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› Creality Falcon 10W Laser Engraver and Cutter User Manual

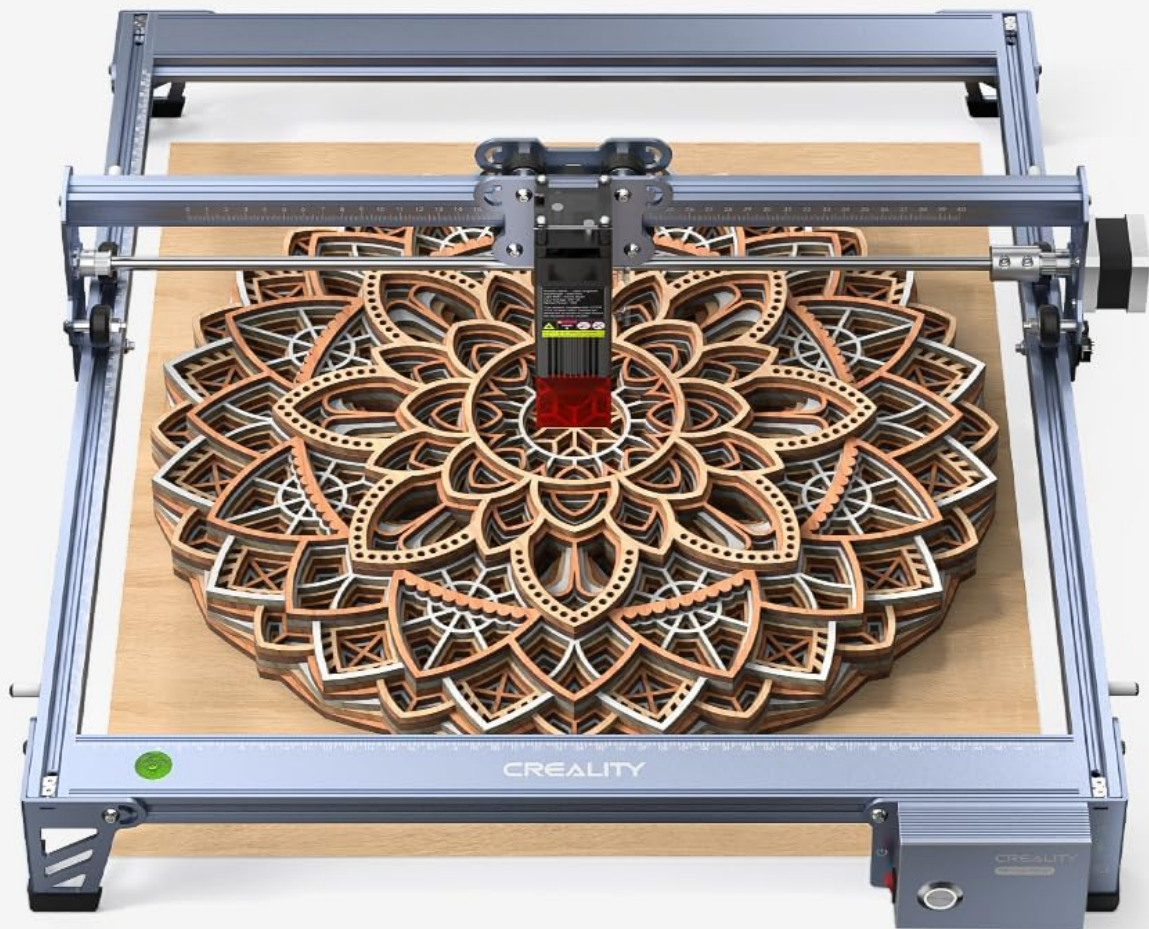
CREALITY FALCON Falcon 10W

Creality Falcon 10W Laser Engraver and Cutter User Manual

Model: Falcon 10W

1. INTRODUCTION

Welcome to the user manual for your new Creality Falcon 10W Laser Engraver and Cutter. This powerful and versatile machine is designed for precision engraving and cutting across a wide range of materials, making it suitable for hobbyists, artists, and small businesses. Please read this manual thoroughly before operation to ensure safe and efficient use of your device.



