D1 Pro FAQ

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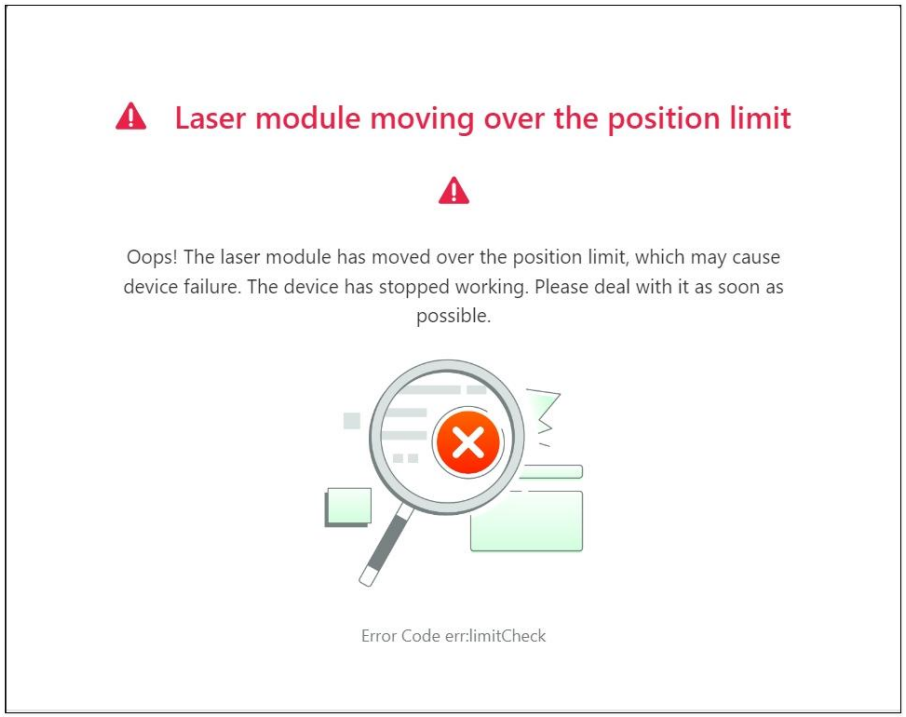
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The Position Limit Won't Work

Issue Description

D1 Pro is equipped with position limit switches. When the laser module moves close to the machine frame, the sensor on the switch will be triggered to prevent a collision. This will also trigger the buzzer and an alarm message will show on the XCS software.

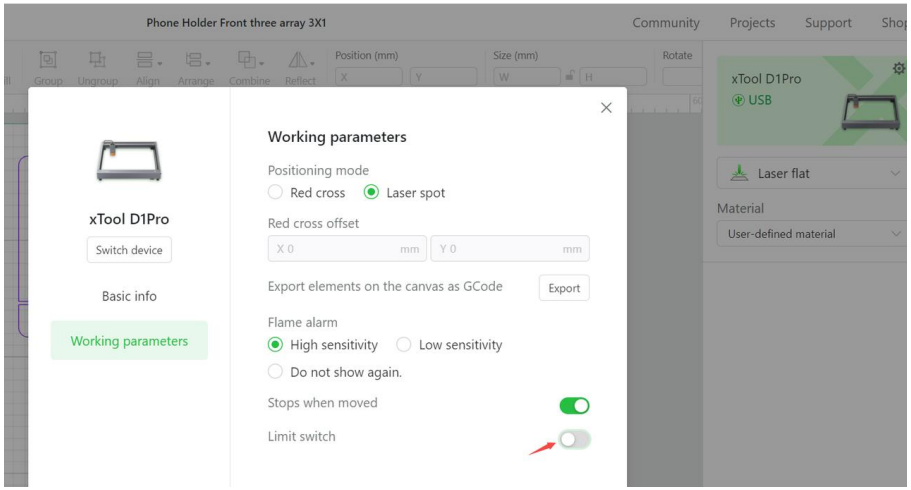
If the buzzer is not triggered when the laser module hits the frame during processing or homing, it could be a limit switch issue. Please follow the instructions below to troubleshoot.



#1 Check the XCS Setting

Check if the limit switch is disabled in the XCS setting.

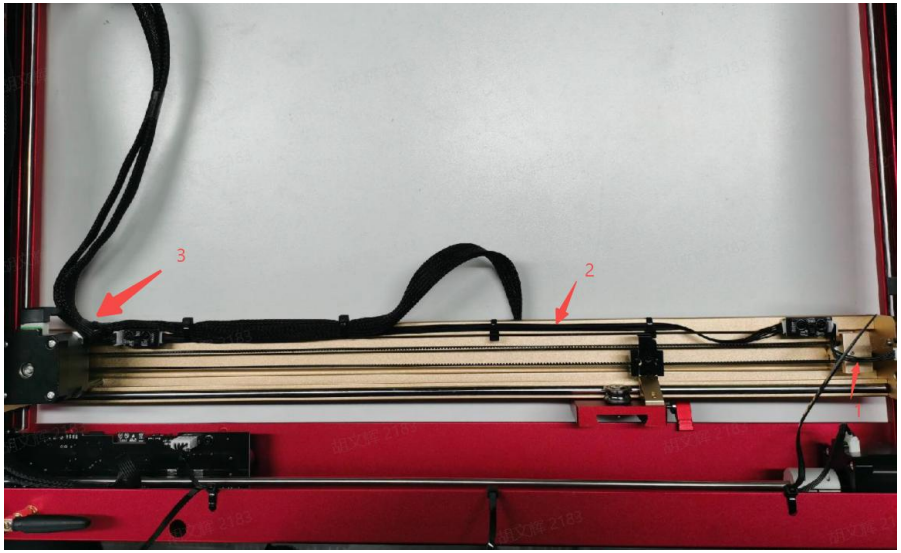
Please refer to the picture below to enable it.



#2 Check the Connection Cable

On the motherboard, there is a yellow port for the limit switch cable (shown in the picture below). Make sure the cable is fitted in the port properly, otherwise a signal may not go through, and the position limit won't work.

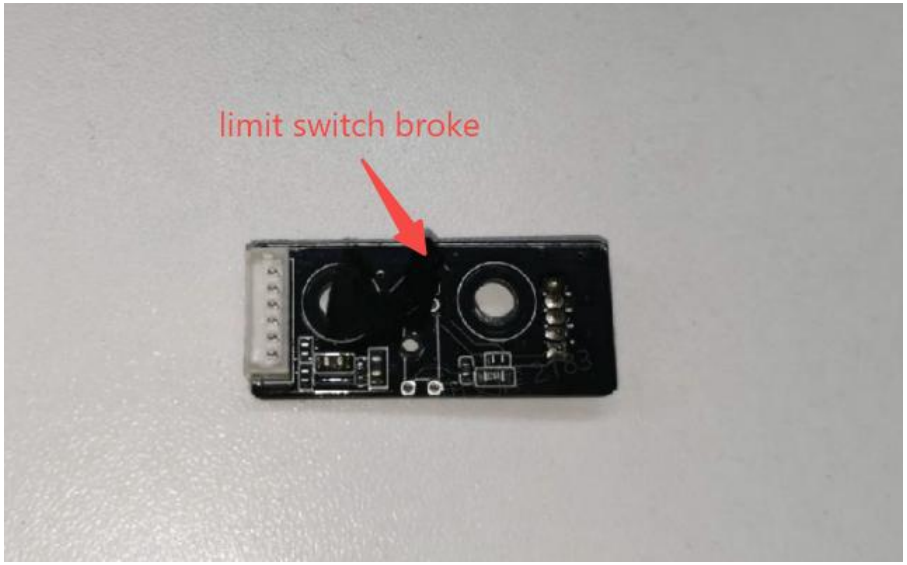

makeblock



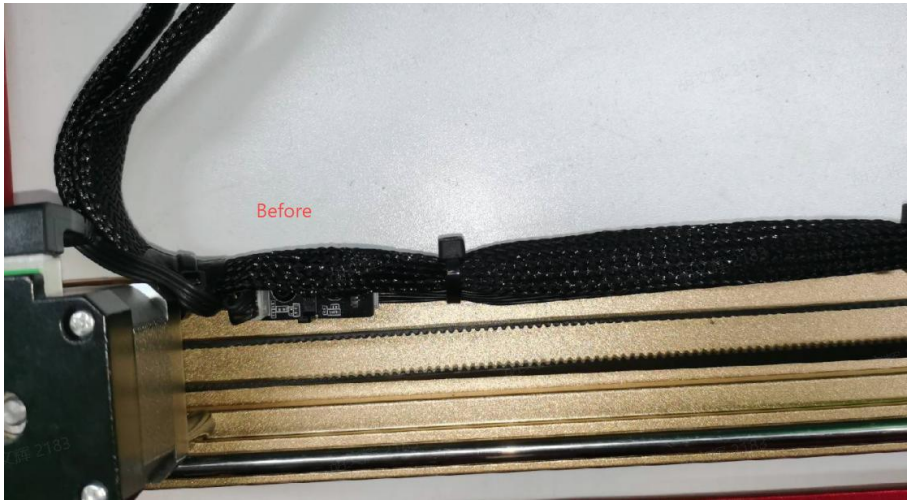
In case the cable is loose, power off the machine, replug the limit switch cable, turn it back on, and see if it works.

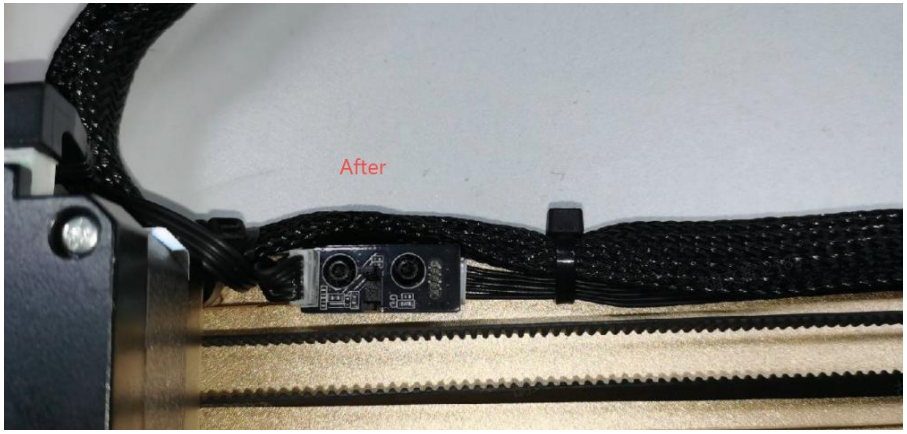
#3 Check the Limit Switch

On each of the limit switches, you will find a fork-shaped sensor. It's for the trigger piece to go in and create a signal. If the sensor is broken, it won't be able to detect the trigger piece. In this case, please contact us and send us videos or photos to confirm. We will see if a replacement is needed.



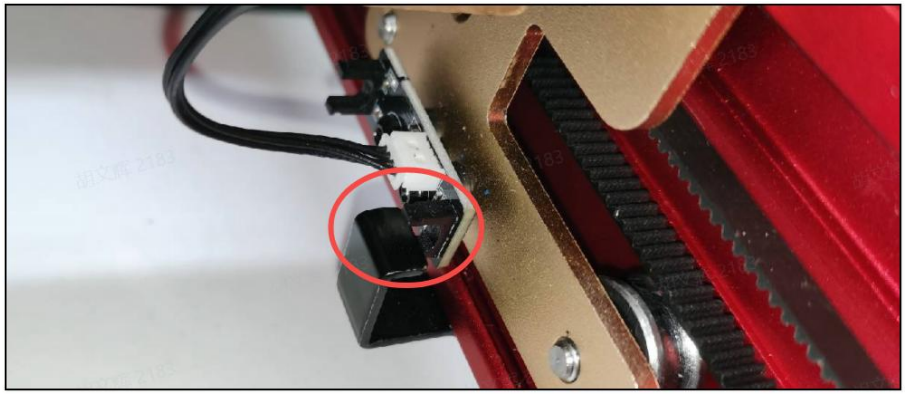
If something is in between the limit switch and the trigger piece, or if the sensor is stained, it may not detect the trigger piece. If that's the case, please refer to the pictures below to reroute the cables or clean the sensor.


Before


After

#4 Check the Trigger Piece

For the position limit to function properly, the trigger piece must be able to enter the space between the fork-shaped part (shown in the picture below). If the relative position of the two is not correct, the signal can not be formed.



To make sure they can be in the right relative position, please check:

If the trigger piece is bent or distorted.

If the trigger piece is set to the right position level in accordance with the laser module.

For more details, refer to the link below.

Adjust the Y-Axis Limit Trigger Piece

If None of the Above Works

If you have followed the instructions above and the issue is still not resolved, please read the article in the link below, collect the troubleshooting steps you have taken, and contact xTool tech support for further advice.

Help Tech Support Troubleshoot Faster

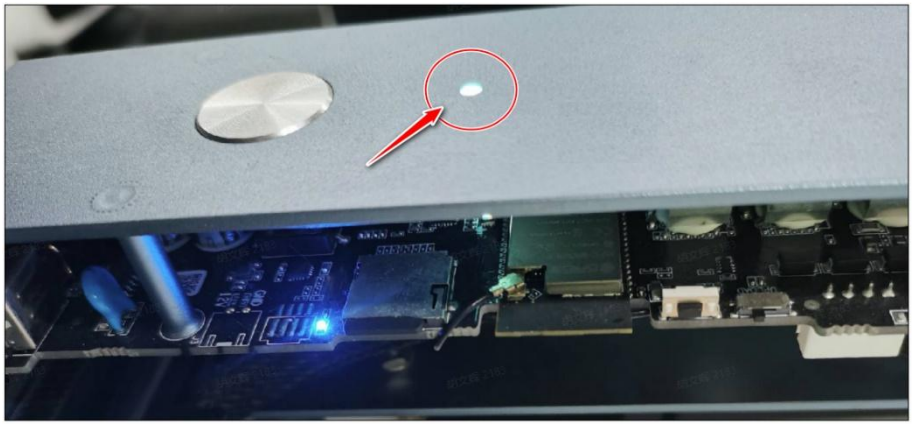
Understand the Machine Status by the Indicator

This article applies to:

D1 and D1 Pro with all laser modules.

On the frame, you can find an LED indicator next to the Start button.

It tells you the status of the machine with solid or flashing colors.



You can also refer to this video introduction:

https://youtu.be/pf_gSVmGMwA

What it looks like	What it means
Solid White	• The Machine is standing by. • The Wi-Fi connection is not configured.
Solid Green	• The Machine is standing by. • The Wi-Fi connection is configured.
Flashing Blue	• The machine is processing.

	• The machine is framing.
Flashing Red	• The machine is moved during processing. • No processing file can be found on the TF card. • The TF card is missing.

Adjust the Y-Axis Limit Trigger Piece

This article applies to:

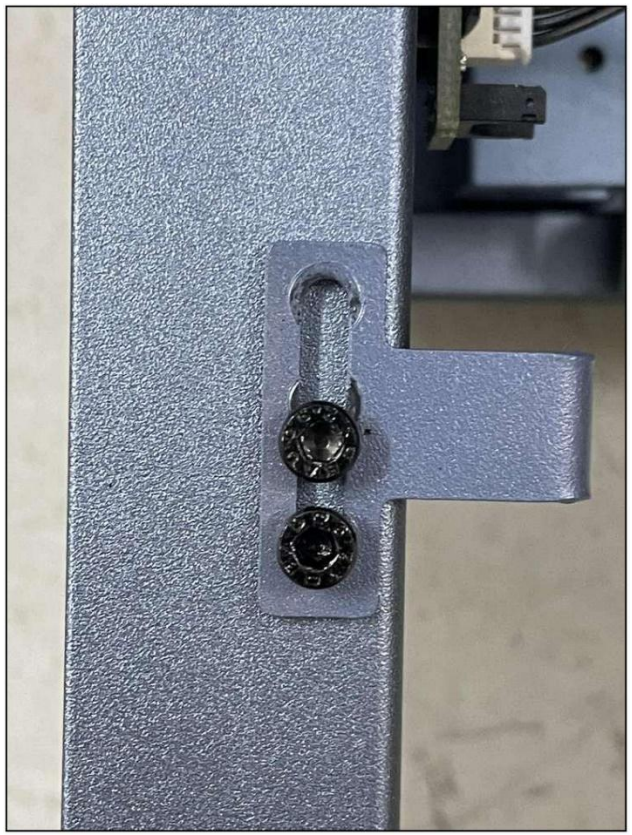
D1 Pro with all laser modules.

When you assemble the D1 Pro machine, you may notice that the position limit function relies on both the limit switch and the trigger piece.Only when the trigger piece goes under the sensor, the motherboard can then detect that the laser module is moving off-limit and set off the alarm.

Due to the different sizes of the laser modules, the position of the trigger piece on the Y-axis needs to be adjusted accordingly. You can refer to the photos below to find the correct level.

1. If you are using the original trigger piece:

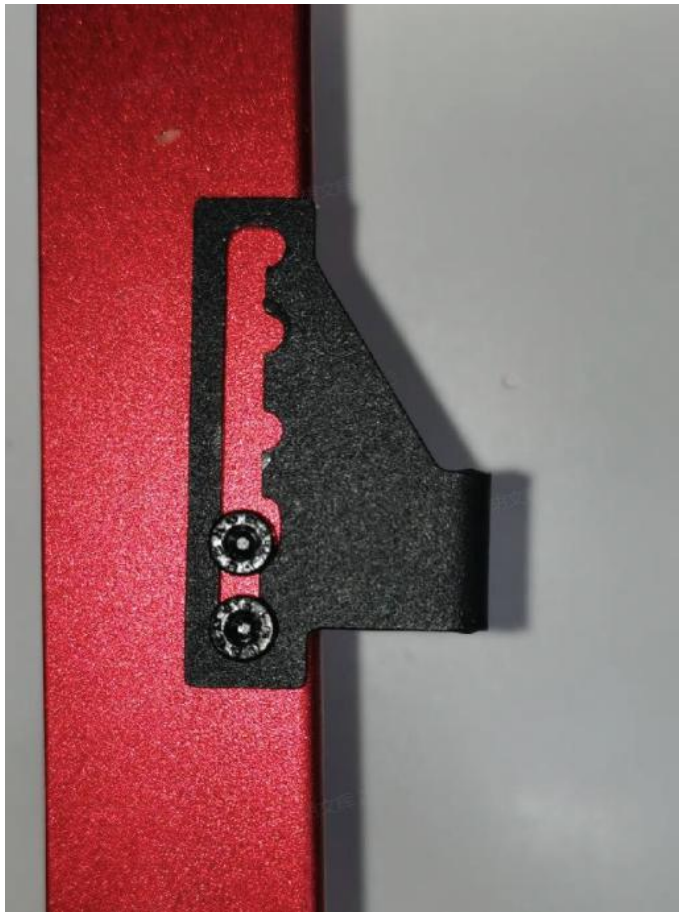
- For the 20W laser module



- For the 5W and 10W laser modules



2. If you are using the new trigger piece that comes with the 40W laser upgrade kit:
    - For the 40W laser module



- For the 20W laser module



- For the 5W and 10W laser modules



The Laser Module Jitters During Processing

This article applies to:

D1 and D1 Pro with all laser modules.

Issue Description

If you find the laser module to be shaky or jittering during the movement, please follow the instructions below to troubleshoot.

#1 Check the Connection Method

Please try the Wi-Fi connection mode. If the machine is connected through USB, the computer generates data in real-time and transfers it to the device for processing. This may cause the laser module to jitter.

