

3DMakerpro Seal Lite

3DMakerpro Seal Lite 3D Scanner User Manual

Model: Seal Lite

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1. INTRODUCTION

This manual provides essential instructions for the safe and effective use of your 3DMakerpro Seal Lite 3D Scanner. Please read this manual thoroughly before operating the device and retain it for future reference. The 3DMakerpro Seal Lite is a handheld 3D scanner designed for small-format objects, utilizing a blue LED light source for high-precision scanning.

2. SAFETY INFORMATION

Observe the following safety precautions to prevent damage to the device or injury to yourself:

- Use the scanner indoors in a stable environment.
- Avoid direct exposure of the scanner's light source to eyes.
- Do not disassemble or modify the device. Refer all servicing to qualified personnel.
- Keep the device away from water, moisture, and extreme temperatures.
- Use only the provided power adapter and data cables.
- Ensure proper ventilation during operation.

3. PACKAGE CONTENTS

Verify that all items are present in your package:

- 3DMakerpro Seal Lite 3D Scanner (Plastic)
- Tripod
- Turntable
- 65W Charger

- Data Cable



Image: Contents of the 3DMakerpro Seal Lite package, including the scanner, charger, and data cable.

4. PRODUCT OVERVIEW

The 3DMakerpro Seal Lite is a compact and lightweight 3D scanner. Understanding its components is crucial for proper operation.

Quiet, Effortless Scanning in a Lightweight Design



Image: Front and side view of the Seal Lite scanner, highlighting its compact size (4.33 inches / 110mm height, 2.36 inches / 60mm width, 1.38 inches / 35mm depth) and key components such as the Texture Camera, Point Cloud Camera, White LED, and Projector.

Key features include:

- **Blue LED Light Source:** Utilizes a 400-500nm blue LED for high accuracy (up to 0.02mm).
- **Small-format Scanning:** Optimized for objects between 10mm and 300mm.
- **10fps Scanning Speed:** Provides a smooth scanning experience.
- **Anti-shake Features:** Enhances scanning stability.
- **Mono Texture Scanning:** Captures texture information in monochrome.
- **Lightweight Design:** Weighs approximately 0.56lb (254g).

5. SETUP

5.1 Hardware Connection

1. Connect the 3DMakerpro Seal Lite scanner to your computer using the provided data cable.

2. Connect the 65W charger to the scanner and a power outlet.
3. (Optional) Attach the scanner to the included tripod for stable scanning.
4. (Optional) Place the turntable on a flat surface and connect it if using for automated rotation.



Image: The 3DMakerpro Seal Lite scanner set up on a tripod, next to a turntable, ready for scanning.

5.2 Software Installation (JMStudio)

The Seal Lite scanner operates with JMStudio software. Download the latest version from the official 3DMakerpro website.

- Visit the official 3DMakerpro support page to download JMStudio.
- Follow the on-screen instructions to install the software on your computer.
- Ensure your operating system meets the minimum requirements.

5.3 System Requirements

For optimal performance, ensure your computer meets or exceeds these specifications:



Image: A graphic detailing the minimum and recommended computer specifications for Windows and macOS, including CPU, RAM, and GPU requirements, as well as supported Android and iOS versions.

- **Minimum Computer Requirements:**

- Windows 10/11 64bit: Intel Core i5 8th Gen, 16GB RAM, MX250 GPU with 2GB VRAM
- macOS 12/13/14: Supports M1/M2/M3 chips

- **Recommended Computer Configurations:**

- Windows: Intel Core i7 8th Gen, 16GB RAM, NVIDIA 3060 GPU with 4GB VRAM

- **Mobile Device Support:** Android 11, iOS 16 (Extended support)

6. OPERATING INSTRUCTIONS

6.1 Basic Scanning Process

The Seal Lite is designed for scanning small objects (10-300mm) with a recommended working distance of 180-280mm.

