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SCULPFUN iCube Pro

SCULPFUN iCube Pro Laser Engraver User Manual

Model: iCube Pro | Brand: SCULPFUN

1. INTRODUCTION

The SCULPFUN iCube Pro is a compact desktop laser engraver and cutter designed for precision and ease of use. It features a 5000mW diode laser, an ultra-fine 0.06mm laser focus, and a built-in smoke filtration system. This manual provides essential information for safe and effective operation of your device.

Your browser does not support the video tag.

Official product video demonstrating the SCULPFUN iCube Pro laser engraver's features and capabilities.



The SCULPFUN iCube Pro, a compact laser engraver, shown with various engraved items, highlighting its versatility.

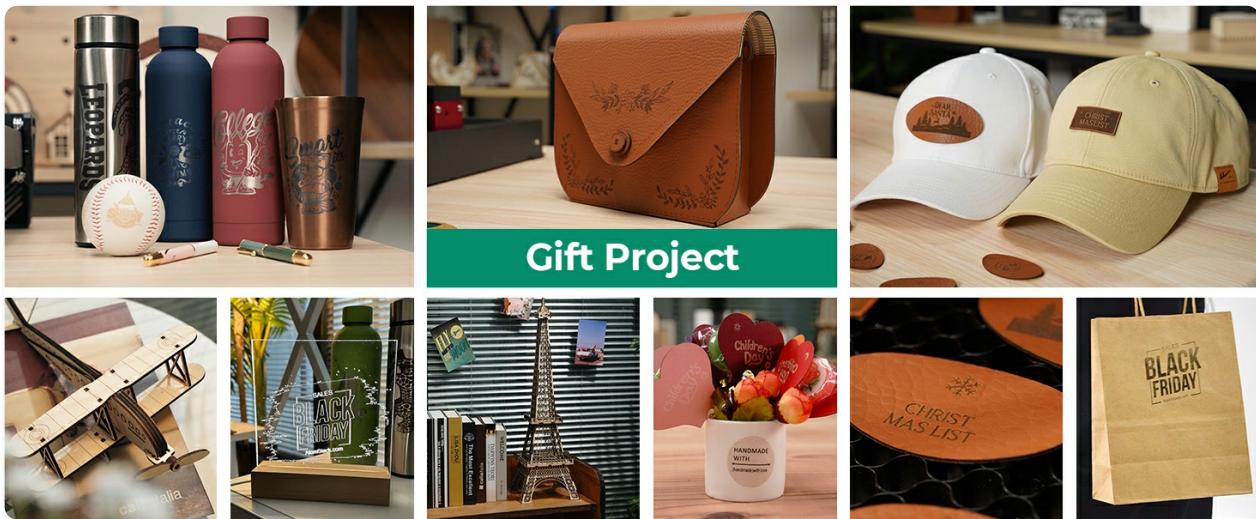
2. SAFETY INFORMATION

This device is a Laser Class 4 product. Always adhere to safety guidelines to prevent injury.

- **Eye Protection:** The device includes a detachable laser filter enclosure that allows direct observation of the laser without goggles. However, always wear the provided laser safety goggles when operating the

machine, especially if the enclosure is removed or damaged.

- **Overheat Alarm:** An integrated temperature alarm system will sound and stop the machine if the internal temperature exceeds 45°C, preventing overheating.
- **Smoke Filtration:** The built-in smoke filtration system effectively filters smoke and odors during operation. Ensure the filter is clean and properly installed for optimal performance.
- **Tilt Detection:** The machine is equipped with a gyroscope that detects tilting beyond 15° or unexpected movement during operation, immediately stopping the laser for safety.
- **Emergency Stop:** An emergency stop button is provided for immediate shutdown in case of any unforeseen incident.
- **Ventilation:** Despite the smoke filtration system, ensure adequate ventilation in the work area.
- **Flammable Materials:** Do not engrave or cut highly flammable materials without proper precautions and supervision.



The laser filter enclosure and safety goggles provide eye protection during operation.

Detachable Hood

The laser filter hood is detachable. When engraving super-large or extra-long objects, such as guitars, skateboards, - simply remove the hood, and you can start your creation!



