



EinScan Medixa

V1.0.0

User Manual

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FCC STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.
- This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

INDUSTRY CANADA STATEMENT

This Class B digital apparatus complies with Canadian ICES-003.
CAN ICES-3(B)/NMB-3(B).

This device complies with Industry Canada license-exempt RSS standard(s).

Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) L'appareil ne doit pas produire de brouillage, et (2) L'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

RESTRICTIONS IN THE 5 GHZ BAND

Within the 5.15 to 5.25 GHz band, UNII devices will be restricted to indoor operations to reduce any potential for harmful interference to co-channel Mobile Satellite System (MSS) operations.

RESTRICTIONS DANS LA BANDE DE 5 GHZ

Dans la bande de 5,15 à 5,25 GHz, les appareils UNII seront restreints aux opérations intérieures pour réduire toute possibilité d'interférence pouvant nuire aux opérations du système satellite mobile dans le même canal (MSS).

RF EXPOSURE REGULATIONS (FCC IC):

The SAR limit of USA/Canada is 1.6 W/kg averaged over one gram of tissue for Body and 4.0 W/kg averaged over ten grams of tissue for extremity SAR, this device has also been tested against the SAR limits.

Body–Worn: The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with RF exposure requirements and should be avoided. To maintain compliance with RF exposure requirements, a 10mm separation distance between the user's body and the back of the device should be maintained.

La limite du das des États–Unis et du Canada est de 1,6 W/kg en moyenne sur un gramme de tissu pour le corps et de 4,0 W/kg en moyenne sur dix grammes de tissu pour le das des extr é mit é s.

Port é sur le corps: l'utilisation de clips de ceinture, de é tuis et d'accessoires similaires ne doit pas contenir de composants m é talliques dans son assemblage.L'utilisation d'accessoires qui ne satisfont pas à ces exigences peut ne pas ê tre conforme aux exigences d'exposition aux RF et devrait ê tre é vit é e.Pour maintenir la conformit é aux exigences d'exposition aux RF, une distance de s é paration de 10mm entre le corps de l'utilisateur et l'arri è re de l'appareil devrait ê tre maintenue.

E–LABEL:

Tap Settings > About to enter scanner information page, you can view the FCC IC ID and regulatory information . (Within three steps in a device's menu)

Product name: 3D Scanner

FCC ID: 2AMG4–RIGIL

IC: 24652–RIGIL

Model: EinScan Medixa

Overview

Welcome

This user manual (hereinafter referred to as "this manual") mainly introduces the appearance and operation of the **EinScan Medixa** 3D scanner.

Symbol Conventions

Symbol	Meaning
	Note: This symbol is used to inform you of the additional information of the product.
	Caution: This symbol is used to inform you of incorrect operations that may damage the device or result in data loss. Any damages resulting from misuse are not covered by the warranty.
	Warning: This symbol is used to inform you of the potential risks that may result in serious personal injury and other safety incidents.

Getting Started

This chapter provides an overview for the **EinScan Medixa** wireless all-in-one 3D scanner, helping you quickly locate the instructions you need.

Here you can learn about the scanner, including its appearance and activation process.

→ [Introduction to the scanner](#)

→ [How to activate the scanner?](#)

Once you have successfully activated the scanner, follow the steps below to use it.

Calibrate the Scanner

Calibration ensures the accuracy of the scanner and improves the scanning quality.

→ [How to prepare for calibration?](#)

→ [How to calibrate?](#)

Do Basic Settings

Before scanning, you can set the scanner's display, screen cast, hotspot, etc.

→ [Introduction to the control center](#)

→ [Introduction to the file list](#)

[3] Select the Mode and Prepare for the Scan

You can select the scan mode and do some preparation before scanning to ensure a good scanning experience.

- [How to select a scan mode?](#)
- [How to prepare for scanning?](#)
- [How to cast the screen?](#)

[4] Pre-set for the Scan

After the necessary preparation for the scan, you can adjust relevant scanning settings to improve scan results.

Some of these settings can also be adjusted during the scanning.

- [Introduction to the scan interface](#)
- [How to adjust scanning settings?](#)

[5] Scan and Generate a Point Cloud

After setting the scanning settings, start scanning and generate the point cloud.

- [How to scan?](#)
- [How to scan for the foot?](#)
- [How to rewind the scan?](#)

[6] Edit Data

You can edit the scanned data after pausing or completing the scan to clip the redundant data.

- [How to edit the point cloud?](#)

[7] Post-Processing

You can mesh or measure the model.

- [How to edit the mesh?](#)
- [How to align the mesh?](#)
- [How to measure?](#)

[8] Save and Export

You can save the model, share the model with others, or export the model in a compatible format.

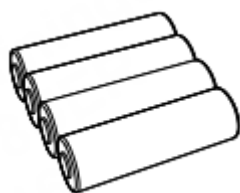
- [How to save or export the model?](#)

Device

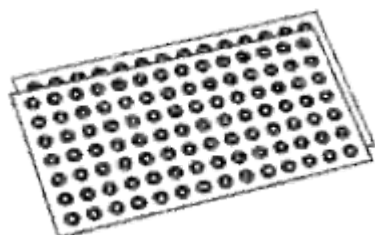
Introduction

EinScan Medixa is a wireless, all-in-one 3D scanner designed specifically for orthotics and prosthetics, integrating simplified workflows with onboard processing to eliminate the need for an external computer during scanning. Its contact-free, fully digital approach empowers O&P clinicians to deliver patient care with greater efficiency, precision, and ease.

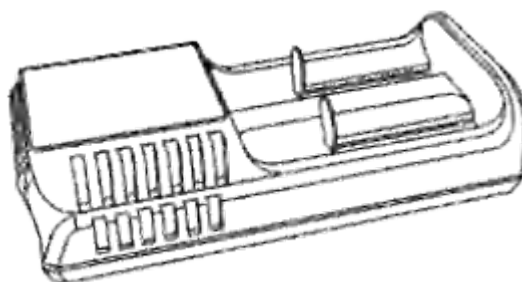
Packing List



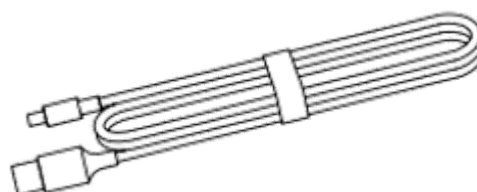
Battery



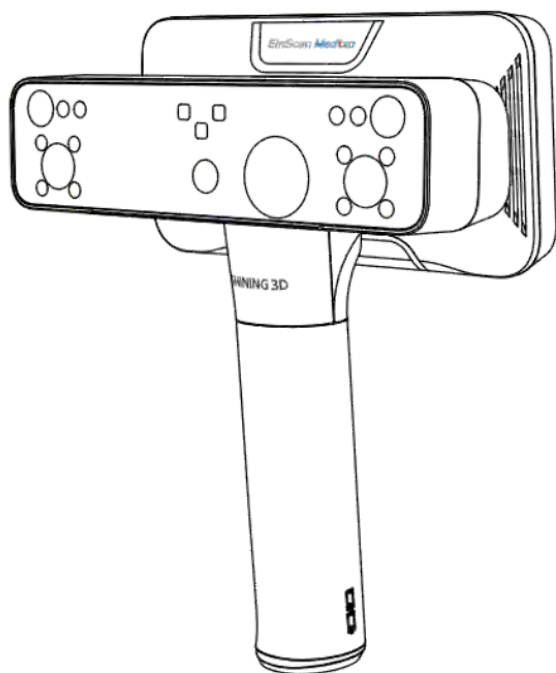
3 mm and 6 mm Markers



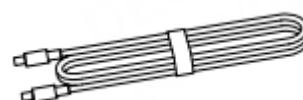
Battery Compartment



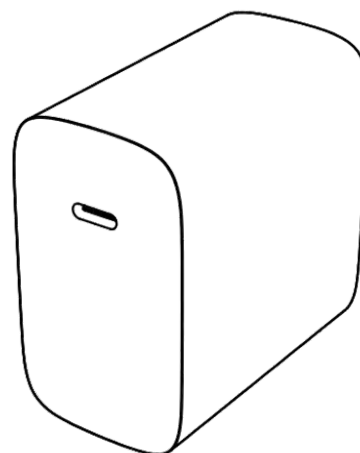
Charging Cable



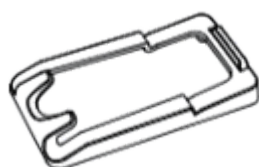
EinScan Medixa 3D Scanner



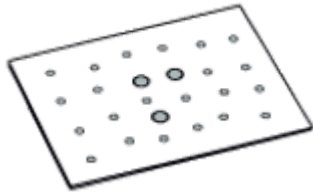
Type C-Type C Cable for Scanner



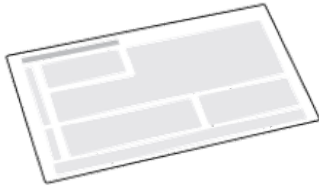
Power Adapter



Calibration Board and Universal Holder



Calibration Board

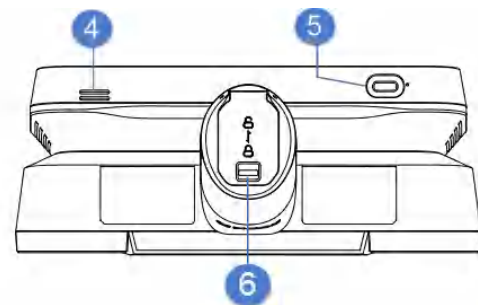
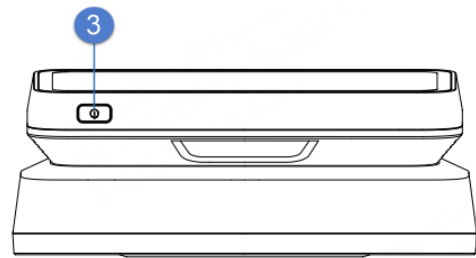
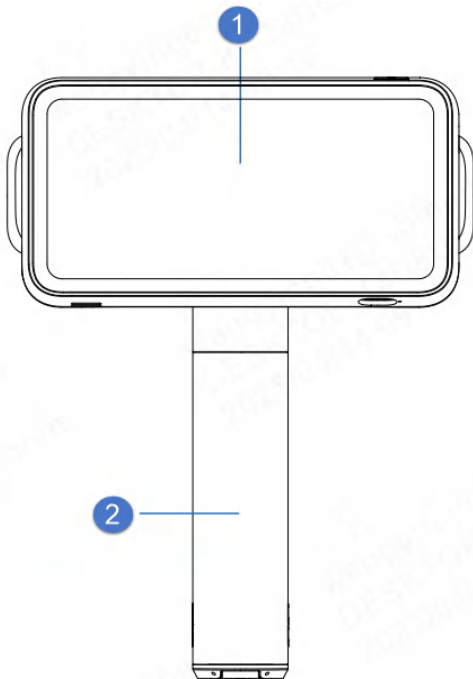


Packing List



Cleaning Cloth

Structure and Components



No.	Structure and Components
①	AMOLED Screen
②	Handle and Battery Compartment
③	Power Button
④	Sound Hole
⑤	USB Type-C Port
⑥	Battery Compartment Switch

Battery Specifications and Requirements

Specifications	Description
Type	Rechargeable lithium-ion battery
Length	75.4 ± 0.3 mm
Diameter	21.7 ± 0.3 mm
Nominal Voltage	3.6 V
Capacity	5500 mAh
Cycle Life	Over 400 times

Operating and Storage Requirements	Description
Operating Temperature	Charge: 0 ~ 45°C Discharge: -20 ~ +60°C
Storage / Transport Temperature	-20 ~ +45°C (less than 1 month) -20 ~ +35°C (less than 3 months) -20 ~ +25°C (less than 12 months)
Storage / Transport Relative Humidity	≤ 75%RH

Laser Information

Complies with FDA performance standards for laser products except for conformance with IEC 60825-1 Ed.3., as described in Laser Notice No.56, dated May 8, 2019.

Activation and Connection

Before using the scanner, activate it by logging into the SHINING 3D passport: [Power On](#) > [Connect to Network](#) > [Register / Login](#).



Note

Devices that are not activated cannot upload or export projects.

