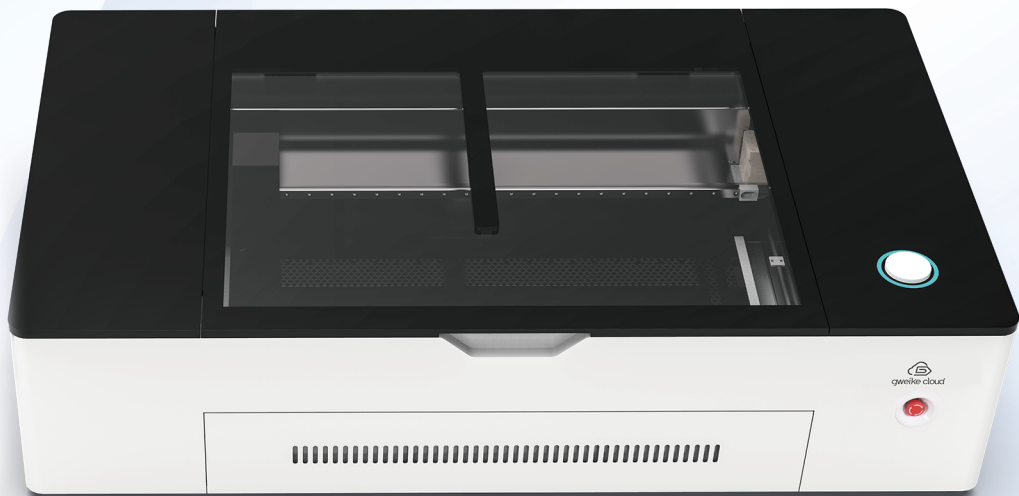




gweike cloud

# USER MANUAL

## DESKTOP 3D LASER PRINTER



Copyright gweikecloud, Inc

## FOREWORD

Thank you for choosing to use the Gweikecloud laser cutting machine produced Spc Laser Co Ltd. We will provide you with comprehensive after-sales service and solutions. Please keep this manual and other accessories in good condition so that you can use this product better.

This manual is only applicable to the standard configuration of our products. For special customized products, please read the attached instructions carefully.

The laser machine described here is a Class IV laser device and is dangerous. The laser will instantly ignite clothing, wood, paper, plastics, and many other common items and will Seriously Burn Flesh, Including Eyes. Care must be taken to avoid Serious Injury and/or Blindness. Always operate this and any other high power laser in an environment free of flammable materials, children, pets, spectators, etc. Always use Infrared Eye Protection Goggles when operating this laser. Failure to do so may result in Permanent Blindness. This laser uses Lethal High Voltages. Care must be taken when working with the high voltage. Failure to do so may result in Serious Injury or Death.

**Builder and/or User Assumes All Risks!**

This manual will provide you with instructions on how the product works, how to install it, how to use it, how to troubleshoot it, how to transport it, how to maintain it, how to maintain it. If you are using this product for the first time, please be sure to read this manual in detail. Improper use may cause the machine to operate abnormally. Failure, lowering the service life, and even equipment damage. Personal injury or death!

Due to the continuous improvement of the products, the products you receive may differ from the statements in this manual in some respects. Apologize!



# CONTENTS

<b>Introduction</b>	01
<b>I . Safety</b>	01
1.Laser Safety	02
2.Electrical Safety	02
3.Fire Safety	03
<b>II . Certification/ Identification/Warning Labels</b>	07
Do and Don't	07
Getting Started	08
Getting Acquainted	08
<b>III. Unboxing &amp; Setting Up</b>	09
1.Unboxing	10
2.Machine installation	13
<b>IV. Operation</b>	17
1.Login in	17
2.Turn on and connect to the WI-FI	21
3.How To Print Your First Work	27
<b>V . Other Functions Introduction</b>	32
1.Function of extraction	32
2.The function of Combining and Breaking up(The function of Grouping and Ungrouping)	33
3.The function of Layer	34
4.Add option	34
5.The Function Of Copy	34
6.3D Engraving	35
7.The Function of Title bar	35
8.Processing Parameters	41
9.Note of button light color	42
<b>VI. Rotary</b>	42
1.Instructions for rotary	42
2.Steps for usage	43
<b>VII. Maintenance &amp; Service</b>	47
1.Clean Cutting Debris	47
2.Clean The Third Mirror	47

# CONTENTS

3.Clean the laser window	47
4.Clean The Camera	48
5.Clean the protective lens	48
<b>VIII.Problem And Resolve</b>	<b>48</b>
1.How to adjust the focus?	48
2.Flame problem	50
3.If the machine is working abnormally, what should be checked?	51
4.Wifi Can't Connect	52
5.The Color Of The Indicator Light	53
6. When the image taken by the camera has a large deviation from the actual cutting image (the deviation within 2mm is normal)	53
7.If the cutting material is larger than the machine format, how to realize the front and back feeding	54
8.Handling method when error is reported on the web page	55
9. LightBurn Software Camera Correction Instructions	60
<b>IX.Rotary for lightburn</b>	<b>68</b>
1. Instructions for rotary	68
2. Steps for usage	68

# INTRODUCTION

## How to Use This Owner's Manual

Thank you for purchasing an GweikeCloud Laser system. Your GweikeCloud system has been designed to be easy to operate, but you will utilize it to its fullest potential by taking some time to read this owner's manual prior to use. You will be ready to use the GweikeCloud Laser system as soon as you read the first few sections. Then you can refer to topics in the remaining sections as you work.

## I . SAFETY

### 1. Laser Safety

The Gweikecloud Laser System is a Class 4 laser product, as defined in International Standard IEC 60825-1.

The Gweikecloud complies with 21 CFR 1040.10 and 1040.11, the Federal Performance Standards for Light-Emitting Products, except for deviations pursuant to Laser Notice No. 50, dated July 16, 2001. The Center for Devices and Radiological Health, of the US FDA, issued Laser Notice No. 50 to permit manufacturers to classify and manufacture their products in accordance with the International Standard. The output of the embedded laser is fully contained. The laser cabinet has safety interlocks that turn the laser off if any access door is opened during operation, and no special precautions are necessary to operate the laser safely. Access doors are interlocked and can be opened without the use of a tool. Any interlocked door that is opened while the machine is operating will immediately stop the laser from firing.

Access panels are not interlocked and require a tool for opening or removal. Access panels should always be installed when the laser is operating. Never operate the laser system with an access panel removed.

The visible output beam of the Laser Diode Pointer (Red Dot Pointer) is accessible to the operator. While this device employs the same technology as the familiar laser pen-pointers, like them it is potentially hazardous if its beam is directed into the eye.

We have made every effort to make the Laser Diode Pointer (Red Dot Pointer) as safe as possible. Its beam path is located well inside the cabinet, and under normal conditions, no hazardous levels of laser radiation can escape.

**The operator of the Gweikecloud should observe the following general precautions :**

- DO NOT disassemble the machine or remove any of its protective covers while the unit is plugged in.
  - DO NOT attempt to defeat the door interlocks.
  - DO NOT view directly into the beam of the Laser Diode Pointer (Red Dot Pointer).
  - DO NOT operate the Laser Diode Pointer (Red Dot Pointer) without the machine's focus lens in place. If the unfocused beam strikes a reflective surface, it could be directed out of the cabinet.
- Caution – Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
  - The standard reference for laser safety is the American Standard for the Safe Use of Lasers, Z136.1-2000, developed by the American National Standards Institute (ANSI). This reference is the basis for many of the federal regulations for laser and laser system manufacturers, and for the Occupational Safety and Health Administration (OSHA) laser safety guidelines. It contains detailed information concerning proper installation and use of laser systems.
  - While the ANSI standard itself does not have the force of law, its recommendations, including warning signage, training, and the designation of a laser safety officer, may be compulsory under local workplac regulations when operating laser systems above Class I.

## 2. Electrical Safety

- The AC input power to the Gweikecloud Laser System is potentially lethal and is fully contained within the cabinet.
  - DO NOT open any of the machine's access panels while the unit is plugged in.
  - Opening a panel may expose the operator to the unit's AC input power.
  - DO NOT make or break any electrical connections to the system while the unit is turned on.

### Electrical Specifications

POWER	550W
Voltage	100-240V
Circuit Current	13amp
Bandwidth	50hz/60hz

### 3. Fire Safety

- The gweikecloud unit's laser cuts and engraves with a beam of high-intensity infrared light. The laser can generate extremely high temperatures in the material being cut or engraved. Under some circumstances, it is possible for the material inside the gweikecloud unit to ignite and for the flame to spread outside of the area being cut or engraved. If ignited, the flame could destroy your unit and spread, potentially setting fire to the building.

- KEEP YOUR LASER SYSTEM CLEAN – A build-up of cutting and engraving residue and debris is dangerous and can create a fire hazard.
- Keep your laser system clean and free of debris. Regularly remove the cutting grid to clean any small pieces that have gotten stuck or fallen through.

#### Safety Features and Regulatory Compliance

Gweikecloud has incorporated specific safety features into the Model 16000 Laser System in order to meet the requirements of 21 CFR 1040 and the International Standard IEC 60825-1. These safety features include:

- A safety enclosure (cabinet), which fully encloses the engraving laser and its beam path.

- Dual redundant interlock systems that turn off the engraving laser when the window is opened.

- A visible emission indication when the Laser Diode Pointer (Red Dot Pointer) is operating. There is an LED indicator on the machine's front panel.

## II. Certification/ Identification/ Warning Labels








21 CFR 1040 and IEC 60825-1 require that certification, identification, and warning labels be placed on laser products. Reproductions of labels on the Gweikecloud Laser System follow, with their locations specified:

**1. Certification/Identification Plate:** This engraved plate is located on the right side of the machine's cabinet.



<div data-bbox="391 425 670 548" data-label="Image"> </div> <p data-bbox="231 593 813 772">Removable interlock protection safety label: There is a label on the back of each cabinet of the machine; One at the front, one at the top. One on the left and one on the right.</p>	<div data-bbox="869 403 1420 728" data-label="Image"> </div>
<div data-bbox="367 851 678 1052" data-label="Image"> </div> <p data-bbox="231 1086 813 1176">Laser radiation warning label: this label is located at the back right side of the machine</p>	<div data-bbox="869 828 1412 1176" data-label="Image"> </div>
<div data-bbox="391 1243 678 1377" data-label="Image"> </div> <p data-bbox="231 1422 813 1601">Power Labels: The appropriate label for the machine is located on or below the power module panel at the right side of the machine's cabinet.</p>	<div data-bbox="885 1220 1404 1612" data-label="Image"> </div>
<div data-bbox="351 1713 742 1848" data-label="Image"> </div> <p data-bbox="231 1915 813 2004">Camera Label: This label is located at the top right of the back of the machine</p>	<div data-bbox="869 1668 1380 2004" data-label="Image"> </div>



<p><b>AVOID EXPOSURE - Visible and invisible laser radiation is emitted from this aperture</b></p> <p>Laser Aperture Label: This label appears between the first and second laser mirrors, the laser beam is emitted from here to the engraving area.</p>	
 <p>Noncontact safety Interlock label: this label is located at the bottom right of the top of the machine.</p>	
 <p>This label is located on the place to open the door where the door opens.</p>	
 <p>Note the fan beater label: located near the exhaust fan blade inside the machine</p>	



Laser Aperture Label: This label is located on the laser head



Aperture Safety Label: This label is located above the aperture, inside the cabinet, where laser beams enter the machine's engraving Area, one on the left cabinet door.



**NOTE:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. This product contains a Certified transmitter module (wireless network)

## Do and Don't

### Don't

1. **Do Not Run the Laser Unvented:** Never operate the machine without a properly operating vent to the outside or to a filtration unit! Most material will only produce an irritating smoke when engraved. Some materials, including but not limited to paint, varnish, composition board and plastics, produce compounds that can be harmful if concentrated. A properly installed vent is the only way to ensure that problems do not occur.

2. **Do Not Operate Machine While Unattended:** Never operate your machine without someone watching the system. There is a significant risk of fire if the machine is set improperly, or if the machine should experience a mechanical or electrical failure while operating.

3. **Do Not Vector Cut While Machine is Unattended:** Never laser cut any material with the laser without someone watching the system. Because vector cutting moves relatively slowly compared to raster engraving, a tremendous amount of heat is applied to the material being cut. This buildup of heat can cause significant fire risk and the machine should always be monitored. Additionally, the Air Assist should always be turned on when vector cutting to reduce the risk of fire.

4. **Do Not Operate The System While Doors are Open:** Never operate with any of the covers or enclosures removed, and never modify the enclosure. The laser beam is invisible and is very dangerous!

5. The red border is 5px for the cutting effective area away from the edge of the canvas, blue is the engraving effective area, 111px away from the edge of the canvas, and the px to mm calculation method is 5px multiplied by 25.4 divided by 72, the cutting edge is 1.76mm, and the engraving edge is 39.16mm.

### Do

**Clean the System:** Please allow a few minutes a week for cleaning your machine. Just

a small amount of effort at the end of the week will pay off with years of trouble-free operation of your machine.

See the section “SYSTEM MAINTENANCE” on page 122 for specifics.

### Getting Started

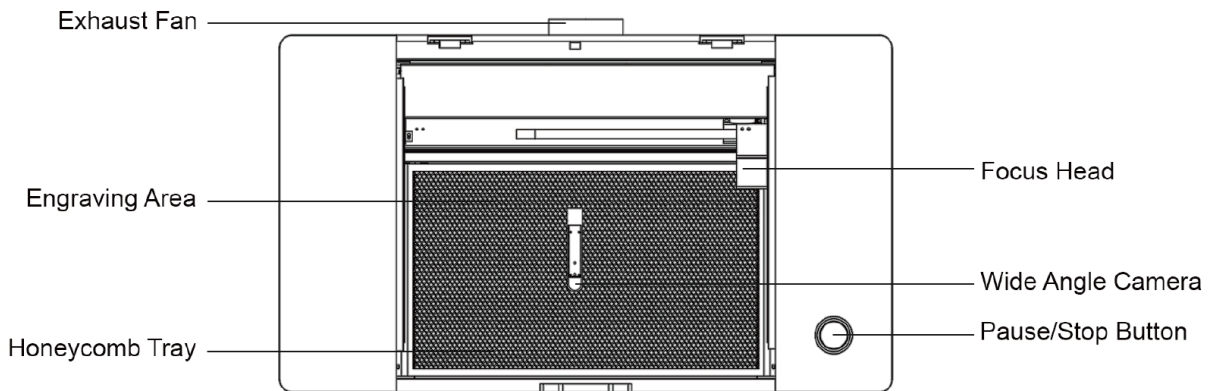
Follow these steps to set up your Laser system:

1. Unpack the laser system.
2. Choose where to locate the system.
3. Connect the exhaust system to your laser.
4. Connect the electrical power.
5. Register your system at [www.gweikecloud.com](http://www.gweikecloud.com)

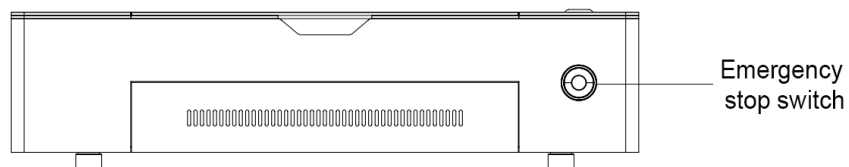
### Getting Acquainted

Here’s a quick tour of parts you’ll need to know:

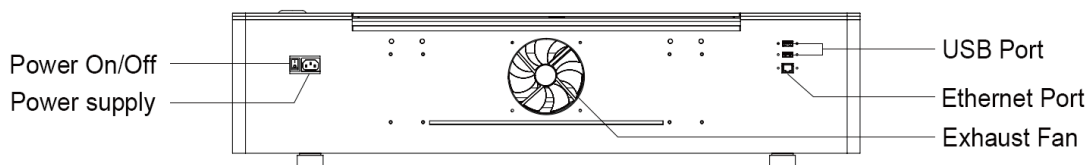
#### Top View



#### MAIN VIEW



#### REAR VIEW



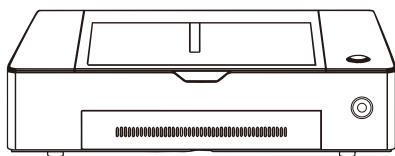
## III. Unboxing & Setting Up

### Let's Get Started

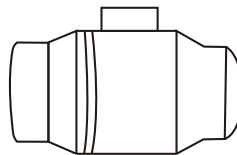
If you've read about Safety, you now know everything you need to operate your gweikecloud safely, and that's pretty cool. Thank you for your patience. Now, it's time to get lasering! Let's get started, shall we?

### Laser Printer & Accessory Pack

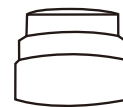
You will receive two packages. Package 1 includes GWEIKE Cloud laser printer, material package and accessories. Package 2 includes air filter.



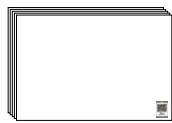
Gweike Cloud pro



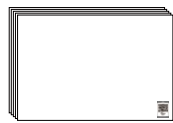
Duct fan



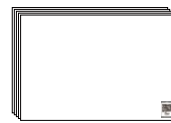
Duct adapter



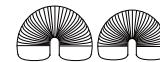
3mm Basswood board 5pcs



3mm Cardboard 5pcs



3mm Acrylic 5pcs



Air hose \*2



USB wire \*2



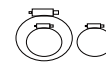
Internet cable \*1



Power cable \*1



Rotary connecting cable \*2



Clamp \*3



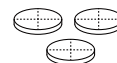
hexagon bar \*1



Fuse \*4



Rotary washer \*10



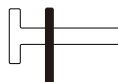
Light target \*10



Marker Pen \*1



Focus length ruler \*1



Ruler \*1



Storage box (Big) \*1



Cotton swab \*1 package



User Manual \*1



Certificate of conformity \*1



Warranty card \*1



\*Please save the carton

## 1.Unboxing

(1).Using handy tools to open and remove the carton cover.



(2).Take out the wrapped "honeycomb board"and the sponge on the top of the box.



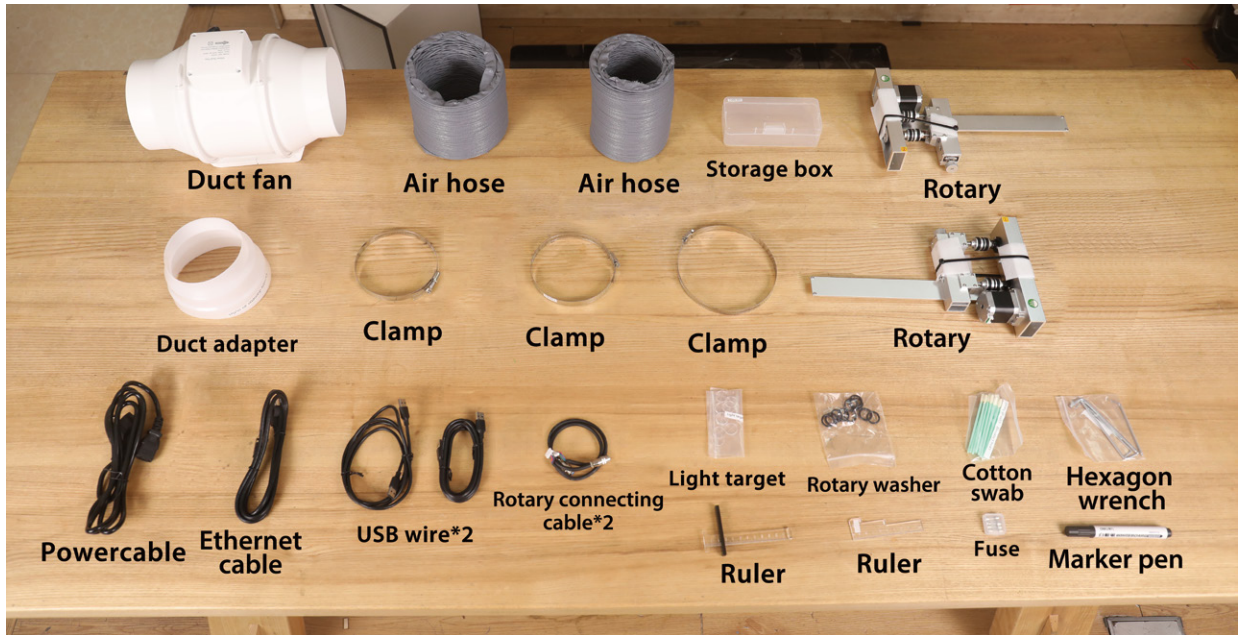
(3).Choose a table with a hard, flat and stable surface. If the desktop is unstable, uneven or too small, it may cause deviations of printing accuracy and may even damage the laser printer.



(4). Take the 3D laser printer out of the wooden box. Remove the orange belt and the plastic bay belt. Place it on the prepared desktop. Open the cover of the machine and take out the accessories inside the machine.







## 2. Machine installation

(1). Pull out the waste scrap tray, put the honeycomb board into the bottom of the laser printer, and then reinstall the waste scrap tray.



Don't put in honey comb plate from top side.



(2). Duct Fan Installation Manual

Before :



Preparation:

Fan, Screwdriver, 120mm air hose \*1, 150mm air hose\*1, 120-150 reducer\*1



(1). Connect the 120-150 reducer to the air inlet of the fan.



(2). Unfold and stretch the retractable aluminum air hose.



(3). Connect one end of the 120mm air hose to the exhaust port of the machine, and the other end to the air inlet of the fan, and tighten the clamp with a screwdriver.



(4). Connect one end of the 150mm air hose to the exhaust port of the fan, and tighten the clamp with a screwdriver.



(5). Place the connected fan on the window sill with the air outlet facing outwards.



(6). Plug the power cord to finish the installation.



(7). Upload the drawing and start cutting. Check if any smoke and dust leaks from the front, side and top of the machine.



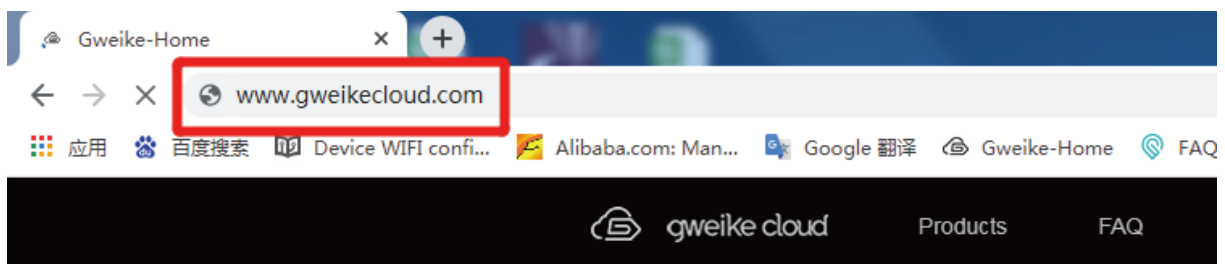
(8).The flue smoke exhaust effect will be stable after the increase of cutting time, then no smoke and dust will be discharged around the machine body.



## IV. Operation

### 1. Login in

(1)Please use a computer or tablet PC to visit [www.gweikecloud.com](http://www.gweikecloud.com), We recommend using Google Chrome.



(2).Click "👤" in the website (refer to Google Chrome)



(3).Click the "Create one now". Register an operating account on the cloud laser Website.



## Sign Up to GWEIKE

The Email cannot be empty!

The password cannot be empty!

remember me

Sign In

[Forget Your password?](#)

Don't have an account number [Create one now.](#)

Note: If account already registered when make payment, please use it and please don't register again.

# Register to GWEIKE

\* Name

\* Country

\* Phone

Company Name

\* Email

\* Email Verification Code

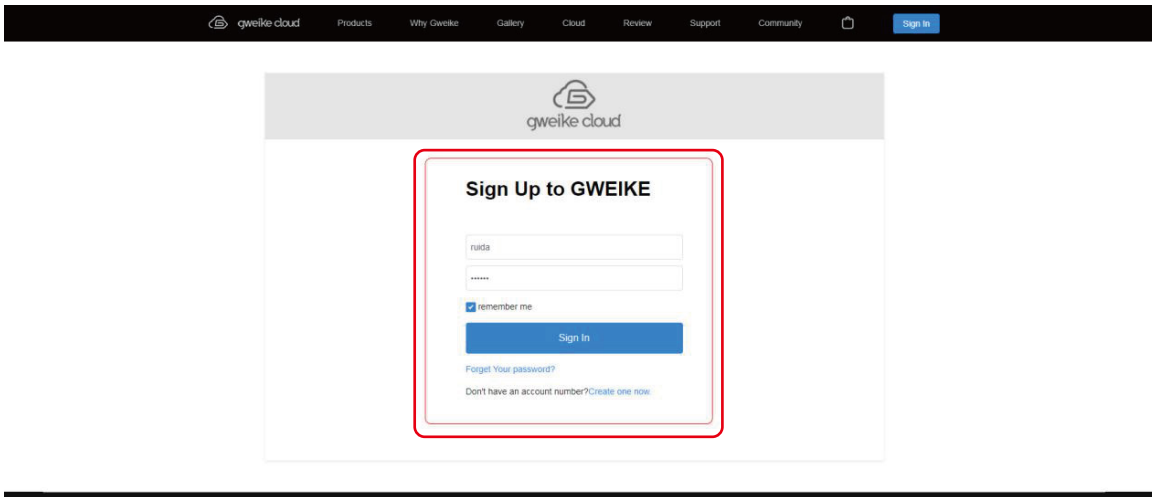
The Email Code cannot be empty!

