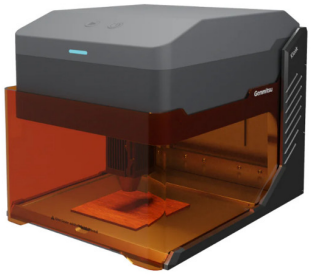
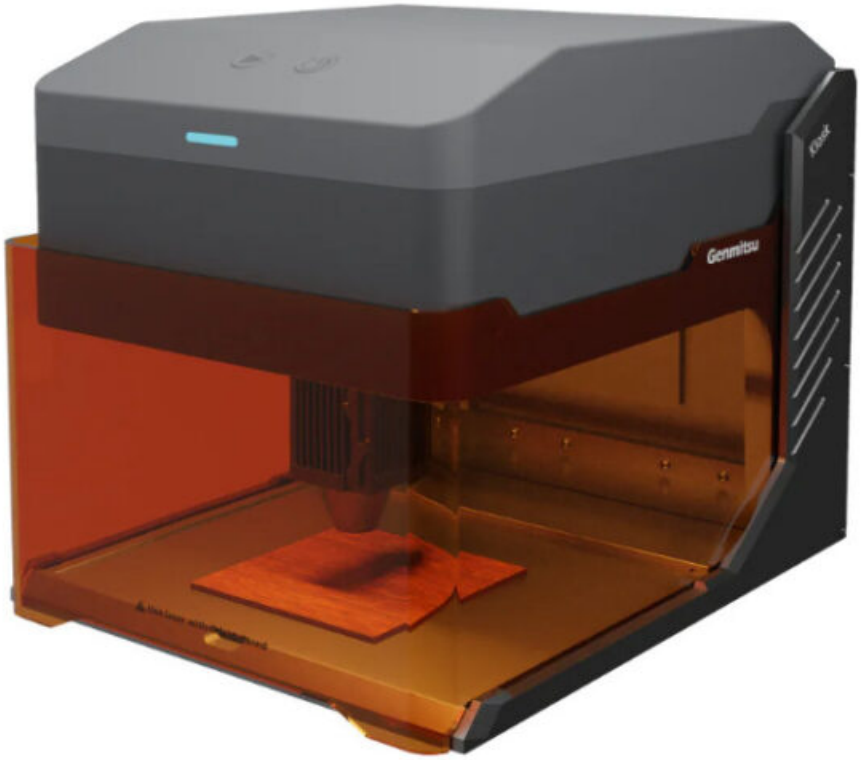


Genmitsu Kiosk Laser Machine Installation Guide

GENMITSU



INSTALLATION GUIDE
INSTALLATION SANLEITUNG
Genmitsu Kiosk Laser Machine User Manual

Contents

Kiosk Laser Machine

Welcome
Thank you for purchasing the Kiosk Laser Engraver & Cutter from SainSmart.
We sincerely hope you enjoy this product, and thank you for trusting us!
The Kiosk is a convenient compact laser, that is great for engraving and cutting. No matter where you use the Kiosk in your workflow, we expect it to deliver a great experience!
For any reason if you have any warranty or support problems, please email us at support@sainsmart.com
Help and support is also available from our Facebook group. (SainSmart Genmitsu CNC Users Group)
https://www.facebook.com/groups/SainSmart.GenmitsuCNC

https://www.facebook.com/groups/SainSmart.GenmitsuCNC

About the Information

The TF card, that comes with the package, contains the following information:

Please visit SainSmart Online Resource Center installing drivers and software for your laser.
https://docs.sainsmart.com/kiosk
Scan QR code to find information.

https://www.sainsmart.com//products/kiosk-laser
You can get more information about CNC & Laser Engraving by visiting our help doc **https://docs.sainsmart.com/** to get more use rguides

https://www.sainsmart.com/pages/resource-center-guide?utm_source=manual&utm_medium=manual

Safety Guideline

Thank you for purchasing the Genmitsu laser engraving machine. To ensure optimal use and maintenance of this equipment, please read this manual carefully and follow the provided instructions.

CAUTION

All risks resulting from improper use or failure to follow the instructions in this manual are the responsibility of the user. The company reserves the final
interpretation rights of this manual and retains the right to modify any materials, data, technical details, etc., contained herein.

WARNING

★ Before operating the equipment, please read the user manual carefully and strictly abide by the operating procedures.

★ Laser processing may have risks, users should carefully consider whether the object to be processed is

suitable for laser operation.
★ Processing objects and discharges should comply with local laws and regulations.

1. Be aware that the laser may ignite surrounding combustibles.
2. During laser processing, other radiation and toxic and harmful gases may be produced due to different processing objects;
3. Direct exposure to laser radiation can cause injury. Ensure the workspace is equipped with fire-fighting equipment, avoid piling flammable or explosive materials on or around the workbench, and maintain good ventilation at all times.

★ The environment where the equipment is located should be dry and free from pollution, vibration, strong electrical fields, strong magnetic fields, and other interferences. The recommended working environment temperature is 5-30℃, with a humidity level of 35-65% RH.
★ Equipment working voltage: AC100-240V.
★ The engraving machine and all associated equipment must be properly grounded before being turned on for operation.
★ When the equipment is turned on, it must be monitored at all times. All power must be cut off before leaving the equipment to prevent any abnormal situations. If any abnormal situation occurs, immediately cut off the power!
★ It is strictly forbidden to place any irrelevant total reflection or diffuse reflection objects in the device to prevent the laser from reflecting onto the human body or flammable objects.
★ The device should be far away from electrical equipment sensitive to electromagnetic interference, which may cause electromagnetic interference.
★ There is high voltage and other potential dangers inside the laser equipment. Non-professionals are strictly forbidden from disassembling it.

Pay attention!

 **Caution Laser:**
When the laser is turned on, it is prohibited to aim at humans, animals and flammables to avoid skin burns and fire.

 **Do Not Look Directly:**
The laser brightness is harmful to the eyes. Do not look directly at the laser.

 **No Reaching In:**
Keep hands away from the machine during operation to avoid injury.

 Turn off the machine when it is not in use to avoid misoperation.
Maintenance: Laser module is consumable. It's recommended to keep the machine power off for 10 minutes after 4-hour engraving and keep the machine power off for 10 minutes after 1-hour cutting.

FCC compliance statement

Warning
To assure continued compliance, any changes or modifications not expressly approved by the party. Responsible for compliance could void the user's authority to operate this equipment.
FCC Statement
This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

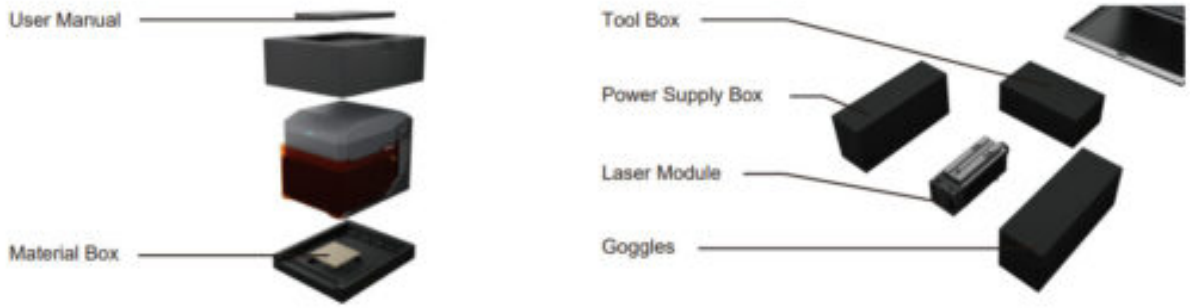
1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

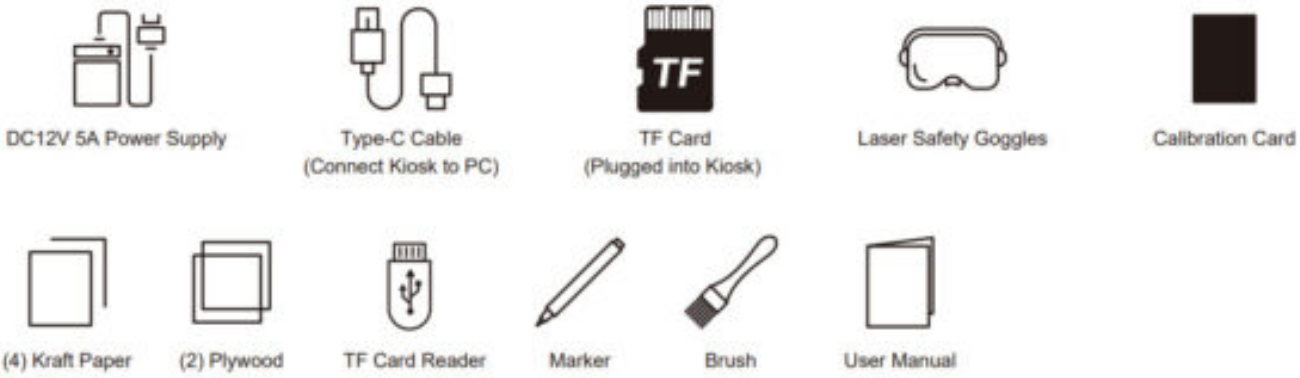
NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
– Reorient or relocate the receiving antenna.
– Increase the separation between the equipment and receiver.
– Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
– Consult the dealer or an experienced radio/TV technician for help.
FCC Radiation Exposure Statement:
The equipment complies with FCC Radiation exposure limits set forth for uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