#2 Check the Computer Performance

The performance requirements:

	Minimum	Recommended
Processor	Intel Core i5-6200U	Intel Core i5-11600
OS	Win10 (64bit) Mac 10.14	Mac 10.15
RAM	8GB	16GB
Display	1280*720	1920 x 1080
Hard Disk Space	8GB	12GB

#3 Check the Stability of the Machine

Make sure the machine is placed on a level and steady surface, for example, on flat ground, or on a steady and level table.

#4 Check the Risers

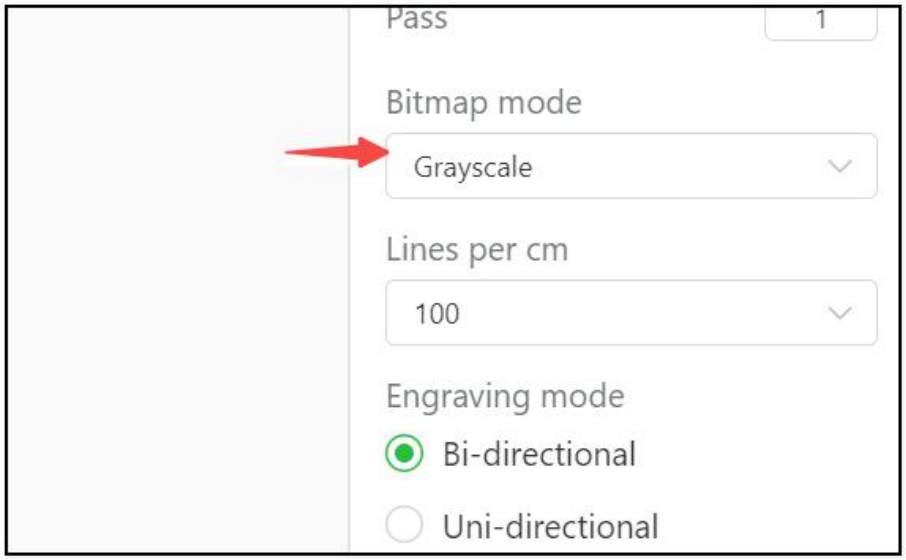
Take off the risers. This will lower the center of gravity and make the machine more steady.

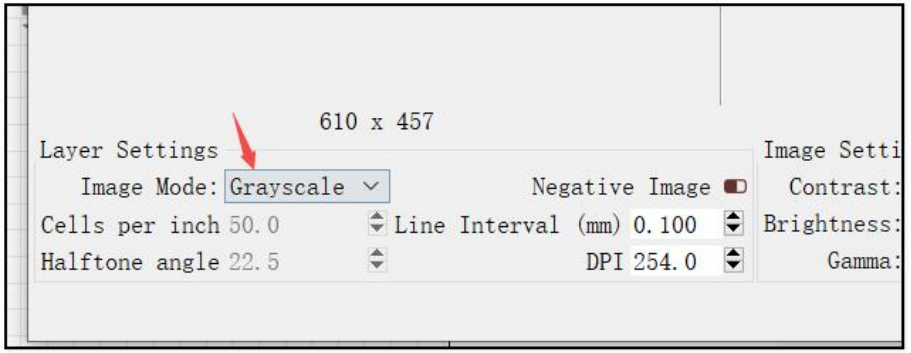
#5 Check the Processing Speed

Lower the processing speed to under 100mm/s for better processing results.

#6 Check the Bitmap Mode

If you are processing a bitmap image, DO NOT use Grayscale mode.


Pass
1
Bitmap mode
Grayscale
Lines per cm
100
Engraving mode
Bi-directional
Uni-directional


610 x 457
Layer Settings
Image Mode: Grayscale
Negative Image
Cells per inch 50.0
Line Interval (mm) 0.100
Halftone angle 22.5
DPI 254.0
Image Setti
Contrast:
Brightness:
Gamma:

If None of the Above Works

If you have followed the instructions above and the issue is still not resolved, please read the article in the link below, collect the troubleshooting steps you have taken, and contact xTool tech support for further advice.

Help Tech Support Troubleshoot Faster

The Laser Power Drops Unexpectedly

This article applies to:

D1 and D1 Pro with all laser modules.

Issue Description

Sometimes you may find the engraved or cutting results are not as good as before, as if the laser suddenly gets weak somehow. For example, you never change the processing parameters for the same material, but the

engraved result gets shallow. Please follow the instructions below to troubleshoot.

#1 Check the Protective Lens

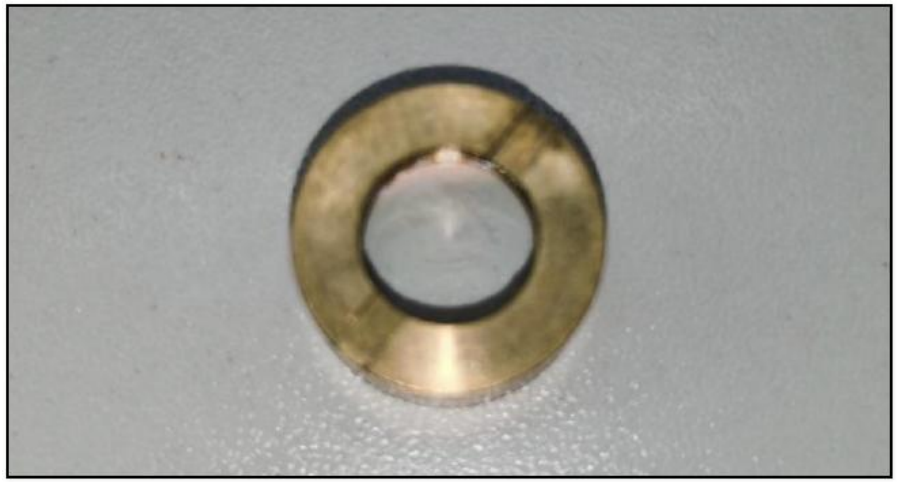
The laser produces fumes for processing certain materials, so the lens can easily get stained and blocks the laser.

Take off the protective lens (aka the brass cover) from the laser module.

Clean it with the xTool maintenance pack or a dust-free cloth with alcohol. See this video for details: How to Clean the Protective Lens

If you need to laser something for a long time, it is advised to clean the lens once per hour.

If the protective lens is burnt beyond cleaning, replace it with a new one.



#2 Check the Inner Lens

There is another lens behind the protective lens. This is called the inner lens. If the fumes reach it, the laser can also be blocked.

Check if the lens is stained. Clean it the same way as mentioned in #1.

Check if the inner lens is damaged or burnt badly. If so, replace the entire laser

module. 

#3 Check the Air Nozzle

If you are using a machine without an air pump, it is recommended that you put a sticker on the air inlet of the nozzle.

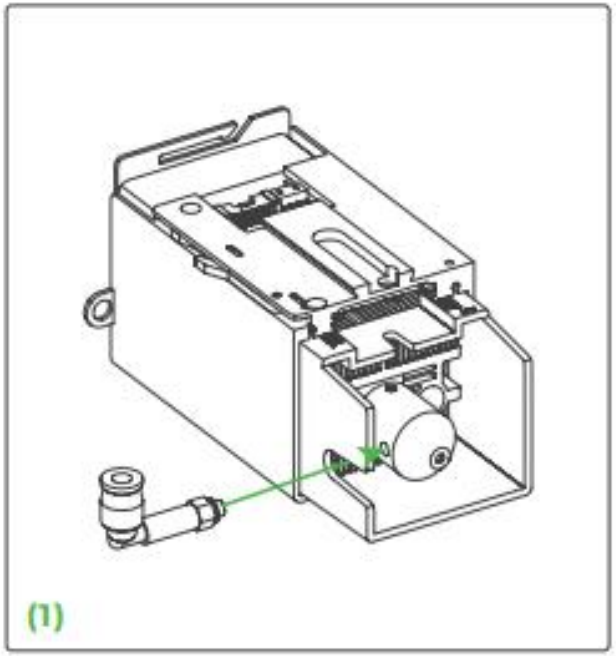
Otherwise, dust is more likely to adhere to the lens and accumulate around the exit of the laser beam, causing

power degradation and thus affecting processing performance.

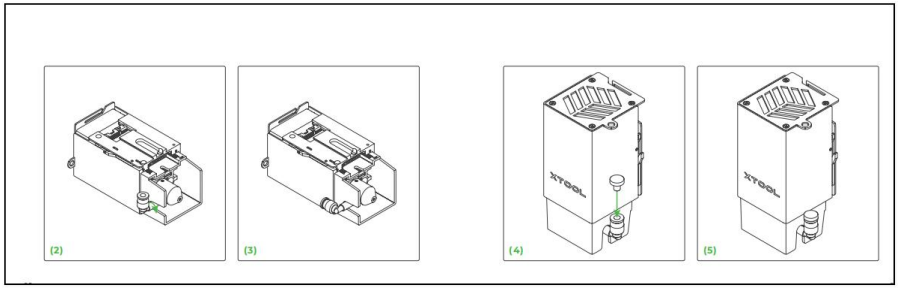
- Check if the air inlet is properly blocked.
- Check if the air nozzle plug is installed. If not, refer to the picture below.
- Clean the air nozzle regularly.

1





(1)



#4 Check the Firmware Version

This problem may occur when the machine's firmware version is not up to date. Please refer to this link to check whether your machine's firmware is up to date.

Help Tech Support Troubleshoot Faster

#5 Check the Voltage Readings

If you have a multimeter, please follow the instructions below to test out the voltage.

Disconnect the power cable and test the output voltage of the adapter according to the photo below.

For D1: 12V

For D1 Pro 5W/10W: 24V

For D1 Pro 20W/40W: 25V

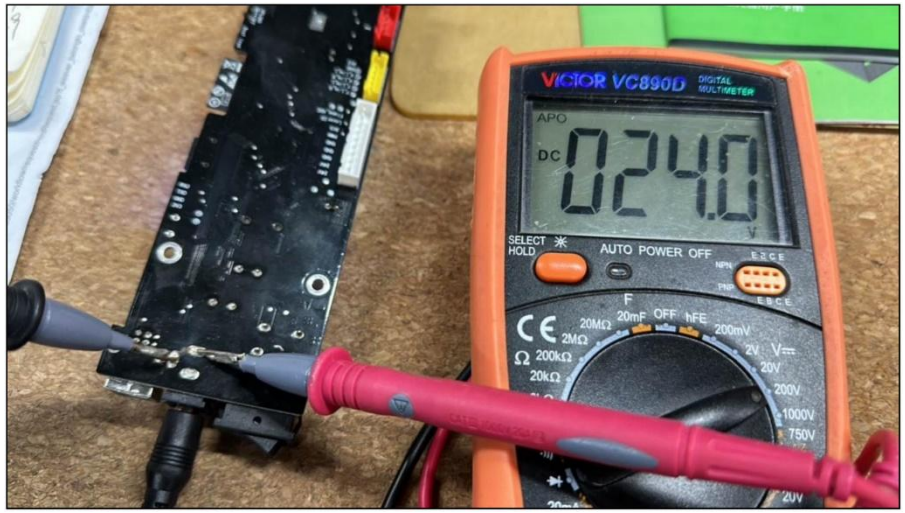


Reconnect the power cable and test the input voltage of the motherboard according to the photo below.

For D1: 12V

For D1 Pro 5W/10W: 24V

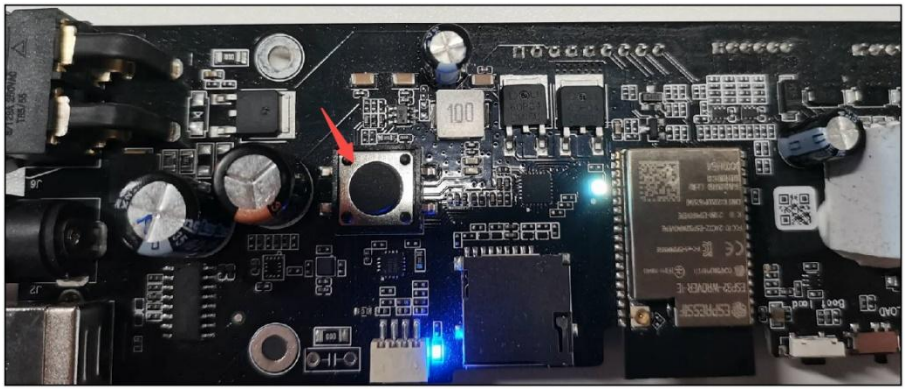
For D1 Pro 20W/40W: 25V

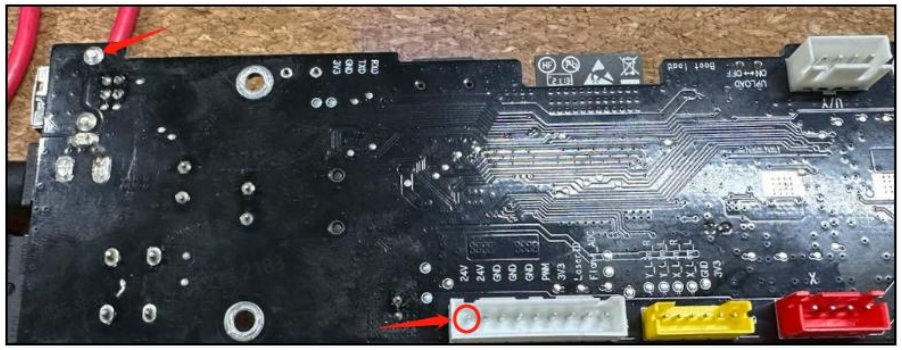


Press the button on the motherboard and test the output voltage between the motherboard and the laser module.

For D1: 12V

For D1 Pro 5W/10W/20W/40W: 24V





If None of the Above Works

If you have followed the instructions above and the issue is still not resolved, please read the article in the link

below, collect the troubleshooting steps you have taken, and contact xTool tech support for further advice.

Help Tech Support Troubleshoot Faster

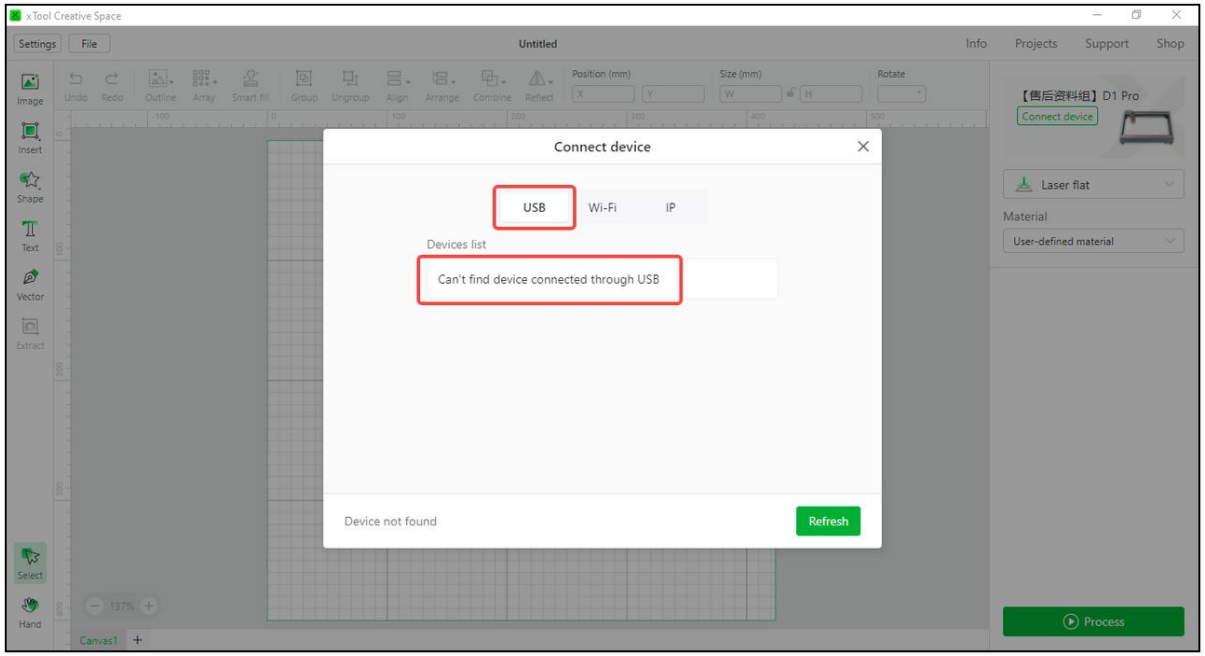
XCS Can't Find Device Through USB

This article applies to:

D1 and D1 Pro with all laser modules

Issue Description

After connecting the machine to the computer with a USB cable, the machine's name can't be found in the device list under the USB option in XCS, as shown below.



#1. Check the CH341 Driver

It could be the driver program needed for the connection is missing or not installed properly.

For computers using Windows, or macOS lower than the 10.15 version, XCS may prompt you to install the driver.

If not, try the following instructions to install the driver manually.

For the macOS version that is 10.15 or higher, you don't need to install the CH340 driver.

Download the installation packages below:

Windows: https://res-us.makeblock.com/xtool/driver/win/CH341SER.EXE

Mac: https://res-us.makeblock.com/xtool/driver/mac/CH34x_Install_V1.5.pkg

After the installation, please check the COM port:

Windows OS

Connect the machine to the computer using the USB cable that comes with the product.

Download and install the CH341 driver(clickable). You may need to reboot your computer during installation.

Please follow the installation instructions to ensure that the driver is installed successfully.

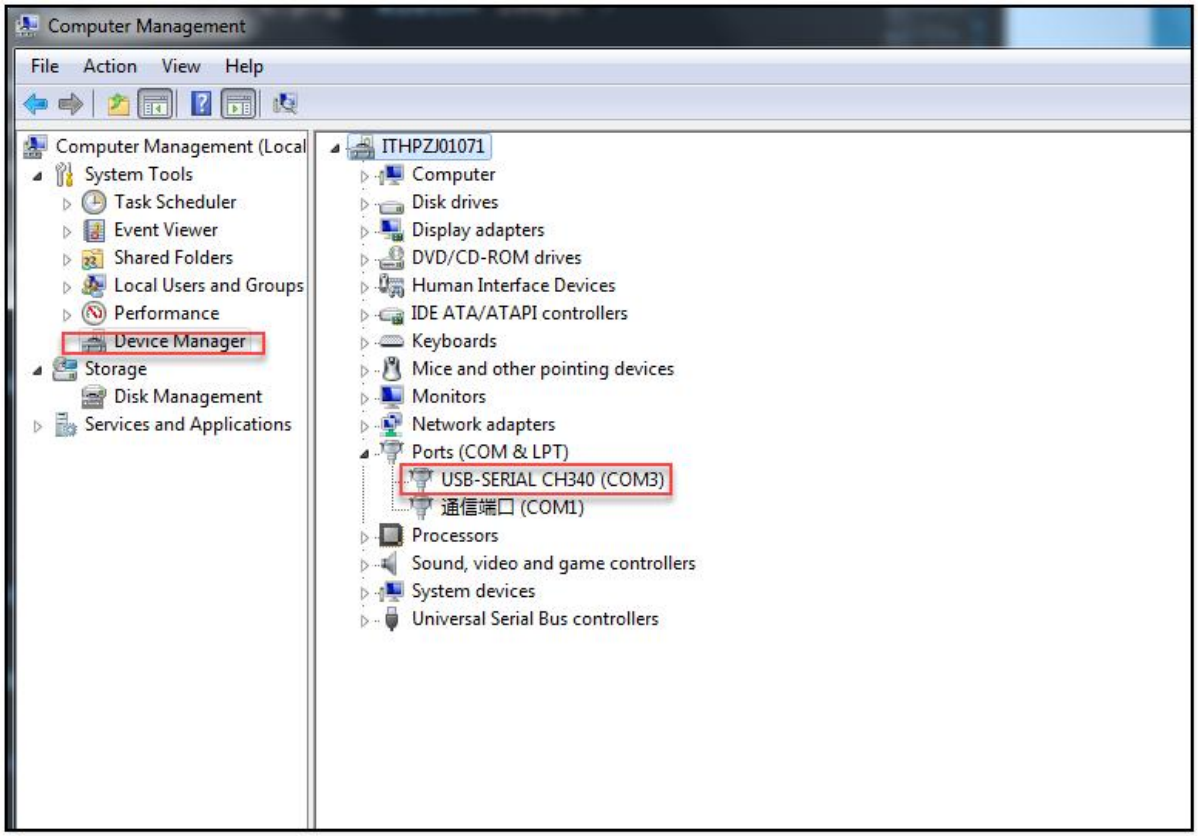
Contact xTool technical support if an error message appears during the installation.