\* Password

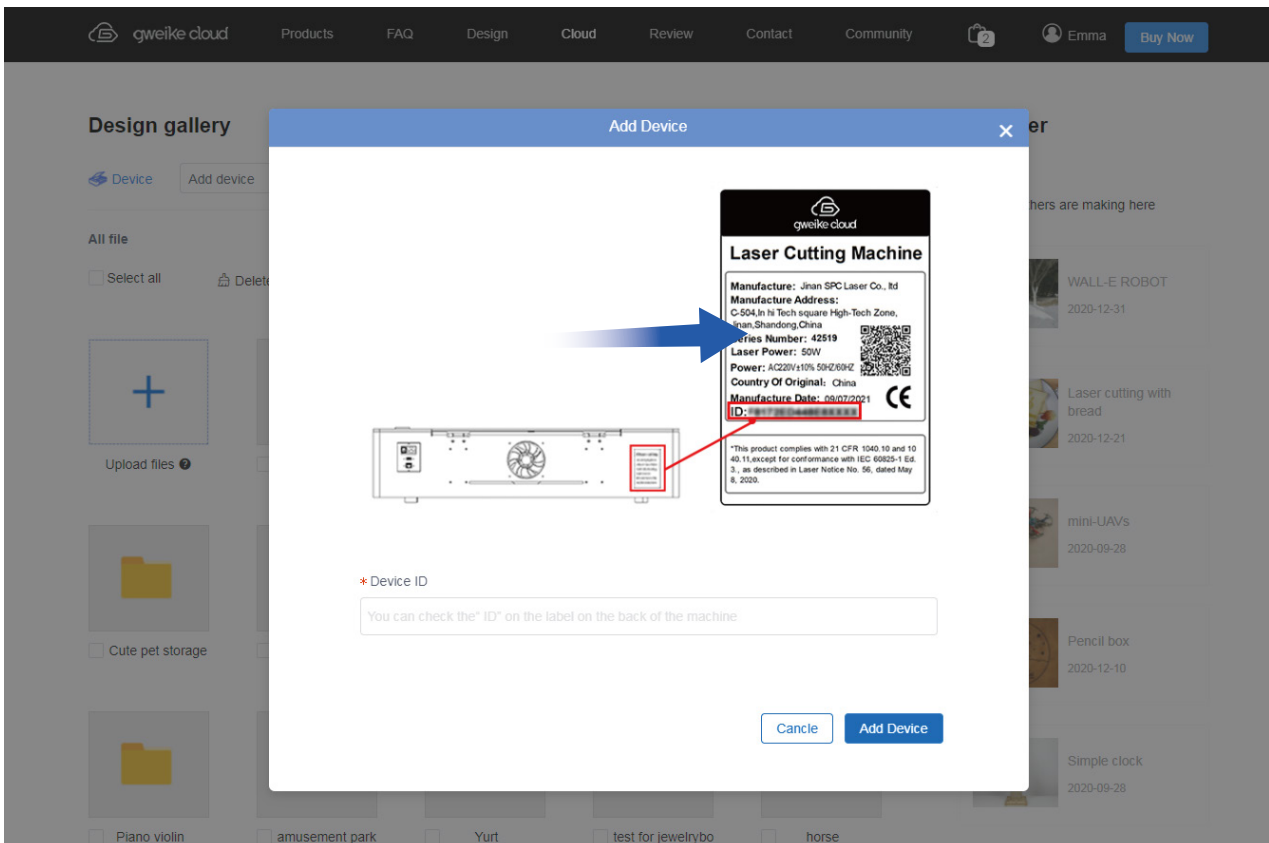
The password cannot be empty!

Confirm

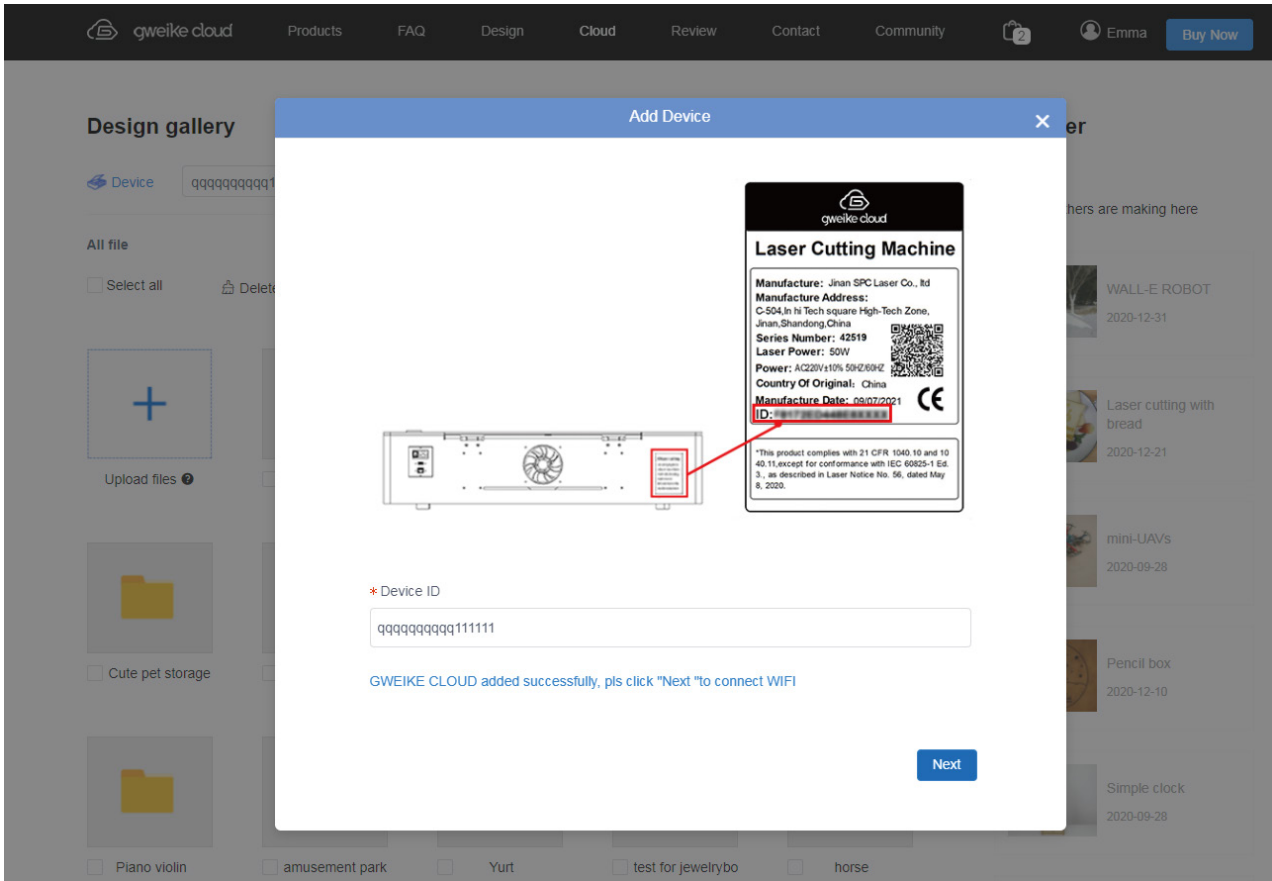
(4) After register your account successfully, click the to <https://www.gweikecloud.com/cloud>. Login in your account, Enter your account and password.



(5) Input your machine ID, the machine ID is on the lable on the back of the machine. When shows “GWEIKE CLOUD added successfully”, pls click “Next”.







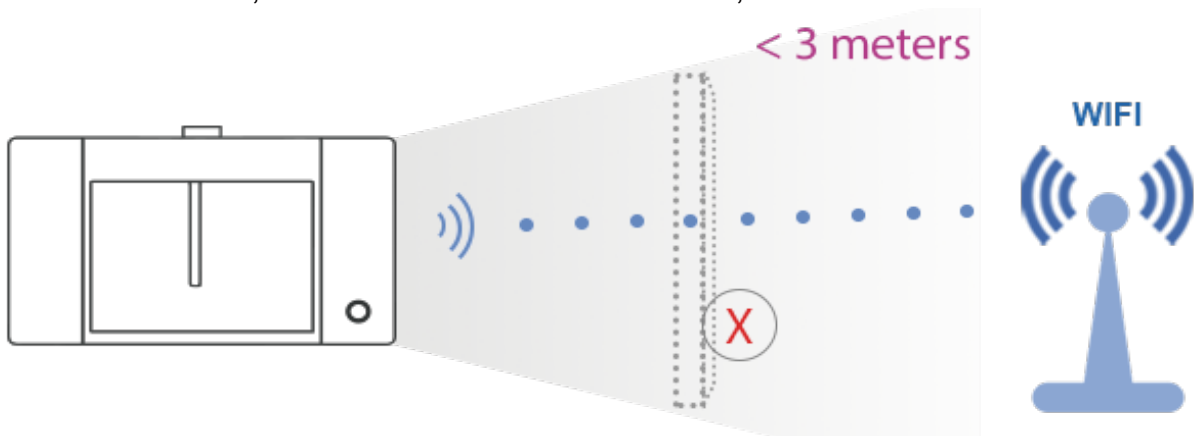
## 2. Turn on and connect to the WI-FI

(1) "I", Turn off is "O"), and you'll see the button green to dark, which means the machine has finished resetting.



### (2) Confirm The Wifi Environment !

Machine and WiFi, distance must be within 3 meters, and no wall between them.



- Wifi should be 2.4GHz, 5G not.

2.4GHz



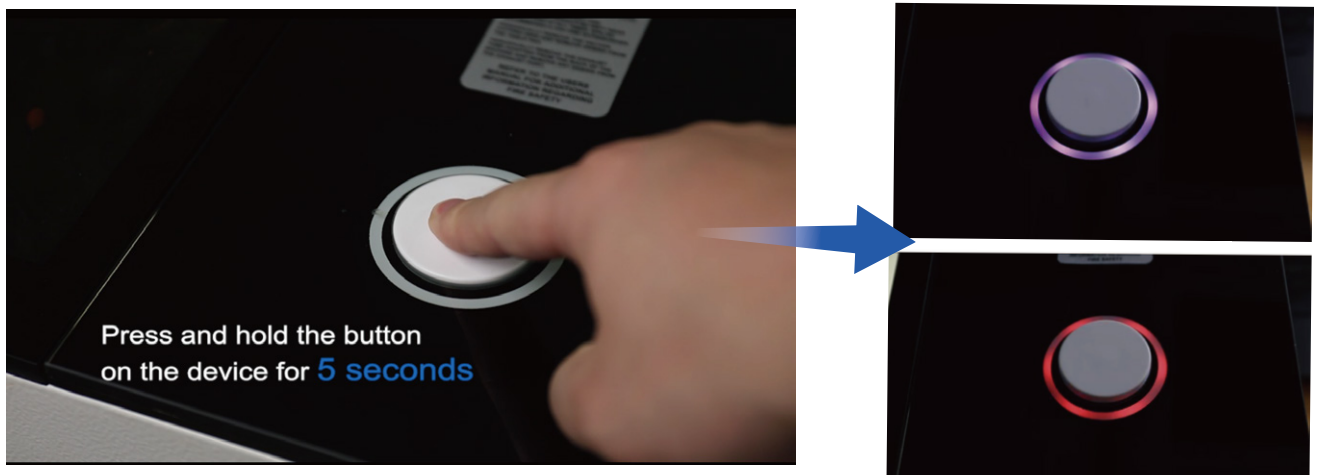
5G



- If the network is unstable, please add a WIFI signal booster.



(3) Press and hold the button on the device for **5 seconds**, The color of the button will change from **purple to red, back and forth**. And then click “Next”.

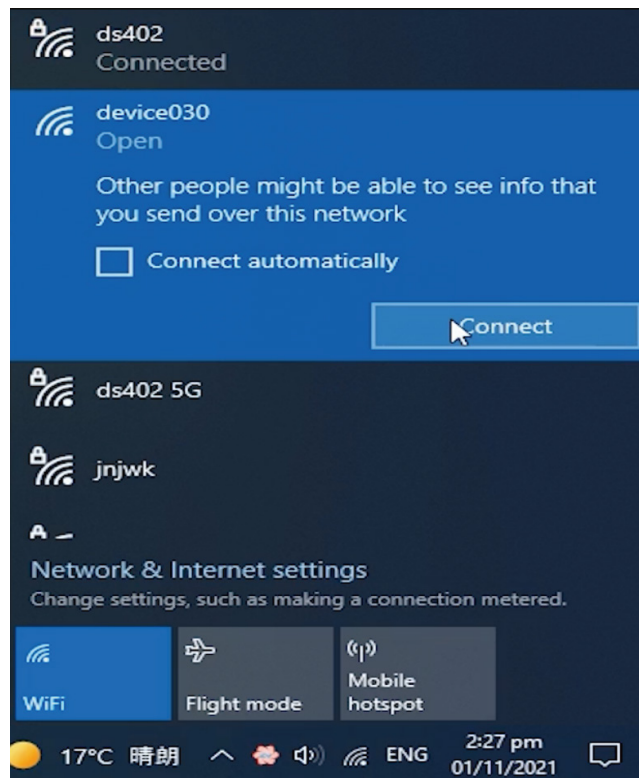


#### NOTICE:

I .If the button doesn't light after pressing the button for 5 seconds, please restart the machine .The the button will light automatically after starting the machine for 20 seconds. Pressing the button for 5 seconds after the button lights.Then open the WiFi of the laptop or tablet and check if there is WiFi that starts with “device” or “gweike”. If there is, please click connect; if not, please check if the LED lights normally, and if the LED doesn't light, please check if the door and drawer close. Please contact the after sale service if the door and drawer close while the LED doesn't light.

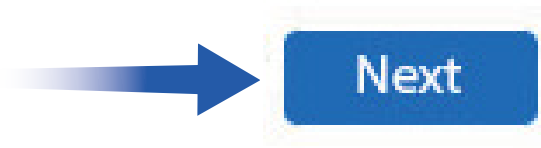
II .Do not power off within 2 minutes after the machine is turned on.

(4)Please turn on the WIFI of your laptop or tablet, search for the device WIFI. The device WIFI is named after“Device00X” or “Gweike XXX”and connect to the device WIFI.



**Notice:** If you cannot find the WIFI starting with "device" or "gweike", please turn off the computer or laptop WIFI, and then turn on the computer or laptop WIFI again, repeat several times.

When the device WIFI display is connected, the device WIFI connection is successful. And then click "NEXT".



- (5)
- WIFI Name

⇒

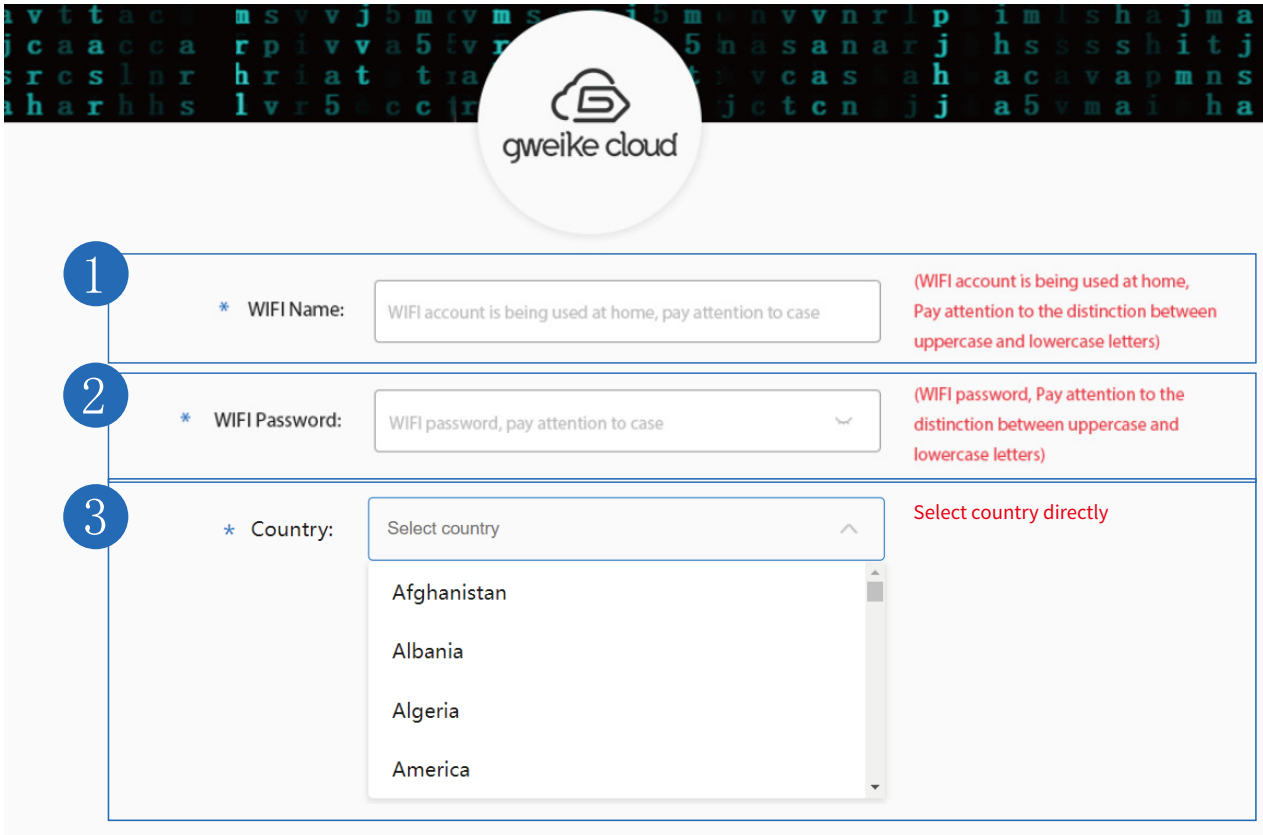
WIFI account is being used at home, pay attention to case.
  - WIFI Password

⇒

WIFI password, pay attention to case.
  - Country

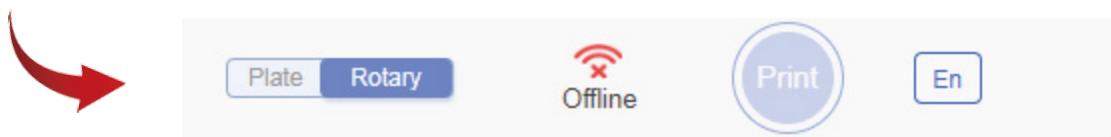
⇒


For the server, choose DE (48.88.16.232) for the European region, CN (47.105.152) for the Chinese region, and US (47.88.16.232) for other Regions, input (47.74.91.245) for Australia.



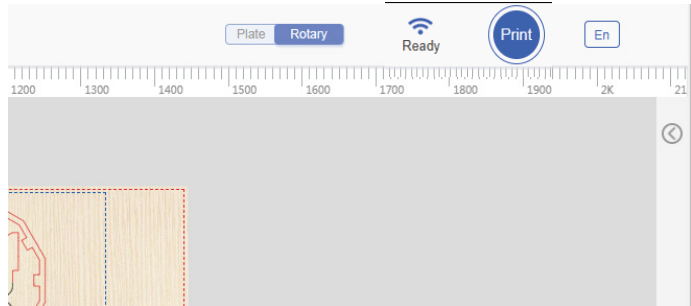
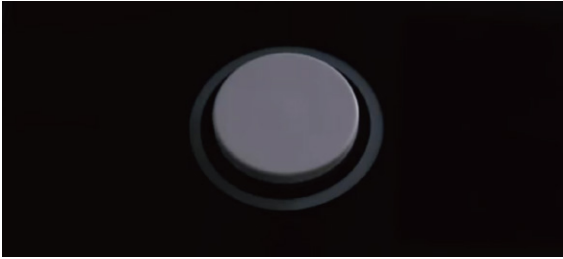
**Notice I** .Connect successfully does not represent that the WIFI connect successfully , and the off of button light of the machine automatically indicates that the WIFI connection is successful.

**II** .If you accidentally exit, please click <https://www.gweikecloud.com/cloud>, choose a design and clickprint,you will enter processing interface, click WIFI,then click "WIFI Configuration".

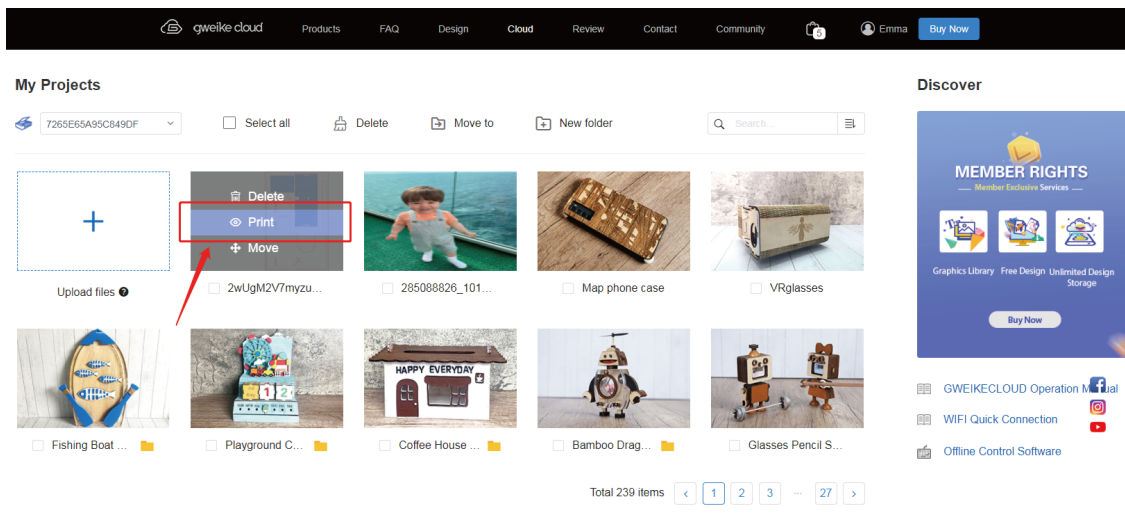
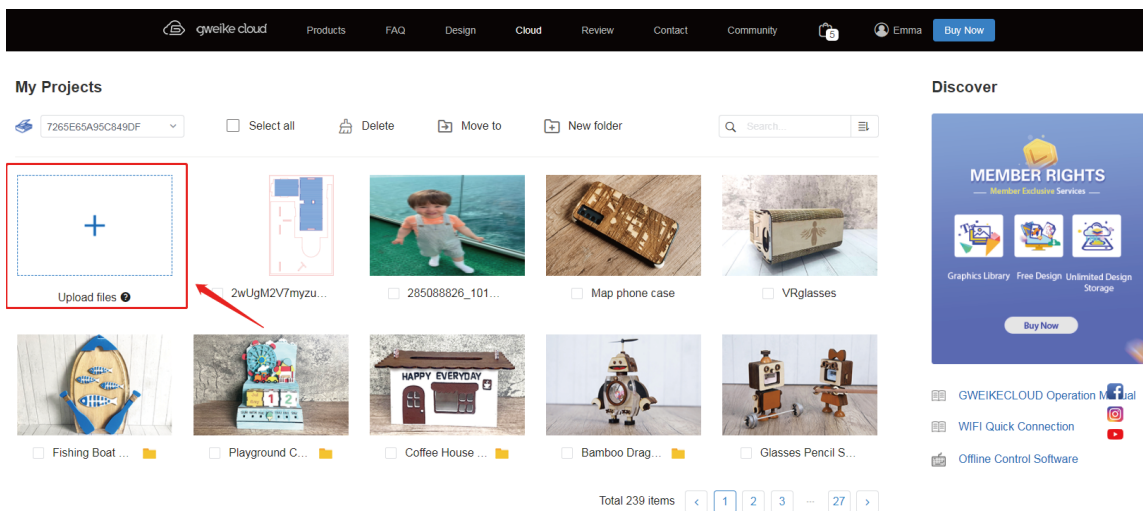


Enter the account password of the home WIFI(please ensure that the account password is correct, the network needs to be above 100M, and the network speed is better) 100M 

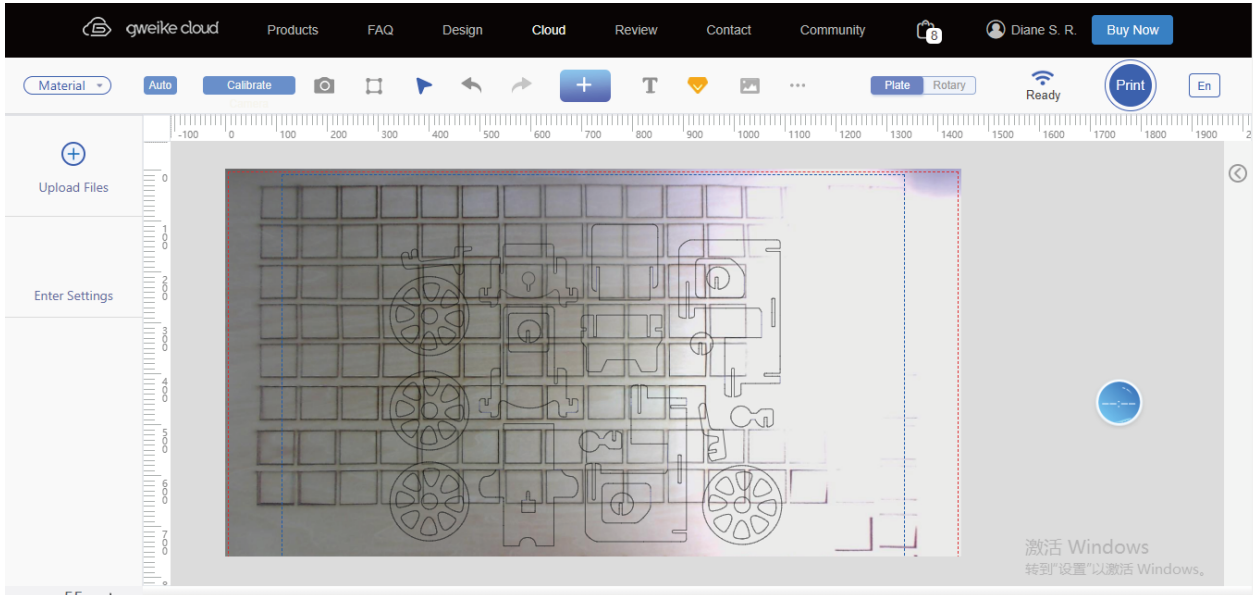
Click Connect Now , if the button light of the machine is off.The page will show that the machine has been successfully connected, and now you can close this page and return to the Design Gallery page.



