CREALITY

Creality Falcon2 Quick Guide

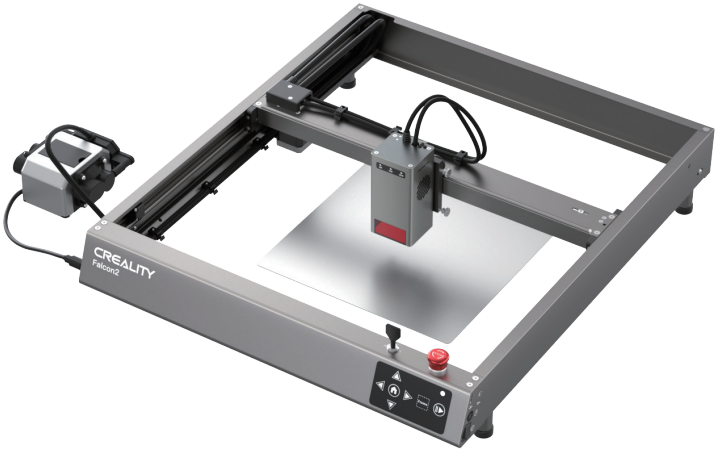
Creality Falcon2 快速使用指南

V1.0

深圳市创想三维科技股份有限公司
SHENZHEN CREALITY 3D TECHNOLOGY CO., LTD.

3D 打 印 产 业 布 道 者
3D Printing Industry Evangelist

渲染图 Rendering picture



尊敬的用户：

感谢您选择创想三维的产品。为了您使用方便，请您在使用之前仔细阅读本快速使用指南，并严格按照快速使用指南的指示进行操作。

创想三维团队时刻准备为您提供优质的服务。如果您在使用过程中遇到问题，请按照快速使用指南结尾所提供的电话、邮箱与我们进行联系。为了您能够更好地体验我们的产品，您还可以从 TF 卡内找到相关使用说明及视频。

您还可以登陆创想三维官网（www.cxsw3d.com）寻找相关软硬件、联系方式、设备操作、设备保养等信息。

Dear Users,

Thank you for choosing Creality. For your convenience, please read this quick guide carefully before use, and follow the instructions in the quick guide.

Creality team is always here to provide you with quality services. If you encounter problems during use,

please contact us via the phone number or email address provided at the end of the Quick Guide. Besides, video instructions are available on the TF card for your reference.

You can also visit Creality's official website (www.cxsw3d.com) to learn more about software and hardware, contact, operation, maintenance, etc.

固件升级

从 https://www.creality.com/pages/download-cr-laser-falcon-laser-engraver 下载最新固件，备份并删除 TF 卡中的文件后，将 bin 文件保存至 TF 卡根目录。

Firmware Upgrade

Download the latest firmware from https://www.creality.com/pages/download-cr-laser-falcon-laser-engraver, back up and delete the files in the TF card, and save the bin file to the root directory of the TF card.

主板固件

断电状态下将 TF 卡插入卡槽，机器通电自动更新。更新过程蜂鸣器会一直发出响声，响声结束则更新完成（期间不可断电）。

Motherboard Firmware

When the machine is powered off, insert the TF card into the card slot, and it will automatically update the firmware when it is powered on. The buzzer will keep beeping during the update process, and the update will be completed when the beep ends (please keep the power on till completion).

激光模组固件

断电状态下将 TF 卡插入读卡器，通过 A 对 C 转接头插入激光模组顶部的 Type-C 接口中，机器通电自动更新。更新过程中激光模组的指示灯会变成橙色跑马灯效果，跑马灯结束则更新完成（期间不可断电）。

Laser Module Firmware

When the machine is powered off, insert the TF card into the card reader, then insert it into the USB-C port on the top of the laser module through the USB-A to USB-C adapter, and the firmware will automatically update when it is powered on. During the update process, the indicator of the laser module will turn orange with a marquee effect, and the update will be completed when it stops the marquee effect (please keep the power on till completion).