The Creality Falcon 10W Laser Engraver actively working on a detailed mandala pattern, showcasing its precision and capability on a wooden surface.

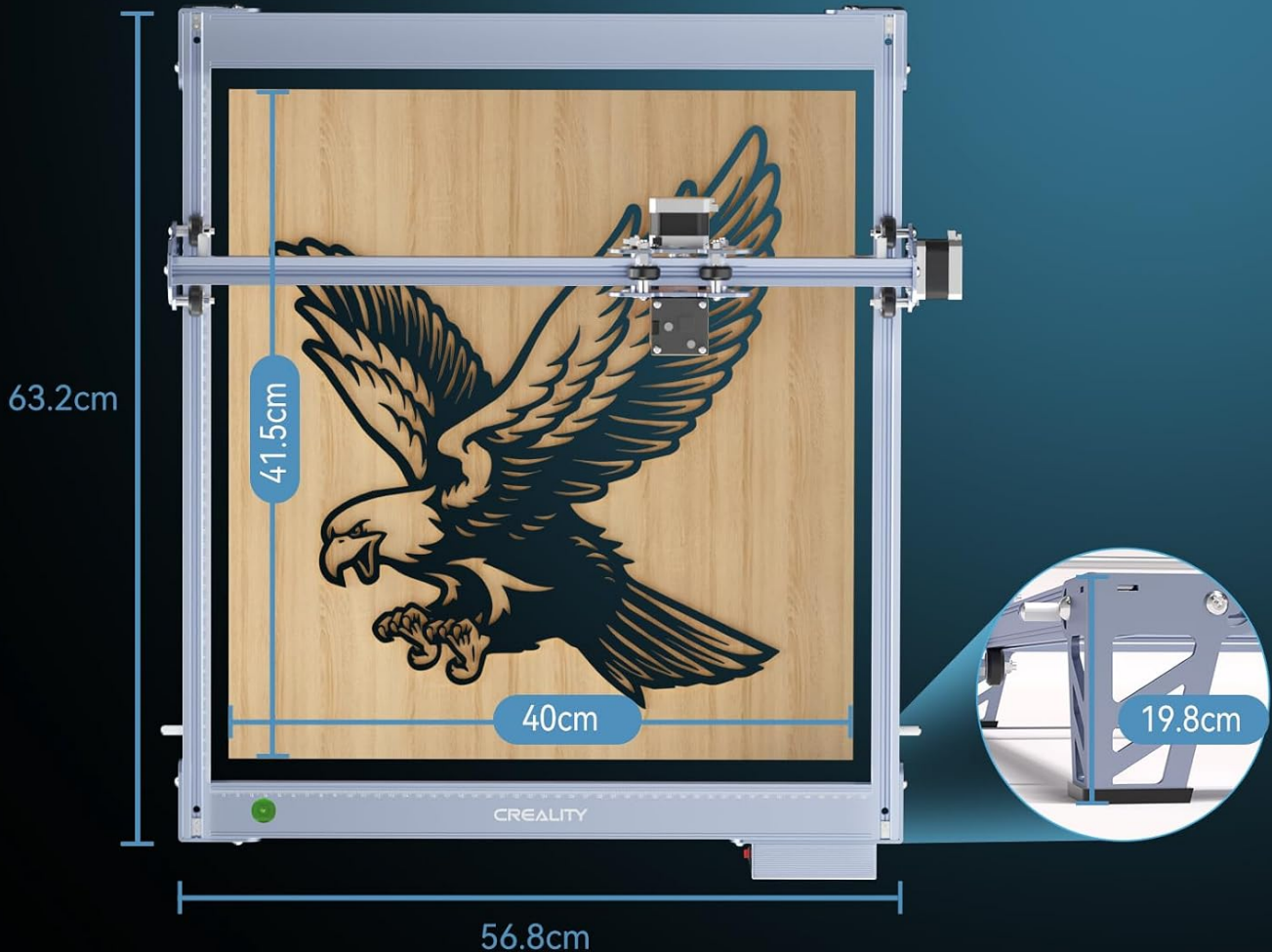
2. SAFETY PRECAUTIONS

Your safety is paramount. This device is a Laser Class 2 product. Always adhere to the following safety guidelines:

- Always wear the provided safety goggles when the laser is in operation.
- Never look directly into the laser beam or at its reflection.
- Ensure proper ventilation in your workspace to dissipate fumes and smoke generated during engraving/cutting.
- Do not leave the machine unattended during operation.
- Keep flammable materials away from the working area.
- The laser head protective cover is designed to protect eyes from laser glare.
- The machine features an active stop function that activates if the machine tilts, enhancing safety.

小型マシン、広い作業スペース

寸法: 56.8*63.2*19.8cm
作業スペース: 40*41.5cm
重量: 3.2KG



This image illustrates the advanced safety features of the Creality Falcon 10W, highlighting the internal leveler for stability and the active stop function for immediate shutdown in case of tilting, ensuring user safety during operation.

3. PACKAGE CONTENTS

Upon unboxing, please verify that all the following components are included:

- 10W Laser Module
- X / Y Axis Assembly
- Control Box Assembly and Profiles
- Power Adapter
- Power Cord
- Linden Plywood (sample material)
- Installation Tools
- TF Card and Card Reader

- Dust-free Cloth
- Goggles
- Multi-level Fixed Focus Bar

4. SETUP GUIDE

The Creality Falcon 10W is designed for easy assembly. Approximately 60% of the components are modularized, simplifying the setup process.

4.1 Assembly Steps

1. Unpack all components and lay them out on a clean, flat surface.
2. Follow the detailed assembly instructions provided in the quick start guide (usually on the TF card or a separate printed sheet).
3. Connect the X and Y axis assemblies to the main frame.
4. Install the laser module onto the carriage.
5. Connect all necessary cables, including the power cord and USB cable (if operating online).
6. Ensure all screws are tightened securely before powering on the device.

This image demonstrates the modular design of the Creality Falcon 10W, showing how its main components are separated for straightforward and quick assembly.