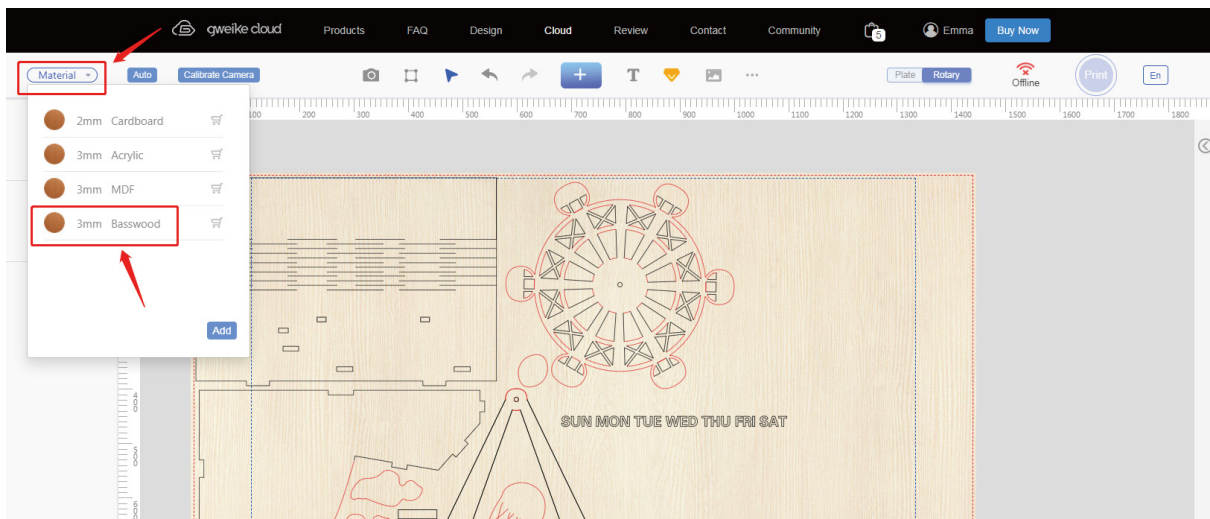
(7).Upload files Enter the customer center, upload the file (supported file formats support JPG, PNG, SVG).Remarks: Click the Device to switch Device. Move the mouse cursor to a file, click Print to jump to the operation page.



And the device status on the operation page displays "Ready" or "reset", it proves that the wifi connection is successful. it means that the WIFI connection is successful.



(8). The WIFI is successfully connected to the network, please click the "Select" button on the operation page to select the processing material (the Print button is grey and cannot be clicked if the material is not selected).



Remarks of various states:

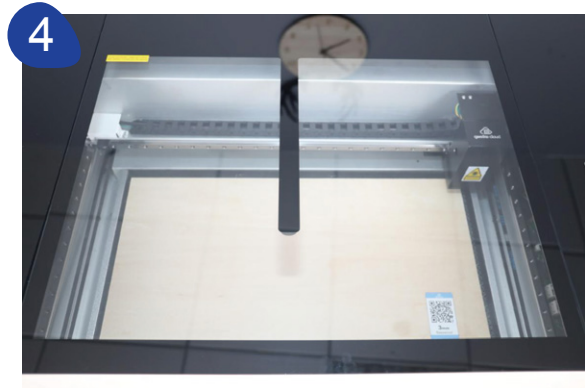
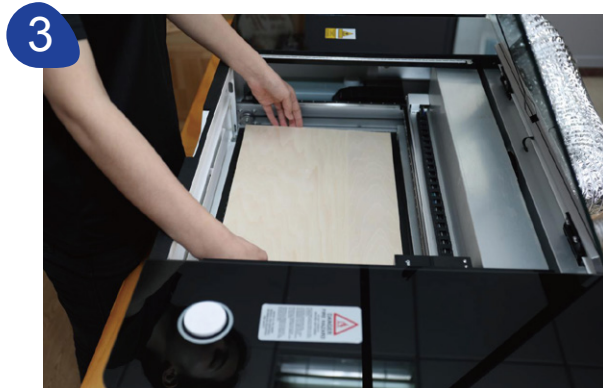
offline: The device is offline, and the device is not connected to the network

ready: idle, the device becomes idle after connecting to the network.

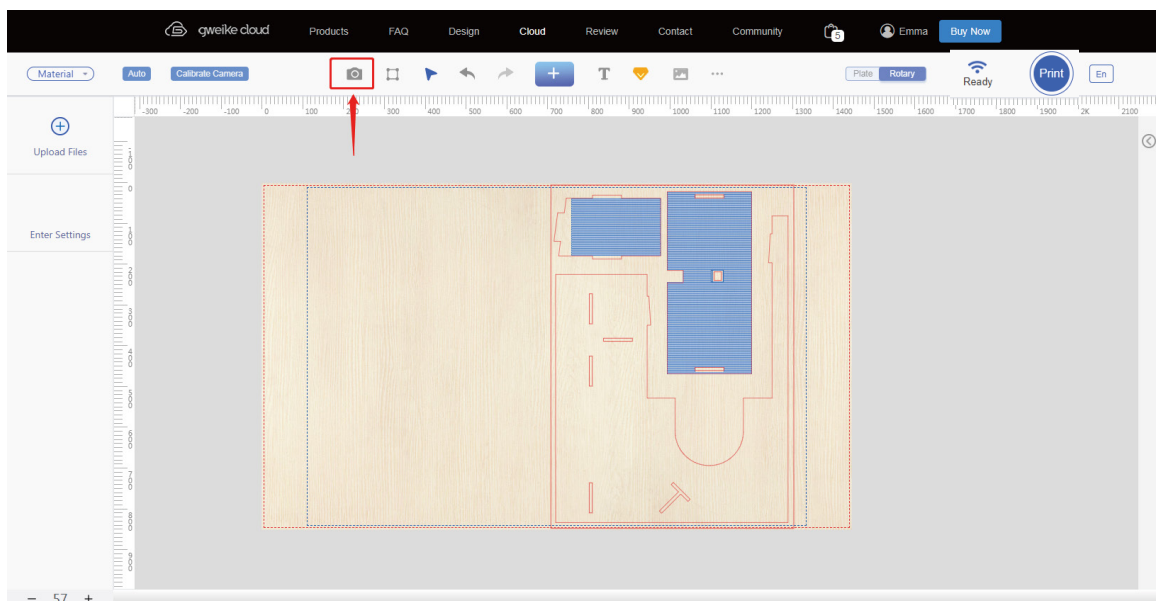
onrun:processing,suspend,reset,open,error,update.

### 3.How To Print Your First Work

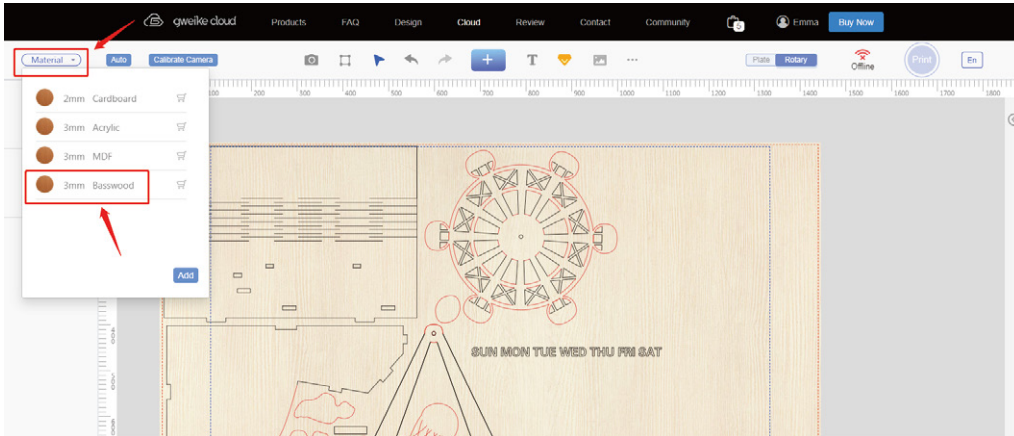
(1).Open the cover of your gweikecloud, choose a piece of material with an area less than 547mm\*305m and place it on the honeycomb panel of the machine. Make sure that the QR code is clearly visible on the material and close the cover completely.



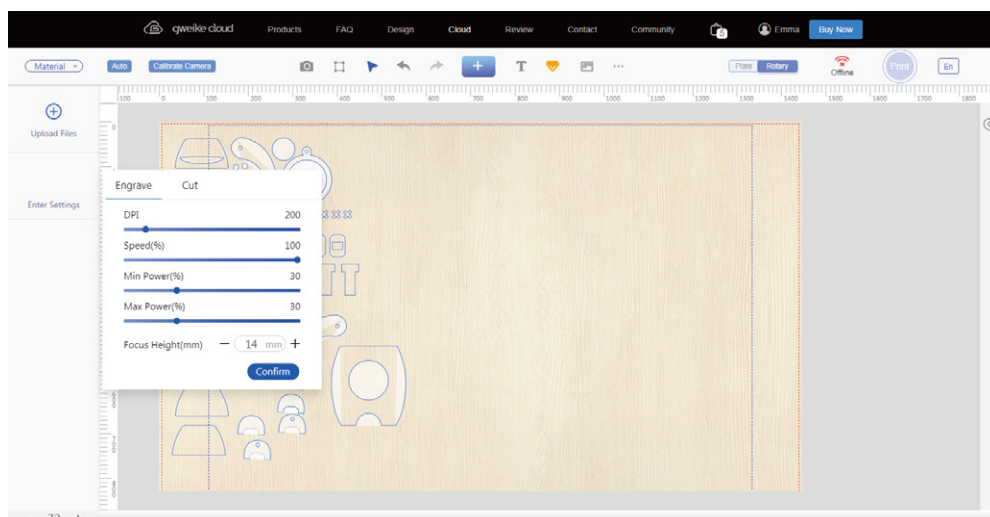
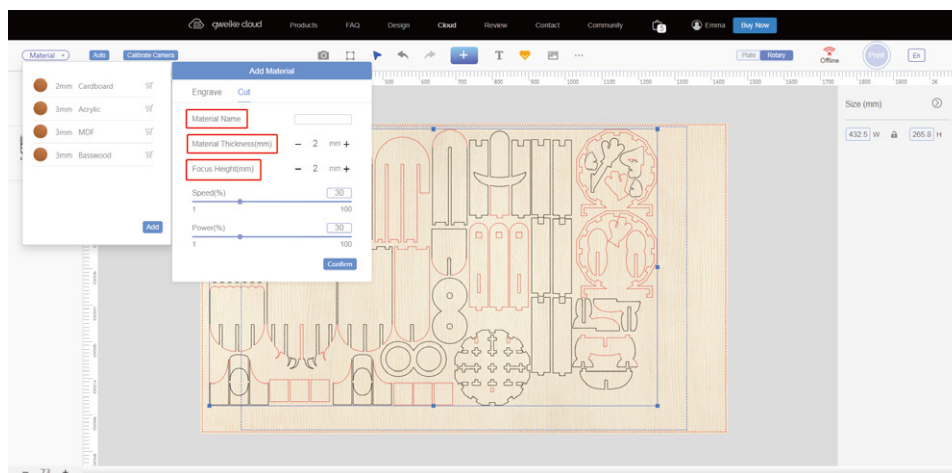
(2).After closing the machine cover, the machine resets, the camera automatically takes pictures and uploads the machine processing table image. If the image is not updated, click the "Preview" button to take a picture manually.



Remarks: gweikecloud official materials, with barcode, the device can automatically identify, automatically select parameters, no need to manually set. Non-gweikecloud material Please manually click the "Select" button on the operation page to select the processing material.

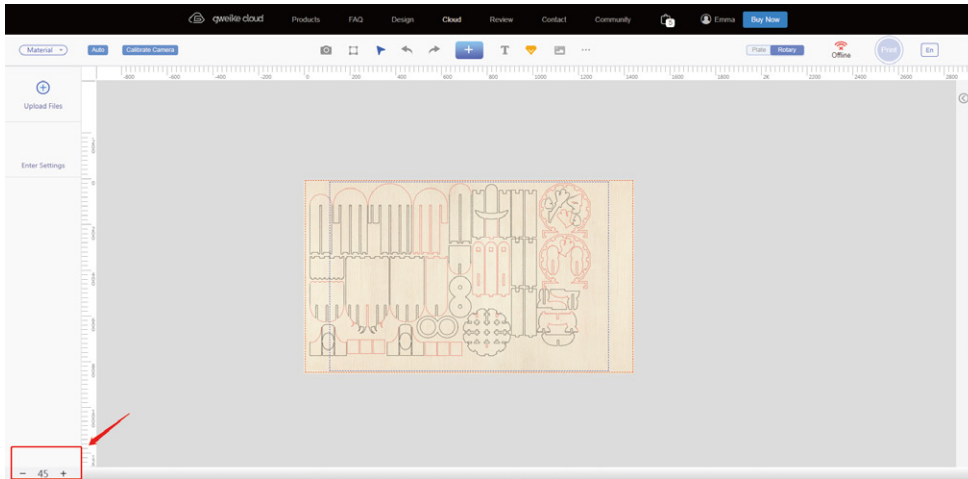


(3). Drag the file to the work panel, select the processing material, and click the first image in the left column to manually select Cut and Engrave (Cut is cutting, Engrave is engraving).

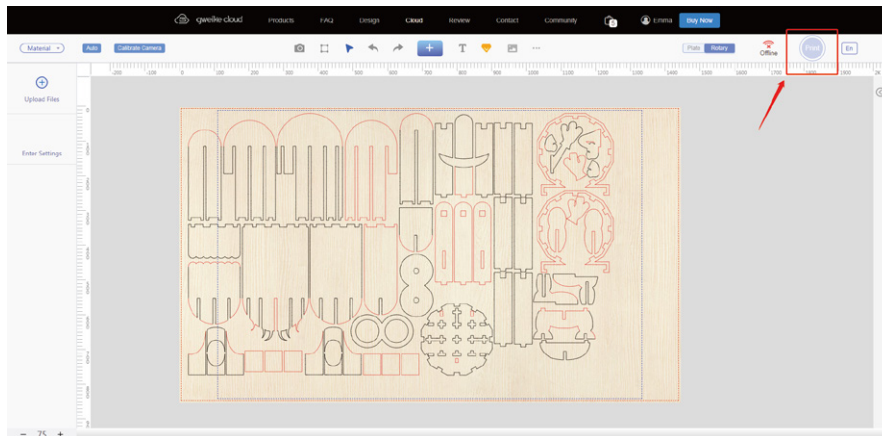




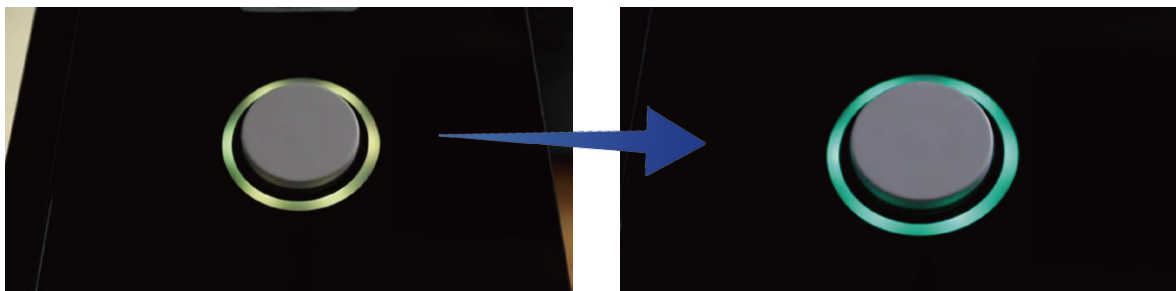
(4). Select the part that needs to be processed, Shift+left mouse button, and drag the fixed point to zoom the selected file proportionally; move the mouse to the canvas range, ctrl+mouse wheel to zoom in and out of the canvas. Drag the image with the mouse to move it to a suitable processing position.



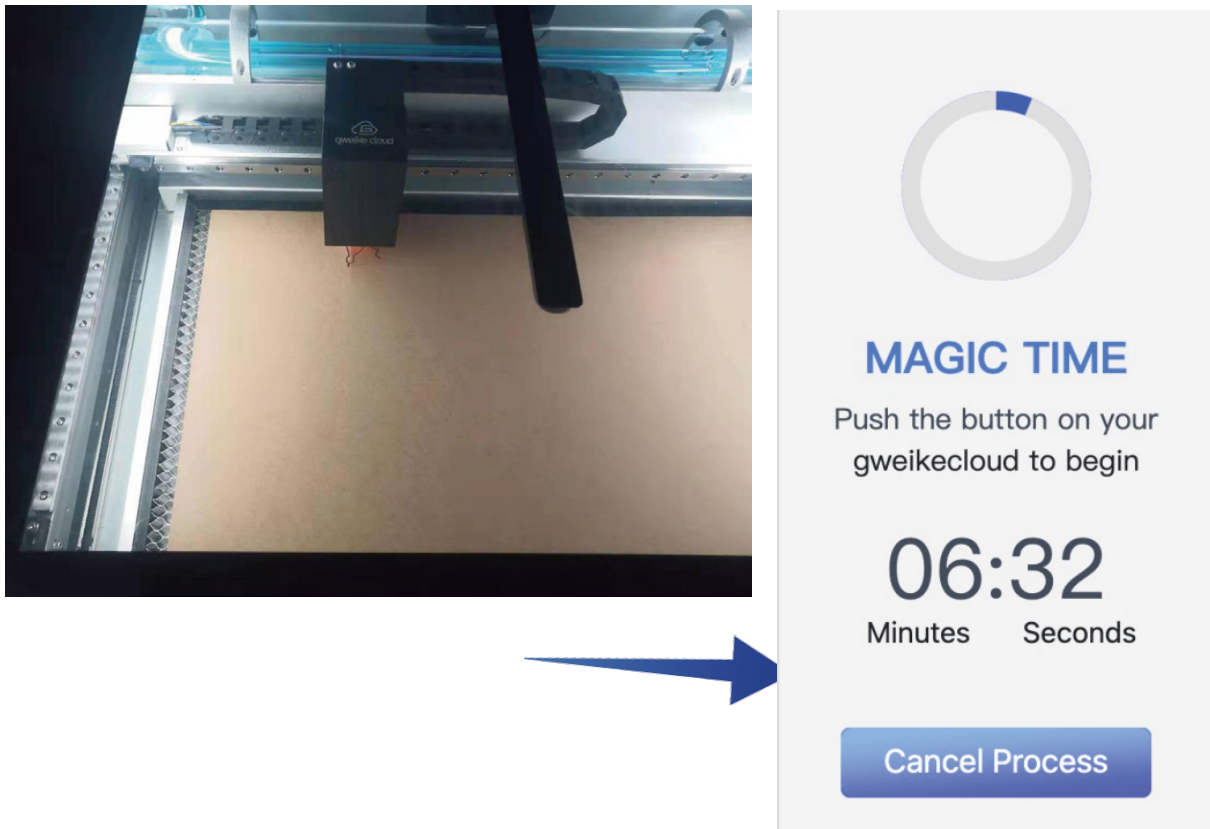
(5).After adjusting the size and position, click Print in the menu bar to send the processing file to the device.



(6).The device button is orange first, and then the device button turns green, which proves that the file is received successfully. At this point, press the equipment button to start processing.



(7).In the operation interface of your computer, you will see the processing time.



(8).After the processing is over, take out the processed finished product. Note: During The machining process, someone must observe the machining situation to avoid machining errors.

(9).Take out the cut parts from the machine and splice them together. Congratulations, you have completed your first work.

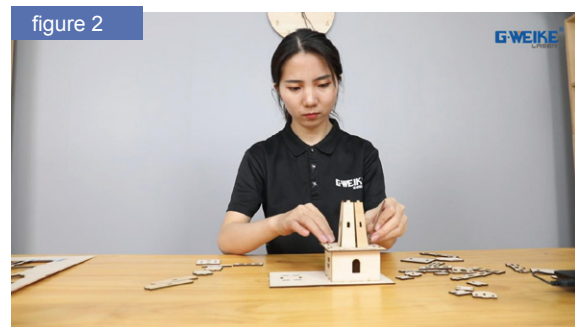
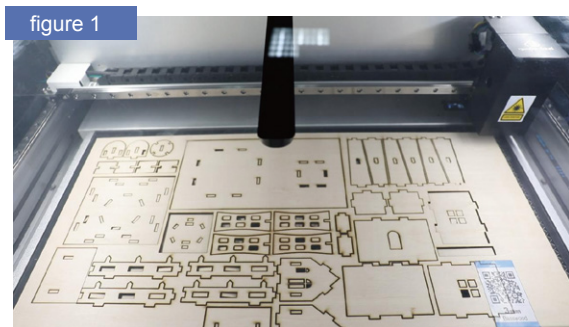


figure 3



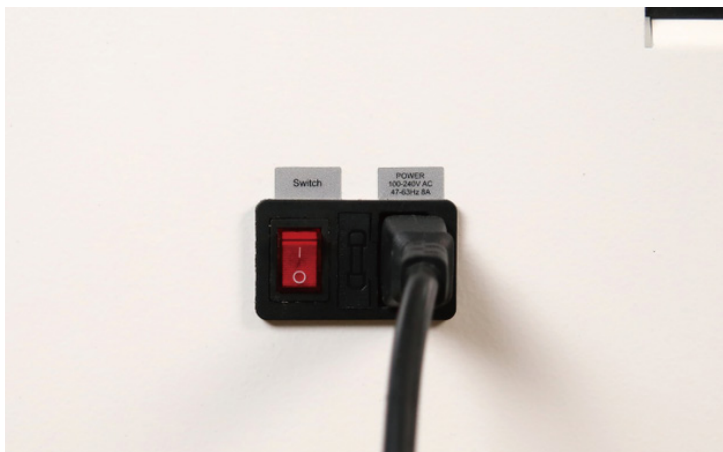
#### (10).Suspend processing

If you need to suspend processing during processing, you only need to press the equipment button, and the laser printer will suspend processing. (If you open the top cover of the laser printer during processing, the LED lights in the laser printer will dim, and the laser printer will also suspend processing).

If you want to reprocess, just press the device button again, and the laser printer will restart processing.