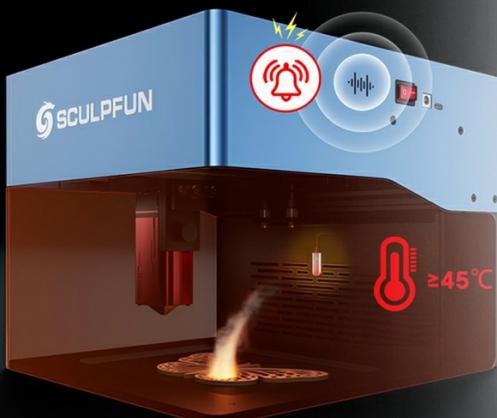
The overheating alarm system activates if the internal temperature exceeds 45°C.

Eye Protection

In addition to including laser safety goggles, the detachable laser filter cover on the machine also filters laser light and protects your eyes from laser harm.



The built-in smoke filtering system helps maintain a clean working environment.



Overheat Alarm

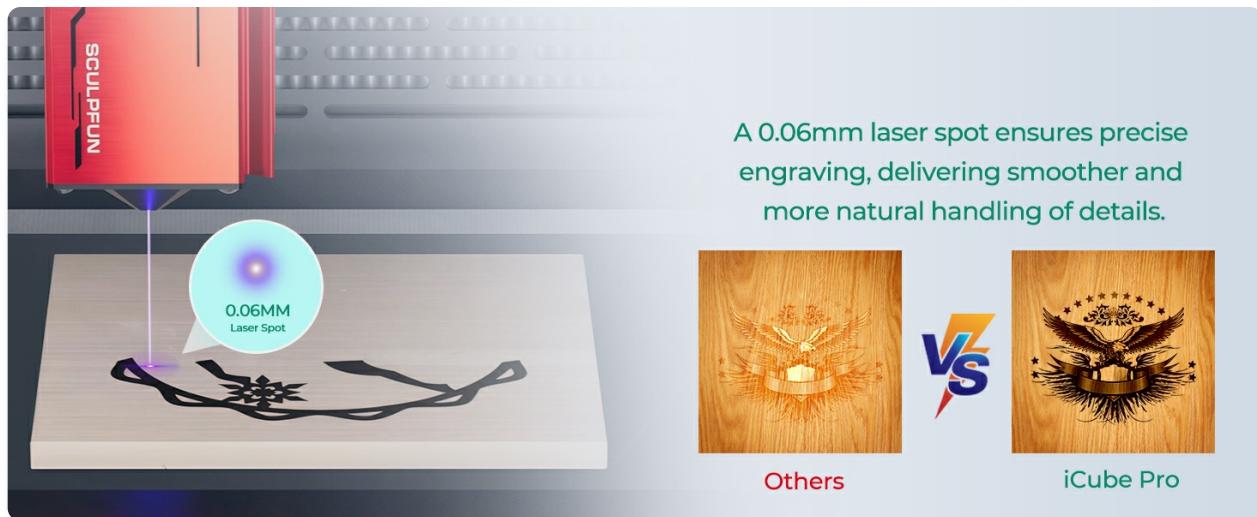
It has a built-in temperature sensing system. When the internal temperature is detected to exceed 45°C, the machine will trigger an alarm and stop working immediately.

Tilt detection automatically stops the laser if the machine is moved or tilted excessively.