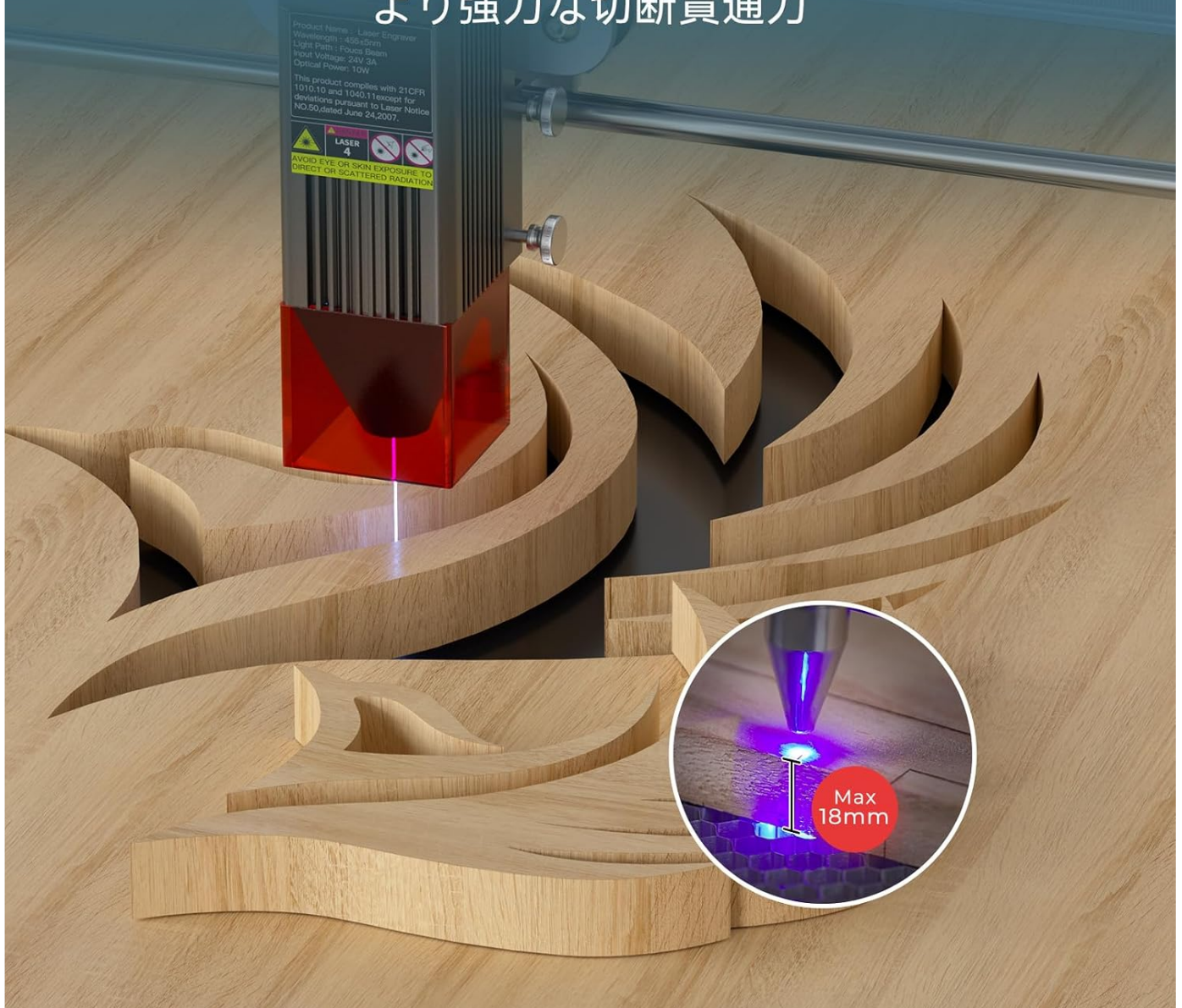
5. PRODUCT FEATURES

5.1 Powerful and Accurate Performance

The Creality Falcon 10W laser engraver and cutter delivers a robust 72W effective output, enabling it to effortlessly cut through 12mm wood in a single pass. Its ultra-fine 6-lens array, combined with a 32-bit chip and proprietary algorithm, achieves a compressed spot size of 0.06×0.06mm, guaranteeing exceptional precision and detail in all your projects.

10Wレーザー出力

より強力な切断貫通力



This image highlights the powerful 10W laser output of the Creality Falcon, showing its ability to cut deeply into wood, indicating strong penetration and cutting efficiency.