#### (11).Turn off the machine

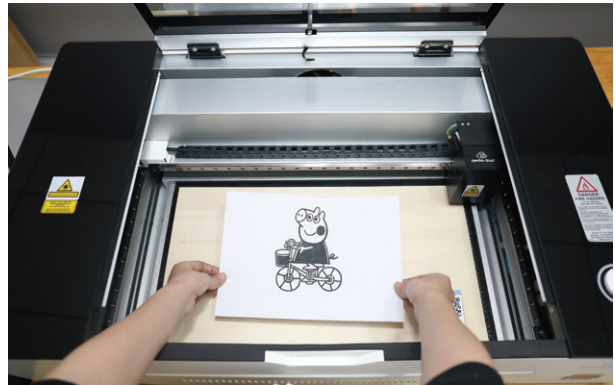
Press the power switch to the “off ”state



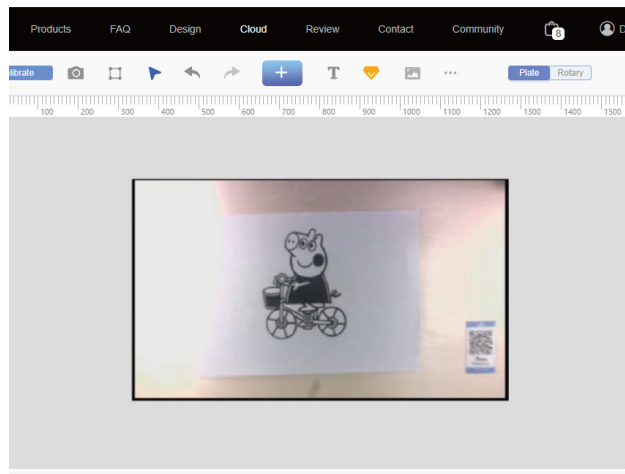
# V. Other Functions Introduction

## 1.Function of extraction

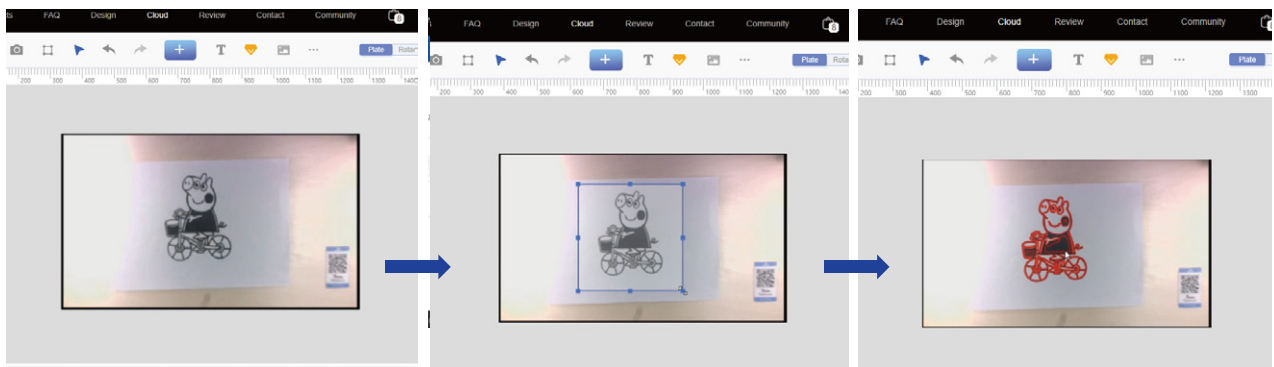
①.Open the cover of the machine, put the hand-drawn drawings or other objects with patterns on the surface of the machine table, and close the cover.



②.After the machine cover is closed, the machine will reset, then the camera will automatically take pictures, and wait for the image to refresh to the operation interface or click Preview.



③Click the "Trace" button, select the part to be extracted in the box, and automatically extract the line after selecting the box. Follow the above printing steps.

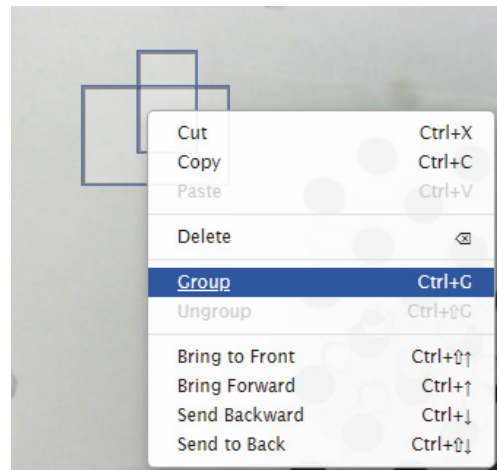


## 2.The function of Combining and Breaking up (The function of Grouping and Ungrouping)

When two or more graphics need to set the same processing parameters, you can combine them into one graphics through the "composite" function.

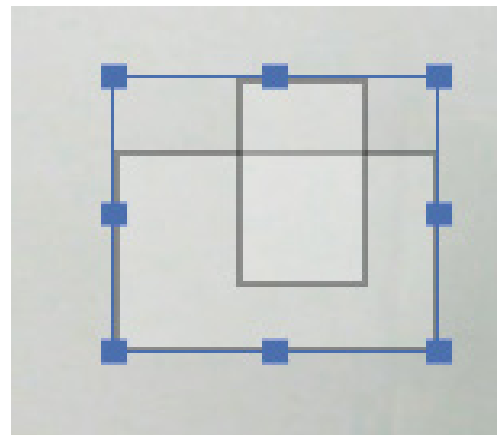
As shown in Figure 1, box select two or more graphics, right-click and select "Group":

If you need to set the processing parameters separately, you can use the break function to disassemble the merged graphics.



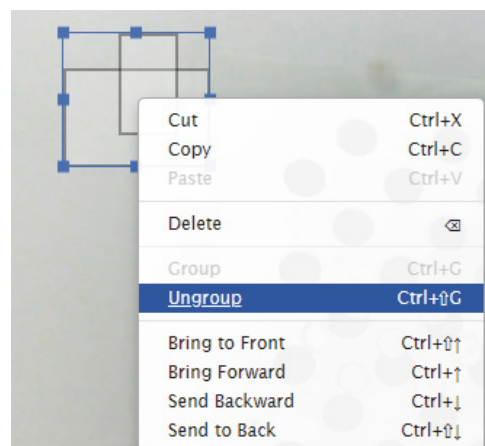
(figure 1)

The combined effect is shown in Figure 2:



(figure 2)

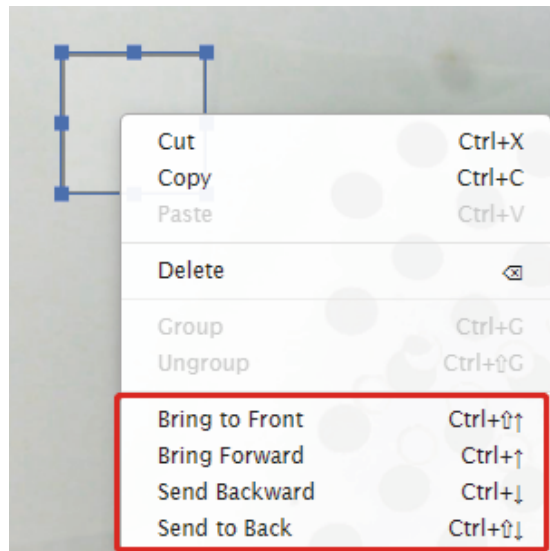
As shown in Figure 3, right-click the combined graphic and select "Ungroup":



(figure 3)

### 3. The function of Layer

In order to achieve a good processing effect, you can change the processing order by adjusting the layer placement order of multiple graphics. As shown in Figure 4, right-click on a graph:

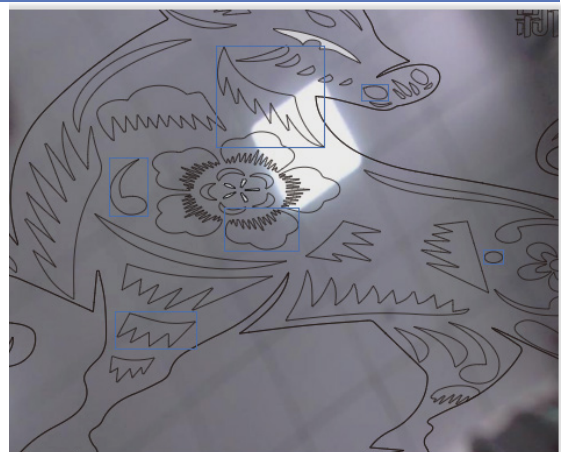


(figure 4)

### 4. Add option

When two or more graphics need to be set with the same processing parameters (cutting or engraving), the graphics are complex and cannot be selected uniformly. They need to be selected individually.

You can hold down the shift key to selectively add the desired graphics, right-click and just select "Group":

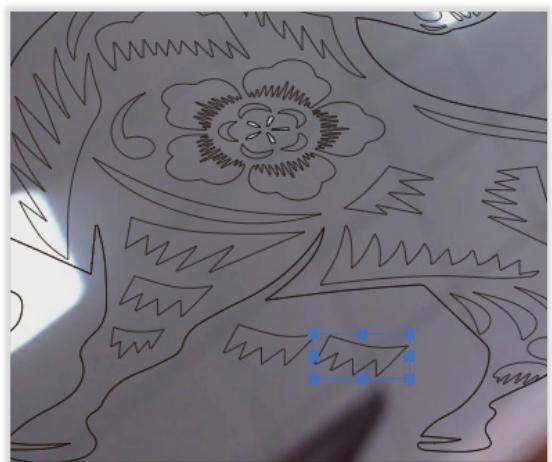


(figure 5)

### 5. The Function Of Copy

Select the graphics to be copied, hold down the **Alt** key, drag the left mouse button to copy, and place it in a suitable position:

You can adjust the layer order through the four options in the red box. Click "Bring to Front" to move the selected layer to the front. Click "Bring Forward" to move the selected layer.



(figure 6)

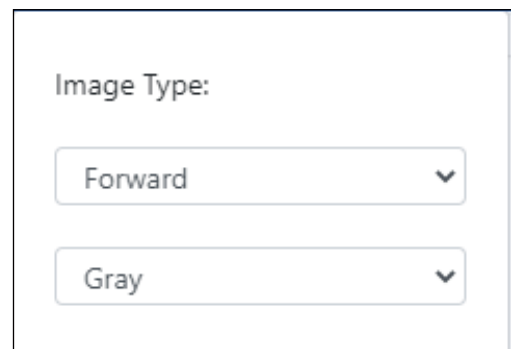
forward one layer. Click "Send Backward" to move the selected layer back one layer. Click "Send to Back" to move the selected layer to the end.

The order of processing is from back to front, and the later layers will be processed first.

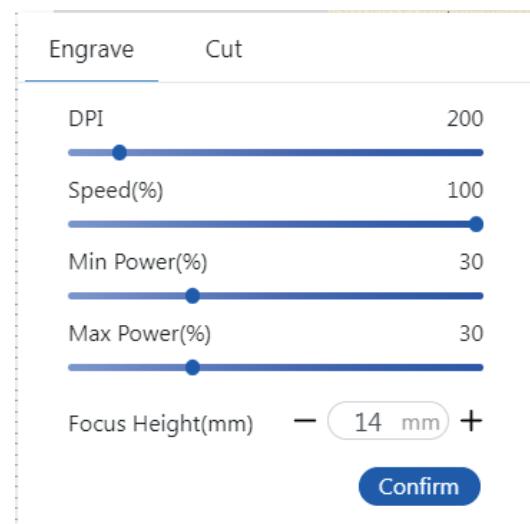
## 6. 3D Engraving

How to process a picture into a grayscale image?

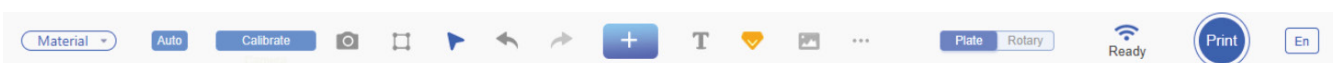
Select a picture, set "Image Type" to "Forward" and "Gray", and set the picture to grayscale.



Click on the picture on the left and select the "Engrave" option. Here you can adjust the minimum and maximum engraving power by modifying "Min Power" and "Maxpower". The greater the difference between the maximum and minimum power, the more obvious the 3D engraving effect achieved.



## 7. The Function of Title bar



Title bar as shown.

Click Material Auto The material selection list pops up.

- 2mm Cardboard 🛒
- 3mm Acrylic 🛒
- 3mm MDF 🛒
- 3mm Basswood 🛒

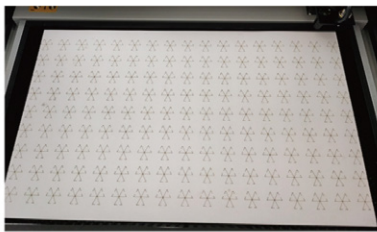
Click Calibrate to calibration camera

Add

**Put white paper or calibration plate on the machine** 📶 Ready

Cover the surface of the equipment operating table with white paper or calibration board, and then click next.

1



PREVIOUS NEXT STEP

**Check machine state** 📶 Ready

Turn on the device, and click next when the connection status becomes ready.


2

PREVIOUS NEXT STEP

**Start processing** 📶 Ready

Wait for the button on the device turn to green, click the button to process, if the button does not change color, click the previous step and repeat the previous step.

3




PREVIOUS NEXT STEP

**To start calibration** 📶 Ready

Wait for the processing of the equipment to finish, after the automatic reset, the equipment status becomes ready, the following is the real-time screen of the machine, if the picture is not refreshed, click the photo refresh button, click next.

4




PREVIOUS NEXT STEP

**Put 3mm wooden board on the machine** 📶 Ready

Place a 3mm wooden board on the surface of the equipment operating table, and lay a layer of white paper on the surface of the board, and then click next.

5



PREVIOUS NEXT STEP

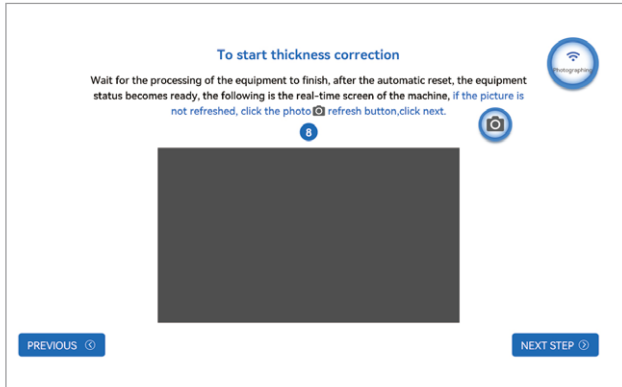
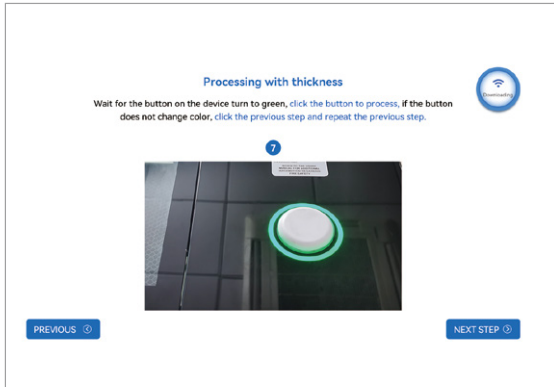
**Check machine state** 📶 Ready

When the connection status becomes ready, click next.

6

PREVIOUS NEXT STEP

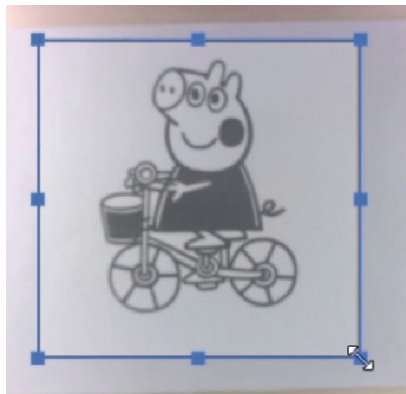




Click the camera button to refresh the processing page image



is TRACE



is mouse selection tool



is revocation tool



is edo tools;

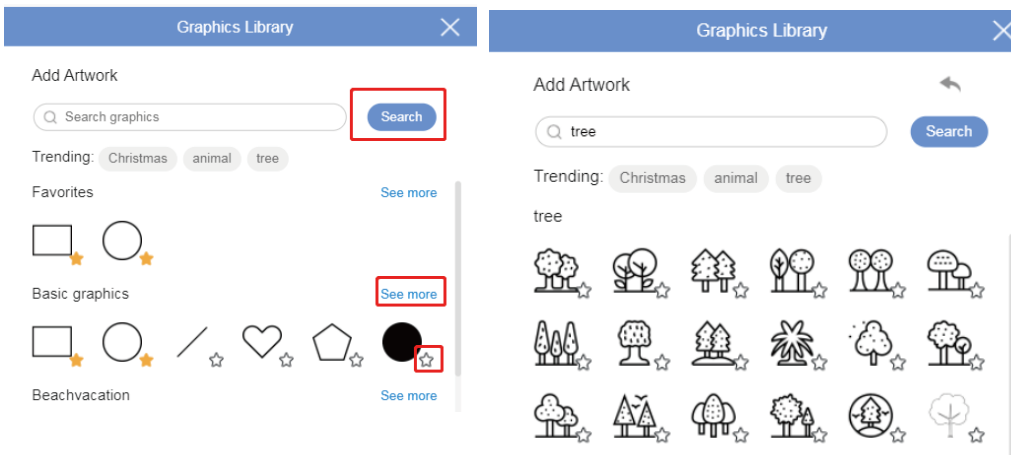


Click it to open graphics library

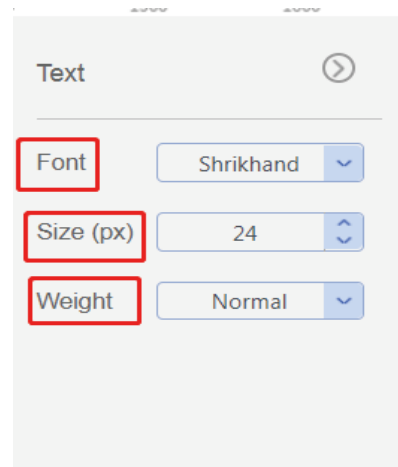
Click it to search (Such as “tree”,then there will pop up tree graphics)

Click “See more” to see more graphics

Click ☆ Move the graphics what you like to “Favorites”



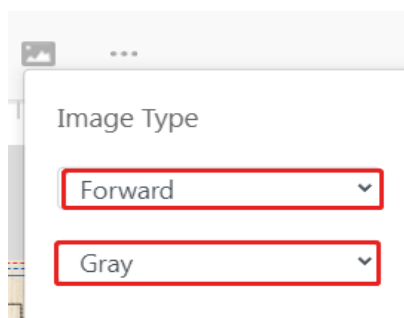
**T** Click it to add a text box,then right of page will pop up something like this,you can select “Font”,”Size” ,”Weight”.



This is the MEMBER RIGHTS.Upgrade MEMBER RIGHTS means you will get Graphics Lirary,Free design,Unlimited Design Storage.

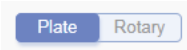
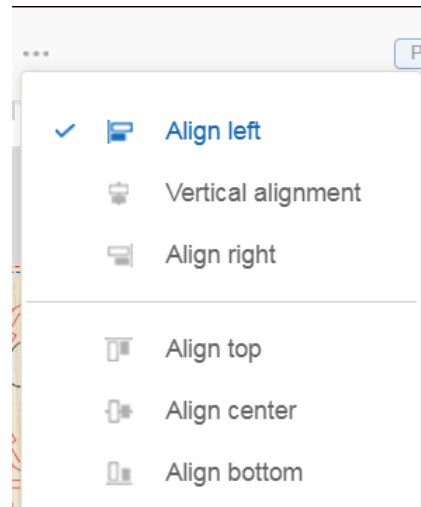


Click it to set image type.





Click it to select alignment. The order is left alignment, left and right center, right alignment, top alignment, top and bottom center, and bottom alignment;



Click it to select model "PLATE" and "ROTARY"



Its display the state of the machine. The machine has six states.

"Open" means the machine lid is open

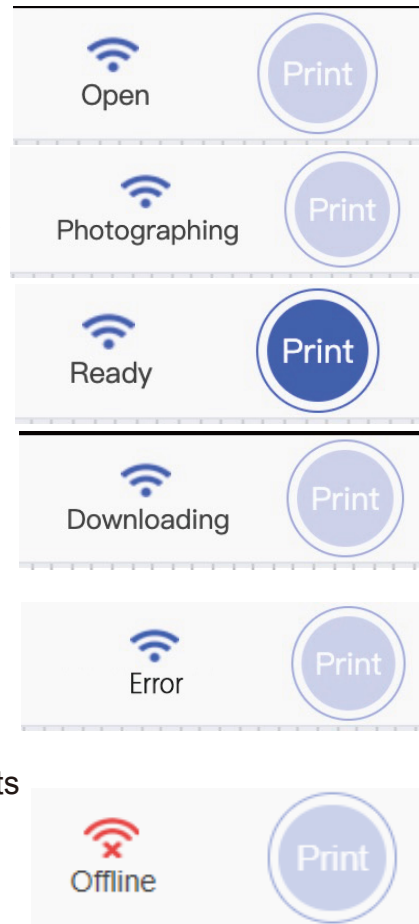
"Photographing" means machine taking a picture

"Ready" means machine ready to process

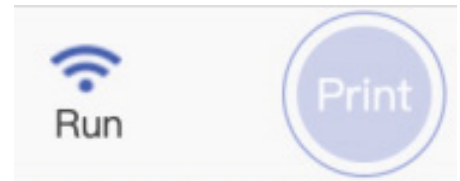
"Downloading" means graphics process file is downloading to your machine.


"Error" means machine alarm. Please check your lid and drawer.

"Offline" means machine can't connect to cloud. It didn't allow you to process. Please reconnect the cloud again, if it can't work, please contact after-sale to solve your problem.

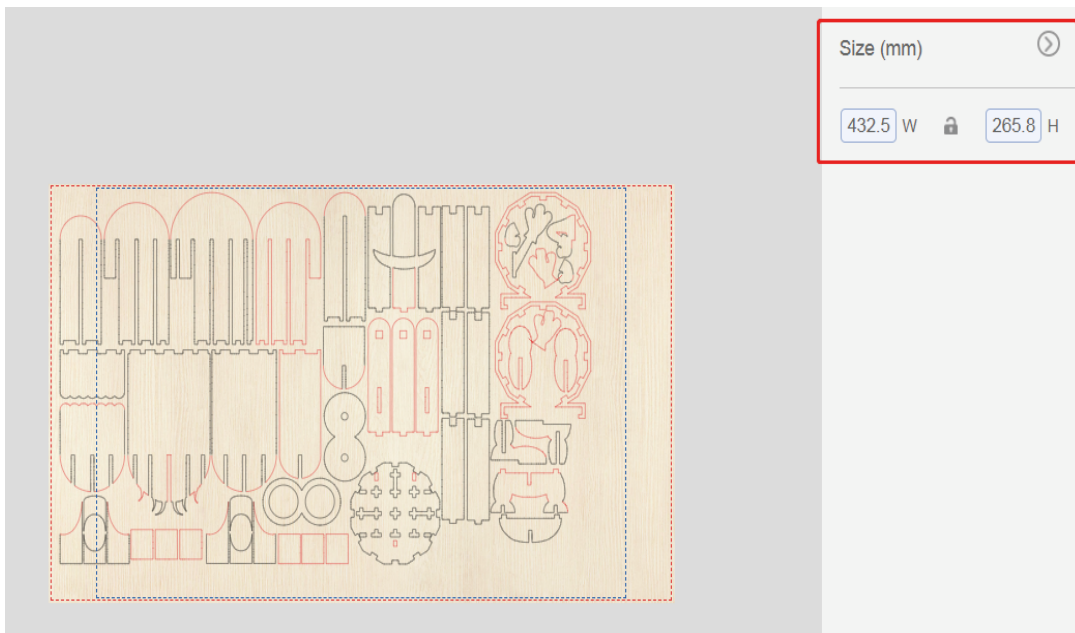



“Run” means machine is running.



 is a printing tool;

When you select the graphics, the right of webpage will pop up the window like this. There will display the height and weight of graphics. “W” means weight, “H” means height.



 language selection tool, you can choose the interface language to be Chinese or English.



## 8. Processing Parameters

Name	Material thickness (mm)	Minimum engraving power (%)	Maximum engraving power (%)	Engraving speed (%)
Basswood	3	50	50	100
MDF	3	40	40	100
Acrylic	3	50	50	100
Cardboard	2	45	45	100

Name	Engraving density (DPI)	Cutting power (%)	Cloud cutting speed (%)	Focus height (mm)
Basswood	400	90	13	14
MDF	300	90	6	14
Acrylic	400	90	7	14
Cardboard	400	90	40	15

## 9. Note of button light color

- In idle state, button (colorless)
- Setting up WiFi (purple to red gradient)
- Reset (blue-green gradient)
- During processing (yellow is always bright)
- Receiving upgrade files and processing files (orange)
- After receiving processing documents (green)
- When the alarm occurs (red is always bright)
- Long press the button for 5 seconds, control panel control LED display purple

Note: In the process of processing, if the button turns blue for 5 seconds, the processing will be canceled; When WIFI is configured, long pressing the button to change to purple and red to configure WIFI.