使用安全须知

激光雕刻机在雕刻或切割材料时使用高密度激光束照射材料，使材料表面产生高温，目的是在不燃烧的情况下使材料气化。但大多数材料本质上是易燃的，可能被点燃并形成明火，明火可能烧毁机器及其周围环境。

请遵循以下操作原则：

1. 请勿将本产品放置在易燃易爆物品、挥发性溶剂或高热源附近，请将本产品放置在通风、阴凉、少尘的环境内。

2. 请勿在安装过程中使用其他产品电源线代替，请使用本产品附带的电源线。

3. 定期在断电的情况下，用防静电毛刷以及干布清洁机身及激光模组。

4. 无论是否使用空气辅助，请务必接上激光模组上的硅胶管，否则将有镜片脏污风险。

5. 激光工作环境温度在 5°C–35°C，避免在潮湿环境下使用本产品，切勿在雷雨天气下使用本产品。

6. 如长时间不使用本产品，请关闭本产品，并断开电源线。

7. 本产品已连接电源时，请勿用手或其他工具触碰电子相关区域。严禁带电插拔激光模组线。

8. 本产品运行时，请勿触碰正在运动的机械机构及激光模组。

9. 务必在加工材料下方放置激光无法穿透的平面物体，如铝合金或不锈钢板 。

10. 激光雕刻过程中，请务必佩戴护目镜，避免直视激光光斑带来的视力损伤。

11. 激光雕刻、切割过程中可能会产生少许烟雾或气味，建议在通风良好的环境下操作。

12. 严禁 10 岁以下的儿童在没有成人监督的情况下使用本产品，以免造成人身伤害。

13. 准备好灭火器备用，并定期维护和检查灭火器；

14. 机器工作过程中，严禁无人看管；

15. 使用者应遵守设备所在地（使用地）相应国家、地区的法律法规，恪守职业道德，注意安全义务，严禁将我司的产品或设备使用在任何非法用途上。如有违反，相关法律责任我司概不负责。

Security Statement

When a laser engraver engraves or cuts materials, it casts high–density laser beam that heats the surface to vaporize materials without burning them. But most materials are inherently flammable and can be ignited, which may burn the machine and the surroundings.

Please use it as instructed below:

1. Do not place this product near flammable and explosive materials, volatile solvents or heat sources. Please place this product in a ventilated, cool and dust–free environment.

2. Do not use other power cords than the one provided in the package during the installation.

3. Regularly clean the body and laser module with an anti–static brush and a dry cloth when the machine is powered off.

4. Please connect the silicone tube on the laser module no matter using an air assist or not. Otherwise, there will be a risk of lens contamination.

5. The working temperature of laser module is 5°C–35°C. Avoid using this product in a humid environment, and do not use it in thunderstorm weather.

6. If the product isn't used for a long time, please turn off the product and disconnect the power cord.

7. When the product is connected to the power supply, please do not touch the electronic areas with your hands or other tools. It is forbidden to plug and unplug the laser module cable when the machine is powered on.

8. When the product is running, please do not touch any part of the moving system and laser module.

9. Please place a flat object that the laser cannot penetrate under the processed material, such as aluminum alloy or stainless steel plate.

10. During the laser engraving, please wear goggles to avoid vision damage caused by looking directly at the laser spot.

11. Smoke or smell may be produced during laser engraving and cutting. It is recommended to operate in a well-ventilated environment.

12. Children under the age of 10 are strictly prohibited from using this product without adult supervision to avoid injury.

