# SERMOON

## P1



**Creality Sermoon P1 3D Scanner**
**Quick Start Guide V1.0**

## FOREWORD

Thank you for choosing the Creality Sermoon P1 3D scanner. This guide aims to help you quickly understand the basic information and scanning process of this scanner, opening up a whole new 3D scanning experience.

You can visit the Creality official Wiki: https://wiki.creality.com/3d-scanner to get the latest "Creality Sermoon P1 Quick Start Guide", detailed tutorials and videos. This guide will be continuously updated; please refer to the latest version for the most up-to-date information.

### ⚠ Important Notes

● Do not allow the scanner to come into contact with water or other liquids. Avoid bumping or impact during use.
● To ensure optimal performance, please operate in a suitable working environment.

## TABLE OF CONTENTS

# 1. PRODUCT INTRODUCTION

## 1.1 Scanner Components

HD Touchscreen

Power Button

Start/Pause Button

Replaceable Battery

Single-Line Laser

Infrared Fill Light×4

RGB Camera

Parallel-Line Laser

DOE Projector

Cross-Line Laser

Blue & White Fill Light×12

High-Precision Camera×2

Wide-Angle Camera×2

Type-C Interface

## 1.2 Packing List

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
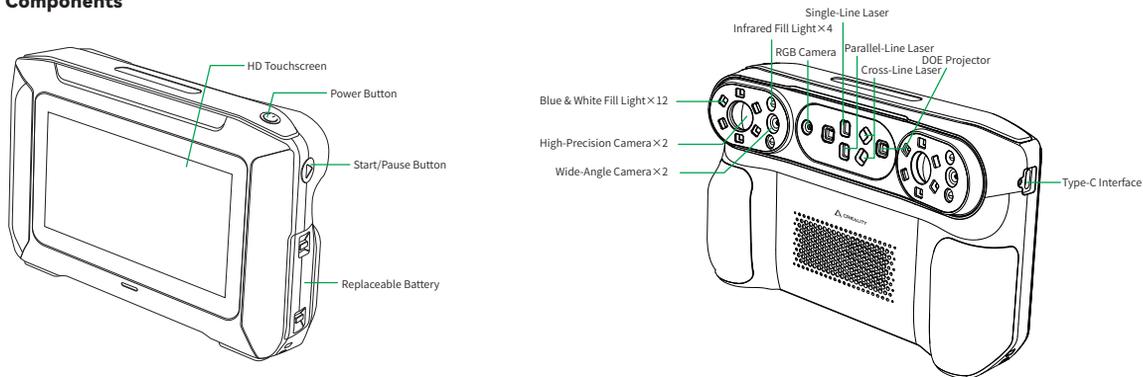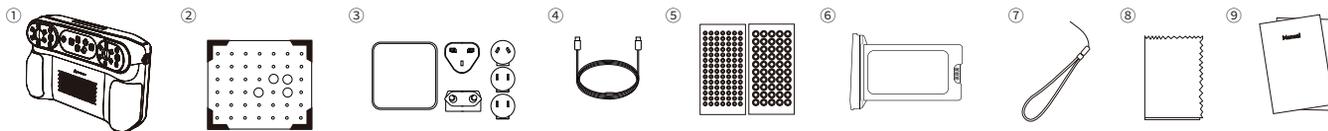
| | | | |
|---|---|---|---|
| ① | Creality Sermoon P1 3D Scanner * 1 | ⑥ | Spare Battery * 1 |
| ② | High-Precision Glass Calibration Board * 1 | ⑦ | Lanyard * 1 |
| ③ | Power Adapter + Connectors * 1 | ⑧ | Cleaning Cloth * 1 |
| ④ | 2m USB 3.0 Type-C Data Cable * 1 | ⑨ | Quick Start Guide & Certificate of Conformity & Warranty Card * 1 |
| ⑤ | Reflective Markers (D6mm * 10, D3mm * 10) | | |

# 2. FIRST-TIME USE

**Creality Sermoon P1 supports two working modes: standalone mode and PC connection mode. You can choose the appropriate mode to operate according to your needs.**

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

## 2.1 Standalone Mode (No computer connection required)
The Creality Sermoon P1 3D scanner has a built-in operating system and screen, allowing it to perform scanning and basic processing independently.

