FAQ of Nano series Laser Engraver

Shenzhen Longer Technology Co., Ltd.

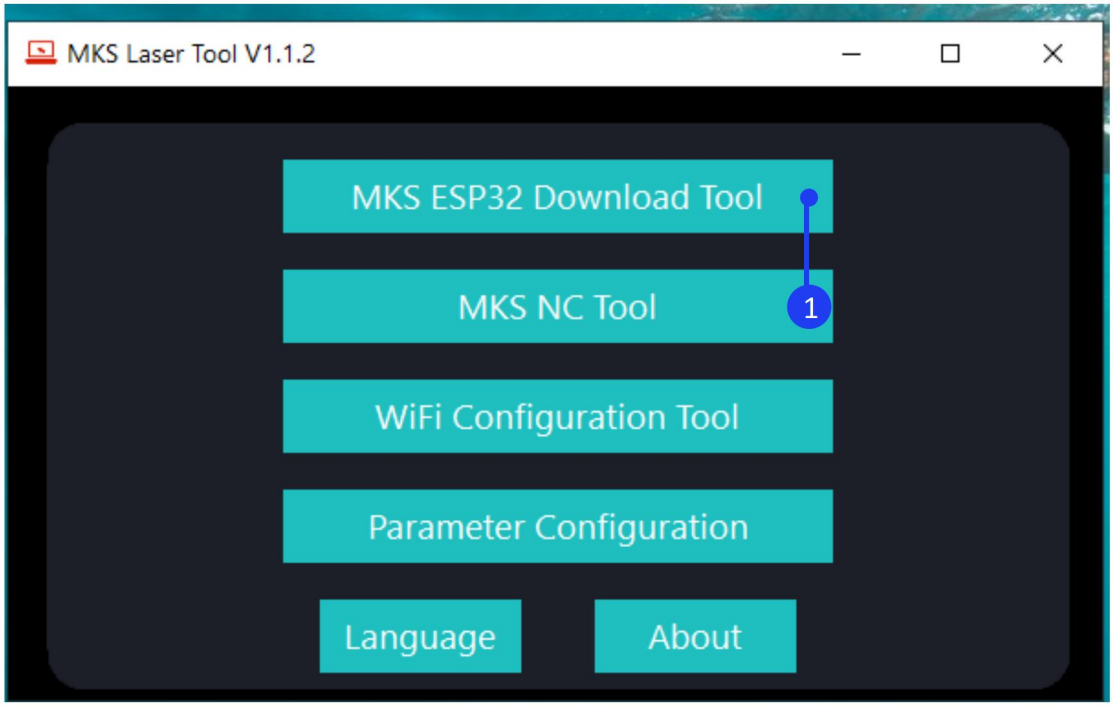
CONTENT

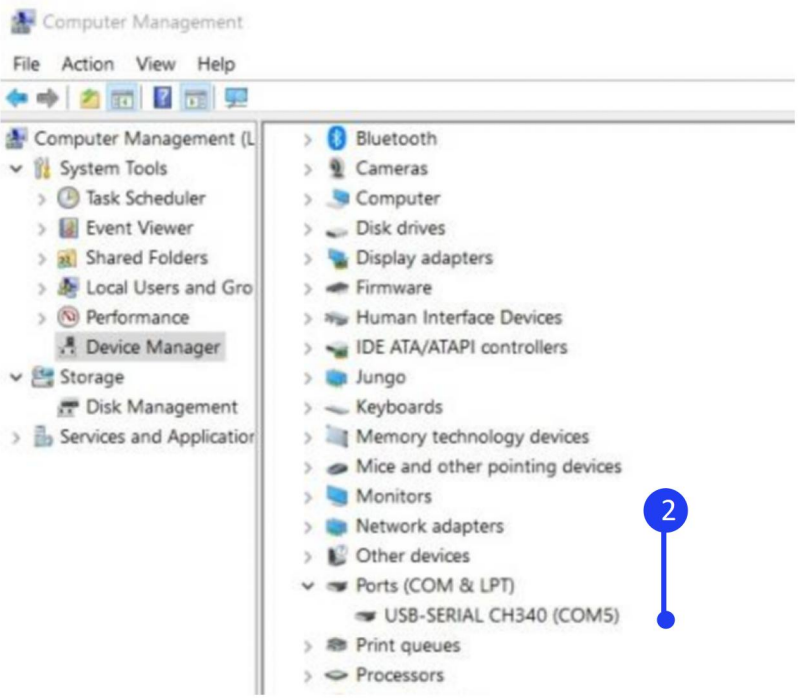
1. How to update the firmware

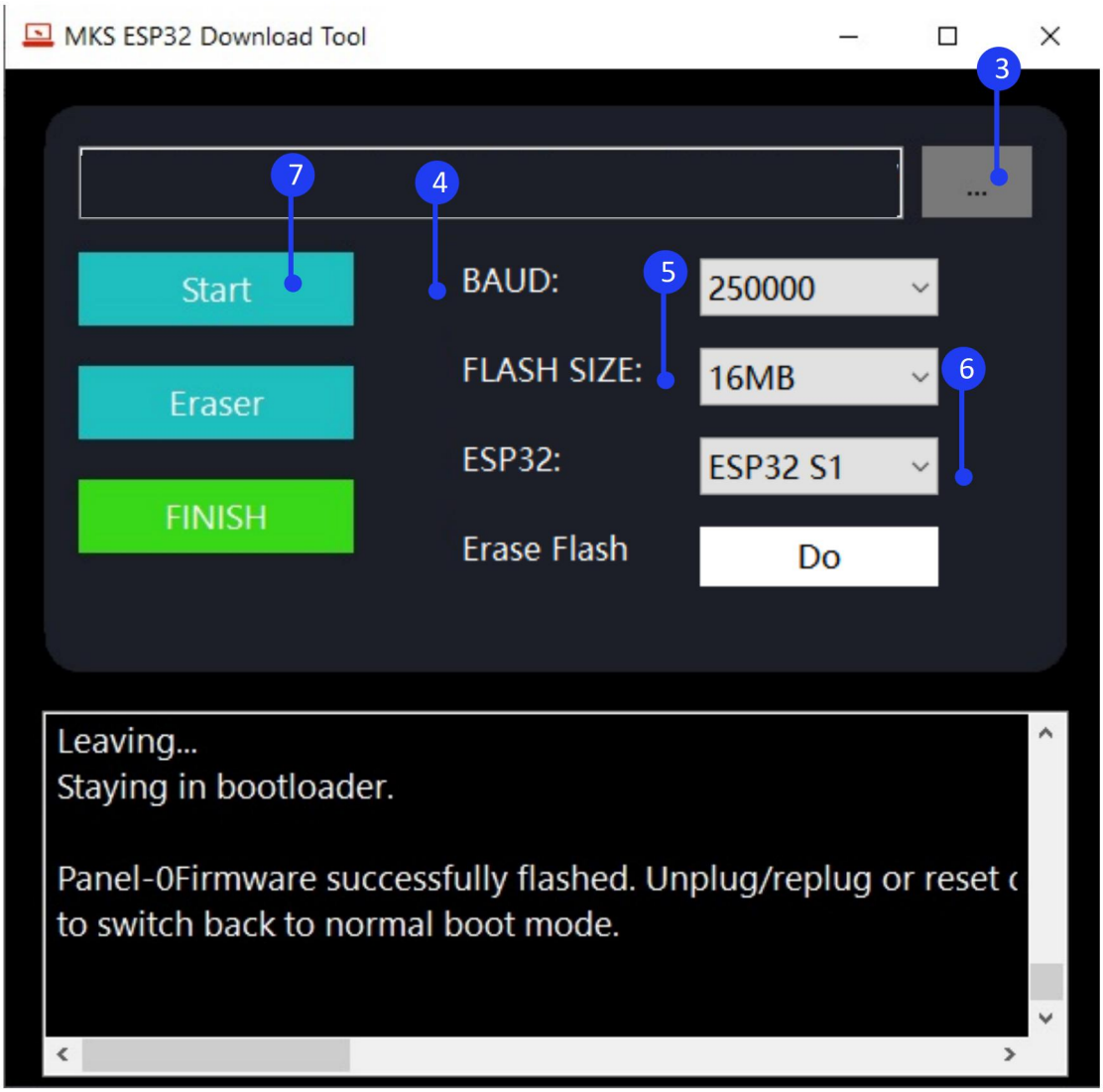
1) Update by MKSLaserTool software

Please install the MKSLaserTool software in the SD card software folder. Connect the laser engraver to computer with Type C cable, turn on the engraver.

For Windows, right-click the computer and select Manage, click Device Manager, click to expand Ports, find the port corresponding to the CH340 driver. Run the MKSLaserTool and click MKS ESP32 Download Tool, select the right port which is corresponding to CH340 driver and the update firmware. Set baud to 25000, Flash size to 16MB, and select ESP32 S1, click Start, it will prompt firmware successfully flashed after the update is completed.