13. Prepare fire extinguishers for backup. Regularly maintain and inspect the fire extinguishers.

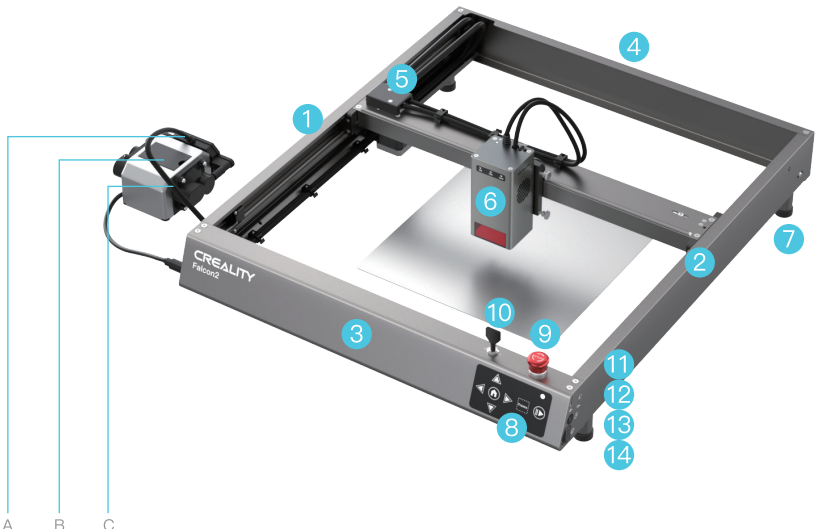
14. It is forbidden to leave it unattended while the machine is working.

15. Users should abide by the laws and regulations of the corresponding country and region where the equipment is located (where it is used), practise professional ethics, and pay attention to safety obligations. It is strictly forbidden to use our products or equipment for any illegal purposes. If there is any violation, we will not be responsible for the relevant legal responsibilities.

产品参数 Parameters

产品名称 Product Name	Creality Falcon2
产品尺寸 Product Size	622*567*185mm
产品净重 Net Weight	6.8kg
输入电压 Input Voltage	100–240V~ 50–60Hz
输出电压 Output Voltage	DC 24.0V 5.0A
工作温度范围 Operating Temperature	5℃–35℃
安规认证 Safety Certifications	IEC60825、FDA、CE、ROHS、FCC、UKCA、UL 报告 /UL Report、PSE
雕刻尺寸 Engraving Area	400mm*415mm
激光源 Laser Source	半导体激光器 Diode Laser
激光波长 Laser Wavelength	455±5nm
光功率 Optical Power	22W
安全等级 Laser Class	Class IV (FDA 分类标准) / Class IV (FDA)
激光雕刻软件 Laser Engraving Software	LightBurn、LaserGRBL
操作系统 Operating System	Windows/MacOS
支持文件格式 Supported File Formats	jpeg、jpg、png、bmp、svg、dxf 等 / Jpeg, jpg, png, bmp, svg, dxf, etc.
支持材料类型 Supported Materials	纸板、木板、竹板、橡胶板、皮革、织物、亚克力、塑料等。 Cardboard, wood, bamboo, rubber, leather, fabric, acrylic, plastic, etc.

产品简介 Product Overview



A. 气嘴
A.Gas Nozzle

B. 防尘盖 & 过滤棉
B.Dust Cover & Filter Cotton

C. 硅胶管
C.Silicone Tube

1.左Y轴组件	8.控制面板	1.Left Y-axis Component	8.Control Panel
2.右Y轴组件	9.急停开关	2.Right Y-axis Component	9.Emergency Stop Button
3.前X轴组件	10.安全锁	3.Front X-axis Component	10.Security Lock
4.后X轴组件	11.TF卡槽	4.Rear X-axis Component	11.TF Card Slot
5.转接板	12.Type-C接口	5.Adapter Board	12.Type-C Port
6.激光模组（22W）	13.电源接口	6.Laser Module (22W)	13.Power Input
7.脚架	14.电源开关	7.Raiser Stand	14.Power Button