0.06mm 超微細スポット

より精密に、より詳細に



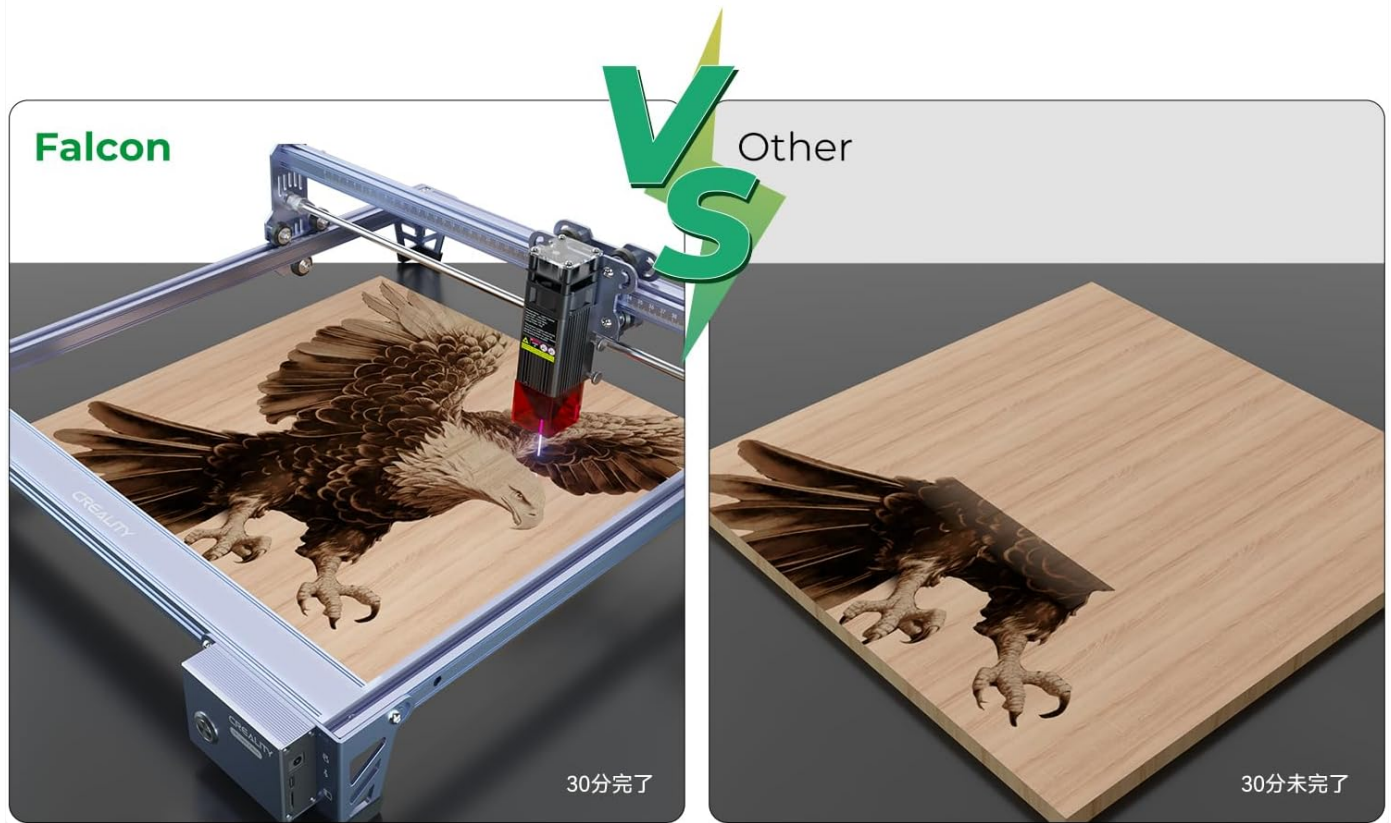
This diagram visually explains the 0.06mm ultra-fine laser spot, demonstrating how the advanced 6-lens array contributes to the machine's high precision for intricate engraving details.

5.2 Efficient Operation and Large Working Area

With a generous 400×415 mm working area, the Creality Falcon 10W allows you to engrave and cut larger materials in a single operation, minimizing the need for repositioning. Its high working speed of 10000mm/min significantly boosts efficiency and productivity, making it an excellent choice for small businesses engaged in batch production.