Specifications

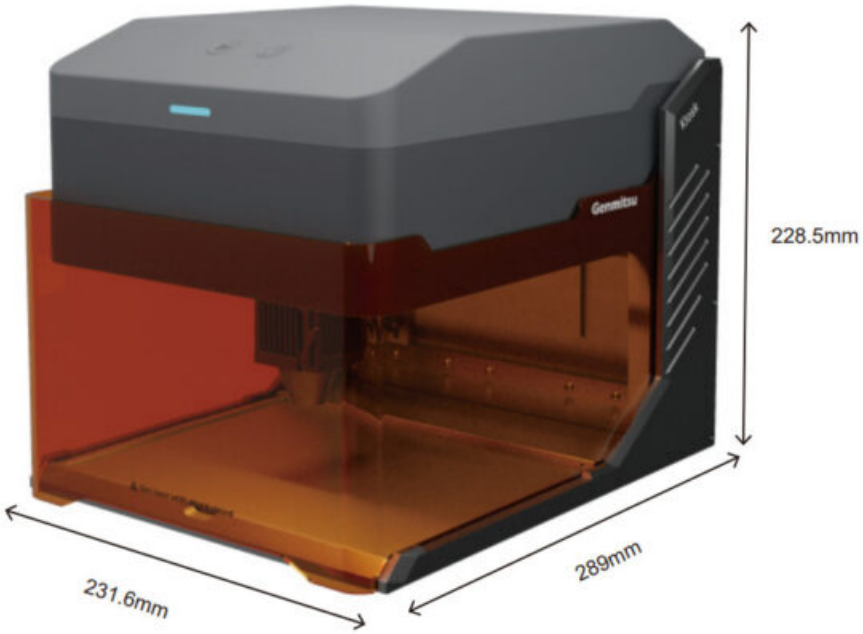
Model Name	Kiosk Laser Machine
Laser Wavelength	455 nm
Work Area	100 x 100mm (3.94″ x 3.94″)
Engraving Heights	<50mm
Laser Life	>10000h (at 27°C ambient temperature)
Engraving Accuracy	±0.01mm
Max Speed	12000mm/min (Bitmap)
Data Transmission	USB to Serial Wired Transmission, Wi-Fi Wireless Transmission
Cooling Method	Air Cooling
Engravable Materials	Paper, Wood, Bamboo, Cloth, Acrylic, Plastic, Leather, Bread, Fruit, Glass, Ceramic, Rock, Coated Metal, and so on.
Cuttable Materials	5W Laser Power: Cut 3-5mm Plywood, 5-7mm Pine Board.
	10W Laser Power: Cut 5-7mm Plywood, 7-10mm Pine Board
Input Power	DC12V 5A
Output Power	<60W
Frame Material	ABS+High Strength Metals
Support System	Windows/MAC/Android/10S
Image Format	JPEG/BMP/PNG/JPG/GIF/DXF/PLT/HPGUNC

Unbox



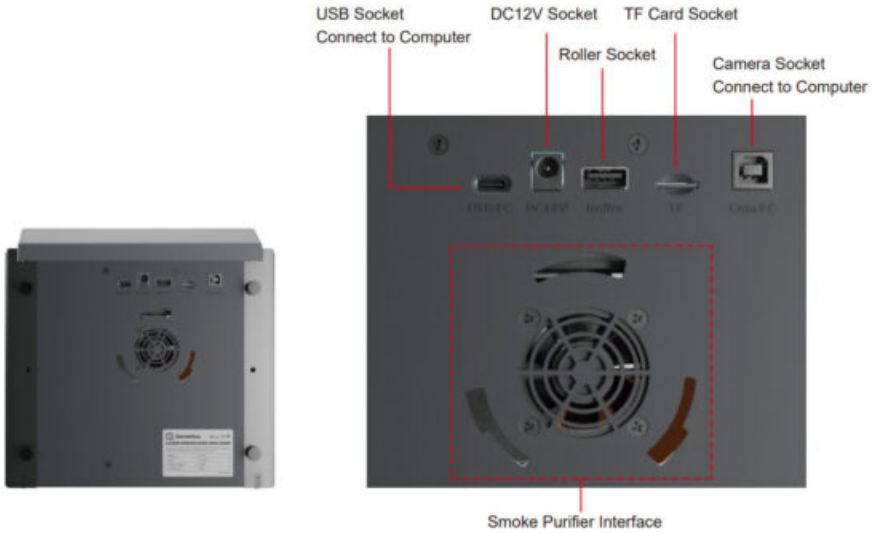


Unbox



Functional Description

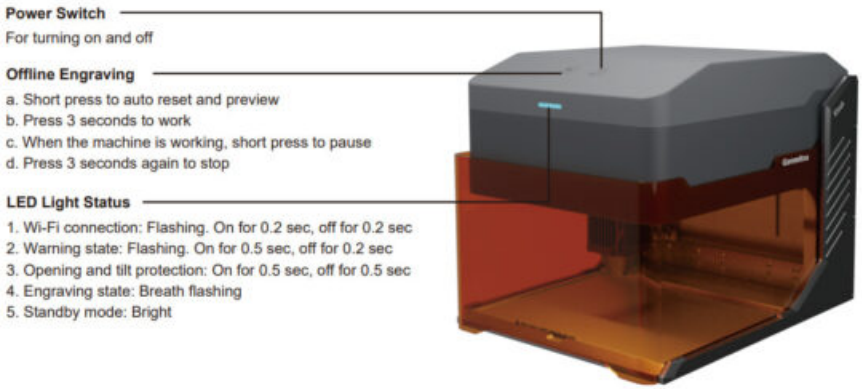
Part 1: Interfaces Functional Description and Wiring



Please confirm that the 3 interfaces in the following picture are connected correctly before use.
TIP: For safety reasons, the laser will not emit light without inserting a TF card.

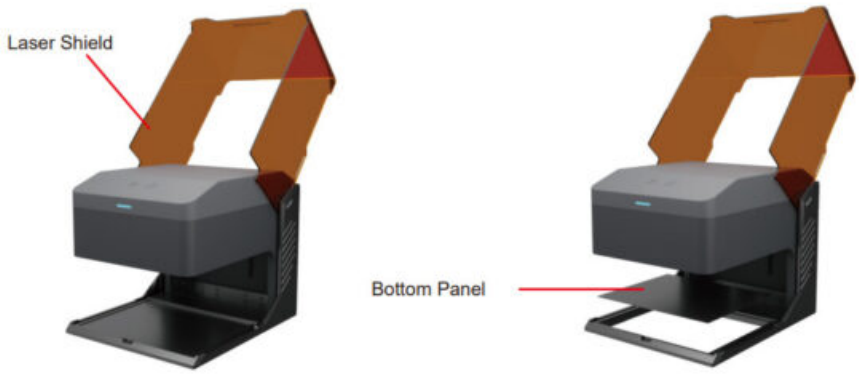
Part 2: Indicator Light and Buttons Functional Description
Offline engraving buttons description:

1. Generate the engraving or cutting file (G-code) using LightBurn software and save it to the root directory of the TF card. Save the file with the name: 001.nc.
2. Insert the TF card into the machine before powering it on. Use the appropriate power adapter and power cord to connect to the controller panel.
   Finally, turn on the power switch located on the right side of the control panel.

