

IKIER IKIER X5 Pro

IKIER X5 Pro Laser Engraver User Manual

Model: IKIER X5 Pro

1. IMPORTANT SAFETY INFORMATION

Operating a laser engraver involves inherent risks. Adhere strictly to all safety guidelines to prevent injury and damage. This device is a Class 4 laser product.

- **Eye Protection:** Always wear the provided safety glasses or equivalent laser-protective eyewear when the machine is in operation. The panoramic magnetic eye protection shield filters 97% of strong light, but direct exposure to the laser beam can cause permanent eye damage.
- **Ventilation:** Operate the laser engraver in a well-ventilated area to dissipate fumes and smoke produced during engraving and cutting.
- **Fire Safety:** Keep a fire extinguisher nearby. Never leave the machine unattended during operation, especially when cutting materials that may ignite.
- **Material Safety:** Engrave and cut only approved materials. Certain materials can produce toxic fumes or catch fire easily.
- **Emergency Stop:** Familiarize yourself with the location of the emergency stop button and how to use it.

Built-in Safety Features:

- **Flame Detector:** The IKIER X5 Pro is equipped with a flame detector that will automatically stop processing and trigger a buzzer alarm if it detects a flame.
- **Tilt Sensor (Gyroscope):** The machine will automatically stop operation and sound an alarm if it tilts more than 15 degrees, preventing accidents from unexpected movement.

Safe to Use

Flame Detector



Gyroscope



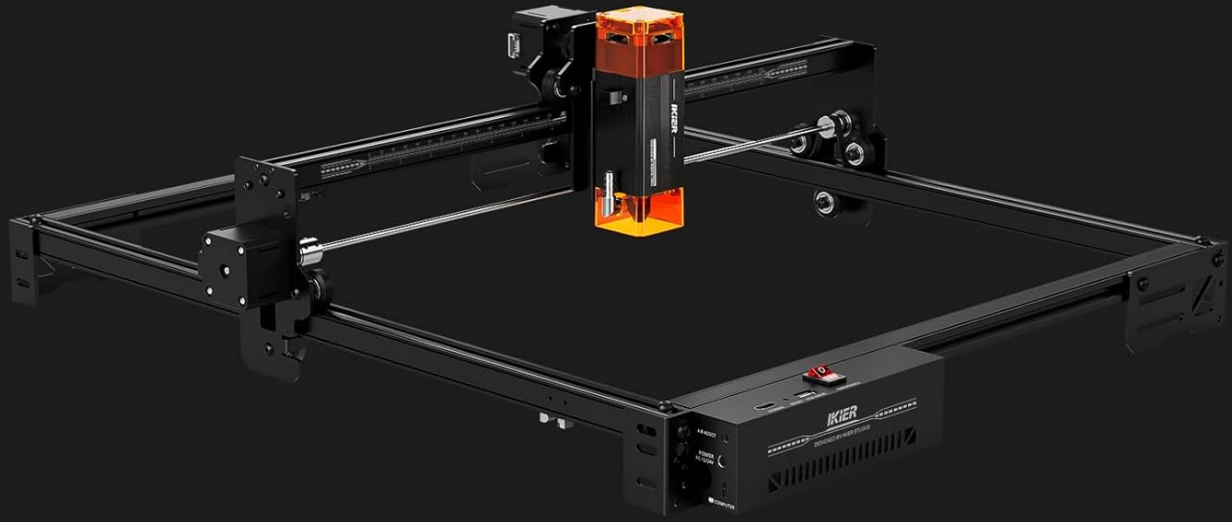
Image: The IKIER X5 Pro's integrated flame detector and gyroscope for enhanced operational safety.

2. PACKAGE CONTENTS

Verify that all components listed below are present in your package before proceeding with assembly.

