

# LightBurn Software User Manual

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### LightBurn Operating Guide

Please always wear goggles when using a laser engraver.Using a laser without proper training and protection can result in serious injury and blindness, even at low power output. Laser Classification – Laser Safety Facts ([lasersafetyfacts.com](http://lasersafetyfacts.com))

# 1.FAQ

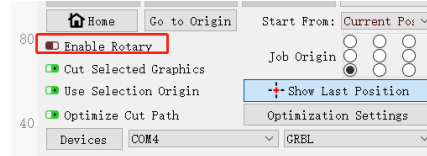
## 1. Fails in connecting to USB serial port:

- 1.1. Please check if the device and computer serial ports work properly. You can try different serial ports.
- 1.2. If you are using other software to connect to the current device, please close other similar software.
- 1.3. Please check if the USB cable is working properly. You can try other USB cables.
- 1.4. Confirm if the baud rate is 115200.

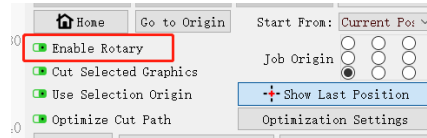


## 2. Engraving result is deformed:

2.1 Check if rotary is enabled in flat object engraving, if it is on please disable it.

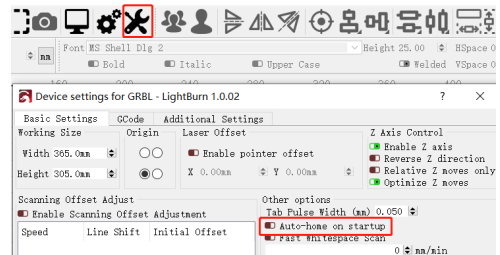


2.2 Check if rotary is disabled in non-flat object engraving, if it is off please enable it.



## 3. Reset failure:

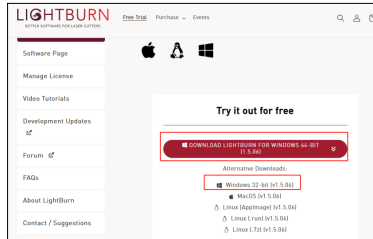
- 3.1. Please check if there is an auto Z-axis adjuster, if no check if the autofocus is enabled. If it is on please disable it.
- 3.2. If a chuck/rotary is connected, check to ensure Auto-home on startup is disabled.



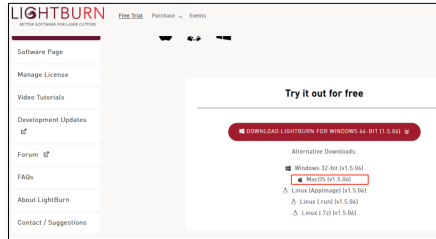
## 2.Download link

<https://lightburnsoftware.com/pages/download-trial>

Windows Download:



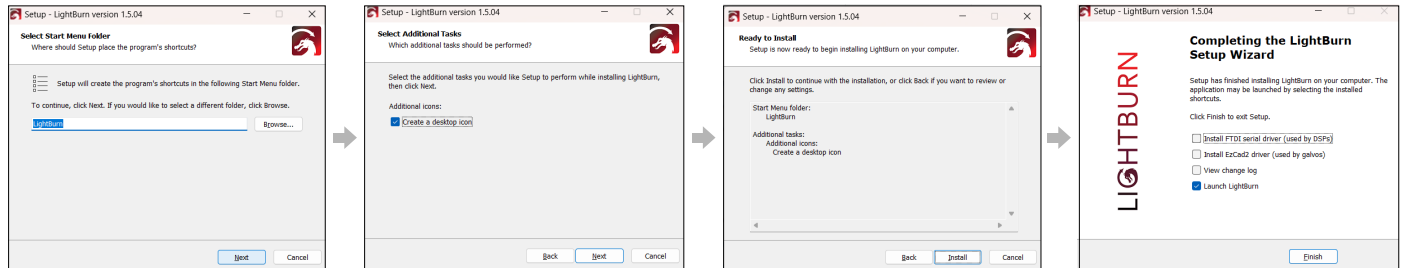
MacOS Download:



\* LightBurn is a paid software. After the trial period ends, you need to purchase it.

### 2.1.Windows Installation

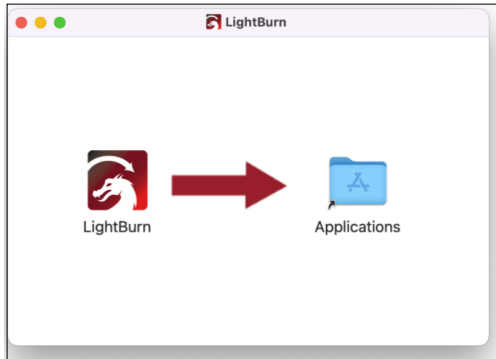
Launch the installer by double-clicking it. Windows may ask if you trust us first.



Click Next, then click 'Install'. The installation will proceed. When it completes, you'll see this: That's it! Locate the LightBurn icon to launch the program

## 2.2 MacOS Installation

Installing LightBurn on Mac is accomplished the same way as most macOS software. After downloading the DMG file, open the file (typically by double-clicking) and drag LightBurn into your Applications folder.



### \* What if my laser isn't found?

Missing drivers: Installing laser equipment requires special drivers and software.

#### Driver download address:

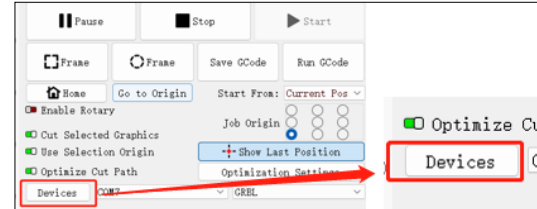
**Windows driver:** <https://asa.atomstack.com/downloadWindows-Drivers.do3>

#### Mac driver:

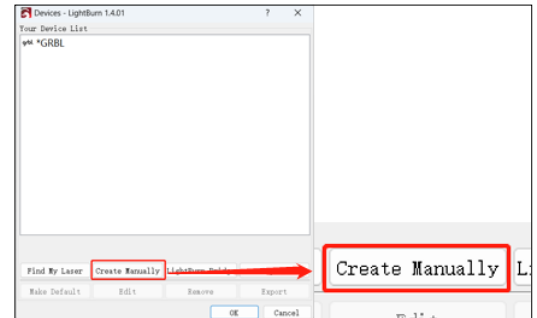
<https://asa.atomstack.com/downloadMacDrivers.do3>

## 3. Connect the Machine to LightBurn

- 3.1 Power on the machine, connect to computer with a USB cable.
- 3.2 Start by clicking the Devices button in the Laser window to open the Devices window.