1. Place the object to be scanned on a stable surface, preferably on the turntable for easier rotation.
2. Launch JMStudio software on your connected computer.
3. Position the scanner at the recommended working distance from the object.
4. Initiate scanning within the software. Move the scanner smoothly around the object to capture all surfaces.
5. Monitor the real-time scan data in JMStudio to ensure complete coverage and quality.
6. Once scanning is complete, stop the process in the software.



Image: Illustration of the Seal Lite scanner's optimal working distance (180-280mm) and its capability for scanning small objects (10-

300mm), shown with a dinosaur toy.

6.2 Scanning Features

- **Blue LED Light Source:** The blue LED light source (400-500nm) allows for high precision, capturing fine details, dents, and edge textures with 0.02mm accuracy.
- **Anti-shake:** The scanner incorporates anti-shake features to provide more stable and consistent scan results, even during handheld operation.
- **Scan-back:** Supports scan-back functionality for improved data acquisition.
- **Mono Texture:** The Seal Lite captures texture information in monochrome.

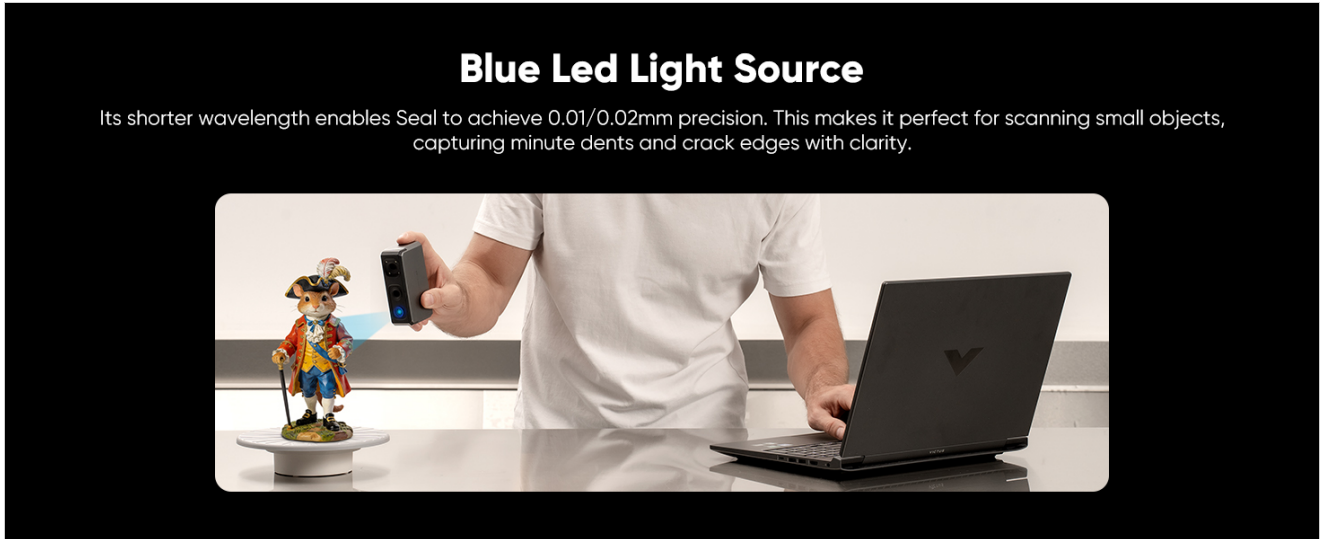


Image: A person holding the Seal Lite scanner, demonstrating the blue LED light source projecting onto an object on a turntable, emphasizing its precision for capturing minute details.