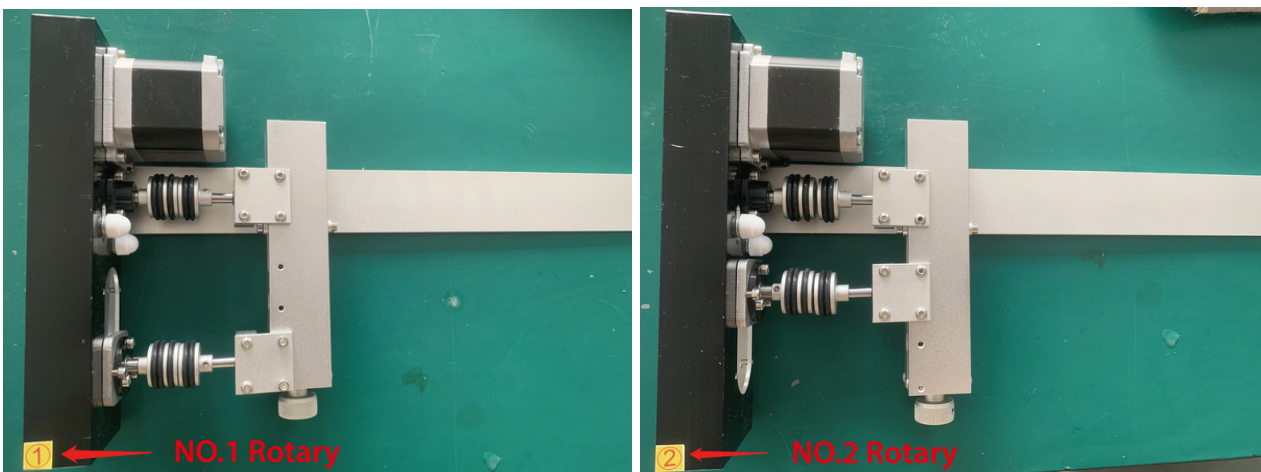
## VI. Rotary

### 1. Instructions for rotary

(1) The rotary is divided into two types: the diameter range of the engraving cylinder of the No.1 rotary is: 60-74mm; the diameter of the engraving cylinder of the No.2 rotary is: 30-60mm.

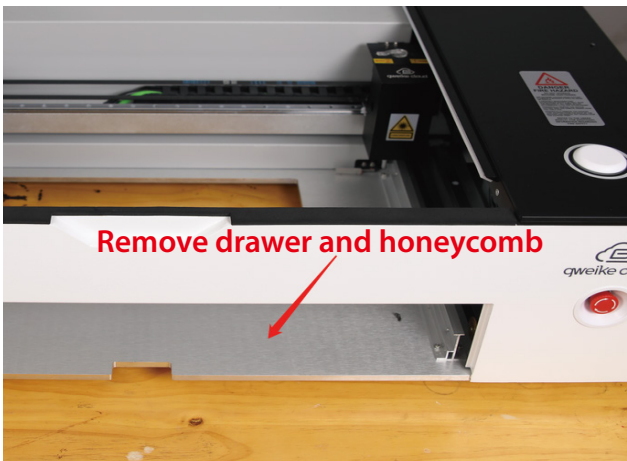
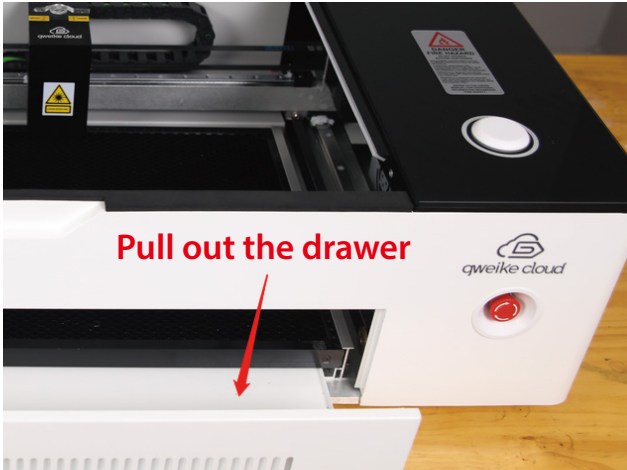
(2) Toggle switch: Toggle up to rotary mode, down to flat mode, and original position is flat mode

(3) Aviation plug: The aviation plug is the joint part of the rotary wire and the machine.

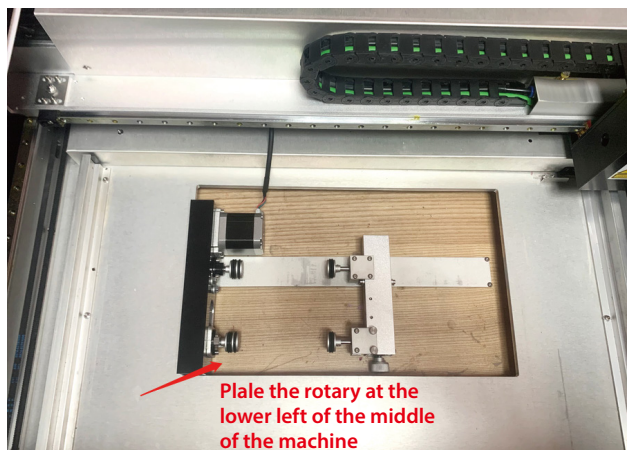


## 2. Steps for usage

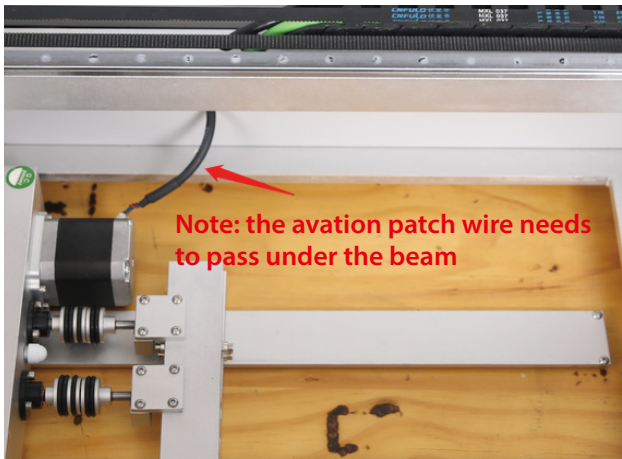
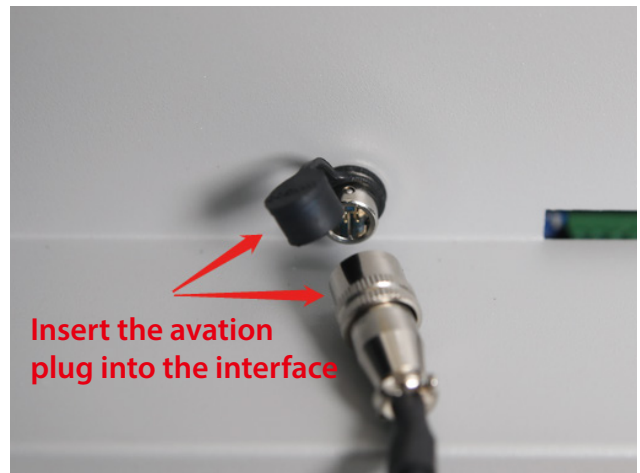
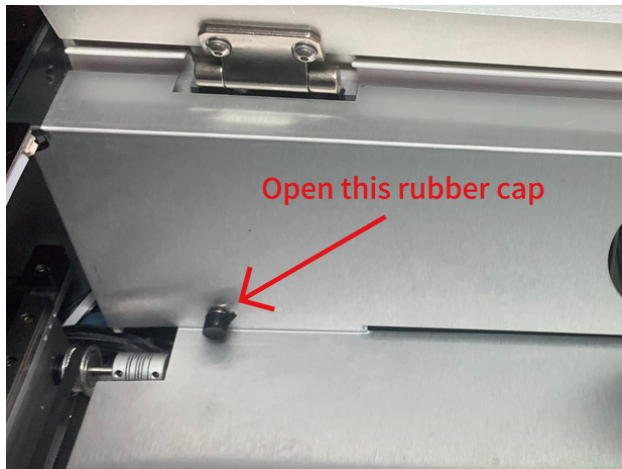
(1) First, when the machine is powered off, take out the drawer first, then take out the honeycomb panel, and place it to other side;



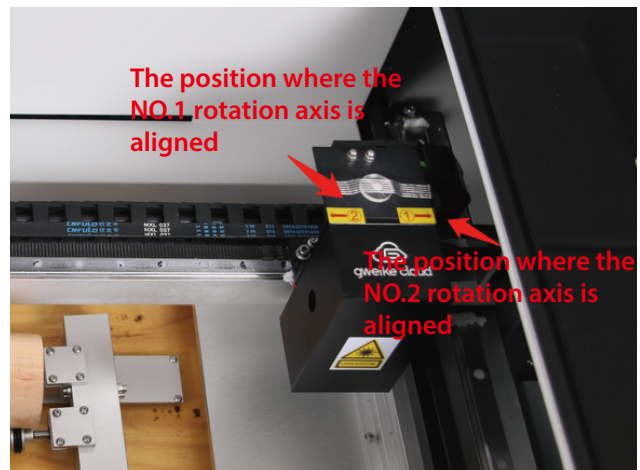
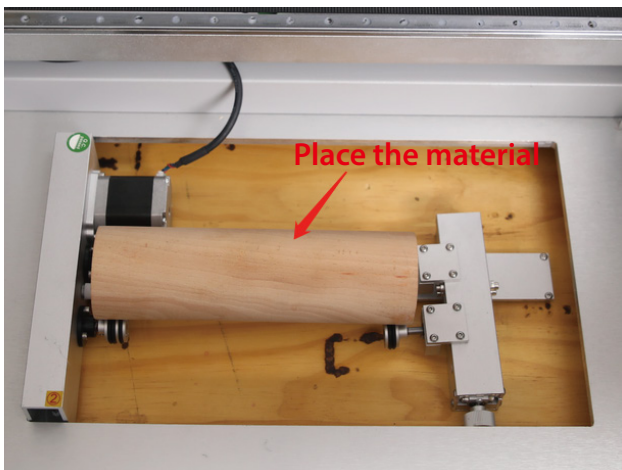
(2) Take out the rotary, open the lid of the machine, and place the rotary in the lower left corner of the square hole at the bottom of the machine;



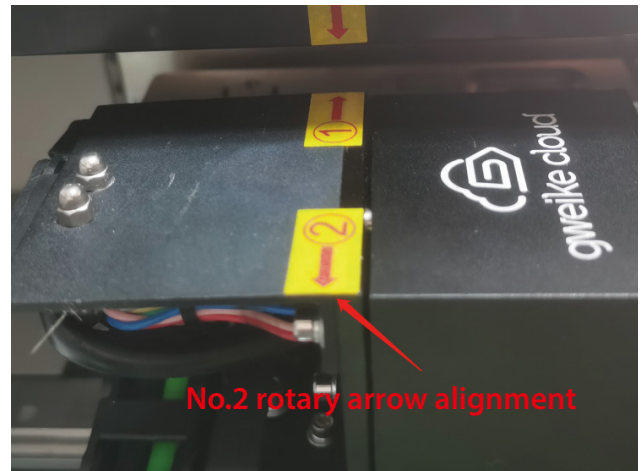
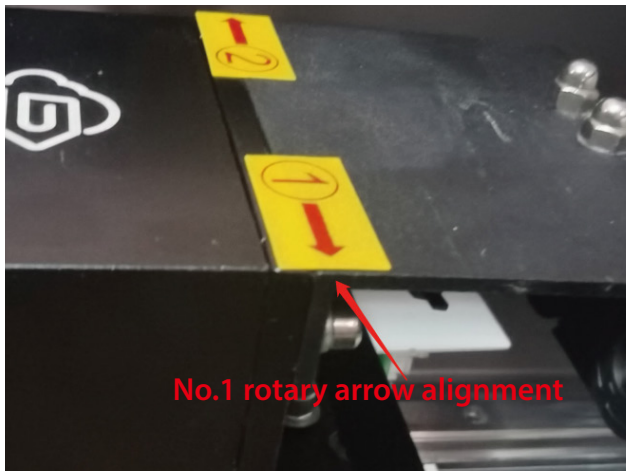
(3) Remove the rubber cap of the aviation plug on the back of the machine, plug in the aviation plug, and turn the DIP switch to the top to change to the rotary mode;



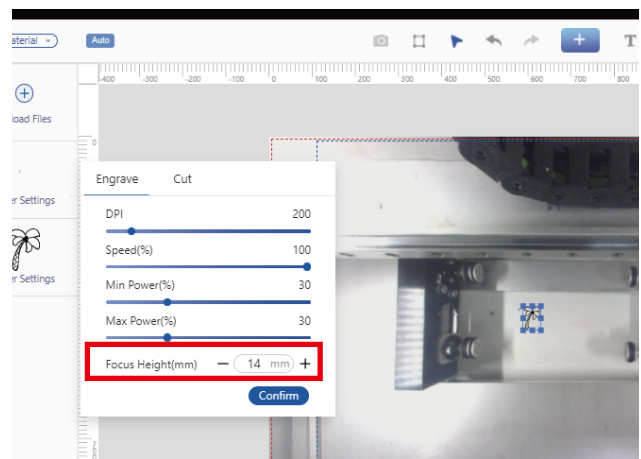
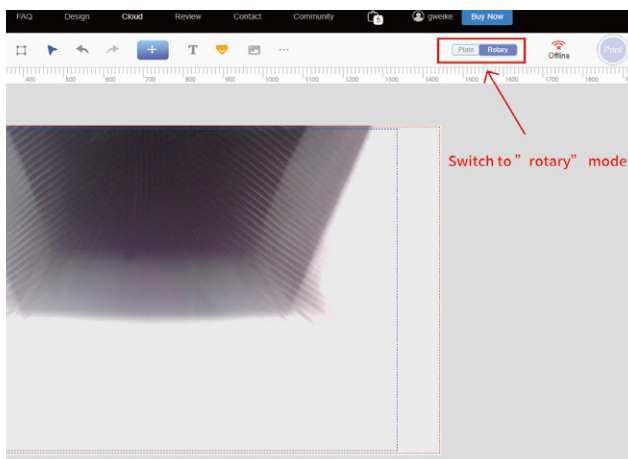
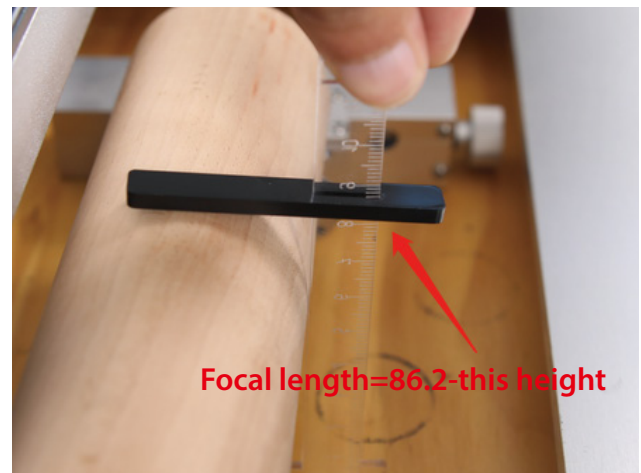
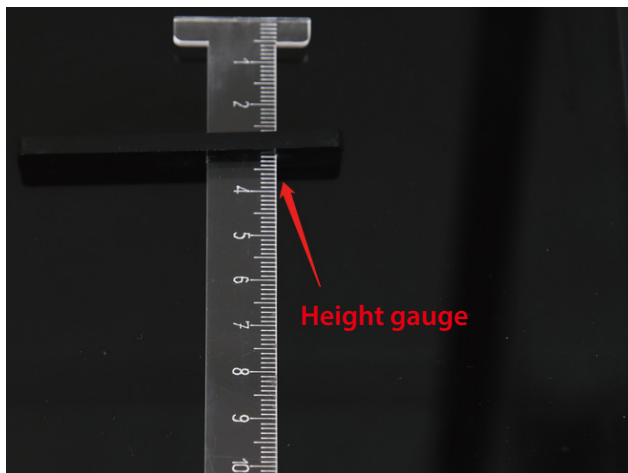
(4) Place the material on the rotation axis and manually pull the Y-axis beam to the specified position (when using the No. 1 rotation axis, pull the No. 1 identification arrow on the right side of the beam to the aligned position; when using the No. 2 rotation axis, then Pull the No. 2 identification arrow on the left side of the beam to the alignment position), place the laser head on the top of the material, close the lid, and turn on the machine;





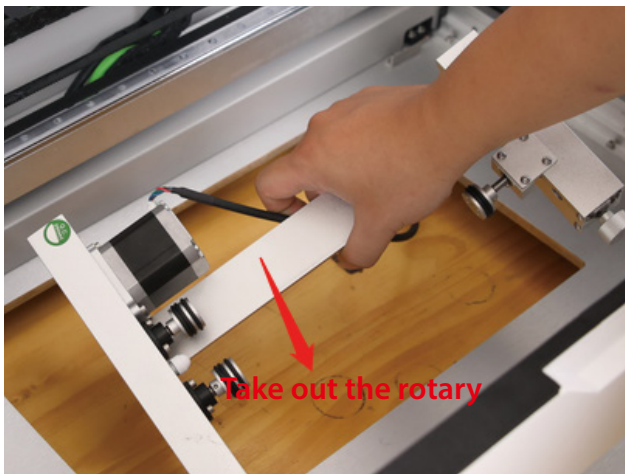


(5) Log in to the website, switch the website to the rotation axis mode, upload the drawing, set the parameters, the cutting parameters are consistent with the plane parameters, and the focal length needs to be calculated. After setting the focal length, click print to start engraving. Among them, the focal length value: focal length = 86.2-the height of the material placed on the highest point of the rotation axis from the desktop (the tool box is equipped with a height ruler, use the height ruler to measure the height)



(6) After the engraving is completed, open the lid to remove the material, you can continue processing the next product.

(7) After using the rotary axis, turn off the laser machine, open the machine cover, unplug the air plug, put the rubber cap back to its original position, turn the dip switch back to flat mode, take out the rotary axis, install the honeycomb board and drawer, and turn on the machine again to use the flat mode.



## VII. Maintenance & Service

After using the laser printer, in order to prolong the service life of the laser printer and reduce the occurrence of failures, a series of cleaning tasks are required for the laser printer.

**Note: Before cleaning, please disconnect the power and reset the printer head.**

### 1. Clean Cutting Deb



(1).Remove the debris from the debris tray into the trash can and wipe the debris tray clean with a rag.



(2).Slide the "honeycomb plate" and debris tray horizontally back into the machine, taking care not to touch the printer head and guide rail.

### 2. Clean The Third Mirror

Gently wipe the lens with alcohol, taking care not to leave fingerprints on the lens.



### 3. Clean the laser window



Wipe the small window of the laser printer head shell.

#### 4. Clean The Camera

Use a cotton swab dipped in alcohol to wipe the wide-angle camera on the top cover of the laser printer. If there are spots in the middle of the mirror, it cannot be wiped clean, you need to replace it. Please take photos and contact us;



#### 5. Clean the protective lens

Dip a cotton swab with alcohol and gently wipe the protective lens.



## VIII. Problem And Resolve

### 1. How to adjust the focus?

1) The system automatically defaults the cutting material thickness to 3mm. If the cutting material thickness is 3mm, there is no need to adjust the focus.

2) If the cutting material is of other thickness (within 0-17mm), place the material on the honeycomb panel, enter the website operation page, and click the blank area above the Select SVG on the left side of the page (as shown in the green box in Figure 1), in Focus Height Enter the parameters and click Confirm to complete (refer to Table 1 for focal length parameters). For example, when the material thickness is 2mm, the Focus Height is set to  $17\text{mm} - 2\text{mm} = 15\text{mm}$ . Enter 15mm in Focus Height. Among them, 17mm is a fixed value, and Focus Height value =  $17\text{mm} - \text{material thickness}$ .

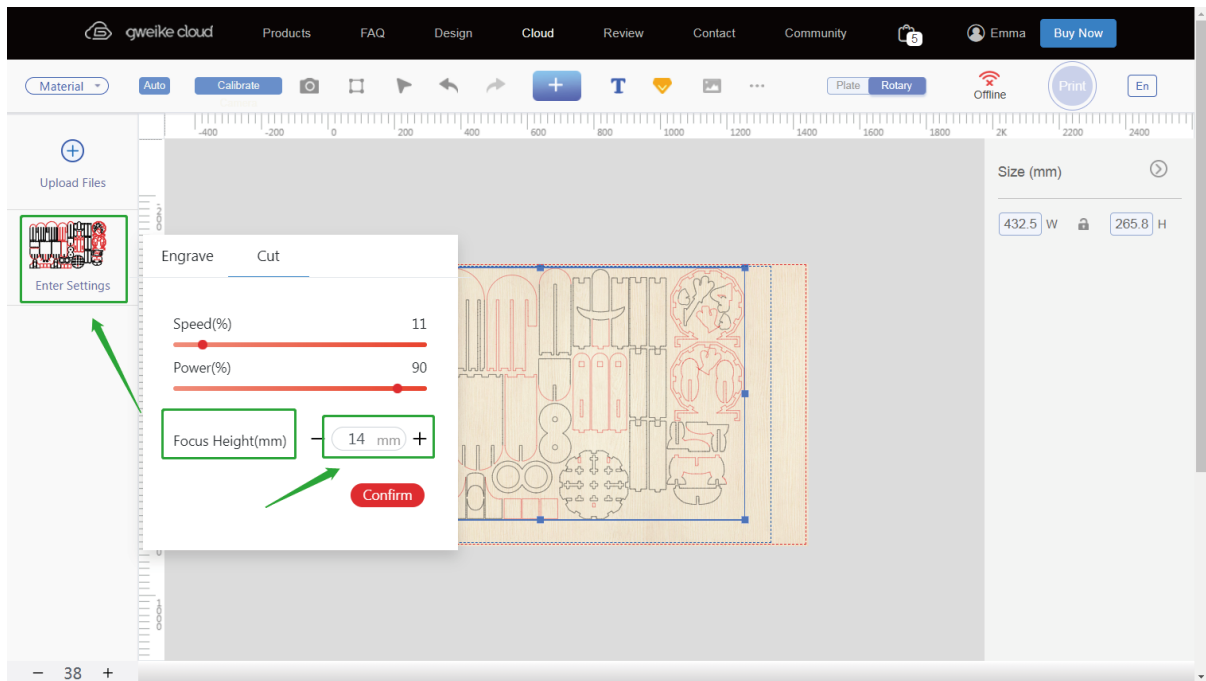


Figure 1

Cutting material thickness	Focus Height (mm)
0mm	17mm
1mm	16mm
2mm	15mm
3mm	14mm
4mm	13mm
5mm	12mm
6mm	11mm
7mm	10mm
8mm	9mm
9mm	8mm

Cutting material thickness	Focus Height (mm)
10mm	7mm
11mm	6mm
12mm	5mm
13mm	4mm
14mm	3mm
15mm	2mm
16mm	1mm
17mm	0mm

## 2.Flame problem

When the machine cutting the material, there is a flame problem(as shown in Figure 2), please follow the steps below to troubleshoot;

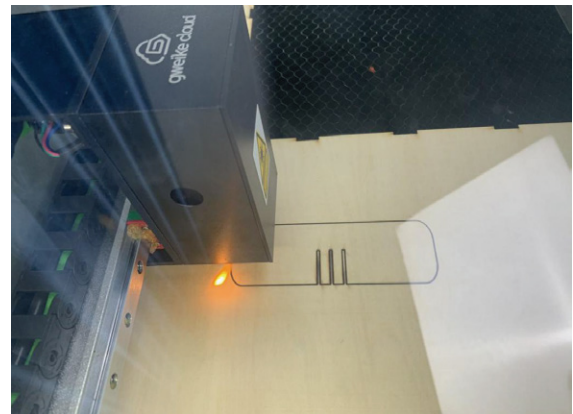


Figure 2

1) The emergency stop switch is a type of master switch. When the machine is in a dangerous state, the power supply is cut off through the emergency stop switch to stop the operation of the machine to protect the machinery, and the person using the machinery. The machine is cut off when pressing the button, and powered on when tweaking the button.



Figure 3

2) After checking the air pump and knob, power on the machine, turn on the machine switch, place a thin paper or string under the laser nozzle to test whether there is gas blowing, as shown in Figure 4, if there is gas blowing, there will be no fire.

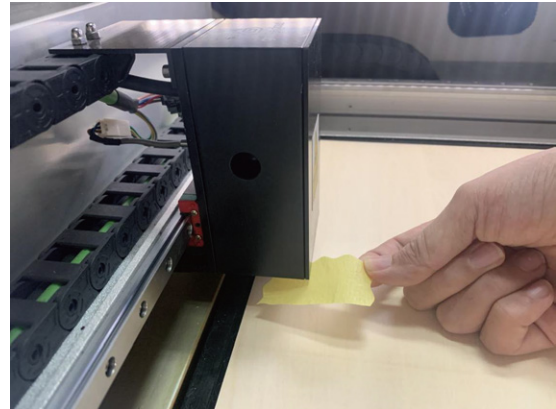


Figure 4

### 3.If the machine is working abnormally, what should be checked?

How to check the machine, when it works abnormally?

If the machine is turned on and reset, the LED light will dim and the web page will display OPEN, as shown in Figure 5, check whether the two protections are working properly.