### Step 1: Power-on Preparation
Make sure the scanner has sufficient power.

Note: Before charging, users should select the appropriate connector according to their country and push the selected connector into the adapter body (the adapter body prongs are fixed and cannot be lifted directly for use) .

Press and hold the power button for 2 seconds to turn on the device and enter the main interface.

Complete First-Time Setup

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
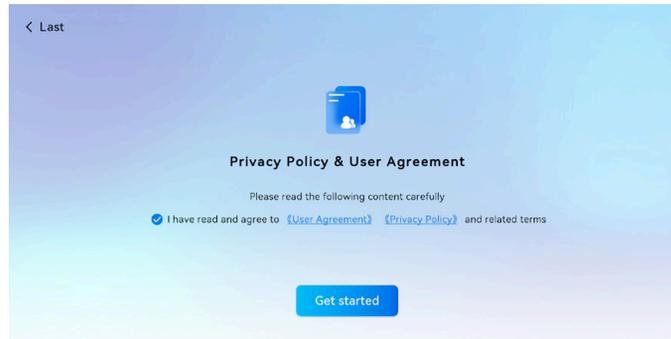
1. Language Selection : Select your language and click [Next].
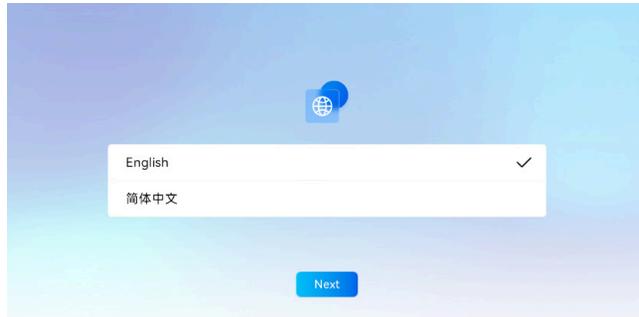


2. Network Connection: Select an available local area network. Once connected, you will be automatically prompted to proceed to the next step.
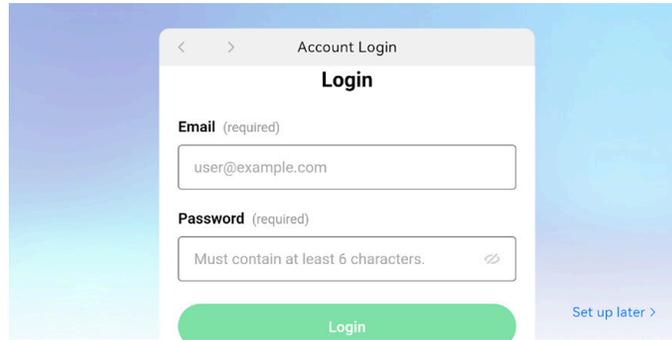
3. Privacy Policy: Please read and agree to our relevant Privacy Policy and User Agreement before using the device.
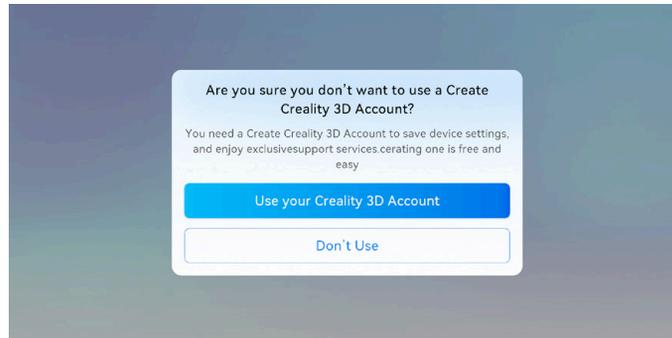