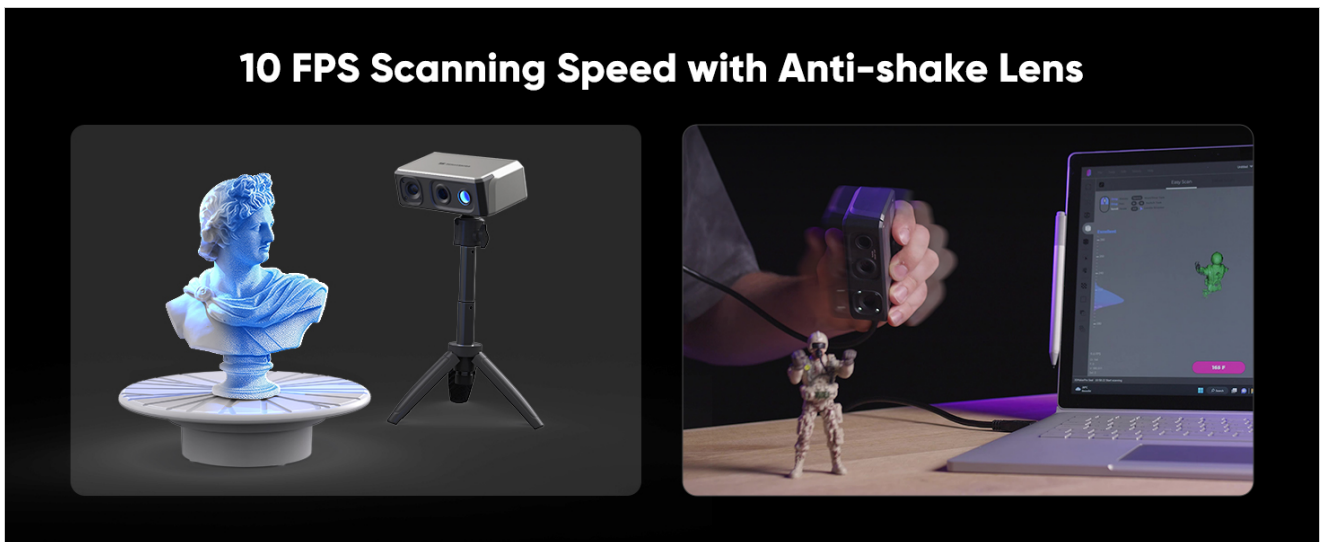


Image: Two panels illustrating the 10 FPS scanning speed with anti-shake lens. One shows the scanner on a tripod with a bust, the other shows handheld scanning of a small figurine.

6.3 JMStudio Software Functions

JMStudio provides tools for processing your 3D scan data:

- **Visual Tracking:** Aids in maintaining consistent scanning paths.
- **Error Correction:** Smart AI-driven correction to eliminate flawed or misaligned point cloud data.
- **Auto-alignment:** Automatically stitches scan data for seamless connections.
- **Export Formats:** Supports OBJ, STL, PLY, and ASC formats for compatibility with 3D printing and other

software.