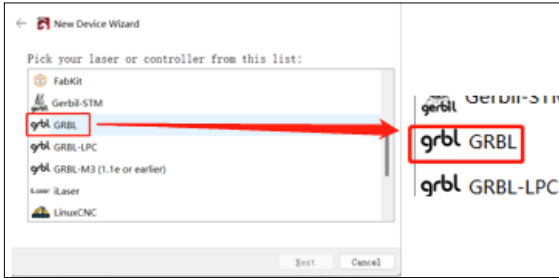


- 3.3 Click the Create Manually button on the Devices window.

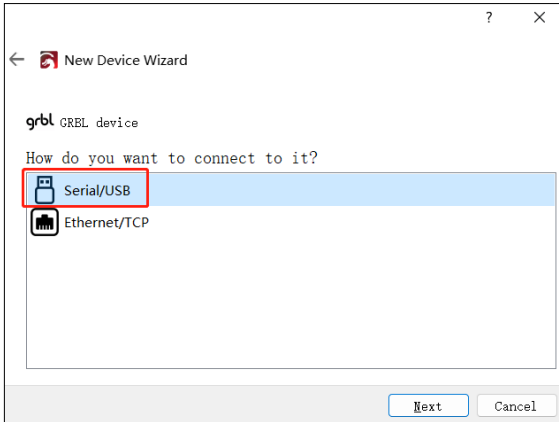


- 3.4 LightBurn will open the New Device Wizard, Select "GRBL"

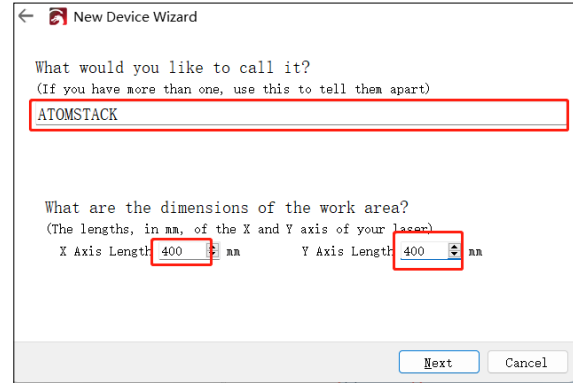




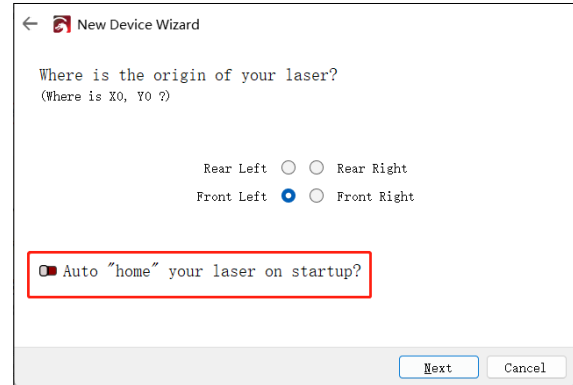
### 3.5. Select "USB"



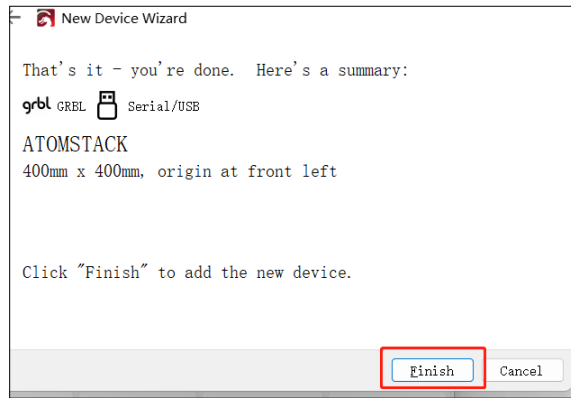
### 3.6. Name And Work Area Size (You must set the size of the work area for your laser so that LightBurn can make try to prevent things from going out of bounds)



### 3.7. Laser Origin And Homing

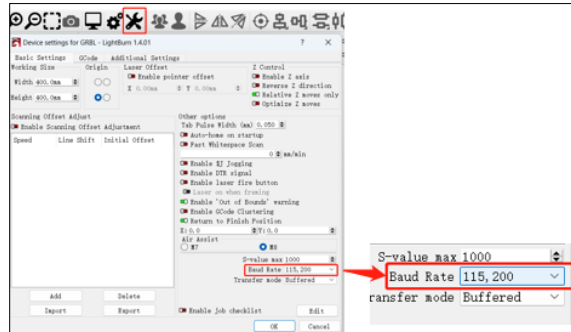


### 3.8.Review Settings

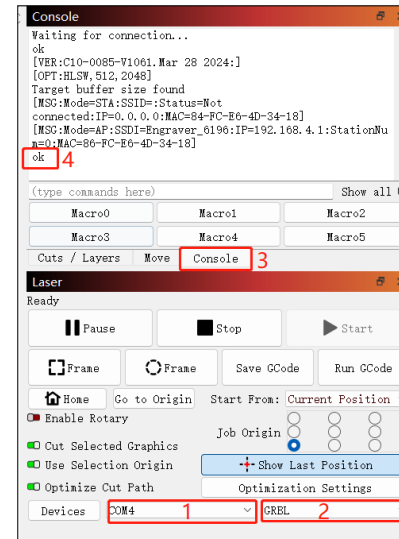


## 4.Connecting to the Laser

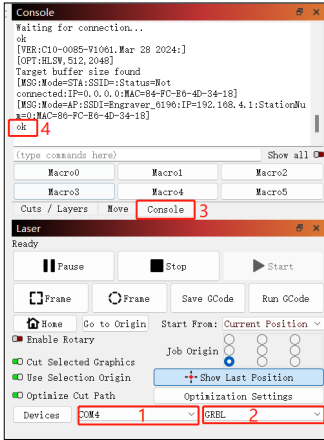
### 4.1 Device Settings -> "Baud Rate" setting 115200;



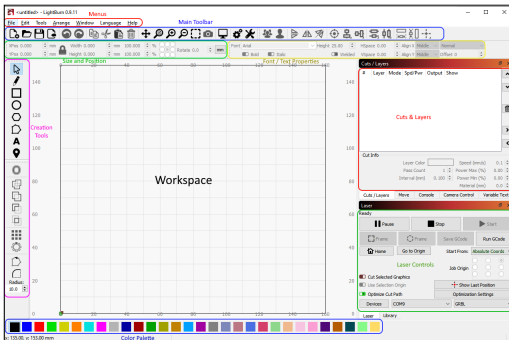
4.2 Once you have added your laser to LightBurn, it should appear in the list of devices to the right of the 'Devices' button in the Laser Window. If you only have a single laser, it will be automatically chosen for you.



