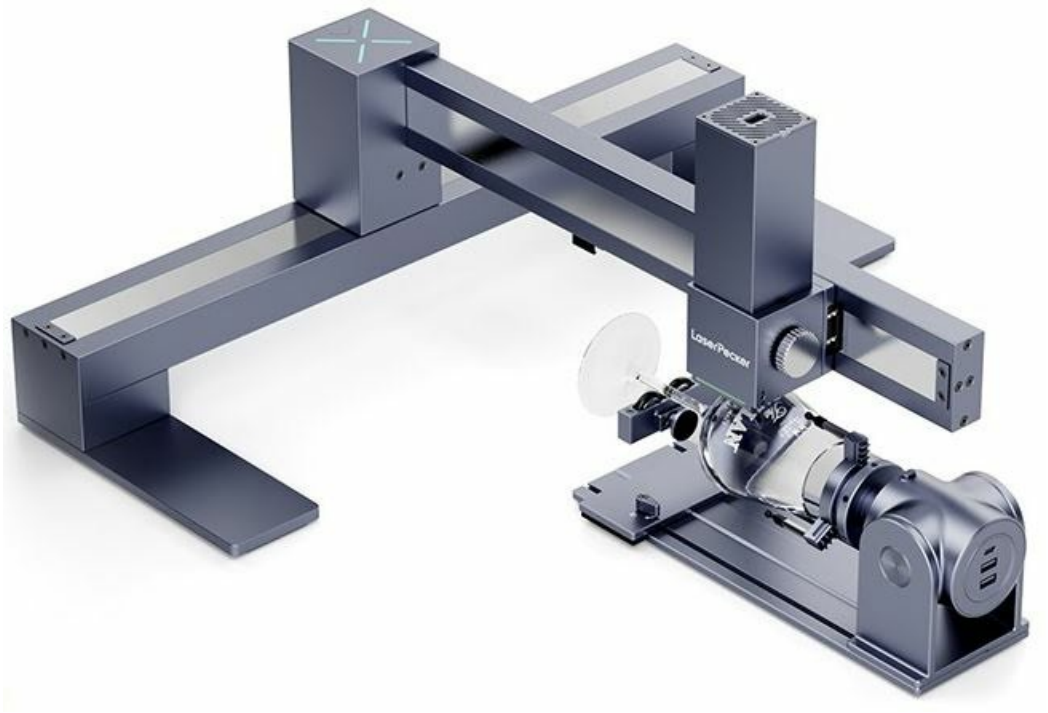
LaserPecker LX1 Max Engraving Ability Tests Instruction Manual

Contents

LaserPecker LX1 Max Engraving Ability Tests



Product Information

Specifications:

- **Product:** LaserPecker LX1
- **Firmware:** V7009 or higher
- **Software:** LightBurn

Product Usage Instructions:

LX1 Firmware and LightBurn Compatibility:
To use LightBurn with your LaserPecker LX1, make sure your firmware version is V7009 or higher.

Steps to check and update firmware:

1. Open the DesignSpace APP and connect the LX1 via Bluetooth.
2. **Tap:** Settings (Gear Icon) > Mode Settings > Firmware Version > Click 700X to upgrade.
3. **Warning:** Keep your LX1 connected to a stable power source and do not use or move it during the firmware upgrade.
4. A notification will appear when the upgrade is completed. Shut down the DesignSpace APP and restart your LX1.

LightBurn Software Downloading and Installation:
Download LightBurn from **here** and follow the installation instructions.

- **License:** A user's license is required after the free 30-day trial. Purchase a GCode License Key from the **LightBurn Online Store**.
- **Note:** Ensure you purchase the correct GCode License Key for compatibility with LX1.

Download and Import the LX1 Configuration Packages:
After installing LightBurn, input your GCode License Key if prompted. Import the corresponding configuration files for your model.

Configuration Packages:

- **LX1:** LaserPecker_LX1.lbdev (3.19KB)
- **LX1 MAX:** LaserPecker_LX1_MAX.lbdev (2.33KB)
- **LX1 with Rotary Extension:** LaserPecker_LX1_Rotation.lbdev (3.92KB)

Using LightBurn with LX1:

Connect your computer to your LX1

FAQ:

- **Q: What should I do if I encounter errors due to software or hardware incompatibility?**
  A: Contact our after-sales services via support@laserpecker.com for technical support and potential solutions.
- **Q: How can I continue using LightBurn after the free trial period ends?**
  A: Purchase a GCode License Key from the LightBurn Online Store and follow the activation instructions provided in the email.

Disclaimer

To control your LaserPecker LX1 using LightBurn, you must first go to the official website to download the software. LightBurn is a third-party software, and Shenzhen Hingin Technology Co., Ltd. (AKA: LaserPecker) does not assume any responsibility for the loss of any data (designs, projects, etc.) caused by your use of the LightBurn software.

Although the LaserPecker LX1's firmware has undergone comprehensive testing, software or hardware incompatibility may still occur in some cases. For errors caused by incompatibility, you can contact our after-sales services via **support@laserpecker.com** for technical support and potential solutions.

LX1 Firmware and LightBurn Compatibility

LX1 firmware V7009 or higher is required to use LightBurn. Please follow these steps to check and update your LX1 firmware if needed.

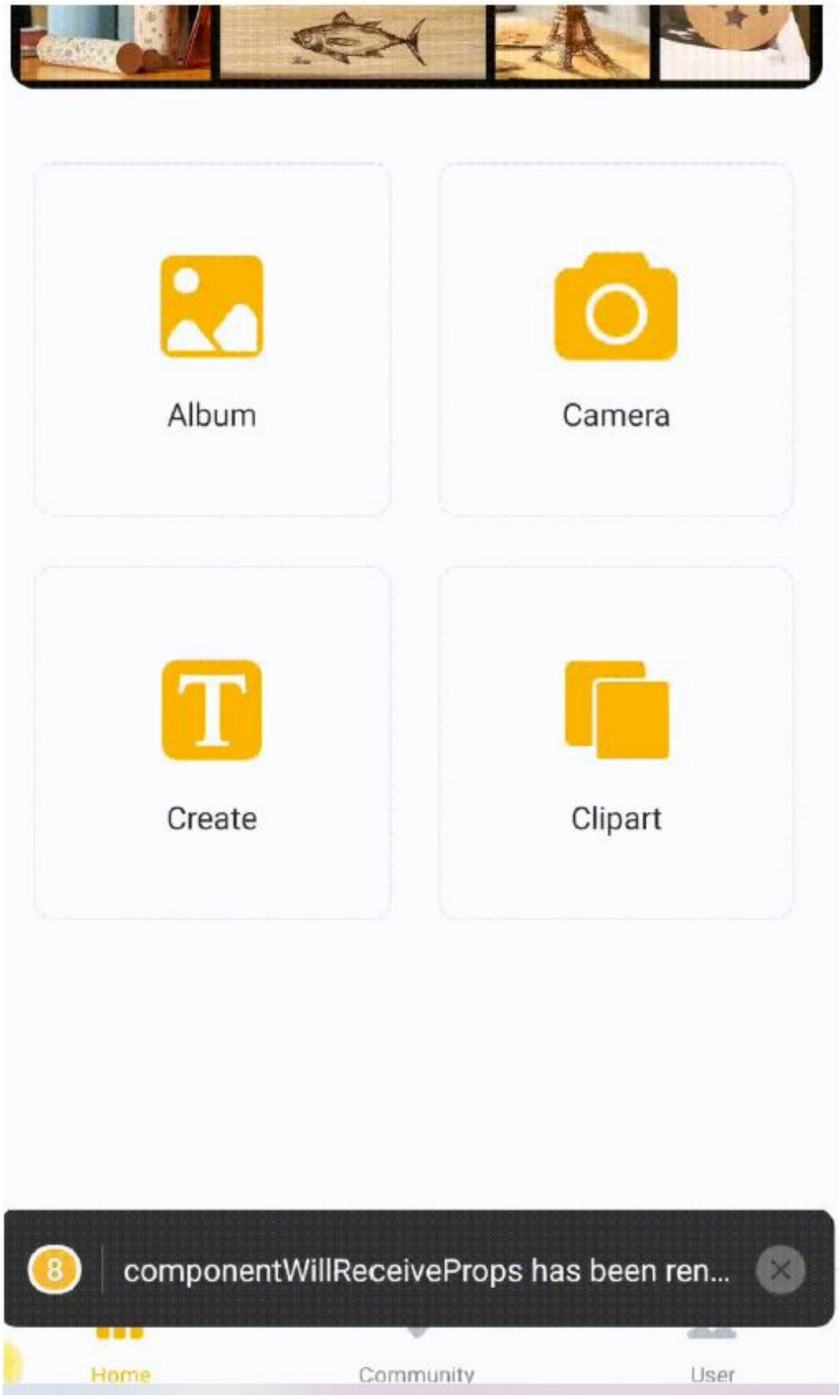
- Open the Design Space APP and Connect the LX1 via Bluetooth.
- **Tap:** Settings (Gear Icon) > Mode Settings > Firmware Version > Click 700X to upgrade.

Warning:

- Please keep your LX1 on and connected to a stable power source but DO NOT USE or MOVE it while upgrading the firmware.
- A notification will pop up when the upgrade has been completed. Shut down the Design Space APP and restart your LX1.

14:18 99%

LX1-D6AE86

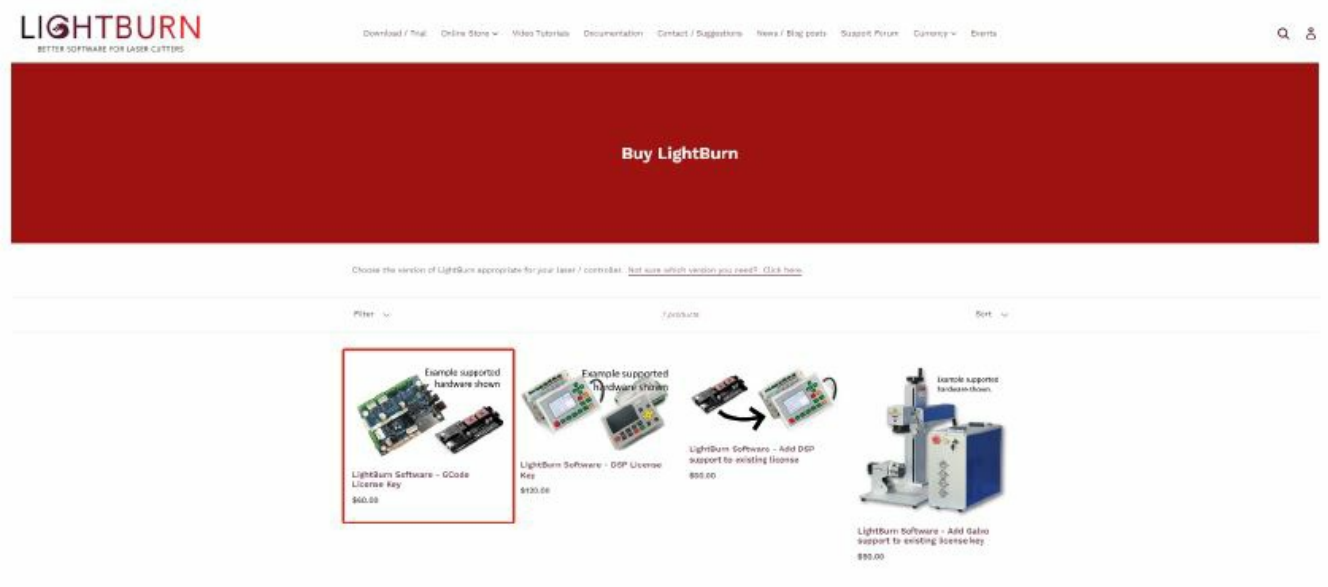


Software Downloading and Installation

- Go to https://lightburnsoftware.com/pages/trial-version-try-before-you-buy to download LightBurn and follow the installation instructions. The full version of LightBurn is available for a free 30-day trial.
- A user's license is required to continue using LightBurn after your free 30-day trial period has ended. At the end of the trial period, you will be prompted to input a key code to continue using the software.
- To purchase a license and receive a key code, go to the LightBurn Online Store and select the "GCode License

Key". Make sure you only purchase the "GCode License Key", as it is the only version that is compatible with the LX1 **https://lightburnsoftware.com/collections/frontpage**

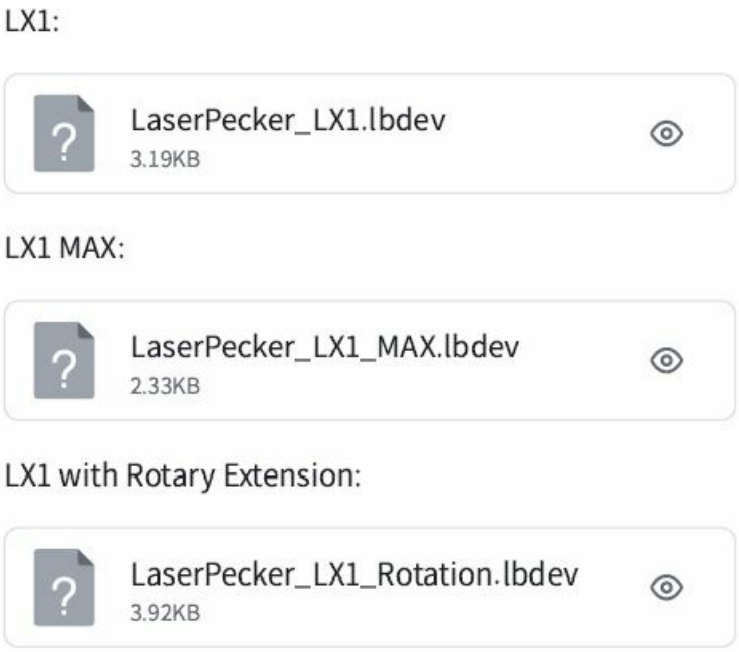
- After purchasing your license, you will receive an email from LightBurn containing the key code and activation instructions.



Note:
The latest version of LightBurn and the GCode License Key are essential, so opting for anything else will not work. If you happen to purchase the wrong software mistakenly, you will need to resolve the issue with LightBurn directly.