零部件清单 Parts List



1.机器框架*1	12.适配器*1	1. Machine Frame*1	12. Power Supply*1
2.脚架（含脚垫）*4	13.M1.5/M2/M2.5/M3内六角扳手*1	2. Raiser Stand (including pads) *4	13.M1.5/M2/M2.5/M3 Allen Wrench*1
3.脚架（不含脚垫）*4	14.开口扳手*1	3. Raiser Stand (without pad)*4	14.Open-end Wrench*1
4.激光模组*1	15.TF卡&读卡器*1	4. Laser Module*1	15.TF Card & Card Reader*1
5.气泵*1	16.A对C转接头*1	5. Air Pump*1	16.USB-A to USB-C Adapter*1
6.Type-C数据线*1	17.钥匙*1	6. USB-C Cable*1	17.Key*1
7.多级定焦条*1	18.保护镜片*1	7. Multi-level Fixed Focus Block*1	18.Protective Lens*1
8.防护眼镜*1	19.M3X10/M4X6内六角沉头螺丝*4	8. Goggles*1	19.M3X10 / M4X6 Hexagon Socket Head Screw*4
9.椴木板*3	20.无尘布*1	9.Basswood Board*3	20.Dust-free Cloth*1
10.防静电毛刷*1	21.黑色理线带*3	10. Anti-static Brush *1	21.Black Cable Straps*3
11.收纳盒*1	22.金属保护板*1	11. Storage Box*1	22.Metal Protection Plate*1

组装说明 Assemble directions

1. 安装四个脚架(含脚垫)：为了适配不同工作台面的大小，机器四角各有 3 处位置可供安装，安装脚架时注意对称。

1. Install four raiser stands (including pads): There are 3 positions for installation at each of the four corners of the machine, to suit different size of workbenches. Pay attention to symmetry when installing the stands.

备注：另外四个脚架(不含脚垫)可增加机器高度，如有需要可叠加安装。

Note: The other four raiser stands (without pads) can be used to raise the machine. You can stack them if necessary.



2. 连接机器与气泵 | Connect the machine with the air pump

2.1 拔掉气泵上的气嘴胶塞，再把机器上的硅胶管接到气泵的气嘴上。

2.1 Unplug the rubber plug in the air nozzle of the air pump, and connect the silicone tube from the machine to the air nozzle of the air pump.





2.2 将气泵连接线插入机器左侧的气泵接口，旋钮开关可调节气流大小。

2.2 Plug the air pump cable into the air pump interface on the left side of the machine, and you can adjust the airflow through the knob switch.



3. 安装激光模组：把它安装至固定板中，使用右侧的手拧螺丝将其锁紧。

3. Install the laser module: Install it onto the bracket and lock it with the thumb screw on the right.



4. 连接激光模组与转接板：激光模组线与硅胶管可通过理线夹固定。

4. Connect the laser module with the adapter board, and fix the laser module cable and the silicone tube with the cable management clips.



5. 使用理线带整理激光模组线与硅胶管。

5. Organize the laser module cable and silicone tube with the cable straps.



准备工作 Preparation

在开始工作前，您需要完成以下准备工作：

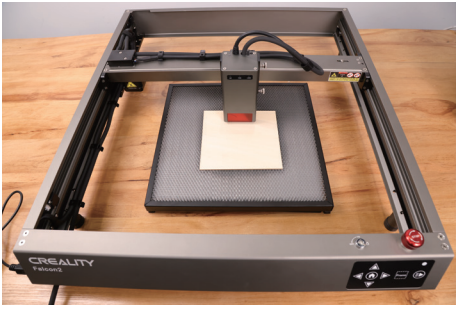
1. 再次仔细阅读使用安全须知中的内容。

2. 依次放置金属保护板、蜂窝板（需另行购买）、加工材料。

Before starting work, you need to complete the following preparations:

1. Carefully read the content in the security statement again.

2. Stack the protective metal plate, honeycomb worktable (optional) and processed materials in sequence.

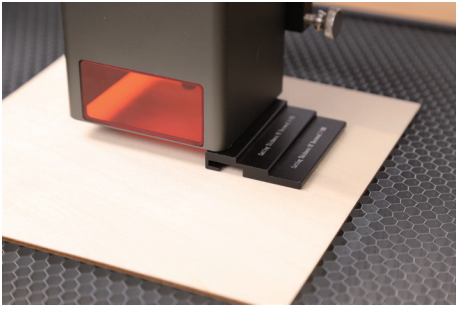


3. 使用多级定焦条正确调节激光模组焦距：

请将多级定焦条放置在模组与加工材料之间，按照定焦条表面的镭雕提示，使激光模组护目罩底部与多级定焦条对应位置相接触，最后使用右侧的手拧螺丝将其锁紧。例如雕刻或者切割 2mm 厚的椴木板或其它材料。