4.3 Depending on the type of controller you have, you might have to manually choose the port that the laser is connected to, by clicking where you see '(Choose)' in the Laser Window:

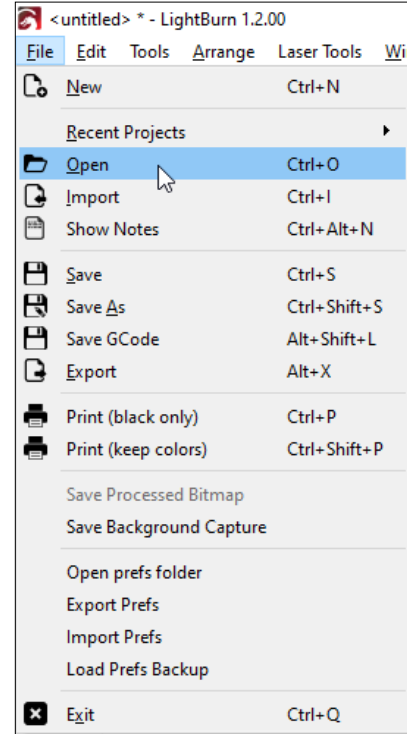


## 5.LightBurn Windows



## 5.1 Menus

The menu bar at the top of the main LightBurn window gives you access to nearly all available features. Depending on the operating system you are using, the menus may appear slightly differently, and some features may be removed if your laser does not support them.



## 5.2 Main Toolbar

The main toolbar in LightBurn gives you quick access to commonly used functions for opening or importing files, saving, using the clipboard (copy & paste), moving or zooming the view. Right beside it is the Arrangement toolbar, containing some commonly used arrangement tools for arranging and aligning shapes.



## 5.3 Creation & Modifier Tools



The first tool, 'Select' is probably the one you'll use most, and is the default tool chosen when LightBurn starts. The others are used to create basic shapes like circles and rectangles, text, and lines, and there are few for modifying shapes in more complicated ways, like merging shapes, or creating lots of copies of shapes.

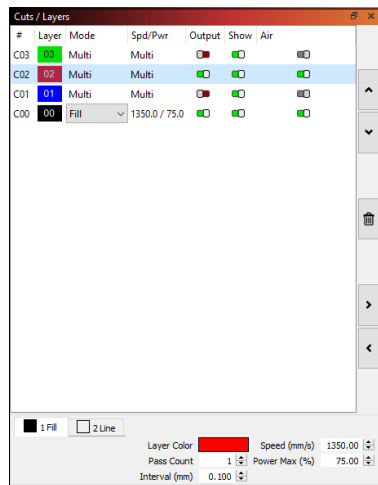
## 5.4. Color Palette



在工作区中未选择任何内容的情况下，单击颜色条目，将以该颜色创建后续新形状。如果选择了某些内容，则单击颜色条目会将该颜色应用于所选形状。设计中当前使用的颜色也将在“剪切/图层”窗口中显示为条目，您可以在其中选择每种颜色将表示的操作。

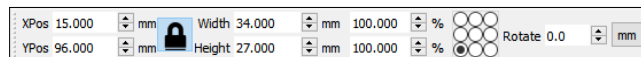
## 5.5 切割/图层

“剪切/图层”窗口显示设计中当前使用的颜色，并允许您快速访问分配给每种颜色的设置。第一列显示您分配给此图层的名称，然后是颜色，然后是模式（线条、填充、两者或图像）。然后显示速度和功率，然后是启用或禁用将此图层发送到激光器或在工作区中显示该图层的选项。



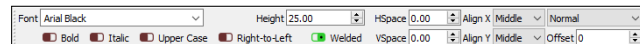
## 5.6 大小和位置/数字编辑

“数字编辑”工具栏允许您调整形状大小、定位和旋转形状，以及更改度量单位。“锁定”按钮可用于在更改大小时保持对象的纵横比，而9点控件允许您选择定位和大小原点



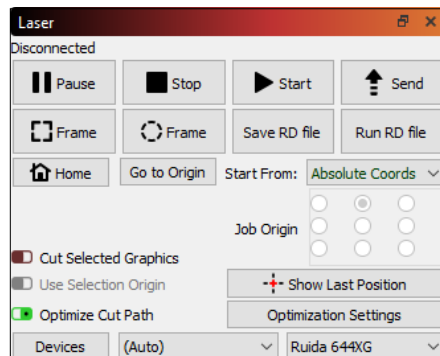
## 5.7 字体和文本控件

当使用“创建文本”工具或选择文本对象时，字体和文本工具栏将激活。此工具栏允许您更改字体、大小、间距、对齐方式和自动字符连接设置。“字体和文本”工具栏还包括可变文本的设置，例如序列号、日期和从 CSV 文件中读取的数据表。



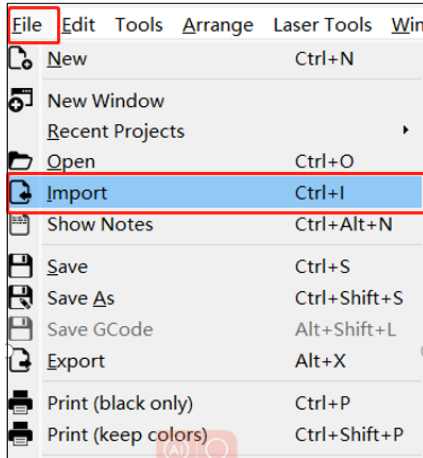
## 5.6 Laser Window

The Laser Window is used to select the active machine, test the framing (the artwork's outer bounds), run and stop the machine, and choose the file processing, order, and artwork positioning within the workspace.

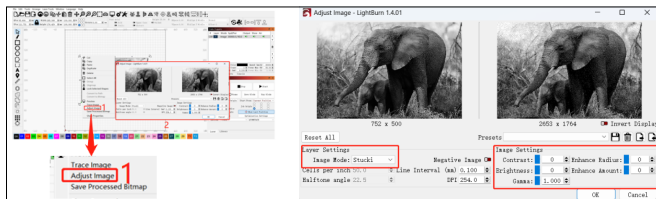


## 6.Using LightBurn

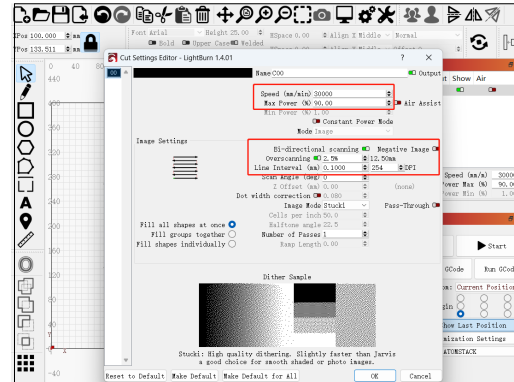
6.1.Select "File" and click "Import" to open the image for engraving.