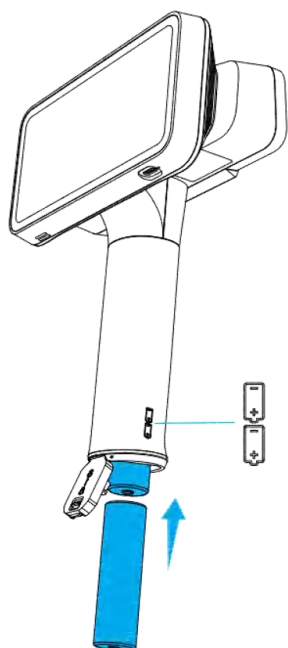
Battery Installation

Please open the battery compartment and insert the batteries first.



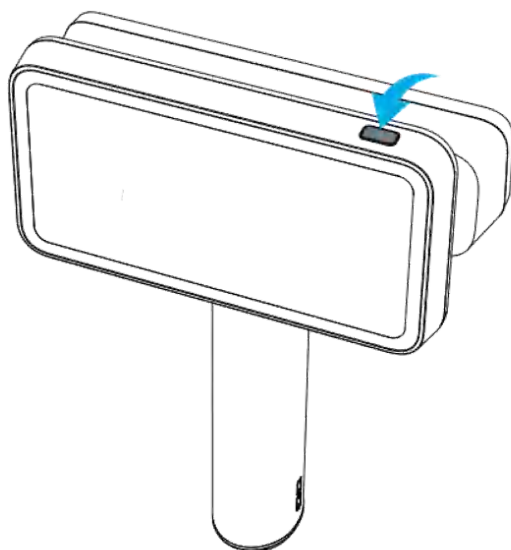
Caution

- Please place the batteries correctly according to the positive and negative directions shown in the diagram.
- Please insert two batteries with a power difference of no more than 10% to avoid excessive battery voltage due to a large power difference, resulting in unclear power indication or automatic shutdown due to low power.



Power On

Press and hold the power button (for about 2 seconds) until the screen displays the startup animation, indicating that the scanner has powered on successfully.



Note

If the scanner stays black or shows a charging prompt, please charge it promptly.

Power Off

- Press and hold the power button for approximately 3 seconds to bring up the shutdown interface, where you can choose to restart or power off.
- Press and hold the power button for approximately 6 seconds to force shutdown.

Connect to Network

After entering the network connection interface, the scanner will automatically search for available wireless networks (every 10 seconds). Tap the corresponding network to connect; if you need to disconnect from the network, press and hold the connected network and select **Delete Network**.



Note

- After connecting to the network, tap **Next Step** to [register or log into the SHINING 3D passport](#).
- If there is a network connection error, please retry or switch networks; if the issue persists, please restart the scanner.

Register / Login

After entering the login interface, you can choose to log in with a verification code or password.

Log in with password?'. There are two input fields: 'Please enter your phone number/ email' and 'Please enter the verification code'. To the right of the second field is a blue 'Get' button. Below the fields is a checkbox labeled 'I have read and agreed' followed by links for 'Privacy Policy' and 'Terms of use'. At the bottom is a large blue 'Log in' button."/>

Log in to SHINING 3D passport
Unregistered account would be automatically registered after verification. [Log in with password?](#)

Please enter your phone number/ email

Please enter the verification code | [Get](#)

☐ I have read and agreed [Privacy Policy](#), [Terms of use](#)

Log in



Note

- Successfully logging into the passport indicates that the scanner has been activated.
- The warranty period starts after activation.
- If this is your first login, it is recommended that you use the verification code login; registration will be completed automatically after a successful login.

Connection

You can export projects by Type-C cable.

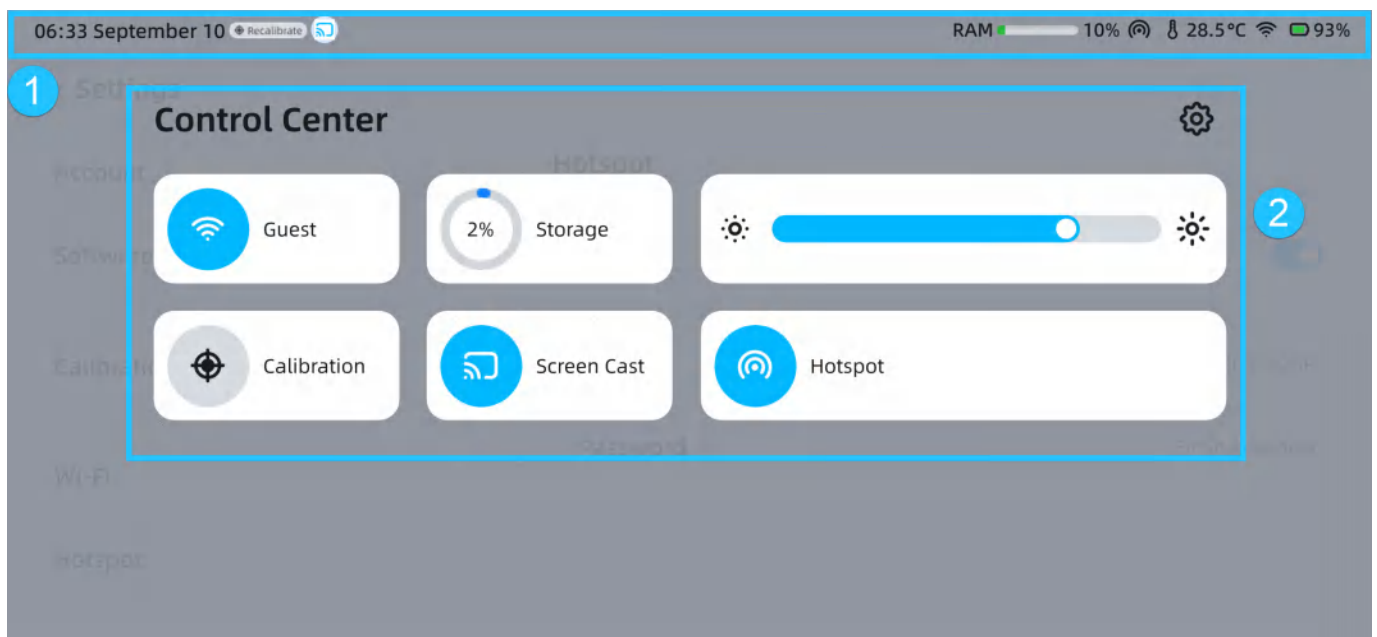
Note

- Please use the Type-C data cable that comes with the product for connection.
- Direct access through the system file manager is only supported on Windows systems. If you are using a Mac system, please install third-party software such as OpenMTP before exporting the project file.

Control Center

You can swipe down from the top of the screen to bring up the control center.

Overview



Note

- To hide the control center, use an upward swipe gesture.
- You cannot navigate to the corresponding position by tapping the buttons in the control center during scanning or calibration.

① Status Bar

Status	Description
Time	The format is hh:mm, and it is displayed in the 12-hour format by default; You can enable 24-hour format in Settings > Date and Time .
Calibration Reminder	Tap to enter the calibration process; if it's the first calibration, it will enter the Help interface.  Recalibrate : It has been 7 days since the last calibration.  Recalibrate : It has been 14 days since the last calibration.
 Screen Cast	The scanner is currently in casting.
RAM	Indicates the used memory space of the scanner.  Note When it shows  , it means that memory usage has exceeded 70%. Please pay attention to the remaining memory space.
 Hotspot	The scanner's wireless hotspot is currently enabled.
Temperature	Displays the current temperature of the device.
Wi-Fi	The current network connection status of the scanner.
Battery	Displays the current battery level of the scanner.  Note If the battery level is below 20%, please replace the battery in time or use the accompanying Type-C data cable and power adapter to charge.

② Function Panel

Function	Description
	Tap to enter the Settings interface. You can set Account , Software Update , Calibration , Wi-Fi , Hotspot , Language , Display , Date and Time , Storage , About , etc.; for details, see the content below.

Account

Tap here to view your account information and scanner's name.

If you are not logged in

- Tap **Log in** to enter the [passport login interface](#).
- Tap **Device Name** to modify the scanner's name in the pop-up.

If you are logged in

- This will display the passport account and name information.
- Tap **Device name** to modify the scanner's name in the pop-up.
- Tap **Switch account** to enter the [passport login interface](#).
- Tapping **Log out** will prompt a confirmation dialog box.



Note

Switching accounts does not affect the files already in the scanner.

Software Update

Tap **Check for Update** to automatically check if the current software is the latest version.

- a. If an update is detected, tap **Download the update file** to initiate the download process; if you do not wish to update at this time, tap  to cancel the download.
- b. After the download is complete, tap **Install Now** to proceed with the software installation.
- c. After the update (download and installation) is complete, the scanner will automatically restart.



Note

- During the download process, you can leave the current interface, and the update process will complete in the background, displaying as  at the top of the interface.
- Ensure the scanner has sufficient battery to avoid shutdown during the update process.
- If prompted "download update interrupted", please follow the instructions.
- Do not operate the scanner during installation.
- Software updates can not be performed if the batteries are not installed.

Calibration

- If you are using the scanner for the first time, please bind the calibration board included in the box; after successful binding, the calibration board number will be displayed here.

- Tap the corresponding button in the calibration status to enter the respective [calibration process](#); if it is your first calibration, you will first enter the **Help** interface.

Wi-Fi

- Wi-Fi is enabled by default; for the use of the **Available Networks** section, please refer to [Connect to Network](#).
- If you are connected to the network but the network status is abnormal, tap **Network Diagnosis** to open a pop-up, then tap **Start diagnosis** to diagnose the network connection.

Hotspot

Disabled by default. When enabled, the scanner will display the hotspot icon  in the status bar; the hotspot name is fixed as "EinScanMedix_xxx" and the password is fixed as "EinScanMedixa".

Language

Default is the language selected at startup, supporting **English, Simplified Chinese, Deutsch**.

Display

Supports adjusting the screen brightness.

Date and Time

- **Set time and date automatically:** After connecting to the network and enabling it, the scanner will automatically synchronize the time of the time zone.
- **Time zone:** You can manually select the time zone; after that, the time displayed in the upper left corner of the scanner will be the time of selected time zone.
- **24-hour system:** When enabled, the scanner will display time in 24-hour format.

Storage

Displays the scanner's disk space usage, including used amount, total storage capacity, and percentage.

About

Displays basic information such as scanner's name, serial number, warranty status, software version, RAM, WLAN address, privacy policy, contact us, and the **Factory Reset** entrance.



Note

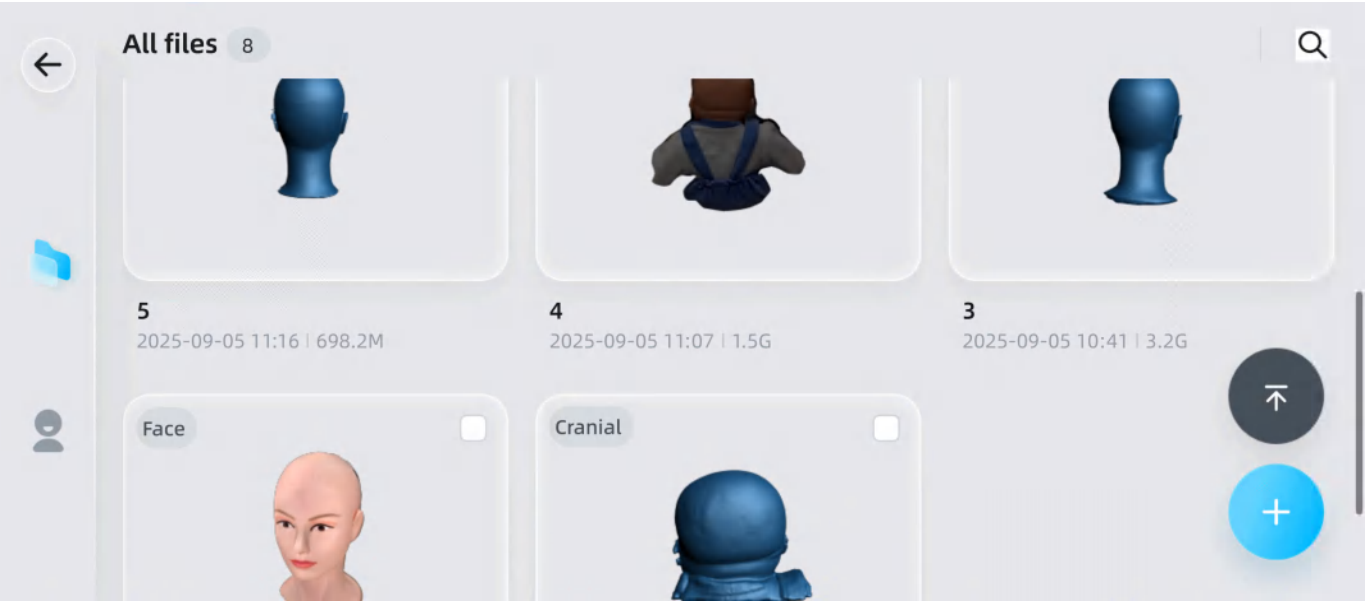
- You can modify the scanner's name and view the specific content of the warranty status and privacy policy.
- Tapping **Factory Reset** will prompt a secondary confirmation pop-up; tapping **Confirm** will start the reset process (non-cancellable).