3. Adjust the focal length of the laser module with the multi-level fixed focus block.

Place the multi-level fixed-focus block between the module and the processed material, lower the laser module until the bottom of the laser module cover touch on the corresponding tier marked on the multi-level fixed-focus block, and then lock it with the thumb screw on the right side. For example, when you're engraving or cutting 2mm thick basswood boards or other materials.



软件安装及使用 Software Installation & Use

机器可通过 Type-C 数据线联机工作（LaserGRBL、LightBurn），也可通过 TF 卡进行离线工作（LightBurn）。详细的软件教程请参考 TF 卡中的随机资料。

The machine can be controlled with LaserGRBL or LightBurn after connected to a PC via a USB-C cable, and can also work by reading codes (exported from Lightburn) in a TF card. For software tutorials, please refer to the information provided in the TF card.

联机工作 Control from PC

通过 Type–C 数据线实时连接机器与软件。如果您的电脑没有 USB–A 口，请使用附赠的转接头进行转换。在线工作时，您也可以通过控制面板的开始 / 暂停按键进行控制。

Connect the machine to a PC via a USB–C cable. If your computer does not have a USB–A port, please use the included adapter to convert it. While controlling from PC, you can also control it through the Start/Pause button on the control panel of the machine.

离线工作 Work with TF Card

1. 首先通过 LightBurn 软件生成雕刻或切割文件（gcode），将文件保存至 TF 卡的根目录中（机器默认读取 TF 卡第一级目录中，系统修改日期最新的雕刻文件，建议删除第一级目录中其它雕刻文件）。上电前将 TF 卡插入机器，然后使用配套的电源适配器和电源线连接控制面板，最后打开控制面板右侧的电源开关。

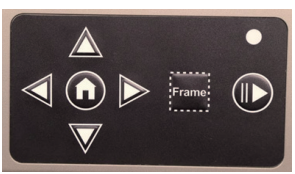
电源接通后，机器发出“滴 ... 滴”两声，机器进行初始化后进入待机模式，指示灯变成绿色呼吸灯效果。

2. 按下 Frame 按键，机器从待机模式进入预览模式，激光模组会发出弱光，并围绕所加工图片的最大 X、Y 边缘重复运动，此时蓝色指示灯常亮，您可以调整材料至合适位置，或通过控制面板上的方向键进行微调。

1. Generate the engraving file (gcode) through the LightBurn software, and save the file to the root directory of the TF card (the machine will access the file with the latest data in the root directory of the TF card by default, so it is advised to delete other irrelevant files in the first directory). Insert the TF card into the machine before powering it on, plug in the power adapter and power cord, and turn on the power button.

After the machine is powered on, it will sound two beeps and enter standby mode. The indicator light will pulse green slowly.

Press the Frame button, and the machine will exit the standby mode and enter the preview mode. The laser module will emit a weak beam and move along the X/Y axis to frame the target working area. The indicator will be in solid blue. You can adjust the material to a suitable position, or make fine adjustments through the arrow buttons on the control panel.



3. 预览模式下，按下开始 / 暂停按键，机器进入雕刻模式，此时激光模组会发出强光，机器开始雕刻，蓝色指示灯常亮。

如果需要暂停雕刻，请按下开始 / 暂停按键，此时指示灯变成绿色呼吸灯效果，再次按下开始 / 暂停按键可以继续雕刻。

如果需要取消雕刻，请长按开始 / 暂停按键 3 秒，机器会发出“滴”一声，随后机器复位，复位完成机器发出“滴…滴”两声，进入待机模式，指示灯变成绿色呼吸灯效果。

3. 雕刻完成后，机器会长“滴”三声，随后机器复位，复位完成机器发出“滴”一声，进入待机模式，指示灯变成绿色呼吸灯效果。

In the preview mode, press the Start/Pause button to enter the engraving mode, the laser module will emit a strong beam, and the machine will start engraving. The indicator will be in solid blue. If you need to pause the engraving, please press the Start/Pause button, and the indicator light will pulse green slowly. Press the Start/Pause button again to continue engraving.

