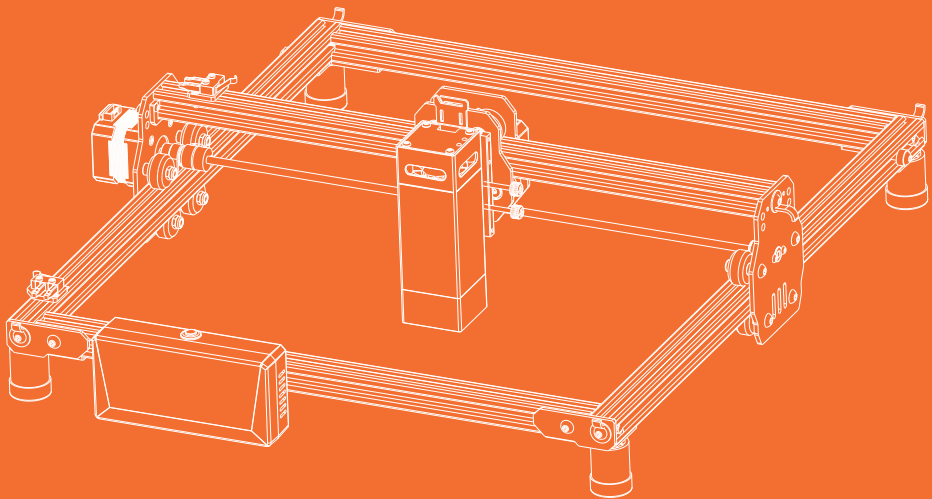# AlgoLaser DIY KIT mini

QUICK START GUIDE

Laser Engraver

Always read the instructions before you start.

3.1 Machine Status Explanation

Status	Action	LED Indicator Descriptions	Result
Power on	Hold the power button for >1500ms while powered on	he green indicator light changes from dim to bright in 1.5 seconds.	Machine powers on and quickly seeks the home position.
Power off	Hold the power button for >3000ms while powered on	The green indicator light changes from bright to dim in 1.5 seconds.	The device is shut down.
Enter upgrade mode	Perform the following operations when the device is not plugged into the 24 V power supply: Press and hold the power button, plug in the USB, wait for the power button to be lit in green, and then release the button. The ALDKM1 OTA USB flash drive is displayed on the computer screen. Drag the upgrade file to the USB flash drive, and then upgrade is performed automatically.	The device makes a "di" sound. The green indicator light flickers slowly three times and flashes once.	Success: Solid green light Failure: green light blinks
Enter network configuration	Press the power button 5 times in a row	The green indicator light stays in breathing light status for four seconds.	Machine can be configured for network settings via the app
Standby	Machine powered on and idle	Solid green light	Machine is in idle standby mode.
Working	Machine powered on and working	Solid green light	Machine is in motion and processing
Fault indicator	Machine has a fault and can't perform engraving motion	Solid green light	The machine cannot engrave there is a malfunction

3.2 Laser Indicator Light

Indicator Light	Main Status	Meaning	Note
Power	Green light	Power connected indication	Green light stays on when power is connected.
Laser	Blue light	Laser emission indication	Blue light stays on during laser emission

3.3 How to Connect the Machine to a PC

- Install the driver: Before installing the computer driver, please power on the machine and connect it to the PC using a USB cable.
  Then, choose the appropriate driver file based on your computer system and proceed with the installation.

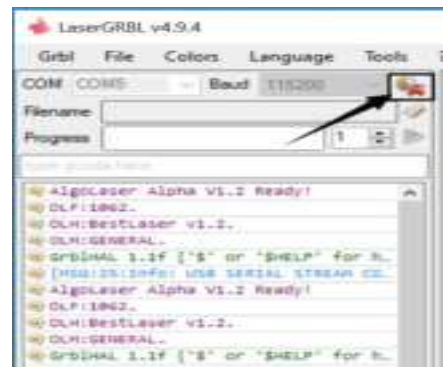| Operating System	Operation	Phenomenon
WIN 7/WIN 8	zadig-2.5.exe	To install the driver, make sure the machine is powered on and connected to the computer via USB. The installation process can only be carried out when the machine is in the powered-on state and connected to the computer.
WIN 10/WIN 11	No installation required	
Mac	No installation required	