Function	Description
Wi-Fi	Tap the icon to quickly enable  or disable  the wireless network connection.
Storage	Percentage of used memory space of the scanner. Tap to enter Settings > Storage.  Note When it shows , it means that memory usage has exceeded 70%. Please pay attention to the remaining memory space and clean up unnecessary project files as soon as possible to avoid affecting the scanning experience.
Screen Brightness	•  : Darken. •  : Brighten.
Calibration	•  : Tap to enter the calibration interface; if it's your first calibration, it will enter the Help interface. •  : Indicates that the calibration entrance is unavailable, possibly during scanning or calibration.
Screen Cast	•  : Indicates that the function is unavailable, possibly during scanning. •  : Indicates that the function is enabled; tap to open the screen cast interface.
Hotspot	Tap the icon to quickly enable  or disable  the hotspot.

Project List

Tap the  button to enter the  **Project List** interface.

Interface Overview



Left Navigation Bar

Function	Description
	Tap to return to the homepage.
	Tap to return to the Project List interface.
	Tap to enter the User Center interface.

User Center



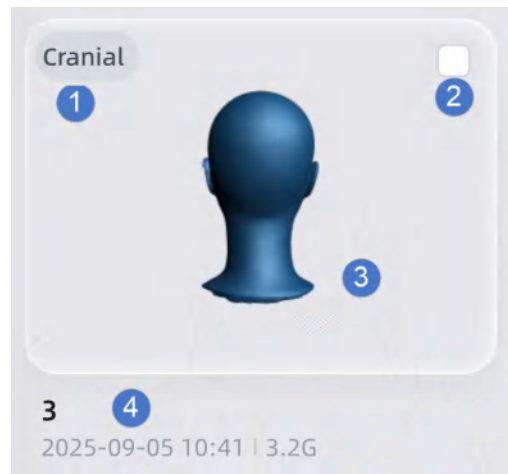
Function	Description
	Tap to enter the login interface.
	Tap to enter the Settings > Calibration interface.
	Tap to enter the Settings interface.
	Tap to enter the Help Center , where you can view beginner tutorials and scan a QR code to access the user manual.
	Tap to enter the Feedback , where you can report issues via the e-mail or support website with exported logs.
	Tap to view related QR codes and follow us.

Other Interface Buttons

Function	Description
	Tap to pop up the search window.  Note If there are no files in the current project group list, this function button will not be visible.
	After scrolling down the project group list, this button will appear on the right side of the interface; tap to return to the top of the interface.
	Tap to quickly create a new project.
Rename	After selecting a project, tap to pop up the rename window to rename the project.
Delete	After selecting a project, tap to pop up the delete confirmation window; tap Confirm to delete.
Cancel	After selecting a project, tap to cancel the selection.

Card List

All saved model files are displayed in the format of file cards, which are sorted by file update time in descending order.



① Label Area

Displays the scan type of the project.

② Checkbox

Check ☒ or long press the card to select it for deleting or renaming.

③ Thumbnail

Displays a thumbnail of the model; point cloud models with textures and mesh models with texture mapping will display as colored models, while other models will display in blue.

Note

If the file is corrupted, it will display as ; tapping this button will pop up a delete window prompt, and tapping **Confirm** will delete the file.

④ Information

Displays the name, last update time, and file size of the model file.

Screen Cast

Before starting the scan, you can cast the scanner screen to other devices for scanning and other operations.

Note

- When the scanner is connected to a computer, the scanner does not support screen cast.
- During scanning or calibration, you cannot change the screen cast status.

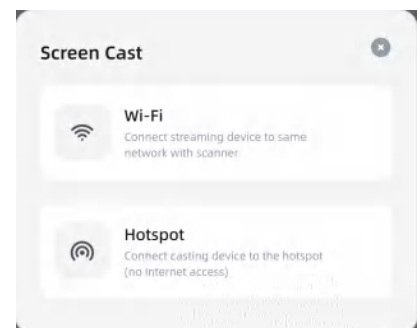
Operation

1.Swipe down from the top of the scanner screen to bring up the control center.

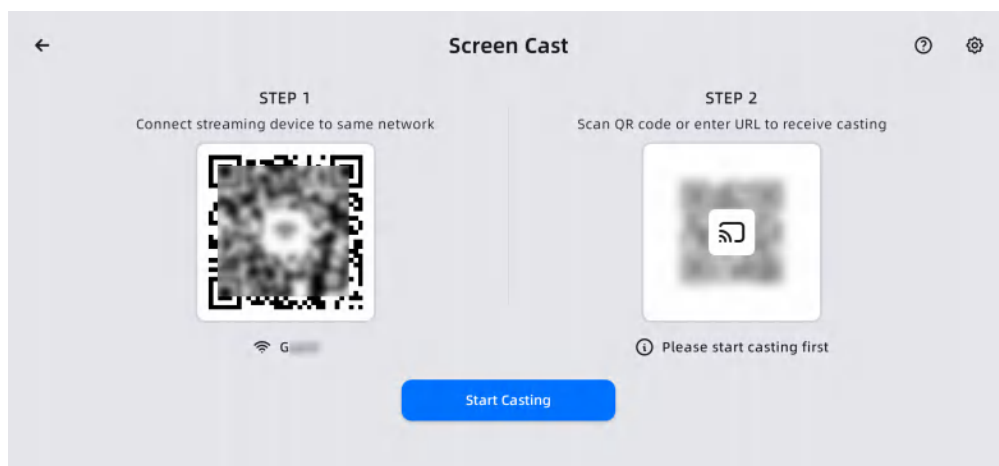
2.Tap **Screen Cast**, and choose **Wi-Fi** or **Hotspot**.

Note

- Wi-Fi: Connect the device to the same network as the scanner.
- Hotspot: Scan the QR code with the device to be cast or manually connect the device to the scanner's hotspot.



3.Tap **Start Casting**.



4.Use the device to be cast to scan the QR code or enter the URL displayed on the scanner screen in a browser.

5.If the scanner screen appears on the device, it indicates that the casting was successful; you can then operate the scanner directly from that device. To cancel the casting, tap **Exit Casting** on the casting interface.



Note

- Tap the  button in the upper right corner of the casting interface to view **Help** content for more guidance.
- Tap the  button in the upper right corner of the casting interface to set the **Display Resolution**.

Calibration

Calibration Notice

With calibration, the scanner parameters are recalculated, which not only ensures the accuracy of the scanner, but also improves the scan quality.

Please calibrate the scanner before scanning in these situations:

- Using the scanner for the first time.
- The scanner has not been used for a period of time (1 to 2 weeks).
- The scanner has experienced significant shaking or vibration.
- The scanned data is incomplete, and the data quality has severely declined.
- There is a significant drop in accuracy during scanning, with frequent alignment errors or loss of tracking prompts.



Note

If the scanner has not been calibrated for more than 7 days,  **Recalibrate** will appear in the status bar at the top of the screen; if it has not been calibrated for more than 14 days,  **Recalibrate** will appear.



Caution

- Please store the calibration tools properly after use.
- Calibration tools are for calibration purposes only and should not be used for anything else.
- Do not place heavy objects or sundries on the calibration tools.
- Keep the calibration tools away from corrosive solutions, metals, and sharp objects.
- Ensure that the markers on the calibration tools are undamaged and clean, and that the front of the calibration board is free of scratches.
- Use calibration board that matches the scanner to avoid issues such as low calibration accuracy or calibration failure due to mismatched boards.
- Do not use any chemical liquids to clean the calibration tools; if cleaning is necessary, gently wipe the tools with a clean, moist cloth.

Calibration Operation

The calibration process includes three types of calibration: **white light calibration**, **infrared calibration**, and **white balance calibration**. White light calibration and infrared calibration are required steps, while white balance calibration is optional. You can complete the corresponding calibration based on your needs.



Note

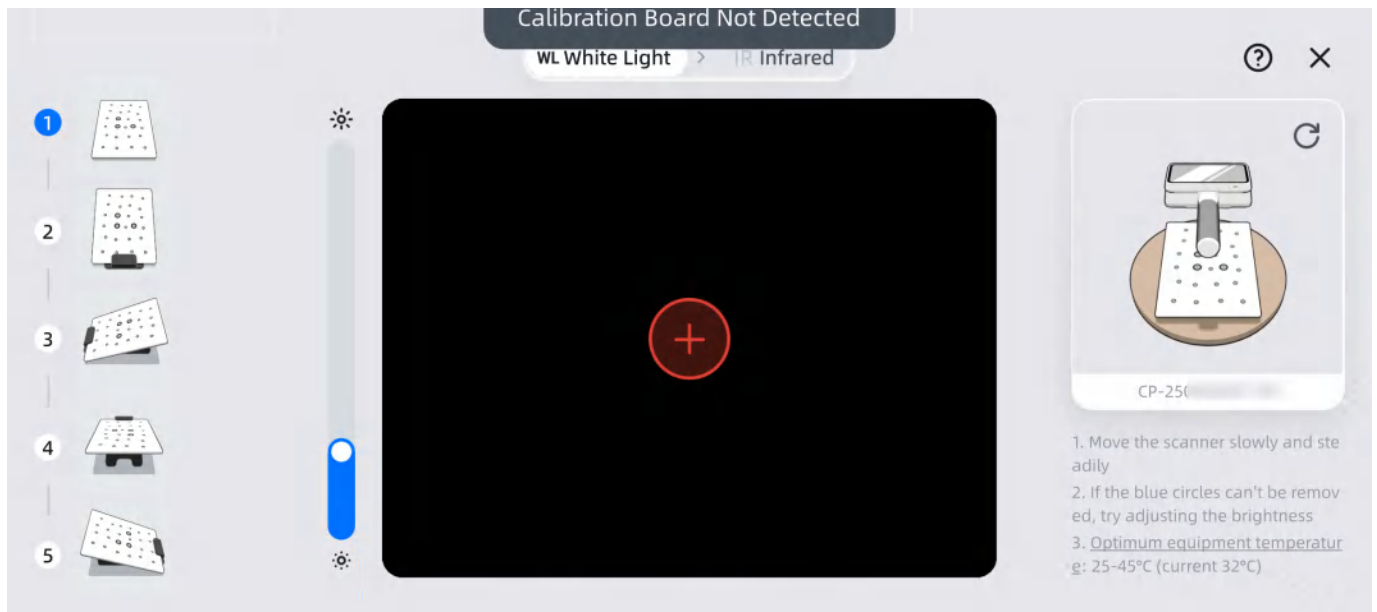
- Before the first calibration or after changing the calibration board, please first go to **Settings > Calibration** interface to bind the calibration board before starting calibration.
- Upon first entering the calibration process, you will automatically enter the help interface before calibration, where you can view guidance related to calibration; at the last step of the help interface, tap **Start** to enter the formal calibration process.
- During the calibration process, tap ⓘ to re-enter the help interface; tap ✕ to exit the calibration process.

Calibration Entrance

You can enter the calibration process in the following two ways:

- In the [Control Center](#) or [User Center](#), tap  and select **Camera** or **White Balance Calibration** to start.
- In the status bar at the top of the interface, tap the calibration warning and select **Camera** or **White Balance** to start.

White Light Calibration



A calibration process requires completing the calibration at all angles and distances according to the illustrations.

Taking **white light calibration** as an example, the calibration steps are as follows:

 Caution

- Do not perform calibration on reflective tile floors.
- Do not perform calibration in environments with cluttered markers.

1. Please place the calibration board with the marked side facing up on the flat surface.
2. Align the red crosshair of the scanner with the white crosshair on the calibration board; when the two crosshairs overlap, the crosshair will turn green.
3. Move the scanner vertically up and down until the blue area on the screen is completely eliminated.

 Caution

- When moving the scanner up and down, please ensure:
 - The center of the scanner remains aligned with the center of the calibration board.
 - The scanner remains parallel to the plane where the calibration board is located.
- If you are unable to eliminate the blue area completely while moving the scanner up and down, try adjusting the camera brightness using the brightness slider on the left side.