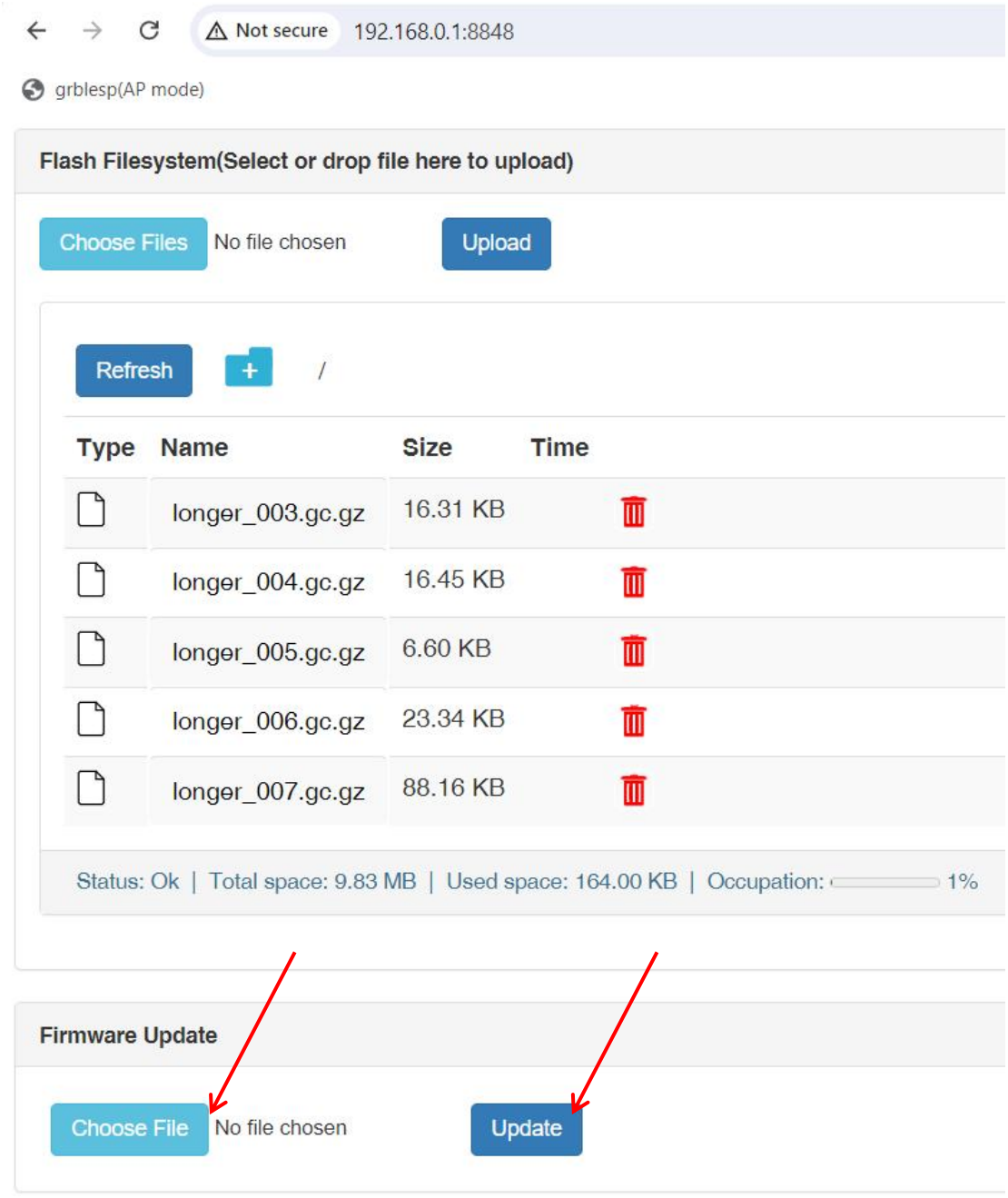



Computer Management
File Action View Help
Computer Management (L
System Tools
Task Scheduler
Event Viewer
Shared Folders
Local Users and Gro
Performance
Device Manager
Storage
Disk Management
Services and Applicatior
Bluetooth
Cameras
Computer
Disk drives
Display adapters
Firmware
Human Interface Devices
IDE ATA/ATAPI controllers
Jungo
Keyboards
Memory technology devices
Mice and other pointing devices
Monitors
Network adapters
Other devices
Ports (COM & LPT)
USB-SERIAL CH340 (COM5)
Print queues
Processors
2


MKS ESP32 Download Tool
3
7
4
...
Start
BAUD:
5
250000
FLASH SIZE:
16MB
6
Eraser
ESP32:
ESP32 S1
FINISH
Erase Flash
Do
Leaving...
Staying in bootloader.
Panel-0Firmware successfully flashed. Unplug/replug or reset
to switch back to normal boot mode.

2) Update by Web

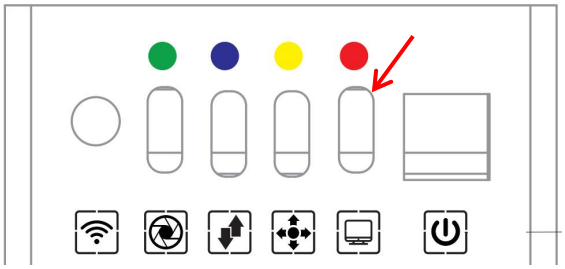
Search the WIFI network starting with LongerLaser_Nano and input password 12345678 to connect the WIFI of Nano, open the browser and enter 192.168.0.1:8848, click choose file to select firmware, and update the firmware.



