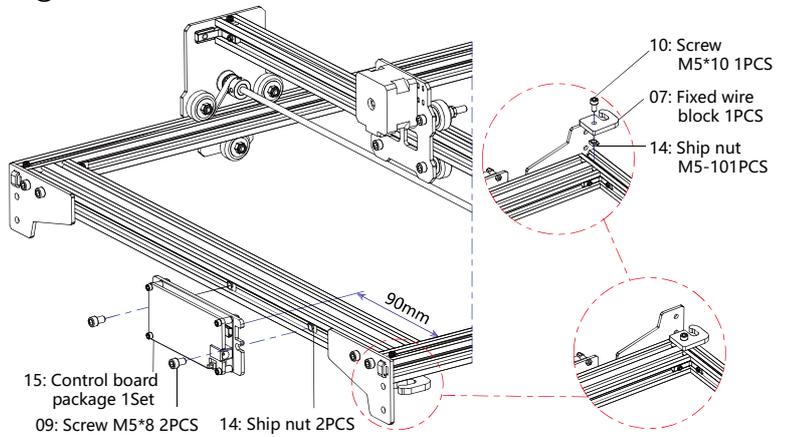
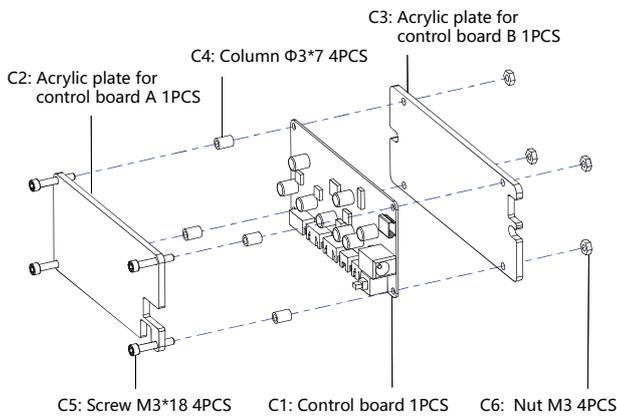


Tall leg installation mode

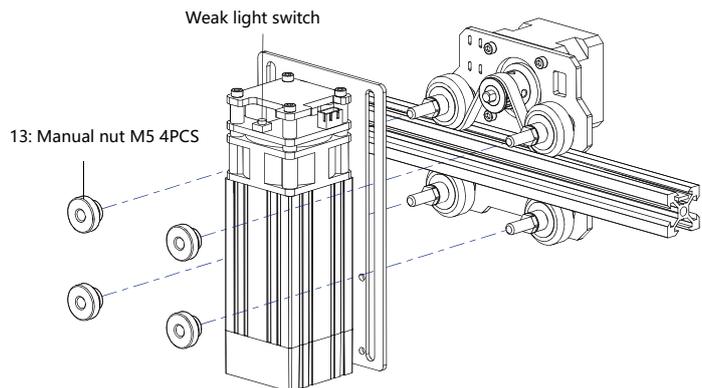
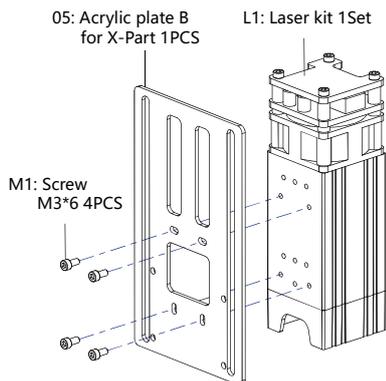


④

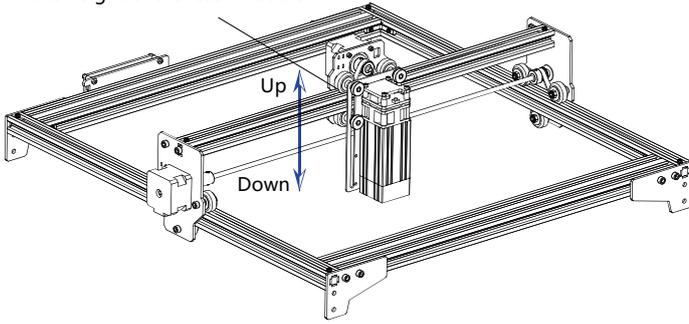
⑤



### 3. Laser Installation



Four Manual nuts adjust the height of the laser module



#### 4. Cable connection

**Control board**

The wire is stuck in hole of the fixed wire block.

3P Laser  
Y1 Stepper motor  
X

laser wire through the hole.

2 pieces of cable tie.

X-Stepper motor wire 4P-6P, 1400mm

3 pieces of cable tie.

Y1-Stepper motor wire 4P-6P, 800mm

Laser 3P, 1500mm

X-Stepper motor

Y1-Stepper motor

## 5. Download and run the engraving control software “VevorWorks”

Open our website [www.vevorengraver.com](http://www.vevorengraver.com).

Find the control software for L4040, then click to download it to your computer.

Green software doesn't need to be installed. Decompress the file you downloaded just now. The software running OS is Win7 Win8 and Win10.

Open the fold and double-click the VevorWorks.exe file to run the engraving software. The OS may prompt that the software will use the network, please click OK (some computer systems do not prompt, if the software cannot use the network, please allow it manually in the firewall setup).

In addition, the machine also supports the engraving software of the third-party standard GRBL, such as LaserGrbl, LightBurn, etc

## 6. Connect VevorWorks software and laser engraving machine

Long press the power button on the machine panel to turn on it. There are three ways to connect engraving software and the machine.