Go to the Device Manager and see if the driver is installed successfully.

Right-click on the desktop and select [Manage].

Select [Device Manager], click on [Port], and check if there is a COM port named CH340 (which means your device has been successfully recognized by the computer).

If there is no COM port displayed, please refer to Step #2 to troubleshoot.



If you can see the CH340 COM port in Device Manager, but your device is still not recognized in XCS, the driver may be blocked by the security software. In this case, please turn off the firewall or other security software and reinstall the driver.

macOS

Connect the machine to the computer using the USB cable that comes with the product.

Download and install the CH341 driver (clickable). You may need to reboot your computer during installation.

Please follow the installation instructions to ensure that the driver is installed successfully.

Contact xTool technical support if an error message appears during the installation.

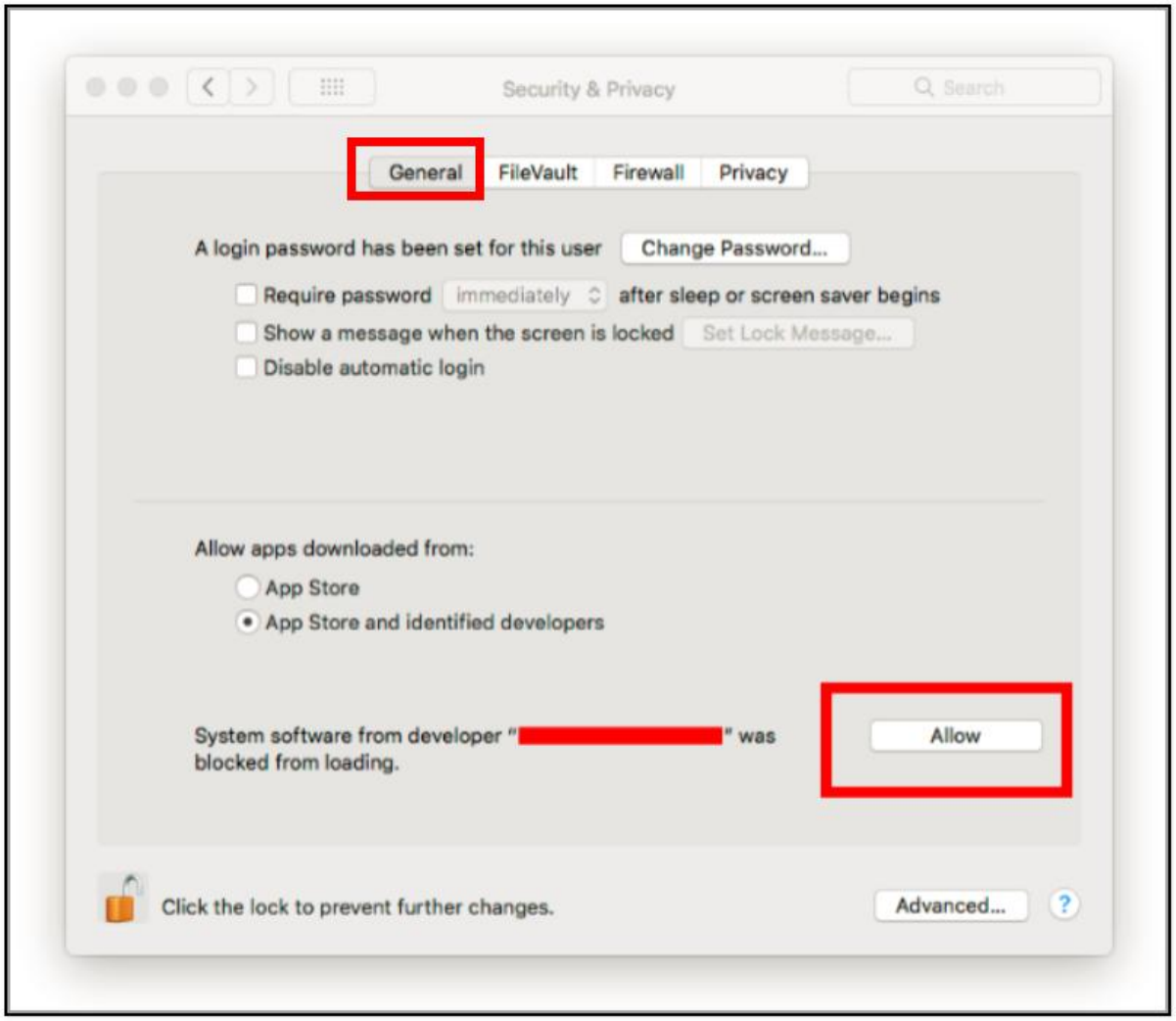
Restart the computer and refer to the path: System Preferences -> Security & Privacy -> General -> Allow.

Give permission to load the CH341 driver. During the operation, you may need to restart the computer. Please follow the on-screen instructions.

Reconnect the device, by which time XCS should be able to find your device.

If the Allow button somehow won't work, please read on for a solution.

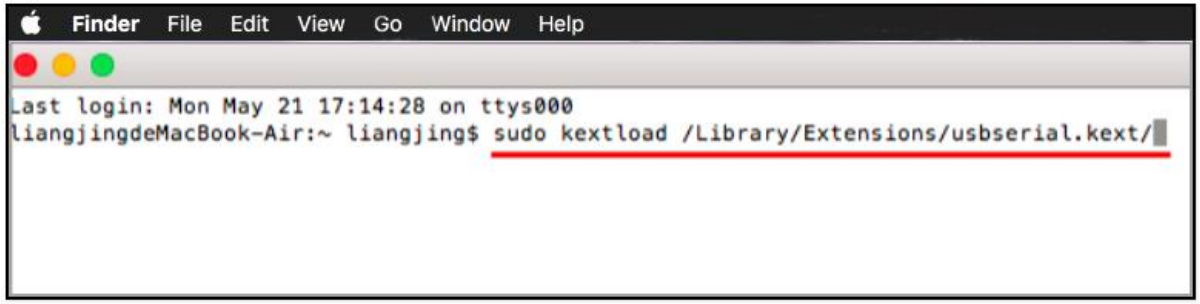

System Preferences
Search
General
Desktop & Screen Saver
Dock
Mission Control
Language & Region
Security & Privacy
Spotlight
Notifications
Displays
Energy Saver
Keyboard
Mouse
Trackpad
Printers & Scanners
Sound
Startup Disk
iCloud
Internet Accounts
Software Update
Network
Bluetooth
Extensions
Sharing
Users & Groups
Parental Controls
Siri
Date & Time
Time Machine
Accessibility


Security & Privacy
Search
General
FileVault
Firewall
Privacy
A login password has been set for this user
Change Password...
Require password
immediately
after sleep or screen saver begins
Show a message when the screen is locked
Set Lock Message...
Disable automatic login
Allow apps downloaded from:
App Store
App Store and identified developers
System software from developer "[redacted]" was blocked from loading.
Allow
Click the lock to prevent further changes.
Advanced...
?

Open the Terminal by following this path: Go > Utilities > Terminal.

Copy the following command and paste it to the terminal:

sudo kextload /Library/Extensions/usbserial.kext/

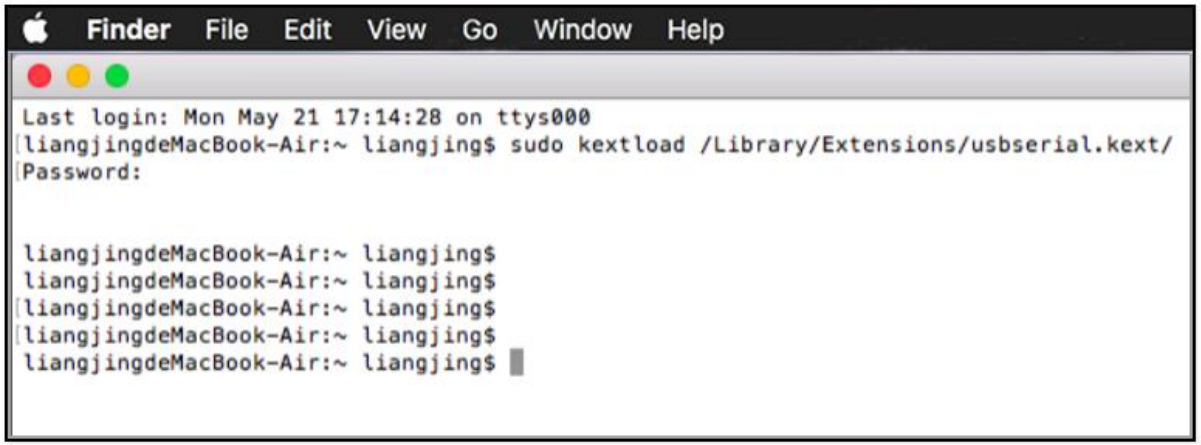


Press Enter (if the password command appears, enter your computer user password and press Enter again).

After the command is executed successfully, the below display appears in the terminal.

If this is done successfully, repeat step 3.

Contact xTool Technical Support if additional messages appear during the process.



#2. Check the USB Cable and Port

A bad contact on the computer USB port or USB cable may cause the device to be unrecognized when plugged into the computer, refer to the following steps to troubleshoot.

Plug a USB stick or other storage device into this USB port.

If they can be recognized properly, it means that the USB port of the computer is working properly;

If they cannot be recognized properly, please try another USB port.

After making sure your computer's USB port is working properly, reconnect your machine.

If the device is still not recognized in XCS, try with another USB cable or replace the motherboard.

#3. Check the Antivirus and Firewall

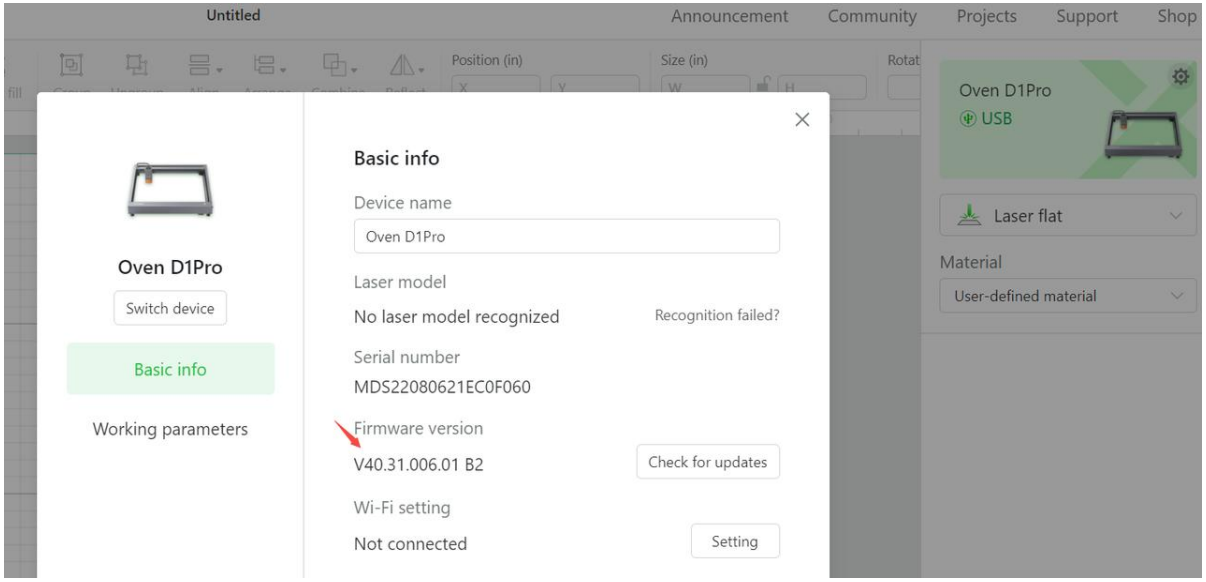
If you still cannot find the device via USB on XCS after trying the above troubleshooting, please turn off your computer's antivirus and firewall features, then restart XCS and reconnect the USB.

#4 Check the Firmware Status

Check if the indicator on the front plate stays on.



Check if the correct firmware version is displayed on XCS.



If the indicator is off, or the firmware version is not displayed correctly, the motherboard's firmware may be lost.

Please refer to the instructions below to fix the firmware.

Upgrade the Firmware for D1 and D1 Pro

Restore a Bricked Machine due to Failed Firmware Upgrade

#5 Check the CH340 Port Occupancy

When you use XCS, please ensure that there isn't another software occupying the CH340 driver, for example, Lightburn, Laserbox Baics, etc. If any two of the software are running at the same time, the connection may fail.

#6 Check the Computer Performance

Please refer to the following computer performance requirements for running XCS.

PC	Minimum	Recommended
Processor	Intel Core i5-6200U	Intel Core i5-11600 or above
Operating System	Win10 (64-bit)	
	Mac 10.14	Mac 10.15 or above
RAM	8GB	16GB or above
Display Resolution	1280*720	1920*1080 or higher
Hard Disk Storage	8GB	12GB or above

Learn more here: https://community.xtool.com/index.html#/making/detail/tips/829

#7 Check the XCS Cache Files

Please refer to the following steps to clean the cache.

1. Make sure the XCS is not running. Close it if it is.

2. Go to the cache folder according to the paths below. Remember to replace the User Name in the following path with your actual user name.

For Windows:

C:\Users**User Name**\AppData\Roaming\xTool Creative Space\Local Storage

For macOS:

/Users/**User Name**/Library/Application Support/xTool Creative Space/Local Storage

3. Delete all files under the Local Storage folder.

4. Relaunch XCS and see if it works.

#8 Check the USB Adapter

If you use a Mac computer, you need a Type-C to USB converter to connect the cable. Since the reliability of the converters on the market varies, some may cause the XCS not to be able to recognize the machine. Please change a converter and try again.

If None of the Above Works

If you have followed the instructions above and the issue is still not resolved, please read the article in the link below, collect the troubleshooting steps you have taken, and contact xTool tech support for further advice.

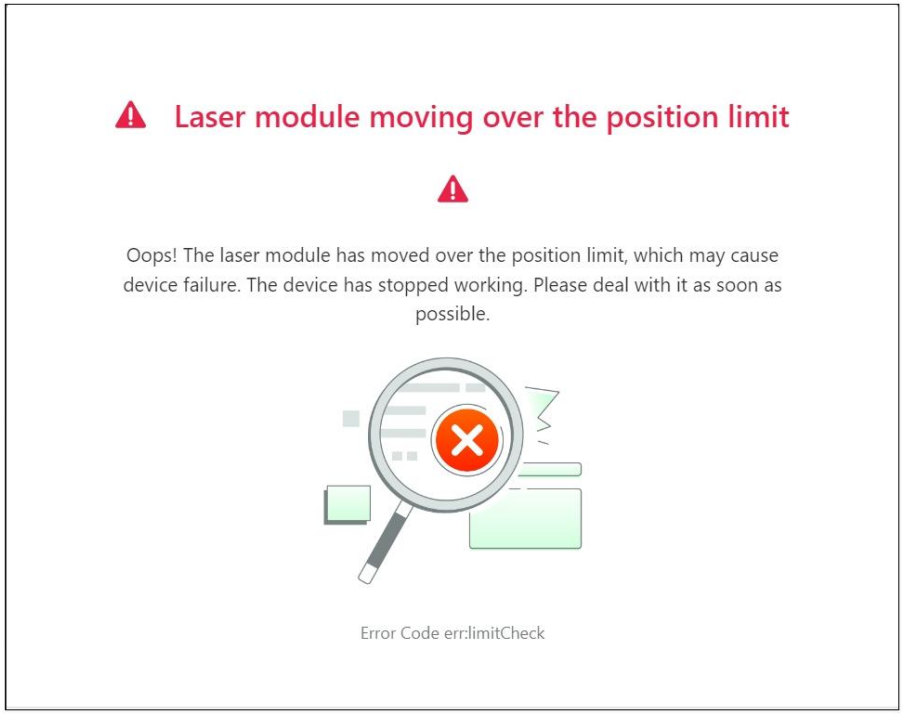
The Position Limit False Alarm

This article applies to:

D1 Pro with all laser modules.

Issue Description

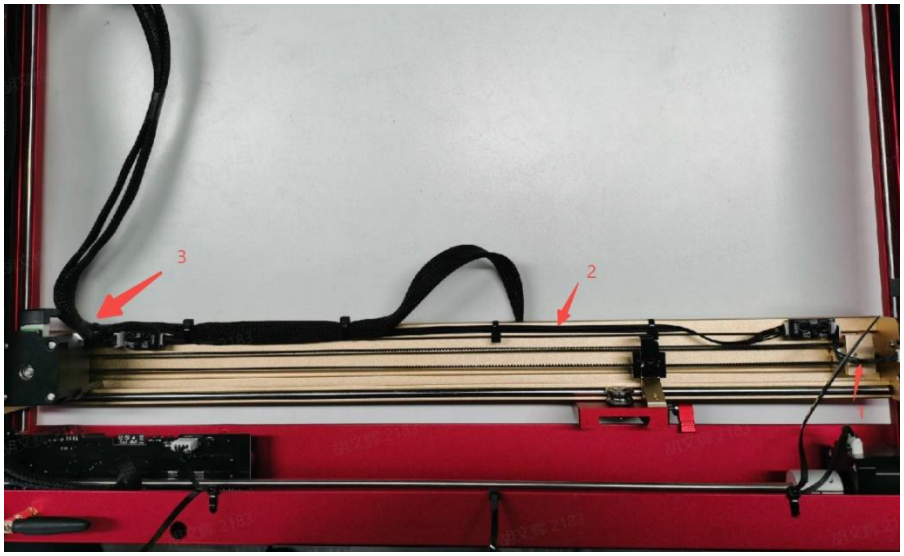
D1 Pro is equipped with position limit switches. When the laser module moves close to the machine frame, the sensor on the switch will be triggered to prevent a collision. This will also trigger the buzzer and an alarm message will show on the XCS software. However, if the buzzer goes off for no reason, it could be a false alarm.



#1 Check the Limit Switch Cables

There are three cables for the position limit function, namely the x-axis limit switch cable, the y-axis limit switch cable, and the cable connecting the limit switch and the motherboard. When any of the three is loose, the buzzer

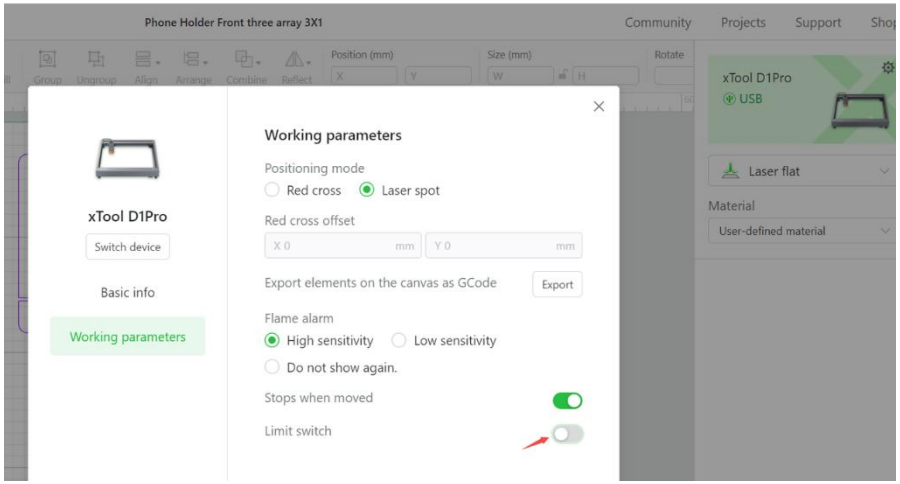
will be triggered during framing or processing. In this case, please check these cables and make sure they are firmly plugged into the connectors.