2. Unable to connect to LightBurn or LaserGBRL

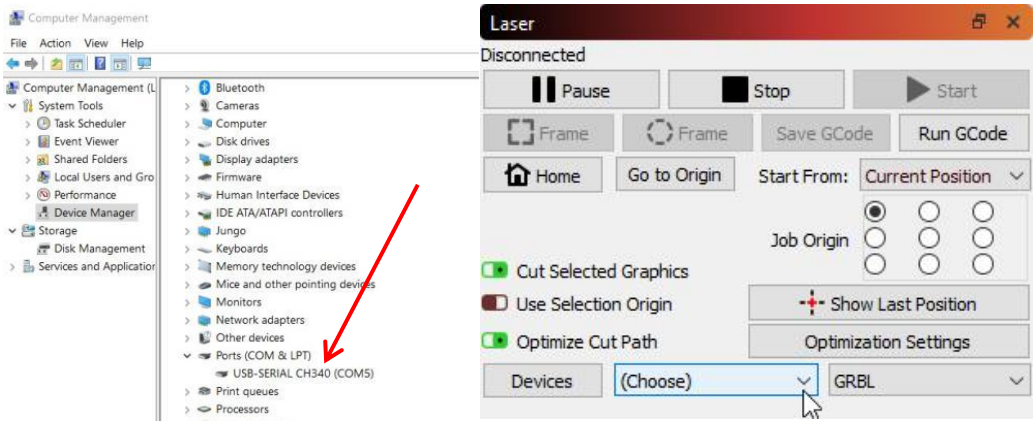
1) Using the wrong Type C cable

Please use the red terminal Type C cable to connect computer to the third port of engraver, that is .



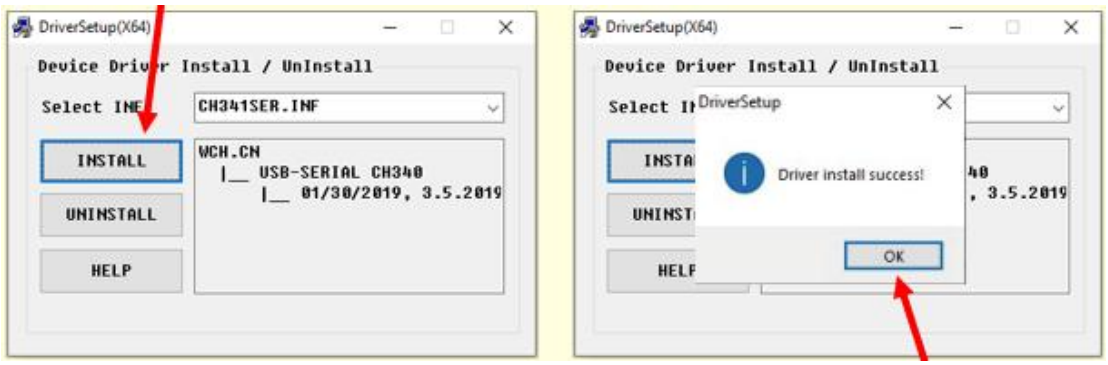
2) Can't find CH340 driver

For Windows system, it needs to right-click the computer and select Manage, click Device Manager, click to expand Ports (COM & LPT), find the port corresponding to the CH340 driver, and then select this port in LightBurn or LaserGRBL.



For MacOS, please go to About this Mac > Overview > System Report, select USB under Hardware, there will be USB Serial if the driver is installed automatically, and select cu.wchusbserial14230 port in the LightBurn or LaserGRBL.

If no ports are listed in the expand Ports (COM & LPT), it means that no engravers were found, which could mean that it is not plugged in correctly, isn't powered, or the PC is missing a driver. It needs to download CH340 driver from the link and double click it to install: https://drive.google.com/drive/folders/1Sc-TKuez-mz--38Vp6DeL-pGmQcQdHW4.