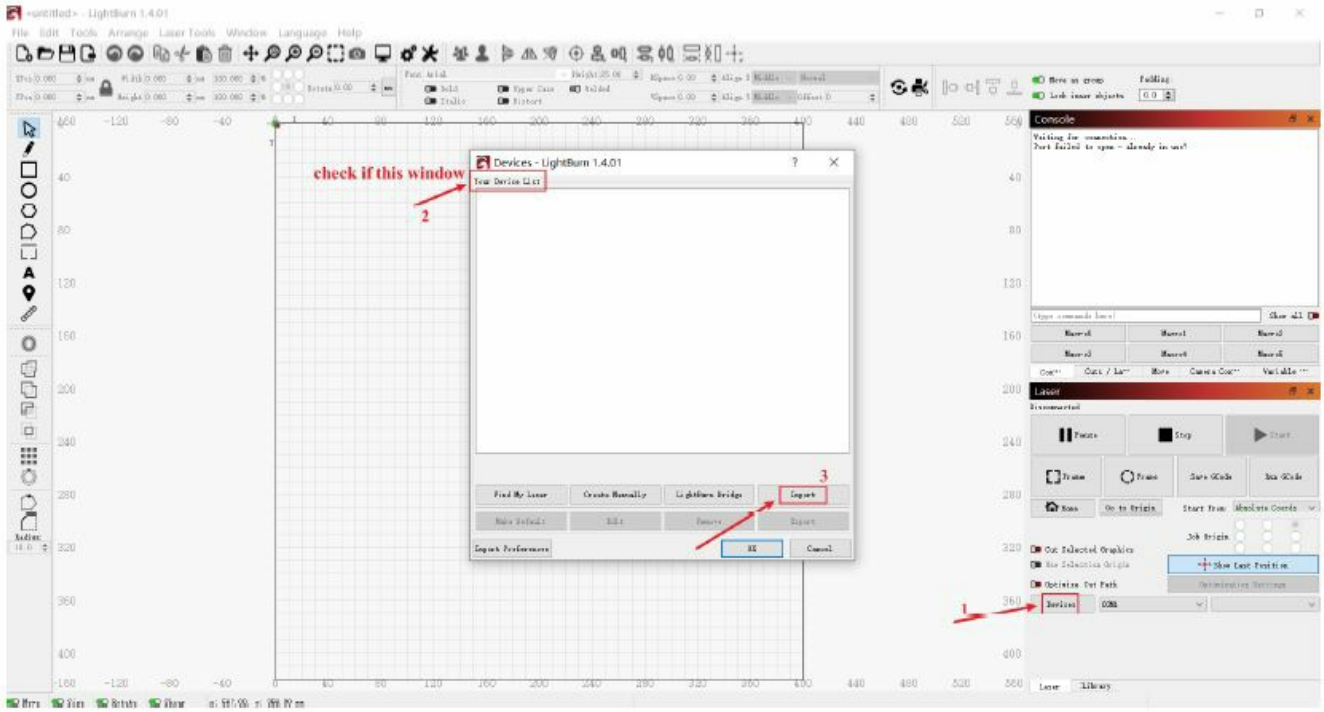
Download and Import the LX1 Configuration Packages

- After installation is completed, open LightBurn and input your GCode License Key if prompted to do so.
- Before using LightBurn with your LX1 for the first time, you will need to import the corresponding configuration files.
- Please hover your cursor over the files below and click the ↓ icon to download the appropriate configuration package for your model. Users who have the Rotary Extension accessory should also download the 3rd package. Take note of where you downloaded the file on your computer.

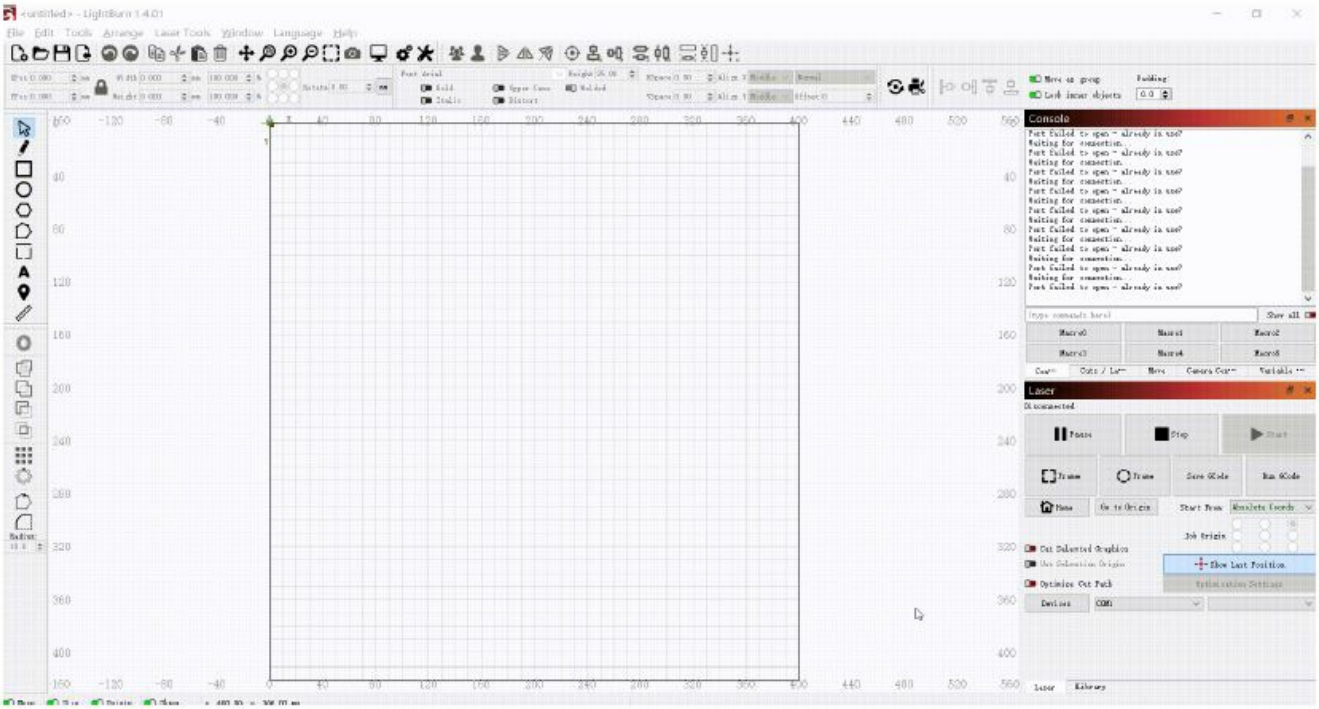


- **Note:** To operate LaserPecker LX1 with LightBurn, you must import a configuration file!

- After opening LightBurn, if the “Your Device List” window does not pop up automatically, click the “Devices” window to open the “Your Device List” window. Next, click “Import” to locate the downloaded configuration files. The buttons are circled in red in the image below.



- After locating the downloaded configuration files, select each file individually and click “OK” to add them to “Your Device List” one by one, as seen in the GIF below.



Using LightBurn with LX1

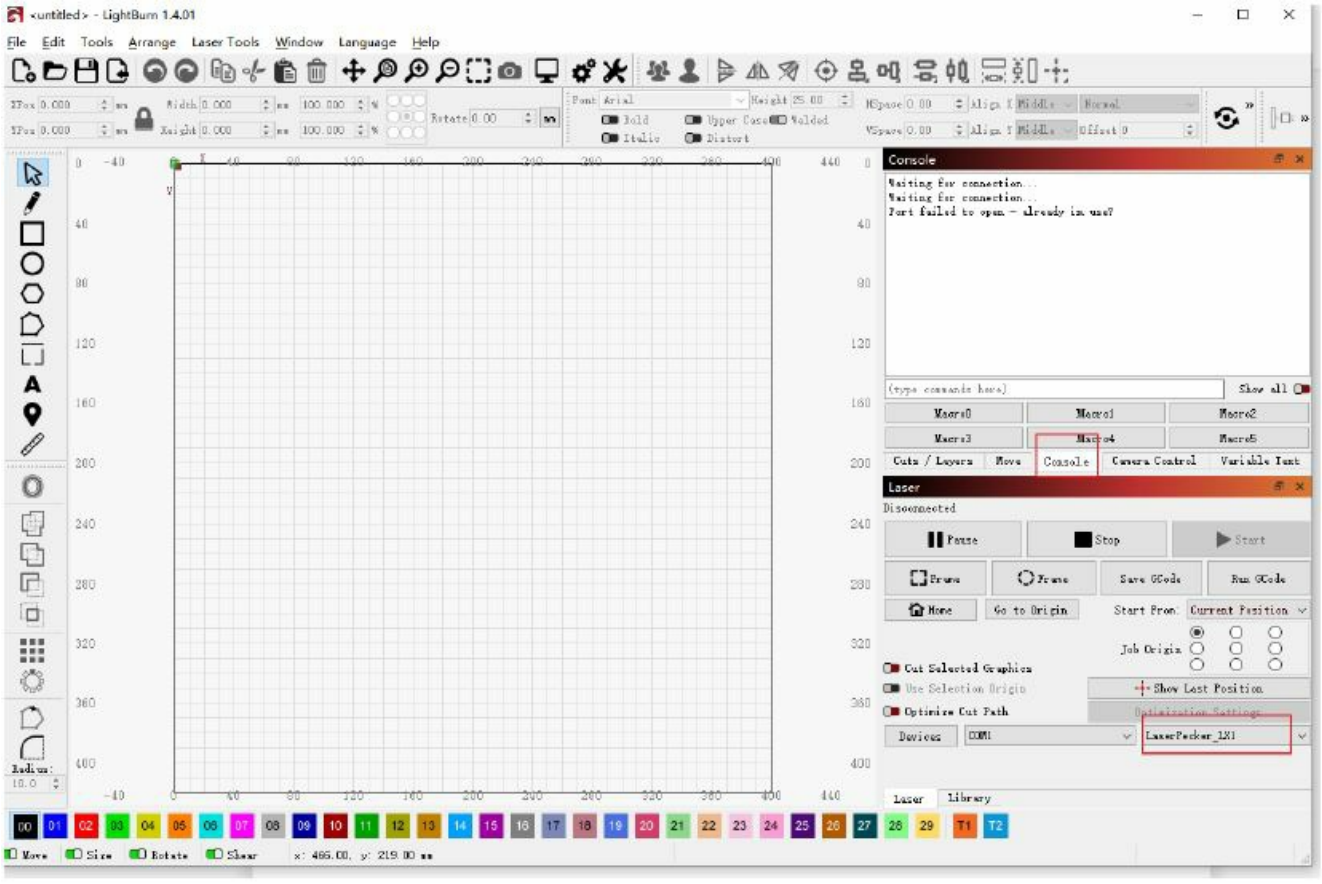
Connect your computer to your LX1

- If open, quit the Design Space App before continuing.
- Connect your computer to your LX1 using a USB-C to USB-A cable. Insert the USB-C end into your LX1, and the USB-A end into your computer.

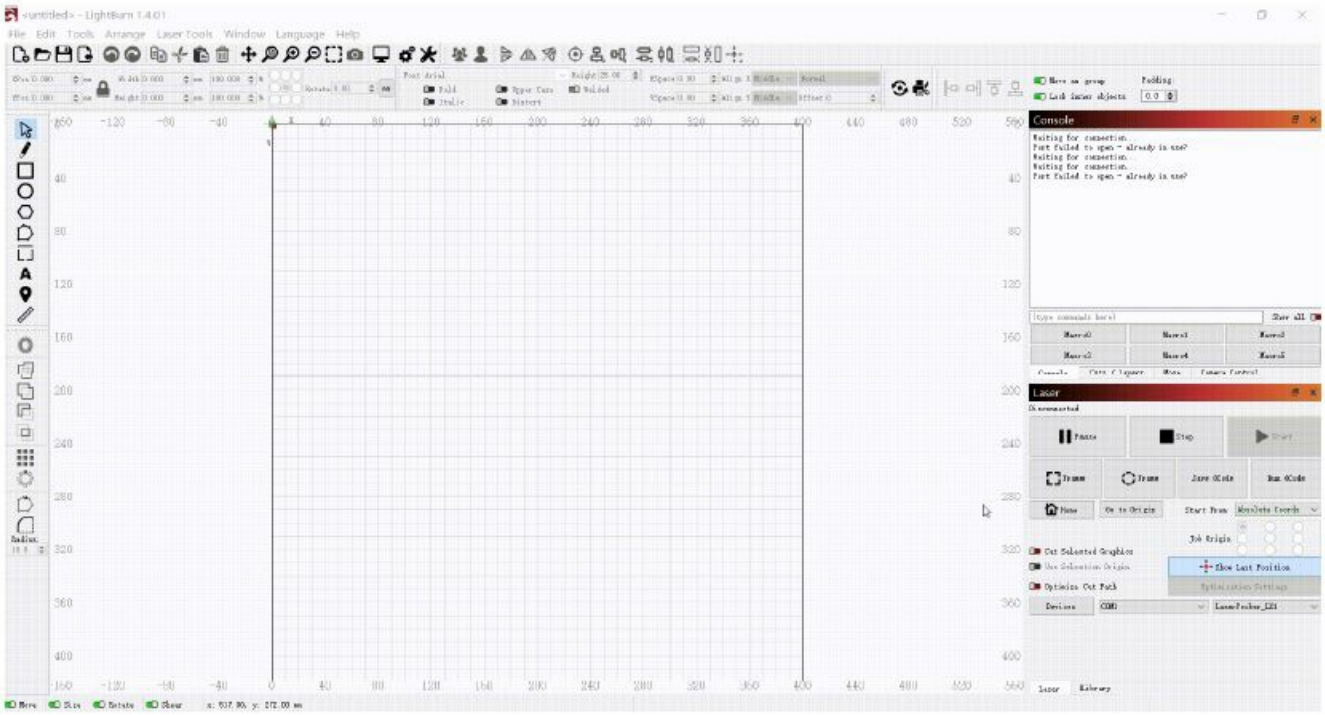
Note:
Make sure that the LaserPecker Design Space App is not connected to your LX1. Using a USB-C to USB-C cable will result in an ineffective connection between your LX1 and computer.