4. Activation: Device activation takes a while, please be patient.
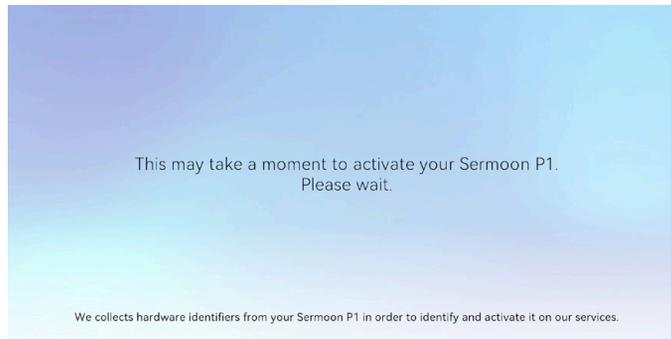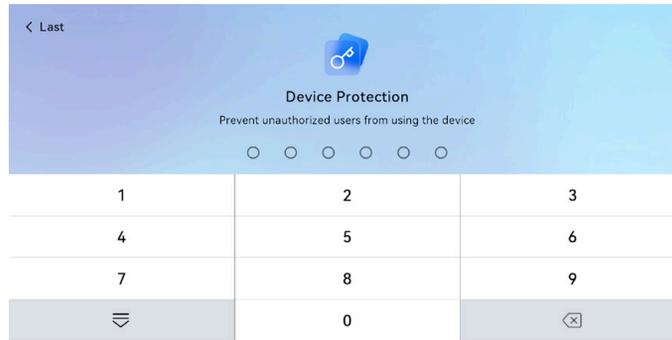
5. Account Login: Supports login with Creality Cloud account . Login can be skipped without affecting normal device use.



Skipping login will trigger a confirmation pop-up. If you still do not log in, select "Don't Use" to proceed to the next page.

6. Device Protection: On this page, you can set a device power-on password to prevent unauthorized users from using the device.



7. Welcome Page: Tap anywhere on the screen to start using the device.



8. Beginner Tutorial Video: You can choose whether to skip it. After watching/skipping, you will be taken directly to the device scanning page to start your first scanning experience.

## Step 2: Start Scanning

- Tap "New Project" on the screen to enter the scan preview page.
- Select the appropriate scan mode (Blue Laser/Infrared) and related settings based on the features of the object being scanned.
- Select the appropriate scan settings and click "Apply" to scan in the selected settings.
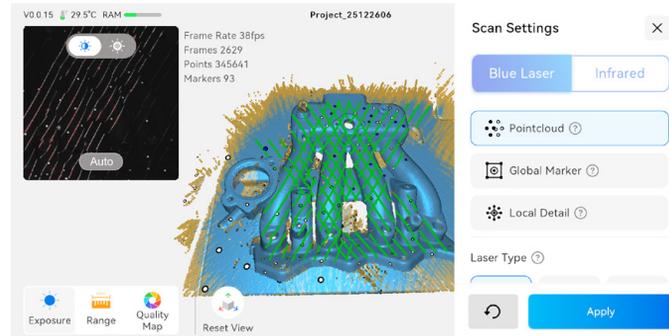


- Adjust the Scanning Distance : Move the scanner to adjust its distance from the scanned object. When the distance indicator bar on the right side of the screen is within the green "Optimal" range, it means the current distance is ideal for scanning.

● Start Scanning: Short press the Start/Pause button on the scanner, or tap the [Start] button on the screen. Keep the scanner aimed at the object, move it steadily and slowly, and scan the object from all angles.

● Complete Scanning: Once the data acquisition is complete, press and hold the Start/Pause button on the scanner for more than 2 seconds, or tap "Finish" on the device screen . The scanned point cloud data will be automatically displayed on the screen.

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

## Step 3: Model Processing

After the scanning is complete, you can use the processing function built into the Creality Sermoon P1 device to generate the final 3D model from the point cloud data.

● **Processing Flow (Operate on the screen) :**

1. Fusion: Fuse multiple frames of point cloud data collected during the scanning process into a complete point cloud.
2. Alignment: Multiple scans can be aligned into a complete model for result preview.
3. Meshing: Convert point cloud data into triangular mesh surfaces to generate the basic shape of the model.
4. Color Mapping (if applicable): If color information was captured during scanning, this step will map the color and texture onto the model surface.
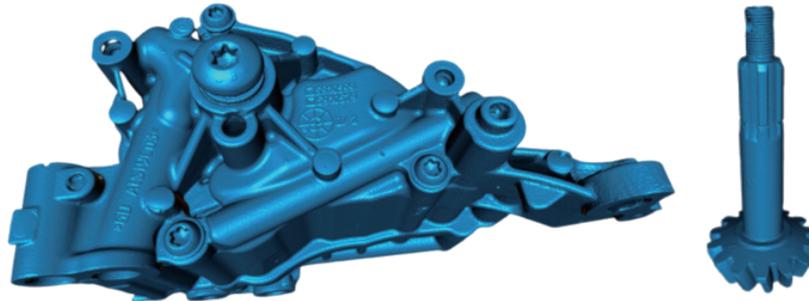


For more detailed tutorials on model processing, please visit the Creality official Wiki. https://wiki.creality.com/3d-scanner

## 2.2 PC Connection Mode (Connect to Computer)

Connect to your computer via USB or Wi-Fi and use CrealityScan 4 software for more advanced scan control and model processing.