If you need to cancel the engraving, please press and hold the Start/Pause button for 3 seconds, the machine will sound a beep, and the machine will reset. After the reset is completed, the machine will sound two beeps and enter the standby mode. The indicator will pulse green slowly.

3. After the engraving is completed, the machine will sound three beeps and then reset. After the reset is completed, the machine will sound a beep and enter the standby mode, and the indicator will pulse green slowly.

指示灯状态说明 Indicator Explanations

控制面板 Control Panel

1. 指示灯灭：机器处于断电状态，或上电异常。

2. 白灯常亮：机器处于初始化模式，初始化完成后自动进入待机模式。

3. 紫灯闪烁：机器处于固件升级模式，同时蜂鸣器发出急促的响声，等待升级完成后自动进入待机模式。

4. 红灯闪烁：机器处于异常模式，同时蜂鸣器发出急促的响声，清除异常后自动进入待机模式。

5. 绿色呼吸灯（明暗渐变的效果）：机器处于待机模式，可按下 Frame 进入预览模式。

6. 蓝灯常亮：机器处于预览模式或雕刻模式，此时激光模组处于出光状态，需格外注意安全。

7. 黄灯闪烁：TF 卡中的根目录中没有 gcode 文件，此时蜂鸣器会发出“滴…滴”两声。

1. The indicator is off: The machine is in a power-off state, or some abnormality occurs.

2. Solid white: The machine is in the initialization mode, and it will automatically enter the standby mode after the initialization is completed.

3. Flashing purple: The machine is in the firmware upgrade mode, and the buzzer makes a rapid sound at the same time. It will automatically enter the standby mode after the upgrade is completed.

4. Flashing red: The machine is in abnormal mode, and the buzzer makes a rapid sound at the same time. It will automatically enter standby mode after dealing with the abnormality.

5. Pulsing green (slowly): The machine is in standby mode, and you can press Frame button to enter preview mode.

6. Solid blue: The machine is in preview mode or engraving mode, and the laser module is emitting a beam. Special attention should be paid to safety.

7. Flashing yellow: There is no gcode file in the root directory of the TF card, and the buzzer will sound two beeps.

激光模组 Laser Module
AIR：检测当前经过激光模组的气流大小。
红灯闪烁：无气流。雕刻或切割过程中烟尘可能会污染镜片，请检查气泵工作状态并确保接入硅胶管。
橙灯常亮：小气流。雕刻时建议开启小气流，如果开启大气流，可能会影响雕刻效果。
绿灯常亮：大气流。切割时可根据个人需求调节气流大小。

FIRE：检测加工材料是否正在燃烧。
红灯：检测到火焰，为确保安全建议立即停止当前工作。
橙灯：有火灾隐患，请确认材料并合理设置工作参数。
绿灯：未检测到火焰，请定期清理维护激光模组。

LENS：检测激光模组镜片是否脏污。
红灯：镜片严重脏污，请立即停止当前工作，并清理维护激光模组。
橙灯：镜片轻度脏污，建议尽快停止当前工作，并清理维护激光模组。
绿灯：未检测到镜片脏污，请定期清理维护激光模组。

AIR: Detects the current airflow passing through the laser module.
Flashing red: No airflow. Smoke and dust may contaminate the lens during engraving or cutting, please check the working status of the air pump and ensure that the silicone tube is connected.
Solid orange: Small airflow volume. It is recommended to enable a small airflow volume when engraving, since a large airflow volume can affect the engraving result.
Solid green: Large airflow volume. The airflow volume can be adjusted according to individual needs when cutting.