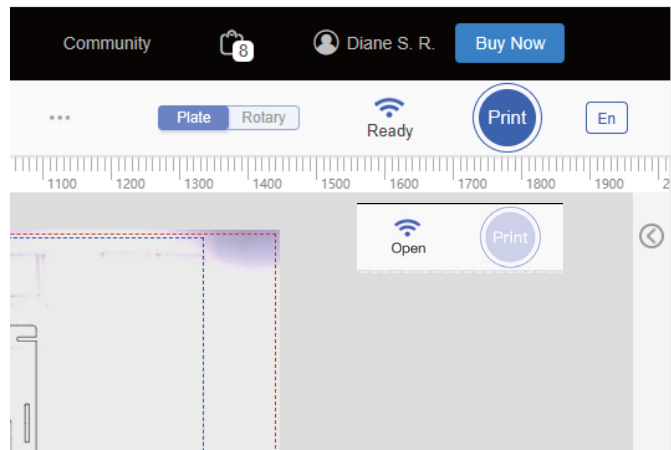


Figure 5

1)Check the door protection works normally or not: When the door is opened, the LED light is dimmed (as shown in Figure 6); When the door is closed, and the LED light is bright, it is normal work. (Figure 7)

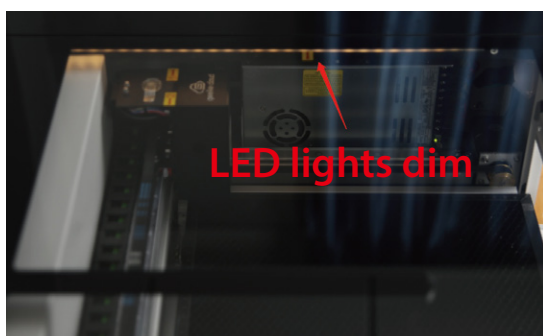


Figure 6

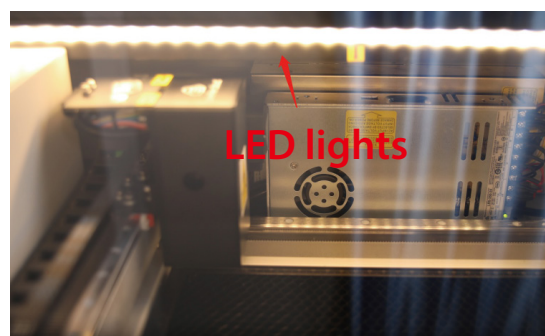


Figure 7

2) Check whether the drawer protection limit is working properly. When the drawer is pulled out, the protection limit red light goes out, the LED light dims, when the drawer is closed, the protection limit red light turns on, and the LED light turns on, it is normal operation(Figure 8)

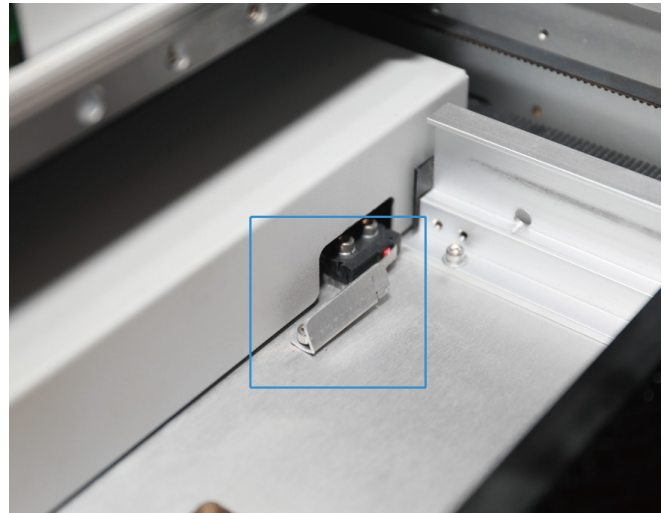


Figure 8

#### 4.Wifi Can't Connect

When the machine cannot connect to wifi and the web page displays offline(as shown in Figure 9)

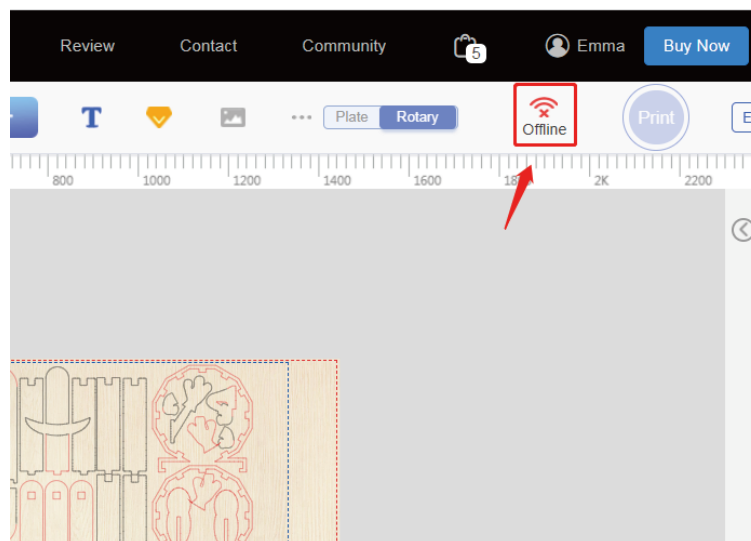


Figure 9

- 1) Confirm whether the wifi is placed within 3 meters from the machine, and there is no wall or others blocking the signal.
- 2) The machine supports 4g hotspots, but not 5g hotspots.
- 3) If you cannot guarantee that the wifi is within 3 meters of the machine or there is a wall between the wifi and the machine, you need to purchase a wifi signal booster yourself (as shown in the picture) and place the signal booster next to the machine.



## 5.The Color Of The Indicator Light

- 1) When the machine is turned on but not working, the button light is off, and the color is not displayed, which is normal.
- 2) Connect the WIFI, when the machine is transmitting signals, the button light will change from purple to red gradient; After the wifi connection is successful, the button light will be off, and the color will not be displayed, which is normal.
- 3) When the machine is reset, the color of the button light is a blue-green gradient. After the reset is completed, the button light is off, and the color is not displayed, which is normal.
- 4) When the processing file is receiving, the button light will be steady yellow. After the processing file is received, the button light will turn green and steady. Click the button to process.
- 5) When receiving the upgrade file, the button light will turn yellow and steady.
- 6) When the machine fails and alarming, the button light will be red and steady.

## 6. When the image taken by the camera has a large deviation from the actual cutting image (the deviation within 2mm is normal)

When the deviation is too large (as shown in Figure 10), please contact the staff for remote correction. The customer is required to assist in the following two steps to correct:

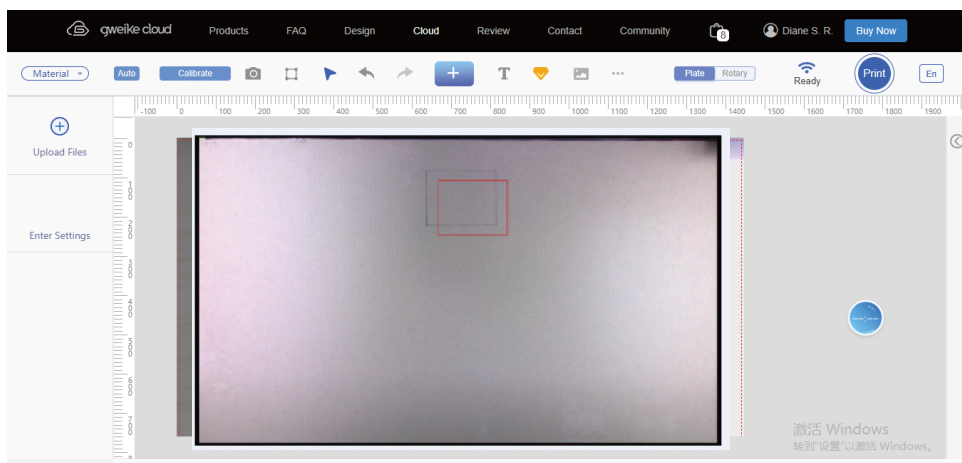


Figure 10

- 1) A4 paper, spread on the work table (as shown in Figure 11), wait for the button light to turn green automatically, and then click the button for processing.

**Note:** The paper must not be cocked

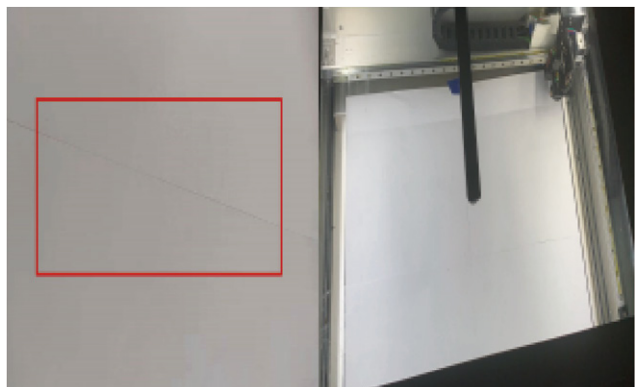


Figure 11

2) Spread a 3mm thick material board on the work table (as shown in Figure 12), close the cover, wait for the button light to automatically turn on green, and then click the button for processing.

Note: The plate cannot be cocked or bent

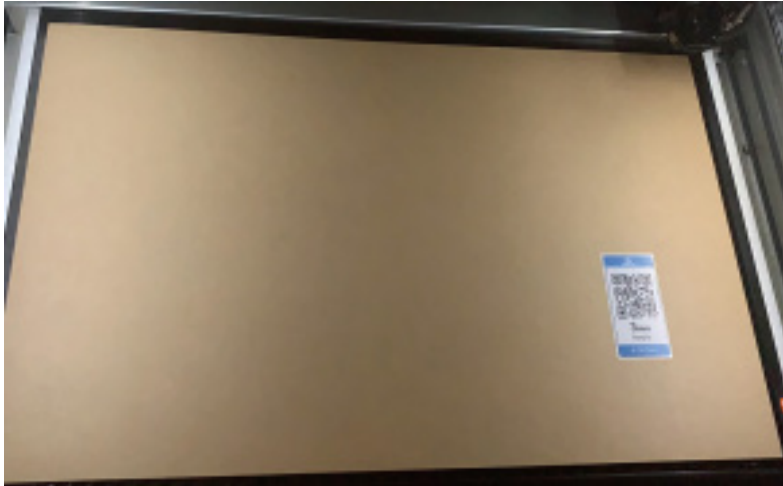


Figure 12

### 7.If the cutting material is larger than the machine format, how to realize the front and back feeding

Front and back feeding method (the maximum width of the material is 360mm, the thickness is 5mm, and the length is not limited)

1)Machine drawer limit device: when the iron plate with red roller touches the red button of drawer limit, the machine displays that the drawer is in place. The movable iron plate on the left can be moved to the right to prevent the ejection of the shrapnel with red roller.

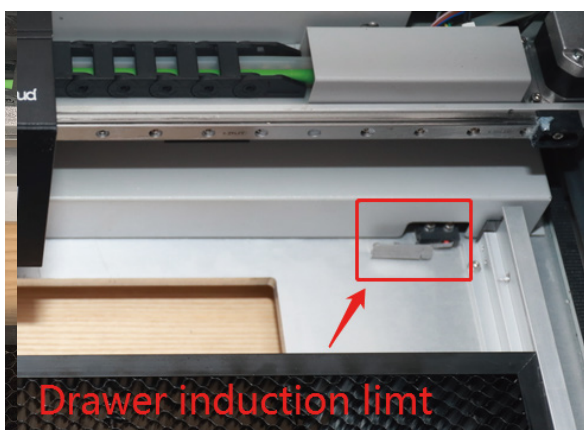


Figure 13

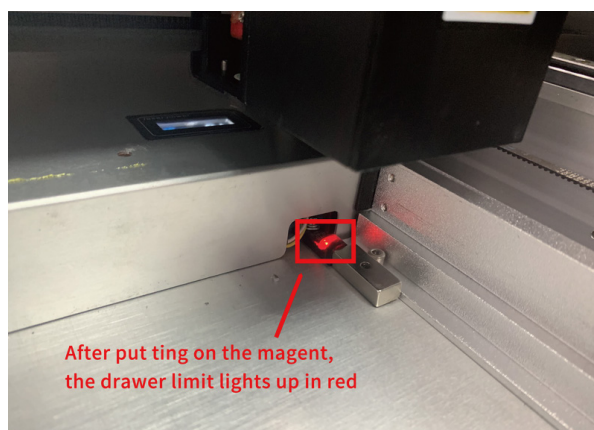


Figure 14

2) Place the larger material on the honeycomb panel of the machine. Through the through hole at the back of the machine, the material is extended to the outside of the machine to realize the front and back feeding.



Figure15



Figure 16

8.Handling method when error is reported on the web page

\*The red border is 5px for the cutting effective area away from the edge of the canvas, blue is the engraving effective area, 111px away from the edge of the canvas, and the px to mm calculation method is 5px multiplied by 25.4 divided by 72, the cutting edge is 1.76mm, and the engraving edge is 39.16mm

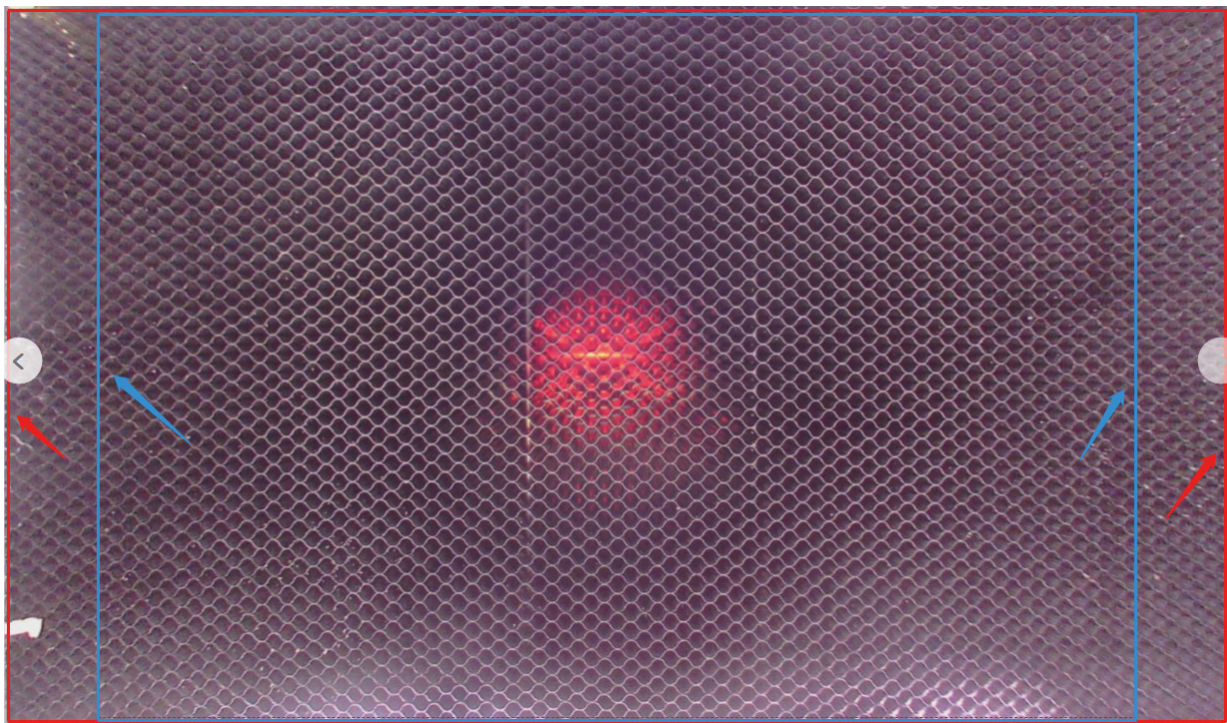


Figure17

(1)The webpage displays "Hard limit fault", it is a hard limit fault

Reason: The machine reset failed and the motor lost steps.

Solution: Power off and restart the machine, and reset again

2) Page shows "Cut mode, image cannot go beyond red border"

Reason: The image being cut is beyond the red border

Solution: Place the image you want to cut inside the red border and print it

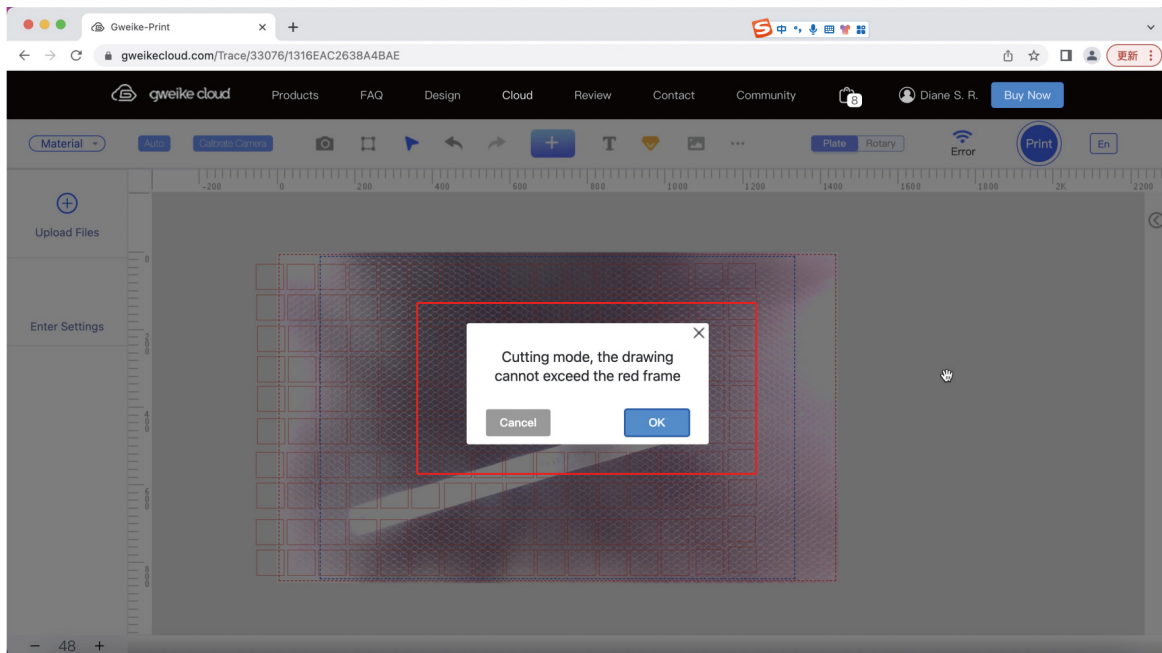


Figure18

(3) Page shows "Engraving mode, image cannot go beyond blue border"

Reason: engraved image is beyond the blue border on the page

Solution: Place the image you want to engrave on the page within the blue border and print it.

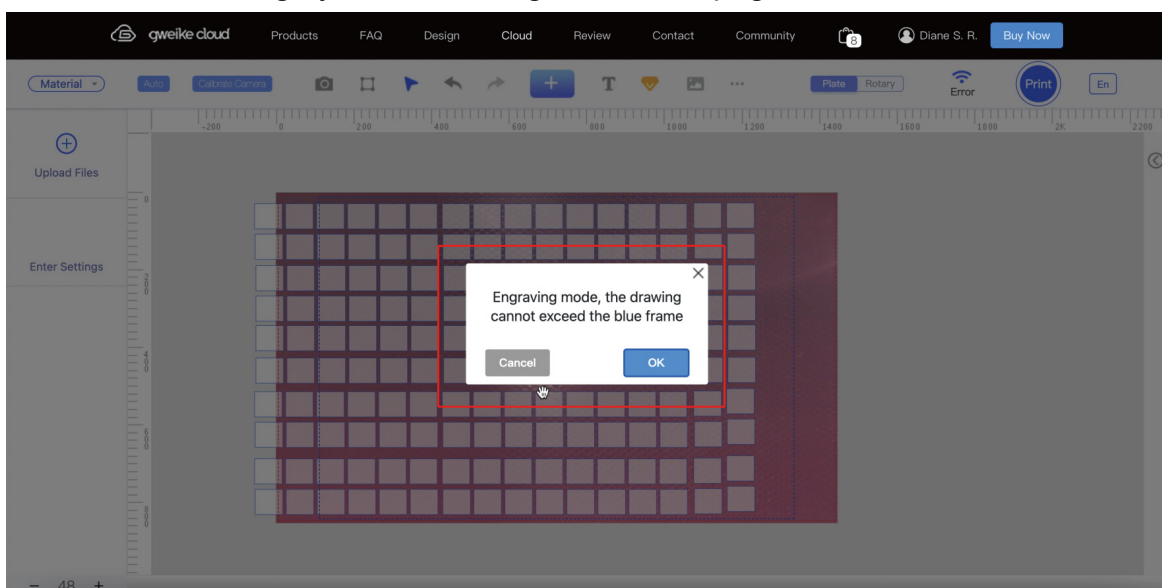


Figure19

4) The web page displays "Photo failed, abnormal signal", the reason and solution:

- ① The network environment is abnormal when sending photos, it is recommended to change the network environment
- ② The network fluctuates, click the photo button (preview) on the page to get the photo again (Figure 20)

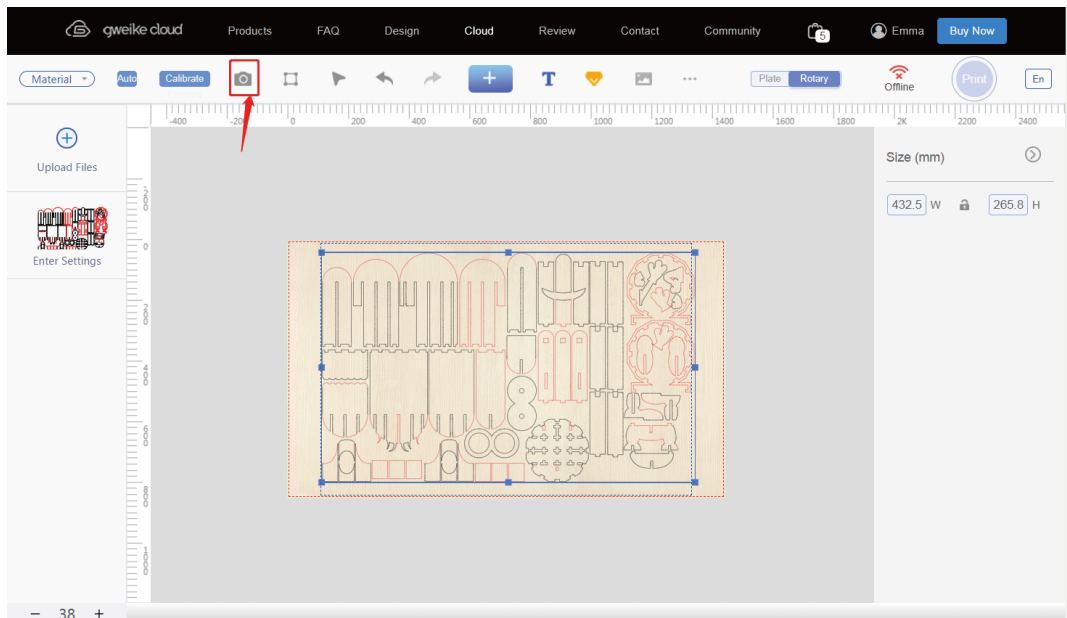


Figure 20

5) The webpage displays "Photo failed, No cameras found". Reasons and solutions:

- ① The camera socket is loose, re-plug the camera (Figure 21)
- ② The camera cable is damaged, replace the camera cable.