#2 Check the Limit Switch

If the limit switch itself is faulty, the buzzer may still go off even if all three cables are properly connected. In this case, please contact us and send us videos or photos to confirm. We will see if a replacement is needed.

Tips: You can disable the alarm in XCS software. This way you can still use the machine before the replacement parts arrive.



If None of the Above Works

If you have followed the instructions above and the issue is still not resolved, please read the article in the link below, collect the troubleshooting steps you have taken, and contact xTool tech support for further advice.

Help Tech Support Troubleshoot Faster

The Machine Won't Frame

This article applies to:

D1 and D1 Pro with all laser modules.

Issue Description

Framing is a function where the laser module moves around to you a preview of the processing area on the material. You can start a framing process on the preview page on XCS. If your machine won't frame, this article can help you troubleshoot the issue. Please follow the instructions below.

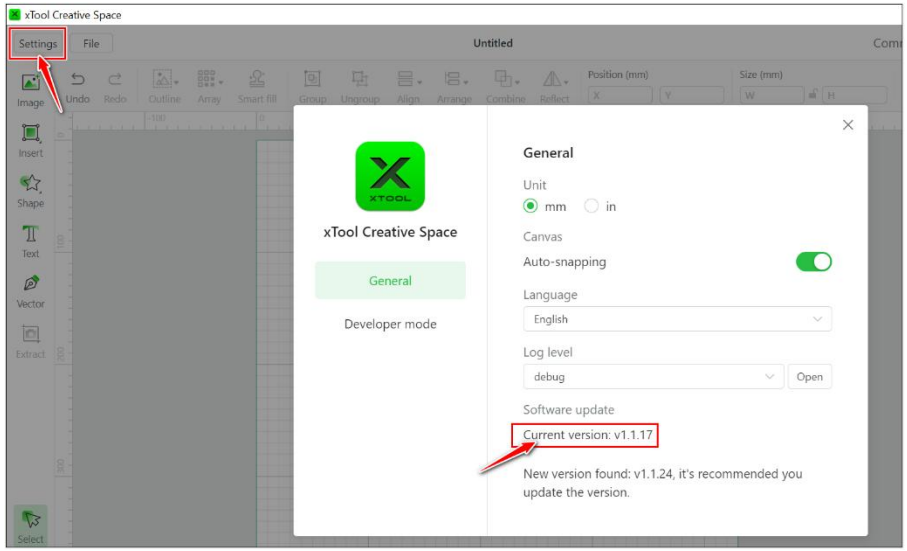
#1 Check XCS Version

Click on the Settings button on the top left corner of the XCS window

Go to General -> Software update. See if it's the latest version.

Please update the software to the latest version.

If the issue persists, move on to the next step.



#2 Check Firmware Version

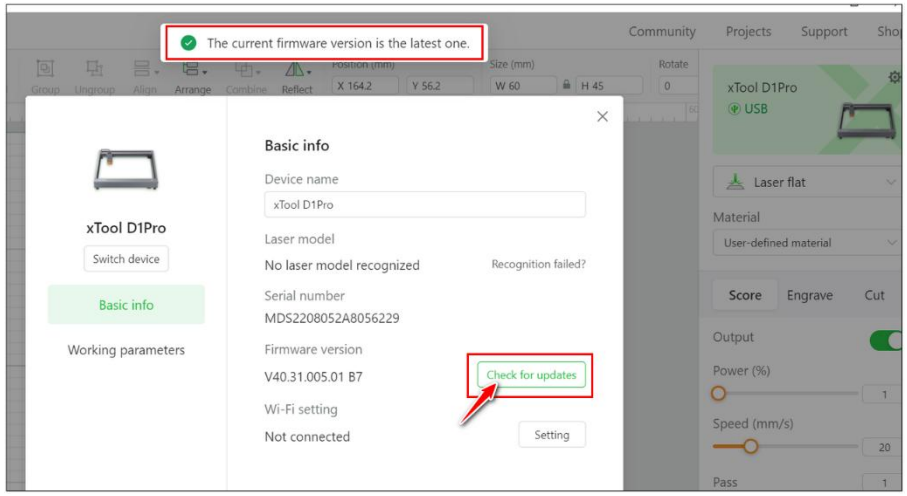
Connect the machine, and click on the wheel sign on the top right corner of the device section.

Go to Basic Info -> Check for updates. See if it's the latest version (a prompt will show).

Please update the firmware to the latest version. You can refer to:

Upgrade the Firmware for D1 and D1 Pro

If the issue persists, move on to the next step.



#3 Check Indicator Status

Check the indicator near the Start button on the machine's front plate.

See if it flashes after you click on the Frame button on XCS.

If yes, short press the Start button (no longer than 2 seconds).

If the indicator doesn't flash or pressing the button doesn't work, move on to the next step.

#4 Check Connection Method

If you are using Wi-Fi, then change to USB, and vice versa.

Check if the indicator flashes after you click on the Frame button in XCS.

If not, try another computer. If the issue persists, refer to the link below and contact tech support.

Help Tech Support Troubleshoot Faster

If the indicator flashes, but the laser module still won't start framing, move on to the next step.

#5 Check Module Movement

Skip the framing process and jump to the processing. See if the laser module moves freely.

If not, please refer to the link below to troubleshoot the X and Y-axis movement issues.

The Laser Module Won't Move

If the above doesn't solve the issue, and your machine model is D1 Pro, please move on.

#6 Check Position Limit

See if the position limit alarm goes off when the laser module starts to frame.

If yes, it could be an issue with the limit switch or the trigger piece.

Please refer to the link below to troubleshoot the position limit issue.

The Position Limit Won't Work

If None of the Above Works

If you have followed the instructions above and the issue is still not resolved, please read the article in the link below, collect the troubleshooting steps you have taken, and contact xTool tech support for further advice.

Help Tech Support Troubleshoot Faster

The Laser Module Won't Move

This article applies to:

D1 and D1 Pro with all laser modules.

Issue Description

If you find the laser module can't move either or both of the X-axis and Y-axis gantry, please refer to this article to troubleshoot.

You can also refer to this video to troubleshoot.

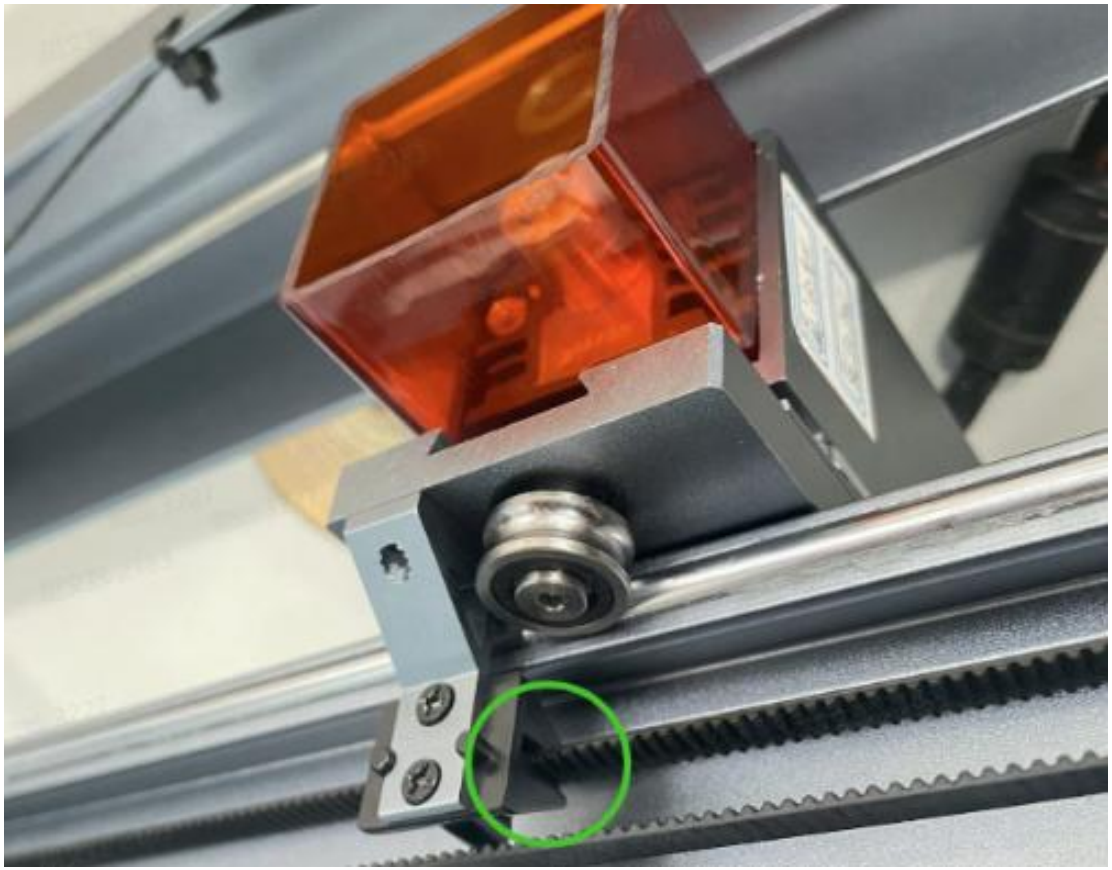
X-axis Movement Issue

#1 Check the Fasteners

If the X-axis belt is fitted loosely into the fastener, the laser module won't move on the X-axis with the belt.

Turn the machine upside down.

Check if the belt is fitted properly into the fasteners, as shown in the photo below.



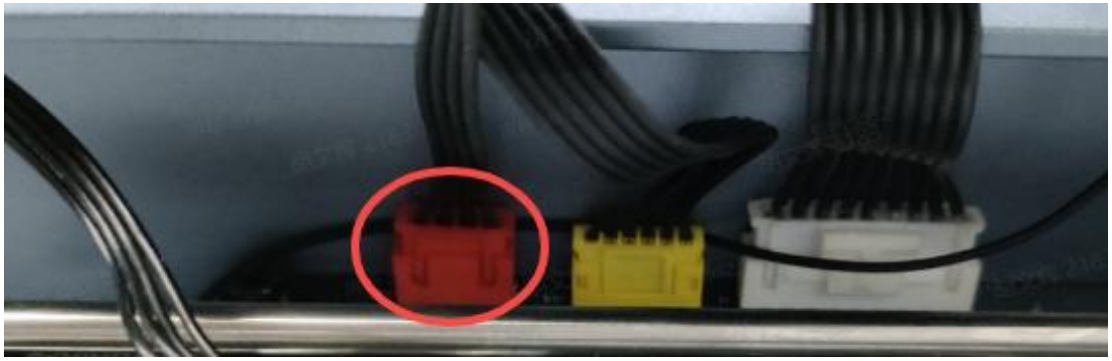
#2 Check the X-axis Motor Cable

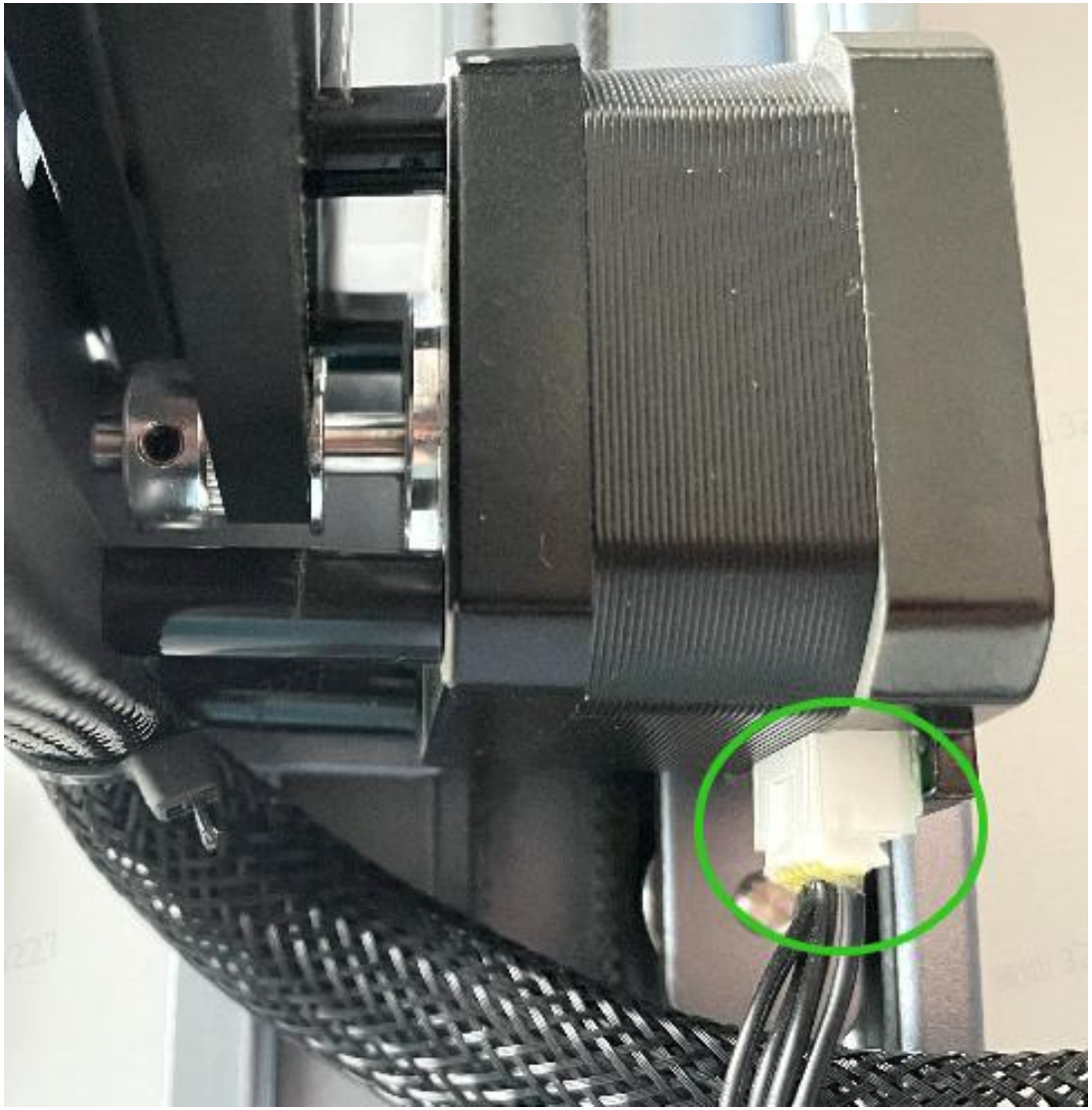
The X-axis motor cable connects the motherboard and the motor. On the motherboard, the port for the cable is

red. On the motor, the port is white.

Check if the motor cable is loose on both ends.

If yes, unplug and replug the motor cable until it is properly plugged in.





#3 Check the Motor Cable and the Port

Check if the cable is broken.

If yes, replace the damaged cable.

Check if the pins in the red port are damaged or bent.

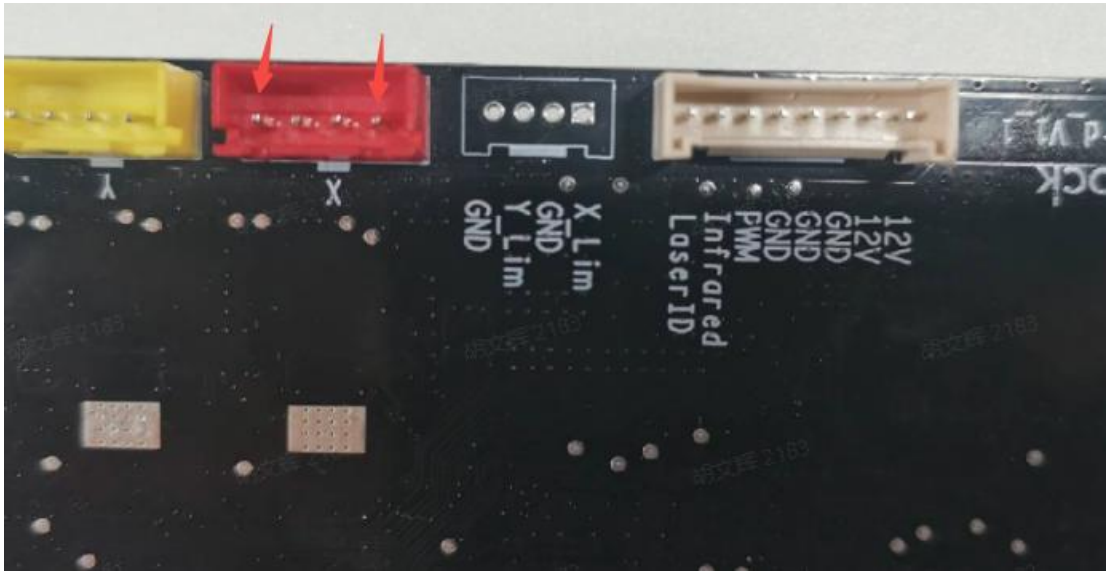
Check if the pins in the white port are damaged or bent.

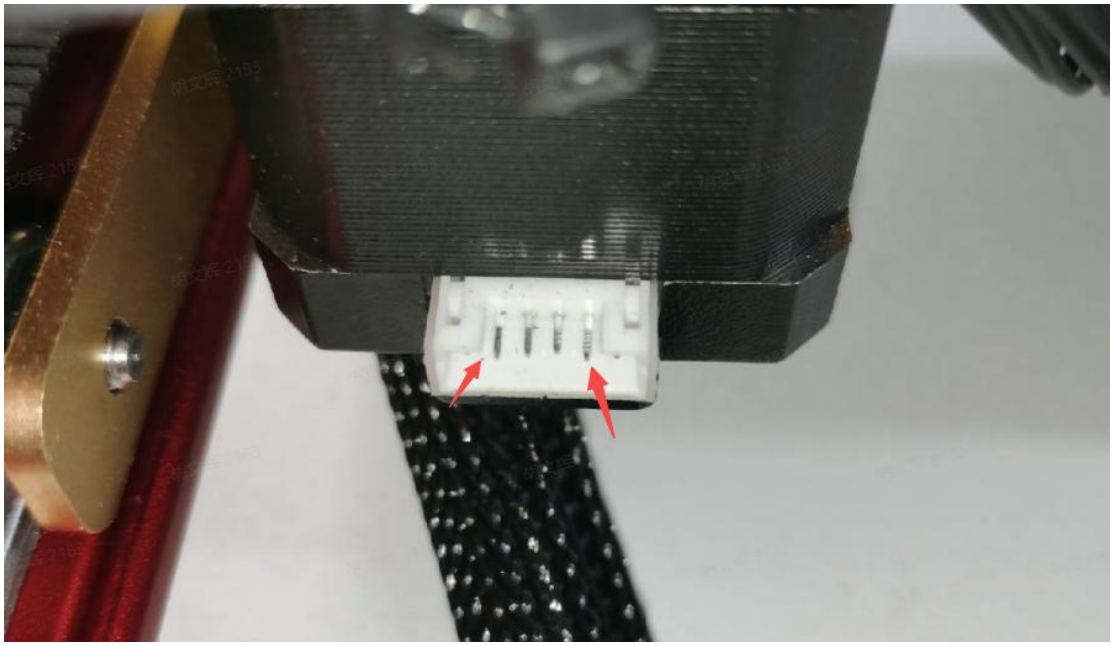
If they are damaged, you need to replace the motherboard or the motor.