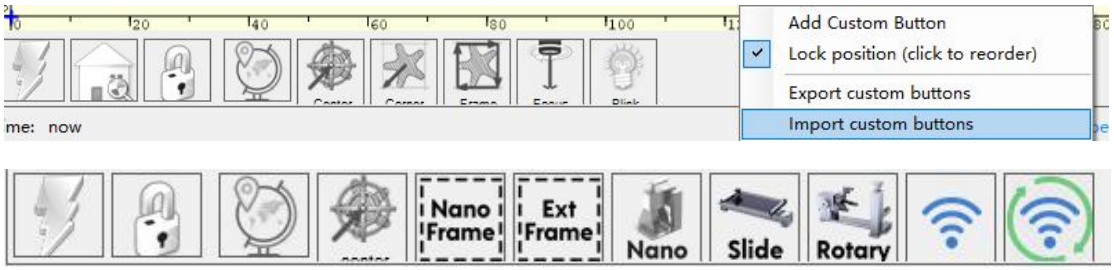


3) CH340 driver port is occupied

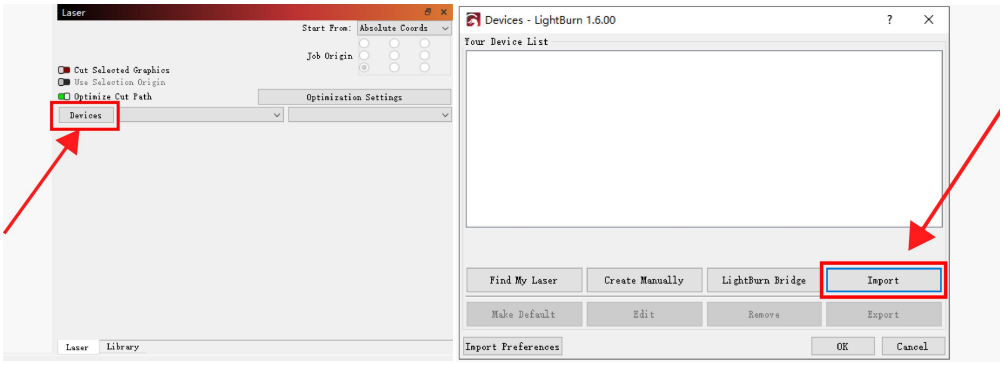
Before connecting, please make sure that the CH340 port is not occupied by software such as serial communication tools, cura, etc.

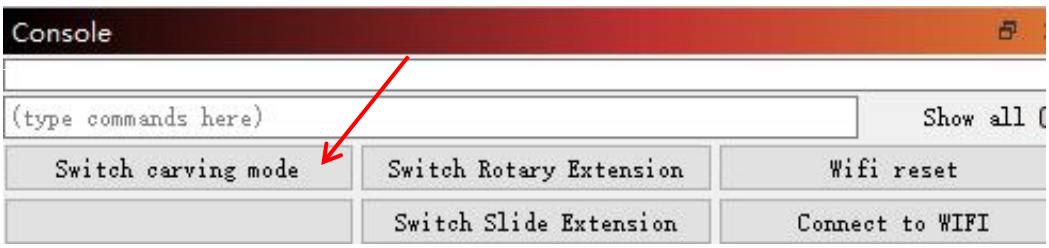
4) The configuration file is not imported or damaged

For LaserGRBL, right-click in the blank area at the bottom and select Import custom buttons, open Nano.zbn file to import, click YES to confirm, then there are new Nano, Slide, Rotary icons.

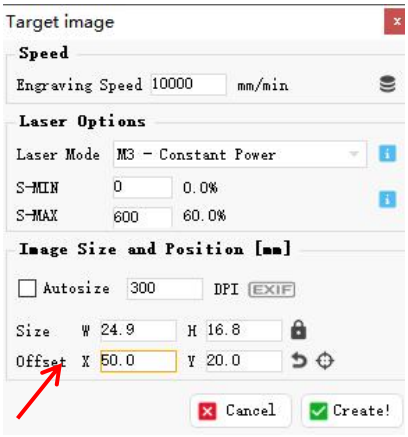


For LightBurn, click "Devices" in the laser control module to import the engraver. Click ‘Import’, select the Nano.lbdev file, and click OK to add the Nano Pro configuration to LightBurn. The macro commands will be successfully added in the Console window and Nano Pro device would appear in the list of devices to the right of the 'Devices' button in the Laser window when the configuration file is imported successfully.





3. How to adjust the graphics position in LaserGRBL



Click File > Open File to add the design to be engraved, adjust the offset of X and Y in the target image window to change the position of the graphics to make sure which is in the range of 100*100mm.

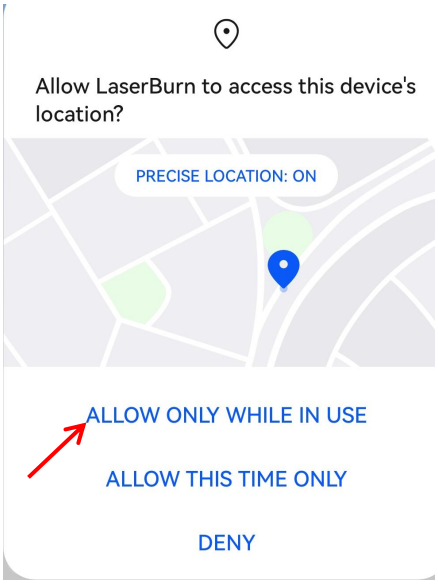
4. LaserBurn APP cannot connect to WIFI

1) Update the app to the latest version

Please search for "LaserBurn" in Google play or Apple store to download and update to the latest version.

2) APP is not allowed to discover device's location

When run the app for the first time, select ALLOW ONLY WHILE IN USE when prompted 'Allow LaserBurn to access this device's location?', or the LongerLaser_Nano WIFI can not be found. If have already selected DENY, it needs to change the app's location discovery permission in Settings.



3) Reset the WIFI

If WIFI of LongerLaser_Nano can not be found, please long press the WIFI reset button on the back of the Nano until you can hear three buzzers to reset the WIFI, then search the WIFI list again.

4) Not connected to the same router or not 2.4G WIFI

In STA mode, it needs to connect the engraver and mobile phone to the same router WIFI. Make sure it is 2.4G WIFI. 5G WIFI is not supported yet.