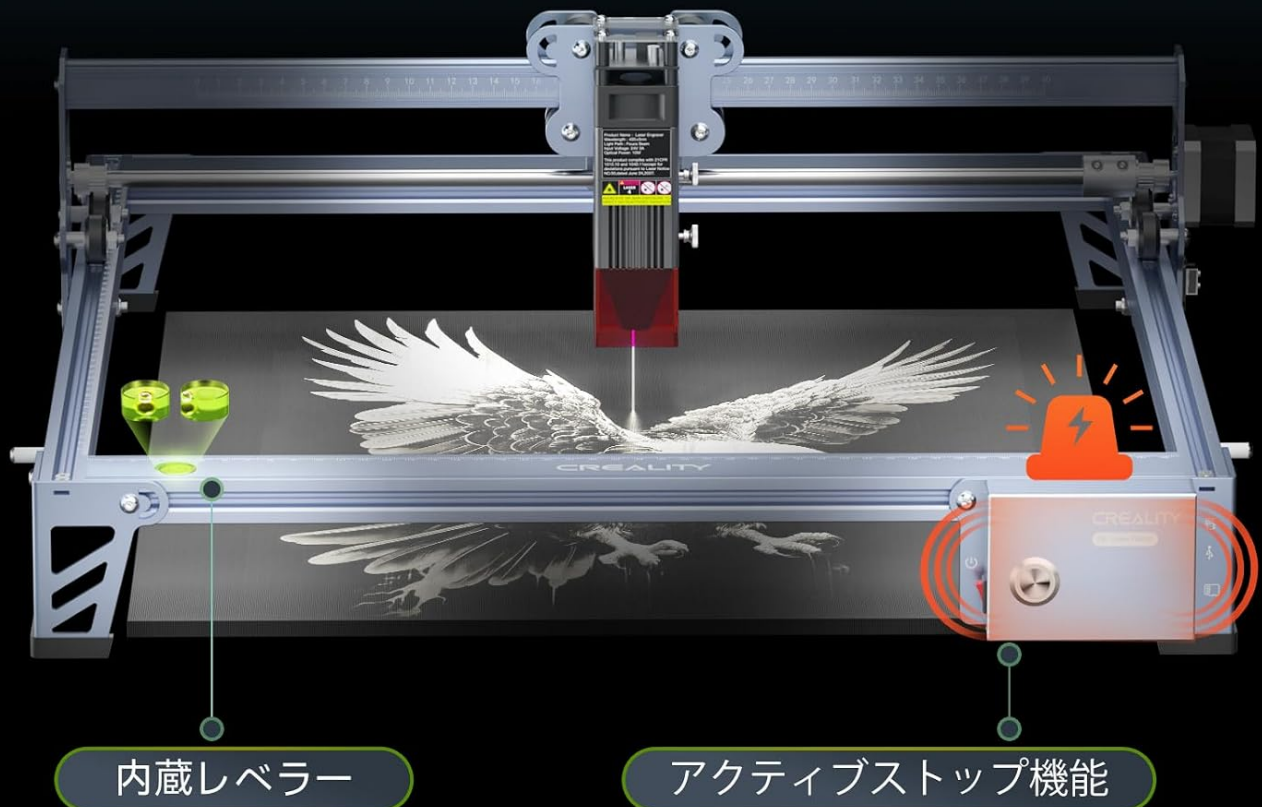
10000mm/分の彫刻速度

効率的なバッチ生産が可能



This image compares the engraving speed of the Falcon with another machine, illustrating how its 10000mm/min speed allows for faster completion of projects, enhancing overall efficiency.

高度な安全保護



This diagram provides a clear view of the machine's dimensions and its substantial 400x415mm working area, demonstrating how a compact machine can offer a large creative space.

5.3 Wide Compatibility and Offline Engraving

The Creality Falcon 10W is compatible with popular professional engraving software such as LightBurn and LASERGRBL, supporting both MacOS and Windows operating systems. For added convenience, it supports offline operation: simply insert a TF card with your design files and press the power button to begin your creative work without needing a computer connection.