Please refer to the videos below to replace the damaged parts:

Replace the Motherboard (Video)

Replace the Motor (Video)

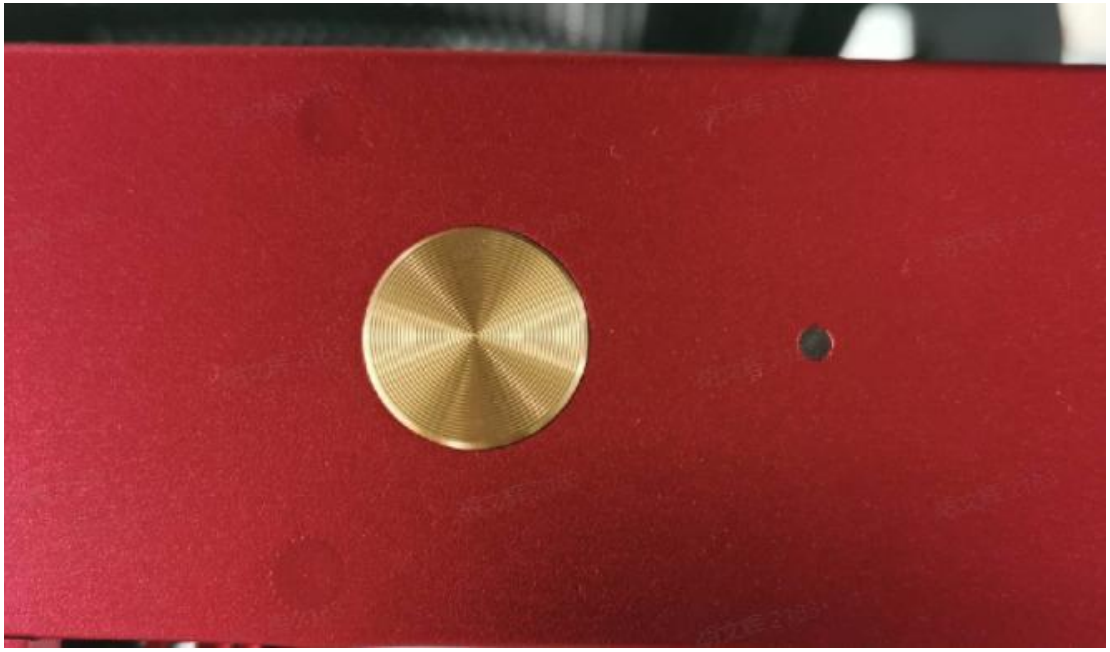

Y
X
X_Lim
GND
Y_Lim
GND
Infrared
LaserID
PWM
GND
GND
12V
12V



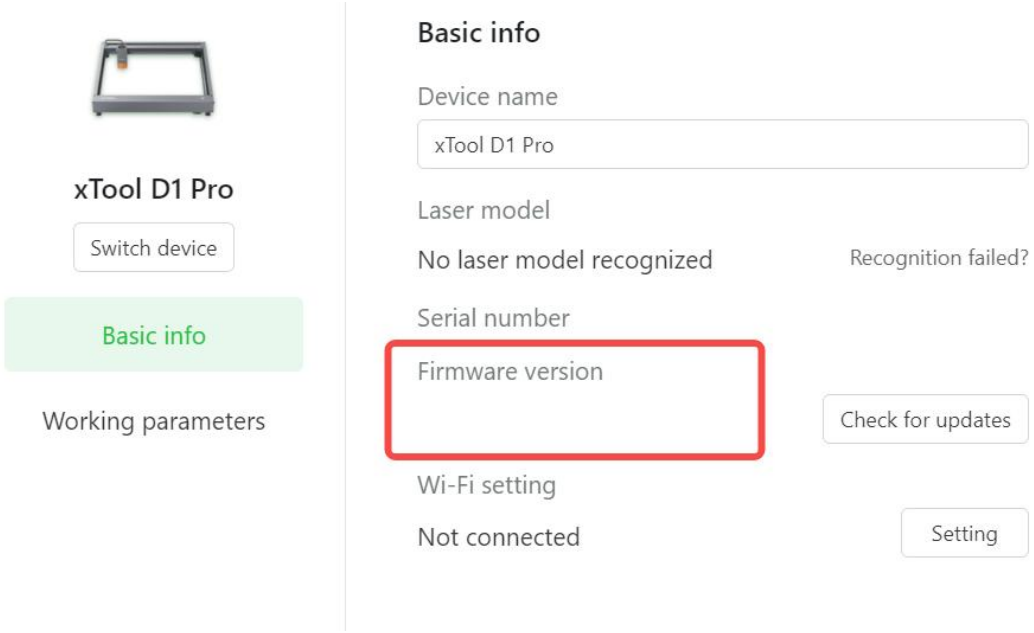
#4 Check the Firmware

If your D1 machine is somehow installed with D1 Pro's firmware, the motor will be blocked.

Check if the indicator near the start button on the front plate is off when the machine is powered on.



2. Launch XCS. Click the wheel sigh->Basic info->Firmware version to see if the firmware version is



blank.

3. If so, please install the correct firmware according to the instructions.

[Upgrade the xTool D1 Firmware]

[Upgrade the xTool D1 Pro Firmware]

#5 Check the X-axis Belt and Pulley

Make sure the firmware is installed properly.

Power off the machine and manually move the laser module from left to right.

Check if the belt and the synchronizer pulley on the motor are moving at the same time.

If it's hard for the laser module to move, you need to replace the X-axis belt and motor.

Please replace the faulty parts according to the instructions below.

Replace the Belt https://youtu.be/bEletlipI0o

Replace the Motor https://youtu.be/elkPiLZzKUQ

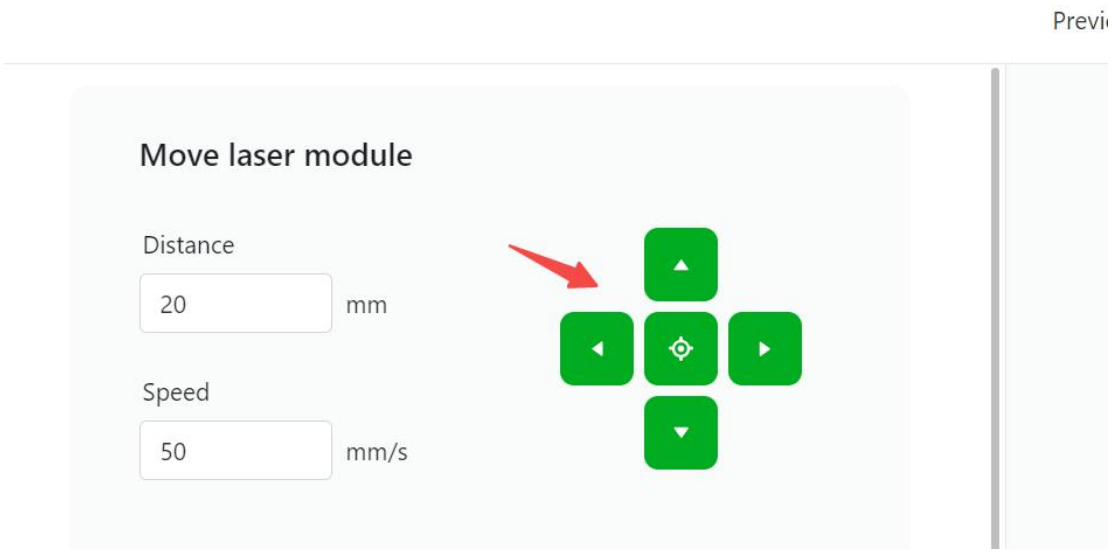
#6 Check the X-axis Motor or the Motherboard

If you can manually move the laser module from left to right and the laser module could move properly on Y-axis, please exchange the X-axis and Y-axis parts to test.

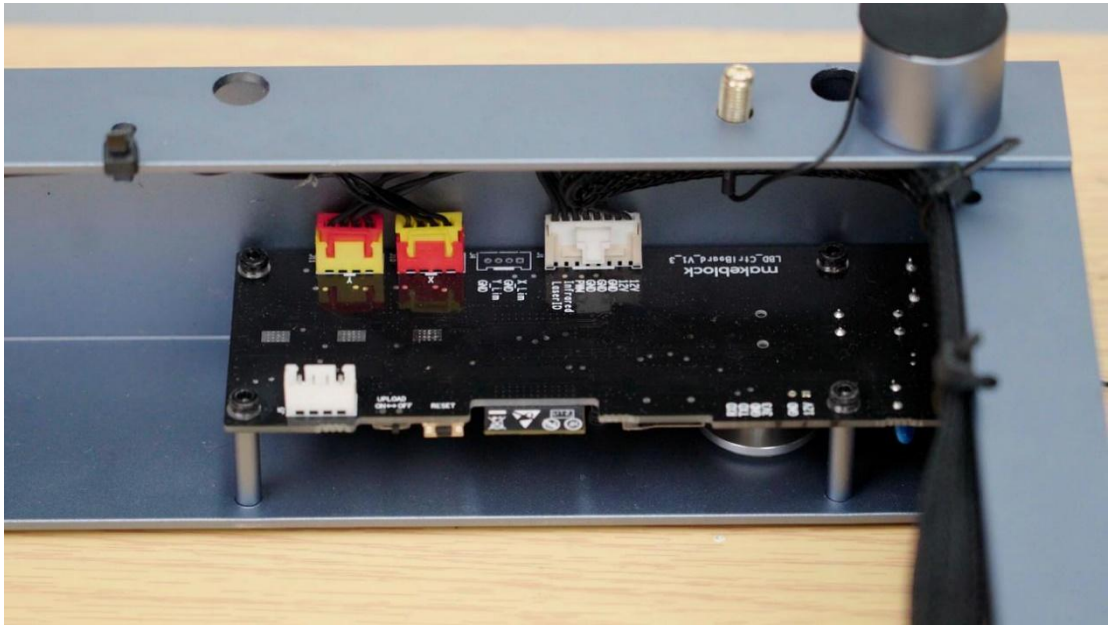
Exchange the X-axis and Y-axis motor cables.

Launch XCS. Click "Process" in the lower right corner.

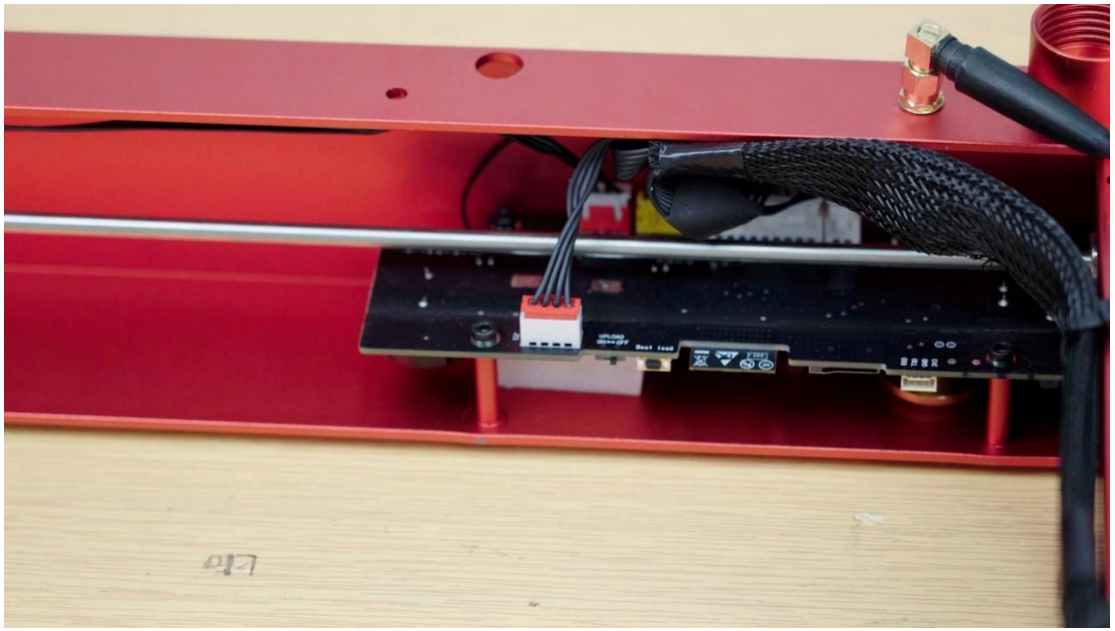
Click "Framing" or the four arrows to move the laser module front and back, left and right.



For D1, the motor cable exchange result is shown below.



For D1 pro, the motor cable exchange result is shown below.



If it only moves on the Y-axis, the X-axis motor and motor cable may need to be replaced.

If it only moves on the X-axis, the X-axis motherboard may need to be replaced.

Please replace the faulty parts according to the instructions below.

Replace the X-axis Motor

Replace the Motherboard

Y-axis Movement Issue

#1 Check the Y-axis Motor Cable

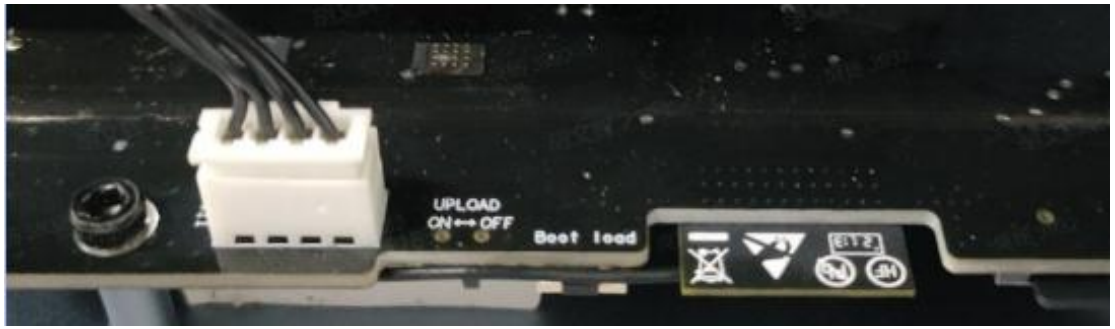
The Y-axis motor cable connects the motherboard and the motor.

For D1, on the motherboard, the port for the cable is yellow.

For D1 Pro, on the motor, the port is white.

Check if the motor cable is loose on both ends.

If yes, unplug and replug the motor cable until it is properly plugged in.

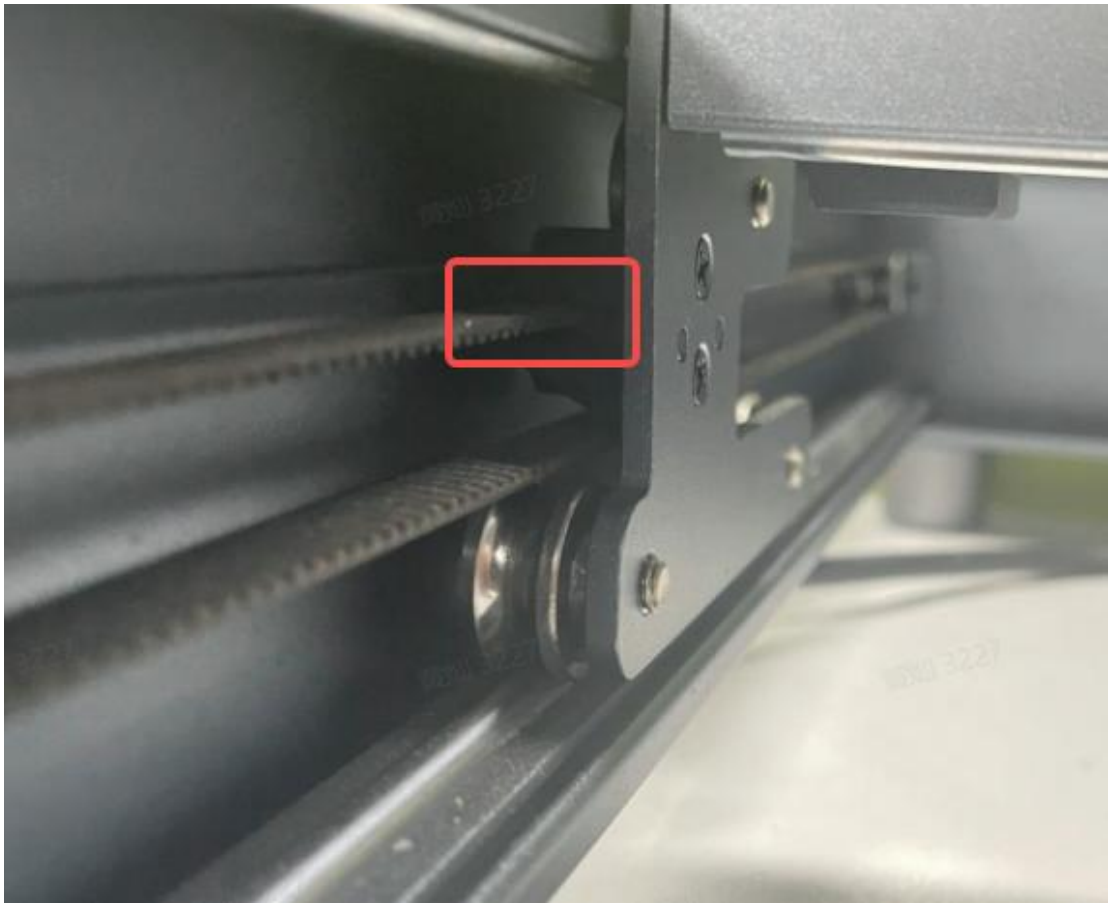


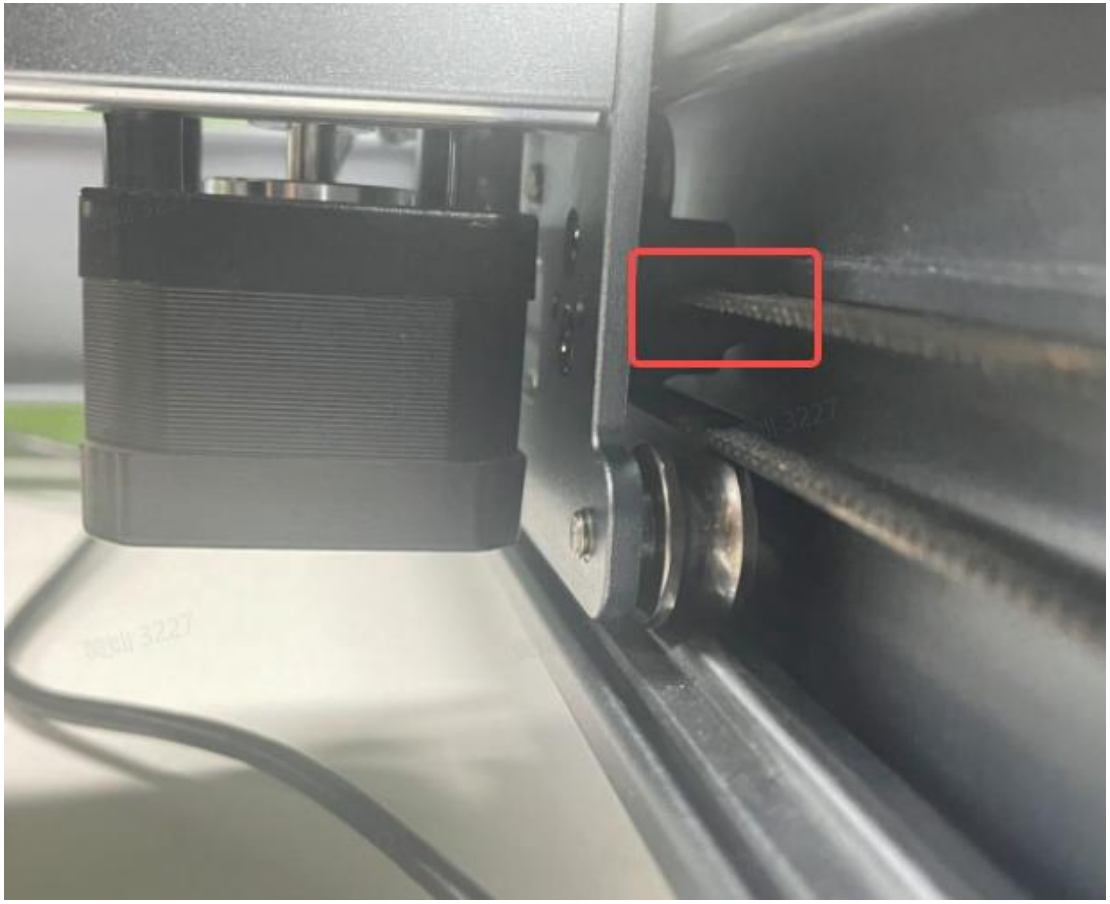
#2 Check the Fasteners

If the Y-axis belt is fitted loosely into the fastener, the laser module won't move on the Y-axis with the belt.