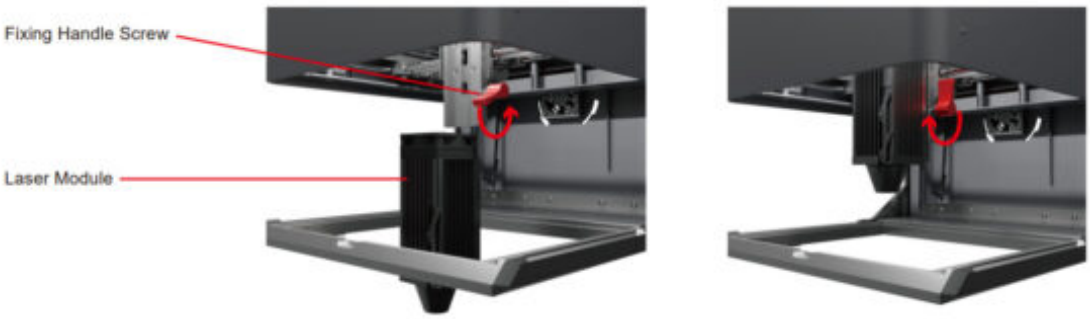


Part 3: Installing the Laser Module

1. Open the laser shield, and remove the bottom panel.

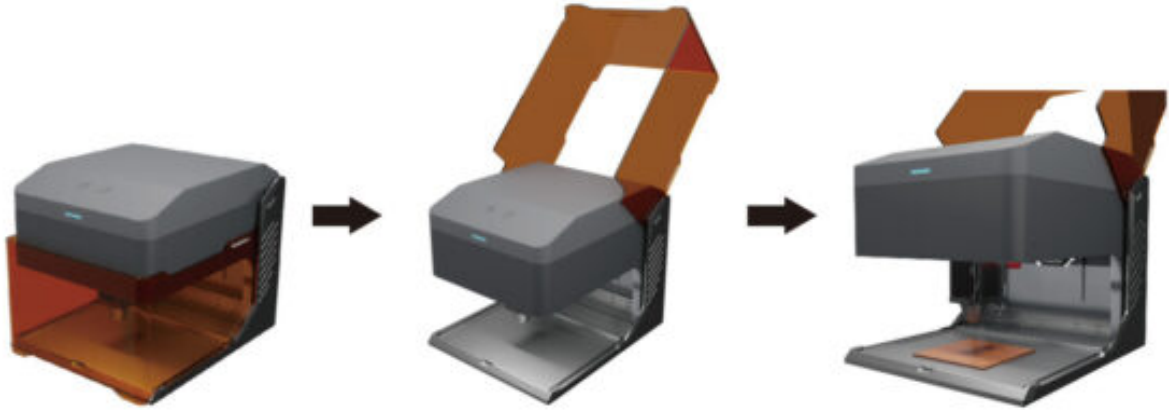


2. After loosening the fixing handle screw counterclockwise, install the laser module into the mounting bracket.
3. Adjust the desired height, and then tighten the fixing handle screw.
4. Insert the cable from the left side of the mounting bracket into the port of the laser module.



Usage Guide

1. Open the Laser Shield, and place the material in the Kiosk.



2. Focusing the Laser Machine:

2.1 Pivot the focusing rod downward and loosen the fixing handle screw, until the laser module can be moved.

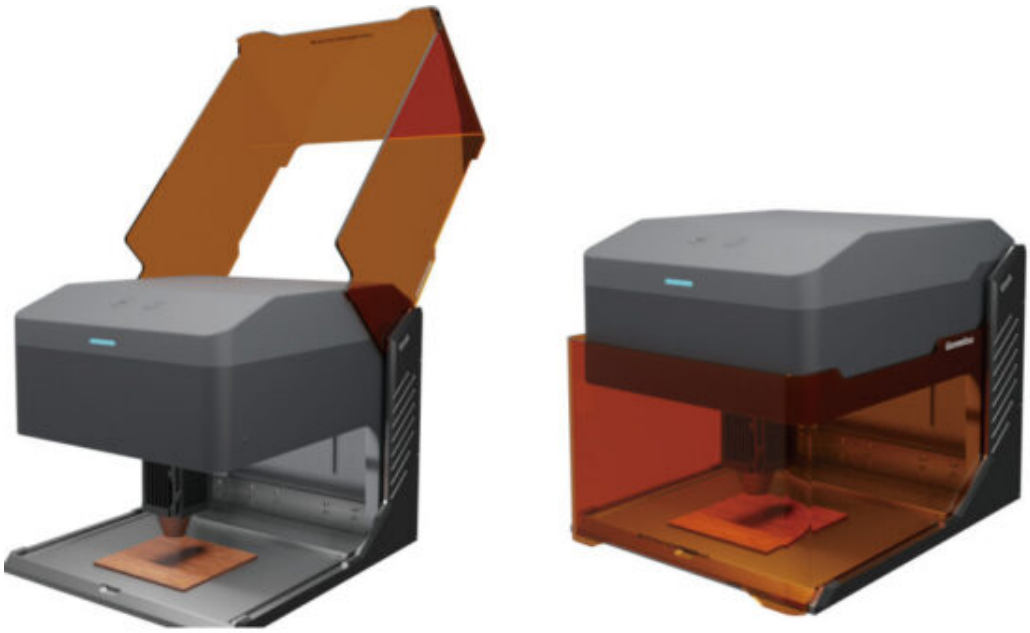
2.2 Adjust the height of the laser module, and tighten the fixing handle screw when the focusing rod just touches the surface of the material.

2.3 Pivot the focusing rod upward to complete the focus adjustment.

3. Close the light shield and click the preview program on the computer, or short press the offline engraving button to preview the working process.

   Note: Turn to page 24 to find detail instructions of software setting.

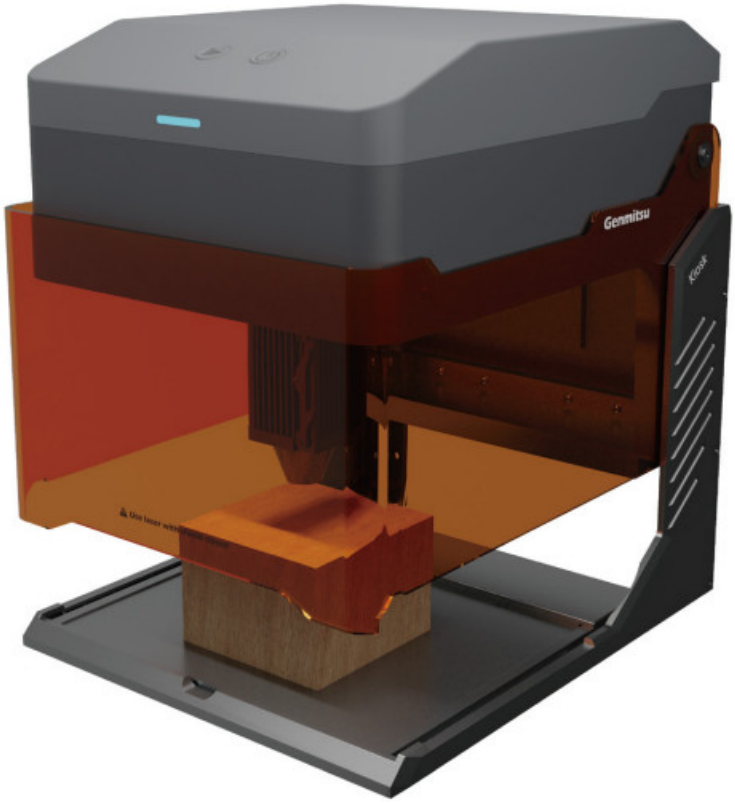
4. For your safety, keep the Laser Shield closed during Laser use.
   Otherwise the kiosk will not work



When carving larger materials
You can take out the bottom panel for engraving larger materials.

Adjust the Height of the Main Unit

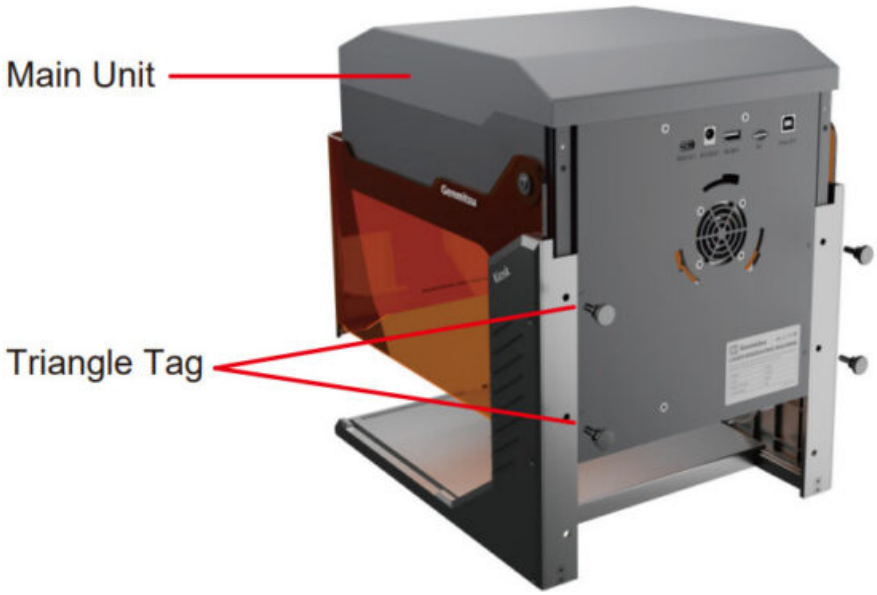
When you need to engrave the thicker materials or use the roller, adjust the height of the main unit to get more Z-axis space.