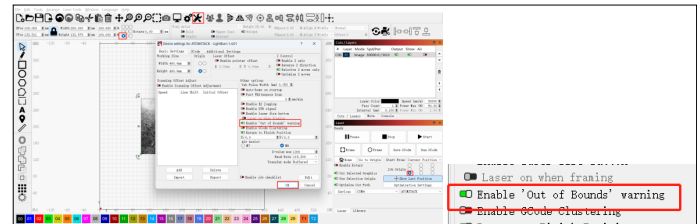
6.2. Right-click on the image and select "Adjust Image" to set the appropriate parameters.



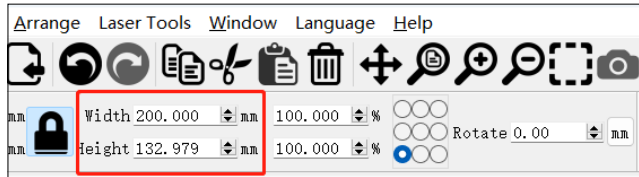
6.3. Adjust the engraving parameters by double-clicking on the image layer on the right side. For specific parameters, refer to the parameter table, road passage <https://www.atomstack.com/pages/material-setting>. Engraving and cutting parameters refer to the website <https://atomstack.com/>



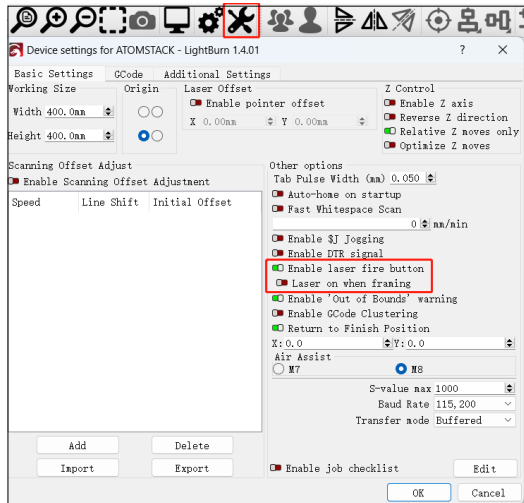
6.4 Set the laser starting position



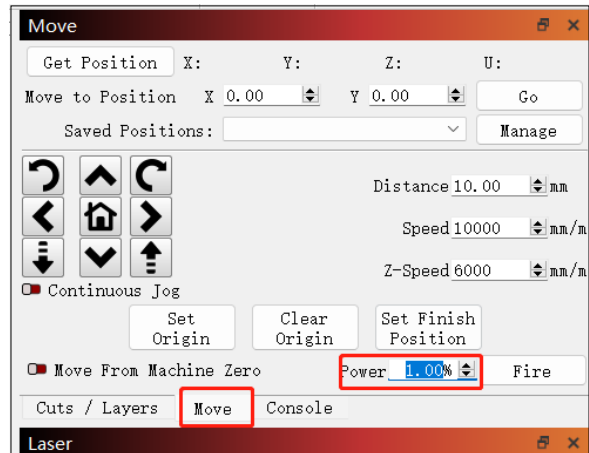
6.5 Set the size of the image



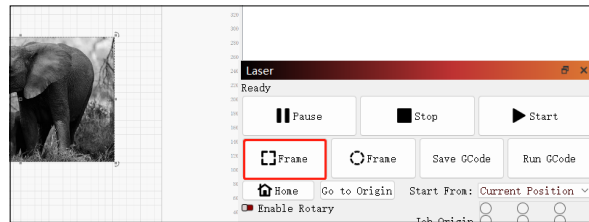
6.6 Laser on when framing Settings:  
Device Settings->Turn on Enable laser fire button



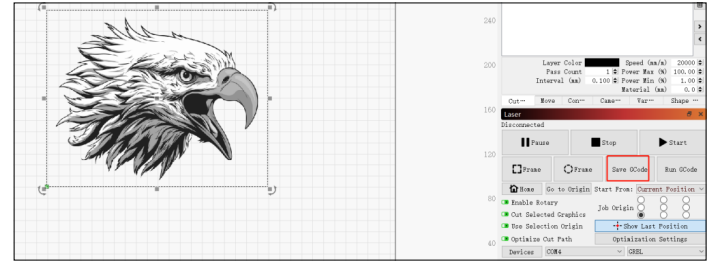
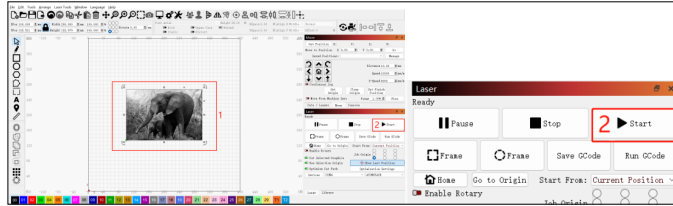
6.7 Move->Power, suggest to set 1%



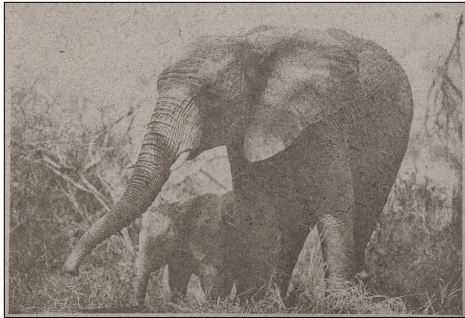
6.8 Select the image ,Hold down the shift key and click "Frame" to preview the engraving area



6.9 Select the image and click "Start" to begin the engraving



6.10 After the engraving is completed and the laser module stops working, you can take out your engraving work from the device.