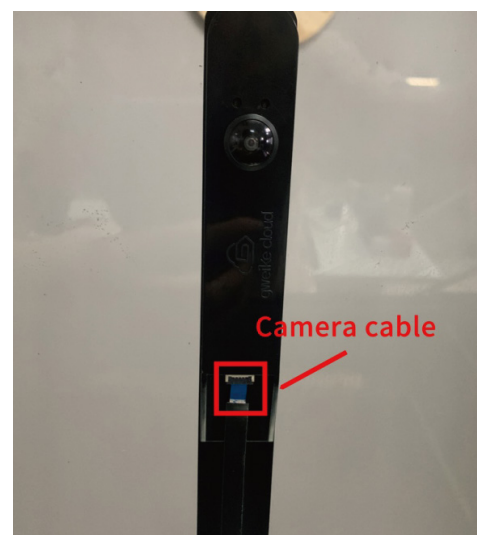


Figure 21

6) The web page displays "Communication between Arm and control board is abnormal",

Reason: There is a problem with the hardware

Solution: Remove the left control panel of the machine and return it to the manufacturer for repair (Figure 22)

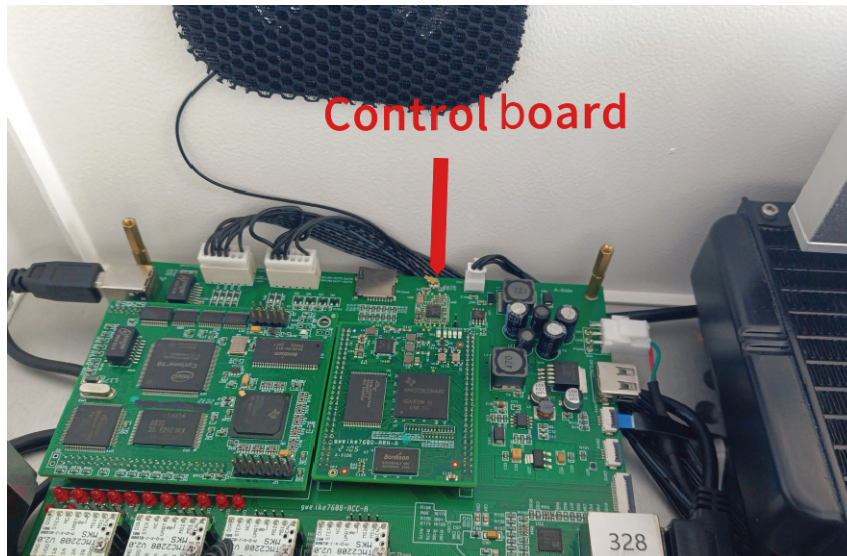


Figure 22

7) The webpage displays "Replace the laser tube"

Reason: Laser tube failure

Solution: Replace the laser tube

① Unscrew the screws on the front and back of the tube cover, and remove the tube cover (Figure 23)

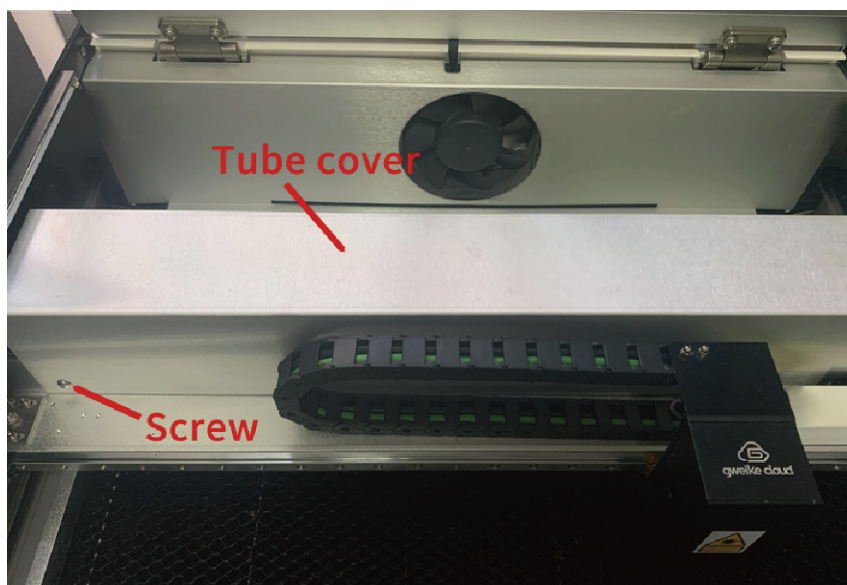


Figure 23

② Evacuate the water in the water tank (Figure 24)

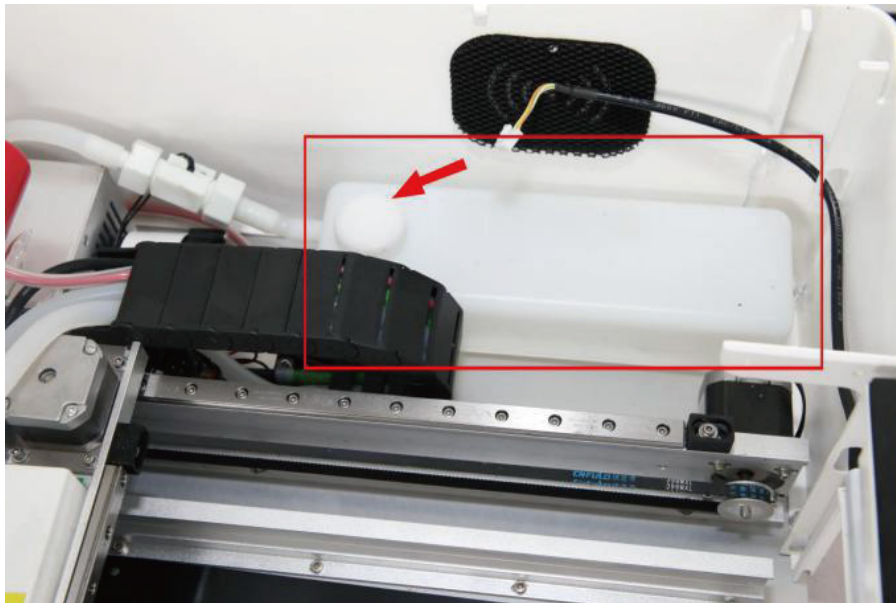


Figure 24

③ Remove the screws at the low voltage and high voltage (4) end, remove the water pipe (2), unscrew the pipe clamp (3), and take out the old laser tube (see Figure 25)

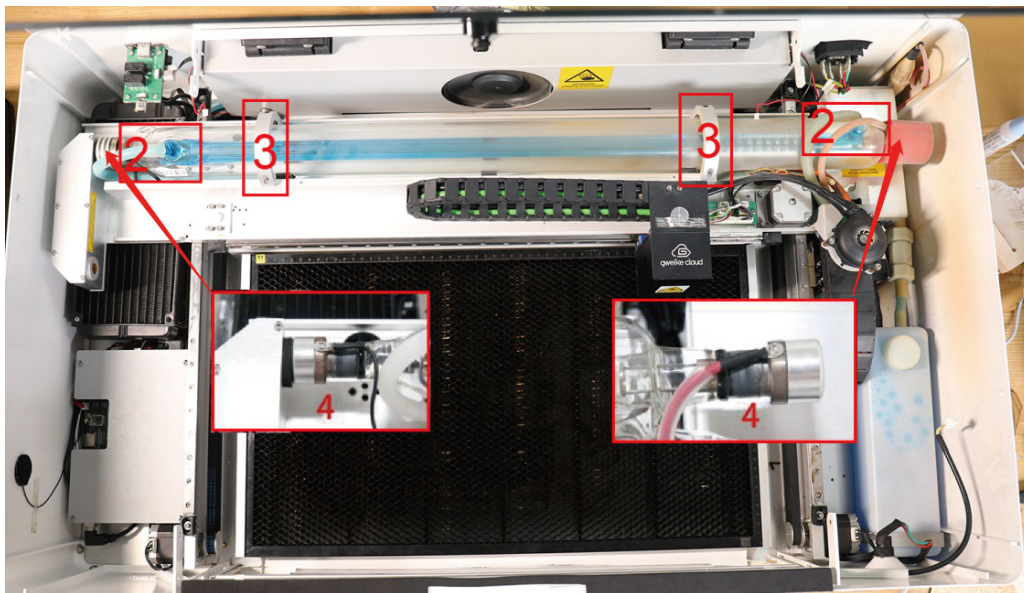


Figure 25

④ Place a new laser tube, fix the tube clamp (3), install the water tube (2), screw on the high-voltage and low-voltage wires, and the water tank is dedicated for lasers with a capacity of 1300cc or more.

## 9. LightBurn Software Camera Correction Instructions

LightBurn's camera feature allows you to use a USB-connected camera with LightBurn:

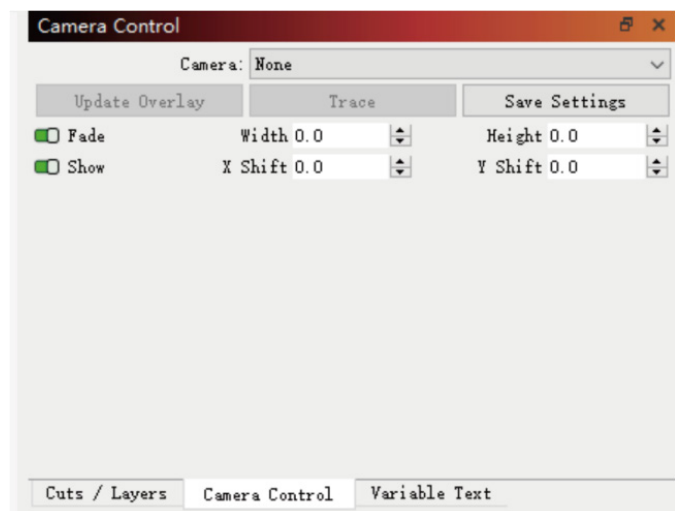
### (1) Preparation

Connect the double-ended USB cable that came with the machine to the USB cable interface of gweikecloud machine and computer. Connect the other double-ended USB cable to the camera cable interface and computer.



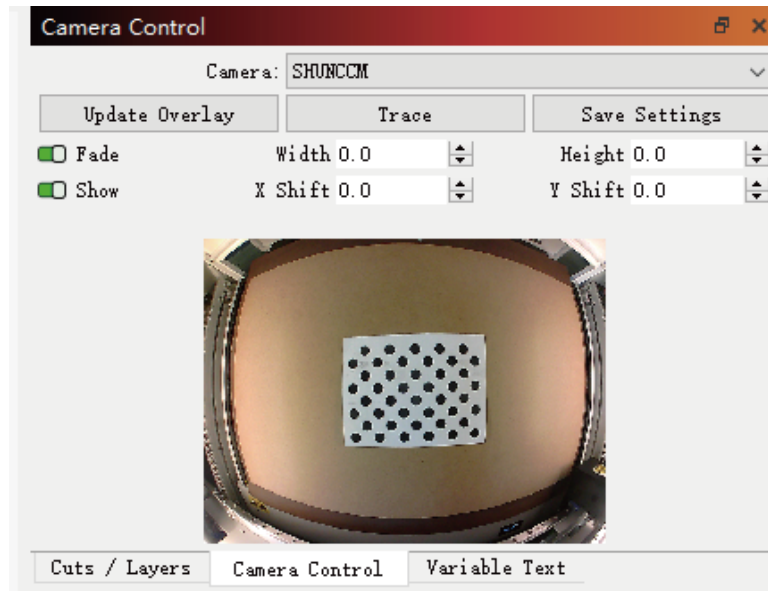
(2) Open the glass cover. Turn on the machine switch power.

In LightBurn, enable the Camera Control window. You will see a window that looks like this:





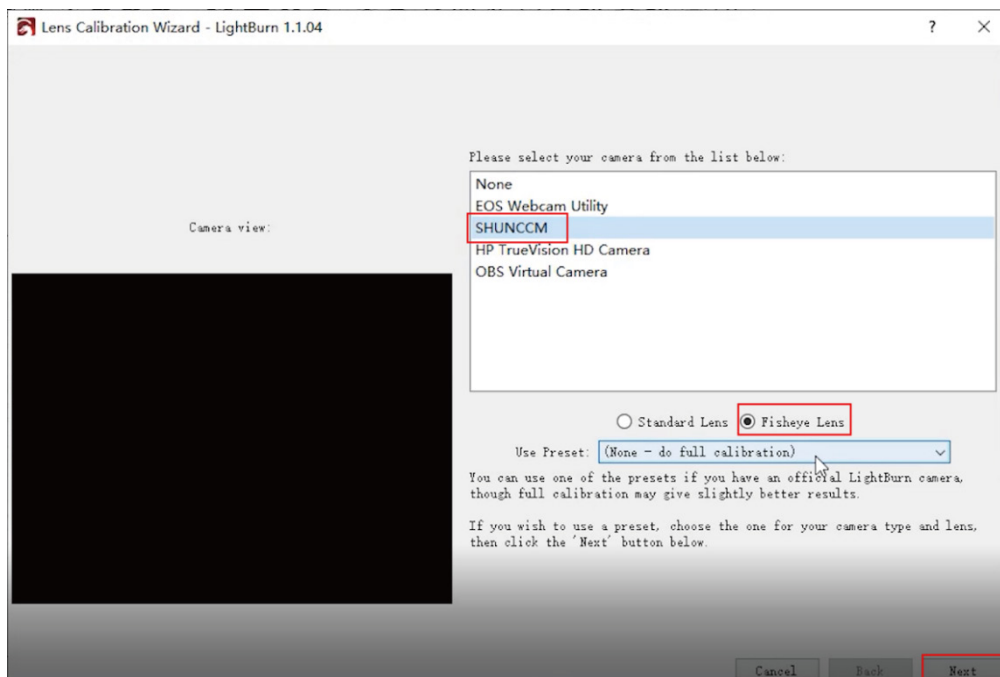
If a compatible USB camera is connected to your computer, it will appear in the "Camera" drop-down box. Select the camera and the camera's view will appear in the window as shown:



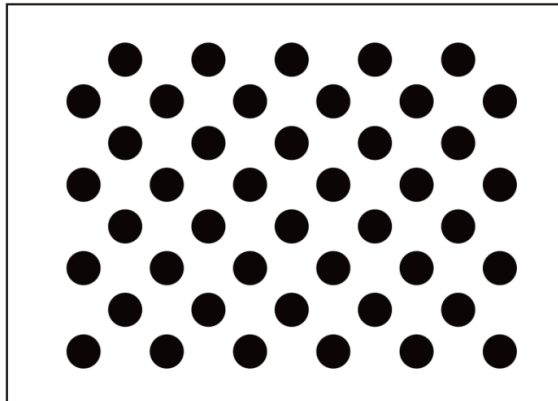
### (3) Camera Lens Calibration Wizard

It's best to have good, consistent lighting during the shoot, Open the "laser tools" menu and select "Calibrate camera lens" from the menu ". You will see the screen shown below.

Select your camera in the list and you will see the camera's view in the left area. Choose a fisheye lens, click Next.

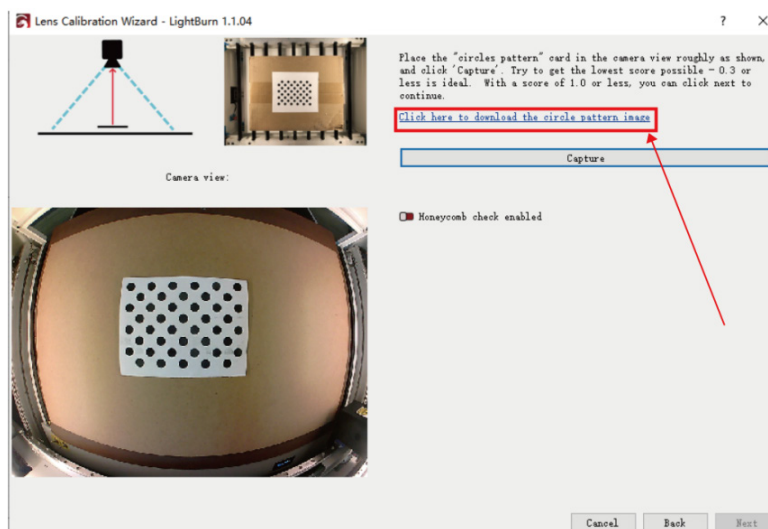


(4) You need to download and print the following images:

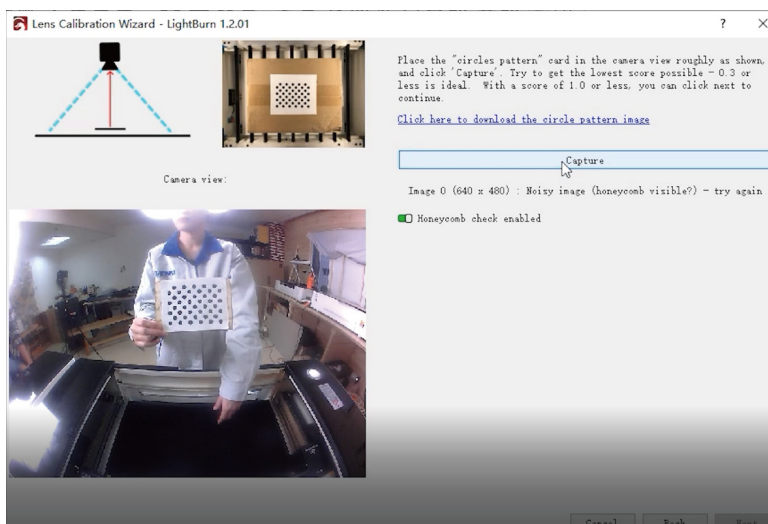


The circular image is approximately 148mm x 105mm (5.8" x 4.1") and should have at least 6mm (1/4") of white space around the pattern.

Mount it on hard card, foam board or wood to keep the image very flat. If the image is warped, it will affect the calibration process and reduce accuracy.



(5) Click the Capture button (highlighted above) and you should see something like this:



Above the image on the right you can see: Image : Pattern found - Score:?? - Not bad! Click Next

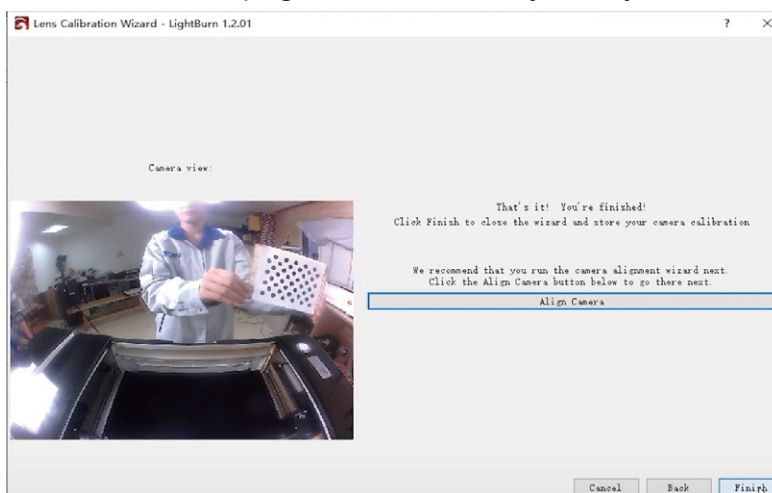
Click the Capture button, roughly as shown, place the "Circle Pattern" card in the camera view, and then click "Capture". Try to get the lowest score possible - 0.3 or less is ideal. When the score is 1.0 or lower, you can click NEXT to continue.

If you don't get it right away, you can recapture the current image, or go back to the beginning and try again. It may take a few tries to learn how to align the card with the camera to get the lowest score.

The image will update as you continue to capture. The first five images are the center of the view, then the bottom, left, right, and then the top.


If your camera has a very strong fisheye effect, you may need to move the off-center image a little inward to capture successfully.

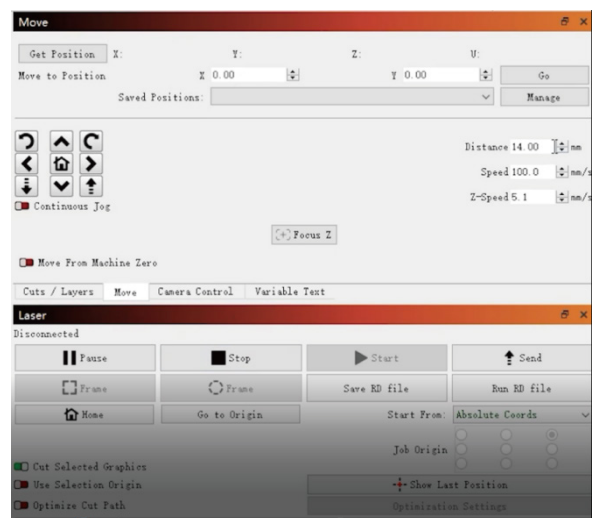
When you have completed all steps and you are satisfied with a good calibration result and an undistorted image, click Finish to save the result. You can also click the "Align Camera" button on the last page to automatically take you to the next wizard.



### (6) Adjusting the focal length

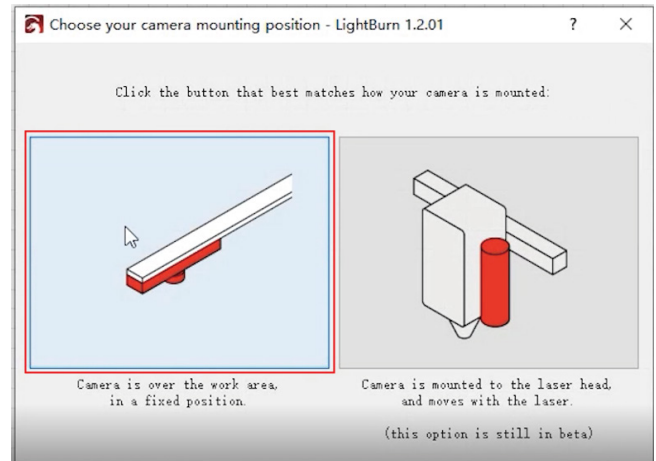
Start by preparing a piece of material larger than 200x200mm, such as cardstock, paper, cardboard or thin wood. Set the focal length according to the thickness of the material, here we place a piece of material with a thickness of 3mm.

Before proceeding to the next step, you need to adjust the focal length (Z-axis) to the right position (select the "Move" menu in the menu bar and change the "Distance" to "14.00". Click the button  to drop the Z-axis).

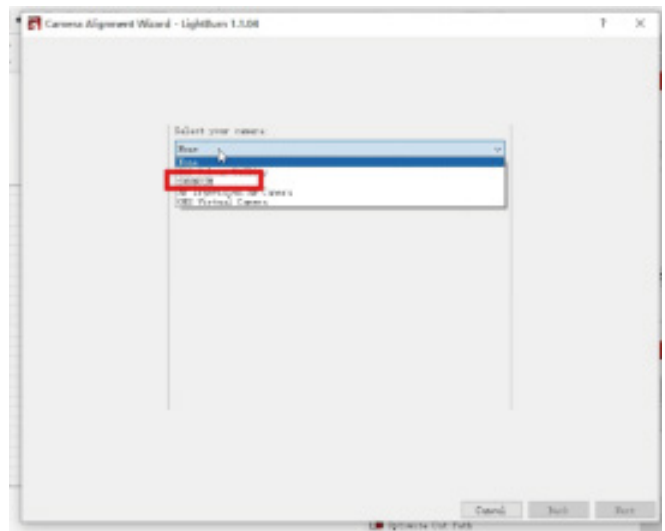


(7) Aligning the camera and work area

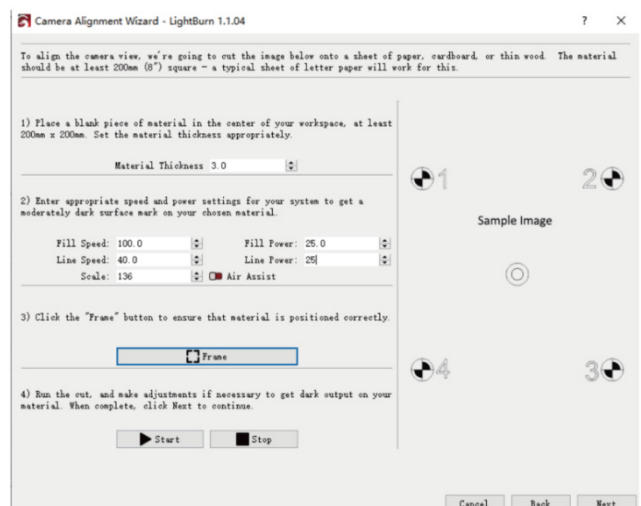
Open "Laser Tools" in the menu and Choose your camera mounting position.



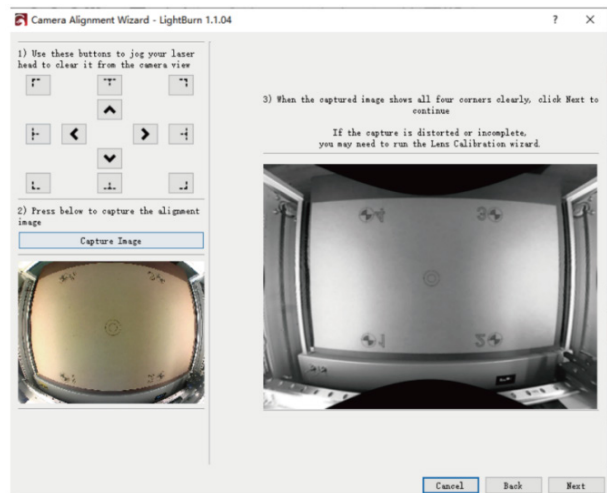
Click "Calibrate Camera Alignment" to enter the Calibrate Camera Alignment page. Select the camera and click Next when the camera screen is displayed.



Enter the calibration camera alignment wizard, follow the instructions on the page, and click Next to continue.



Click on capture image, the captured image is displayed on the right, continue to the next Step.