Adjust the Height of the Main Unit

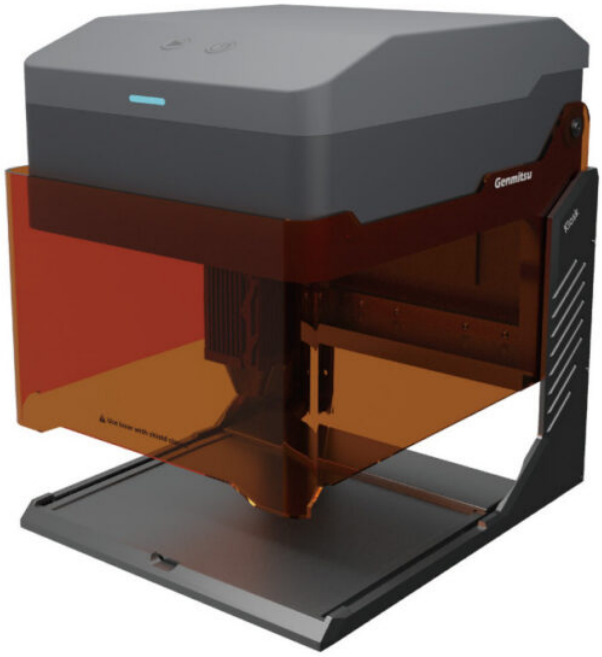
1. Loosen the four fixing screws and slowly raise the main unit.

2. When the triangular tags of the main unit are raised to the screw holes position, screw the fixing screws into the corresponding screw holes and tighten them in a cross pattern.



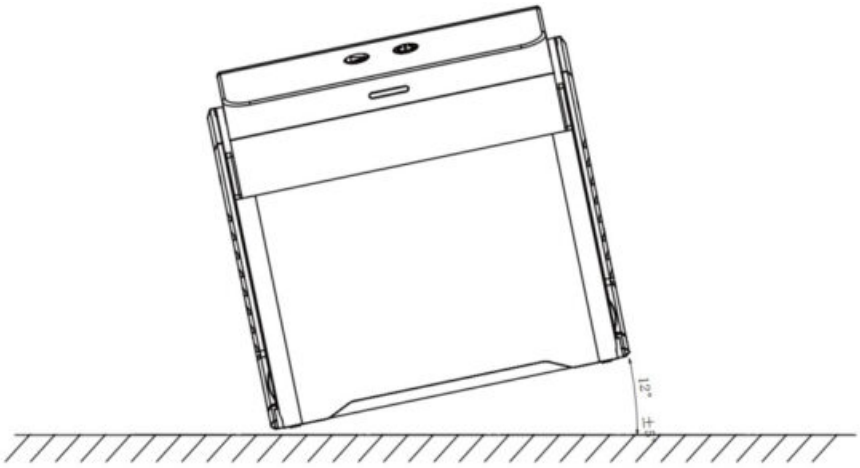
3. Main unit height adjustment completed.

TIP: After adjusting the height of the main, the light shield cannot completely block the light. Please wear laser safety goggles according to your needs to protect eyes.



Tilt protection:

If the machine tilts more than 12°+5° above the horizontal plane for more than 1 second, it will immediately stop running. The laser module will cease laser output, and the status light will indicate an alarm. To resume normal operation, restart the machine after it enters a protected state.



Software Download and Installation

A. Software Download and Installation on PC

1. **Driver installation on Windows**

   Enter the TF card reader with TF card and double-click the folder /01-windows/driver/driver.exe.

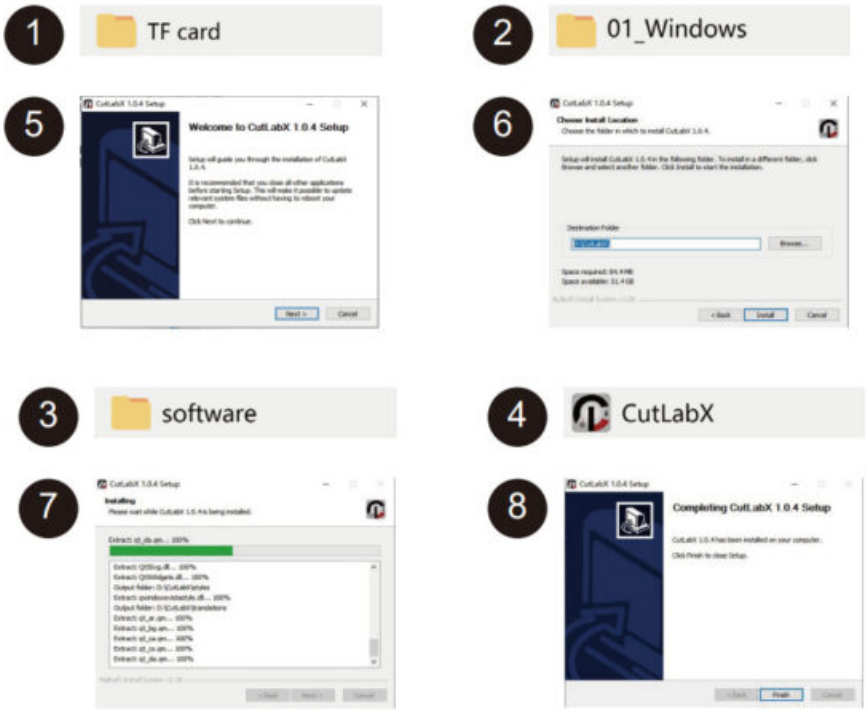
2. **The Software can be acquired as follows:**

Method 1: Acquire the driver, software, photos and other data from the TF card disc provided (Note: Before the use for the first time, please copy all the data from the USB flash disc to your computer as backup to prevent accidental loss due to improper operation.)

Method 2: Download at the designated website **https://docs.sainsmart.com/kiosk**

3. **Path to Install Software:**

   Double-click the TF card data file/Windows/Software/CutLabX/ and follow the prompts to complete the installation.



4. **Online Operation:**
   1. Double-click on the software icon
   2. enter the home page, dick on the beginning Of the creation
   3. select the appropriate com and connect
   4. connected to the machine successfully!

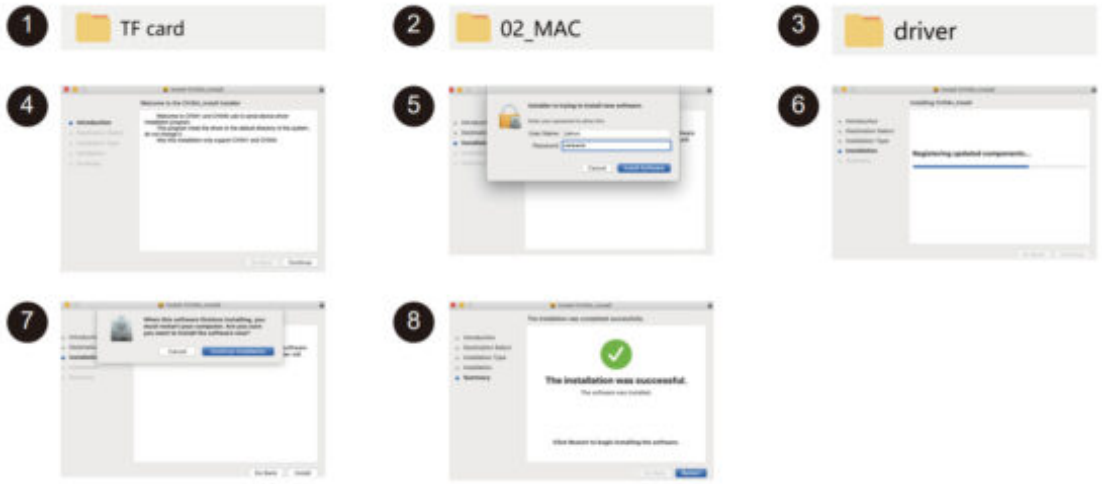
Tip: Click Cutlabx after the pop-up antivirus software or computer butler suggests that the risk, Cutlabx file is a win system installation package, if it is misjudged as a suspicious file, please choose to allow the program to allow all the operations, that is successfully complete the installation of the software!