Connect LightBurn to your LX1

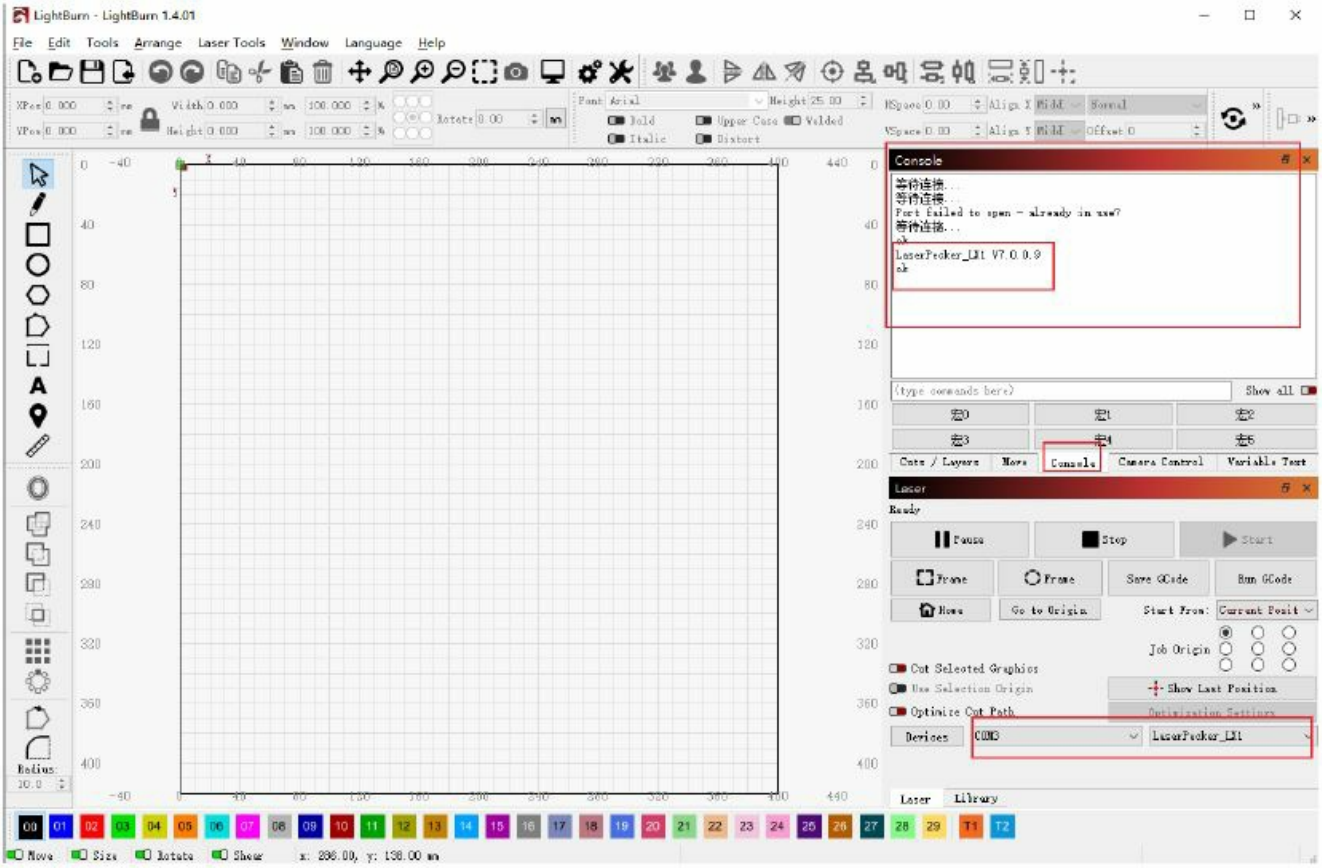
- After the file has been imported, click “Console” to display the console window.
- LaserPecker LX1/LaserPecker LX1 MAX/LaserPecker_LX1_Rotation will show up in the dropdown menu. Both can be seen circled in red in the image below.



All external devices recognized by LightBurn that are connected to the computer are displayed in the COM port drop-down menu. LightBurn cannot identify the corresponding LX1 COM port automatically. After connecting via USB cable, you must manually select the correct COM port that the LX1 is connected to. After connecting successfully and choosing the correct COM port, the connected device's model and version will be displayed in the console window. See these steps in the GIF below. If all COM ports have been switched and the device information does not show up, please verify the proper connection of LX1 to the computer.



When the connection is successful, it will be as shown in the corresponding position in the figure below.

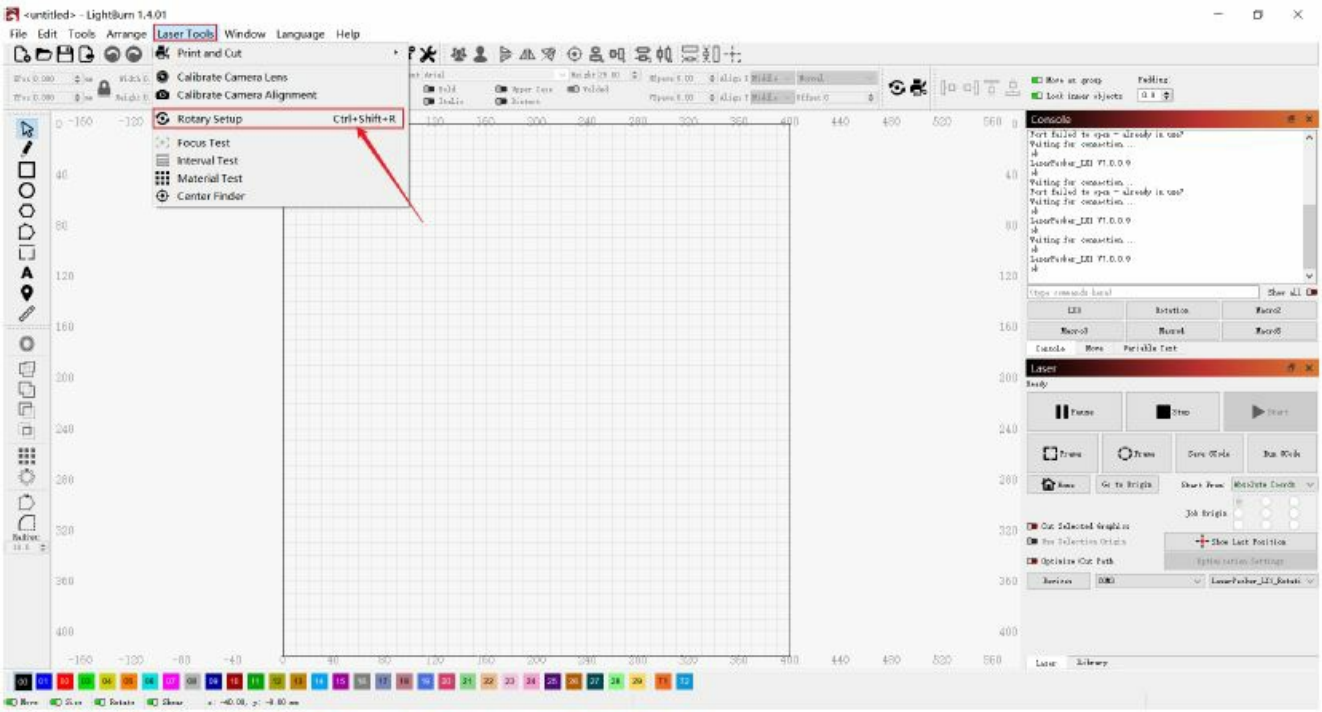


Rotary Extension Setup

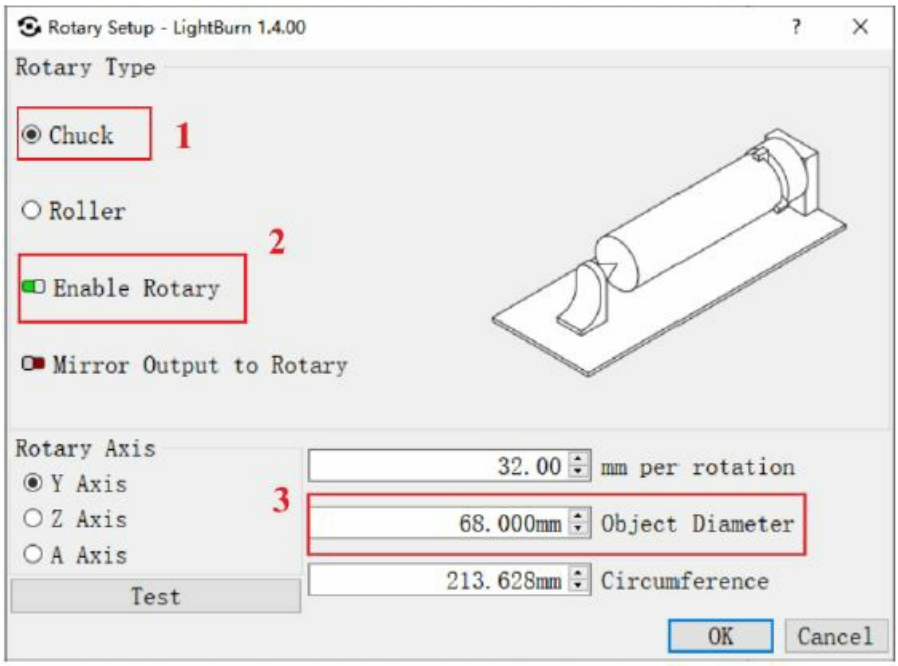
- Follow the steps below if you have an LX1 Rotary Extension. If you do not, please skip and go to Part 6.
- To use the LX1's Rotary Extension with LightBurn, the configuration file
- "LaserPecker_LX1_Rotation.lbdev" as instructed above in Part 3 should be imported.

After successfully connecting as instructed above in Part 4, it is necessary to configure the Rotary Extension:

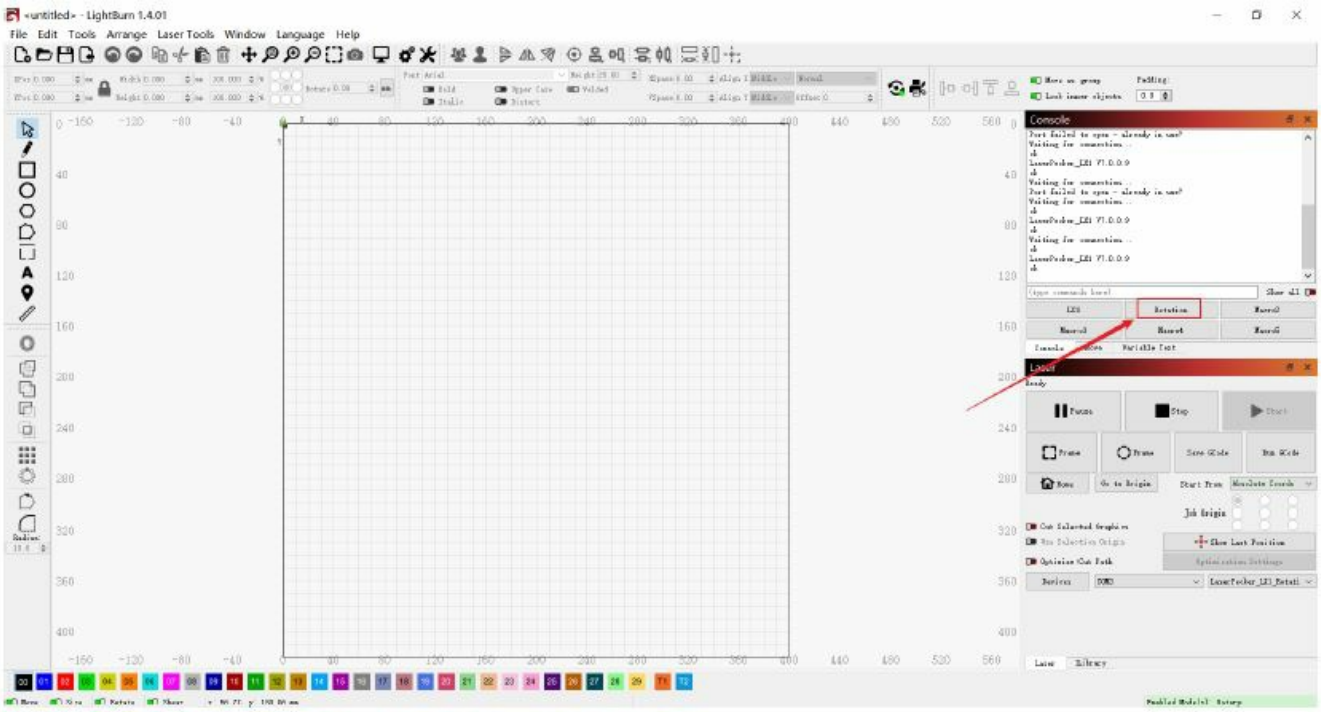
- Click "Laser Tools" and "Rotary Setup" as shown below.



- Select "Chuck", "Enable Rotary", & "Y-Axis" in the "Rotary Setup" popup window.
- Enter the diameter of the object to be engraved, and click "OK".



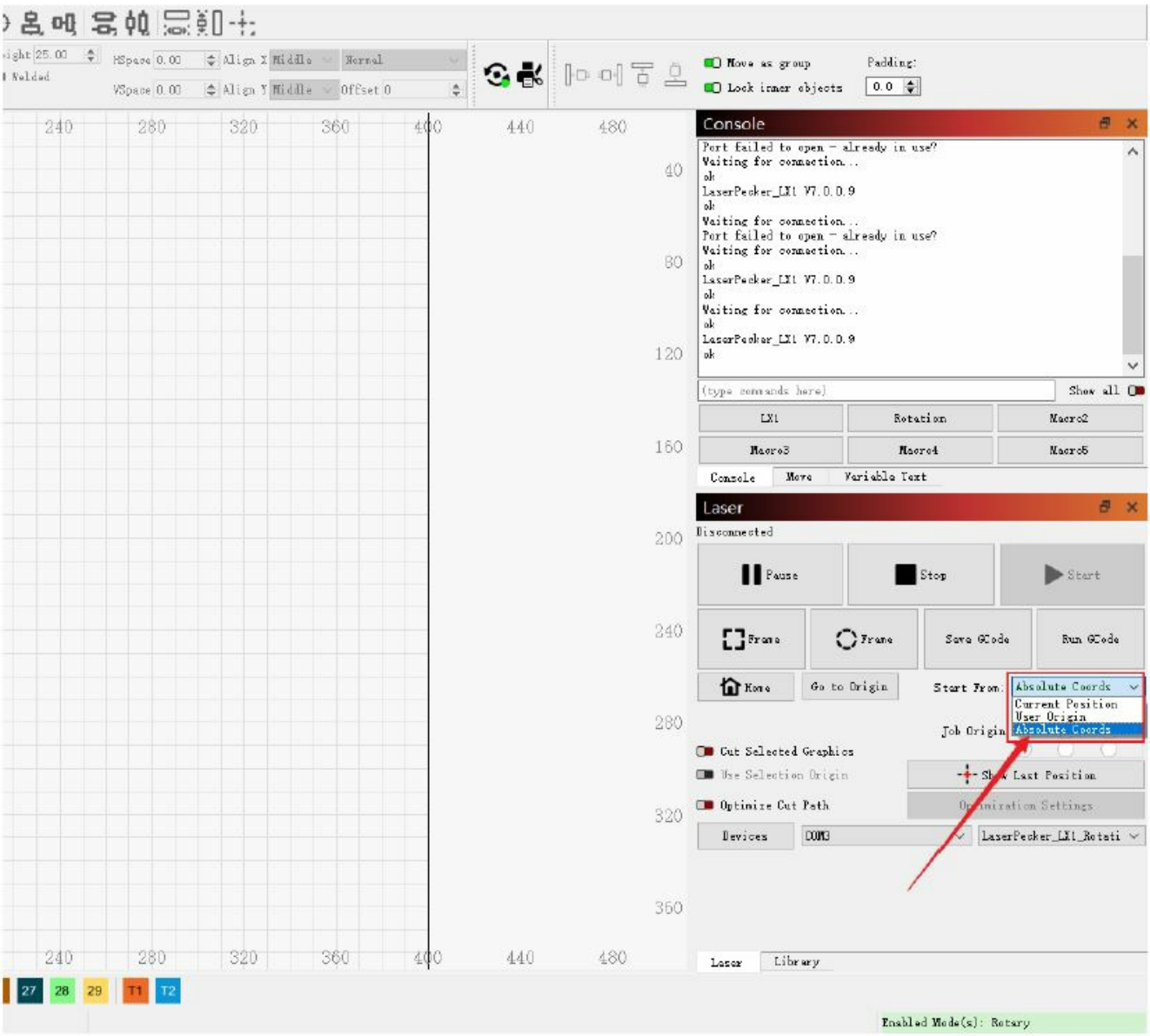
- Click "Rotation" to enable the Rotary Extension.