### (1) USB-Serial Connection

Connect the USB-Serial cable to both control board and computer. In general, Win10 can automatically identify the device. Win7 or other OS may need to install driver manually. Please double click **ch341ser.exe** to install the driver if necessary. Click **Connect** on top left corner of VevorWorks, **SERIAL-ON** will be displayed in the title bar, indicating that the connection is successful.

## 7. Adjust focus

Please use the focal length measuring piece to adjust the module height so that the distance from the lower edge of the module protective cover to the engraved object is equal to the height of the measuring piece.

## 8. Open or input the engraving content and adjust the engraving parameters

Engraving content can be opened at the top of the software image or gallery, or edit the engraving text.

Set the start location of engraving and adjust the size of engraving.

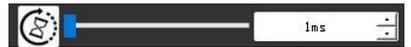
Select one of the engraving modes. There two engraving mode, line mode and point mode, which can respectively engrave black-and-white images, grayscale images and outlines. (only line engraving is supported for outline, please use outline when cutting objects.)

Set engraving parameters. There are four engraving parameters that can be set. These parameters will affect the engraving speed and engraving effect. It is necessary for you to understand the function of these parameters and adjust them according to different engraving materials and contents.

(1) Line engraving speed: Set the engraving speed (only valid for line engraving mode). Note that the set speed may not be reached when the image is too small or the dot distance is too dense.



(2) Maximum laser power: Set the maximum laser power, which is the laser power when the maximum gray level (i.e. all black) in the dot matrix gray mode and line scan gray mode and the laser power in the Binary (black and white) engraving mode. The unit is the percentage of the installed laser full power.



(3) Engraving point distance: set the precision of dot matrix engraving or line scanning engraving, and the number of lines or points per millimeter.



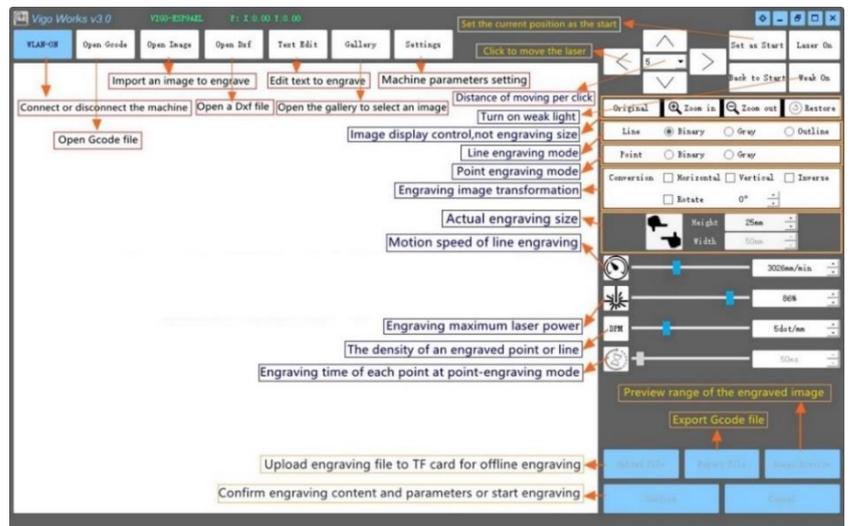
(4) Time of dot engraving: Set the engraving time of each dot. The unit is millisecond. According to the power of the laser module and engraving material, we generally recommend to set about 1ms to 5ms.



## 9. Preview the engraving range and start engraving

Click **Range preview** to confirm the position and range of engraving. Click **Start** and wait for the engraving to be completed.

## 10. Introduction of software interface function



## 11. Instructions for Laser

### **Please wear the protective glasses before operating the laser!**

When all the connections are completed, turn on the power, and the laser is standby for working. The indicator light on the top of the laser is continuous lighting at this time.

### **Turn on the weak light and adjust the focal length**

Please lay the materials to be carved flat under the laser.

Please turn on the weak light in the engraving software or press the weak light switch on the top of the laser module. Then the red light will flash and the weak light on. Laser spots can be seen on the materials at this time. Adjust the height of the module, when the laser spots are smallest and clearest, it is the optimum state for laser engraving. Or use the focal length measuring piece to adjust the module height so that the distance from the lower edge of the module protective cover to the engraved object is equal to the height of the measuring piece.

It is important to understand that this weak light switch on the top of the laser module is not controlled by engraving control software. So be sure to switch back to normal (make sure that weak light is off) before you start engraving.

## 12. Notice

(1) The shape of all parts above in this description is only as a sign. There may be a difference between the actual parts and the parts in the installation instructions. Please refer to the shape of the actual parts purchased.

(2) Please pay attention to the sequence of the installation steps to avoid repeated disassembly.

(3) Make sure hibernate and sleep are disabled when working long hours. This feature may cause the laser to continue to glow out of control, and burning on the table.

## 13. Update

Our software will be updated continuously.

**Please visit our website: [www.vevorengraver.com](http://www.vevorengraver.com) for more new products and software.**

**Please be sure to download the VevorWorks for this machine.**

Please refer to the Software Installation Manual for control software instructions.

Please contact us if you have any questions.

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

Contact: [service@vevor.com](mailto:service@vevor.com)

Call us:

**(+626) 275-4507** (For USA)

**(+44) 1173182739** (For Europe)

**(+001) 626 275-4507** (For Other Countries)

Working Time: Mon-Fri 8:00am to 5:00pm

**Powered by VEVOR 2022**