7.2 Select the save path, and click 'Save' to generate .gc document



## 7.How to export the GCode file

7.1 Import the picture to be carved or cut into the LightBurn, set the carving speed, energy parameters, etc.,Choose the pattern and click Save Gcode;



# 《LightBurn》软件使用说明书

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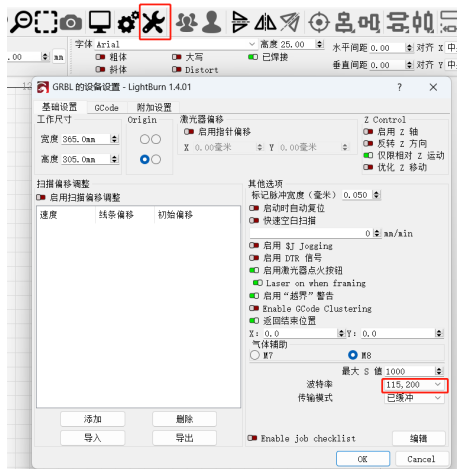
### LightBurn操作指南

使用激光雕刻机时，请始终佩戴安全眼镜，在没有适当培训和保护的情况下使用激光会导致严重的伤害和失明，即使在低功率下也是如此。激光分类表 - 激光安全事实 ([lasersafetyfacts.com](http://lasersafetyfacts.com))

# 1. 常见问题解答

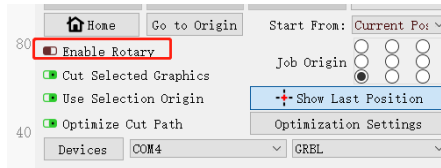
## 1. USB 串口链接不上:

- 1.1. 请检查设备和计算机串口是否正常运行，您可以尝试切换不同串口，然后重试；
- 1.2. 如果您正在使用其他软件连接到当前设备，请关闭其他类似软件；
- 1.3. 请检查USB线是否正常，您可以尝试更换USB线，然后重试；
- 1.4. 确认波特率是否是115200。

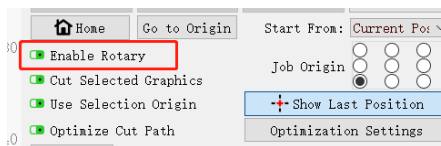


## 2. 雕刻图案变形:

2.1. 平面模式下，请确认下是否有开启旋转设置，若有开启请关闭；

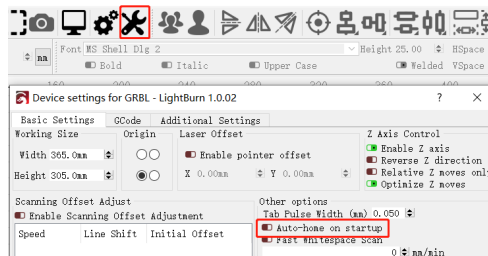


2.2. 使用卡盘/滚轴时，请确认下是否有开启旋转设置，若关闭请打开；



## 3. 复位失败:

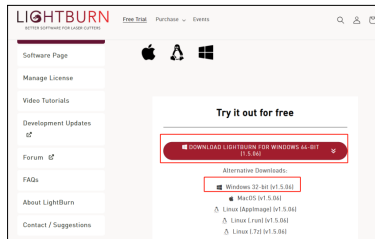
- 3.1. 请检查下有无自动Z轴配件，若无再检查下有无打开自动对焦功能，若有打开请关闭；
- 3.2. 若有接卡盘/滚轴，检查关闭启动时自动复位功能；



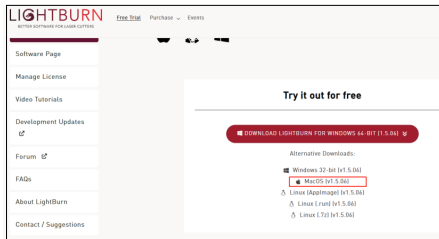
## 2. 下载路径

<https://lightburnsoftware.com/pages/download-trial>

Windows 下载:



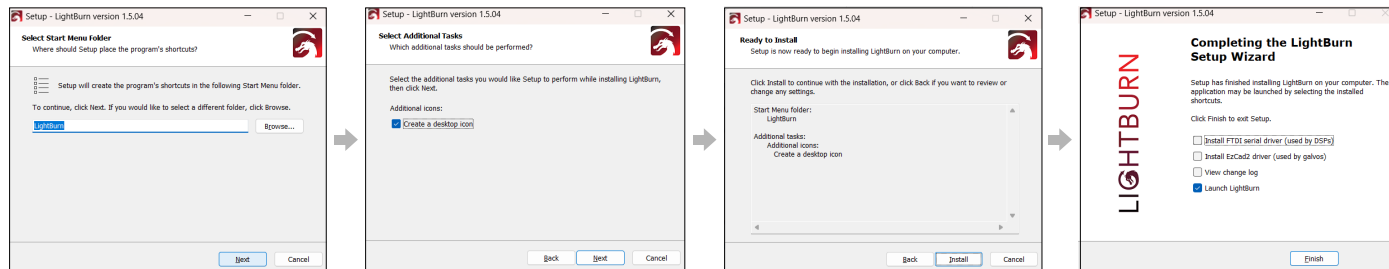
MacOS 下载:



\* LightBurn 是一个付费软件，在试用期结束后，您需要购买它才能使用

### 2.1 Windows 安装

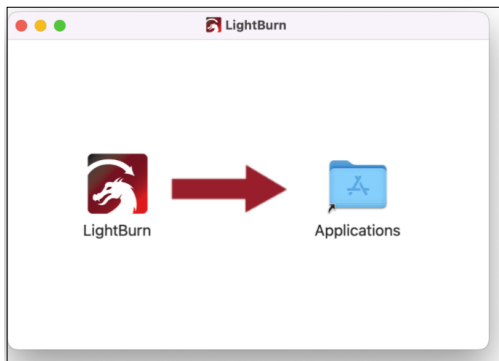
通过双击安装程序来启动它，可能会弹出窗口问你是否信任我们；



单击“下一步”，然后单击“安装”，安装将继续进行，当完成时，你就会看到下面这个:点击完成，找到LightBurn图标，启动程序

## 2.2 MacOS 安装

在Mac上安装LightBurn的方式与大多数macOS软件相同，下载DMG文件后，打开该文件（通常通过双击），并将LightBurn拖动到“应用程序”文件夹中。