5) WIFI signal is too weak

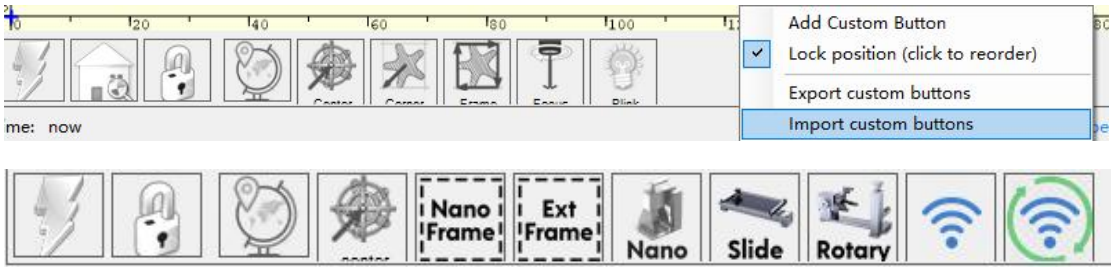
Switch to a router with better signal strength.

5. Blue light is flashing but not in focus

When start engraving, blue light is emitted through the field lens or window lens, but the blue light is not focused and it cannot see the blue light engraving.

1) The configuration file is not imported or damaged

For LaserGRBL, right-click in the blank area at the bottom and select Import custom buttons, open Nano.zbn file to import, click YES to confirm, then there are three new Nano, Slide, Rotary icons.



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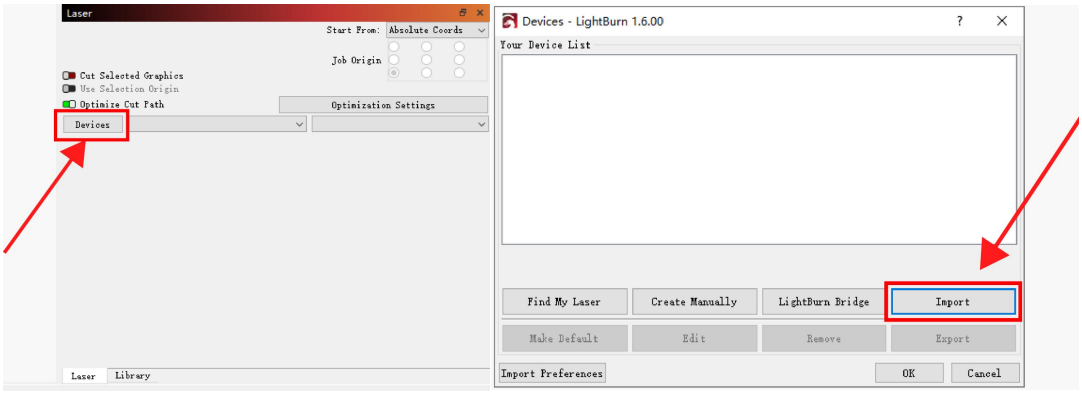
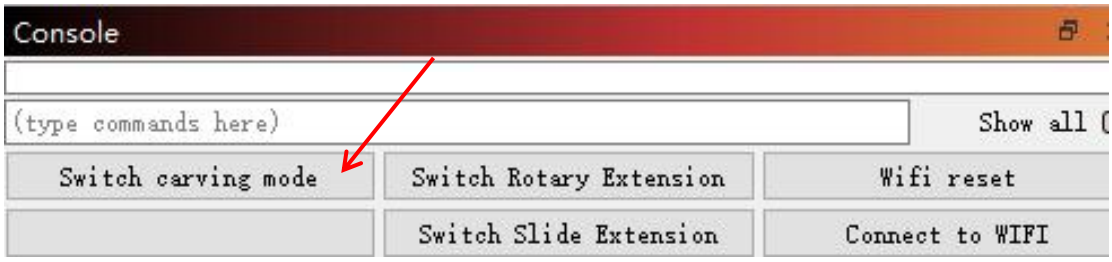


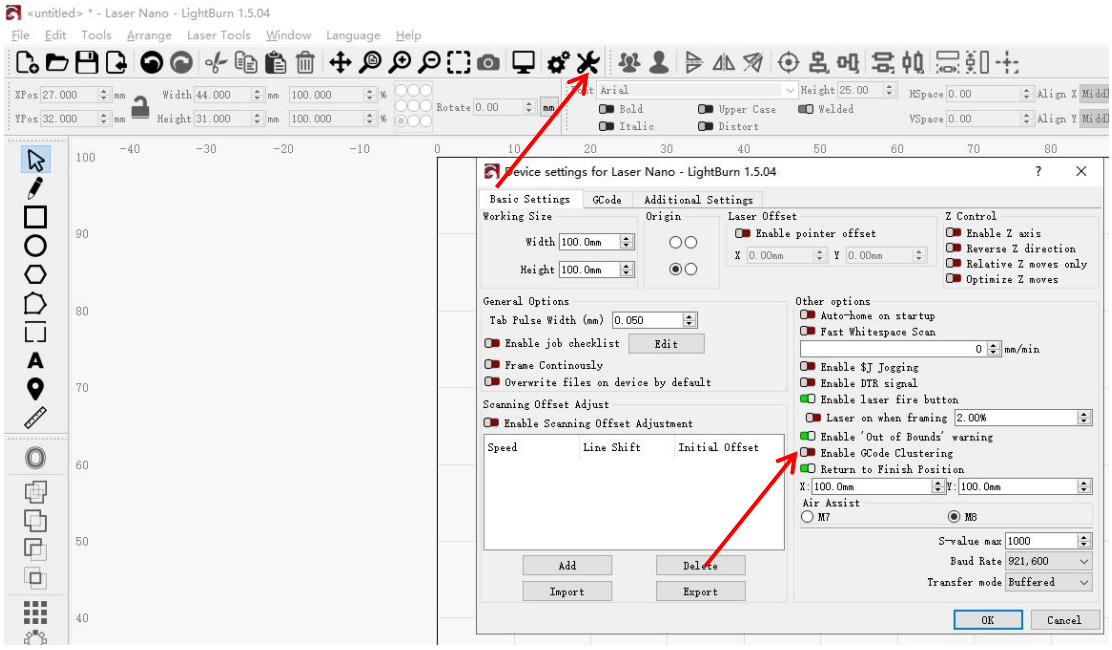


2) Not switch to engraving mode

Before engraving, it must switch to carving modes, that is click Switch carving mode in Console window for LightBurn, or click Nano icon 

at the bottom for LaserGRBL.