4. Place the calibration board on the holder as shown.
5. Repeat steps 2 to 3 to complete the calibration for that direction.

6. Rotate the calibration board as shown, and repeat steps 2 to 3 to complete the calibration for other directions.
7. After completing calibration for all directions, a calibration file will be automatically generated.
8. If the calibration is successful, you can exit calibration and proceed to scanning; if the calibration fails, please recalibrate.

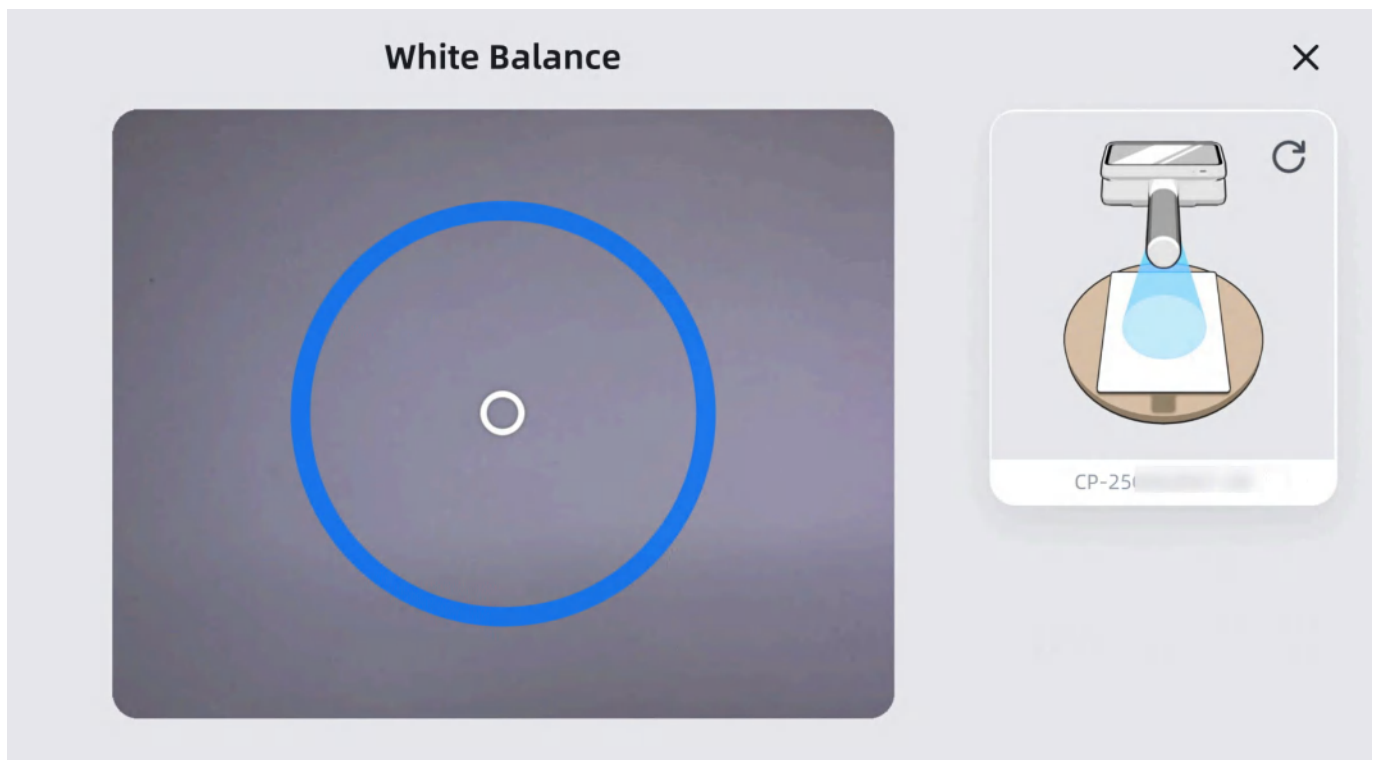


Note

- After calibration is complete, please store the calibration board properly for future use.
- If calibration fails multiple times, please promptly [contact technical support](#) and provide the error code.

White Balance Calibration

White balance calibration is an optional calibration step. It can be performed when there is a discrepancy between the scanned texture data and the actual texture of the object.



Steps

1. Please place the calibration board with the white side facing up on a flat surface.
2. Aim the scanner at the calibration board.
3. Move the scanner vertically up and down until the white circle on the screen completely overlaps with the blue circle.
4. After successful calibration, you can exit calibration and proceed to scanning; if calibration fails, please recalibrate.



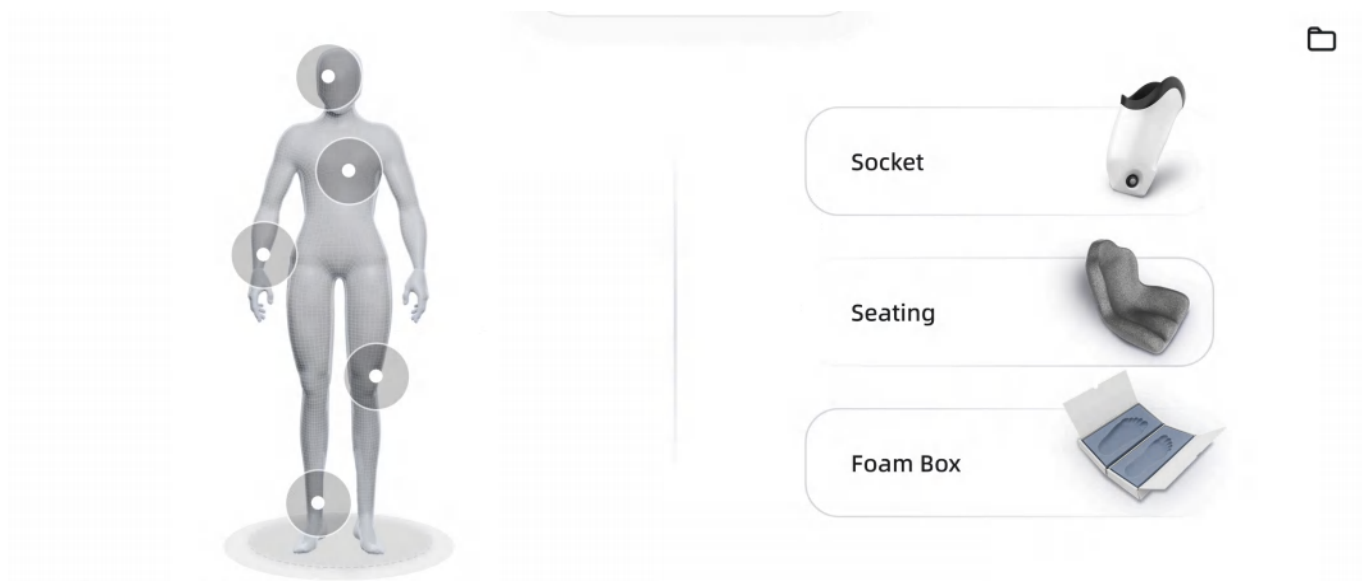
Note

- After calibration is complete, please store the calibration board properly for future use.
- If calibration fails multiple times, please promptly [contact technical support](#) and provide the error code.

Scan

Scan Mode

Scans can be performed on the human body and equipment.



Scanning Types

Supports scanning of the **cranial (face and cranial)**, **torso**, **upper limbs**, **lower limbs**, **feet (Insole-SMO and AFO-KAFO)**, **sockets**, **seating**, and **foam boxes**; simply tap the corresponding location to select the scanning type and enter the parameter settings interface.

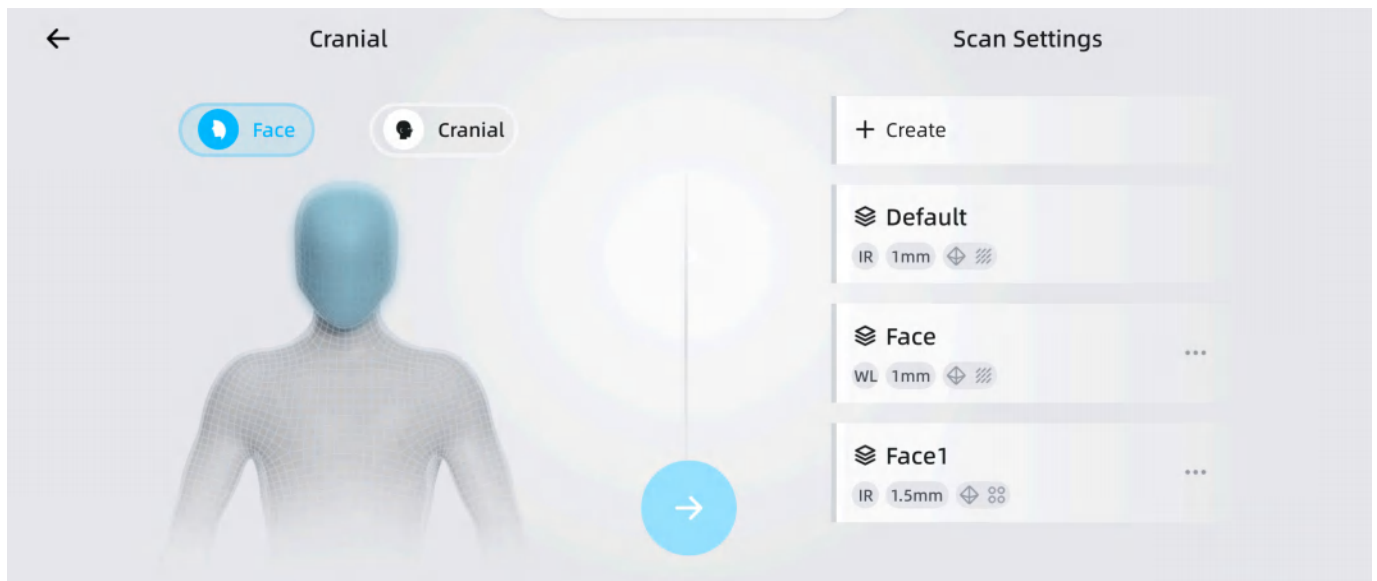


Note

- **Insole-SMO**: Scans from the sole to the ankle.
- **AFO-KAFO**: Scans from the sole to the thigh.

Parameter Settings

You can quickly create a new project using the existing default parameter templates or create a new parameter template for scanning.



Note

- Up to 3 parameter templates can be created.
- Default templates cannot be edited or deleted.

Icon	Description
+ New	Tap to create a new parameter template.
...	Tap to select  to edit the template or  to delete the template.

Icon Meaning			
IR Infrared Mode	WL White Light Mode	mm Resolution	 Acquire Texture
 Feature Alignment	 Texture Alignment	 Marker Alignment	 Global Markers Alignment

Light Source

Supports two types of light sources: infrared (IR) and white light (WL).

- Infrared Mode: Scans using infrared invisible light.
- White Light Mode: Scans using white visible light, effectively capturing the color and surface details of objects.

Resolution

Set the resolution manually. A smaller value results in a smaller point distance, increased data quality requirements, longer scanning times, and finer meshes generated. The range is from 0.2 to 3.0 mm.



Note

If the interface does not show the full range of values, you can tap  to enter the high-detail mode, and then tap  or  to adjust the resolution.

Acquire Texture

This function must be enabled to use the  texture visibility function in the scanning interface and the  mapping function in the post-processing interface.



Note

Acquire Texture cannot be enabled in **Foot Scanning > Insole-SMO**.

Align Mode

Supports **Feature Alignment**, **Texture Alignment**, **Marker Alignment** and **Global Markers Alignment**.

Align Mode	Description	Supported Marker Size
Feature Alignment	Automatically completes alignment using the geometric features of the scanned object's surface, suitable for objects with rich geometric features or those that cannot have markers pasted.  Note When enabled,  will be displayed in the project information at the top left.	/
Texture Alignment	Automatically completes alignment using the surface texture of the scanned object, suitable for objects with rich surface texture patterns but lacking rich irregular geometric features.  Note When enabled,  will be displayed in the project information at the top left.	/
Marker Alignment	Completes alignment using markers, suitable for objects with distinct geometric features, flat areas with minimal geometric features, and scenes requiring accuracy.  Note When enabled,  will be displayed in the project information at the top left.	• 3 mm • 6 mm
Global Markers Alignment	Completes alignment using markers, suitable for objects lacking rich and variable geometric features and requiring high accuracy.  Note When enabled,  will be displayed in the project information at the top left.	• 3 mm • 6 mm



Note

- **Texture Alignment** and **Marker Alignment** cannot be enabled simultaneously.
- **Feet Scanning (Insole-SMO and AFO-KAFO)** does not support selecting **Alignment Mode**.
 - The alignment mode for **Insole-SMO** is  **Global Markers Alignment**.
 - The alignment mode for **AFO-KAFO** is a combination of  **Global Markers Alignment** and  **Feature Alignment**.