- IKIER X5 Pro Laser Engraver (main unit)
- Installation Toolkit (screws, wrenches, etc.)
- Power Cable
- Power Adapter
- USB Flash Drive (containing software and drivers)
- Type C Cable
- X-axis Connecting Line
- Focus Shims
- Safety Glasses

Packaging List



Installation Toolkit



Power Cable



Power Adapter



USB Flash Drive



Type C Cable



X-axis Connecting Line



Focus Shims



Safety Glasses



Product Manual

Image: All components included in the IKIER X5 Pro Laser Engraver package.

3. ASSEMBLY AND SETUP

The IKIER X5 Pro is designed for quick assembly, typically completed within 10-20 minutes. The full aluminum alloy structure ensures stability and durability.

1. **Unpack Components:** Carefully remove all items from the packaging and place them on a clean, flat surface.
2. **Assemble Frame:** Follow the step-by-step instructions in the included Product Manual to connect the frame components using the provided toolkit. Ensure all screws are securely tightened, but avoid over-tightening, which can cause rail friction.
3. **Install Laser Module:** Mount the laser module onto the gantry. The integral lead screw design ensures precise laser movement.
4. **Connect Cables:** Connect the power cable, Type C cable, and X-axis connecting line as indicated in the manual.

5. **Initial Power On:** Connect the power adapter and turn on the machine. Observe for any unusual sounds or movements.