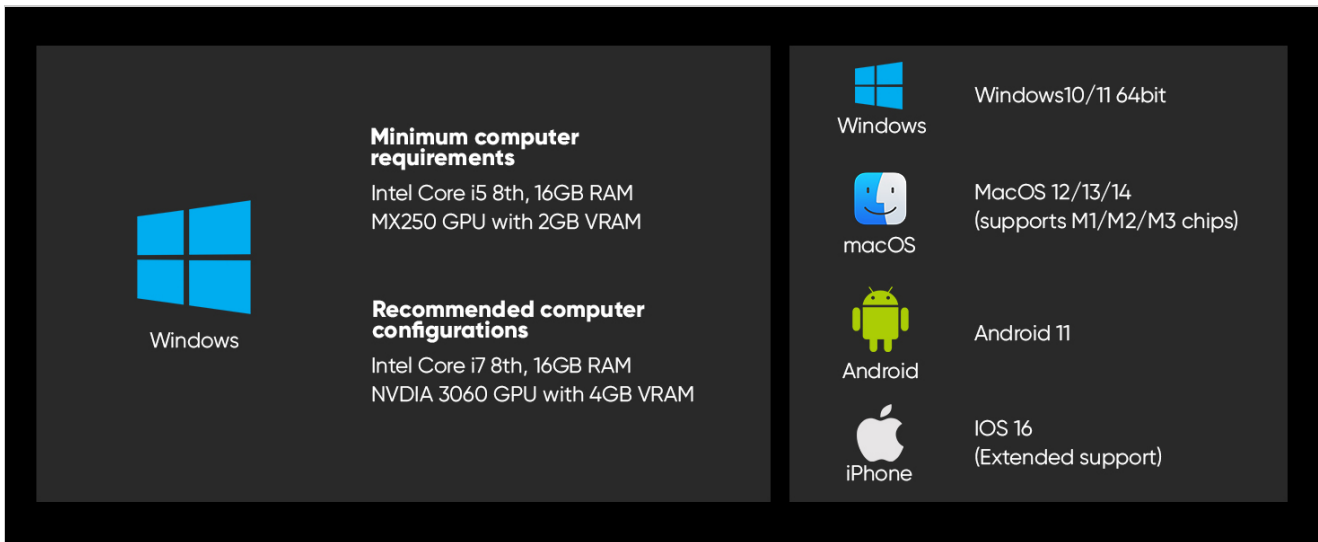


Image: A graphic demonstrating JMStudio's Smart Error Correction, showing how flawed data is eliminated, and Auto Align, illustrating how multiple scans are seamlessly stitched together.

6.4 Scanning Tips

- Always operate the scanner indoors to avoid interference from external light sources.
- Practice scanning simple objects first to familiarize yourself with the device and software.
- For objects with reflective or transparent surfaces, consider using a matte scanning spray to improve data capture.
- Ensure your computer meets the recommended specifications for smooth software performance.

7. MAINTENANCE

Proper maintenance ensures the longevity and performance of your 3D scanner:

- **Cleaning:** Use a soft, dry cloth to clean the scanner's exterior. Do not use liquid cleaners or solvents. Gently clean the lenses with a lens cleaning cloth if necessary.
- **Storage:** Store the scanner in a cool, dry place, away from direct sunlight and dust. Use the original packaging or a protective case when not in use.
- **Software Updates:** Regularly check for and install updates for JMStudio to benefit from new features and performance improvements.

8. TROUBLESHOOTING

If you encounter issues, refer to the following common problems and solutions:

- **Scanner not recognized by computer:**
 - Ensure the data cable is securely connected to both the scanner and the computer.
 - Try a different USB port.
 - Verify that JMStudio is installed and running.
 - Check if your computer meets the minimum system requirements.
- **Poor scan quality or incomplete data:**
 - Ensure the scanning environment is indoors and free from strong ambient light.

- Maintain the recommended working distance (180-280mm) from the object.
- Scan the object slowly and smoothly, ensuring full coverage.
- For reflective or transparent objects, apply a matte scanning spray.
- Check for any obstructions on the scanner's lenses.

- **JMStudio software crashes or runs slowly:**

- Close other demanding applications running on your computer.
- Ensure your computer meets the recommended system specifications, especially for GPU and RAM.
- Update your graphics card drivers.
- Reinstall JMStudio if the issue persists.

For further assistance, contact 3DMakerpro customer service.

9. SPECIFICATIONS

| Feature | Detail |
|------------------------------|---|
| Scanner Type | 3D Scanner (Photo) |
| Brand | 3DMakerpro |
| Model Name | Seal Lite |
| Connectivity Technology | USB |
| Accuracy | Up to 0.02mm |
| Light Source | Blue LED (400-500nm) |
| Scanning Frame Rate | 10fps |
| Texture Scanning | Mono Texture |
| Object Size Range | 10mm to 300mm |
| Recommended Working Distance | 180-280mm |
| Resolution | 300 dpi |
| Color Depth | 24 bits_per_pixel |
| Maximum Media Size | A3 (29.7 x 42.0 cm or 11.7 x 16.5 inches) |
| Minimum OS Required | Windows 10 |
| Built-In Media | Tripod, Turntable |