B. Software Download and Installation on MacOS

1. **Path to Install Driver:**

   Enter the TF card reader with TF card and double-click the folder / 02_MAC /driver/CH34x_Install_V1.4.pkg

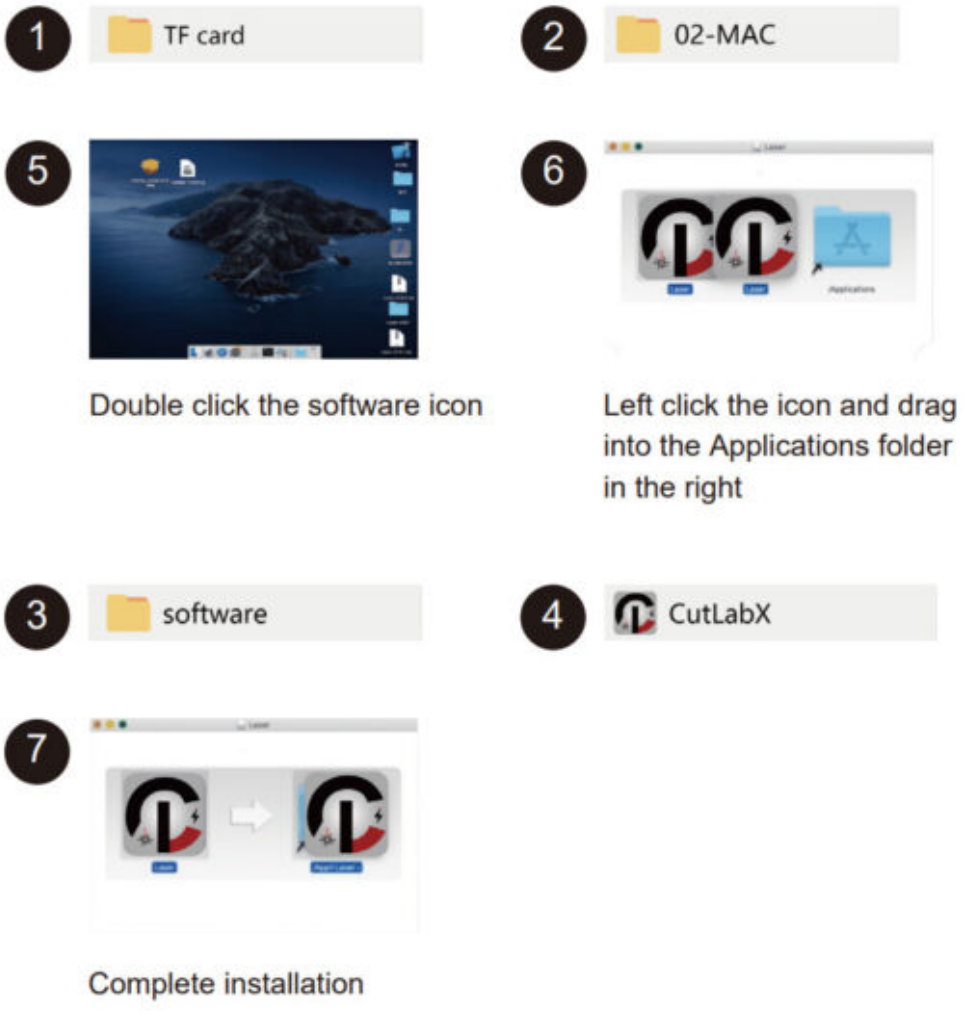
   Note: The software can be installed after the river has been installed.



2. **Path to Install Software:**

   Enter flash disk and double-click the folder:

   02 MAC/software/CutLabX/move software icon to theright/ complete installation



3. **Online Operation:**
   1. Double-click on the software icon
   2. enter the home page, click on the beginning of the creation

3. select the appropriate com and connect
4. connected to the machine successfully!

Tip: When the machine is connected to the MAC, you must select the name of the beginning: Wch….
C. Software Download and Installation on Mobile Phone
Method 1: APP download URL: **https://www.cutlabx.com**
Method 2: Scan the QR code to download.

App Store	Google Store
https://apps.apple.com/cn/app/cutlabx/id6468648065?platform=iphone	https://play.google.com/store/apps/details?id=org.qtproj.CutLabX&pcampaignid=web_share

Note:

1. For Android system, open the browser to scan the QR code to download;
2. Corresponding authorization should be allowed after successful installation.

Mobile Phone Connection

1. Instructions for connecting the phone to the machine: Default Wi-Fi
Note: After the mobile phone successfully connects to the machine, the phone has no network.

1.1. Turn on the power of the machine and turn it on.

1.2. Turn on the WLAN on the mobile phone, find the Wi-Fi signal named Genmitsu-Kiosk, and the password is 12345678.

1.3. After the Wi-Fi connection is successful, open CutLabX APP, click the link mark in the upper right corner, enter 192.168.0.1 in the IP address, and click "Connect" to complete the connection.

2. Instructions for connecting the phone to the machine: Home Network

2.1. Turn on the power of the machine and turn it on.

2.2. Connect to Kiosk with USB cable.

2.3. Open the CutLabX software to enter the authoring page.

2.4. Automatic machine connection (if it does not connect automatically, you need to try another COM).

2.5. Click the Set-Up Wi-Fi button, enter the Wi-Fi name and password of your home network, and restart the machine.

2.6. Turn on Wi-Fi on your phone, find the home network WiFi name, and enter the password.

2.7. After the Wi-Fi connection is successful, open CutLabX APP, click the link mark in the upper right corner.

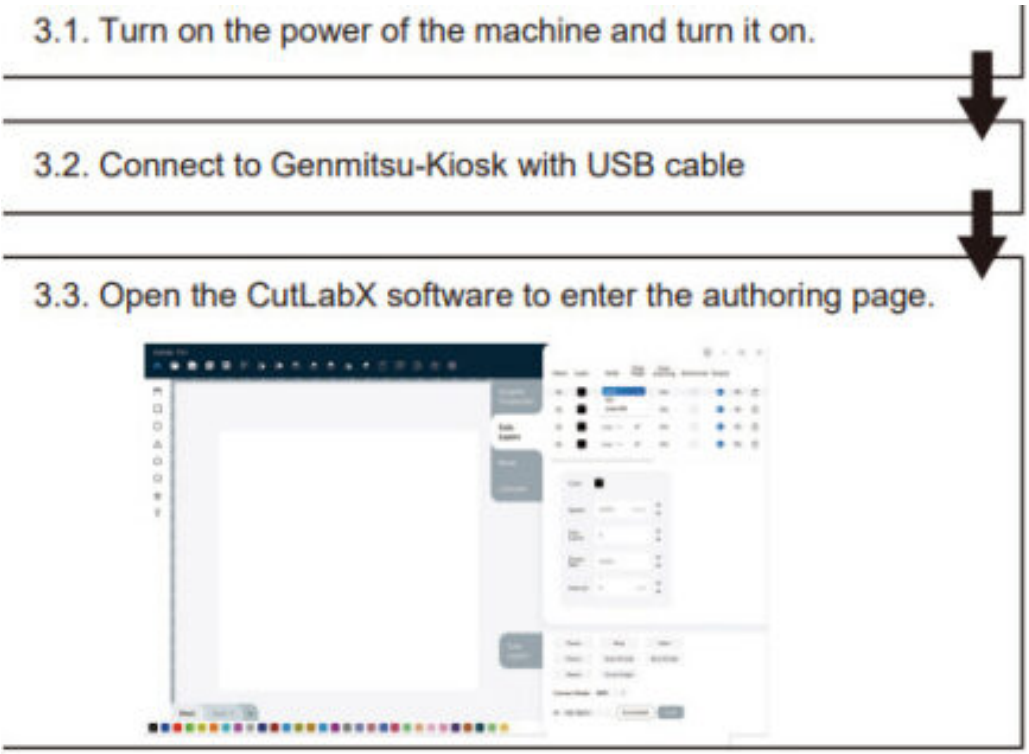
2.8. "Click Get address".