幅広い互換性

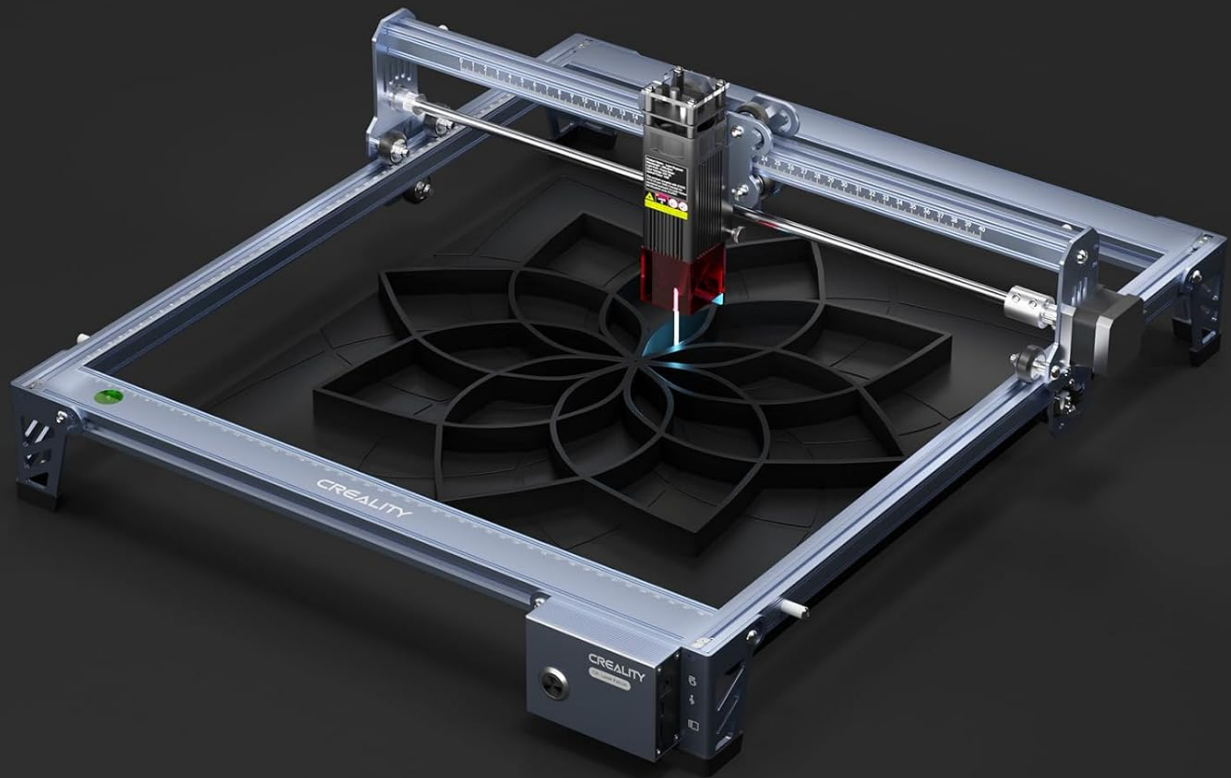
オンライン作成



オフライン彫刻

This image demonstrates the wide compatibility of the Creality Falcon 10W, showing it connected to both Windows and MacOS systems, indicating support for various professional engraving software.

安定性と精度の保証



32 ビット チップと自己アルゴリズム開発



4 つの耐久性のある V 字型モーション ホイール

This image focuses on the machine's control panel, highlighting the TF card slot and power button, which enable convenient offline engraving without a computer connection.

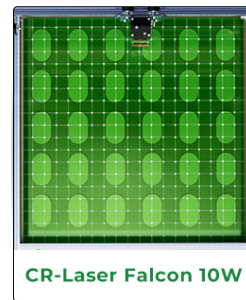
5.4 Stability and Precision Assurance

Built with a high-quality all-aluminum alloy, the Creality Falcon 10W ensures robust stability. It incorporates a 32-bit chip and durable V-motion wheels, which contribute to its precise movement and consistent performance, minimizing errors and maximizing engraving quality.



商業バッチ生産に最適

Creality Falcon 10W は、400 x 415 mm の広い作業領域と 10000 mm/分の驚異的な速度を特徴としており、効率的なバッチ処理に最適です。



その他

This image showcases the internal engineering that ensures stability and precision, featuring the 32-bit chip for advanced processing and durable V-motion wheels for smooth, accurate movement.