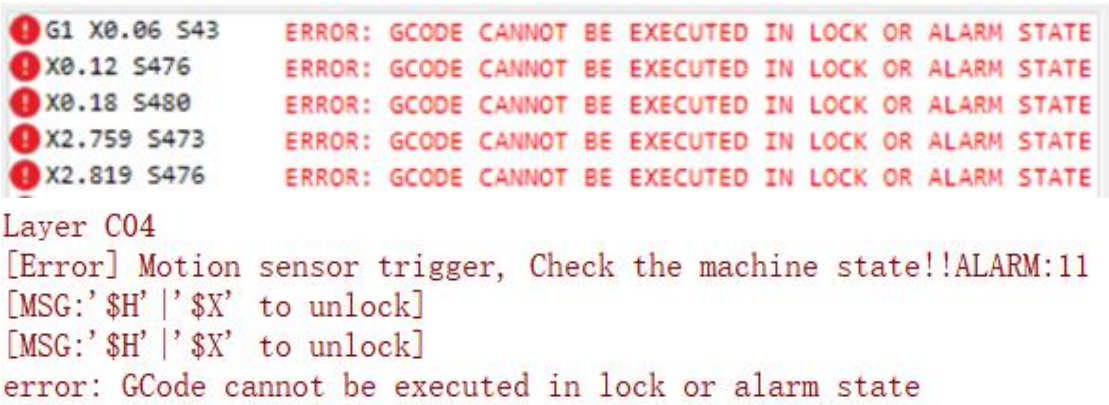
3) Need to close clustering in LightBurn



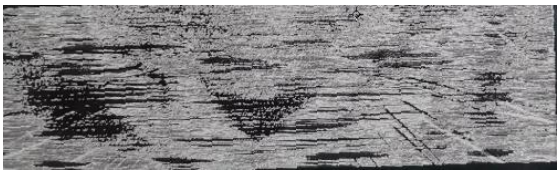
Click Device Settings, close ‘Enable GCode Clustering’.

6. There are error or alarm during engraving

Nano has built-in temperature and position sensors. If the temperature inside the laser tube exceeds a certain level or the machine tilts during engraving, the software will prompt an error or alarm, as shown in the figure. At this time, the machine will stop engraving and the indicator light will light up red.

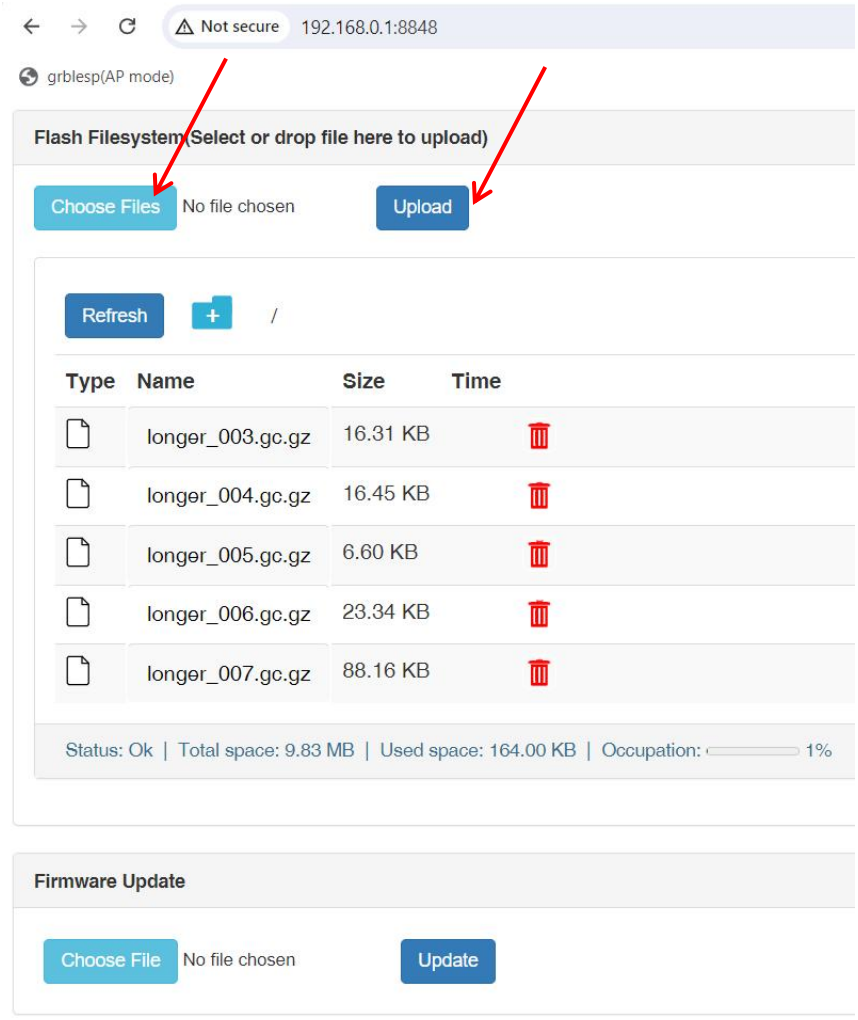


7. The engraving picture appears vibration or not smooth



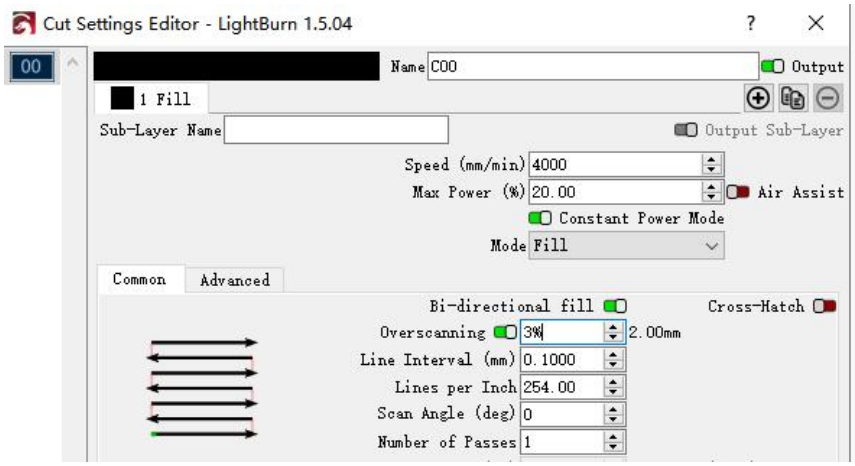
1) Engrave with LaserBurn APP or Web

When the image is a complex image with a lot of details, the amount of data transmitted by the computer is too large through the USB connection, it will lead to poor engraving effect. Please transfer the image to phone and engrave through the LaserBurn.