- To check the driver installation, follow these steps:
  ① Find the Device Manager on your computer.
  ② Navigate to the Ports section.
  ③ Disconnect the USB cable from the computer.
  ④ Observe that the new serial port disappears from the Ports section.
  ⑤ Reconnect the USB cable.
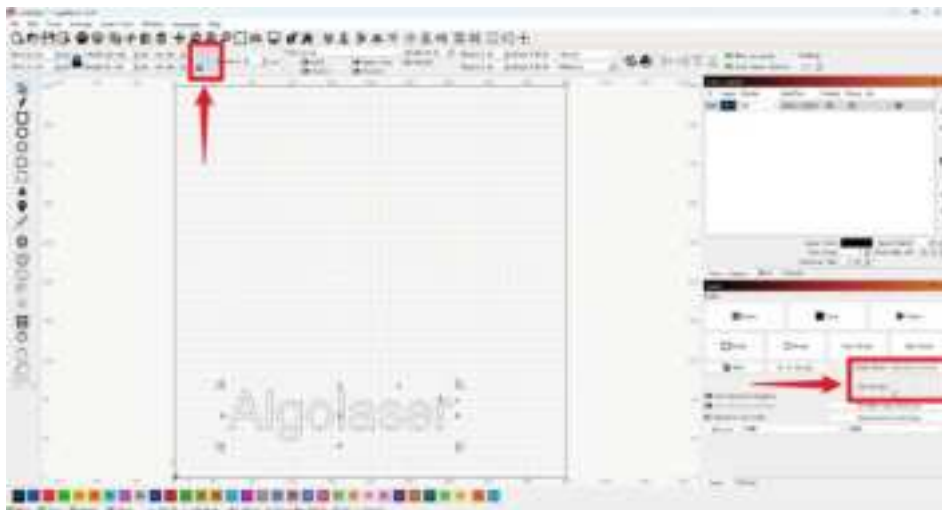 ⑥ Verify that a new serial port appears, indicating successful driver installation.

- Connecting the machine
  ① Launch the LaserGRBL / LightBurn software.
  ② Select the COM port that corresponds to the one identified in step two of the installation process.
  ③ Click on the "Connect" button.
  ④ If a welcome message appears in the command box, it indicates a successful connection.

Notice:

If you use Lightburn for the first time, in order to operate logic with the Algola-Ser machine, be sure to choose the following two positions as the lower left corner.
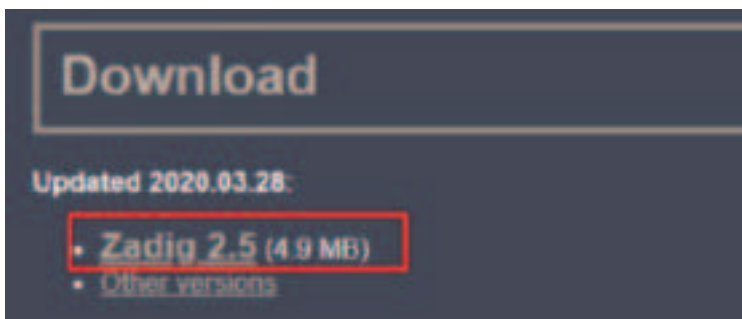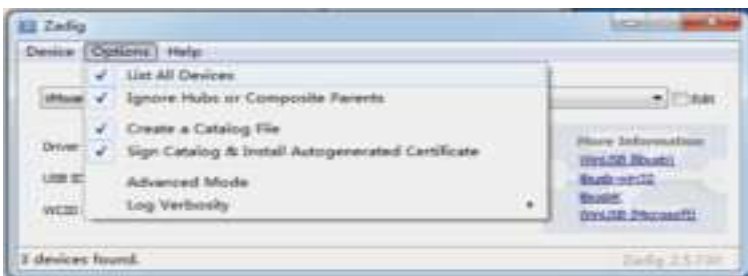
Win7 & Win8 Driver Installation Tutorial
Resolution for Driver issues on ESP MCU Espressif CDC Device Error

- Visit **https://zadig.akeo.ie/**
  Navigate lower on the page and click The download button

- Once open select List All Devices from the menu Options.
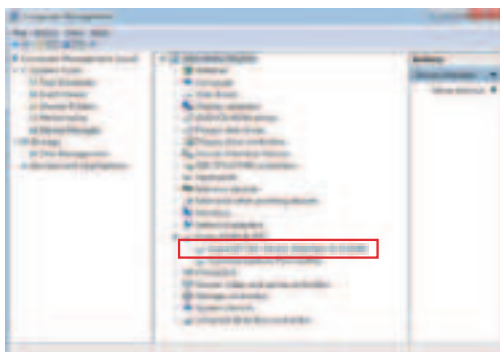

Wait for the refresh

- Select Espressif CDC Device (Interface 0) from the drop-down list.