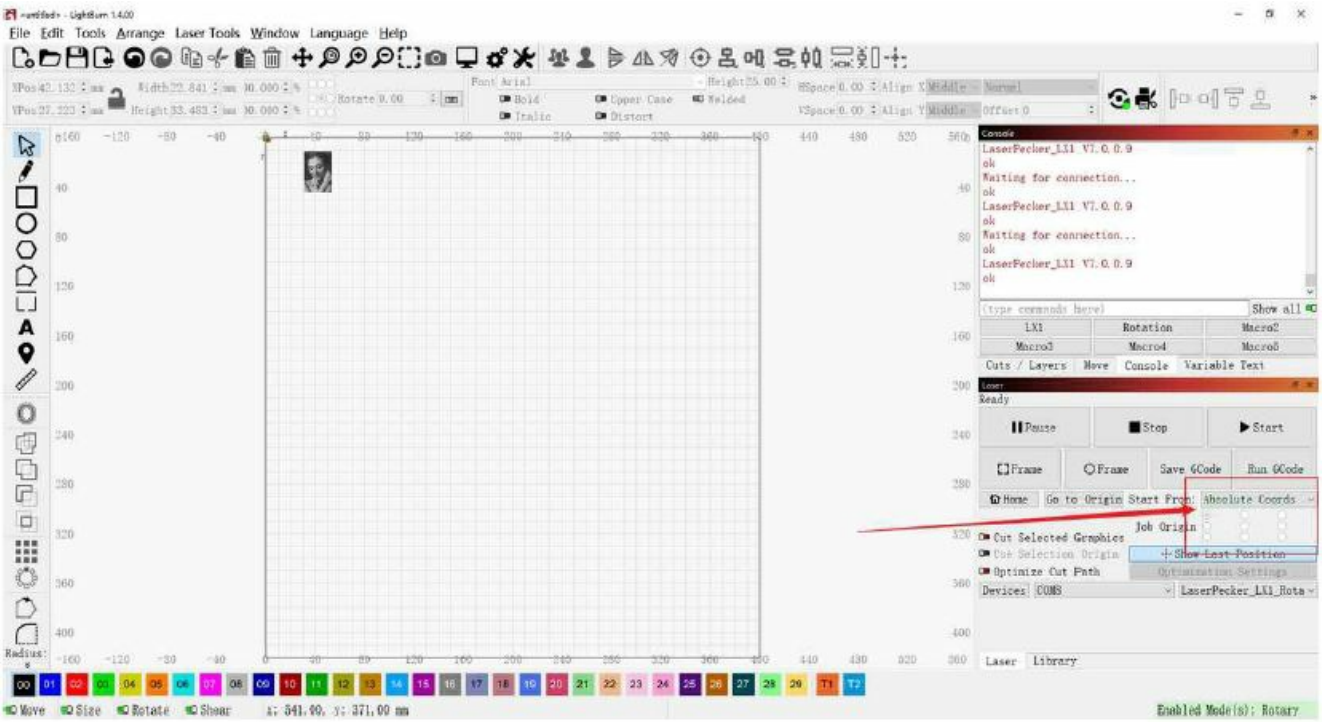
Set the Absolute Coordinates

The page grid in the main editing window represents the work area. Using “Absolute Coordinates” is the simplest way to tell LightBurn where to place your project within the work area of your LX. The green square represents the Job Origin, and the red square is the Machine Origin. In “Absolute Coordinates” these are always in the same place.

- Set to “Absolute Coordinates”.

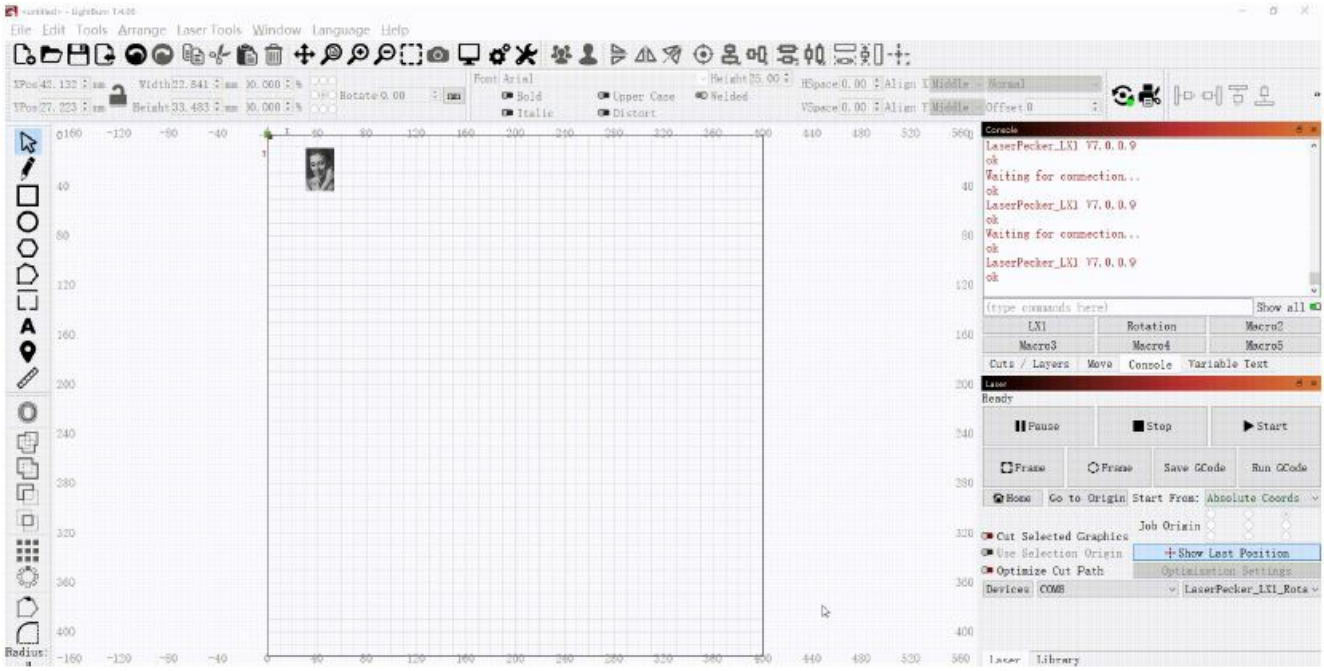


- Check if the Job Origin of the Absolute Coords option is in the top left corner.



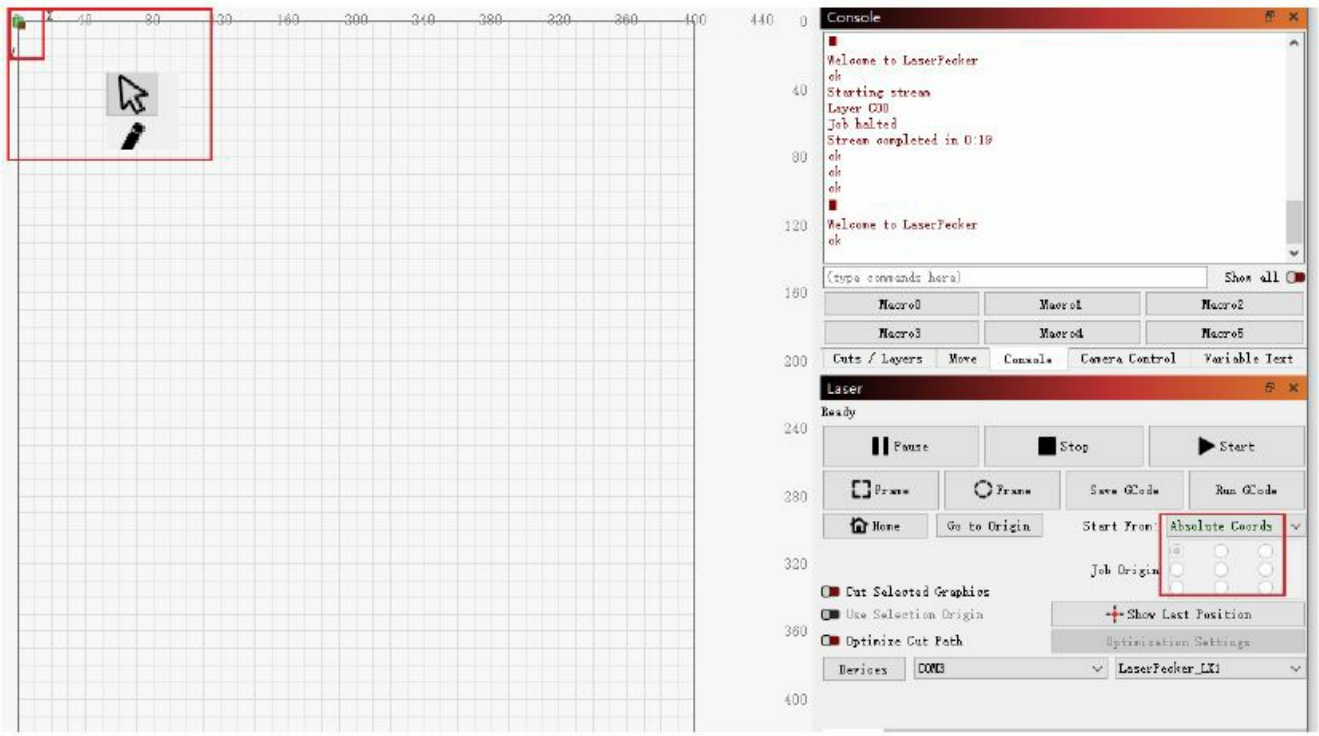
- If the Job Origin of the Absolute Coords option is not located in the top-left corner but in a different position, it should be changed to the top-left corner. To change the Job Origin, the Absolute Coords option should be

switched to the Current Position/User Origin option first. Please follow the instructions GIF below.



Note: After the Job Origin has changed to the top-left corner, you should switch to the Absolute Coords option at last.

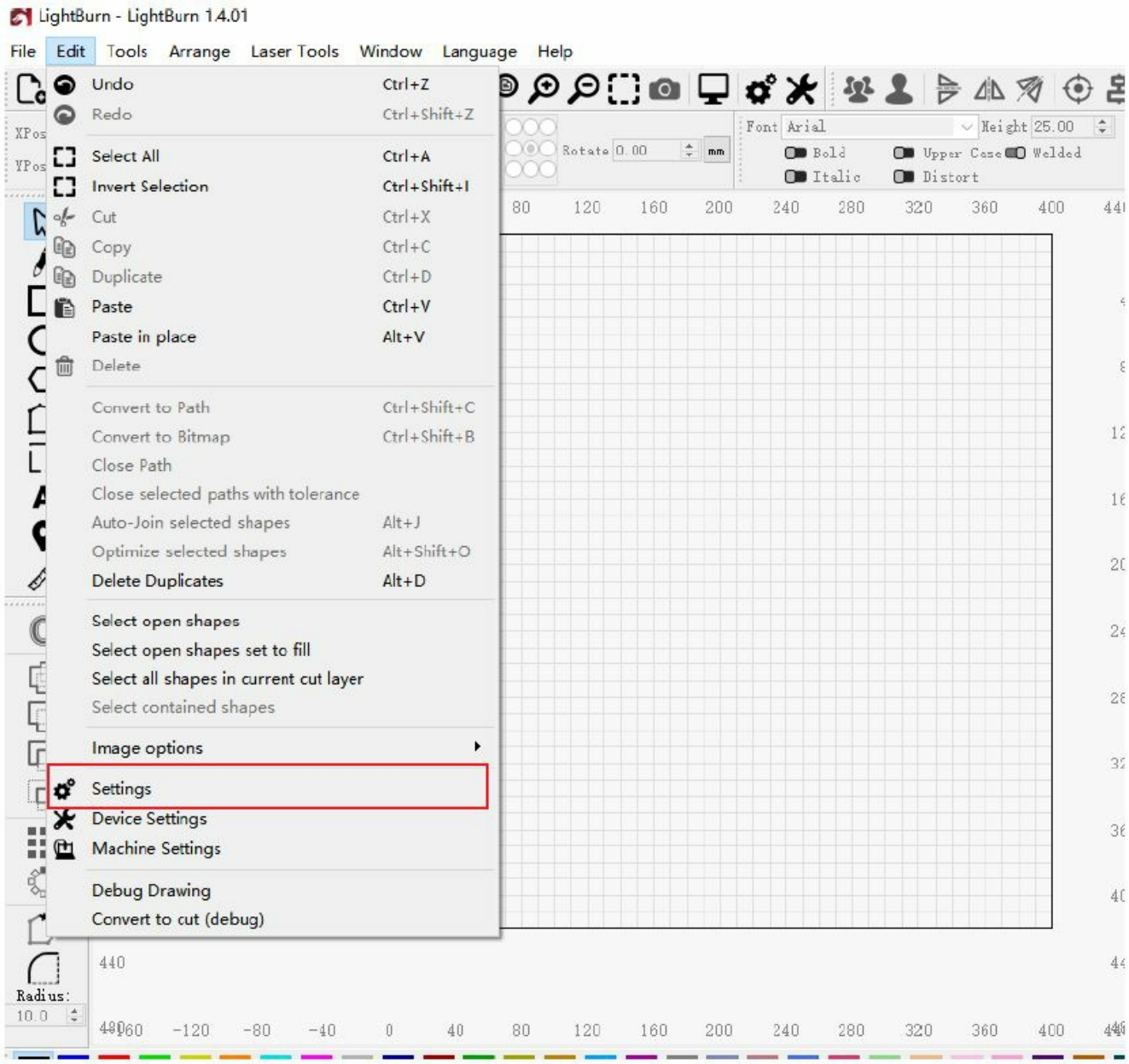
- Once set up, the green dot should be positioned in the top left corner of the workspace, and the Job Origin is located in the top left corner as shown below.