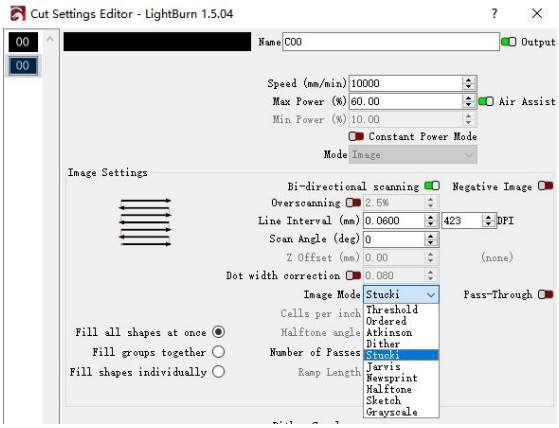
Search the WIFI network starting with LongerLaser_Nano and input password 12345678 to connect the WIFI of Nano, open the browser and enter 192.168.0.1:8848, click choose file to select nc files, and upload the file, select the file from the list click start to engrave.

2) Check if the engraving size is exceeds 100mm



Check if the engraving size is larger than 100mm. Especially when the overscaning function is turned on in the cut settings editor, the path of the galvanometer rotation during the actual engraving process will be slightly larger than the actual image size. If the actual image size plus the additional size added by the overscaning function is greater than 100mm, such as the size will increase by 2mm as shown in the figure, which will lead to poor engraving quality. It can reduce the overscaning ratio or reduce the image size so that the image size plus the additional size added by the overscaning function is less than or equal to 100mm.

3) Check the bitmap mode



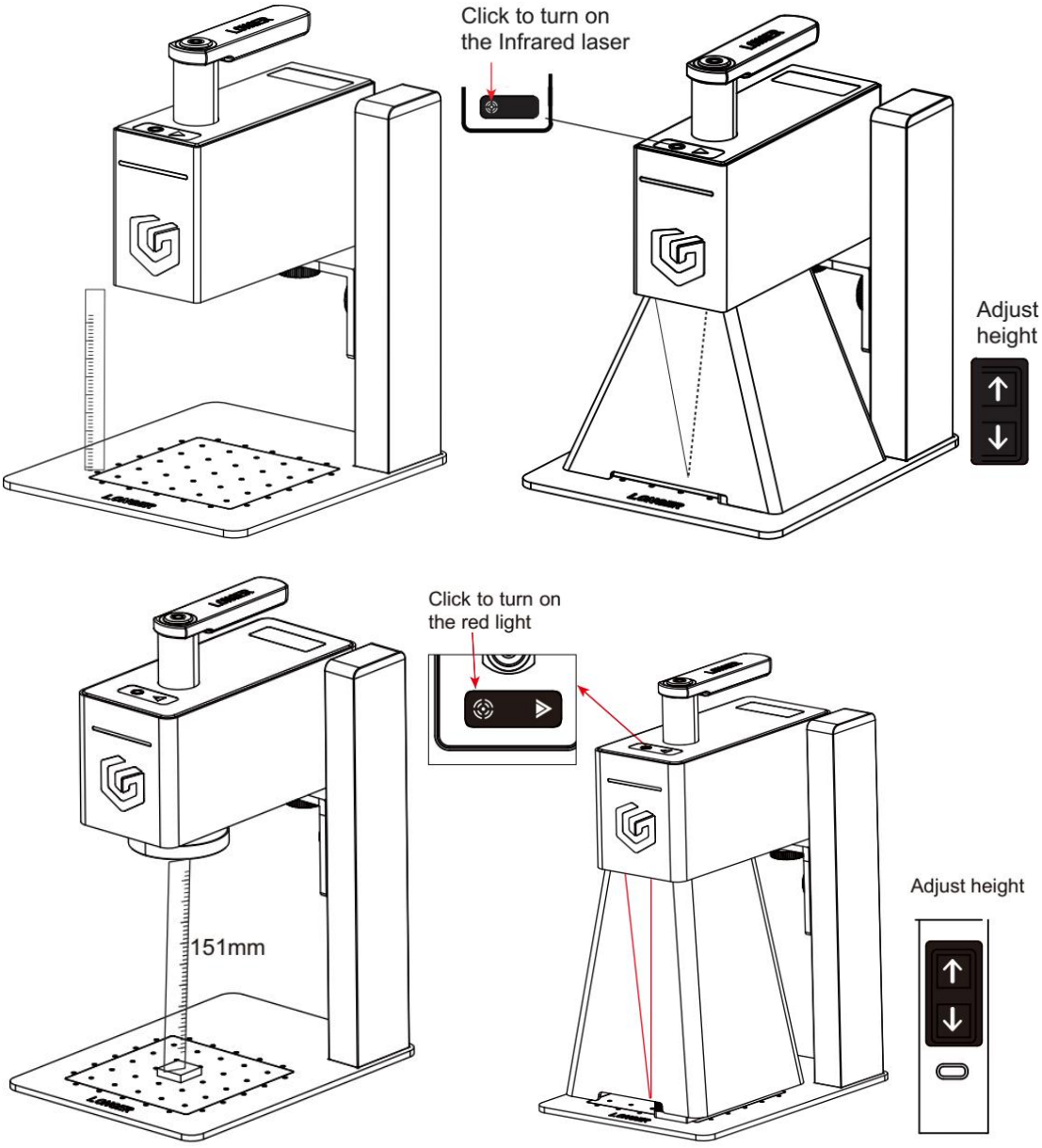
When engraving pictures, please choose among these three image modes, such as Atkinson, Stucki, Jarvis, other image modes will affect the engraving quality.