- Select USB Serial (CDC) from the list of drivers available, click the Install Driver button, and wait for the installation to complete.
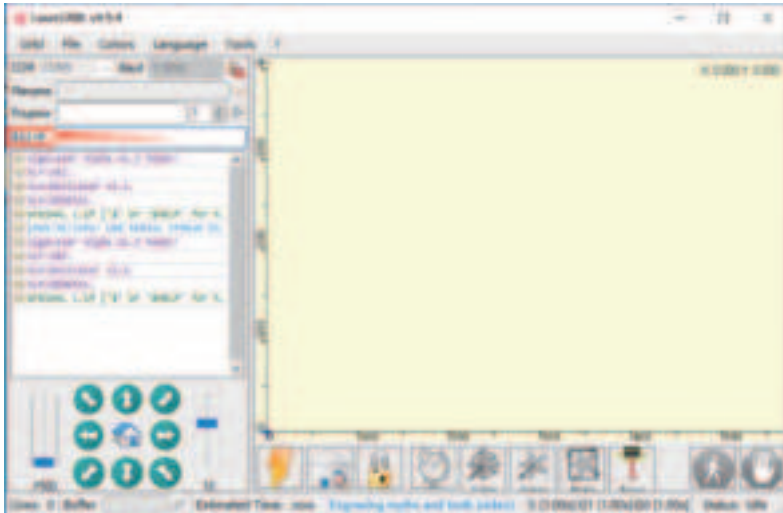

- When you're done, you can close the Zadig software

- The New AlgoLaser X CDC (Interface 0) (COMX) port in Device Manager. Note the COM number might be different in your machine

3.4 RR2/ARC Connection -- Operation Description

- Connection: Unplug the Y-axis motor wire from the Y-axis motor and connect it to the corresponding motor jack of YRR/YRC.
- Connect the control terminal: Use USB or other methods to connect the computer.
- LaserGRBL: Send "$22=0" in the "Type gcode here "field

- LightBurn: Send the command "$22=0" in the "(Type Commands here)" field.

3.5 Connect the app to the device

Download the app (use your phone to scan the QR code below to download and install the app; or search for the app name "AlgoLaser" in the mobile app store.)

 Google Play

 App Store

① WiFi network configuration: (Note: Currently, Android phones need to be connected through AlgoLaser in Other.)
Follow the mobile app operation guide to connect the device to WiFi:
How to enter network configuration mode: Quickly press the device power button five times. The green indicator light of the device changes to a breathing light and makes a "di" sound.
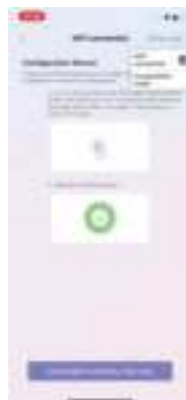
② Compatibility mode: (Currently, only iPhone supports this mode.)
Follow the mobile app operation guide to connect the device to WiFi in compatibility mode.
How to enter compatibility mode: Quickly press the device power button three times. After the device makes a "di" sound, press and hold the power button until the device makes a "di" sound again.

①

②

White light

- **WiFi network configuration: (Note: Currently, Android phones need to be connected through AlgoLaser in Other.)**
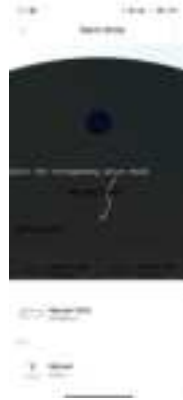
① Connect to the LAN WiFi, open the app, and tap the card on the top of the homepage to enter the device connection page.

② Select Unconnected during the wizard. If the device has been connected to the network, wait for the device to be found.

③ For an Android phone, tap AlgoLaser in Other to connect to the network. For an iPhone, tap Dit kit mini to connect to the network.

④ Enter the WiFi name and password for the connection, and tap Next.

① ② ③ ④

⑤ Quickly press the device power button five times. The green indicator light of the device changes to a breathing light and makes a "di" sound.

⑥ After completing Step 5, tap Next to enter the next step. The device automatically enters network configuration mode.