Scan Preparation

Before scanning, please refer to the following scanning requirements and make the necessary preparations to enhance your scanning experience.

Markers Placement

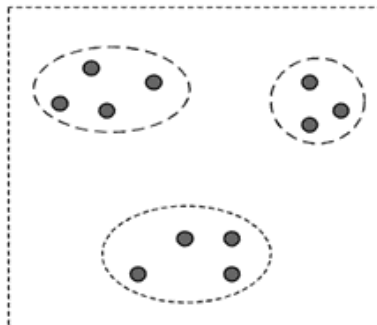
When scanning using **Marker Alignment** or **Global Markers**, markers need to be placed on the object to be scanned in advance.

Please note the following requirements for placing markers:

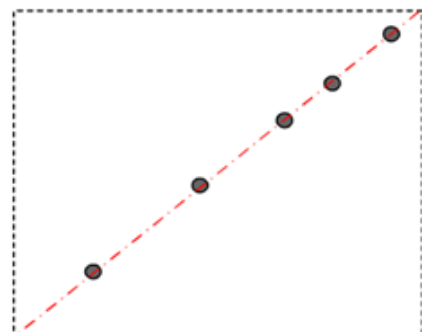
- Place markers evenly and randomly.
- Do not use damaged or incomplete markers.
- Do not place markers on surfaces with high curvature.
- Do not use dirty or contaminated markers.
- Place small markers on edges of models or small areas.



Markers are attached correctly



Wrong: Artificial grouping of markers



Wrong: Attach markers only in one line

Portraits

Please note the following requirements for scanning portraits:

- Hairstyle: Keep hairstyles neat and avoid loose strands or bangs; comb hair before scanning.
- Clothing: Avoid wearing reflective clothing; do not wear accessories or glasses that may cause reflections.
- Posture: Since the person should remain as still as possible during the scanning process, choose a comfortable and easy-to-maintain posture before scanning.



Note

For portrait scanning, please scan the face first and try to complete it in one go to avoid alignment errors caused by muscle movement or blinking.

Objects

Please note the following requirements for scanning objects:

- For scanning transparent, shiny, or reflective objects (especially those with black reflective surfaces), use washable or vanishing scanning spray.
- For objects lacking surface features or with repetitive features:
 - Place markers on the object's surface and select **Marker Alignment** mode for scanning.
 - Randomly add rich geometric features on or around the object's surface and select **Feature Alignment** mode for scanning.
 - Use an erasable marker to enhance surface features by drawing on the object's surface and selecting **Texture Alignment** mode for scanning.



Note

Types of objects unsuitable for scanning:

- Soft material object that cannot be hung.
- Lattice structures with many small deep holes.
- Moving or shaking objects. Frequent coordinate changes will lead to a poor scanning quality.

Preview and Settings

After powering on, you can enter the scan interface.

Interface Overview



Note

For an introduction to the top status bar, please see [Status Bar](#).

① Project Information

Displays the scan type, data information, including fps, frames, points, markers (**Marker Alignment** or **Global Markers**), and parameter settings of the current project.

Note

You can long press the icon to display icon descriptions.

Icon Meaning			
IR Infrared Mode	WL White Light Mode	mm Resolution	 Acquire Texture
 Feature Alignment	 Texture Alignment	 Marker Alignment	 Global Markers Alignment

② Scan Settings

You can set the scanning settings for the current scanning project in the scan interface.

Camera View

Note

- The texture camera view is only displayed when **Acquire Texture** is enabled.
- After starting the scan, you can adjust the camera brightness again based on the reality.

Black-and-White Camera

The red dots in the camera view indicate overexposed areas. To improve scanning quality, it is recommended that you lower down the camera brightness when there are large overexposed areas, or increase the camera brightness when the camera view is too dark.

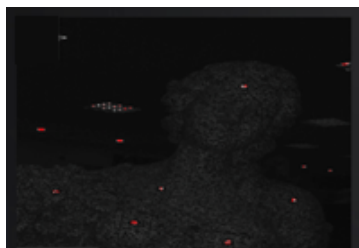
Function	Description
	When enabled, the scanner can adjust the brightness automatically according to the actual situation.  Note This function is unavailable when scanning global markers or using markers alignment mode.

Brightness adjustment methods support automatic exposure or manual adjustment:

- Automatic exposure : The device automatically adjusts exposure based on the scanning environment; if the automatic exposure effect is not good, you can manually adjust the brightness.
- Manual adjustment: Tap the upper or lower part of the camera view or use the slider on the left side of the camera view to manually adjust the brightness.



Brightness is too high



Brightness is too low



Brightness is proper

Texture Camera

To enhance scanning quality and texture effects, it is recommended that you adjust brightness based on the camera view before scanning.

Function	Description
	When enabled, the scanner can adjust the brightness automatically according to the actual situation.
	Enable it when the environment light is too dark; then manually adjust the brightness of the LED supplement light.

- Automatic exposure : The device automatically adjusts exposure based on the scanning environment; if the automatic exposure effect is not good, you can manually adjust the brightness.
- Manual adjustment: Tap the upper or lower part of the camera view or use the slider on the left side of the camera view to manually adjust the brightness.

Data Display Mode

Tap  to expand the list, and you can choose a data display mode:

-  **Data Quality Indicator**: Enabled by default for non-texture scanning. When enabled, it will differentiate scan quality in colors: blue represents high-quality scanned data and yellow represents insufficient scanned data that requires further scanning.
-  **Texture Display**: Enabled by default when you choose [Acquire Texture](#).



Note

You can enable only one of these two display modes;  indicates that both modes are disabled.

Working Distance

Tap the  button to enable the working distance adjustment function. You can adjust the working distance using the arc slider based on the distance value prompt. The scanner scans only within the set distance. This function can effectively filter out unnecessary noise data.

③ Model Preview

Displays the pre-scanning effect of the model.

⑤ Distance Indicator

You can adjust the working distance based on the color indication of the distance bar and interface prompts during scanning.

- Green indicates that the distance is proper.

- Red indicates that the distance is too near.
- Blue indicates that the distance is too far.
- Bluish green indicates that the distance is close or far away.

⑥ Function Buttons

Function	Description	Function	Description
	Tap to start scanning.		Tap to pause scanning.
	Tap to finish scanning.		Tap to delete current scan data.

Scanning

General Scanning

By scanning, you can obtain point cloud data and then generate accurate mesh data.

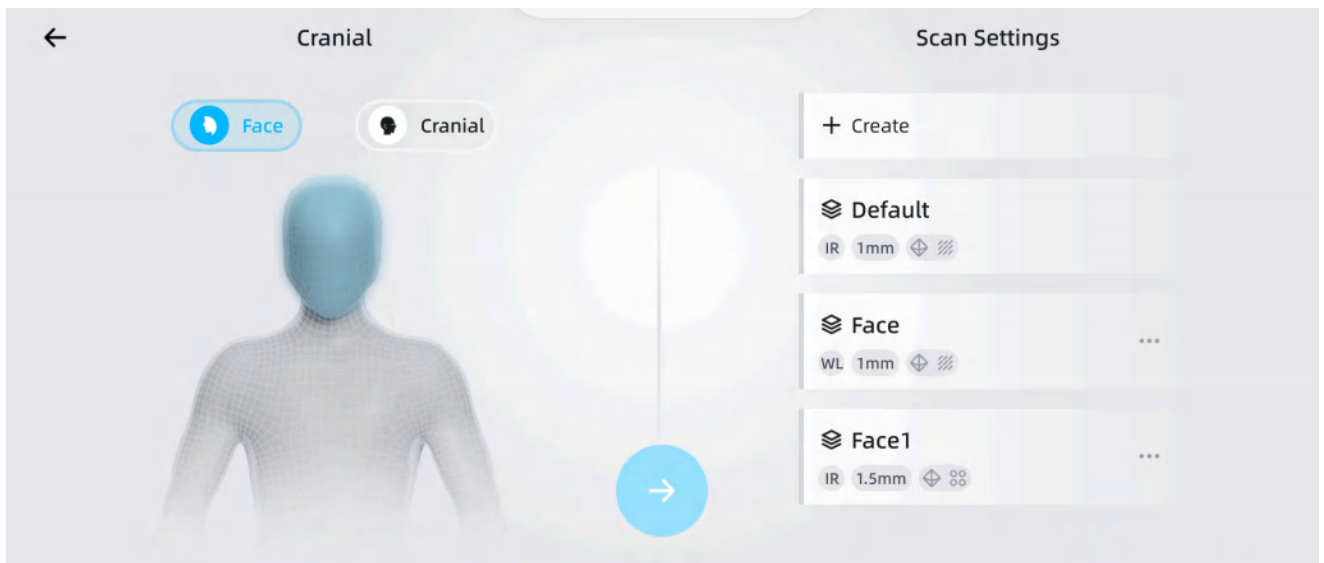


Note

The following scanning steps apply to all scanning types except for **feet scanning**.

Steps

1. Select the scanning type and set parameters (resolution, align mode, and texture) on the homepage; for details, please refer to [Scanning Mode](#).



2. Tap  to enter the scanning interface.
3. Prepare according to the type of object to be scanned and the selected scanning mode; for details, please refer to the [Scanning Preparation](#) section.
4. Adjust the scanning brightness and working distance.
 - a. Tap  to open the camera window, and adjust to the appropriate scanning brightness based on the camera view; during the scanning process, you can adjust the scanning brightness again according to the scanning effect.
 - b. Tap  to enable the working distance adjustment function, and use the radial slider to adjust the working distance based on the working distance value prompt.

Note

For more details, please refer to [Scanning Settings](#).

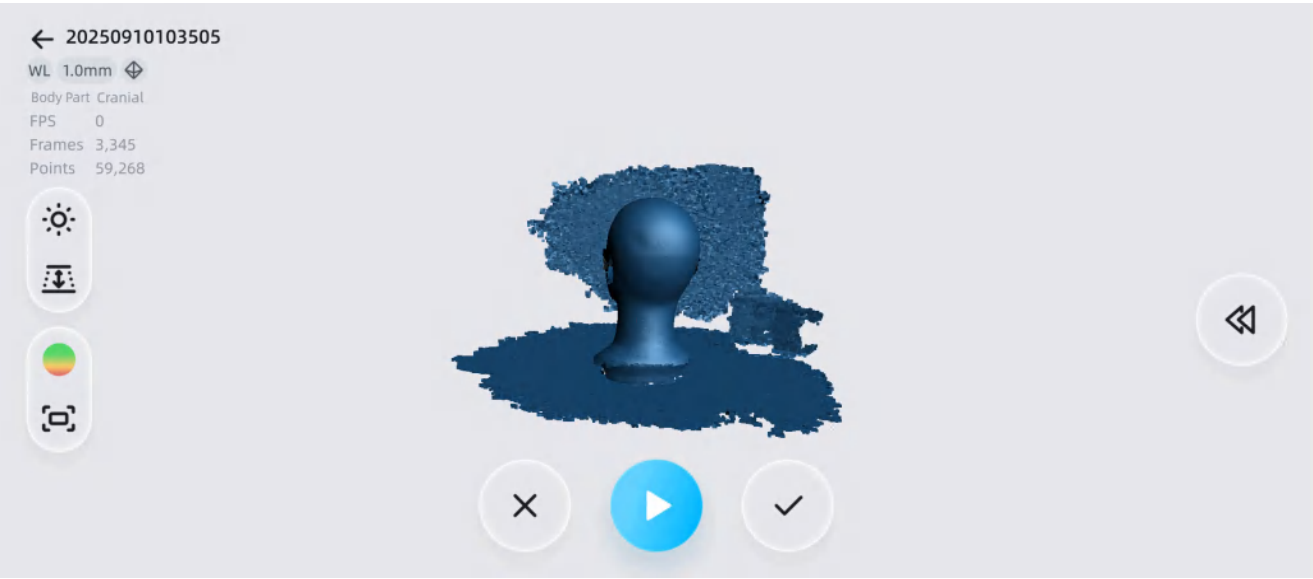
5. Tap  at the bottom of the interface to start scanning.
6. During the scanning process, please monitor the image data on the screen in real-time, and move the scanner slowly and steadily until the object is completely scanned.