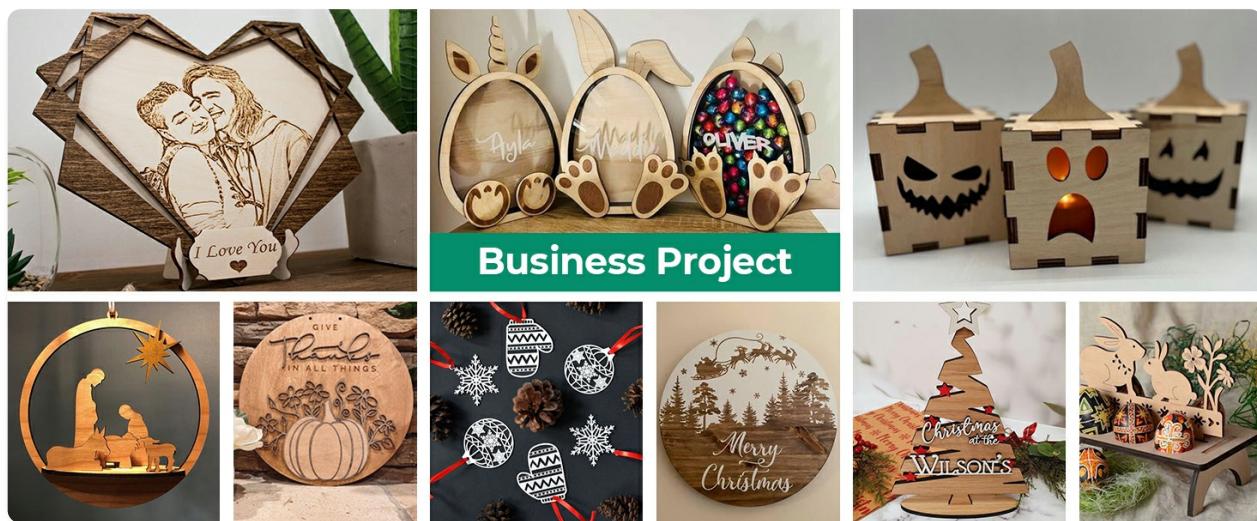
3. SETUP

The SCULPFUN iCube Pro is designed for immediate use with no assembly required.

- 1. Unpacking:** Carefully remove the engraver from its packaging.
- 2. Placement:** Place the engraver on a stable, level surface. Ensure adequate space around the device for ventilation.
- 3. Power Connection:** Connect the power adapter to the engraver and then to a suitable power outlet.
- 4. Software Installation:** Download the official SCULPFUN mobile App or connect to a computer via Bluetooth or Type-C data cable. Compatible software includes LightBurn and LaserGRBL.



The iCube Pro requires no assembly, offering a plug-and-play experience.



The device is ready to use right out of the box.

4. OPERATING INSTRUCTIONS

4.1 Material Placement and Focusing

- Place Material:** Position the material to be engraved or cut within the designated engraving area (125x125mm).
- Quick Focusing:** Use the built-in focus knob to adjust the distance between the laser module and the material until the laser spot is at its smallest point. This ensures optimal engraving and cutting precision.
- Detachable Hood:** For engraving larger objects that do not fit inside the machine, the laser filter hood can be detached. This allows the machine to be placed directly on the surface of the object.



Adjust the focus using the built-in knob for precise results.



The detachable hood enables engraving on objects larger than the internal work area.

4.2 Software Control

Control the iCube Pro using either the SCULPFUN mobile App or computer software (LightBurn, LaserGRBL).

- **Mobile App:** The SCULPFUN App offers a user-friendly interface for beginners to quickly start engraving projects.
- **Computer Software:** Connect via Bluetooth or Type-C data cable to use LightBurn or LaserGRBL for more advanced control and design capabilities.



iCube supports mobile App and computer connection. Scan the QR code to download the (SculpFun) App and you can start it right now.



Windows



MacOS



Android



iOS



The iCube Pro supports control via smartphone app or computer software.

4.3 Engraving and Cutting Materials

The iCube Pro can engrave on a wide range of materials and cut specific ones:

- **Engravable Materials:** Wood, leather, bamboo, ceramics, stainless steel, acrylic, cardboard, food, fabric, rubber, coated metal, glass.
- **Cuttable Materials:** Soft wood (up to 10mm thick), black acrylic (up to 6mm thick).
- **Note for Reflective Materials:** For materials like metal, glass, or ceramics, it is recommended to blacken the surface first to improve laser absorption and achieve better engraving results. Do not attempt to cut hard materials such as metal, ceramic, and glass.

200+ Materials Engravable



Acrylic



Glass



Coated Metal



Cylinder



Wood



Paper



Cardboard



Stainless Steel



Food



Leather



Fabric



Rubber

Note: For engraving **reflective objects** such as metal, glass, or ceramics, it is recommended to first **blacken the surface** to create a layer absorbable by diode laser, which will achieve better engraving results!