⑦ Wait for the network configuration to complete, and then it automatically redirects to the homepage.

⑧ After the network configuration is completed, the basic device information is displayed on the top card.
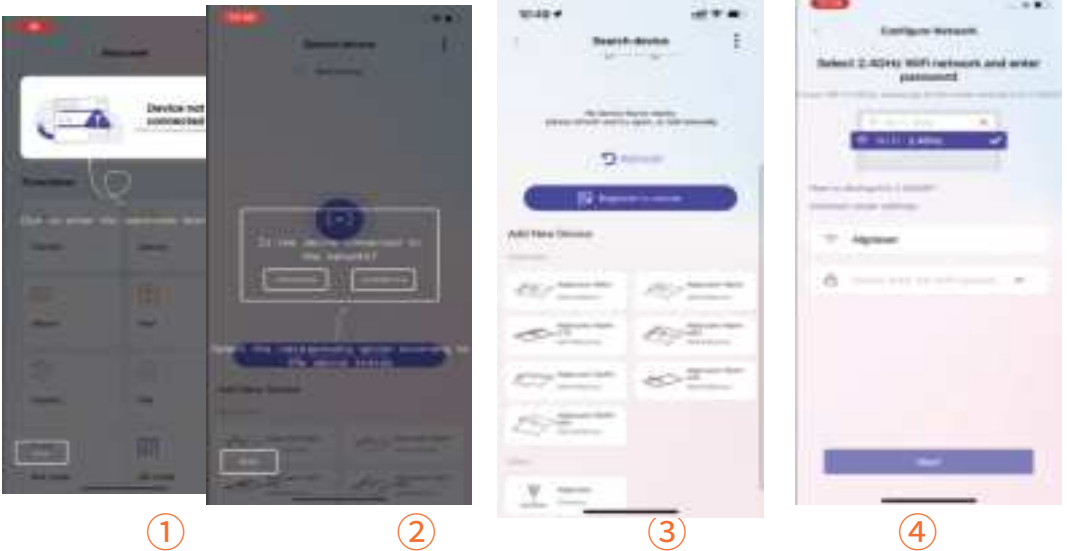

⑤   ⑥   ⑦   ⑧

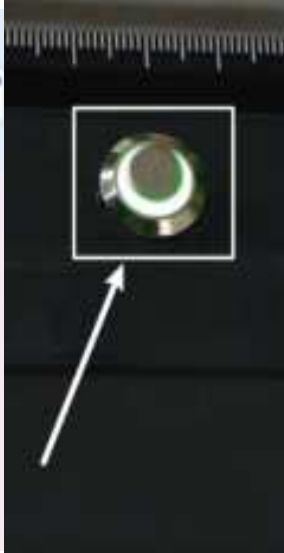- **Compatibility mode: (Currently, only iPhone supports this mode.)**

① Connect to the LAN WiFi, open the app, and tap the card on the top of the homepage to enter the device connection page.

② Select Unconnected during the wizard. If the device has been connected to the network, wait for the device to be found.

③ For an Android phone, tap AlgoLaser in Other to connect to the network. For an iPhone, tap DitKit Mini to connect to the network.

④ Enter the WiFi name and password for the connection, and tap Next.

⑤ Select Compatibility mode in Other way in the top right corner of the page.

⑥ Quickly press the device power button three times. After the device makes a "di" sound, press and hold the power button. Then, the device makes a "di" sound again.

⑦ As shown in the figure, go to the mobile wireless LAN page to connect to WiFi.

⑧ Select the WiFi of ALDKM1_PROV_xxxx for connection.

⑤

⑥

⑦

⑧

⑨ Wait for network configuration in compatibility mode to complete.

⑩ If the connection is not completed, tap connect to redirect to the wireless LAN page.

⑪ If the WiFi connection is incorrect, select the configured WiFi for reconnection.

⑫ After network configuration in compatibility mode is completed, the basic device information is displayed on the top card.
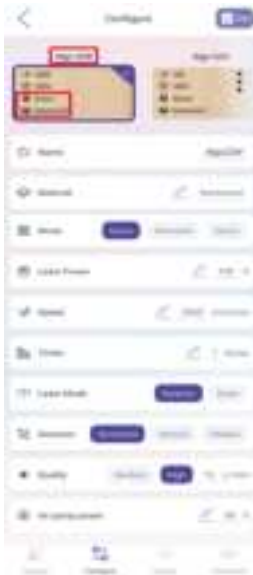

⑨

⑩

⑪

⑫

- Let's import an image to try a full engraving.