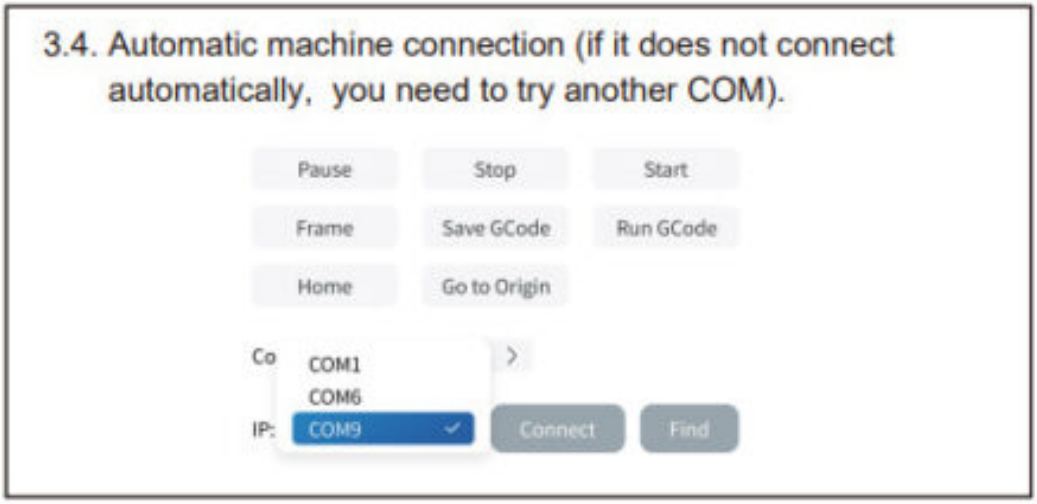
2.9. Click on the IP address you obtained, and then click "Connect".

2.10. The connected IP address is displayed, indicating a successful connection

3. Instructions for connecting the computer to the machine via USB

Note: Install the driver according to the computer system (please refer to the driver installation instructions)





First Cutting

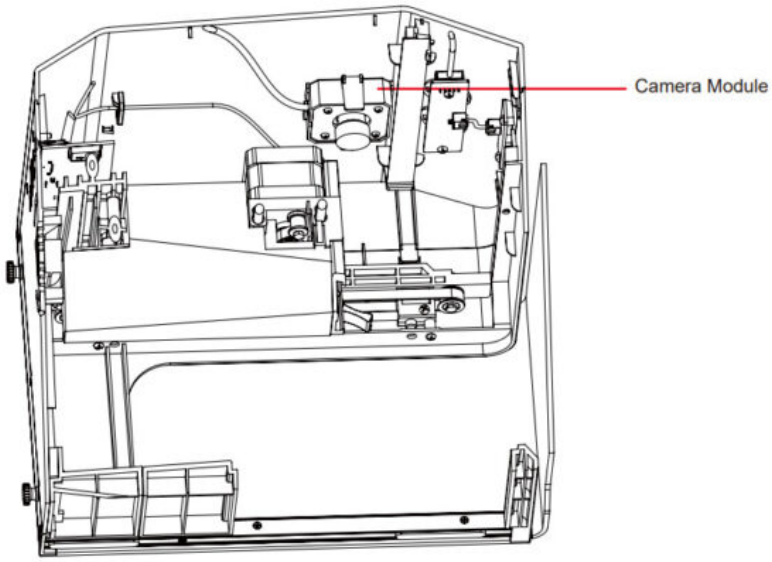
To help you get started, we have prepared detailed engraving instructions and materials. You can find this information in our help documents by visiting our help docs: **https://docs.sainsmart.com/Kiosk**. Additionally, the instructions are available on the included USB flash drive. For quick access, you can also scan the QR code below.

https://genmitsu.s3.us-east-1.amazonaws.com/101-60-KK/Kiosk_first_cutting_guide-1.pdf

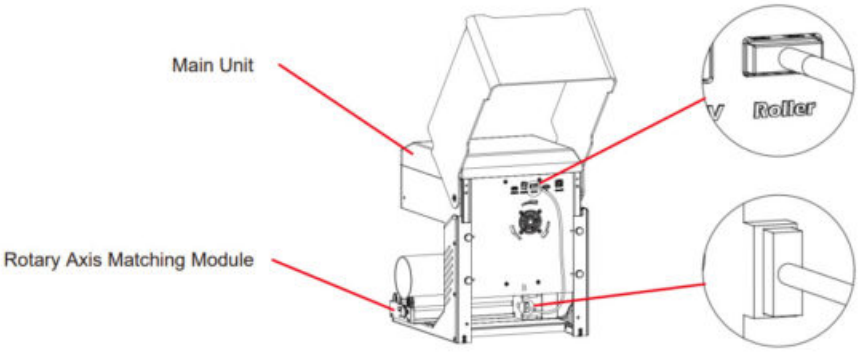
The Optional Accessories

Part 1: Camera Module

The camera module has been designed to provide real time engraving information.



Part 2: Rotary Module



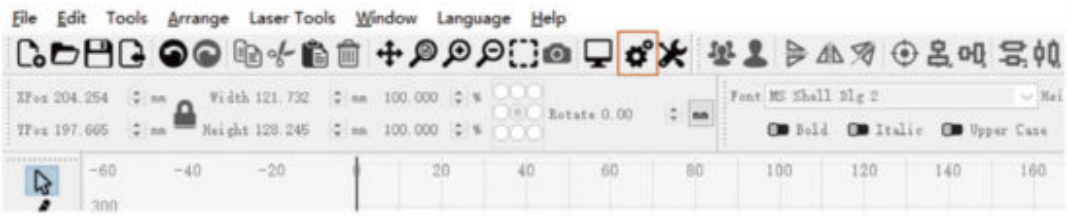
Setting up the roller:

1. Place the roller in the designated area.
2. Connect the cable to the “Roller” port on the panel and plug the other end into the roller motor.

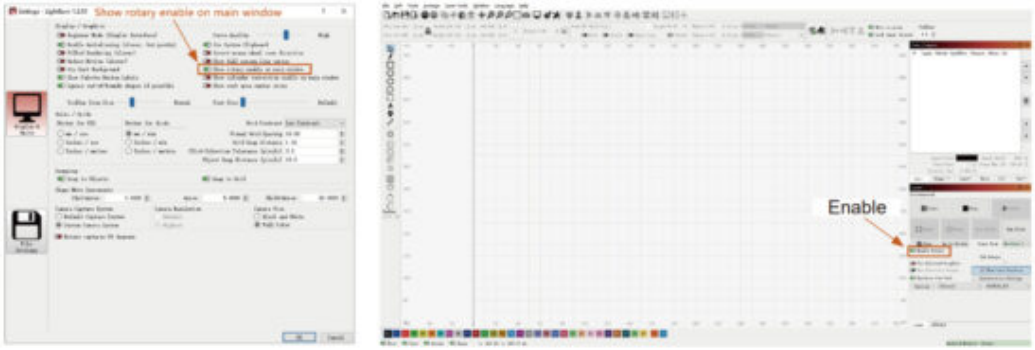
Engraving on tapered cylinders:
For example, with popular glass tumblers, it is often best to support the narrow end of the cylinder so that the horizontal edge faces the laser. The swivel includes an end support.
When engraving with rotation, the -axis goes through its normal scanning motion, but the y-axis remains stationary while the rotation provides movement in that direction.
The spinner can hold a wide variety of round objects, from something as thin as a pencil to a 32-ounce Yeti-style glass.
It consists of a fixed axis and a moving axis that can be locked into 1 of 4 positions. The applicable diameter range for each position is marked on the left side of the turntable.
Suitable for fixed shaft switching with diameters: >89mm, 64- 89mm, 38–64 mm,19-38mm, 6-19mm, switching between different positions
[Note]

1. Loosen the knobs at both ends at the same time, push the pulley to the desired position, and then lock the knobs at both ends at the same time
2. When using rotary engraving vector content, we recommend engraving at a speed <800mm/min.