5.5 Applicable Materials

The Creality Falcon 10W is highly versatile and can engrave or cut a wide variety of materials, including:

- Wood
- Leather
- Fabric
- Paper
- Acrylic
- Glass
- Metal (engraving only, certain types)
- Ceramics

さまざまな素材に適しています



This collage displays a wide array of materials, from paper and fabric to wood and metal, illustrating the extensive versatility of the Creality Falcon 10W for different engraving and cutting applications.

6. OPERATING INSTRUCTIONS

6.1 Software Installation

To operate the Creality Falcon 10W, you will need compatible engraving software. We recommend LightBurn or LASERGRBL. Please download and install the latest version from their official websites. Drivers for the machine may also be required and are typically found on the included TF card or the manufacturer's support page.

6.2 Connecting the Device

Connect the laser engraver to your computer using the provided USB cable. Ensure the power adapter is connected to the machine and a power outlet. Turn on the machine using the power button.

6.3 Loading Material

Place your chosen material flat within the working area of the machine. Ensure it is securely positioned and will not shift during operation. Use clamps if necessary.

6.4 Focusing the Laser

Accurate focusing is crucial for optimal engraving and cutting results. Use the multi-level fixed focus bar to set the correct distance between the laser module and the material surface. Follow the specific focusing instructions provided in the quick start guide or software manual.

6.5 Starting an Engraving/Cutting Job

Online Operation:

1. Open your engraving software (e.g., LightBurn, LASERGRBL).
2. Import or create your design.
3. Configure the laser settings (power, speed, passes) according to your material and desired effect.
4. Preview the job to ensure correct placement and scale.
5. Initiate the job from the software.

Offline Operation:

1. Save your design file (e.g., G-code) to the provided TF card.
2. Insert the TF card into the machine's card slot.
3. Power on the machine.
4. Use the control panel buttons to select and start the desired file.

7. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your Creality Falcon 10W.

- **Cleaning the Laser Lens:** Periodically clean the laser lens with a soft, lint-free cloth and lens cleaning solution to remove dust and debris that can affect laser performance.
- **Cleaning the Rails and Wheels:** Keep the X and Y axis rails and V-motion wheels free from dust and debris to ensure smooth movement. Use a dry cloth or brush.
- **Firmware Updates:** Check the official Creality website for any available firmware updates to improve performance or add new features.
- **Storage:** When not in use, store the machine in a clean, dry environment away from direct sunlight and extreme temperatures.

8. TROUBLESHOOTING

Here are some common issues and their potential solutions:

- Machine Not Powering On:**
Ensure the power adapter is securely connected to both the machine and a working power outlet. Check the power button.
- Laser Not Firing/Engraving:**
Verify that the laser module is correctly installed and connected. Check software settings for laser power and speed. Ensure the material is within the focus range.
- Machine Not Moving/Responding:**
For online operation, ensure the USB cable is securely connected and the correct COM port is selected in your software. For offline operation, ensure the TF card is inserted correctly and the file is valid. Restart the machine and software.
- Engraving/Cutting Quality is Poor:**
Check laser focus. Adjust laser power and speed settings. Ensure the material is flat and stable. Clean the laser lens.
- X and Y Alignment Issues:**
Ensure the machine frame is square and stable. Check for any obstructions on the rails or issues with the belts/wheels.
- No Japanese Manual:**
While this manual is in English, some users have noted the lack of a Japanese manual. Please refer to online resources, community forums, or translation tools for assistance if needed.

9. TECHNICAL SPECIFICATIONS

Specification	Value
Brand	CREALITY FALCON
Package Dimensions	61 x 28.8 x 20.7 cm
Item Weight	4.47 Kilograms
Power Source	AC/DC
Included Components	CR Falcon 10W * 1
ASIN	B0DDBRBL1L
Date First Available	September 17, 2024

10. WARRANTY AND SUPPORT

Creality Falcon provides professional after-sales support for your product. For any technical issues, warranty claims, or further assistance, please contact the seller or refer to the official Creality Falcon support channels. Details regarding warranty period and terms are typically included with your purchase documentation.