### 2.2.1 Software Preparation

● Download the Software: Visit the Creality official Wiki software download page: https://wiki.creality.com/en/software/scan-software, find CrealityScan 4 software and download it.



● Install the Software:
○ Windows: Double-click the installer and follow the prompts to complete the installation.
○ macOS: After installation, please grant the 3D scanner read and write permissions to optimize point clouds and generate models when using the software .

## 2.2.2 Connecting the Scanner

### Wired Connection (USB)

● Insert the Type-C connector of the data cable into the scanner and tighten the screw.
● Insert the other end of the data cable (Type-C) into a USB 3.0 or higher port on your computer to ensure stable data transfer.
● In the pop-up window of Creality Sermoon P1, select "Scan Connection".
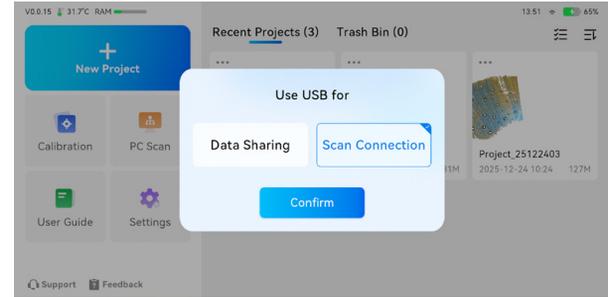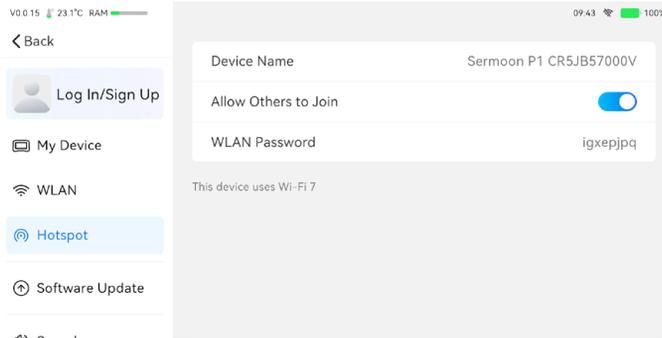


● Open the CrealityScan 4 software on your computer, the software will automatically recognize and connect to the scanner.
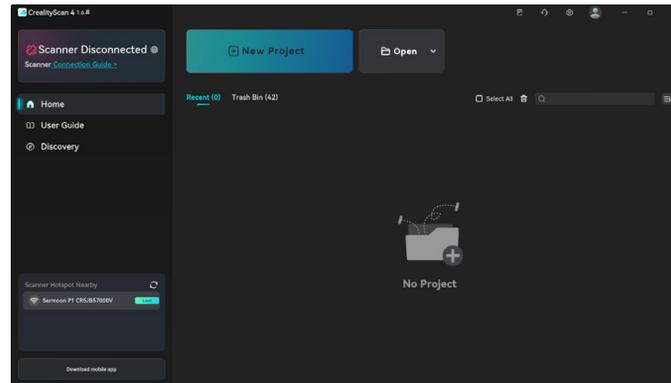
## Wireless Connection (Wi-Fi)
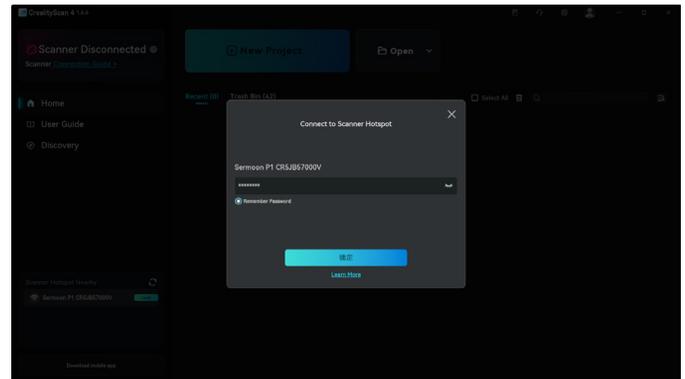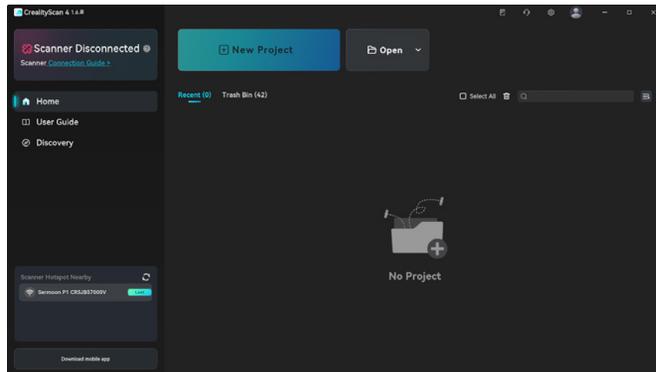
● Step 1: Enable P1 Hotspot