FIRE: Detects whether the processed material is burning.
Red: Flame is detected. It is recommended to stop the current work immediately to ensure safety.
Orange: There is a fire hazard. Please confirm the material and set the working parameters properly.
Green: No flame is detected. Please clean and maintain the laser module regularly.

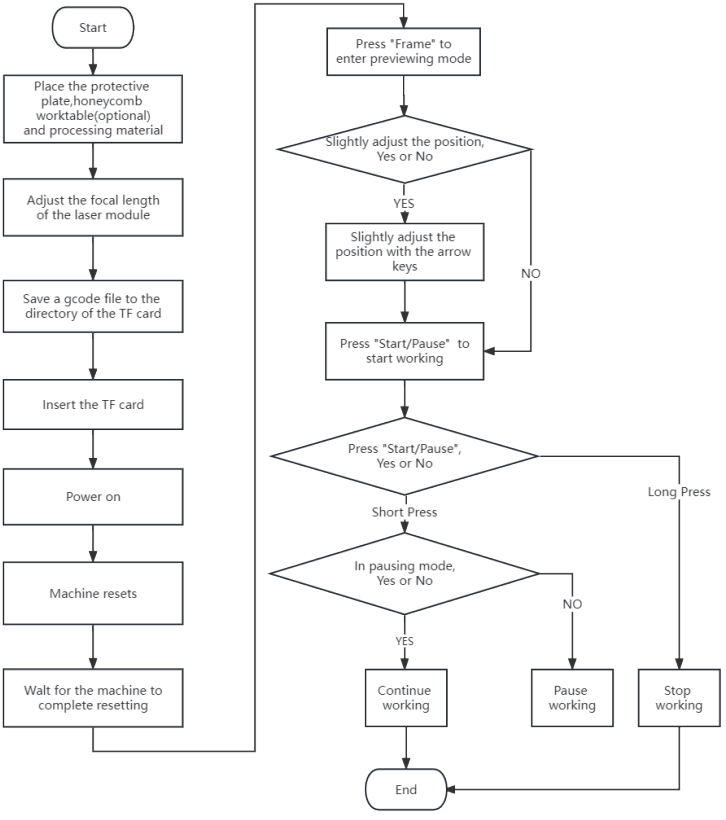
LENS: Detects whether the lens of the laser module is dirty.

Red: The lens is seriously dirty. Please stop the current work immediately, and clean and maintain the laser module.
Orange: The lens is slightly dirty. It is recommended to stop the current work as soon as possible, and clean and maintain the laser module.
Green: The lens is not dirty. Please clean and maintain the laser module regularly.