\* 如果找不到我的激光设备怎么办？

驱动不对: 安装激光设备需要专用的驱动程序和软件。

**驱动下载地址:**

**Windows driver:** <https://asa.atomstack.com/downloadWindows-Drivers.do3>

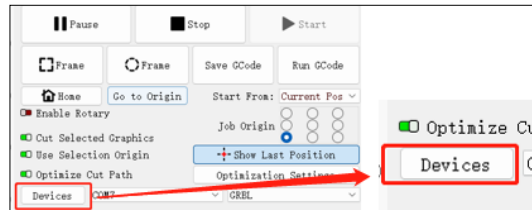
**Mac driver:**

<https://asa.atomstack.com/downloadMacDrivers.do3>

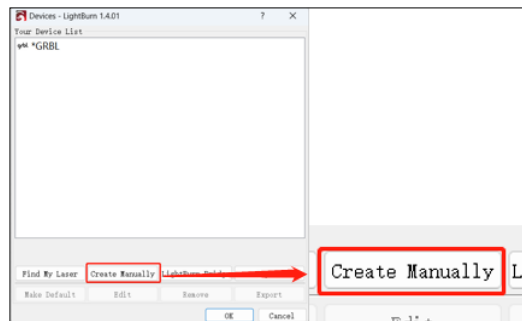
## 3.机器连接到 LightBurn

3.1.将机器通电，用USB线连接机器与电脑

3.2.首先，单击“激光器”窗口中的“设备”按钮，打开“设备”窗口。



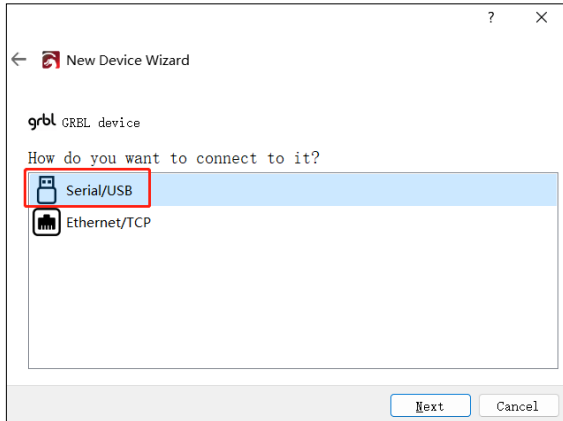
3.3.单击“设备”窗口上的“手动创建”按钮。



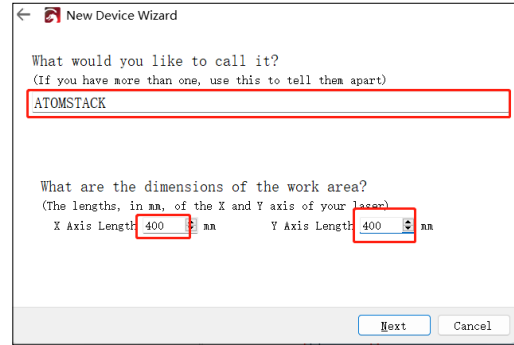
### 3.4.LightBurn 将打开新设备向导，选择“GRBL”



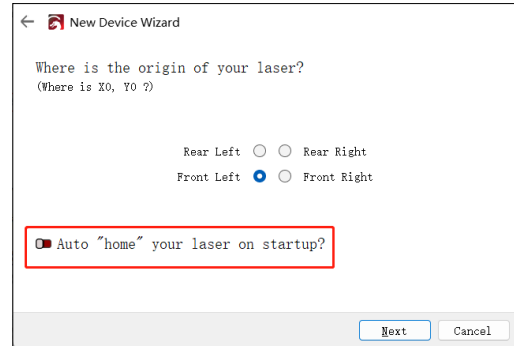
### 3.5.选择“USB”



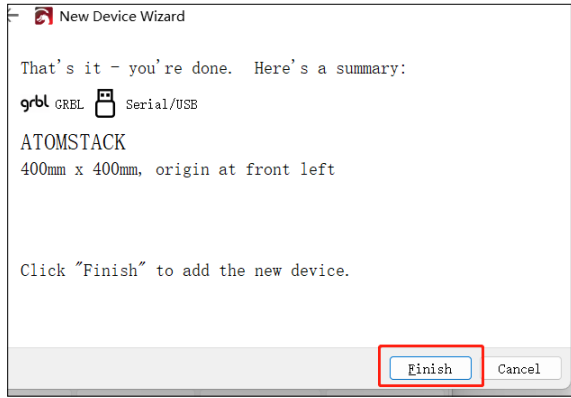
### 3.6.名称和工作区域大小（你必须为激光设置工作区域的大小，以便LightBurn设置被测物幅面时防止超出界限）



### 3.7.激光器的起始位置

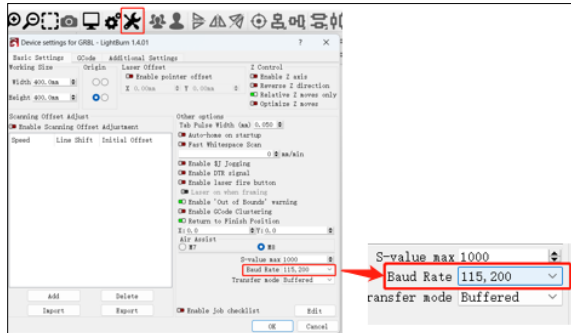


### 3.8.设置完成

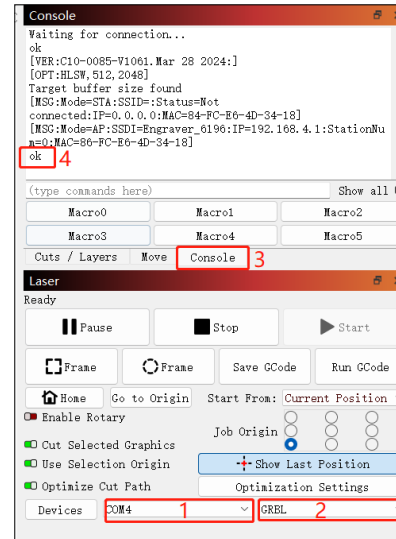


## 4.连接到激光器

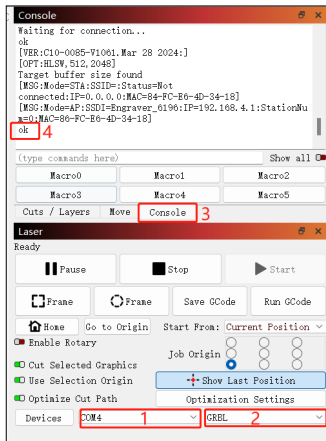
### 4.1设备设置 -> “波特率” 设置 115200;



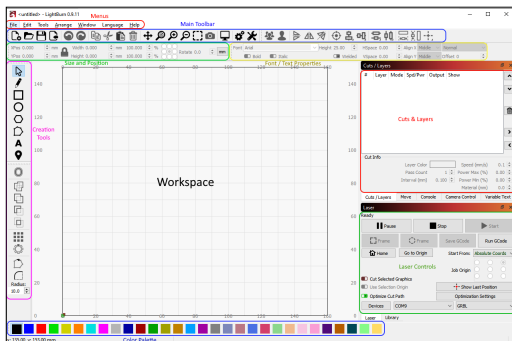
4.2 一旦你把你的激光添加到 LightBurn, 它会出现在激光窗口口中的“设备”按钮右侧的设备列表中, 如果你只有一个激光器, 它就会自动为你选择。