Note

- If "Tracking Lost" prompt appears during scanning, please adjust the posture, move the scanner to the already scanned area, and continue scanning after re-tracking.
- During the scanning process, you can enable the  **Data Quality Indicator** to check data quality based on the color of the data; blue represents high-quality scanned data and yellow represents insufficient scanned data that requires further scanning.

7. Tap  at the bottom of the interface to pause the scanning.
8. Check the integrity of the data through operations such as rotation and zooming.

Function	Description
Pan	Slide to pan the model with two fingers.
Rotate	Slide to rotate the model with one finger.
Zoom	Pinch or spread with two fingers to zoom the model.
	Tap this button to restore the model to its original size and reset it to the center of the screen.



9. If the data is incomplete or of low quality, tap the  button at the bottom of the interface to continue scanning; if you need to rewind the frame, tap the  button to access the [rewind](#) function; if you are not satisfied with the overall data, tap the  button to clear the scanned data and start scanning again.
10. After completing the scan, tap the  button at the bottom of the interface to enter the [Point Cloud Editing](#) interface, where you can edit and clip the scanned data to remove redundant data.

Foot Scanning

To scan the feet, select the specialized **feet mode** and use the foot station.

 Note

Feet scanning supports **Insole-SMO** and **AFO-KAFO** modes, as well as single-foot and both feet modes; for more details, please refer to [Scanning Types](#).

Steps

 Caution

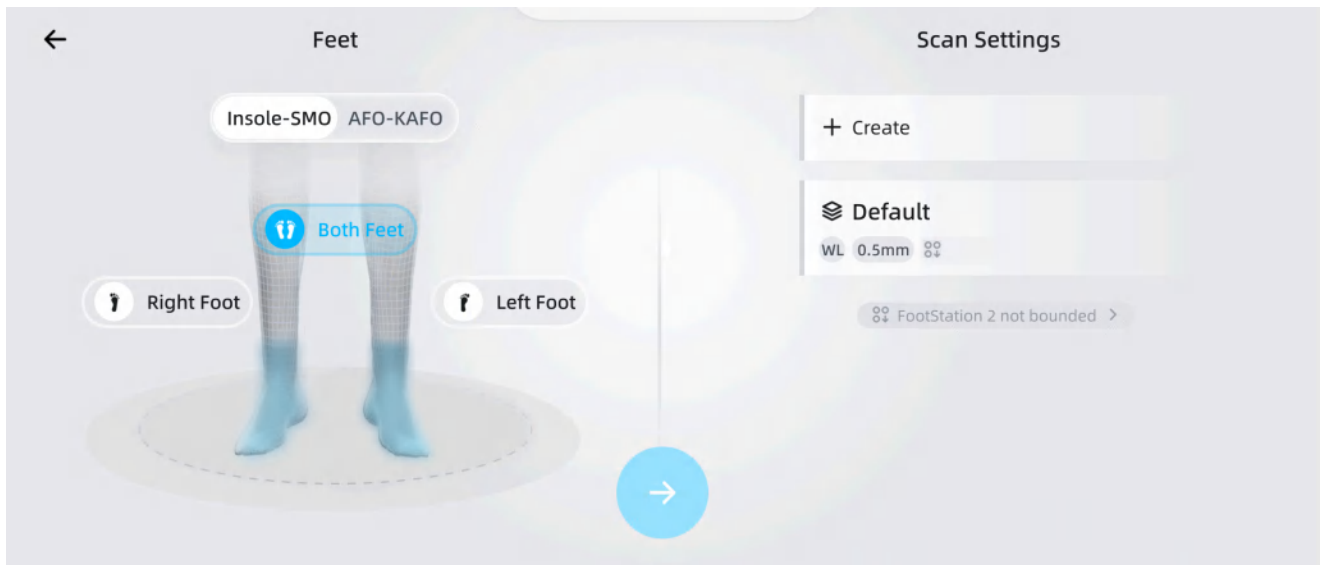
- Keep the surrounding environment clean and unobstructed before scanning.
- Place the foot / feet parallel to the long edge of the foot station and do not cover the markers.
- Ensure you scan all necessary data of the sole to avoid impacting the alignment.
- Avoid scanning in environments with strong direct light above the station to prevent overexposure.

1. On the home page, select the feet scanning type (**Insole-SMO** or **AFO-KAFO**) and choose single-foot or both feet mode, then set the parameters (resolution and texture); for specific details, please refer to [Scan Mode](#).
2. If the station has not been bound yet, tap  and scan the QR code on the station to bind it.

 Note

If you use another station, please re-scan to bind it.

3. Tap  to enter the scanning interface.



4. Place the foot on the station according to the guide.



Left Foot



Right Foot

Note

Tap  in the upper right corner of the scanning interface to view the foot placement guide.

5. Adjust the scanning brightness and working distance.

- Tap  to open the camera window, and adjust to the appropriate scanning brightness based on the camera view; during the scanning process, you can adjust the scanning brightness again according to the scanning effect.
- Tap  to enable the working distance adjustment function, and use the radial slider to adjust the working distance based on the working distance value prompt.

Note

- For more detailed information, please refer to [Scanning Settings](#).
- If you choose the both feet mode, you need to scan the feet in the order prompted by the scanning interface; the scanning order of the feet can be changed before scanning.



6. Tap  at the bottom of the interface to start scanning.

7. During the scanning process, please monitor the image data on the screen in real-time, and move the scanner slowly and steadily until the object is completely scanned.

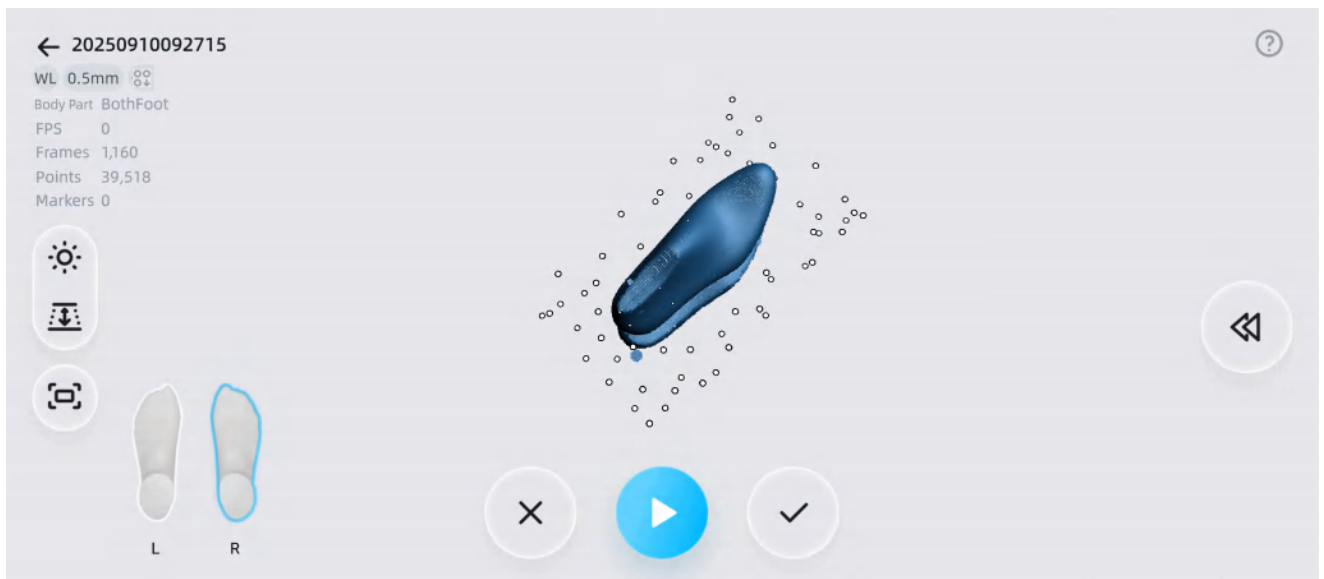
Note

- If "Tracking Lost" prompt appears during scanning, please adjust the posture, move the scanner to the already scanned area, and continue scanning after re-tracking.
- During the scanning process, you can enable the  **Data Quality Indicator** to check data quality based on the color of the data; blue represents high-quality scanned data and yellow represents insufficient scanned data that requires further scanning.

8. Tap  at the bottom of the interface to pause the scanning.

9. Check the integrity of the data through operations such as rotation and zooming.

Function	Description
Pan	Slide to pan the model with two fingers.
Rotate	Slide to rotate the model with one finger.
Zoom	Pinch or spread with two fingers to zoom the model.
	Tap this button to restore the model to its original size and reset it to the center of the screen.



10. If the data is incomplete or of low quality, tap the  button at the bottom of the interface to continue scanning; if you need to rewind the frame, tap the  button to access the [rewind](#) function; if you are not satisfied with the overall data, tap the  button to clear the scanned data and start scanning again.
11. After completing the scan, tap the  button at the bottom of the interface to enter the [Point Cloud Editing](#) interface, where you can edit and clip the scanned data to remove redundant data.



Note

If you choose the both feet mode, you need to complete the scanning of both feet; otherwise, you will not be able to proceed with subsequent data editing and post-processing steps.

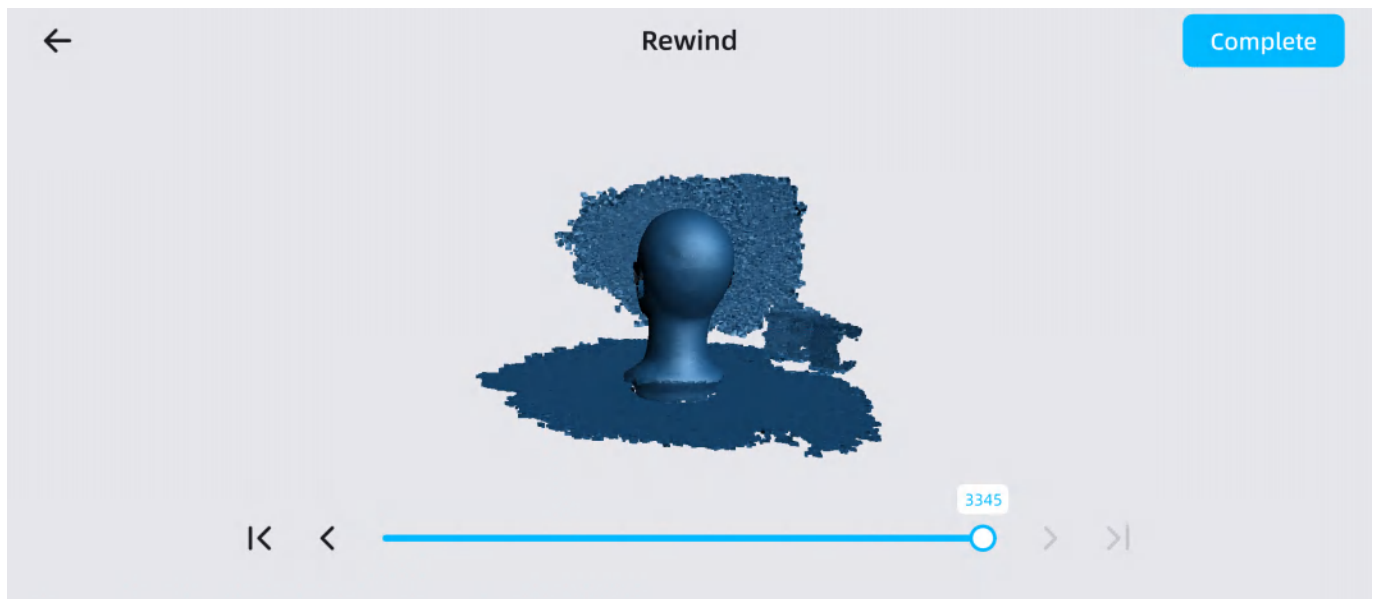
Scan Rewind

If there are issues such as alignment errors during the scanning process, you can pause the scan and tap the  button to use the rewind function. This allows you to rewind the frames to precisely delete any excess or incorrectly aligned data.



Note

If the total number of frames in the current project is ≤ 50 , no frames can be rewound.



Function	Description
	Drag to quickly adjust the rewind frame count.
< / >	Tap to fine-tune the frame count; each tap increases or decreases by one frame.
⏮ / ⏭	Tap to quickly rewind to the maximum or minimum frame count.
Pan	Slide to pan the model with two fingers .
Rotate	Slide to rotate the model with one finger.
Zoom	Pinch or spread with two fingers to zoom the model.