- Click the "Library" to access the app's Library page. Select the pattern that you want to engrave.

- Enter the picture editing page, first-time users, directly skip and click NEXT for the next step.

- After accessing this page, adjust the image size for engraving. Select the boxed button in the figure and allow the machine to move slightly, determining the appropriate imaging size and location of the engraving trajectory.

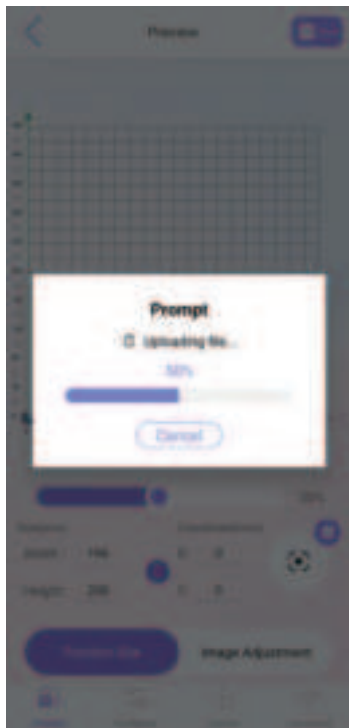- Click "Configure" and access to the configuration page.

- Set the parameters for engraving on the "Configure" page. There are plenty of pre-set parameters available for the AlgoLaser. Simply locate the appropriate preset and click to select it.
  a. "Algo 22W" boxed in red.
  a) Indicates a 22W laser module.
  b. "Scans" , "basswood" boxed in red.
  a) For engraving, choose the "Scans" mode.
  b) "Basswood", choose the appropriate wood based on the specific situation, whether it be basswood or another suitable option.
  (Note: If there is a discrepancy between the engraving parameters and the desired effect, adjust the parameters accordingly.)

- Click "Start" in the upper right corner to proceed. Check if the laser module is focused. If not, refer to the manual for instructions on focusing.
  If already in focus, click "Checked" to the next step.

- Prompt for selecting the starting point of the laser module engraving: click "Start" for the next step the first time.

• Wait for the image conversion to finish.

• Click the "Run" button to start engraving.

3.6 FAQ

No response from the machine when being powered on.

- No power supply: Please check the socket and switch as well as the machine power socket to ensure that they have been correctly plugged with normal power supply.

It cannot be connected to computer.

- USB cable not connected: Please check the USB data cable interface on the machine and computer to ensure it's correctly plugged.The USB interface on the front panel of some desktop computers is invalid, it's better to connect to the interface on the back.
- Driver not properly installed: Install the driver according to the instructions. After the installation is done, the computer will recognize the device as a serial port,which means the hardware connection is OK.
- Other special problems:Pull out the USB data cable and power cable, keep the machine power off for 5 seconds and then try the connection once again.

No response from the phone APP when being connected to the machine.

- Wrong Bluetooth connection: Make sure it's connected to the Bluetooth released by the machine. Please read "App Connection" in the User Manual for details.
- Incompatibility: In the case of abnormal connection due to incompatibility of newly-released phone or upgraded system, please contact our customer service with the screenshot of phone configuration so as to get technical support as soon as possible.

Shallow engraving effect or no traces.

- Inaccurate focus: Refer to the "Focus Adjustment" in the User Manual to make the correct focus.
- Engraving speed: Too fast speed is due to short burning time.Please read the"Engraving Parameters" in the Manual to readjust the parameters.
- Photo color is too light: The photo added should be clear. If the line is too thin or the color is too light, the engraving effect will be directly influenced.
- Position of object to be engraved: If the object is placed obliquely, the focal length of laser is fixed,so the object should be placed horizontally in parallel to the machine; otherwise, the inaccurate focal length will result in bad engraving effect.

Offline engraving unexpectedly stops

- The photo is not completely downloaded when being connected to computer, please download the photo once again.

AlgoLaser

Follow us! **#AlgoLaser**

- ▶ AlgoLaser
- f AlgoLaser
- f Official AlgoLaser User Group

- ⊙ AlgoLaser
- 🐦 AlgoLaser

---

https://algolaser.com/support/

MADE IN CHINA

https://algolaser.com/support/

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.
-This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.