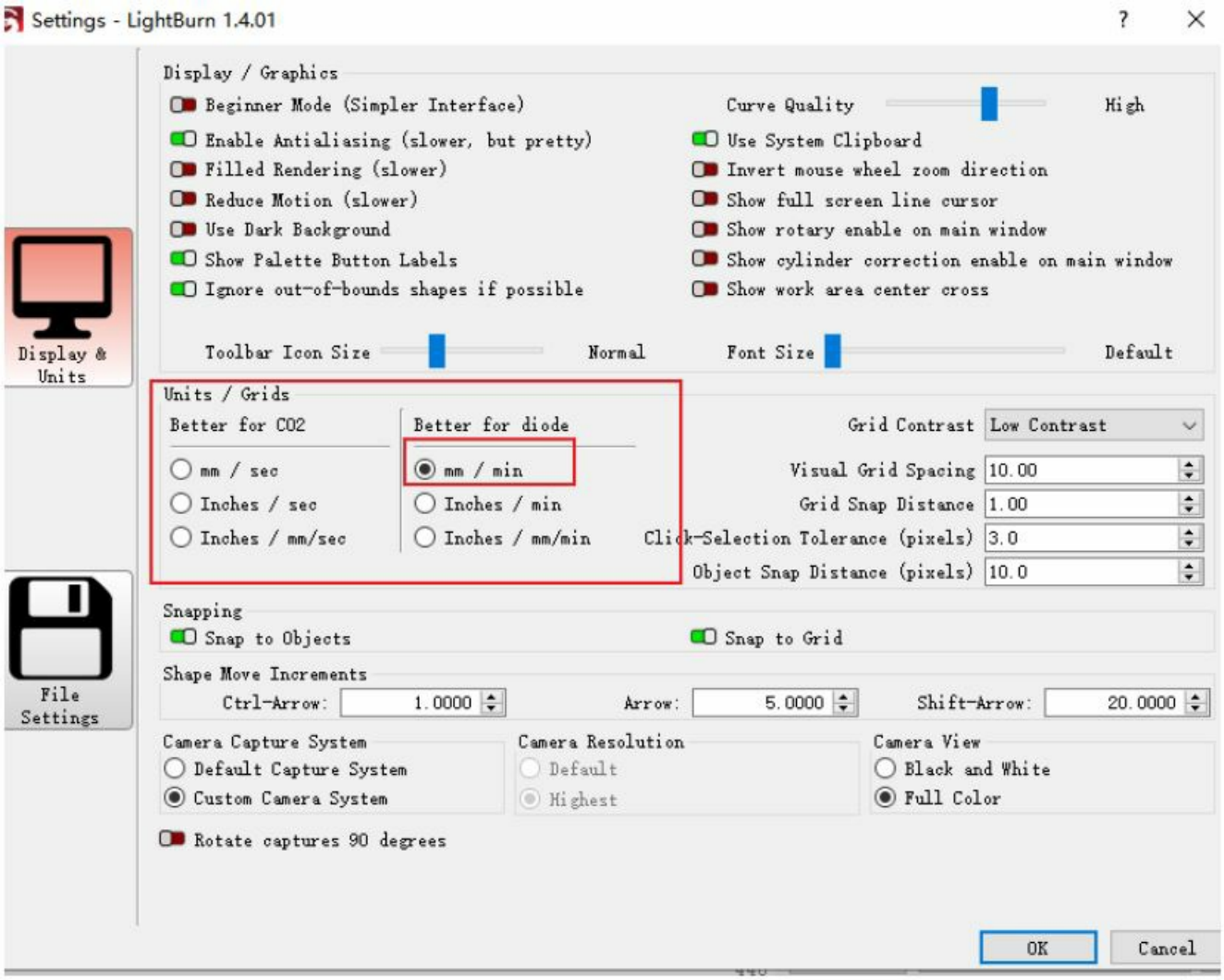
Parameter Setting

Set the Units/Grids

- Click “Settings” as shown.

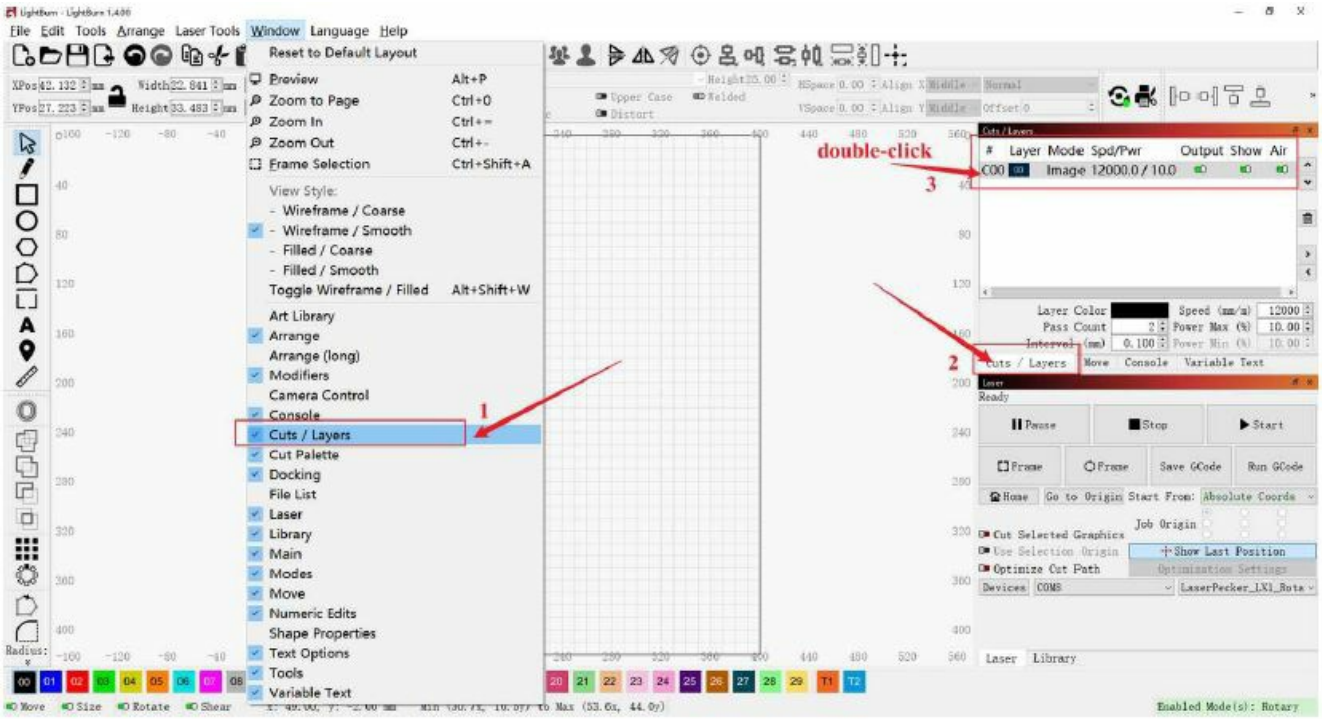


- Choose “mm/min” in Units/Grids.

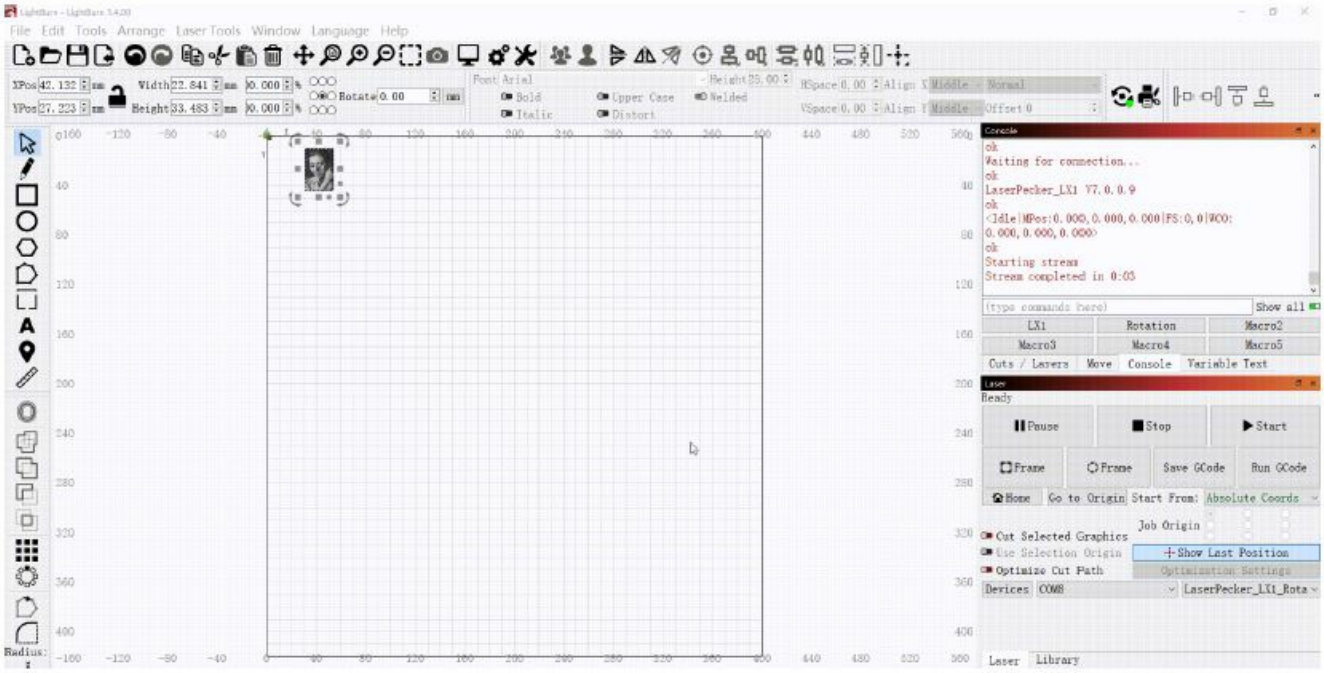


Settings

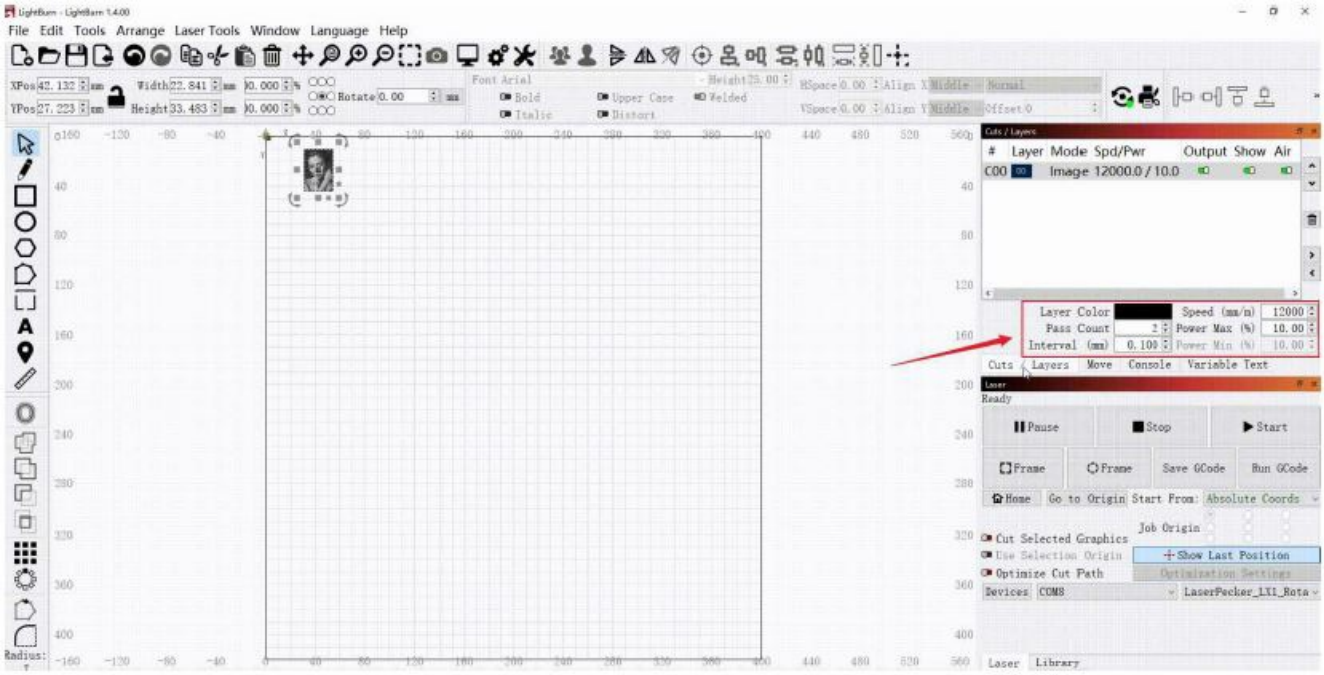
- Click “Cuts/Layers”, and select the corresponding layer. Double-click the left mouse button to open the parameter setting interface.
- Refer to the LaserPecker & LightBurn Parameter Equivalence Chart in Part 12 below to check that the settings are suitable for your project.



You can follow the gif image below to set it up:

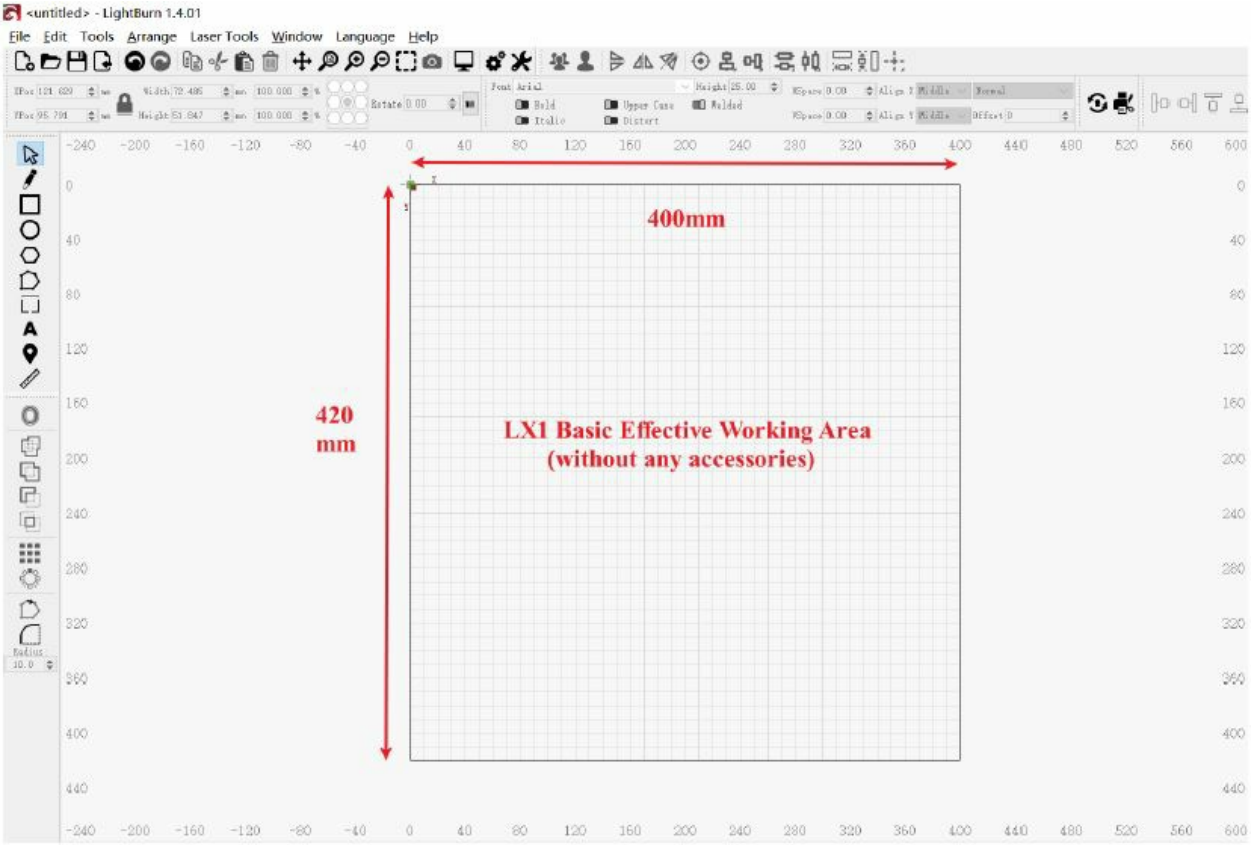


You can also set the parameters in the lower right corner of the Cuts/Layers window:



Create Your Design

- Use the various available tools in the LightBurn workspace to create your desired design.
- The maximum dimensions for the LX1 are 400*420mm with no accessories.
    - **Note:** For a detailed LightBurn tutorial, please refer to Part 13.