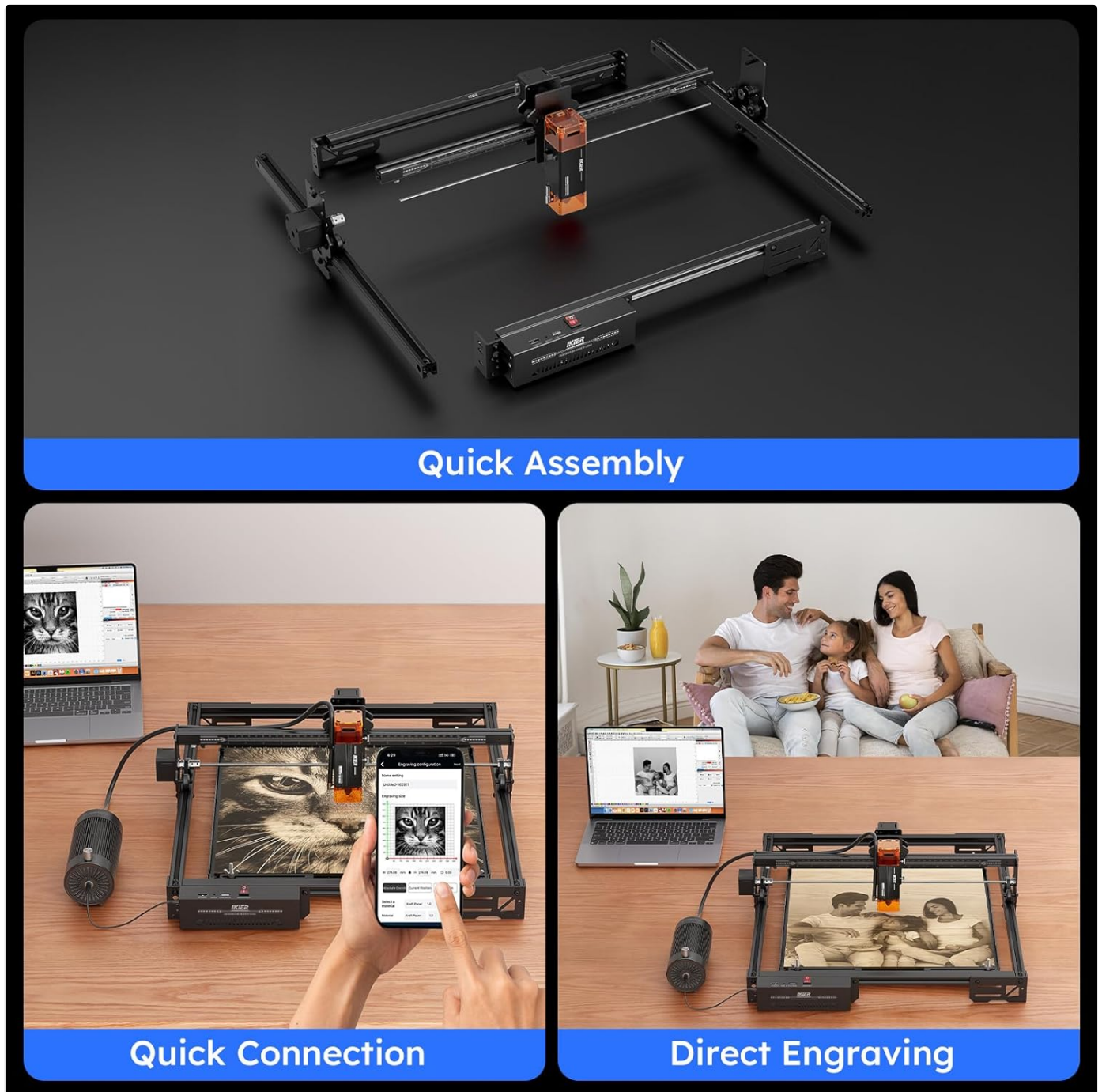


Image: Visual guide for quick assembly, mobile app connection, and direct engraving setup.

4. OPERATING INSTRUCTIONS

Software and Connectivity:

The IKIER X5 Pro supports various operating systems and file formats, offering flexible control options.

- **Operating Systems:** Compatible with Linux, Mac OS, and Windows.
- **File Formats:** Supports SVG, PNG, DXF, TIF, BMP, and PDF.
- **Next-Generation APP Control:** Utilize the dedicated mobile application for a streamlined user experience and enhanced control functions. This allows for convenient operation directly from your smartphone or tablet.
- **Offline Engraving:** The machine supports offline engraving, enabling you to engrave projects without a continuous computer connection once the file is loaded.

- **Power Loss Recovery:** In the event of a sudden power outage or accidental interruption, the machine features a power loss recovery function, allowing it to resume engraving from the exact original position.

Engraving and Cutting Process:

1. **Prepare Material:** Place your chosen material securely within the working area (410x380mm).
2. **Focus the Laser:** Use the provided focus shims to set the correct focal distance for optimal engraving and cutting precision. The laser spot area is $0.06 \times 0.06\text{mm}$, balancing precision and cutting energy.
3. **Load Design:** Transfer your design file to the machine via USB or the connected software/APP.
4. **Set Parameters:** Adjust engraving/cutting parameters (speed, power, passes) based on the material type and desired outcome.
5. **Start Operation:** Initiate the engraving or cutting process. Monitor the machine closely, especially during the initial stages.



The image features a black and orange IKIER X5 Pro laser engraver. The machine has a transparent orange top and bottom housing, with a black central body. It is positioned on a wooden surface. A blue laser beam is visible at the bottom of the machine. The background is dark, and the machine's base has a scale with markings from 90 to 120. The text 'IKIER' and 'DESIGNED BY IKIER STUDIO' are visible on the side of the machine.

0.01mm Precision Engraving

0.01mm

Comparison of Engraving Accuracy

Model	Spot Size
X5 PRO	$0.06 \times 0.08\text{mm}$
	$0.15 \times 0.15\text{mm}$

Image: The IKIER X5 Pro offers 0.01mm precision engraving with a fine laser spot size of $0.06 \times 0.06\text{mm}$.