○ On the Creality Sermoon P1 device screen, access the "Settings" menu, tap "Hotspot", and enable "Allow Others to Join" .

○ Record the hotspot name and password.



● Step 2: Connect Your Computer to the P1 Hotspot

○ In your computer's Wi-Fi settings, find the hotspot network name of the Creality Sermoon P1, click to connect, and enter the password.

● Step 3: Software Connection
○ Open the CrealityScan 4 software on your computer.
○ In the software interface, the software will automatically identify and display the connected Creality Sermoon P1 device.
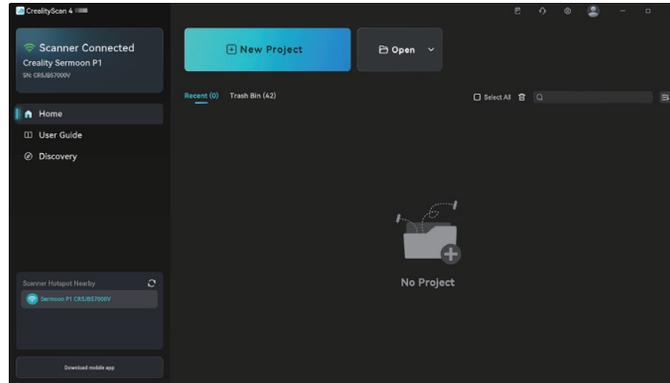


## 2.2.3 Start Scaning

● In the CrealityScan 4 software, click "New Project", enter the "Project Name" in the pop-up window, select the "Folder Path", and then click "OK".
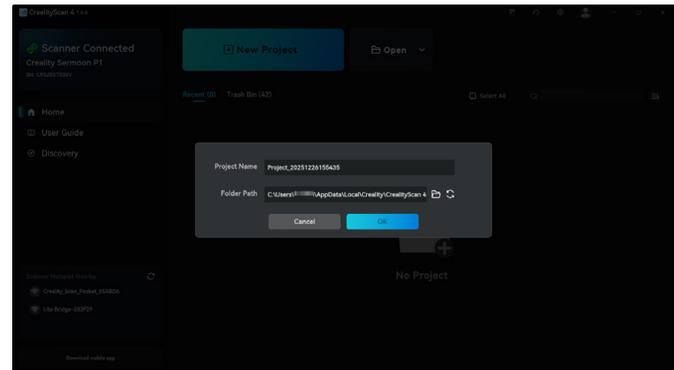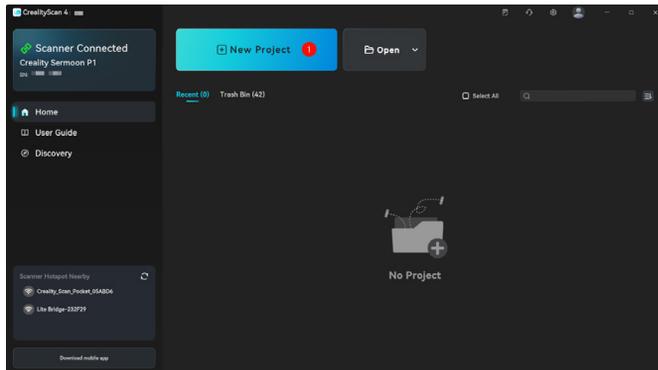
● Select the appropriate scan mode and related settings based on the features of the object being scanned.
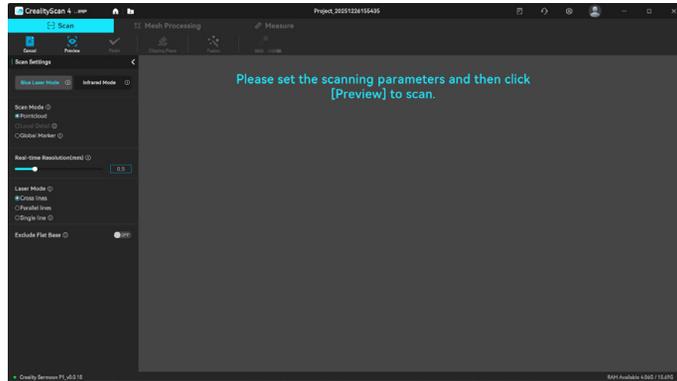