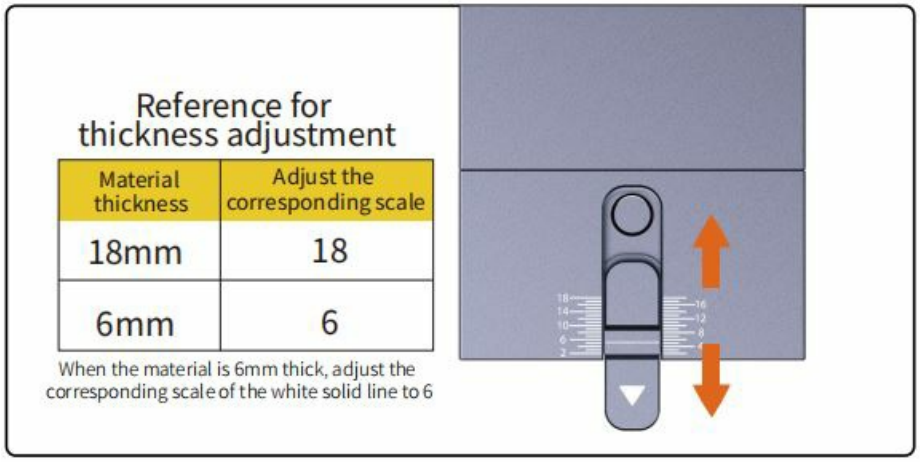


Focusing

Engraving Focus

When engraving, put the ranging rod to the lowest position and make sure its button touches the surfaces of the material.

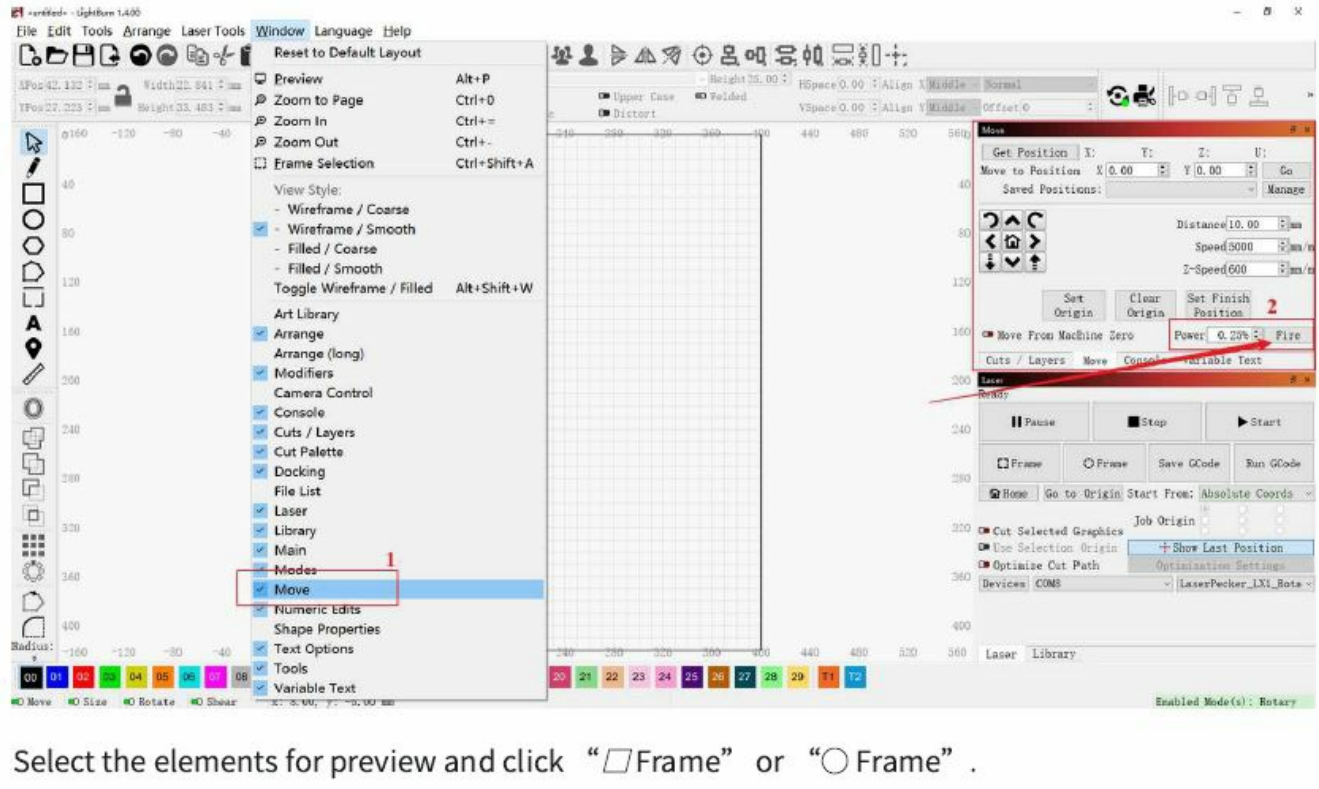
Cutting Focus
Adjust the position according to the thickness of the material when cutting



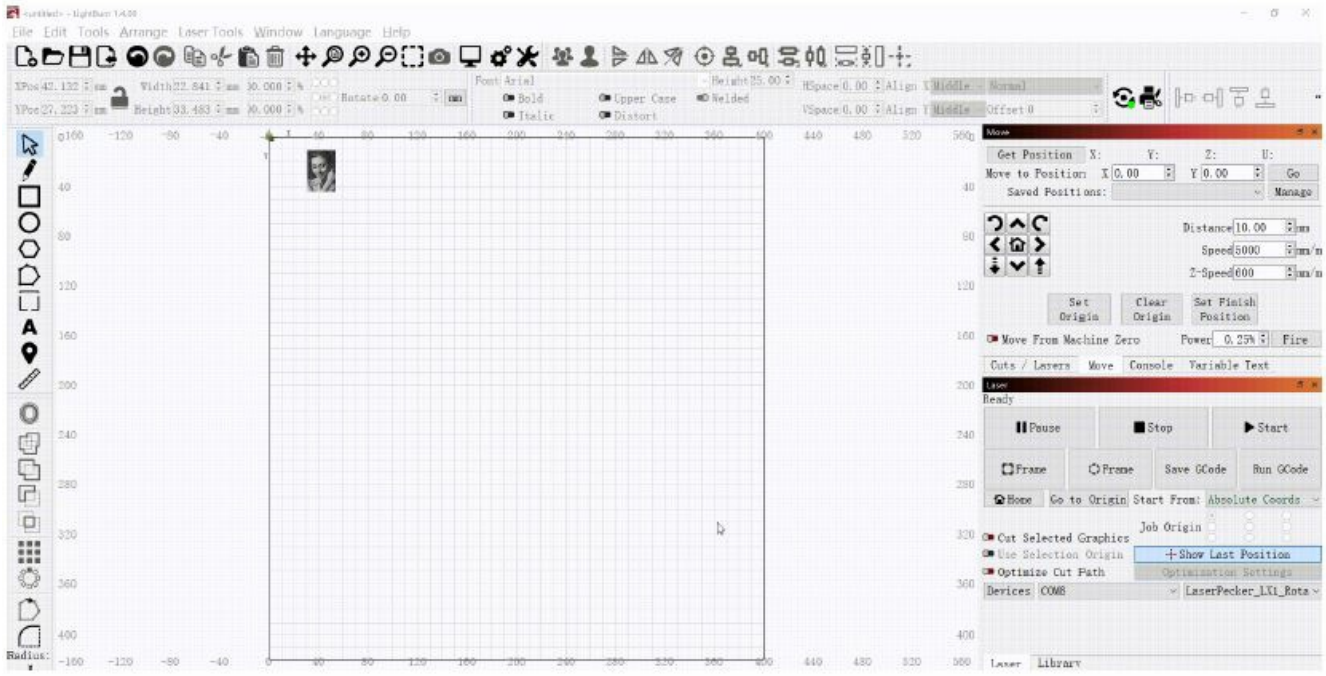
Preview and Engraving

Preview

- Click “Move” in the “Window” drop-down menu.
- Set the power to 0.25% and click “Fire”.

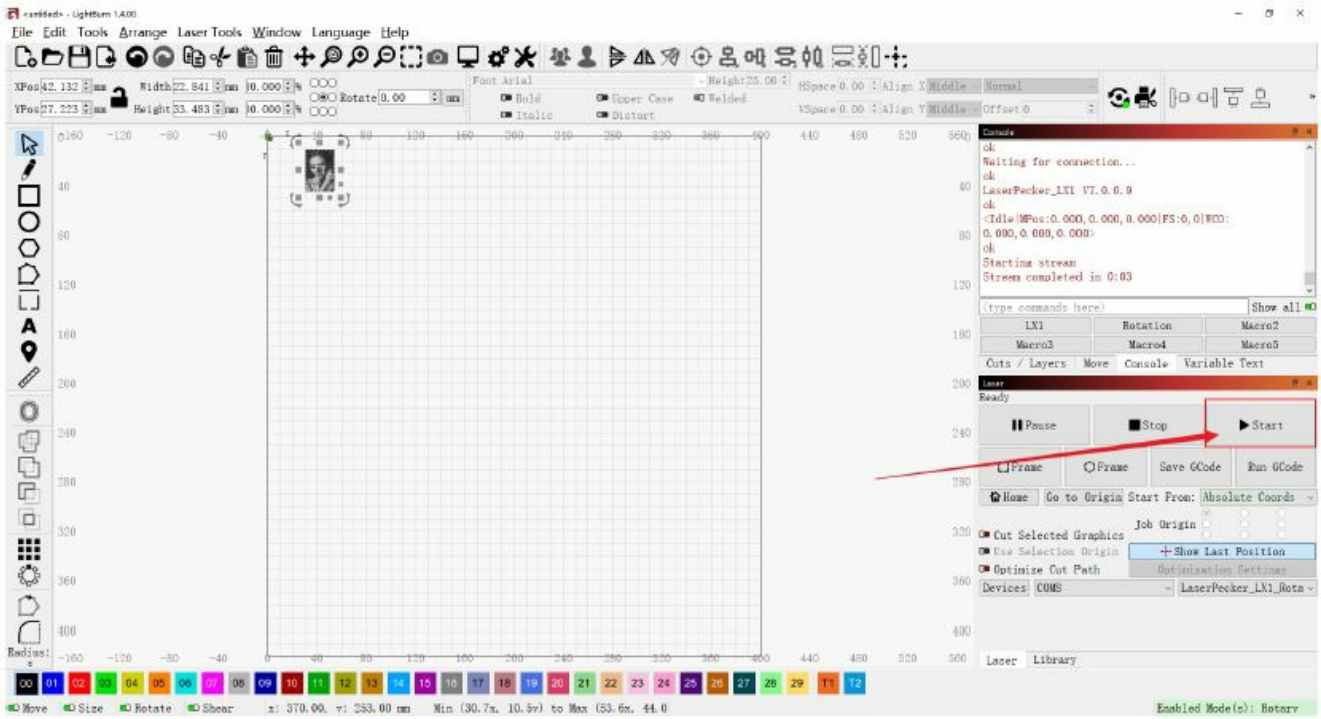


- Select the elements for preview and click “□ Frame” or “○ Frame”.



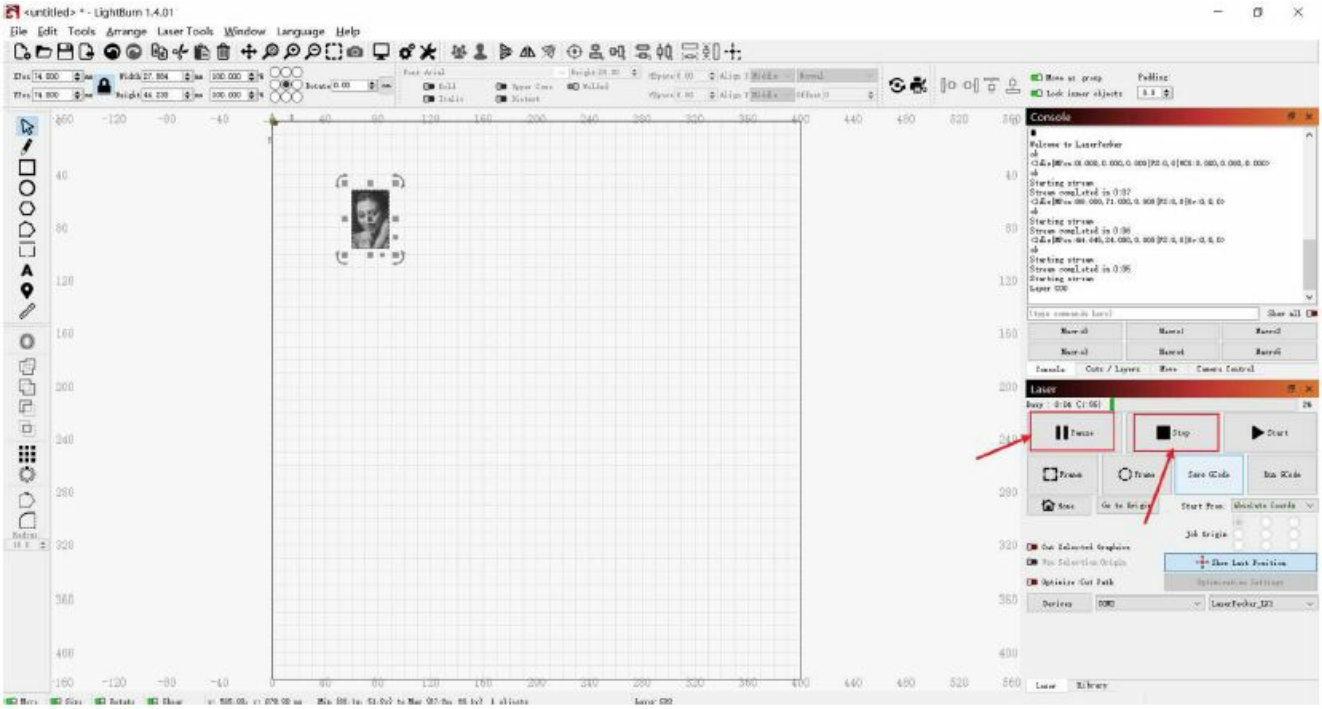
Engraving

- Click “Start” to begin engraving or cutting.