8. The engraved patterns are unclear

The failures of laser engraving mark is unclear may be due to incorrect focus, mismatch of parameters and materials, etc. Please refer to the following steps to check.

1) First make sure the focus is correct.

For Nano engraver: adjust the height of the laser unit by touching the button of the lifting bracket until the bottom of the laser unit is 110mm away from the surface of the engraved object. Or press the infrared laser button and adjust the height of the laser unit. When the two laser points overlap into one point, the focus is completed and you can start engraving.



For Nano Pro engraver: adjust the height of the laser unit by touching the button of the lifting bracket until the bottom of the laser unit is 151mm away from the surface of the engraved object. Or press the infrared laser button and adjust the height of the laser unit. When the two laser points overlap into one point, the focus is completed and you can start engraving.

2) Check if the S value in Lightburn

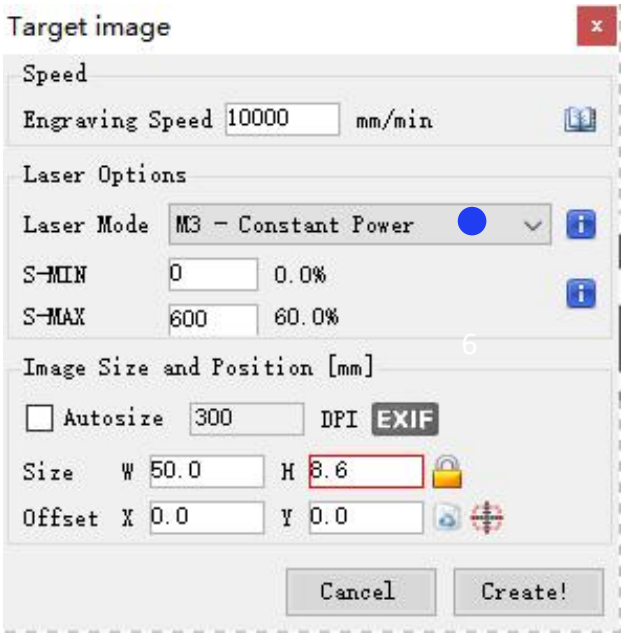
That is click Lightburn-Edit-Device Setting and check whether the S-value MAX is 1000.

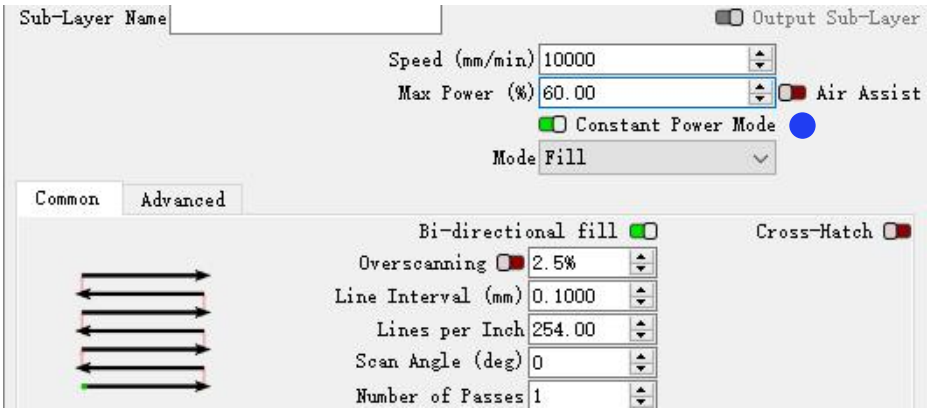
3) Check the parameters

Check whether the engraving parameters are correct, especially the speed unit, please refer to the parameter table in the SD card. And for the LaserGRBL software, the value of S-MAX is 10 times the target laser power, such as when the laser power is 100%, S-MAX needs to be set to 1000%

4) Turn on the constant power

When editing parameters, make sure the laser mode is set to constant power mode, as shown in the figure.





5) Check the window mirror or filed lens

Check whether the window mirror or filed lens of the laser head unit is contaminated. If there is contamination, it is recommended to use lens cleaning paper or a dust-free cloth soaked in alcohol to wipe gently to avoid damaging the coating.

9. How to transfer photos from PC to LaserBurn APP

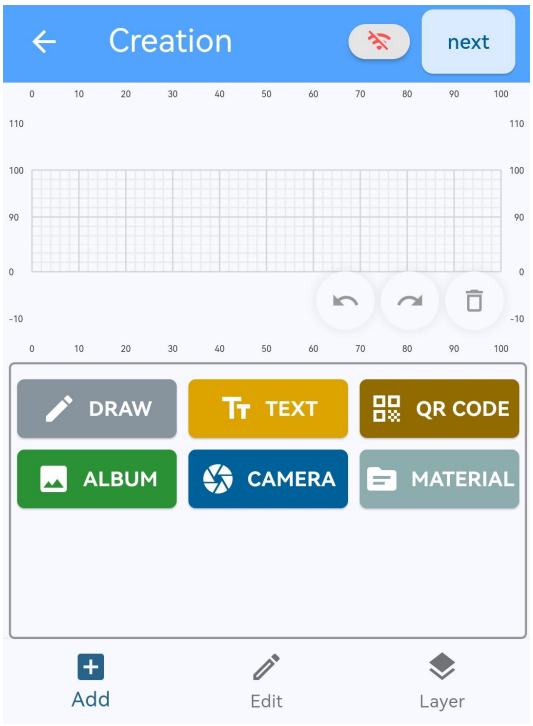
1) Transfer photos from PC to phone

For iPhone: Connect iPhone using a USB-C cable, In the iTunes app on the PC , click the Devices button near the top left of the iTunes window.

Click Photos. Select Sync Photos, then choose an album or folder from the pop-up menu.

For android: With a USB cable, connect your device to your computer. On your device, tap the "Charging this device via USB" notification. Under "Use USB for," select File Transfer. A file transfer window will open on your computer. Use it to drag files.

2) Add photos to LaserBurn APP



Run LaserBurn, click Creation > ALBUM to add photo from phone.