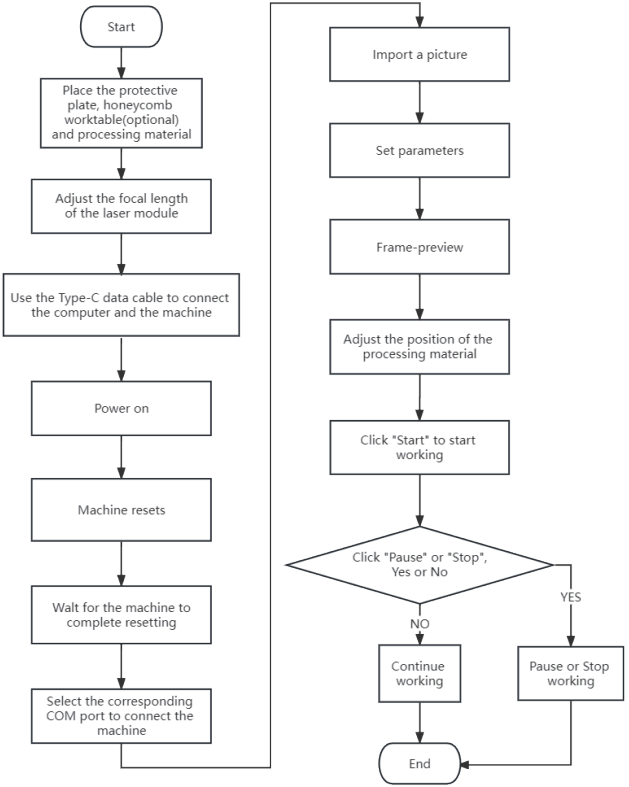
备注 Notes

1.激光模组FIRE与LENS报警功能默认开启，AIR报警功能默认关闭，但指示灯会正常指示当前状况。如果需要开启报警功能，请参考随机资料中的“激光模组报警功能.pdf”。
2.报警时，按下激光模组上的Reset按键即可停止报警，但需要留意激光模组当前状况。
3.激光模组上的Type-C接口主要用于升级激光模组固件，或导出激光模组的工作日志。接口无外接时请塞好防尘塞。

1. The FIRE and LENS alarm functions are enabled by default. The AIR alarm is disabled by default, but the indicator will indicate the status of the laser module properly. To enable the alarm, please refer to the “Laser Module Alarm Function.pdf” in the included documents.
2. When alarming, please check the laser module carefully, and then press the Reset button on the laser module to stop the alarm.
3. The USB-C port on the laser module can be used to upgrade the firmware of the laser module, or export the work log of the laser module. When the port is not in use, please plug in the dust-proof plug.


Start
Place the protective plate,honeycomb worktable(optional) and processing material
Adjust the focal length of the laser module
Save a gcode file to the directory of the TF card
Insert the TF card
Power on
Machine resets
Walt for the machine to complete resetting
Press "Frame" to enter previewing mode
Slightly adjust the position, Yes or No
YES
NO
Slightly adjust the position with the arrow keys
Press "Start/Pause" to start working
Press "Start/Pause", Yes or No
Long Press
Short Press
In pausing mode, Yes or No
NO
YES
Continue working
Pause working
Stop working
End

Control from PC



产品保修卡

产品寄回前请先联系售后专员，为正常进行售后处理，请务必填写此卡，并随机器寄回。

返修 ☐　　换货 ☐　　退货 ☐

客户名称：_____联系电话：_____

收件地址：_____

_____

_____

机器制造编码：_____订单编号：_____

购买渠道：电商平台 ☐　　线下 ☐

购买日期：_____年_____月_____日

故障描述或退、换货原因和建议：

_____

_____

_____

_____

维修情况记录：

_____

_____

_____

温馨提示：基本信息及返厂原因为客户必填项，维修情况记录部分为维修人员填写项。

WARRANTY

Before returning the product and filling in a warranty, please contact after-sale person for going through after-sale formality.And attach this warranty card along with the returned machine.

Repair ☐　　Change ☐　　Return ☐

Name: _____Telephone: _____

Address: _____

_____

_____

Serial Number: _____Order Number: _____

Channel: Platform ☐　　Offline ☐

Date of purchase Day_____Mon._____Year_____

Malfuction And Damage Depiction Or Return And Change Reasons\Suggestions:

_____

_____

_____

_____

Repair Records:

_____

_____

_____

Note: Client need filling in basic infor.and return reasons.Repair records shall retain for technicians.

※ 使用者应遵守设备所在地(使用地)相应国家、地区法律法规, 恪守职业道德, 注意安全义务, 严禁将我司的产品或设备使用在任何非法用途上。如有违反者所应承担的相关法律责任我司概不负责。

※ 因每款机型不同, 实物与图可能有所差异, 请以实物为准, 最终解释权归深圳市创想三维科技股份有限公司所有。

※ Users should abide by the laws and regulations of the country and region where the equipment is located (place of use), abide by professional ethics, and pay attention to safety obligations. It is strictly forbidden to use our products or equipment for any illegal purpose.Our company is not responsible for the relevant legal responsibilities that the violator should bear.

※ Since each model is different, the actual product may be different from the picture. Please refer to the actual product. The final interpretation right belongs to Shenzhen Chuangxiang 3D Technology Co., Ltd.

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3D Printing Industry Evangelist

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