10. WARRANTY AND SUPPORT

Your 3DMakerpro Seal Lite 3D Scanner comes with a **1-year warranty**. For technical support, warranty claims, or any questions regarding your device, please contact 3DMakerpro customer service. Additionally, JMStudio software

receives lifetime free updates, ensuring your scanner remains up-to-date with the latest features and improvements. For the most current support information and contact details, please visit the official 3DMakerpro website.

11. APPLICATION SCENARIOS

The 3DMakerpro Seal Lite 3D Scanner is versatile and can be used in various fields:

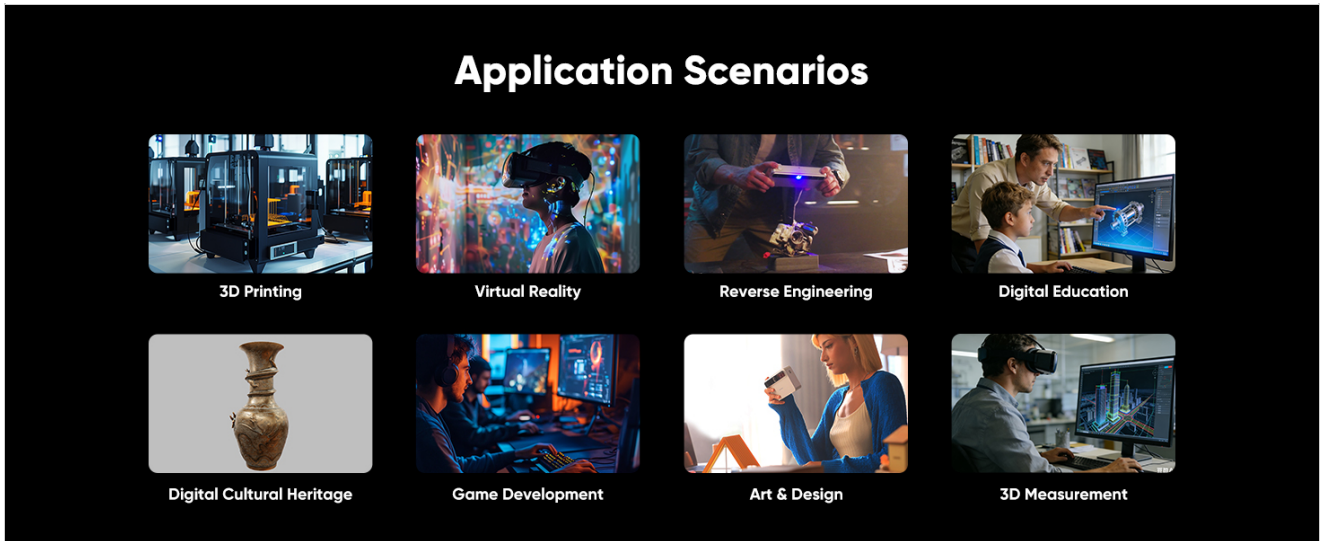


Image: A collage of images depicting various applications of 3D scanning, including 3D Printing, Virtual Reality, Reverse Engineering, Digital Education, Digital Cultural Heritage, Game Development, Art & Design, and 3D Measurement.

- **3D Printing:** Create digital models for additive manufacturing.
- **Virtual Reality:** Generate assets for VR/AR environments.
- **Reverse Engineering:** Recreate designs from existing physical objects.
- **Digital Cultural Heritage:** Preserve historical artifacts digitally.
- **Game Development:** Develop detailed in-game models.
- **Art & Design:** Aid in artistic creation and product design.
- **3D Measurement:** Accurate dimensional analysis of objects.

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For the latest information and support, please visit the official 3DMakerpro website.