Turn the machine upside down.

Check if the belt is fitted correctly into the fasteners on both sides of the frame, as shown in the photo below.





#3 Check the Motor Cable and the Port

Check if the Y-axis cable is damaged.

If yes, replace the damaged cable.

Check if the pins in the yellow port are damaged or bent.

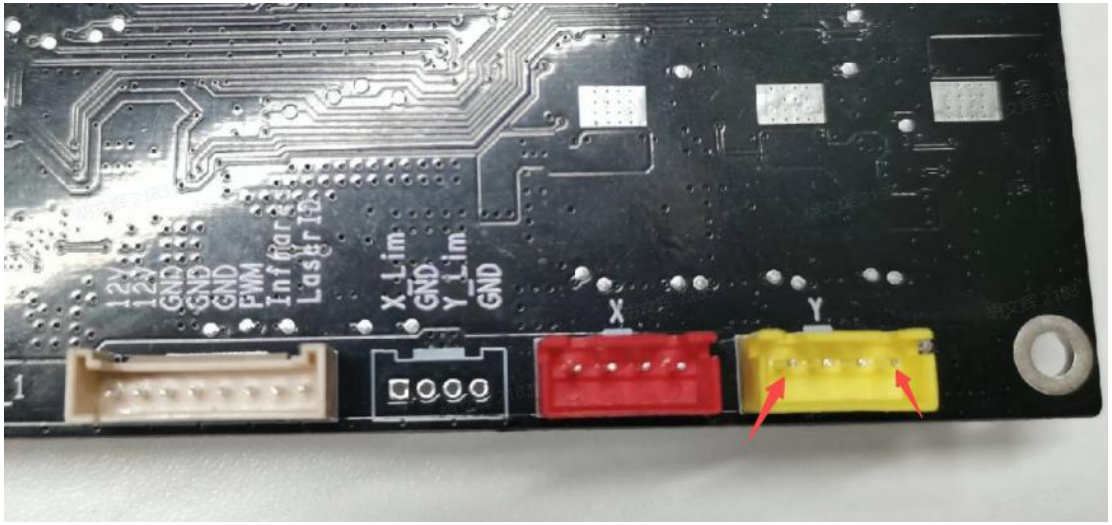
Check if the pins in the white port are damaged or bent.

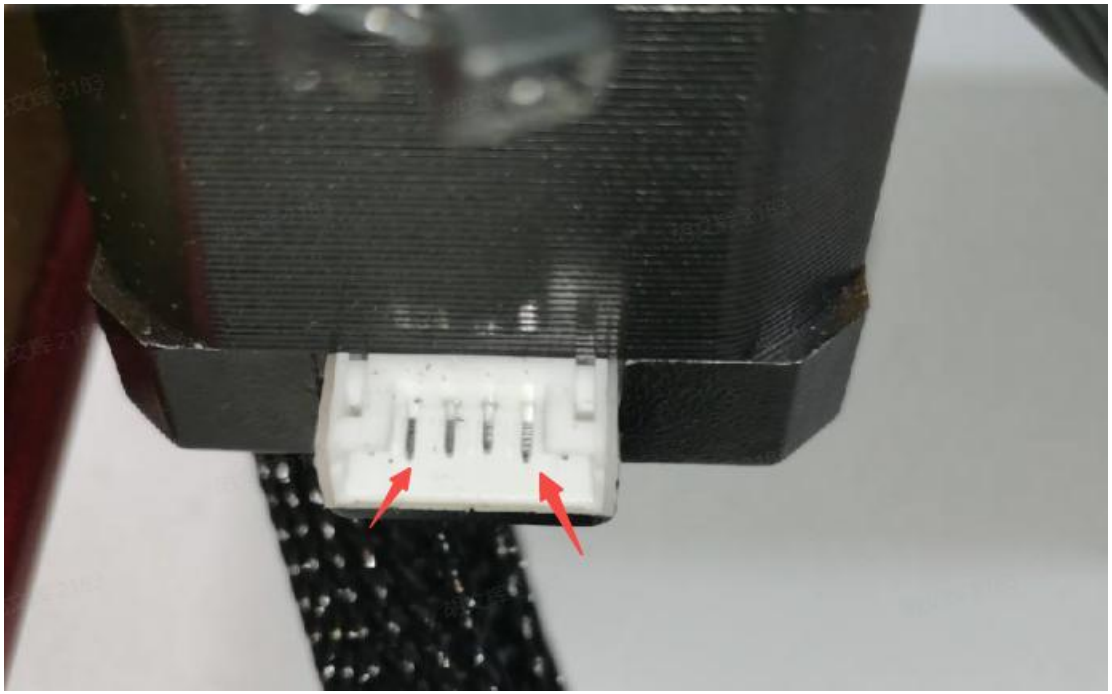
If they are damaged, you need to replace the motherboard or the motor.

Please refer to the videos below to replace the damaged parts:

Replace the Motherboard (Video)

Replace the Motor （Video）

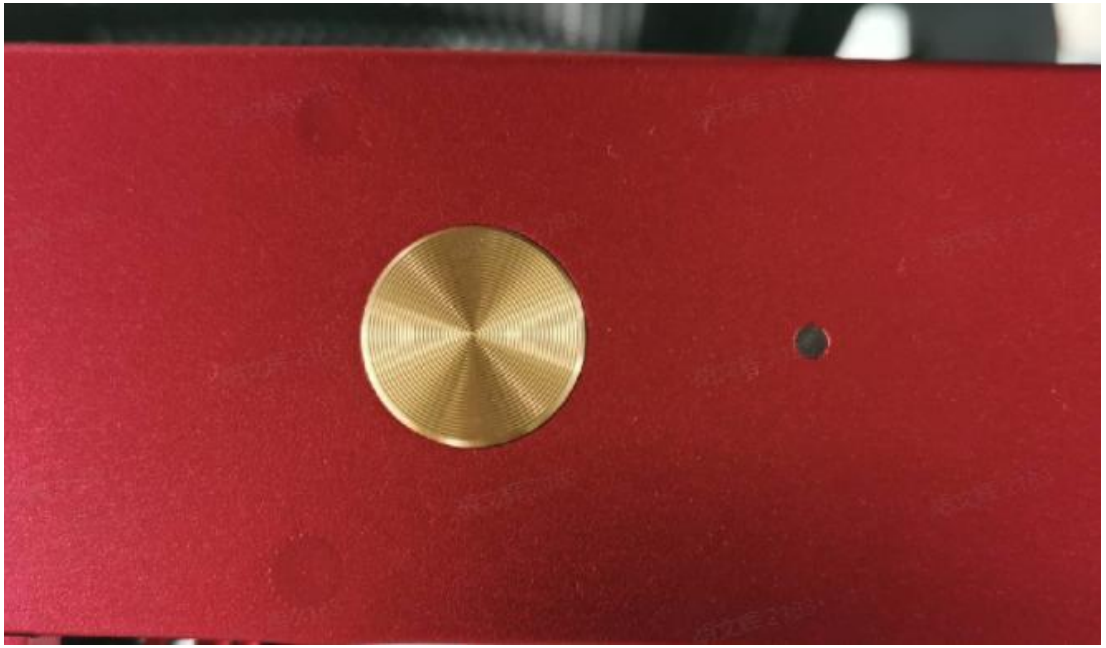

12V
12V
GND
GND
GND
PWM
Infrar
Laser
X_Lim
GND
Y_Lim
GND
X
Y



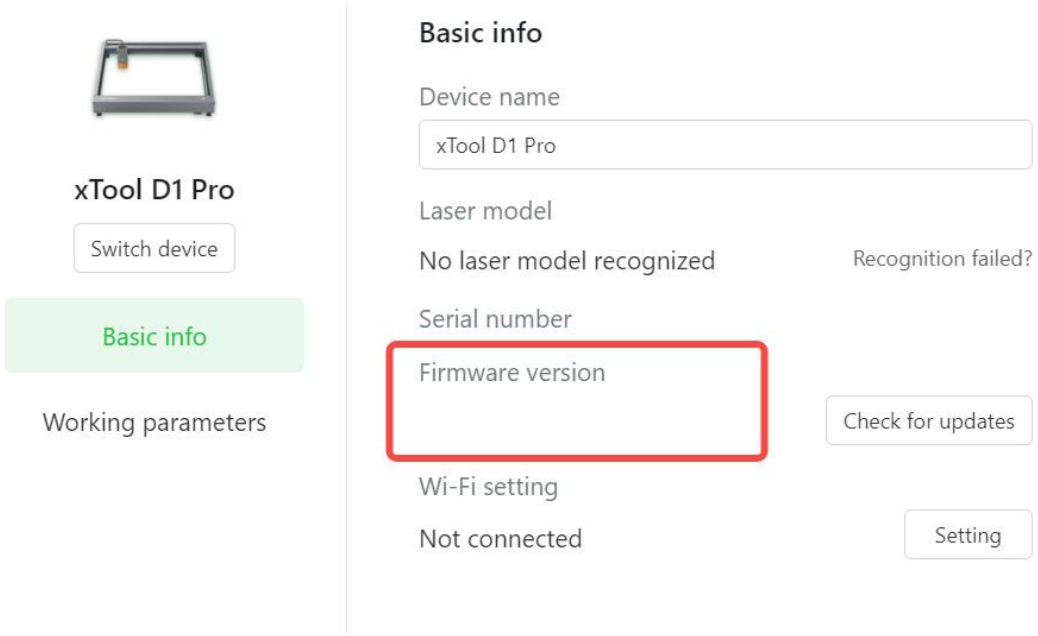
#4 Check the Firmware

If your D1 machine is somehow installed with D1 Pro's firmware, the motor will be blocked.

Check if the indicator near the start button on the front plate is off when the machine is powered on.



1. Launch XCS. Click the wheel sign ->Basic info->Firmware version to see if the firmware version is



blank.

2. If so, please install the correct firmware according to the instructions.

[Upgrade the xTool D1 Firmware]

[Upgrade the xTool D1 Pro Firmware]

#5 Check the Y-axis Belt and Pulley

Make sure the firmware is installed properly.

Power off the machine and manually move the laser module from left to right.

Check if the belt and the synchronizer pulley on the motor are moving at the same time.

If it's hard for the laser module to move, you need to replace the Y-axis belt and motor.

Please replace the faulty parts according to the instructions below.

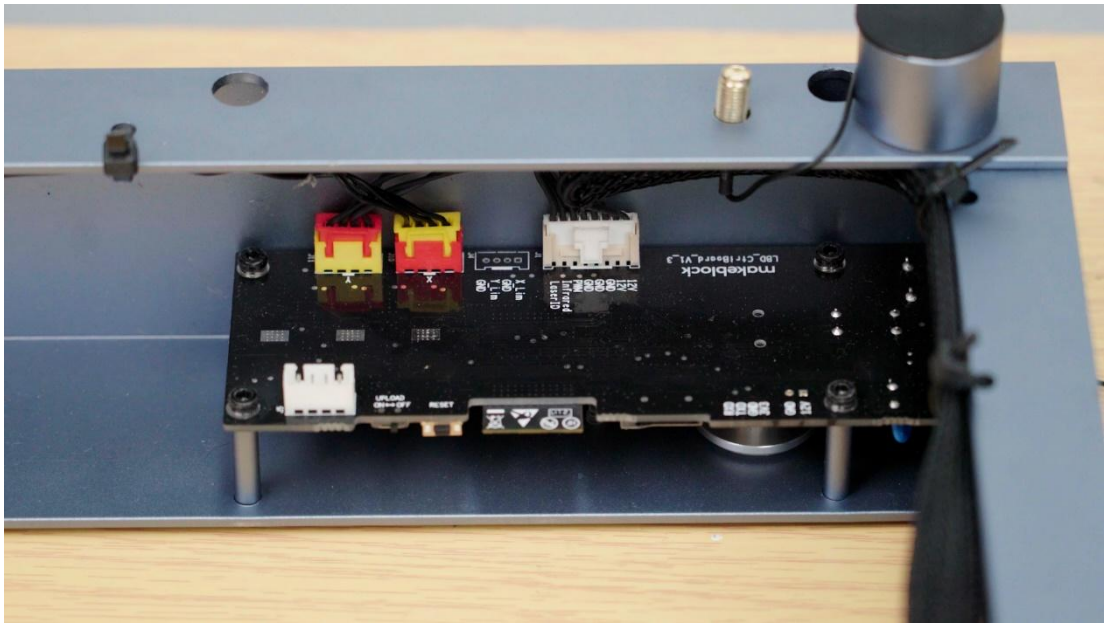
Replace the Belt

Replace the Motor

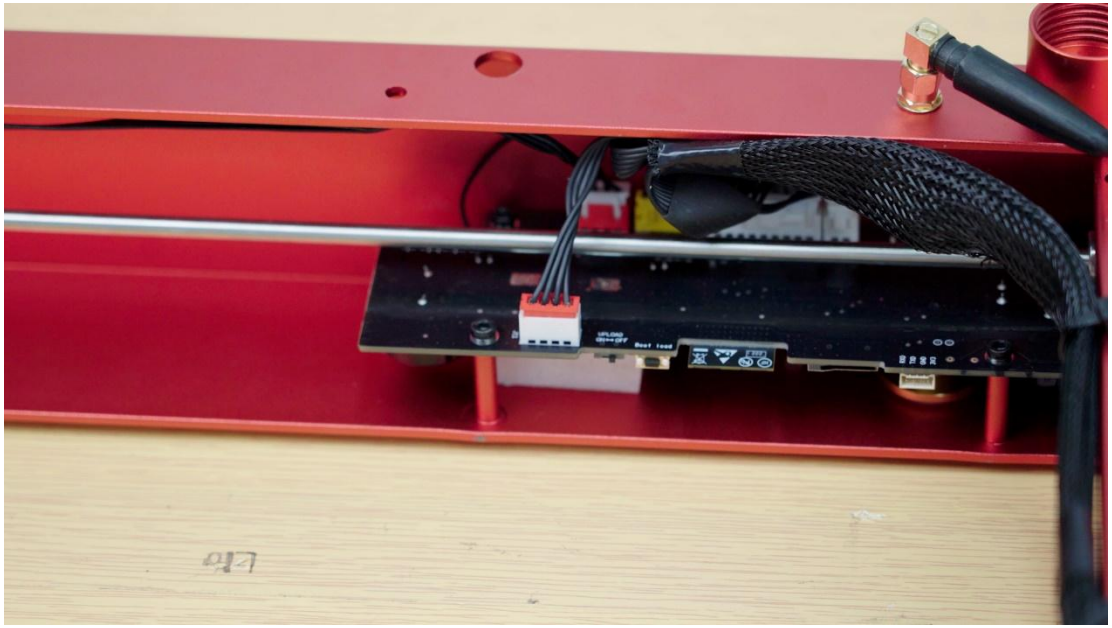
#6 Check the Y-axis Motor or the Motherboard

If you can manually move the laser module from left to right and the laser module can move properly on the Y-axis, please exchange the X-axis and Y-axis parts to test.

For D1, the motor cable exchange result is shown below.

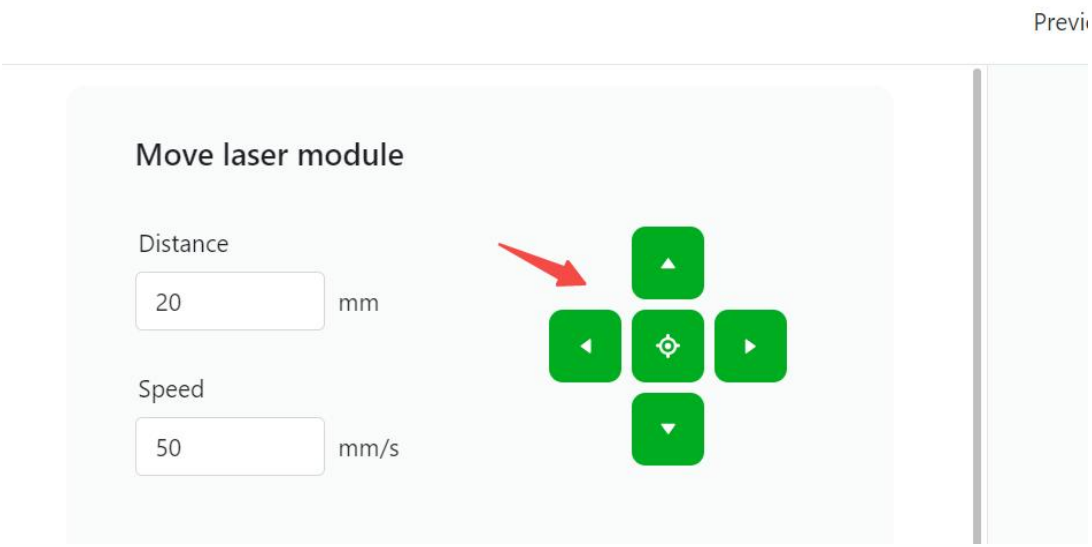


For D1 pro, the motor cable exchange result is shown below.



Launch XCS. Click "Process" in the lower right corner.

Click "Framing" or the four arrows to move the laser module front and back, left and right.



If it only moves on the X-axis, the Y-axis motor and motor cable may need to be replaced.

If it only moves on the Y-axis, the Y-axis motherboard may need to be replaced.

Please replace the faulty parts according to the instructions below.

Replace the Y-axis Motor

Replace the Motherboard

If None of the Above Works

If you have followed the instructions above and the issue is still not resolved, please read the article in the link below, collect the troubleshooting steps you have taken, and contact xTool tech support for further advice.

Help Tech Support Troubleshoot Faster

XCS Can’t Find Device Through Wi-Fi

This article applies to:

D1 and D1 Pro with all laser modules.