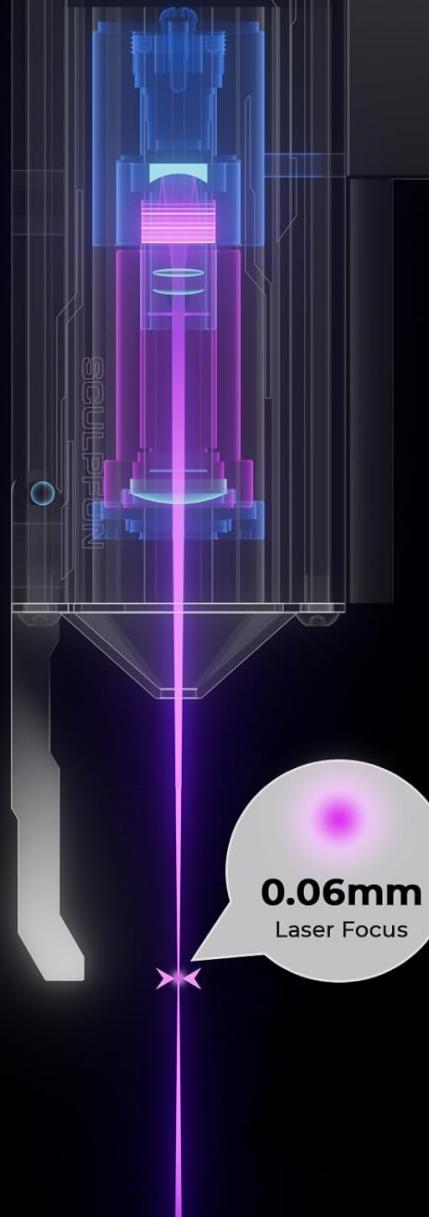
For cutting, it is only suitable for wooden materials, black acrylic and leather. Do not cut **too hard materials** such as metal, ceramic and glass.



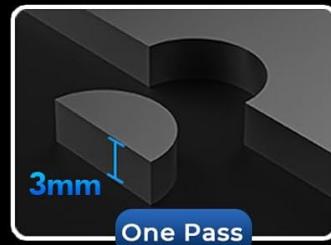
The iCube Pro supports engraving on over 200 types of materials.

Stable Cutting

A **5W** output laser ensures more stable cutting, capable of cutting through 3mm wood in one pass.



Wood Cut



Acrylic Cut



Max. Cut Thickness

The 5W laser can cut soft wood up to 10mm and black acrylic up to 6mm.

5. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your SCULPFUN iCube Pro.

- **Cleaning:** Regularly clean the engraving area and the laser module to remove dust and debris. Use a soft, dry cloth.
- **Smoke Filter:** Inspect and clean or replace the smoke filter as needed. A clogged filter can reduce filtration efficiency.
- **Lens Cleaning:** Periodically clean the laser lens with a specialized lens cleaning solution and cloth to maintain engraving precision.

6. TROUBLESHOOTING

If you encounter issues with your iCube Pro, refer to the following common solutions:

- **Device Not Powering On:** Ensure the power adapter is securely connected to both the engraver and the power outlet. Check the power switch.

- **Laser Not Firing:** Verify that the device is properly connected to the control software/app and that the safety features (e.g., overheat alarm, tilt detection) are not activated. Ensure the material is correctly placed and focused.
- **Poor Engraving/Cutting Quality:** Check the laser focus. Ensure the material is clean and flat. Adjust power and speed settings in the software according to the material type. For reflective materials, ensure the surface is blackened if necessary.
- **Overheat Alarm Activation:** If the temperature alarm sounds, allow the machine to cool down. Ensure the ventilation vents are not obstructed.
- **Unexpected Stops:** If the machine stops unexpectedly, check for tilt detection activation (due to movement) or if the emergency stop button was pressed.
- **Connection Issues:** For Bluetooth connections, ensure the device is discoverable and within range. For Type-C, check the cable and port integrity.

7. SPECIFICATIONS

Feature	Specification
Model Number	iCube Pro
Laser Power	5000mW (5W) Diode Laser
Laser Focus	0.06mm
Engraving Speed	Up to 10000 mm/min
Engraving Area	125mm x 125mm
Max. Cutting Thickness (Soft Wood)	10mm
Max. Cutting Thickness (Black Acrylic)	6mm
Product Dimensions	10.31 x 11.81 x 8.89 inches
Item Weight	7.05 pounds
Manufacturer	SCULPFUN Technology Co., Ltd.

Amazing Speed

A maximum engraving speed of 10000 mm/min greatly improves work efficiency!