Operation Instructions

1. When the scan is paused, tap the  button to enter the rewind function.
2. Pan, rotate, and zoom the data to check for alignment errors.
3. Drag the slider  to rewind to the specified frame count.
4. (Optional) Tap < / > to fine-tune the rewind frame count; each tap can increase or decrease by one frame.
5. Check the data again by panning, rotating, and zooming. If the data has been rewound to a normal state, tap **Complete** to delete the data after the current frame and return to the scan interface.



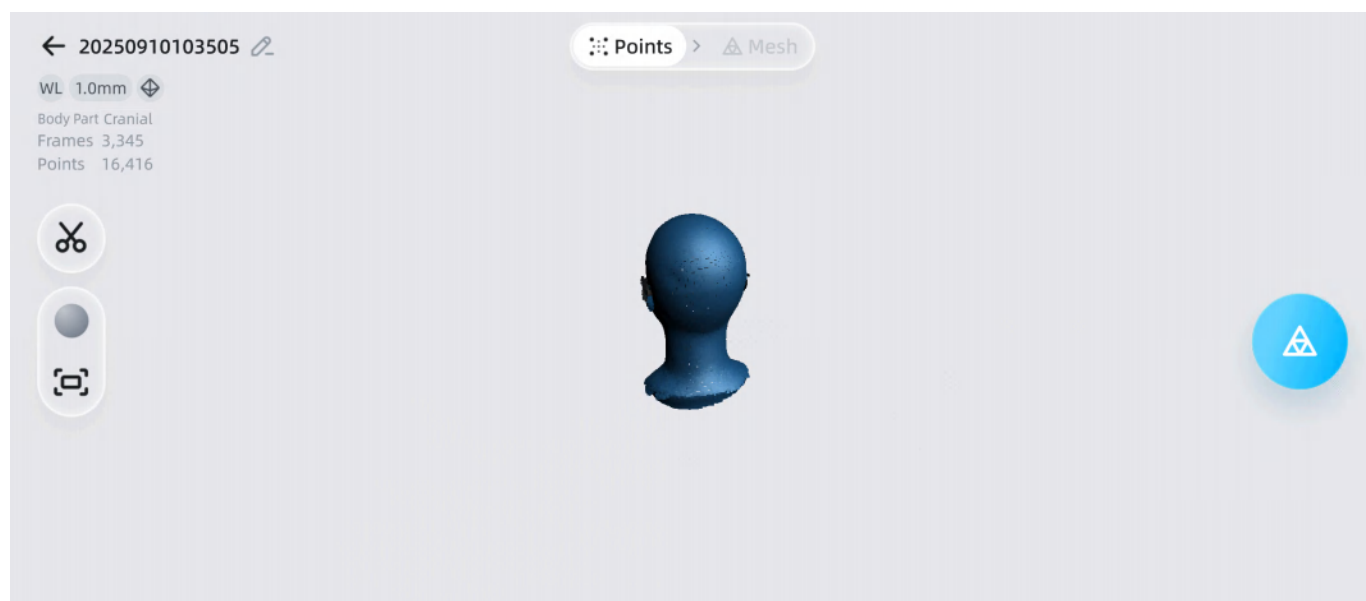
Note

- The interface defaults to displaying the last frame; when rewinding the frames, the point cloud data and markers in the 3D scene will change in real-time.
- When rewinding frames, it is recommended that you enable the  **Data Quality Indicator** to check the current quality of the model. If the data shows yellow after rewinding, the yellow areas need to be scanned again to improve scanning quality.

Data Editing

After completing the scanning, you can edit the point cloud data to remove redundant data.

Interface Overview



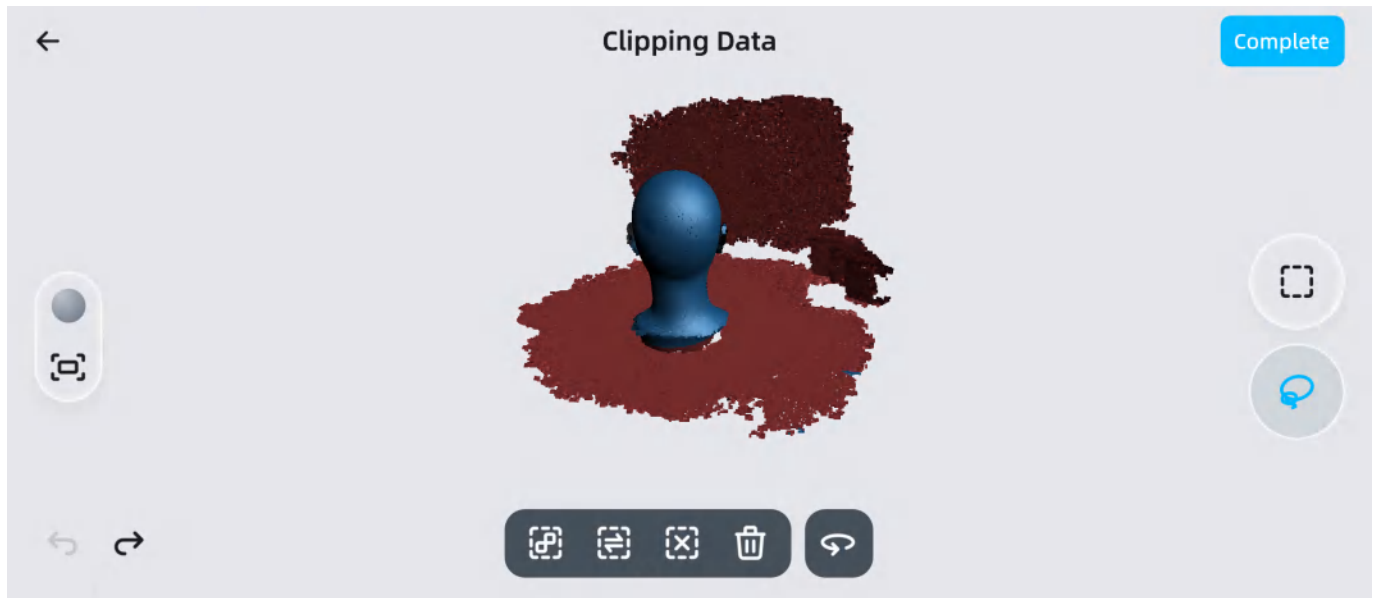
Function	Description
 Point Cloud /  Mesh	Tap the corresponding button to switch the current data to point cloud or mesh.  Note Before tapping the button to switch between point cloud and mesh, please mesh the data first.
	Tap to select whether to clear the current scan data and return to the scan interface.
	Tap this button to rename the current project.
	Tap this button to enter the clipping interface to clip the data and remove noise data.
	After tapping this button, you can choose to turn texture display on or off.  Note Only projects that have turned on Acquired Texture can support turning on texture display.
	Tap this button to restore the model data to its original size and center it on the screen.
	Tap this button to mesh.  Instructions • If Acquire Texture is enabled, texture mapping will be automatically performed when meshing. • In Foot Scan mode, foot data and plantar data will be aligned after tapping this button. • In Foot Scan mode, when Acquire Texture is enabled, texture mapping will not be performed after meshing. It needs to be manually performed by tap  on the mesh interface.
Complete	Tap the button to display the menu panel and select the export option for the project file; tap  Back to Home to save the model file to the project list and return to the scan mode interface.  Note After tapping  to generate a mesh, when returning to the  Point Cloud interface again, the button will appear.

Data Clipping

In the **Point Cloud** interface, tap the ✂ button on the left toolbar to clip the point cloud data. After clipping, tap the **Complete** button in the upper right corner to save the clipped data and return to the editing interface.

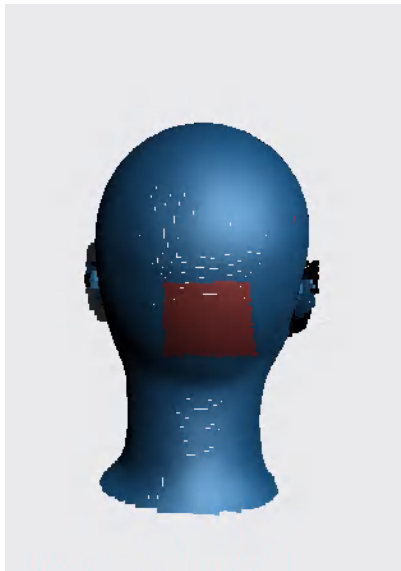
Note

Once clipping is confirmed, reverting to previous scanned data is not supported.

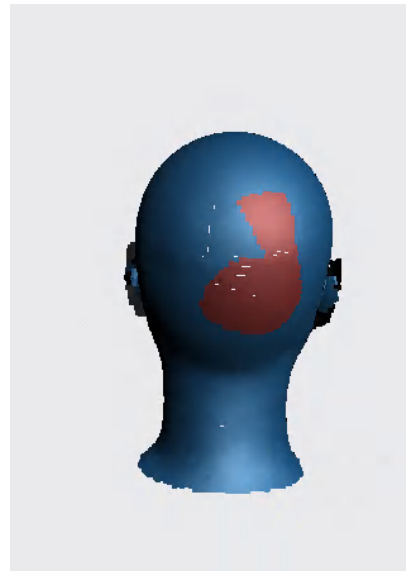


Editing Tools

1. On the right side of the interface, tap  or  to select the corresponding selection tool, and slide on the screen to select data with one finger; the selected area is displayed in red.



Rectangle Selection



Lasso Selection

2. For the selected area, you can use the following tools to quickly select all, invert selection, deselect, or delete.

Tool	Description
	After selecting the area, tap this button to automatically select all remaining areas connected to the selected area.
	After selecting the area, tap this button to invert the selection based on the selected area.
	After selecting the area, tap this button to deselect all selected areas.
	After selecting the area, tap this button to delete the selected area.  Note - After performing a delete operation, tap  to undo or tap  to redo the previous operation. - This only supports undoing or redoing operations within this data clipping.

Auxiliary Functions

Function	Description
	After tapping this button, you can choose to turn texture display on or off.  Note Only projects that have turned on Acquired Texture can support turning on texture display.
	Tap this button to restore the model data to its original size and center it on the screen.
	Long press in areas other than the button to display a magnification effect.
	Tap  to switch to  enabled state, at which point you can slide in areas other than the button to rotate the model.  Note Using any other selection tool will automatically turn off the rotation mode and switch to the selection mode.

Post-Processing

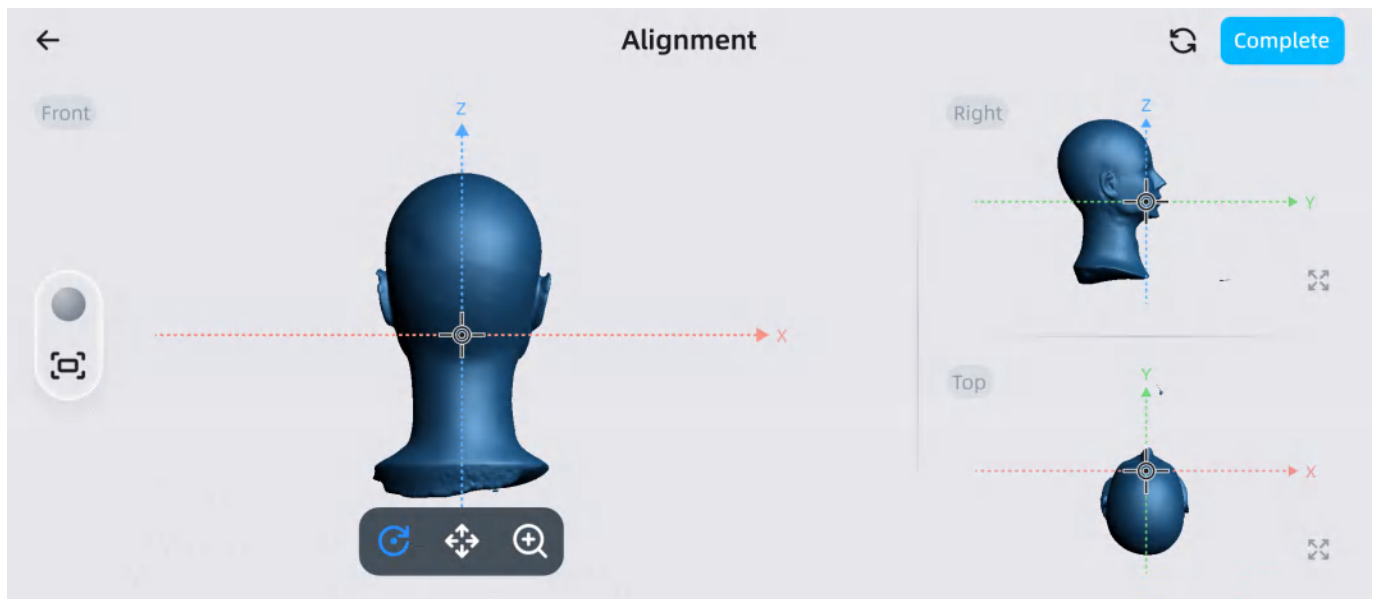
Alignment

After tapping  on the scanning interface to automatically generate the mesh, it will automatically enter the alignment interface. The left main view (model operation area) is the front view, while the right small views (model preview area) represent the right view and the top view, arranged as shown in the following illustration.