5W

ONE PASS



Paulownia

ONE PASS



Black Acrylic

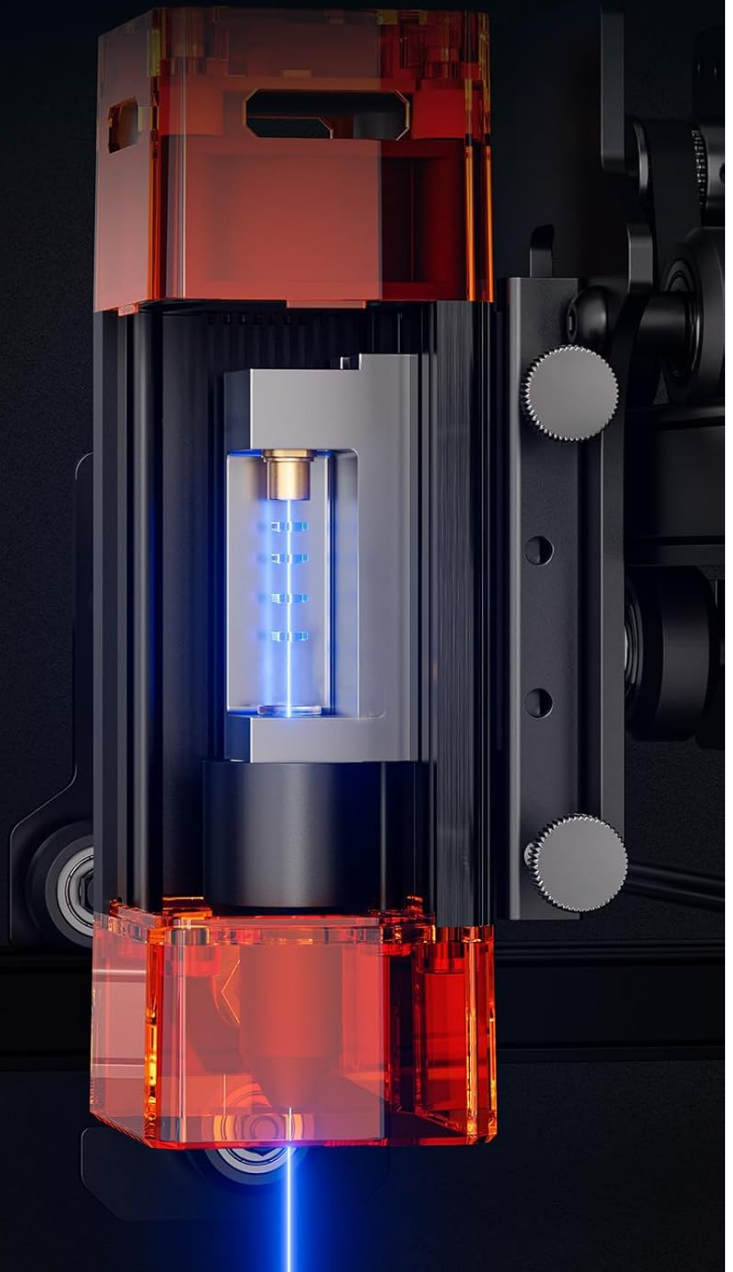


Image: Demonstrates the 5W laser's ability to cut 5mm Paulownia wood and 3mm black acrylic in a single pass.

5. MATERIAL COMPATIBILITY

The IKIER X5 Pro is suitable for engraving and cutting a wide range of materials. Always test on a small, inconspicuous area first to determine optimal settings.

- **Engraving:** Wood, Glass, Plastic, Leather, Rubber, Paper, Cardboard, Anodized Aluminum, Stainless Steel (with coating), Ceramics (with coating), Stone.
- **Cutting:** Wood (up to 5mm Paulownia), Paper, Cardboard, Leather, Non-transparent Acrylic (up to 3mm black acrylic), Fabric.

Note: Transparent materials like clear acrylic or glass may require a dark coating (e.g., paint or marker) on the surface for the laser to interact effectively.

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your IKIER X5 Pro laser engraver.

- **Clean Laser Lens:** Periodically clean the laser lens with a soft, lint-free cloth and lens cleaning solution to ensure clear laser output.
- **Clean Rails and Wheels:** Keep the X and Y axis rails and wheels free from dust and debris. A build-up can affect movement precision.
- **Check Belt Tension:** Ensure the timing belts are properly tensioned. Loose belts can lead to inaccurate engraving.
- **Firmware Updates:** Check the official IKIER website or APP for any available firmware updates to ensure your machine has the latest features and bug fixes.