Our Speed



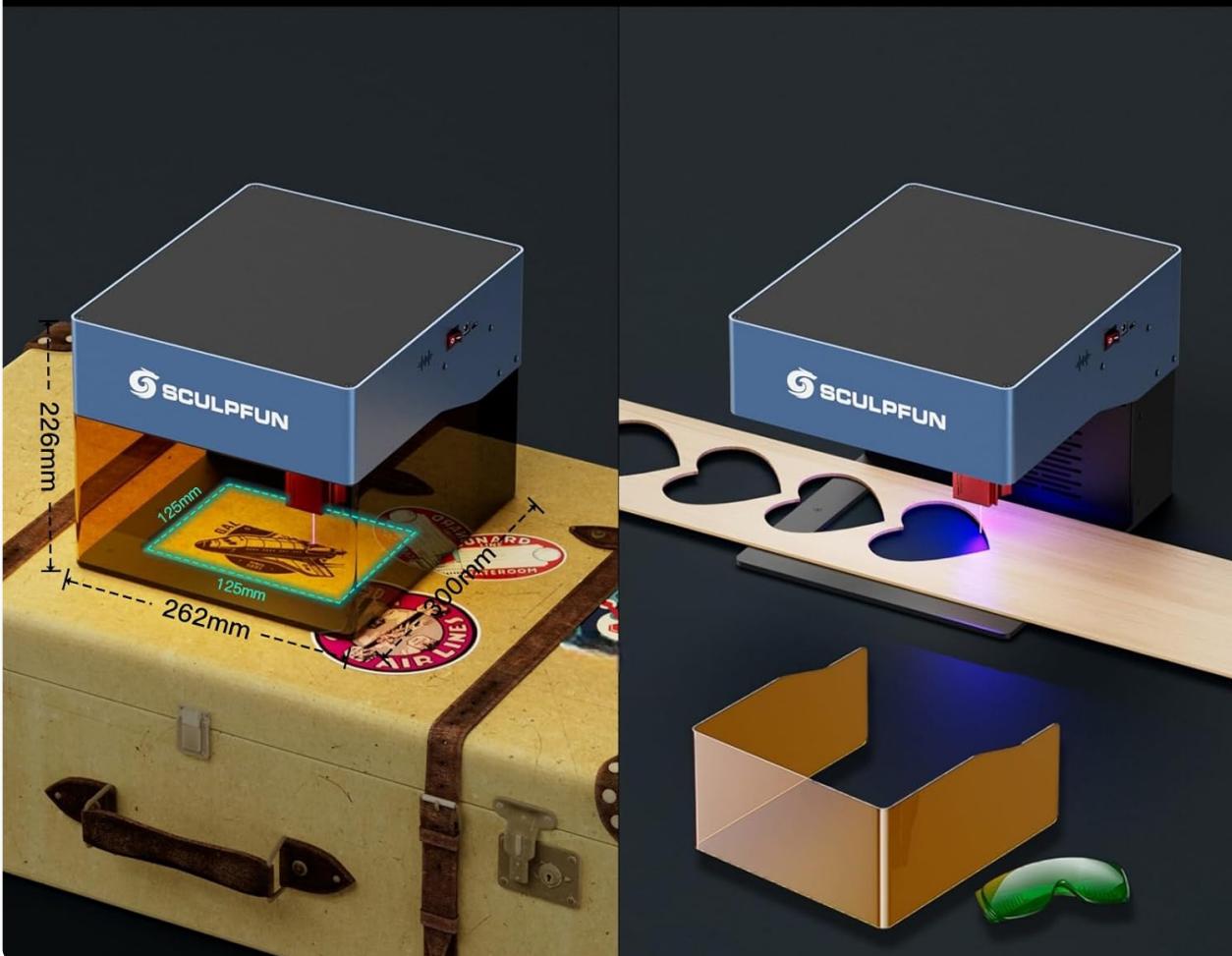
Other Speed



The iCube Pro offers an engraving speed of up to 10000 mm/min.

Detachable Design

The iCube Pro has dimensions of 300×262×226mm, with an engraving area of 125×125mm. Besides, it features a **detachable** laser filter hood. Unbelievably, simply remove the hood and you can engrave **large-sized objects**!



The compact design (262x300x226mm) and detachable hood offer versatility.

8. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official SCULPFUN website or contact their customer service directly. Keep your purchase receipt as proof of purchase for warranty claims.

Online Resources:

- Visit the official SCULPFUN website for FAQs, software updates, and additional resources.
- Consult the SCULPFUN App for in-app support and tutorials.