● Click the "Preview" button to enter the scan preview interface.
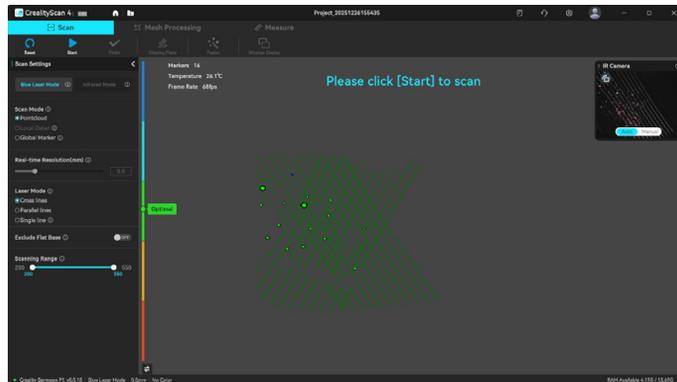
● Adjust the Scanning Distance: Move the scanner to adjust its distance from the scanned object. When the distance indicator bar on the software interface is in the green "optimal" range, it indicates that the current scanning distance is ideal for scanning.
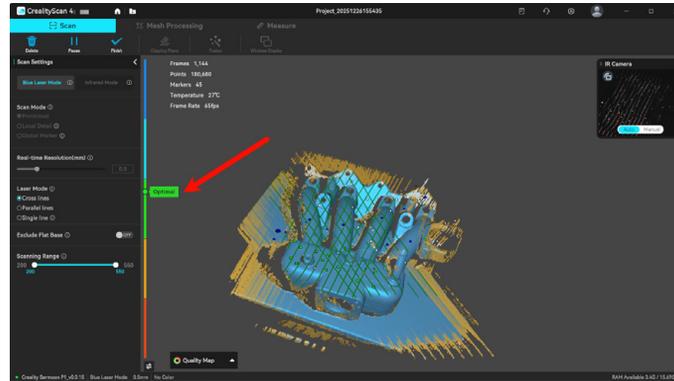


● Start Scanning: Short press the Start/Pause button on the scanner, or click the [Start] button in the software interface. Keep the scanner aimed at the object, move it steadily and slowly, and scan the object from all angles.

● Complete Scanning: Once the data acquisition is complete, press and hold the Start/Pause button on the scanner for more than 2 seconds, or click "Finish" in the software interface. The scanned point cloud data will be automatically displayed in the software.

## 2.2.4 Model Processing

After the scan is completed, you need to use the post-processing function of CrealityScan 4 software to generate the final 3D model from the point cloud data.

● One-Click Process: For beginner users, the software's "One-Click Process" function can be used, which will automatically complete point cloud fusion, meshing, and color mapping (if applicable).

● Manual Processing Procedure (recommended):
1. Fusion: Fuse multiple frames of point cloud data collected during the scanning process into a complete point cloud.
2. Alignment: Multiple scans can be aligned into a complete model for result preview.
3. Meshing: Convert point cloud data into triangular mesh surfaces to generate the basic shape of the model.
4. Color Mapping (if applicable): If color information was captured during scanning, this step will map the color and texture onto the model surface.
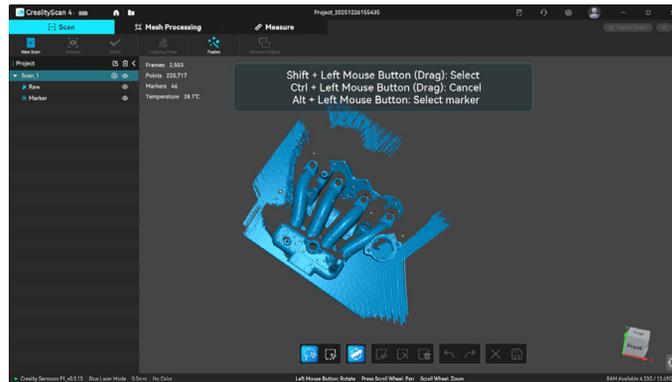