4.3 根据你所拥有的控制器的类型, 你可能必须手动选择激光器所连接的端口, 通过点击你在激光器窗口中看到的“选择”的位置:

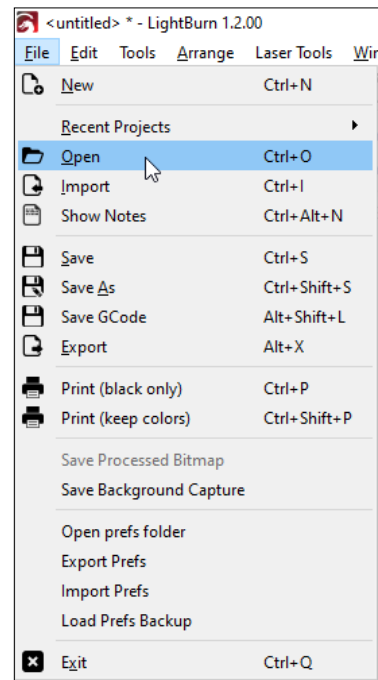


## 5.LightBurn 窗口



## 5.1 菜单

在LightBurn主窗口顶部的菜单栏让您访问几乎所有可用的功能.根据您使用的操作系统, 菜单的显示可能会略有不同, 如果您的激光器不支持某些功能, 则可能会删除它们。

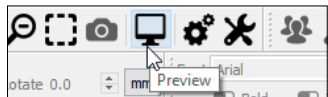


## 5.2 主工具栏

LightBurn中的主工具栏可以让您快速访问常用功能，例如打开或导入文件、保存、使用剪贴板(复制和粘贴)、移动或缩放视图，它旁边是“排列工具栏”，其中包含一些常用的排列工具，用于排列和对齐形状。



如果您不确定按钮的用途，请将鼠标悬停在它上面，它会告诉您：



## 5.3 创建和修改器工具



第一个工具“选择”可能是您最常使用的工具，并且是 LightBurn 启动时选择的默认工具。其他用于创建基本形状，如圆形和矩形、文本和线条，很少有用于以更复杂的方式修改形状，例如合并形状或创建大量形状副本。

## 5.4 调色板

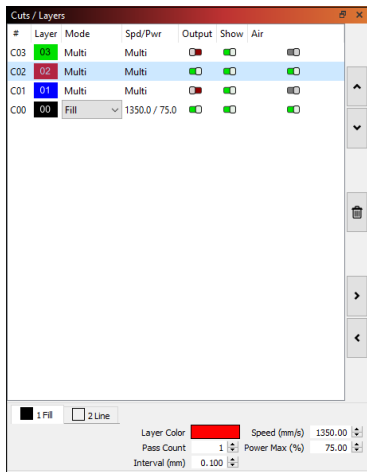


在工作区中未选择任何内容的情况下，单击颜色条目，将以该颜色创建后续新形状。如果选择了某些内容，则单击颜色条目会将该颜色应用于所选形状。设计中当前使用的颜色也将在“剪切/图层”窗口中显示为条目，您可以在其中选择每种颜色将表示的操作。



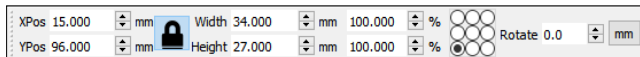
## 5.5 切割/图层

“剪切/图层”窗口显示设计中当前使用的颜色，并允许您快速访问分配给每种颜色的设置。第一列显示您分配给此图层的名称，然后是颜色，然后是模式（线条、填充、两者或图像）。然后显示速度和功率，然后是启用或禁用将此图层发送到激光器或在工作区中显示该图层的选项。



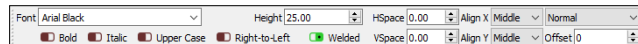
## 5.6 大小和位置/数字编辑

“数字编辑”工具栏允许您调整形状大小、定位和旋转形状，以及更改度量单位。“锁定”按钮可用于在更改大小时保持对象的纵横比，而 9 点控件允许您选择定位和大小原点



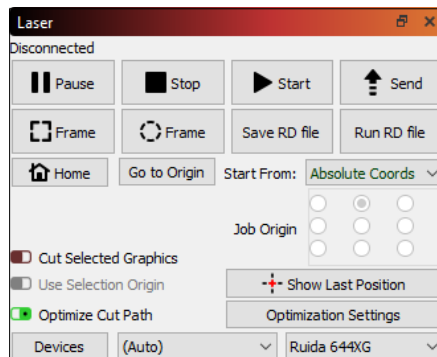
## 5.7 字体和文本控件

当使用“创建文本”工具或选择文本对象时，字体和文本工具栏将激活。此工具栏允许您更改字体、大小、间距、对齐方式和自动字符连接设置。“字体和文本”工具栏还包括可变文本的设置，例如序列号、日期和从 CSV 文件中读取的数据表。