Follow the instructions in order - set the numbers correctly, use the Frame button to check that the material lines up with the cutouts, click Start when you're ready. If the clipping is not correct (too light or too strong), change the settings and try again. Your result should look like this:

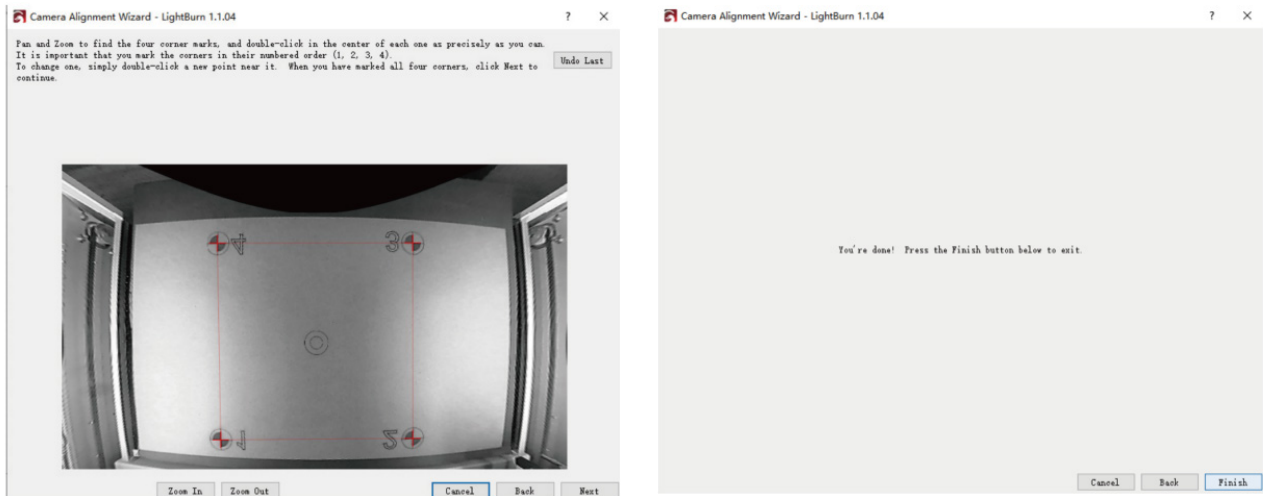


### (8) Mark target

On this page, you can "mark" each target by double-clicking on the center of each target in turn. You can pan and zoom the image using the same controls as the LightBurn edit and preview windows. When double-clicking, a red "+" mark appears. Place a marker in the center of the four targets, in their numbered order (1, 2, 3, 4). If it's not placed correctly, you can double-click near it to move it, or click Undo Previous to remove it and try again. Place each marker as accurately as possible. You can see the ideal location here:

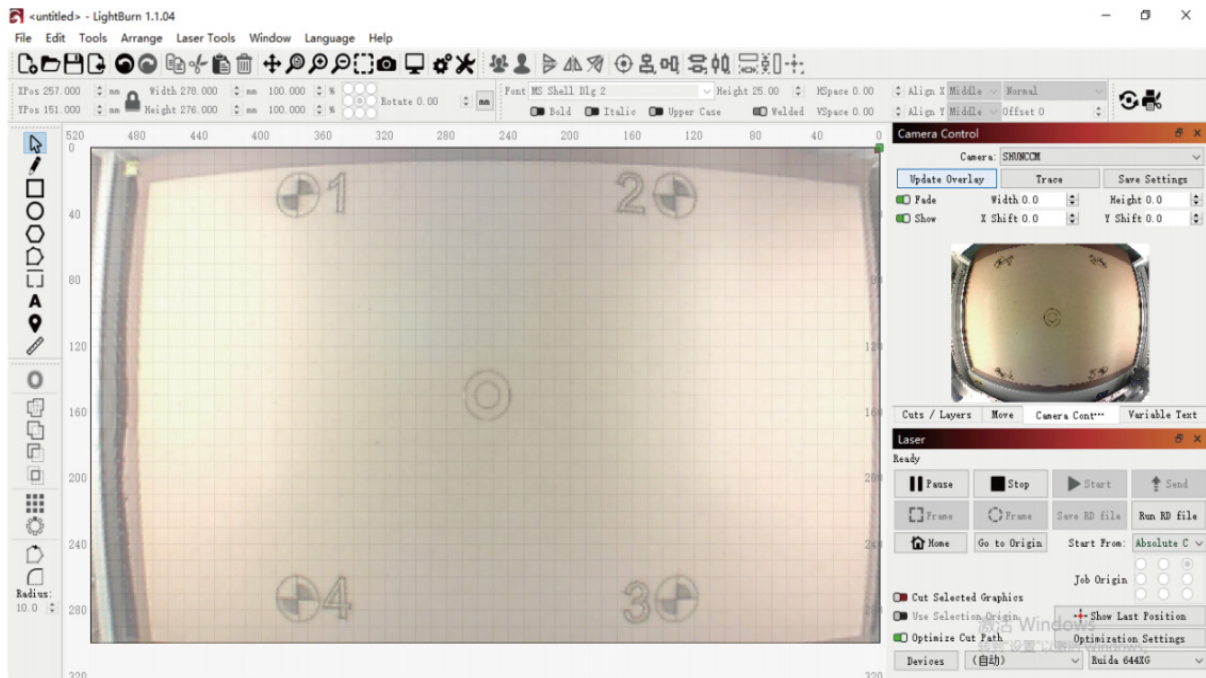


When you have placed all four markers in order, zoom out and verify that all four markers are visible and clearly centered on the target, as follows:



Click Next to complete the marker placement screen, then click Finish to complete the process and store the results.

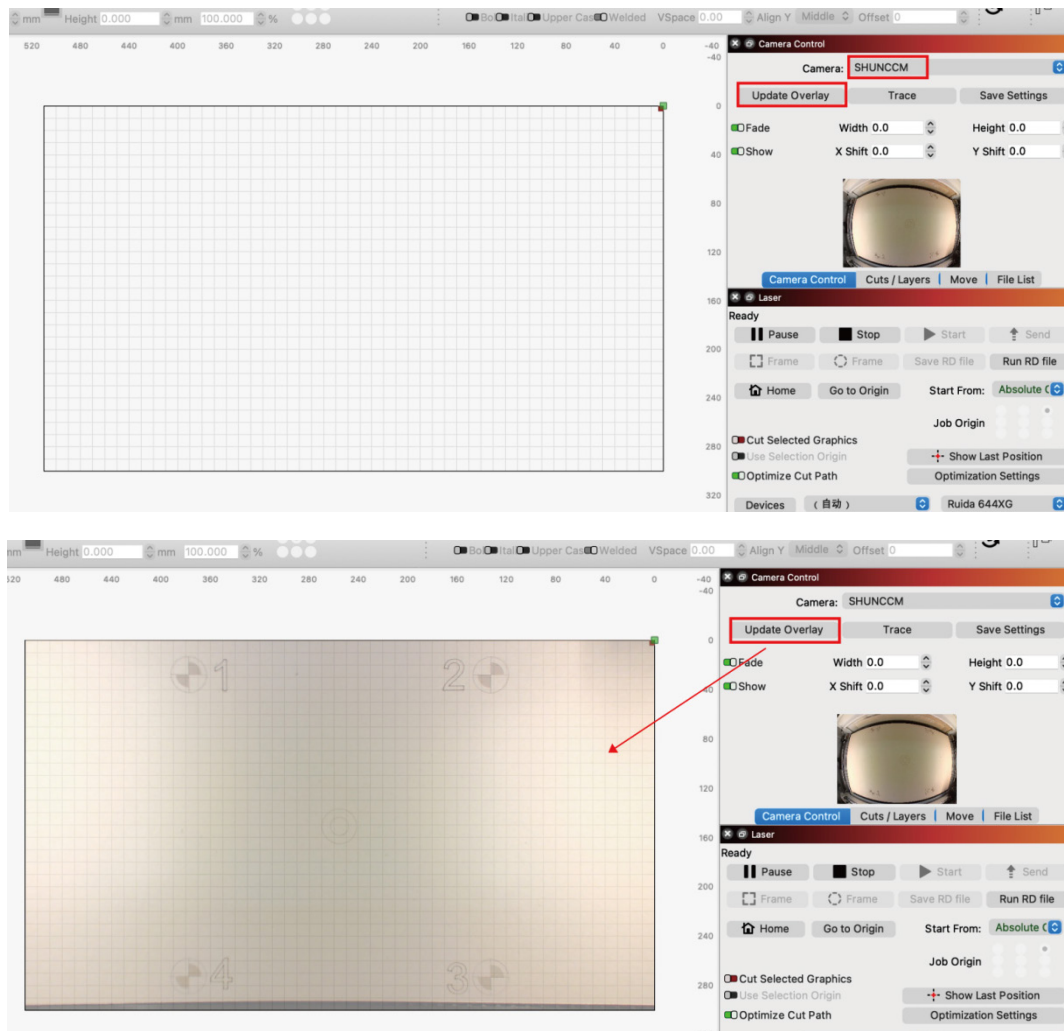
Now that everything is aligned, open the Camera Control window again and simply click "Update Overlay" to capture and project whatever is in the camera view to your workspace, as shown:



Draw a random figure in the processing page and process it to test the effect of camera correction. The deviation between the processing page and the actual processed figure is within 1-2mm, which means the camera correction is successful. If the deviation is too large, then perform the camera correction procedure again.

### (9) Lightburn camera use

Use the camera to select the corresponding camera model, update the overlay after the machine processing interface will be displayed in the software (each time you change the processing or material location to change the need to update the overlay)



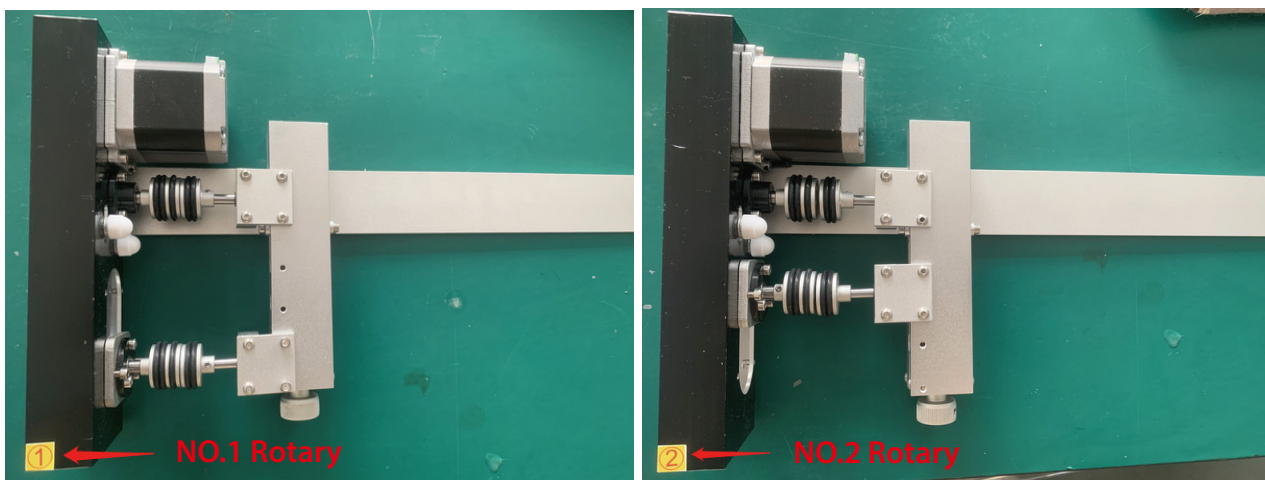
## IX. Rotary for lightburn

### 1. Instructions for rotary

(1) The rotary is divided into two types: the diameter range of the engraving cylinder of the No.1 rotary is: 60-74mm; the diameter of the engraving cylinder of the No.2 rotary is: 30-60mm.

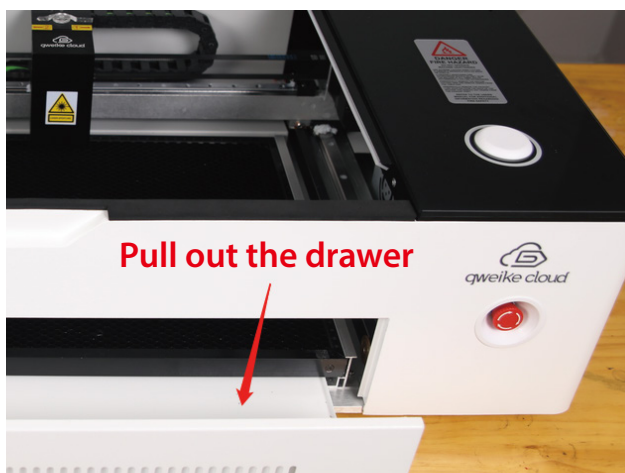
(2) Toggle switch: Toggle up to rotary mode, down to flat mode, and original position is flat mode

(3) Aviation plug: The aviation plug is the joint part of the rotary wire and the machine.

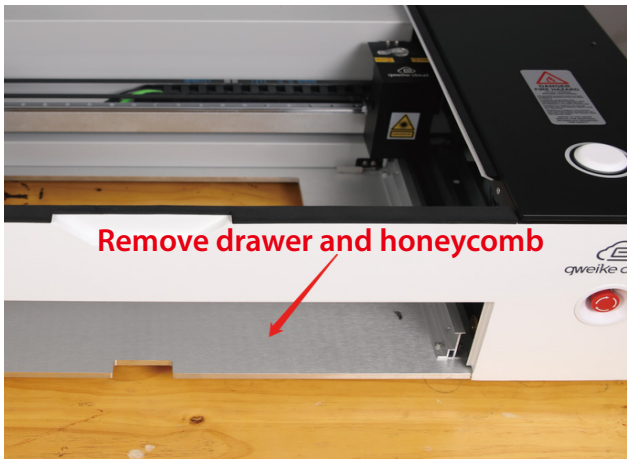


### 2. Steps for usage

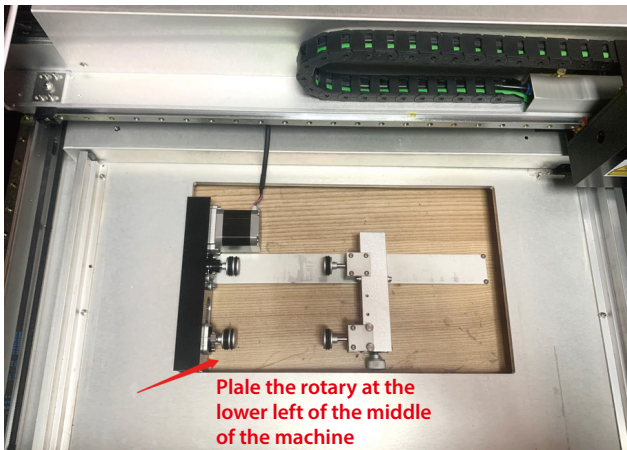
(1) First, when the machine is powered off, take out the drawer first, then take out the honeycomb panel, and place it to other side;



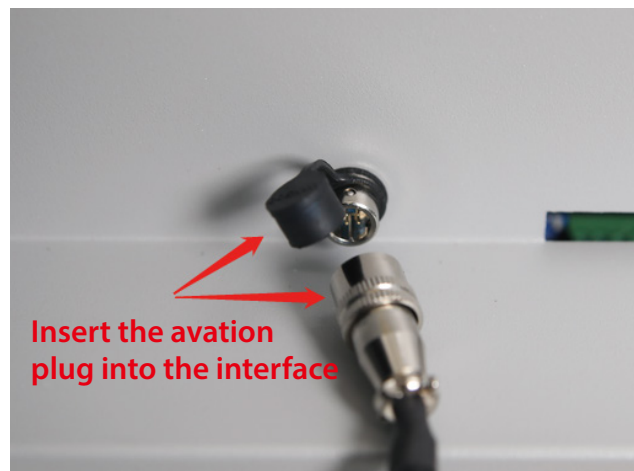
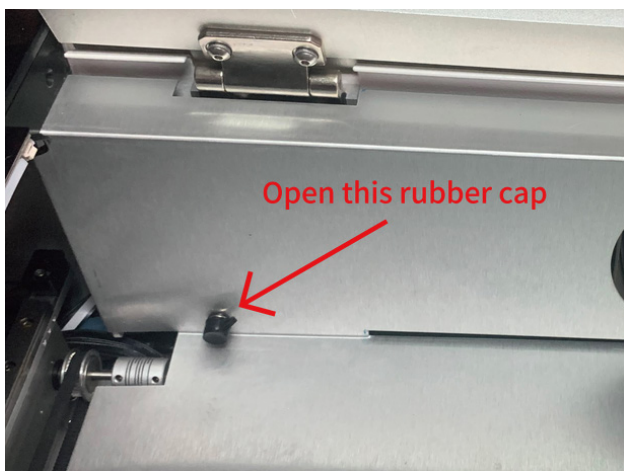


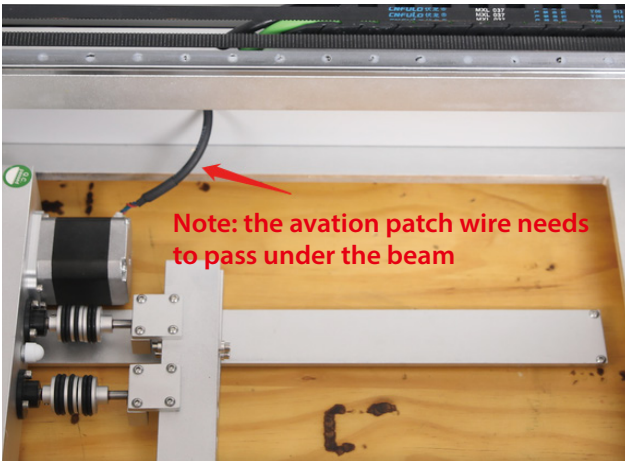


(2) Take out the rotary, open the lid of the machine, and place the rotary in the lower left corner of the square hole at the bottom of the machine;

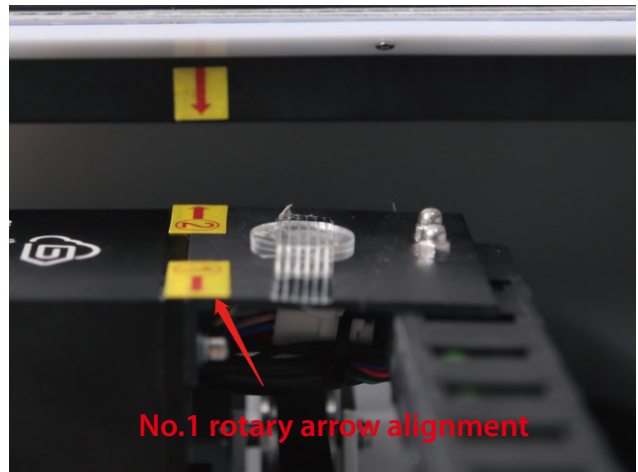
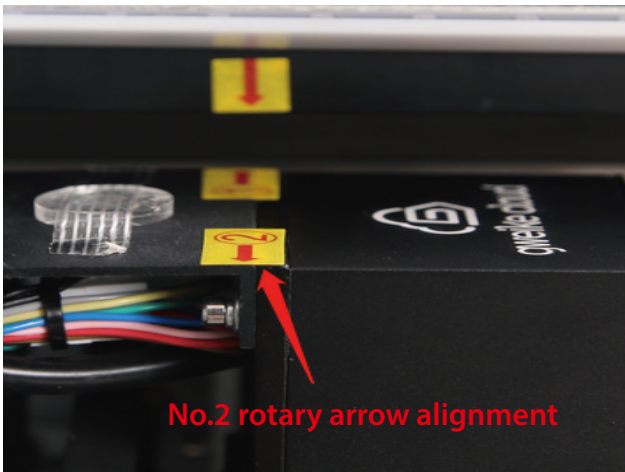
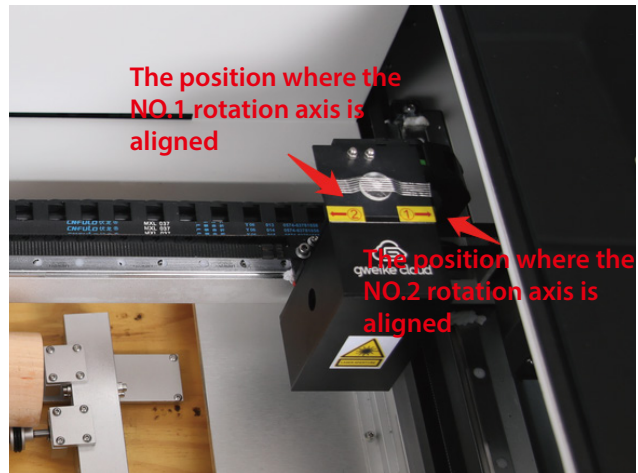
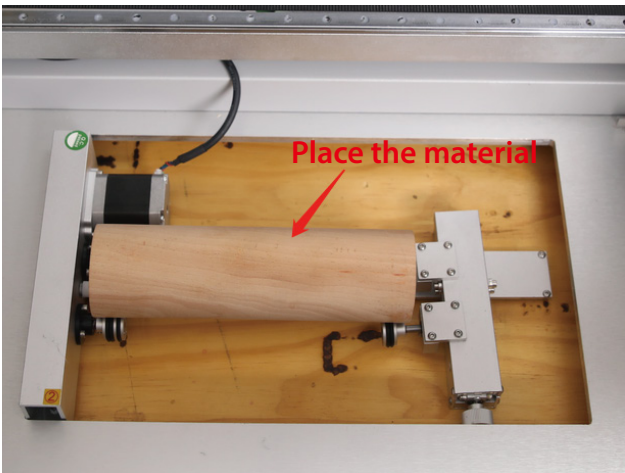


(3) Remove the rubber cap of the aviation plug on the back of the machine, plug in the aviation plug, and turn the left DIP switch to the top to change to the rotary mode;

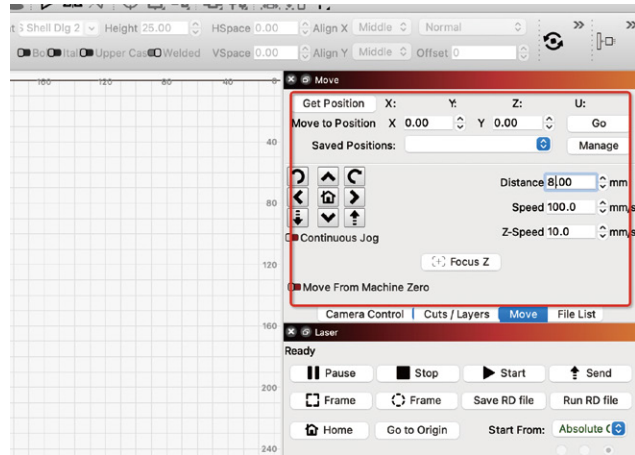
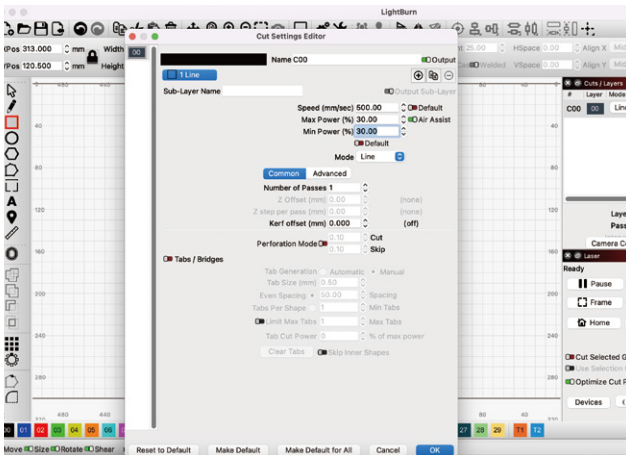
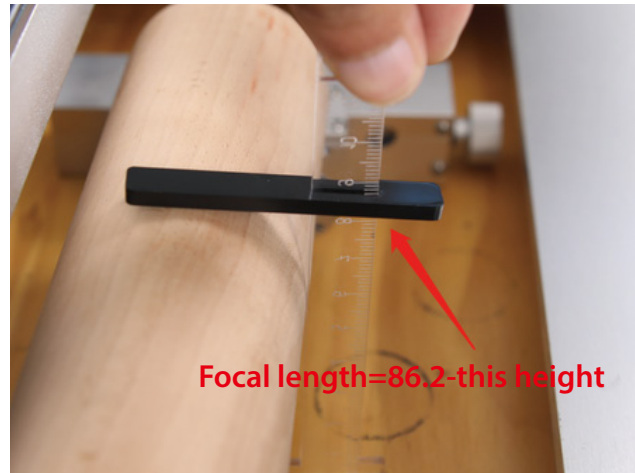
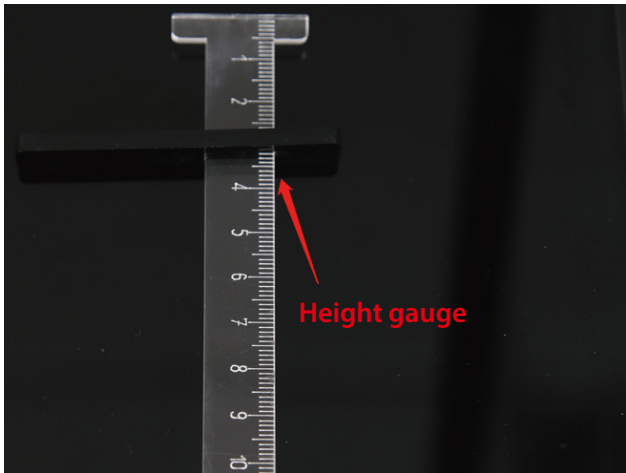




(4) Place the material on the rotation axis and manually pull the Y-axis beam to the specified position (when using the No. 1 rotation axis, pull the No. 1 identification arrow on the right side of the beam to the aligned position; when using the No. 2 rotation axis, then Pull the No. 2 identification arrow on the left side of the beam to the alignment position), place the laser head on the top of the material, close the lid, and turn on the machine;



(5) Open lightburn upload the drawing, set the parameters, the cutting parameters are consistent with the plane parameters, and the focal length needs to be calculated. After setting the focal length, click print to start engraving. Among them, the focal length value: focal length = 86.2-the height of the material placed on the highest point of the rotation axis from the desktop (the tool box is equipped with a height ruler, use the height ruler to measure the height)



(6) After the engraving is completed, open the lid to remove the material, you can continue processing the next product.

(7) After using the rotary axis, turn off the laser machine, open the machine cover, unplug the air plug, put the rubber cap back to its original position, turn the dip switch back to flat mode, take out the rotary axis, install the honeycomb board and drawer, and turn on the machine again to use the flat mode.