For more detailed model processing tutorials, please visit the official Creality Wiki: https://wiki.creality.com/3d-scanner

# 3. DETAILED EXPLANATION OF SCAN MODES

### 3.1 Blue Laser Mode
Suitable for scanning objects requiring high accuracy and rich details, it usually needs to be used with markers.
- Cross Line Laser:
○ Features: Fast scanning speed and high efficiency.
○ Applicable scenarios: Scanning large objects. It is necessary to attach markers directly to the object's surface.
- Parallel Line Laser:
○ Features: Best details.
○ Applicable scenarios: For detailed scanning of objects, resulting in richer model details . If the object is small, markers can be placed on the table around the object.
- Single Line Laser:
○ Features: Excellent at capturing hard-to-reach areas such as deep holes and grooves.
○ Applicable scenarios: Supplemental scanning of objects with deep hole features.

### Tips:
- Real-Time Resolution: The smaller the resolution, the finer the model. However, this will occupy more computer memory and may affect scanning smoothness. Please select according to your computer performance and model requirements.
- Alignment: If you need to scan multiple sides of an object (such as the front and back), you can scan them in multiple steps and then use the software's "Alignment" function to combine them into a complete model.

### 3.2 Infrared Mode
Suitable for scanning faces, bodies , sculptures , or other objects with rich features, usually without the need to attach markers.
- Features: Safe, fast, invisible light, and harmless to human eyes .
- Applicable scenarios: Face scanning, cultural relic protection, medical rehabilitation, etc.
- Infrared mode also supports "Texture" tracking and "Marker" tracking to meet different needs.

# 4. OTHER FUNCTIONS

### 4.1 Calibration
If you notice a decrease in scanning accuracy or if the scanner has not been used for an long time, calibration is recommended. Please use the included "High-Precision Glass Calibration Board" and follow the on-screen instructions on your Creality Sermoon P1 device to restore the scanner's factory accuracy.

### 4.2 System Upgrade
Creality releases system updates periodically to optimize performance and add new features. Please keep your Creality Sermoon P1 device up to the latest system version and upgrade as prompted for the best user experience.

### 4.3 File Transfer
Select the project you want to share from the "Recent Projects" list , tap the "Share" button in the "..." icon at the top left corner, and follow the on-screen instructions to complete the file transfer.

# 5. SPECIFICATIONS

## 5.1 Hardware Parameters

| Creality Sermoon P1 | | | | | |
|---|---|---|---|---|---|
| Scanning Mode | Single Blue Laser Line | 7 Parallel Blue Laser Lines | 22 Cross Blue Laser Lines | Close-Range Infrared Structured Light | Long-Range Infrared Structured Light |
| Accuracy | Up to 0.02mm[1] | | | Up to 0.075mm[1] | |
| Volumetric Accuracy | 0.02mm+0.06mm/m | | | 0.075mm+0.1mm/m | |
| Scanning Rate (Standalone) | 61,000 measurements/s | 430,000 measurements/s | 1,044,000 measurements/s | 3,440,000 measurements/s | |
| Scanning Rate (PC Connection) | 102,000 measurements/s | 716,000 measurements/s | 1,740,000 measurements/s | 6,881,000 measurements/s | |
| 3D Resolution | 0.05-2mm | | | 0.1-2mm | |
| Scanning Speed (Standalone) | Up to 60fps | | | Up to 15fps | |
| Scanning Speed (PC Connection) | Up to 100fps | | | Up to 30fps | |
| Min. Scan Volume | 5mm x 5mm x 5mm | | | 150mm x 150mm x 150mm | |
| Single Capture Range | 85mm*105mm @160mm 135mm*130mm @200mm 265mm*200mm @300mm | 310mm*265mm @400mm 380mm*365mm @550mm | | 135mm*130mm @200mm 265mm*200mm @300mm 310mm*265mm @400mm | 689mm×375mm@500mm 1245mm×754mm@1000mm 1450mm*1020mm@1200mm |
| Working Distance | 200-550mm | 160mm-400mm | 200-550mm | 170mm-400mm | 200mm-1200mm |
| Color Mapping | Yes | | | | |
| Alignment Mode | Marker / Global Marker | | | Marker / Global Marker / Geometry / Texture | |
| Color Fill Light | 12 White LEDs | | | | |
| Outdoor Scanning | Below 100,000 lux | Below 50,000 lux | Below 100,000 lux | Below 30,000 lux | |
| Marker Recognition Enhancement | 12 Blue LEDs | | | | |