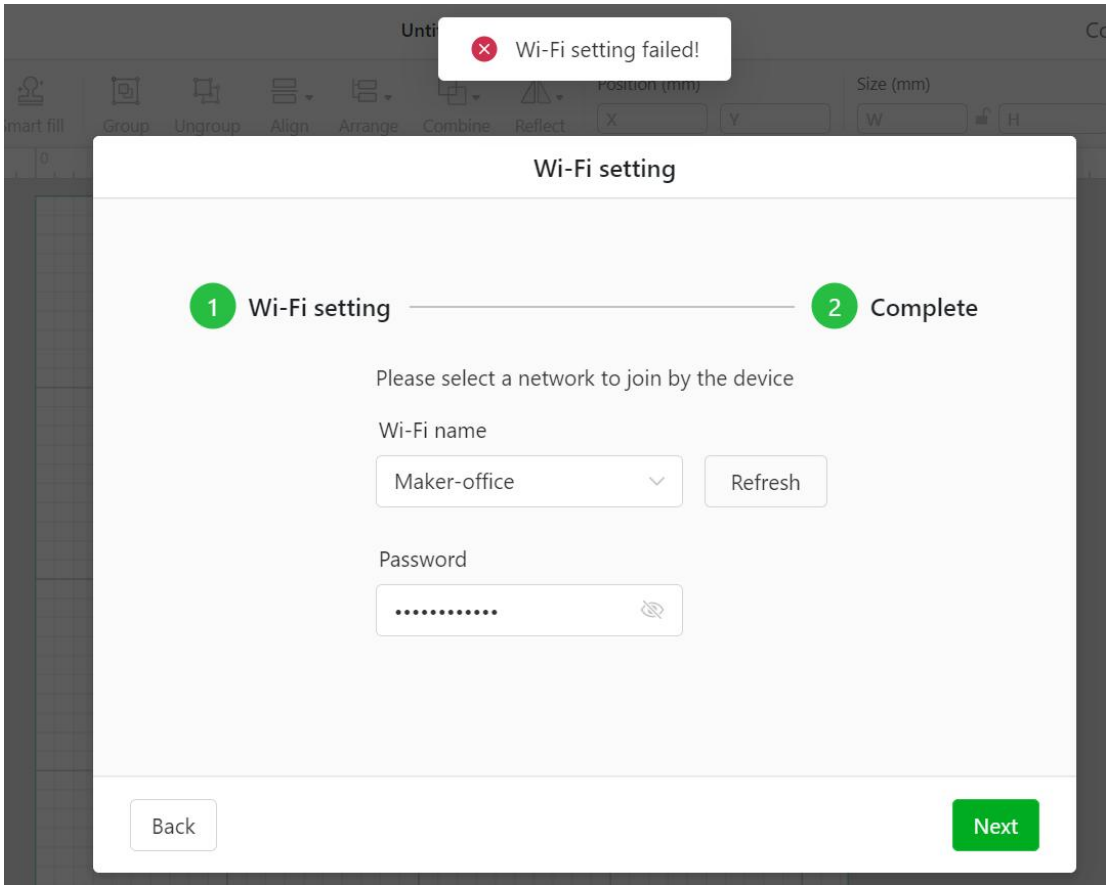
Issue Description

Refer to the articles below to connect the device with XCS through Wi-Fi or an IP address.

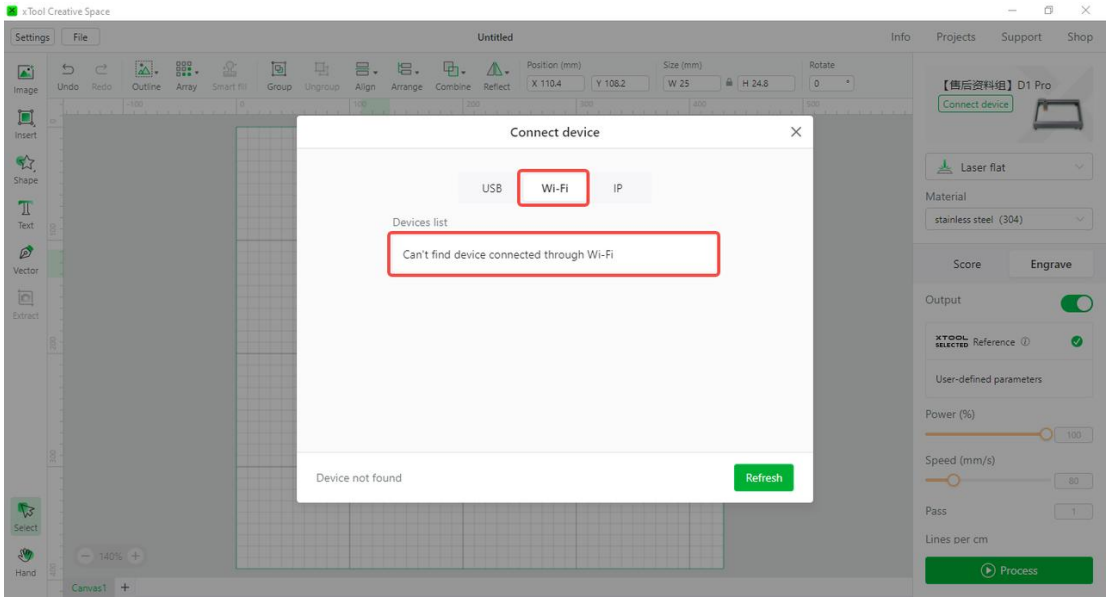
Connect the Device Through Wi-Fi

Connect the Device Through an IP Address

When the Wi-Fi setting fails (like the picture below);



When you've already done setting up the Wi-Fi configuration, but the machine still won't show up on the 'Connect device' window (like the picture below),



Please refer to the steps below to troubleshoot.

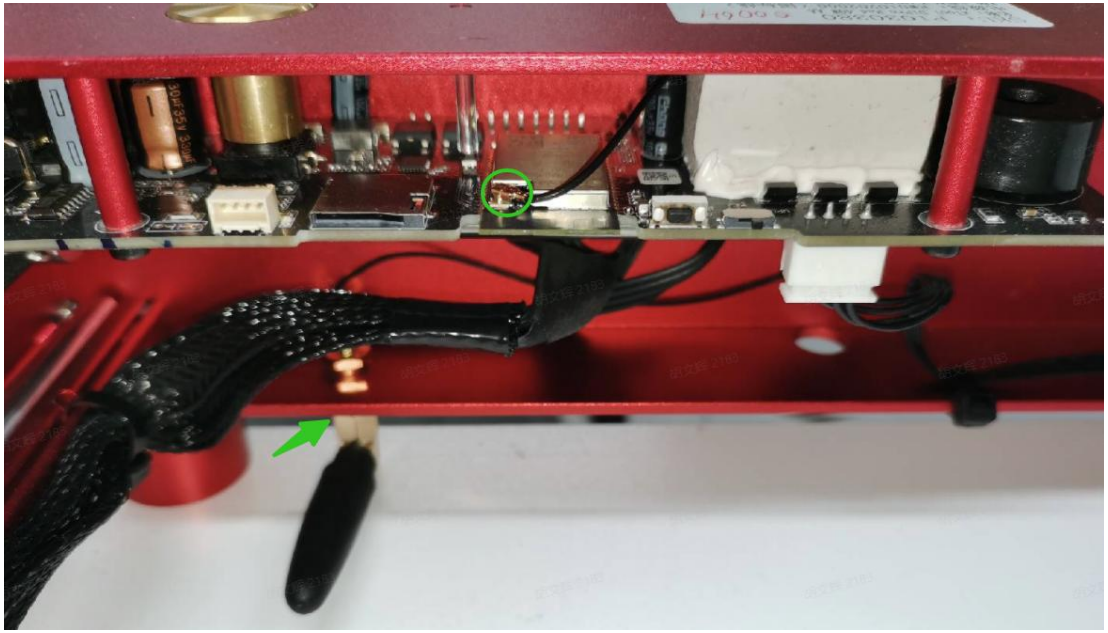
1. Check the Wi-Fi Antenna

Check if the antenna is inserted into the port on the motherboard properly.

If not, please unplug and replug the antenna.

Check if the antenna mast is loose.

If yes, please tighten the antenna mast.



2. Check the Network of the Computer and XCS

Make sure your computer and the device are under the same network.

If they are already on the same network, please try these as well:

Wi-Fi passwords consist of pure letters.

Enter the correct Wi-Fi name and password and try again.

Make sure the Wi-Fi network doesn't require authentication, and you only need to enter the password to connect to the network.

The 2.4G frequency band is used.

3. Check the Wi-Fi Signal

Try another Wi-Fi environment, or connect your computer and machine to the same hot spot on your phone.

See if this gets you a workable network.

4. Check VPN Software and Firewall Function

Please make sure that the VPN software on your computer is turned off when you connect to the machine using Wi-Fi and turn off the firewall function and antivirus software on your computer.

If None of the Above Works

If you have followed the instructions above and the issue is still not resolved, please read the article in the link below, collect the troubleshooting steps you have taken, and contact xTool tech support for further advice.

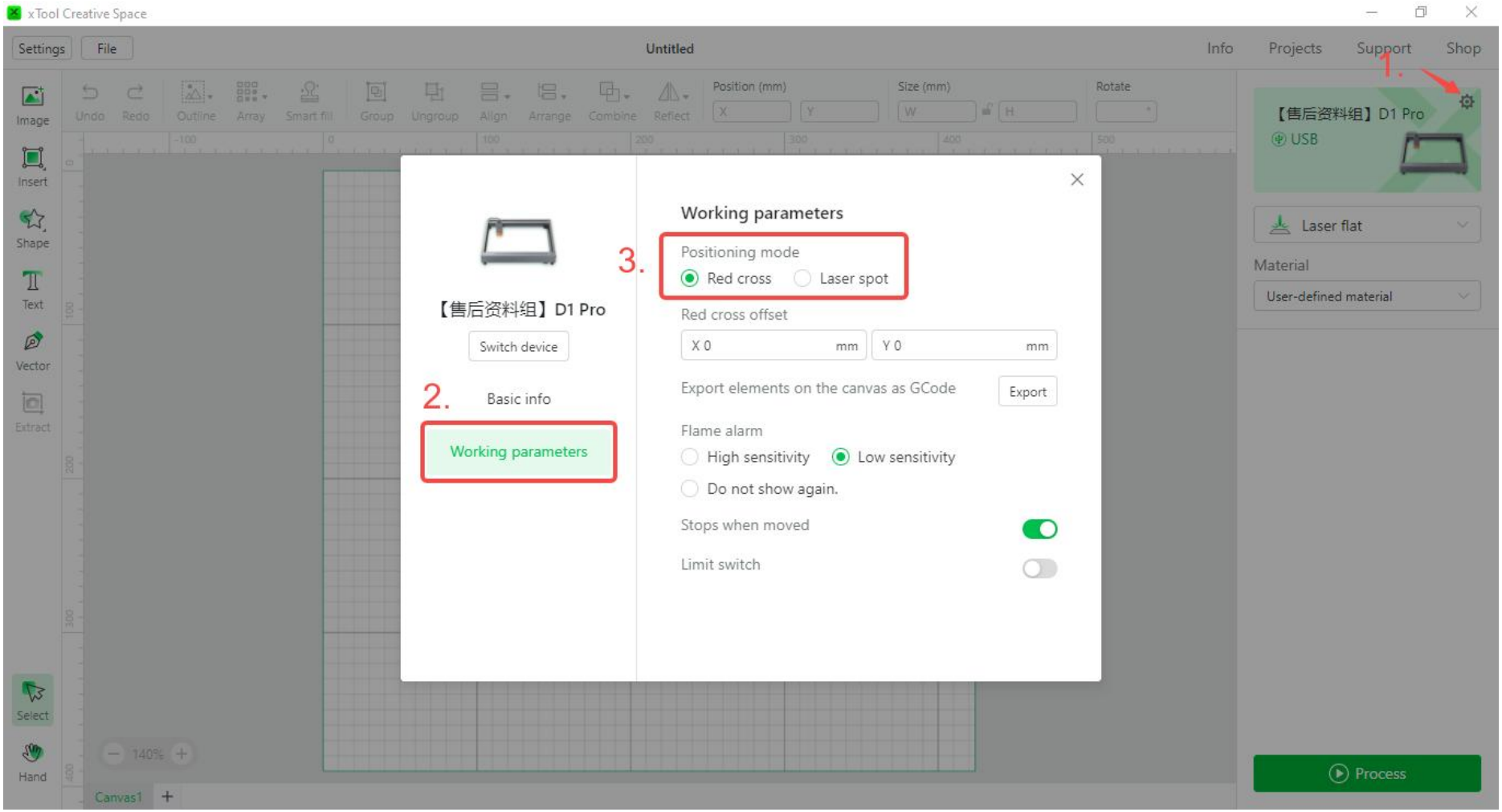
Help Tech Support Troubleshoot Faster

Switch Positioning Mode between Red cross & Laser spot for D1/D1Pro

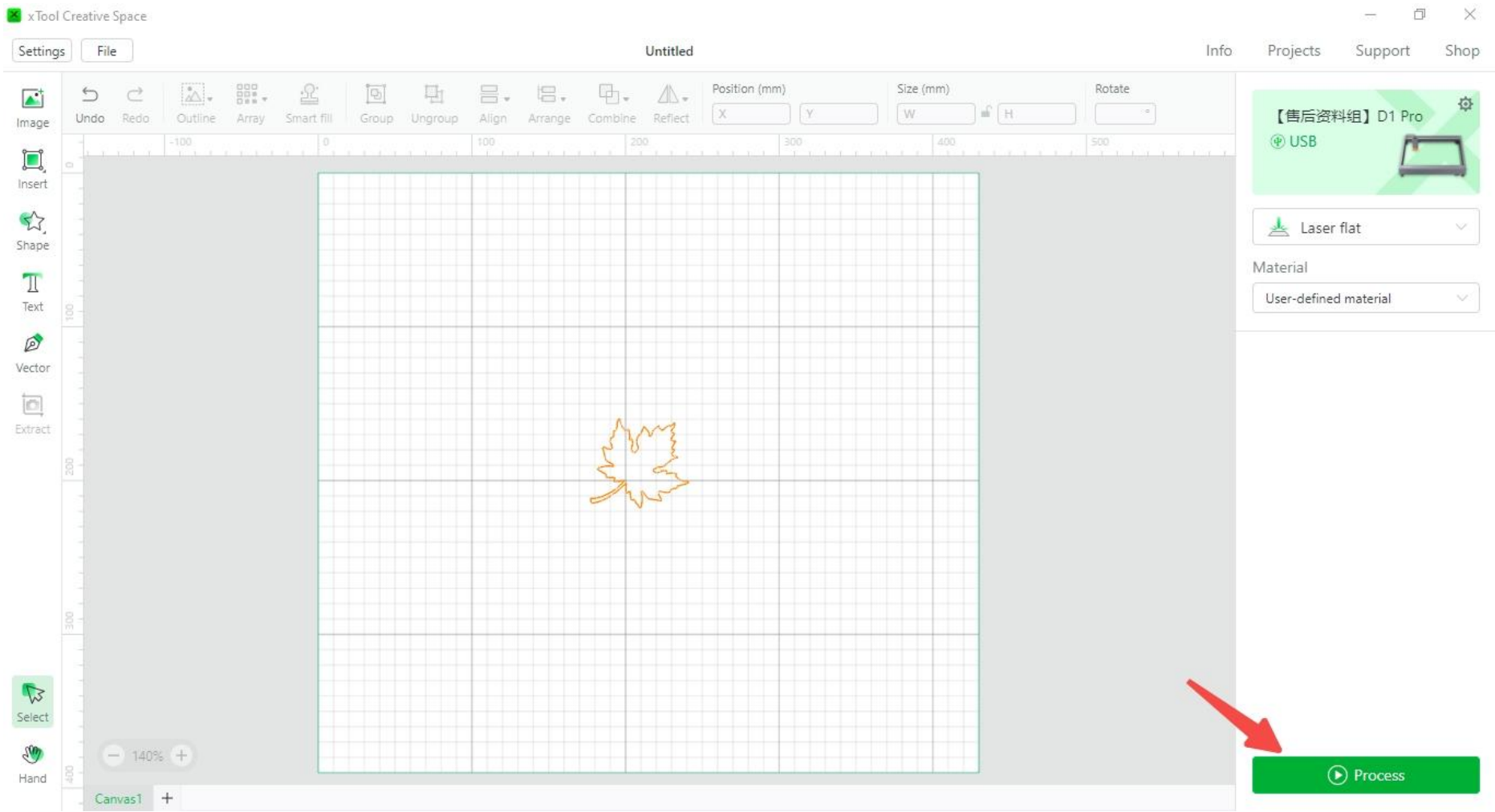
With D1 Pro being powered on and connected to your computer(via USB/Wi-Fi/IP), click ⚙ **> Working parameters**, you can select either **Red cross** or **Laser spot** as the positioning mode.

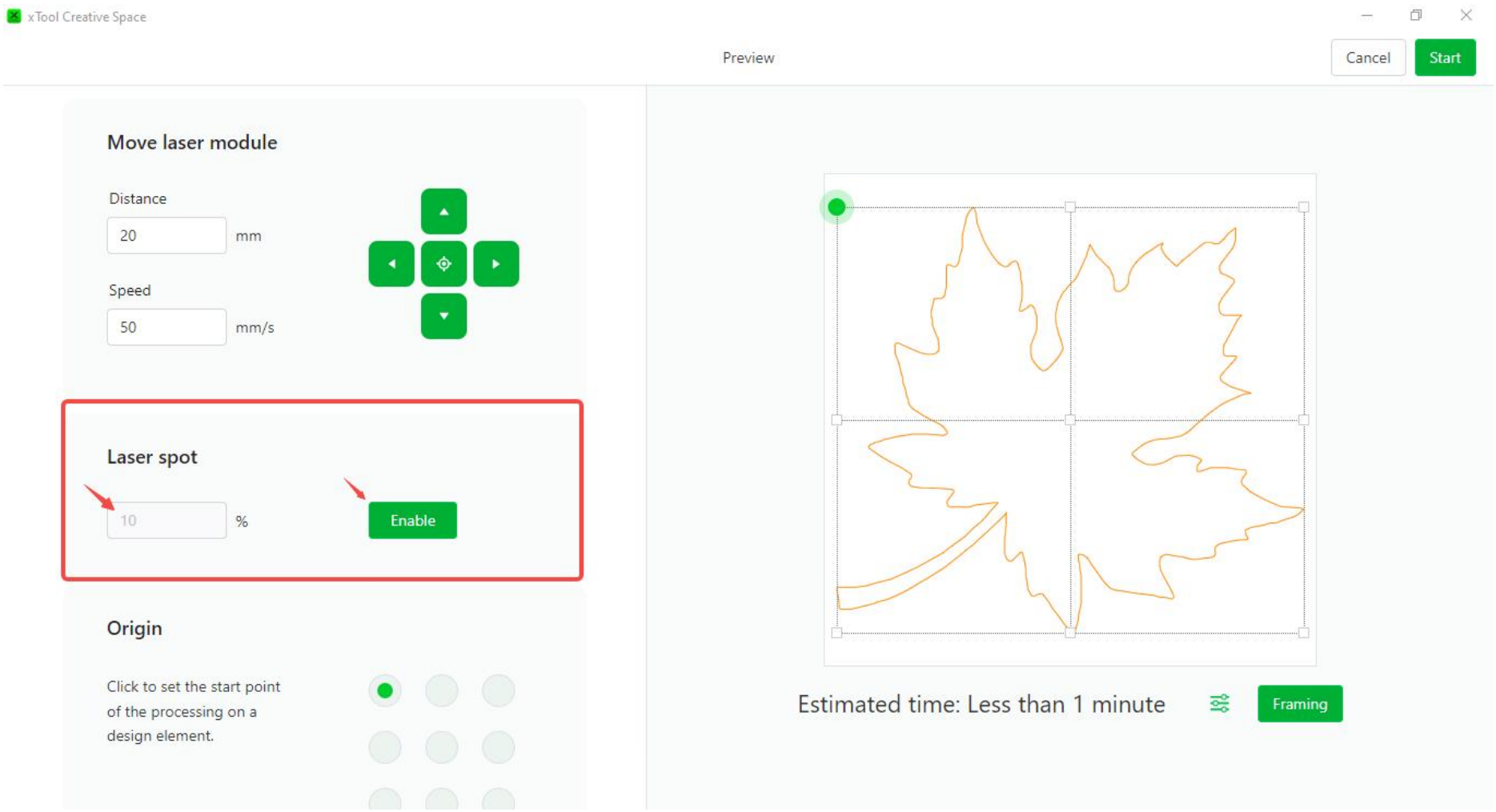
If **Red cross** is selected, a red cross will automatically emerge every time the D1/D1 Pro is turned on.