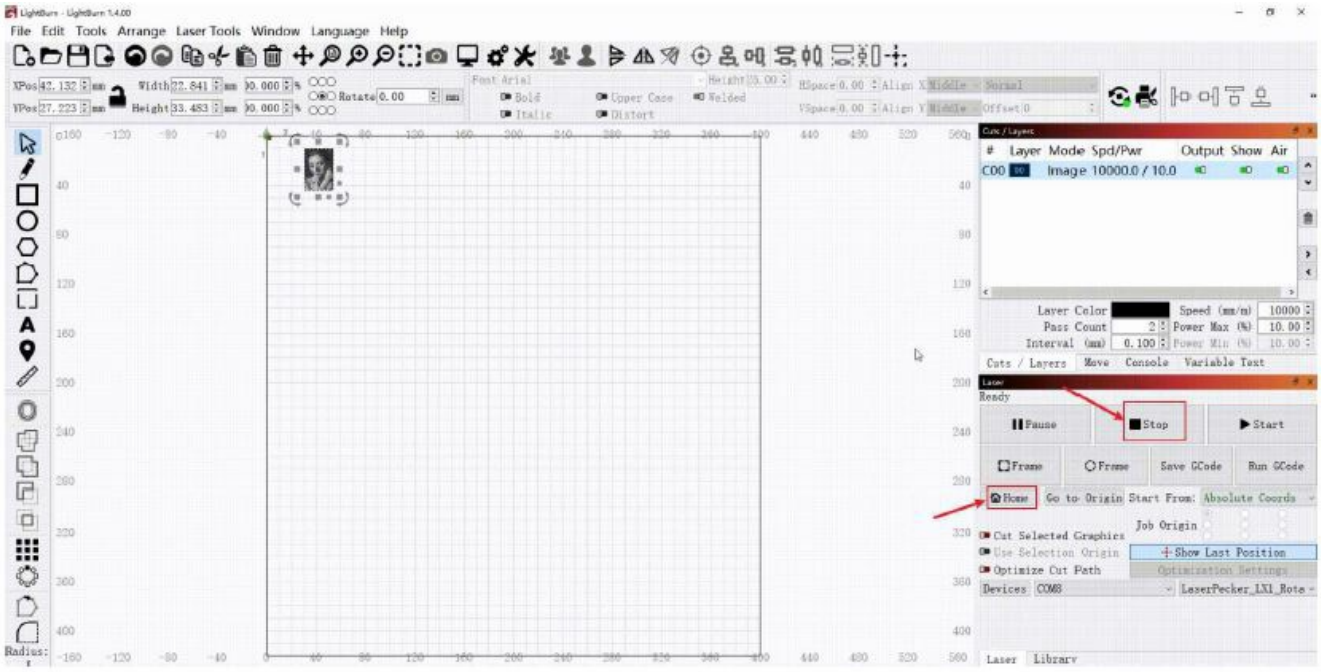
You can pause or stop engraving half way by Click “Pause” or Click “Stop”.

- You can pause or stop engraving halfway by clicking “Pause” or Click “Stop”.



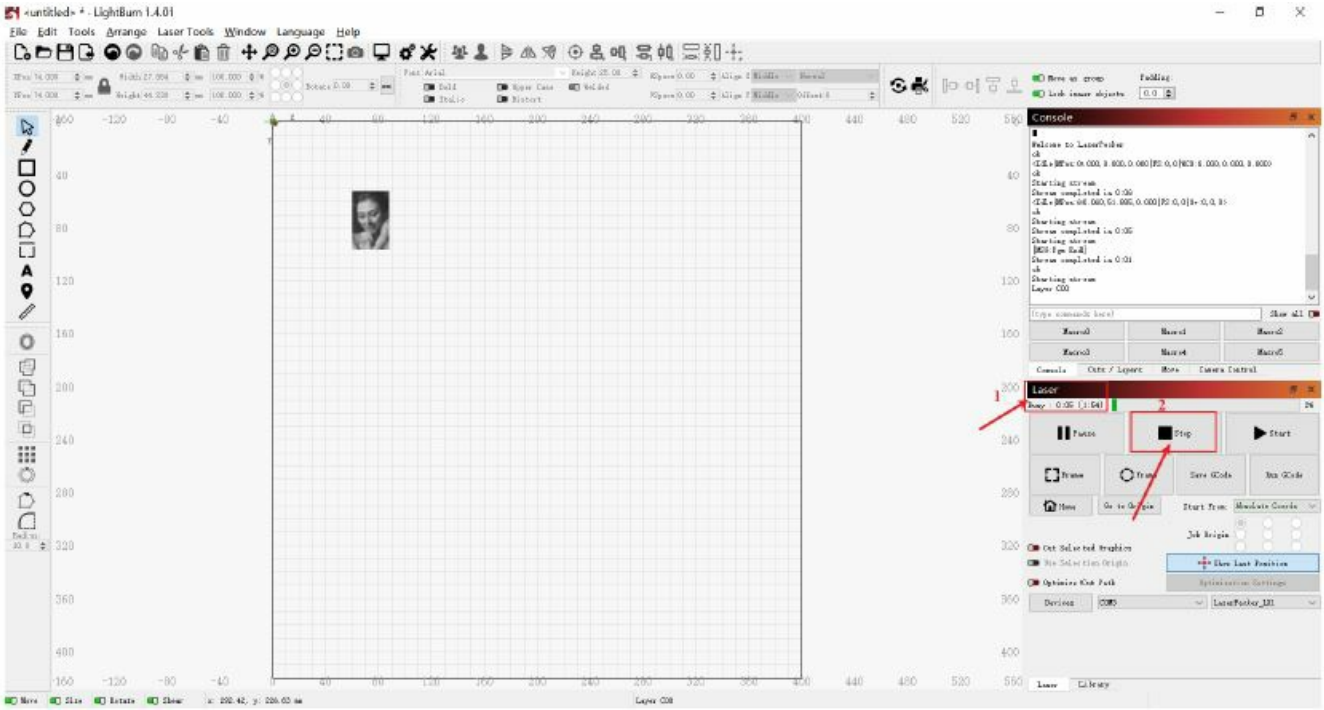
Reset

- Click “Stop” or click “Home” to reset the device.

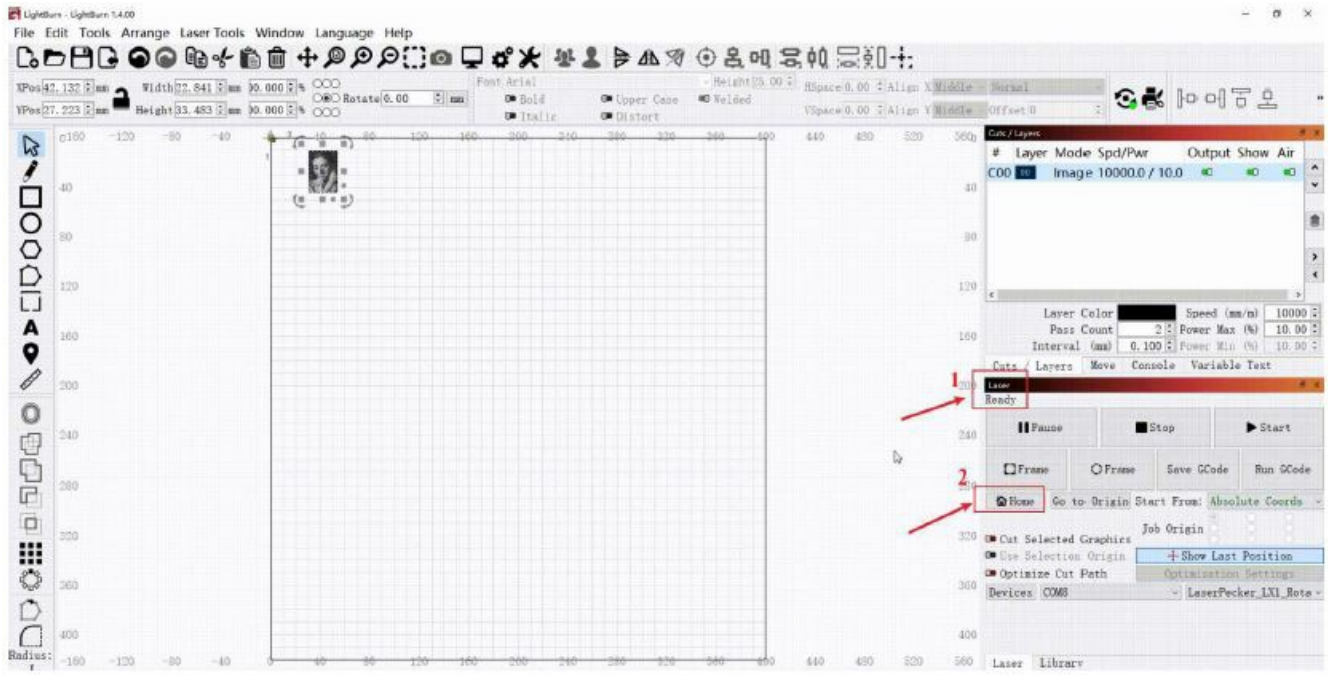


- **Note:** You can only click “Stop” to reset the device when the Laser is busy. When the Laser is ready you can click “Home” or “Stop” to reset the device.

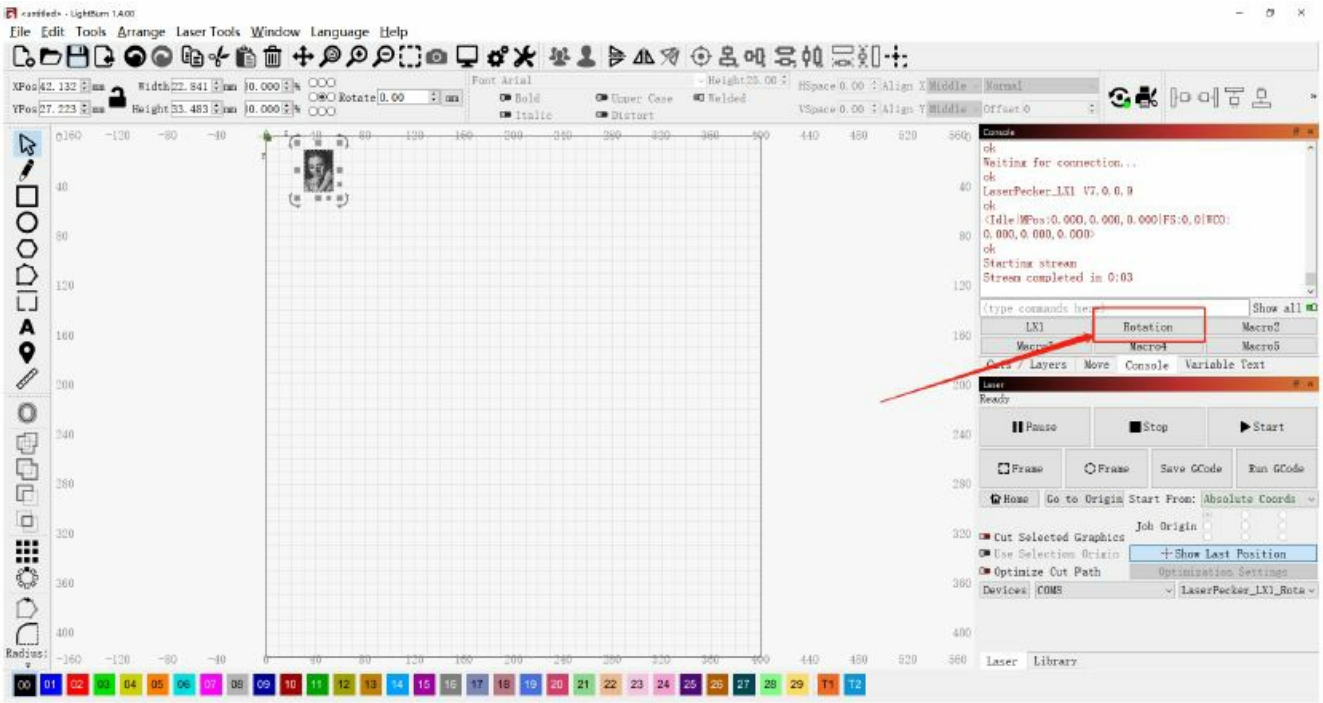
When the Laser is busy:



When the Laser is ready:

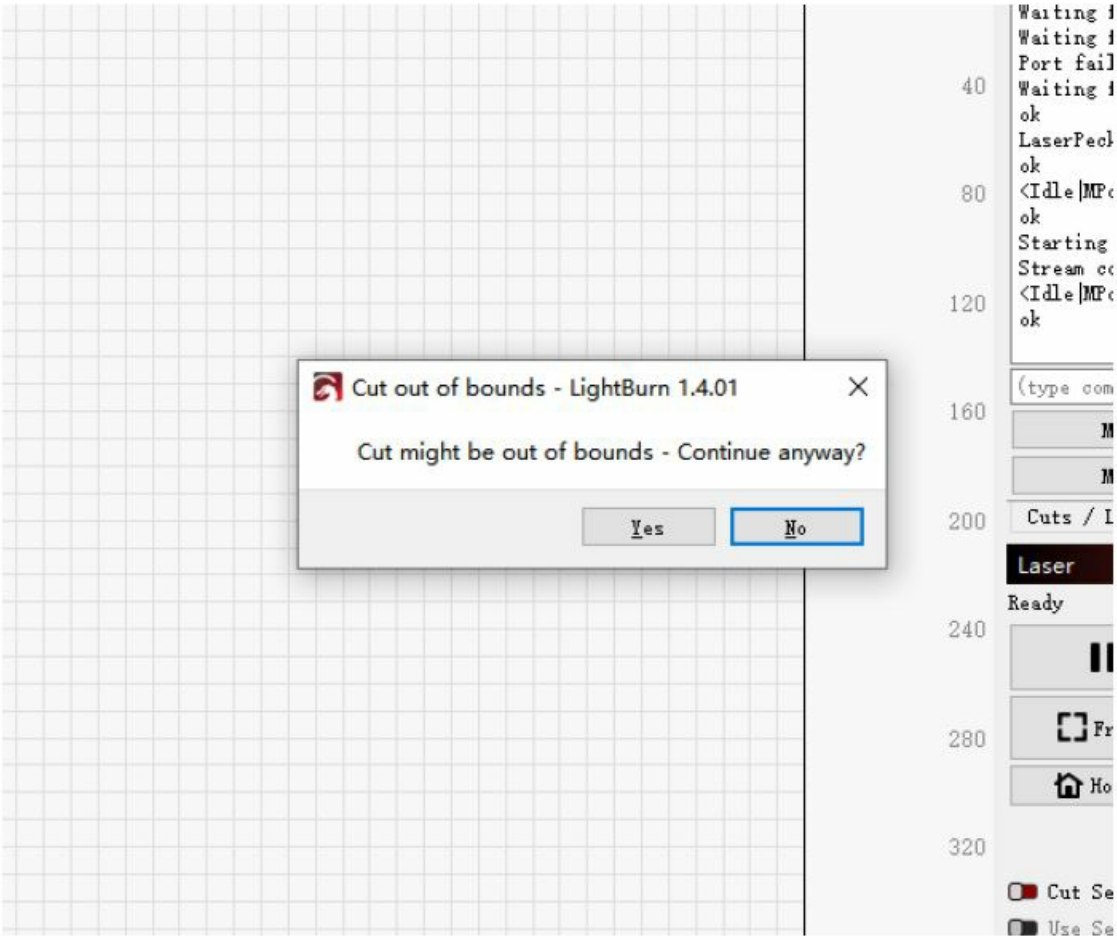


When using a rotary extension, you need to click “Rotation” to re-connect with the rotary extension after reset.