| Laser Safety | Class II (eye safe) | Class I (eye safe) |
|---|---|---|
| Processor | Qualcomm CPU, 8 core, 3.36 GHz   /   GPU, Adreno 740 | |
| Built-in RAM | 24GB LPDDR5X | |
| Built-in Storage | 256GB UFS 4.0 | |
| Display Screen | 6-inch HD Touchscreen | |
| Charger | PD3.0 Fast Charging | |
| Wireless PC Scan | Yes | |
| Work Mode | Standalone Mode / Wireless PC Mode / Wired PC Mode | |
| WiFi | WiFi 7 | |
| Device Weight | 830g | |
| Dimensions | 209 mm × 129 mm × 53 mm | |
| Calibration Board | High-Precision Glass Calibration Board | |
| PC System Support | Windows / macOS | |
| Computer Configuration Requirements | Recommended Configuration:<br>OS: Win10/11 (64-bit)<br>CPU: Intel i7 13th Gen or above<br>Dedicated Graphics Card: NVIDIA 4060 or higher (8GB VRAM)<br>RAM: ≥64GB<br><br>OS: macOS 14 or above<br>CPU: Apple M3/M4 /M5<br>RAM: ≥32GB | Minimum Requirements:<br>OS: Win10/11 (64-bit)<br>CPU: Intel i7-Gen7<br>Dedicated Graphics Card: NVIDIA 1060 (6GB VRAM)<br>RAM: ≥16GB<br><br>OS: macOS 12<br>CPU: Apple M1<br>RAM: ≥16GB |
| Operating Temperature | -10℃ to 40℃ | |
| Operating Humidity | 10-90%RH | |

[1] Accuracy is evaluated in laboratory conditions and actual results may be affected by operating environments such as vibration, temperature, and other factors.

# 6. SAFETY NOTICE

About the Creality Sermoon P1 3D Scanner
● Please do not disassemble or assemble the equipment yourself.
● Please use the dedicated accessories included with the product, such as charger and calibration board.

## 6.1 Usage Instructions
Please note the following points, otherwise it may cause equipment damage or machine malfunction.
● Please avoid significant vibrations and impacts when using this product. The Creality Sermoon P1 3D scanner is a high-precision device with a delicate internal structure; severe vibrations or impacts may damage the structure and cause damage to the optical components.
● Please use this device at the recommended temperature and humidity.
● Please ensure the usage environment is suitable, and when using a wired connection, ensure the cable connector is intact.

## 6.2 Maintenance Instructions
● To clean the equipment, please use a cotton cloth dampened with diluted neutral detergent, wring it out, and wipe it. Do not use a damp cloth, volatile oil, thinner, or other liquids to wipe the equipment, as this may damage the equipment's exterior or, in severe cases, damage the equipment parts.
● Store the equipment in its instrument case in a cool, dry place with a relatively stable temperature. Avoid storing it in the following places:
- Places with excessively high or low temperature and humidity
- Places with a lot of dust
- Places containing corrosive or flammable gases
- Places containing corrosive or flammable liquids

**Shenzhen Creality 3D Technology Co., Ltd.**
Official website: www.creality.com
Tel: +86 755 3396 5666  Customer Service : cs@creality.com
Company Address: 18F, JinXiuHongDu Building, Meilong Blvd., Longhua Dist. Shenzhen, 518131 China
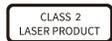
CLASS 2 LASER PRODUCT
CAN ICES (B) / NMB (B)    CE    FC    RoHS  REACH

Facebook Community
Discuss, Share, Interact

Creality wiki
Tutorials, FAQs, Troubleshooting, etc.

Your device has been certified by the relevant countries and regions. You can view this electronic certification information on your device: Go to the device's "Settings" menu, select "My Device", tap "Certification Information" to find all applicable electronic certification marks and details.