7. TROUBLESHOOTING

This section addresses common issues you might encounter. For more complex problems, refer to the comprehensive manual or contact customer support.

Problem	Possible Cause	Solution
Machine not powering on.	Power cable loose, power adapter faulty, power switch off.	Check all power connections. Ensure the power switch is in the 'ON' position. Test power adapter if possible.
Laser not firing or weak.	Laser lens dirty, focus incorrect, power setting too low, laser module faulty.	Clean the laser lens. Re-focus the laser using shims. Increase laser power in software. Contact support if issue persists.
Engraving/cutting is inaccurate or skipped lines.	Loose belts, dirty rails, stepper motor issue, material not secured.	Check and tighten timing belts. Clean X and Y axis rails. Ensure material is firmly secured. Verify all assembly bolts are appropriately tightened, as over-tightening can cause rough movement.
Machine stops unexpectedly with alarm.	Flame detected, machine tilted, emergency stop pressed.	Check for flames or smoke. Ensure the machine is on a stable, level surface. Release emergency stop button if pressed.
Software/APP not connecting to machine.	Incorrect cable connection, driver issues, software version mismatch.	Verify USB/Type C cable connection. Reinstall drivers from the USB flash drive. Ensure software/APP is the latest version.

8. SPECIFICATIONS

Key technical specifications for the IKIER X5 Pro Laser Engraver.

Feature	Specification
Model	IKIER X5 Pro
Laser Output Power	5000mW (5W)
Laser Class	Class 4
Laser Spot Area	0.06*0.06mm

Feature	Specification
Engraving Area	410 x 380 mm (16.14 x 14.96 inches)
Product Dimensions	22.8 x 22.6 x 7.6 inches
Item Weight	12.18 pounds
Material	Aluminium alloy
Power Source	AC/DC
Supported OS	Linux, Mac OS, Windows
Supported File Formats	SVG, PNG, DXF, TIF, BMP, PDF



Image: The generous 410x380mm working area of the IKIER X5 Pro.





9. WARRANTY AND SUPPORT

For warranty information, please refer to the documentation included with your product or visit the official IKIER website. If you encounter any issues or require technical assistance, please contact IKIER customer support. They are available to help with troubleshooting and provide guidance for optimal use of your laser engraver.

Contact Information: Refer to the official IKIER website or the contact details provided in your product manual for the most up-to-date support channels.

Online Resources: Explore online forums, community groups, and official IKIER tutorials for additional tips and project ideas.

Related Documents - IKIER X5 Pro

	<p>Engraving and Cutting Parameters for K70 MAX Laser Module</p> <p>A comprehensive guide to engraving and cutting parameters for various materials using the K70 MAX laser module with LightBurn software. Includes settings for speed, power, line interval, and passes for different wood types, plastics, metals, and more.</p>
	<p>IKIER K1 Series Laser Engraver User Manual - Operation, Settings, and Features</p> <p>Comprehensive user manual for the IKIER K1, K1 Pro, and K1 Ultra laser engravers. Covers operation, software setup (LightBurn, LaserGRBL), engraving, settings, safety features, and troubleshooting.</p>
	<p>IKIER K1/K1 Pro/K1 Ultra Installation Manual</p> <p>Comprehensive installation guide for the IKIER K1, K1 Pro, and K1 Ultra laser machines, detailing assembly steps, software setup, and operational guidance.</p>
	<p>IKIER X5/X10/X20 PRO Laser Engraver User Manual</p> <p>Comprehensive user manual for the IKIER X5, X10, and X20 PRO laser engravers. Covers safety instructions, installation, operation, and troubleshooting for these advanced laser engraving machines.</p>



[IKIER K1 Laser Engraver User Manual](#)

Comprehensive user manual for the IKIER K1 laser engraver, covering operation, settings, engraving, and safety features. Learn how to use PC software, mobile app, and offline modes for efficient laser engraving.



[IKIER K1 Series User Manual](#)

User manual for the IKIER K1, K1 Pro, and K1 Ultra laser engraving machines, covering operation, settings, and features.