Note

After alignment is complete, tap  in the post-processing interface to align the model again.

Function



Function	Description
←	Tap this button to return to the previous interface.
●	Tap this button to turn texture display on or off.
⌂	Tap this button to restore the model to its original size and center it on the screen.
🔄	Tap this button and slide on the screen to rotate the model.
📏	Tap this button and slide on the screen to pan the model.
🔍	Tap this button and slide on the screen to scale the model with two fingers.
📐	Tap this button in the small view area on the right to switch the view in the upper right or lower right corner to the operation area on the left.
↺	Tap this button to restore to the default view layout when entering the alignment interface.
Complete	Tap this button to save the current project and return to the Mesh interface.

Operation

1. Adjust the position of the model in the left main view on the coordinate axis by panning and rotating the model.

Note

- When panning and zooming the model, the three views will change synchronously.
- Zooming the model only affects the current view and does not affect the actual model.

2. If the adjustment is completed, tap the  button to align other views; if you are not satisfied with the adjustment, tap the  button to restore the model position to the default view layout when entering the alignment interface.
3. Follow the above steps to align the model in the top view and right view.
4. Tap the **Complete** button to save the current project and return to the mesh interface.

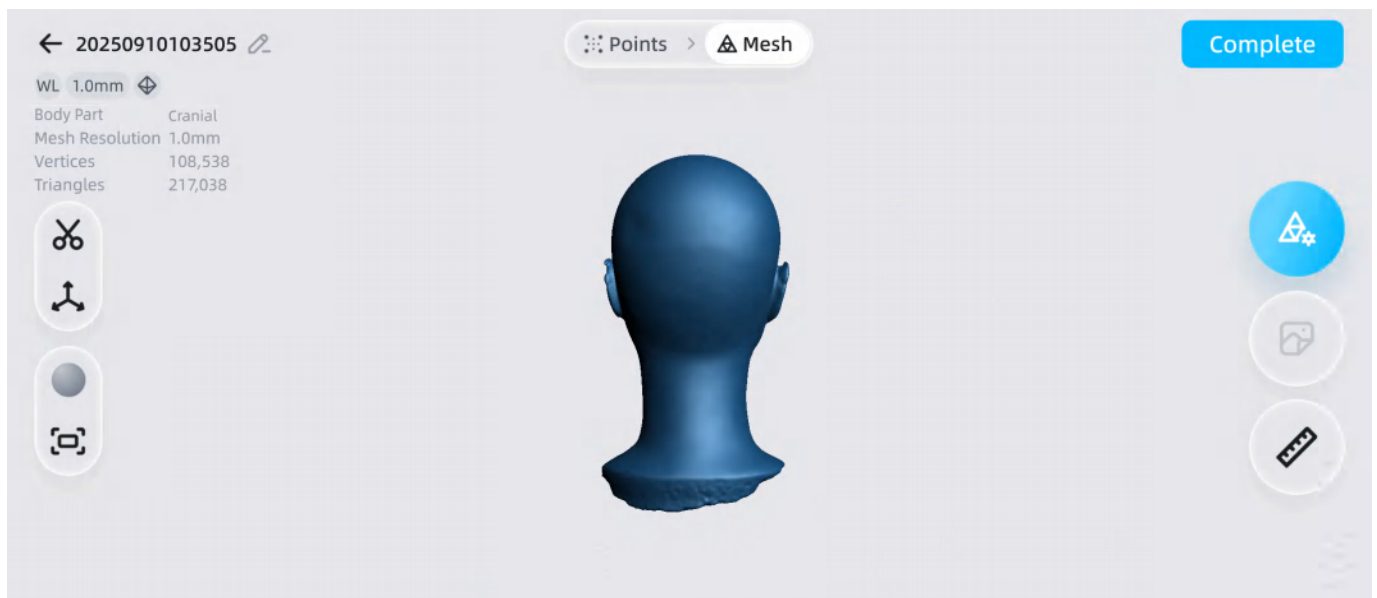
Note

If you realign a mesh model that has already been uploaded to the SHINING 3D Cloud, you will need to re-upload it.

Mesh Interface

After meshing, you can edit the mesh in the  mesh interface. For specific functions, see the table below.

Overview



Function	Description
 Point Cloud /  Mesh	Tap the corresponding button to switch the current data to point cloud or mesh.
	Tap this button to rename the current project.
	Tap this button to enter the clipping interface to clip the data and remove noise data.
	Tap this button to align the model to make it easier to measure the bounding box and perform other post-processing operations. For details, please refer to Alignment .
	After tapping this button, you can choose to turn texture display on or off.  Note Only projects that have turned on Acquired Texture can support turning on texture display.
	Tap this button to restore the model to its original size and center it on the screen.
	Tap this button to open the Mesh Editing window. Here, you can adjust the texture and fill the holes. For details, please refer to Mesh Editing .
	Tap this button to perform texture mapping.  Note This function is unavailable if you do not enable Acquire Texture before scanning.
	Tap this button to measure the model; see Measurement for details.
	Tap the button to display the menu panel and select the export option for the project file.  Note After opening the project file from the project list, this button will appear in the upper right corner of the  Mesh interface.
Complete	Tap the button to display the menu panel and select the export option for the project file; tap  Back to Home to save the model file to the project list and return to the scan mode interface.

Mesh Editing

Tap  to pop up the **Mesh Editing** window, where you can do **Texture Adjustment** and **Auto Hole Filling**.

Texture Adjustment

Touch  to pop up the texture adjustment. Through the slider, you can adjust the brightness, contrast, color temperature, and saturation of the texture to make the model texture more accurate.

After the adjustment, tap **Complete** to apply the adjustment and return to the mesh interface; if you are not satisfied with the adjustment, tap  to clear all values and do it again.



Note

- Texture adjustments are only supported for models that have completed the  texture mapping.
- The texture will always be displayed in the texture alignment interface.
- The adjustment will combine with the last applied effect.

Auto Hole Filling

Tap  to enter the auto hole filling interface; after setting the hole filling perimeter (the default value is 1 mm) through the slider, the edges of holes that meet the hole filling conditions will display in green, and the edges of the other recognized holes will be red; tap **Apply** to fill all the holes displayed in green, and tap **Complete** to save effect and return to the mesh interface.



Note

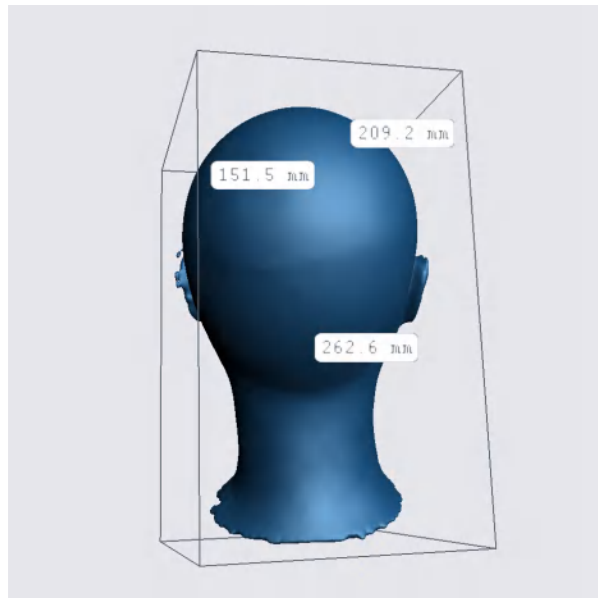
- If you are not satisfied with the hole filling effect, before you tap the **Complete** button, tap  to reset to the unfilled state and fill the holes again.
- It is recommended that you redo the  texture mapping after filling the hole to ensure the mapping effect.

Model Measurement

After generating the mesh, tap  to enter the measurement interface for model measurement, including measuring  **Bounding Box** and  **Distance**.

Bounding Box

Tap the  button in the measurement interface to display the bounding box and show its length, width, and height measurements (unit: mm).



Note

The model can be panned, rotated or zoomed and you can reset the model to its original size and correct the view by tapping .

Distance

Tap the  button in the measurement interface to enable the function for measuring the distance.

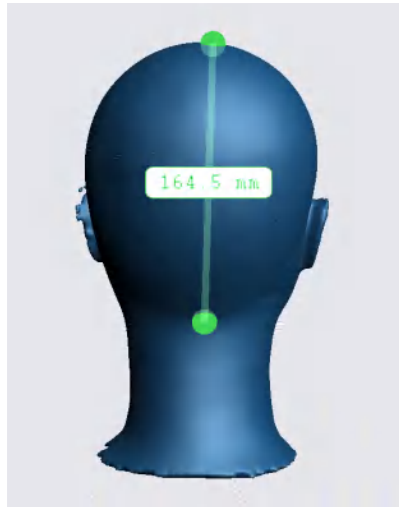
The steps to measure distance are as follows:

1. Tap any position on the model to add two points.

Note

Tap  to switch to rotation mode, allowing you to pan, rotate and zoom the model, and you can reset the model to its original size and correct the view by tapping .

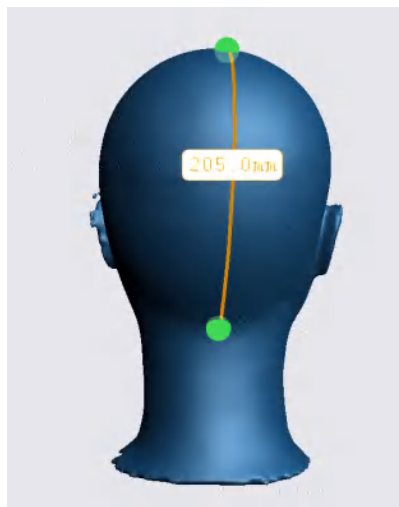
2. After adding two points, a line will be automatically drawn, showing the straight-line distance (mm).



3. (Optional) When there is a line on the model, you can enable the **Geodesic** function to calculate the geodesic distance.

 Note

When the geodesic function is enabled, the straight line will be automatically hidden.



 Note

- If the two points added are not in the same connected domain, the geodesic function cannot be used.
- You can drag the points to adjust their position, and the distance value will be updated in real time; dragging points will also activate the magnifying glass function to enlarge a specific area of the model, helping you to more accurately define the position of the measurement points.

Save and Share

In the  **Point Cloud** /  **Mesh** interface, you can tap the **Complete** button in the upper right corner to choose to share the current model to  **Order Platform**, upload it to  **SHINING 3D Cloud**, or export it to **Other Devices** via a  wired connection; tapping  **Back to Home** will save the model to the [Project List](#).



Note

- File names in OBJ format only support English and numbers.
- Project files can be exported in OBJ, PLY, or STL formats.
- Projects without [Get Textures](#) enabled can only be exported in STL format.
- If you open a model file from the project list, you can tap  in  mesh interface in the upper right corner to choose the export method for the current model.

Share to Order Platform

Use the scanner to scan the QR code generated by the order platform to upload the project file after tapping  **Order Platform**.



Note

If scanning fails due to insufficient light, try tapping  to turn on the light and then scan the QR code.

Upload to SHINING 3D Cloud

You can choose to upload the model file to **SHINING 3D Cloud**.



Note

- If you are not logged into the SHINING 3D Passport, a [login window](#) will pop up automatically.
- SHINING 3D Cloud nodes are assigned automatically; please log in to the designated node to view shared models.
- If the model file has been uploaded, a corresponding model download QR code will be displayed.

Wired Export

After completing the scan, select  **PC (USB-C)** on the export interface to export the project files to the Models folder. And then use a data cable to connect to the computer to export the model files.



Note

Please connect the device to the computer using the accompanying Type-C data cable before exporting.