LightBurn Software Settings
1. Add “Start Rotation” to the main window.
1.1 Click “Settinhs” on the toolbar

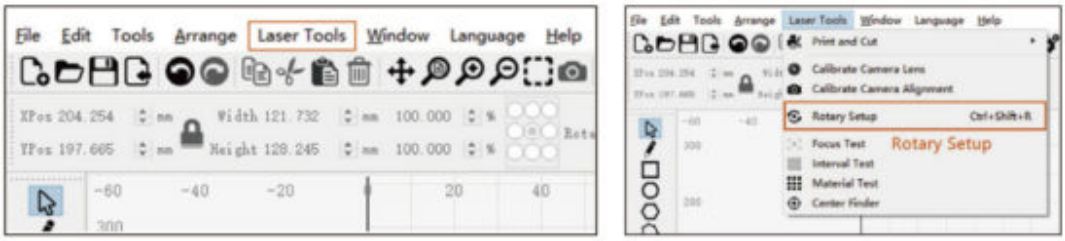


1.2 In the settings window, open the “Show rotation in main window” button and click OK.

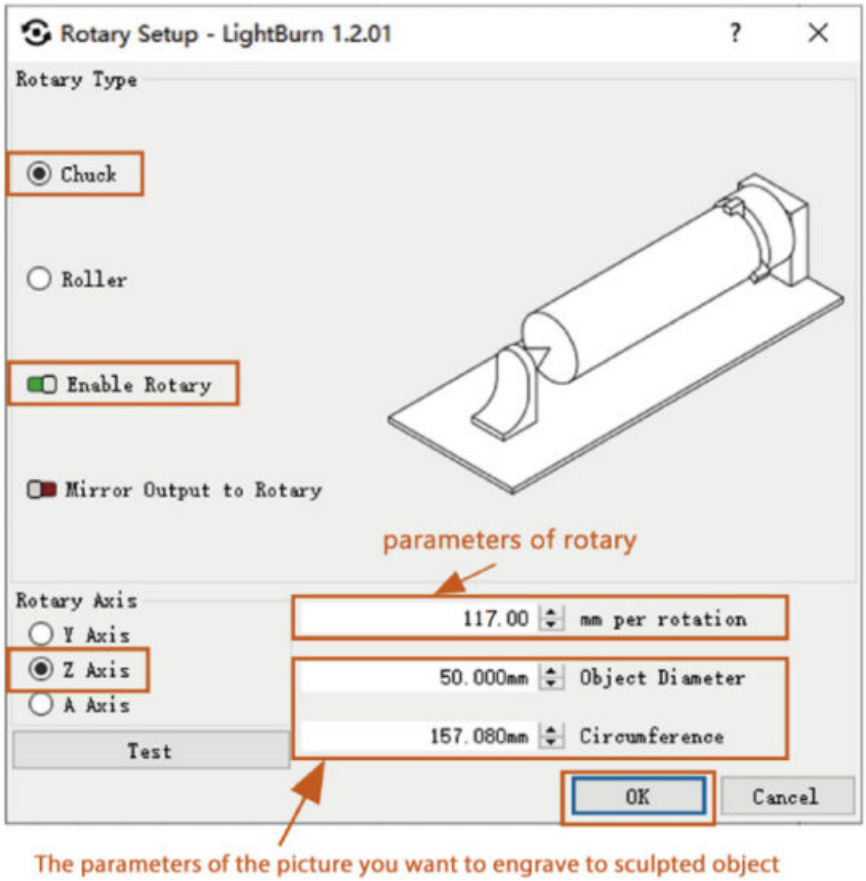


2. Open the rotation settings window and set the parameters.

2.1 Open the rotation settings window, click “Laser Tools” on the toolbar, then click “Rotary Setuo”.



2.2 Set the correct parameters in the rotation setting window, as shown in the figure.

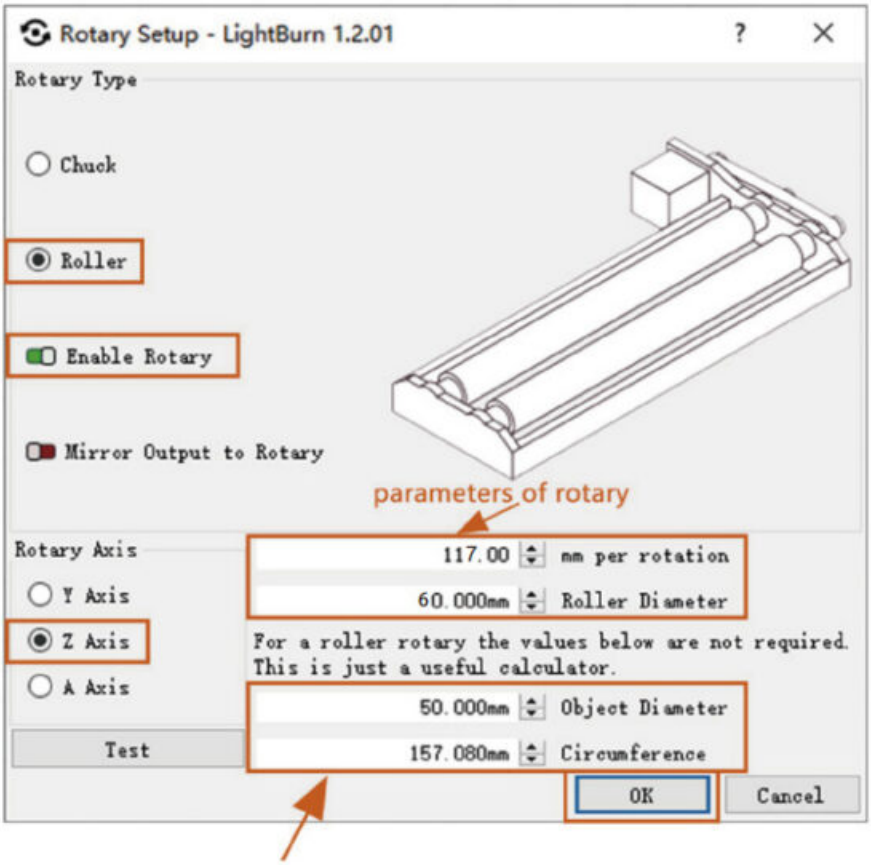


Steps:

1. Select the type of rotation “Chuck”.
2. Open “Enable Rotary”.
3. Select the “Z-axis” rotation axis.

4. Enter the parameters of the rotating device (fixed value).
5. Enter your object to parameters: the actual measured diameter circumference of the object to be measured.

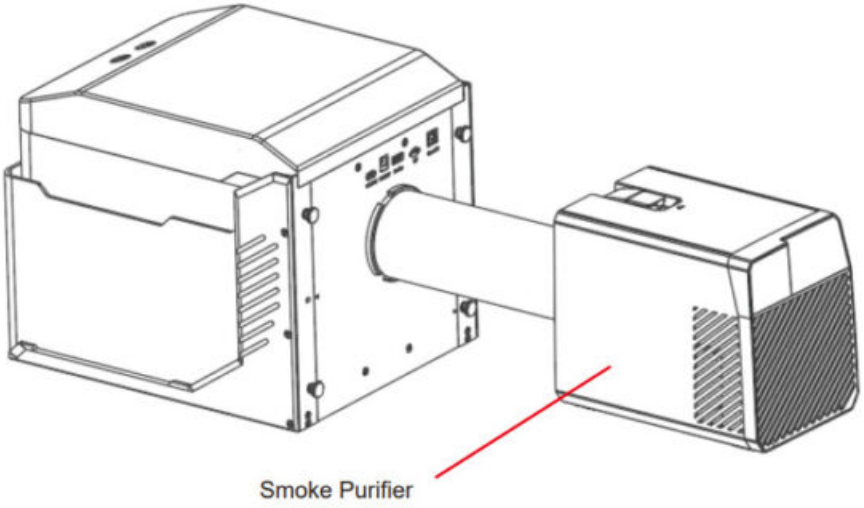
2.3 Set the correct parameters in the rotation setting window, as shown in the figure.



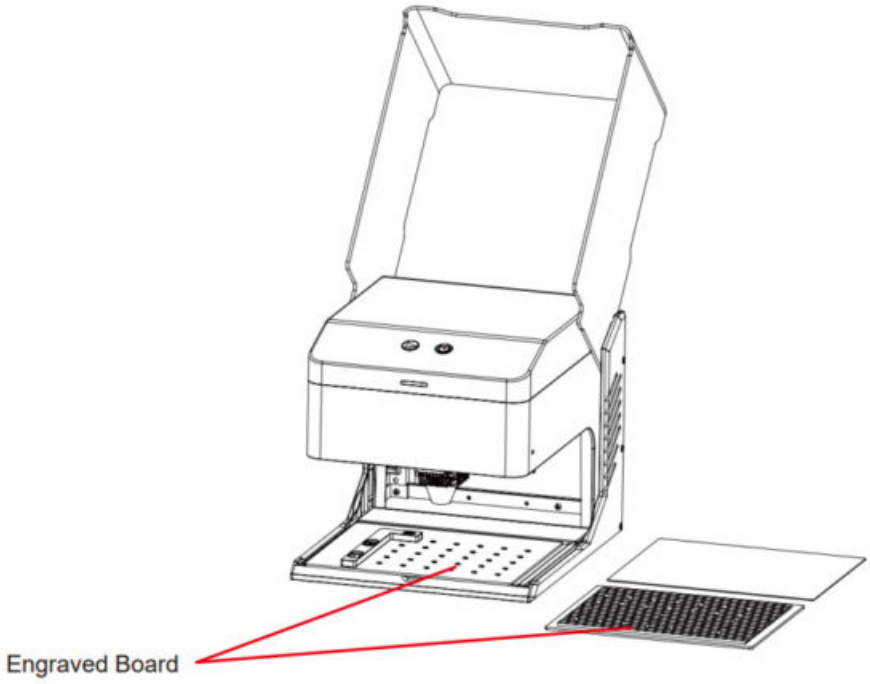
Steps:

1. Select the type of rotation “Roller”.
2. Open “Enable Rotary”.
3. Select the “Z-axis” rotation axis.
4. Enter the parameters of the rotating device (fixed value).
5. Enter your object to parameters: the actual measured diameter circumferenceof the object to be measured.