While the red cross will be automatically turned off once it starts laser processing.



If **Laser spot** is selected, you will have to enable it each time by clicking **Process > Enable**.





Every time when you leave the processing page, the Laser spot will be turned off. You need to turn it on again if

you want to use Laser Spot for positioning.

Note: The **Laser power** value for positioning can be set to up to 10%.

The Laser Module Won't Fire

This article applies to:

D1 and D1 Pro with all laser Modules.

Issue Description

When you process material with the machine, sometimes you may find no laser coming out of the module. Please follow the instructions below for troubleshooting.

#1 Check the Processing Parameter

Check the processing power parameter on XCS.

If the power value is too low, set a high power value.

If the power value is already high enough, move on to the next step.

#2 Check the Laser Module Cable

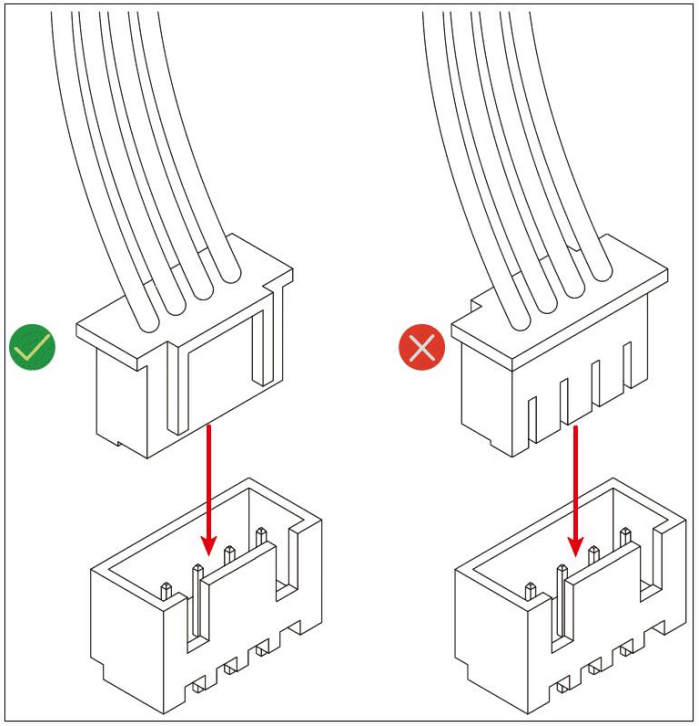
Check if the connection cable is loose

Check if the cable is plugged in backward.

Unplug and replug the cable and make sure it's tight.

If the cable is damaged, replace it with a new one.

If the cable is all fine, move on to the next step.



#3 Check the File

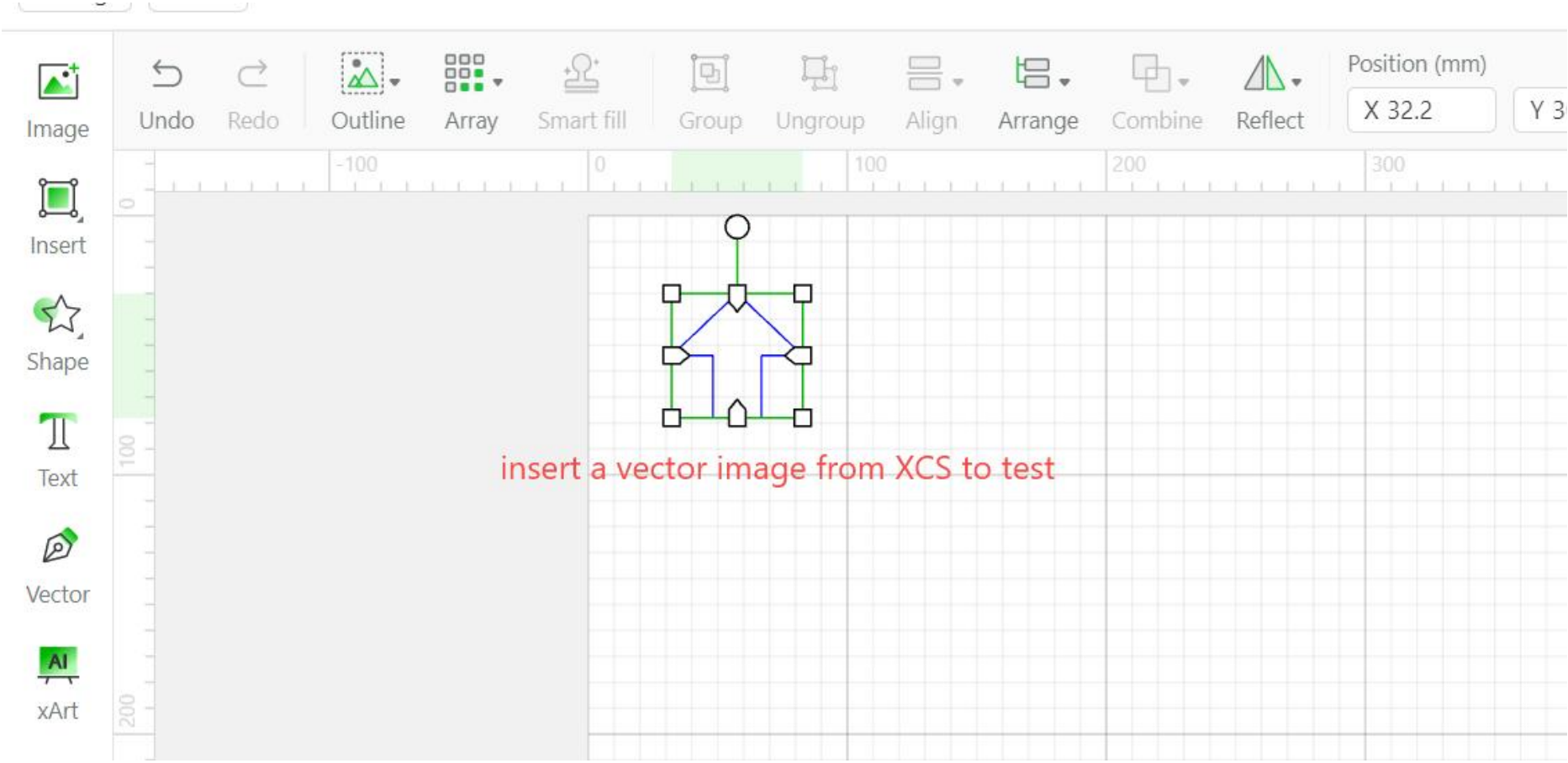
When processing a bitmap image, the laser head won't fire in blank areas, which is a normal condition for the module. Therefore, if your process starts from a blank area, you will see that the laser head doesn't fire at the

beginning.

Try processing a vector image from XCS (as shown below) to test whether the file can be processed properly.

If yes, the machine works properly, and you can continue processing your image;

If not, move on to the next step.



#4 Check the Laser Module

Follow the steps below to check If the laser module is working properly.

Check the indicator inside the laser module. It should stay on.

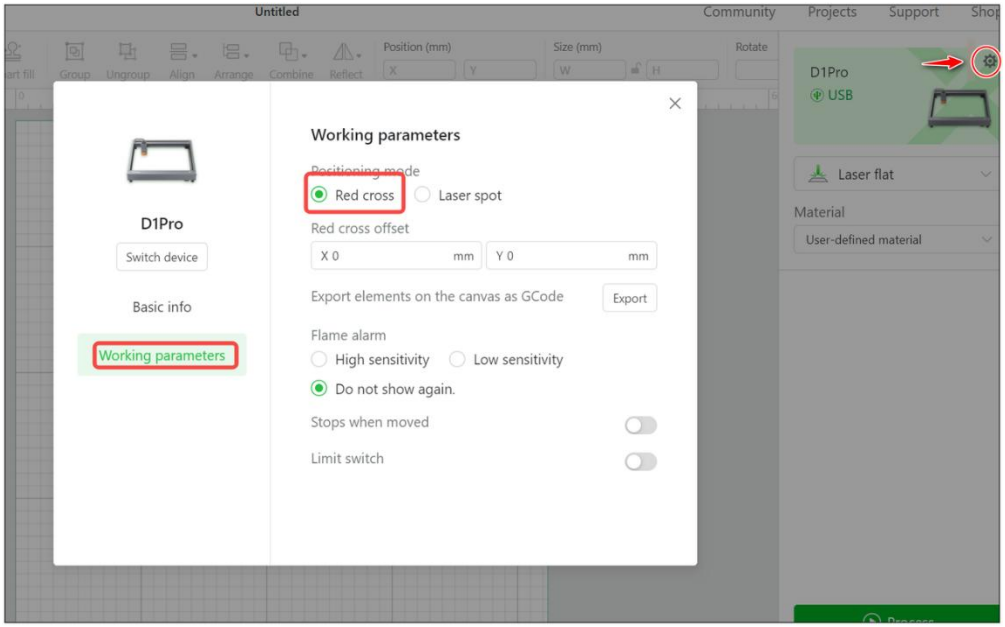


Check the fan in the laser module.

For D1 5W and 10W laser modules. The fan should work after the machine is powered on.

For D1 Pro 5W, 10W, 20W, and 40W laser modules. The fan should work during the framing and processing.

Check the Red Cross positioning light. It should stay on after the machine is powered on and turns off during processing.



Check the laser spot. There should be a stable one spot.

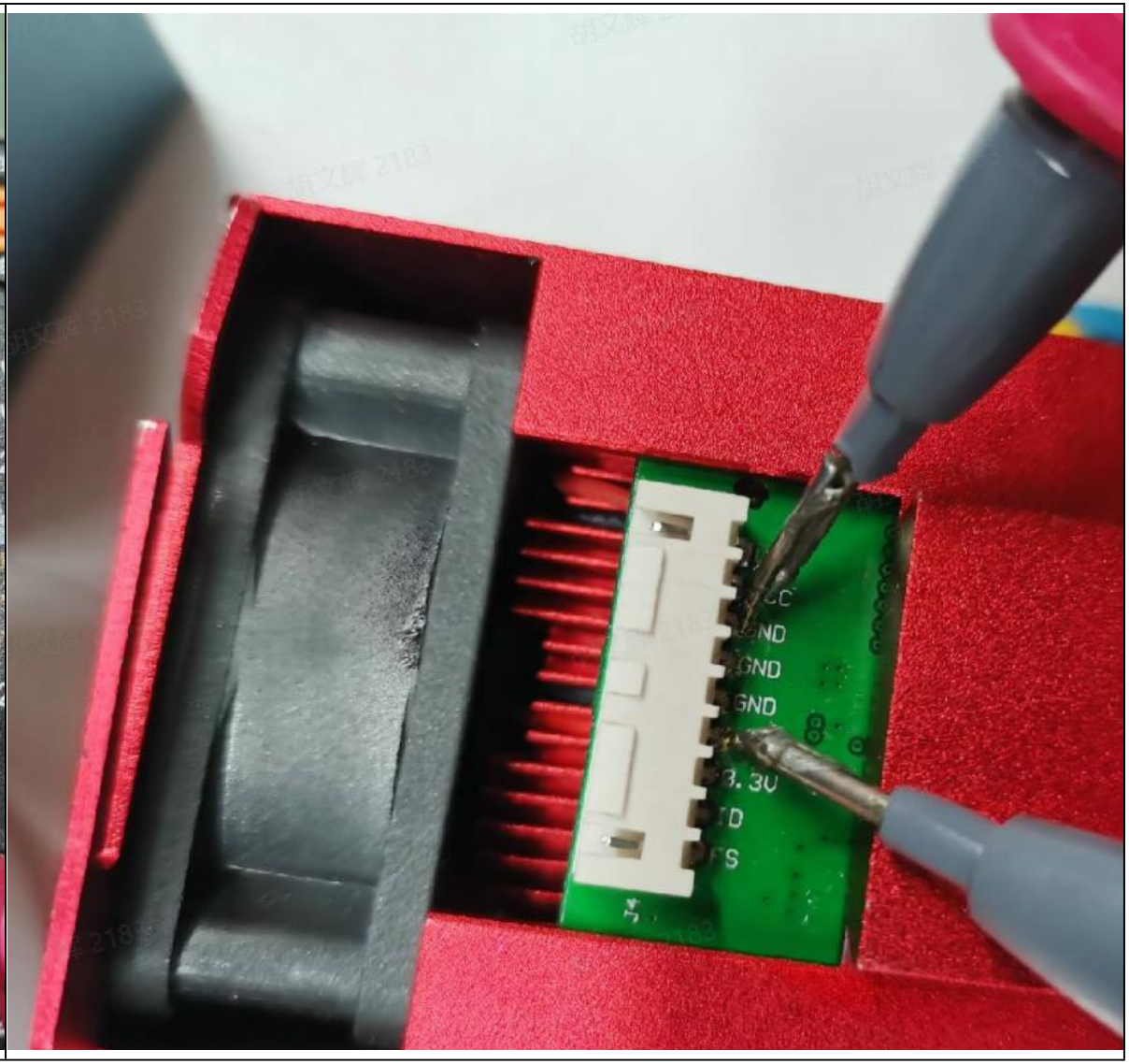
If any of the above is NOT OK, contact Customer Support to replace the faulty laser module.

Else, please check for a short circuit with a multimeter.

Note: If you don't have the multimeter, and the issue persists after trying the steps above, feel free to contact Customer Support for replacement.

1. Switch to the buzz mode on the meter.	2. Put the probes on the GND and PWM pins on the laser module.


SELECT
HOLD
AUTO POWER OFF
NPN
PNP
F
20mF
OFF
hFE
200mV
2V
20MΩ
2MΩ
200kΩ
20kΩ
2kΩ
200Ω
20mA
200mA
20A
20A
200mA
20mA
2mA
20µA
2V
TRUE RMS
20A


GND
GND
GND

If the multimeter buzzes, there is a short circuit, you may need to replace the laser module.

#5 Check the Firmware Version

If you observe the following, the wrong version of firmware may be installed.

The indicator next to the Start button on the machine won't light up.

The indicator on the motherboard lights up and stays on.

Sometimes, the motors may be locked. You won't be able to move the laser module when powered on.

Please follow the links below to upgrade the machine with the correct firmware:

Upgrade the Firmware for D1 and D1 Pro

#6 Check the Motherboard and Adaptor

Check if the blue indicator on the motherboard stays on during work. If not, replace the motherboard.

Check if the green indicator on the power adaptor stays on during work. If not, replace the adaptor.

If both indicators stay on, move on to the next step to check the voltage of the parts.

#7 Check the Voltage Readings

When the output voltage of the adapter or the input or output voltage of the motherboard is abnormal, the laser module may not work. If you have a multimeter, please follow the instructions below to test out the voltage.

Disconnect the power cable and test the output voltage of the adapter according to the photo below.

For D1: **12V**

For D1 Pro 5W, 10W: **24V**

For D1 Pro 20W, 40W: **25V**

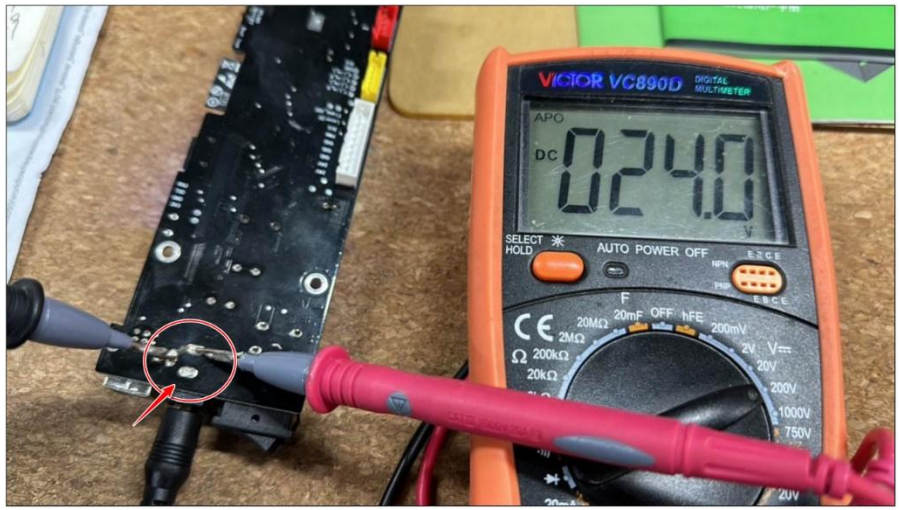


Reconnect the power cable and test the input voltage of the motherboard according to the photo below.

For D1: **12V**

For D1 Pro 5W, 10W: **24V**

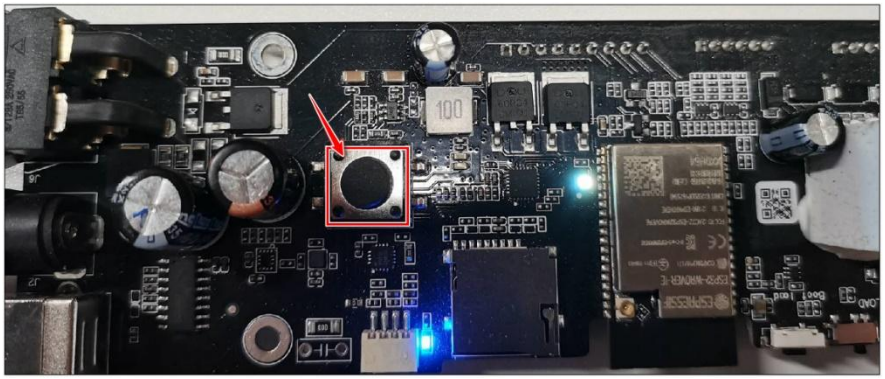
For D1 Pro 20W, 40W: **25V**

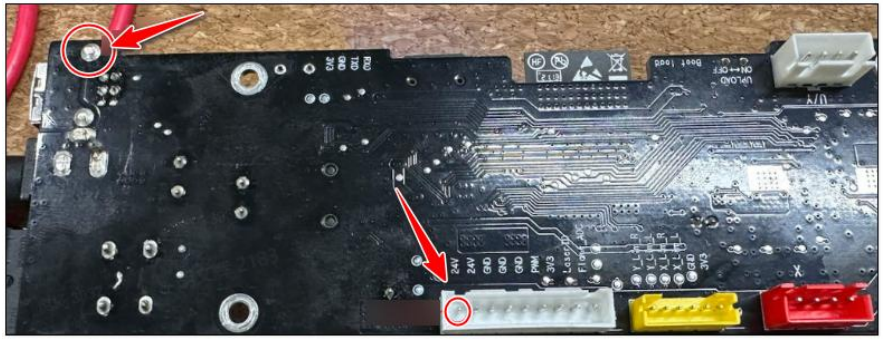


Press the button on the motherboard and test the output voltage between the motherboard and the laser module.

For D1: **12V**

For D1 Pro 5W, 10W, 20W, 40W: **24V**





If None of the Above Works

If you have followed the instructions above and the issue is still not resolved, please read the article in the link below, collect the troubleshooting steps you have taken, and contact xTool tech support for further advice.

Help Tech Support Troubleshoot Faster