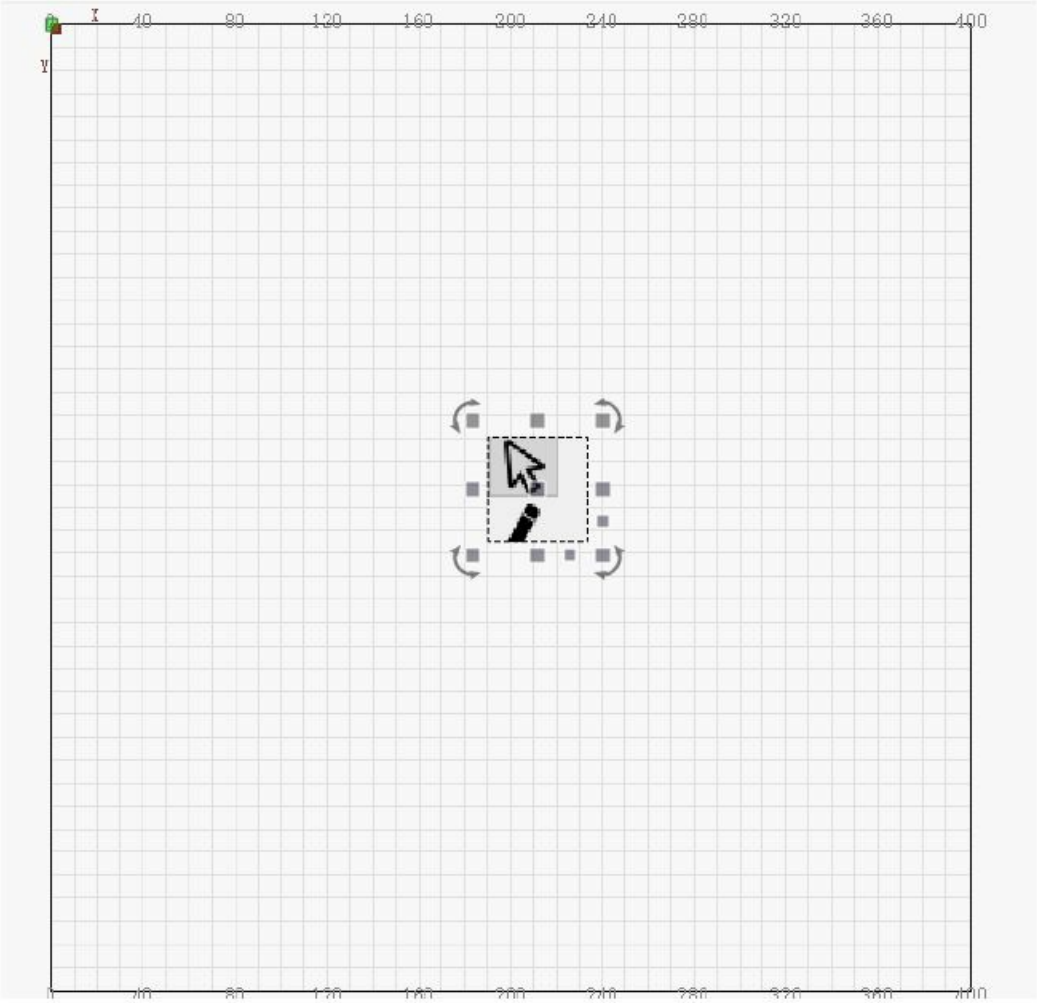


Pop-Up Notification Troubleshooting

What to do if an “Out of Bounds” pop-up window appears but there is no change after selecting “Continue anyway”?

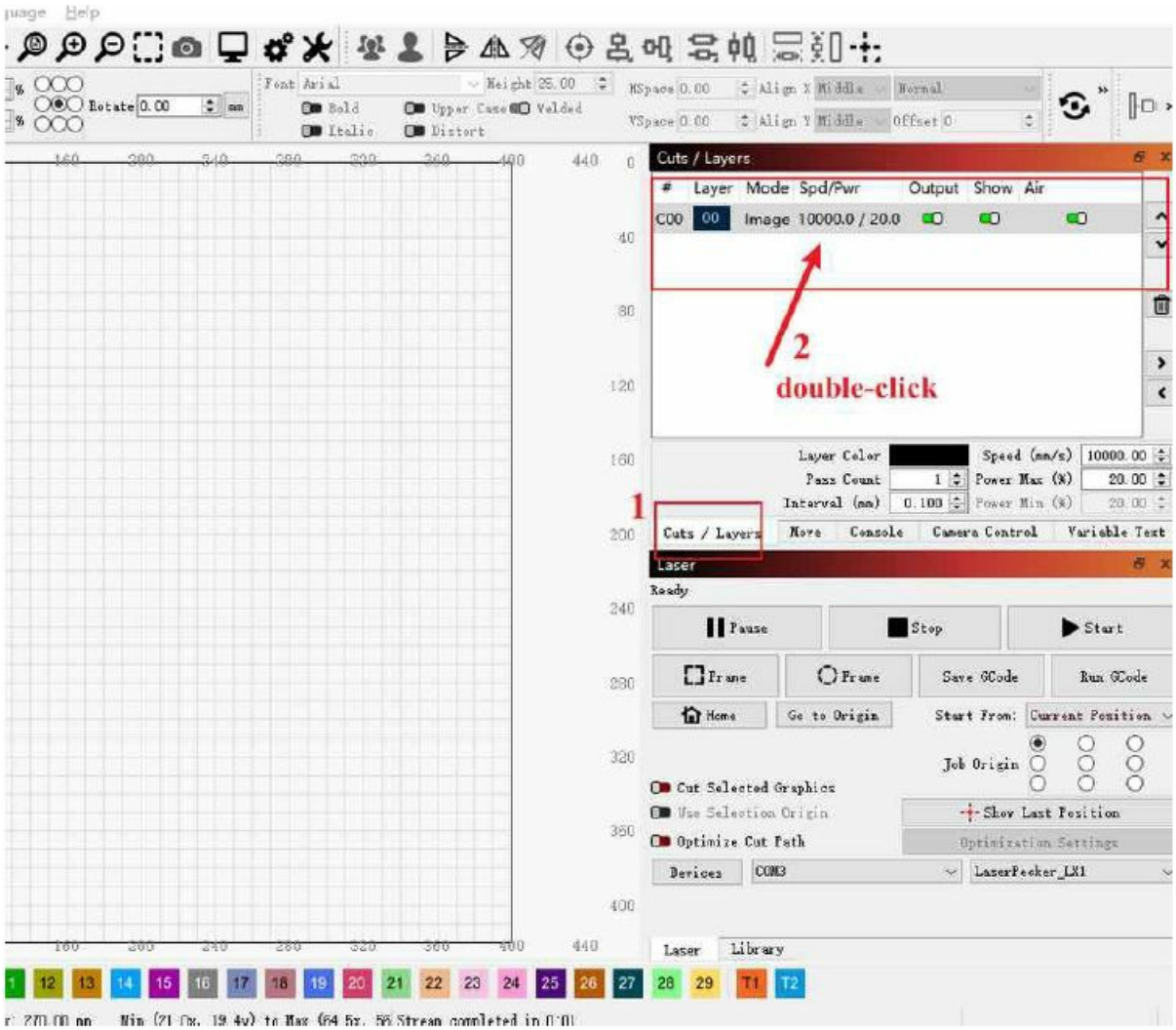


Solution:
Put your design in the centre of the workspace as shown below.

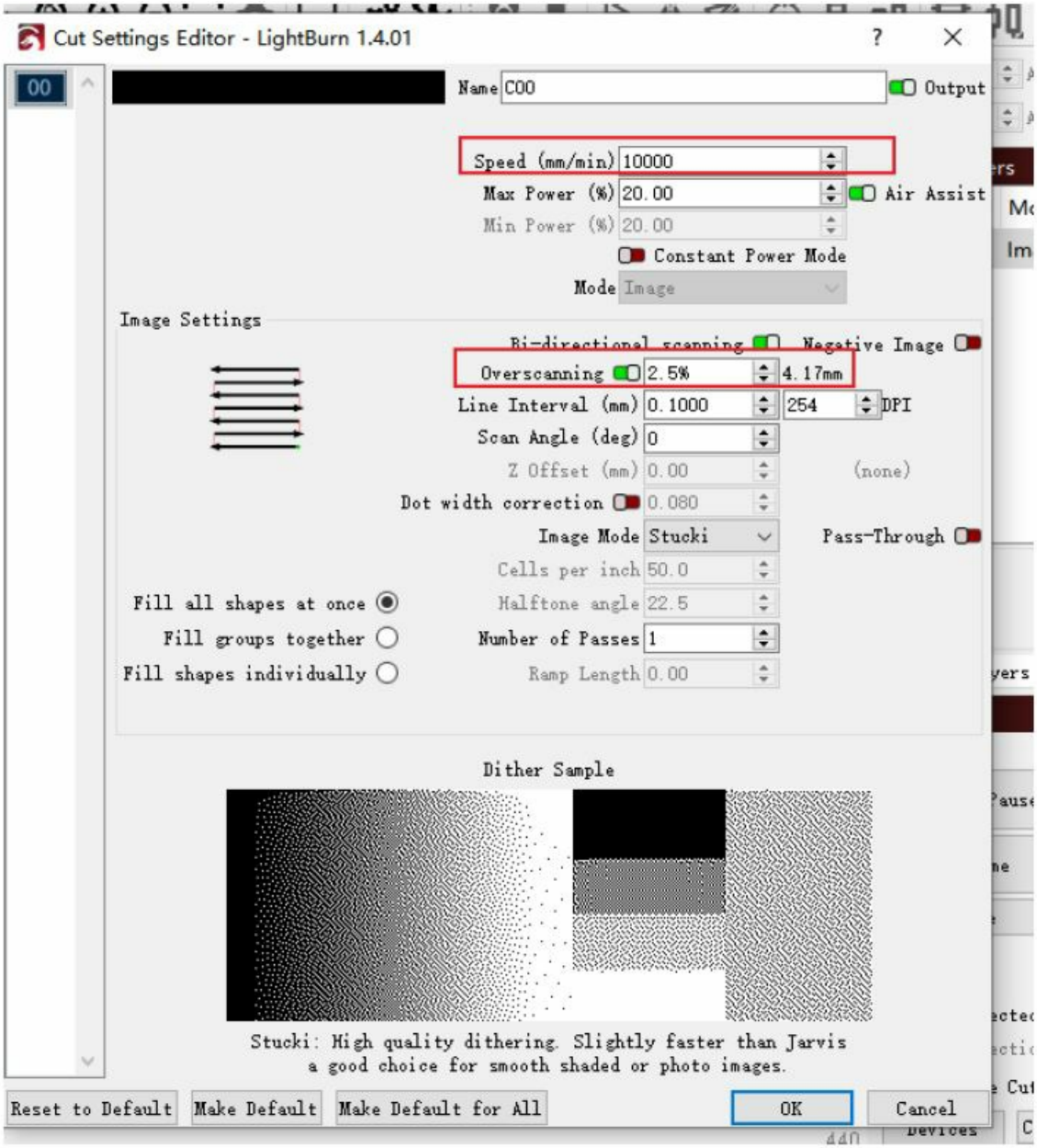


If this solution fails, follow the steps below to decrease the over-scanning percentage &/or lower the speed.

- Click “Cuts/Layers” and double-click the entry for settings.



- Properly lower the overscanning percentage or the speed, as shown in the figure.



- After confirming the adjustment, restart your engraving &/or cutting job.

Correspondence Chart of LaserPecker&LightBurn Parameters

- The light yellow chart shows the parameter equivalence between the LaserPecker mobile application and LightBurn.
- The power settings of 1%-100% in the mobile application/PC software are equal to that of 1- 100 in LightBurn.
- The depth of 1%-100% in mobile application/PC software is equal to the speed of 12,000 mm/min-120 mm/min in LightBurn (the higher the depth, the lower the speed).
- The dark yellow chart shows the minimum and maximum parameters when operating LX1 with LightBurn.

Correspon-dence Chart	**LaserPecker mobile application & PC software**	Power: 1%	Power: 100%	Dither/Bin depth: 1%	Dither/Bin depth: 100%	Line depth: 1%	Line depth: 100%
	LightBurn	Power: 1	Power: 100	Speed: 12000mm/min	Speed: 120mm/min	Speed: 4800mm/min	Speed: 48mm/min
LightBurn & LX1	**Minimum power**	**Maximum power**	**Maximum speed in general mode**	**Maximum speed in rotary extension mode**			
	0	100	12000mm/min	2400mm/min			

Additional Tutorials

For more instructions, please see the official LightBurn tutorials:
https://lightburnsoftware.com/pages/tutorials; https://docs.lightburnsoftware.com/index.html.

Documents / Resources

	LaserPecker LX1 Max Engraving Ability Tests [pdf] Instruction Manual LX1 Max Engraving Ability Tests, LX1, Max Engraving Ability Tests, Engraving Ability Tests, Ability Tests, Tests

References

- LightBurn Software Documentation
- LightBurn Software
- Download / Trial – LightBurn Software
- User Manual