Part 3: Smoke Purifier Module
Purification of extracted smoke.



Part 4: Engraved Board Module
Suitable for high power cutting.



Frequently Asked Questions

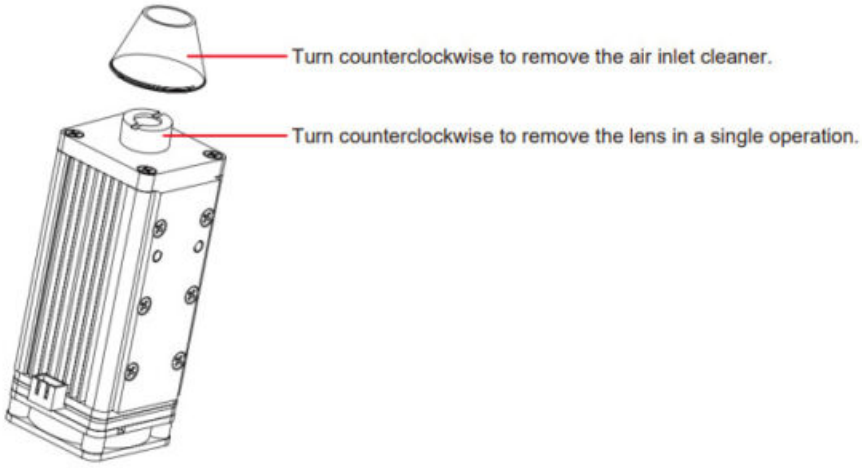
Questions Type	FAQ	SOLUTION
Machine Related Questions	What type of laser source is the machine?	It uses semiconductor lasers.
	What will happen if the machine is powered off during work?	If the power is cut off during an engraving task, the laser head will remain stationary. Upon powering on again, the machine will restart
	Why can t the pattern be engraved properly ‘ (or the engraving is very shallow)?	Ensure that the imported picture is clear and has adequate contrast; avoid images that are too light. Verify that the focus is correctly adjusted before engraving, and ensure that the power, speed, and number of passes are set appropriately.
	What should I do if the pattern engraving is incomplete (or the depth is inconsistent)?	Ensure that the object being engraved is flat and that the machine is level. Follow the adjustment procedures outlined in the user manual to ensure proper setup and operation.
	Is the working platform damaged during laser engraving ?	During engraving or cutting, the laser may penetrate the object and leave marks on the work surface. It’s important to place a protective material, such as the aluminum plate provided with the machine, under the object being engraved to prevent damage to the working platform.
	When engraving offline, why can’t engraving be started even after pressing the button on the control box?	Make sure there are engraving files in the root directory of the TF card, and the TF card is inserted. **Notice:** a.The machine reads the engraving file with the latest modification date in the root directory of the TF card by default. It is recommended to delete other irrelevant files in the root directory. b.The file can only be generated by LightBum software, and the compatible format is NC. If GC is generated by default, please manually modify the file suffix to NC.

Machine Related Questions	Why does the machine not respond after being powered on?	a.Check whether the power plug at the machine end is inserted in place. b.Check the electrical status of the power socket. c Check whether the power switch on the machine and the magnetic door are dosed.
	Why can't the machine connect to the computer after it is powered on?	a.Check the Driver Installation: Reinstall the driver if necessary. If the driver is already installed correctly. ensure the cable is securely connected to the machine and the original port. b.Verify Port Selection: Ensure the correct port is selected. Some computers may have multiple ports: avoid using Coml and try another comport. (On a Mac. the port number must begin with "Wchusbserial" for normal operation.) c.Close Conflicting Software: Close any other software that may be using the com port. For example. Lasergrbl and CutLabX cannot be open simultaneously when connecting. Close Lasergrbl to use the machine with Lightbum or other s oftware. **Note:** In Lightbum. the machine can store multiple machine information. please select the appropriate configuration information according to the model.
	Why can't I use the mobile phone after the machine is powered on?	a.Please use the mobile phone according to the manual. b.If there is a connection issue due to incompatibility with a newly released mobile phone or an upgraded system. please provide a screenshot of the mobile phone configuration and contact our customer service for immediate technical support.
Engraving/ Cutting Related Questions	What non-transparent materials can Kiosk laser engraving machine engrave or cut?	Engraving: cardboard. wood. bamboo. rubber. leather, fabric. acrylic, painted metal. plastic. etc.; Cutting: cardboard. wood. bamboo, cloth. leather. fabric, acrylic (cannot cut clear acrylic). plastic. etc.
	Can it be engraved on curved surface materials?	Yes. but the radian of the material and the engraved graphic area should not be too large. otherwise there will be slight deformation.
	Can it be engraved on reflectivel transparent materials such as ceramics/glass?	Yes. but before engraving. it is necessary to coat the surface of the material with anti-reflective material (such as laser color paper. black marker pen). to ensure the engraving effect and prevent the reflected light from damaging the laser module.
	Why is there a significant difference in the processing effect when using the same G-code file on materials of the same type but different colors?	Materials of different colors have varying optical properties. affecting how they absorb and reflect laser energy. It is advisable to adjust the power and speed settings in the software accordingly when engraving materials of the same type but different odors.
	There is a lot of smoke and dust on the material after cutting, how to deal with it?	Please reduce the laser power appropriately and increase the speed.

Engraving/ Cutting Related Questions	Why can't the material be cut through?	1.Ensure that the machine and engraving materials are parallel to the work surface. 2.Ensure that the protective lens of the laser module is clean. 3.Verify that the focus is correct 4.Double-check the material thickness and adjust the settings according to the recommended parameters in the provided data. 5.Consider gradually increasing the number of passes or reducing the cutting speed appropriately.
Software Related Issues	What software does the Kiosk laser engraving machine support?	LaserGRBL (Free) – Real time LightBurn (Paid) – Real time/Offline 30-day trial CutLabX (Free) – Real time/Offline/Mobile During real-time engraving, ensure the computer remains active and does not freeze or enter standby mode (screen lock) to avoid disruptions to the engraving process.
	Where can I download these softwares/	LaserGRBL (**https://lasergrbl.corrildownloadl**) LightBurn (**https://lightburnsoftware.com/pagesitnal-version-try-before-you-buy**) CutLabX (**www.cutlabx.com**)
	What image formats does the software support?	LaserGRBL (bmp/png/jpg/gif/svg) LightBurn (bmp/pngijpg/jpegrgif/tif/tiff/tga/aiipdf/sc/dxf/hpgl/pltird/svg) CutLabX (AI. PDF. SVG. DXF. PLT. PNG, JPG. GIF, BMP)
	Where can I get software-related tutorials?	LaserGRBL (**https://lasergrbl.com/usageg** LightBurn (**https://lightburnsoftware.githubionslewDocs/)** **CutLabX** (In the attached USB disk)

Maintenance & Care-Laser Maintenance

To keep your Genmitsu-Kiosk in optimal working condition and reduce wear and tear, perform the following maintenance actions regularly:
Cleaning the Laser Module Lenses: The laser head has an internal air nozzle with a fixed airflow. However, Over time, particles can accumulate on the outer lens of the laser module, reducing its power output and causing the lens to heat up. If you notice decreased cutting efficiency on materials that previously cut well, it may be time to clean the lenses.
Remove the laser module from the machine by turning the knob to the right.
Gently clean the lens using a cotton swab or a rag dipped in alcohol.



Genmitsu
Desktop CNC & Laser

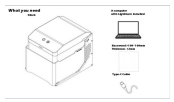
Facebook Group

https://www.facebook.com/groups/SainSmart.GenmitsuCNC/

Email: support@sainsmart.com

Facebook messenger: https://www.facebook.com/SainSmart/about
Help and support is also available from our Facebook Group
2330 Paseo Del Prado, C303, Las Vegas, NV 89102

Documents / Resources

	Genmitsu Kiosk Laser Machine [pdf] Installation Guide Kiosk Laser Machine, Kiosk, Laser Machine, Machine
	Genmitsu Kiosk Laser Machine [pdf] User Guide Kiosk FC, Kiosk Laser Machine, Kiosk, Laser Machine, Machine

References

- SainSmart Resource Center
- Download – LaserGRBL
- Usage – LaserGRBL
- LightBurn Documentation
- User Manual