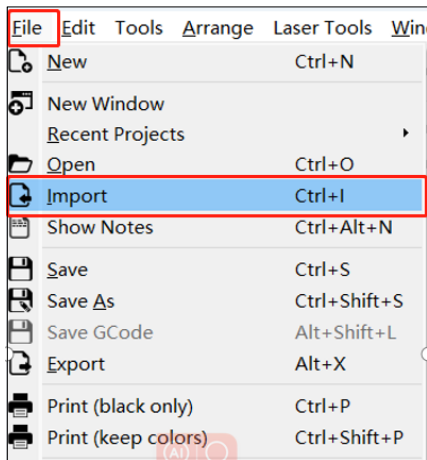
## 5.8 激光窗口

通过激光窗口，您可以选择正在使用的激光器，查看其连接状态，将作品发送到激光器，并控制有关如何在激光器上运行作品的一些不同内容，包括作品的定位方式以及切割顺序。

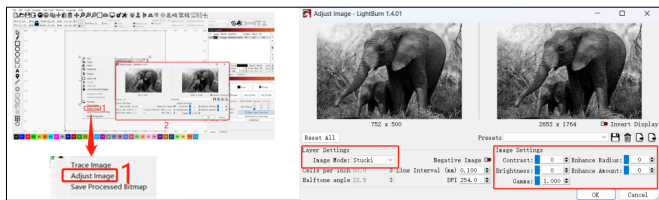


## 6.使用 LightBurn

6.1.选择“文件”，点击“导入”，打开图像进行雕刻；



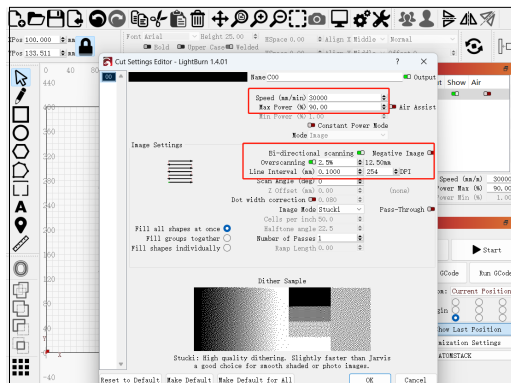
6.2. 右键单击图像并选择“调整图像”来设置适当的参数；



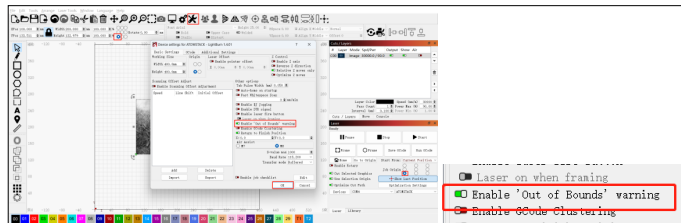
6.3. 通过双击右侧的图像图层，来设置雕刻参数，具体参数见参数表，参考路径见下：

<https://www.atomstack.com/pages/material-setting>.

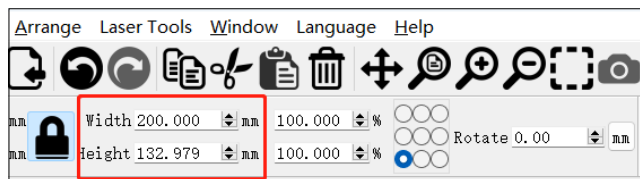
Engraving and cutting parameters refer to the website <https://atomstack.com/>



6.4 设置激光器的起始位置

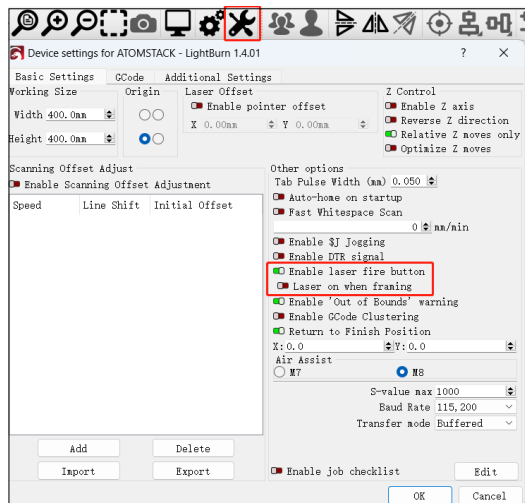


### 6.5 设置图片的尺寸大小

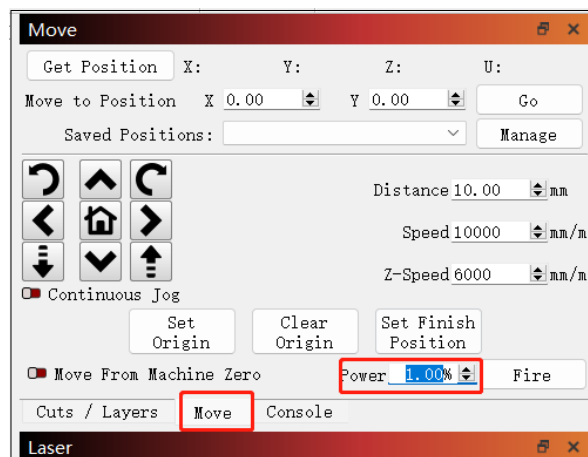


### 6.6 激光器巡边设置:

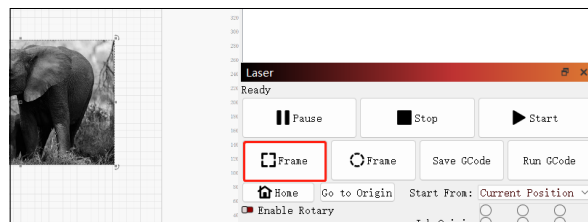
设备设置->启用激光器点火按钮



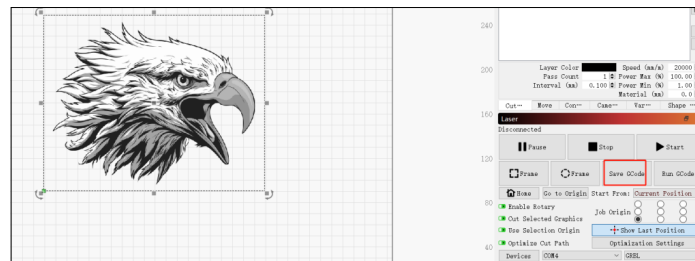
### 6.7 巡边功率设置: 移动->功率, 推荐设置 1%



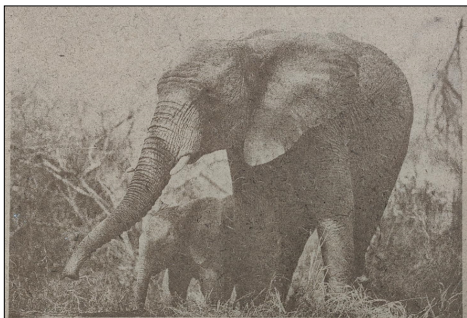
### 6.8 选择图像, 按住shift键+点击“边框”, 预览雕刻区域



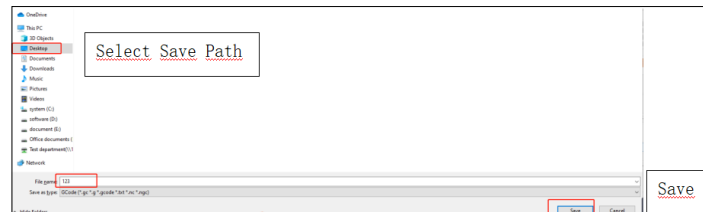
## 6.9 选择图像，点击“开始”，开始雕刻



6.10 雕刻完成，激光模块停止工作后，您可以从该设备上取出您的雕刻作品。



## 7.2 选择保存路径，单击“保存”生成.gc文件



## 7.如何导出GCode文件

7.1 导入要雕刻或切割的图片到LightBurn中，设置雕刻速度、功率等参数后，点击保存Save Gcode;