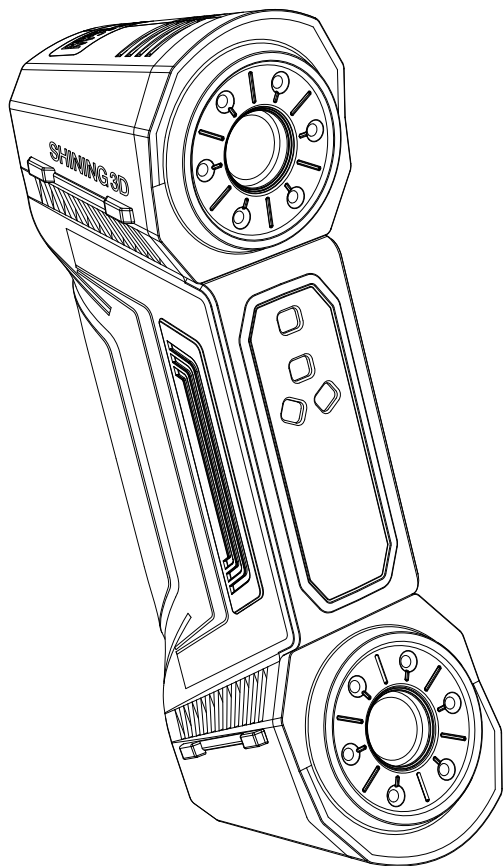




For More Shining Ideas



FREESCAN COMBO

Quick Start Guide

Compliance



LVD/EMC Directive

This product complies with the European Low Voltage Directive 2014/35/EU and EMC Directive 2014/30/EU.



WEEE Directive-2012/19/EU

The product this manual refers to is covered by the Waste Electrical&Electronic Equipment(WEEE) Directive and must be disposed of in a responsible manner.



This device complies with "IEC 60825-1:2014 Safety of laser products"
< 1.5mw 450nm 940nm



The UKCA marking is the product marking used for products being placed on the market in Great Britain (England, Scotland and Wales).



Federal Communications Commission Certified.

RoHS

Restriction of Hazardous Substances Certified.



Korea Certification Certified.

IP50

Protected from limited dust ingress. Not protected from liquids.

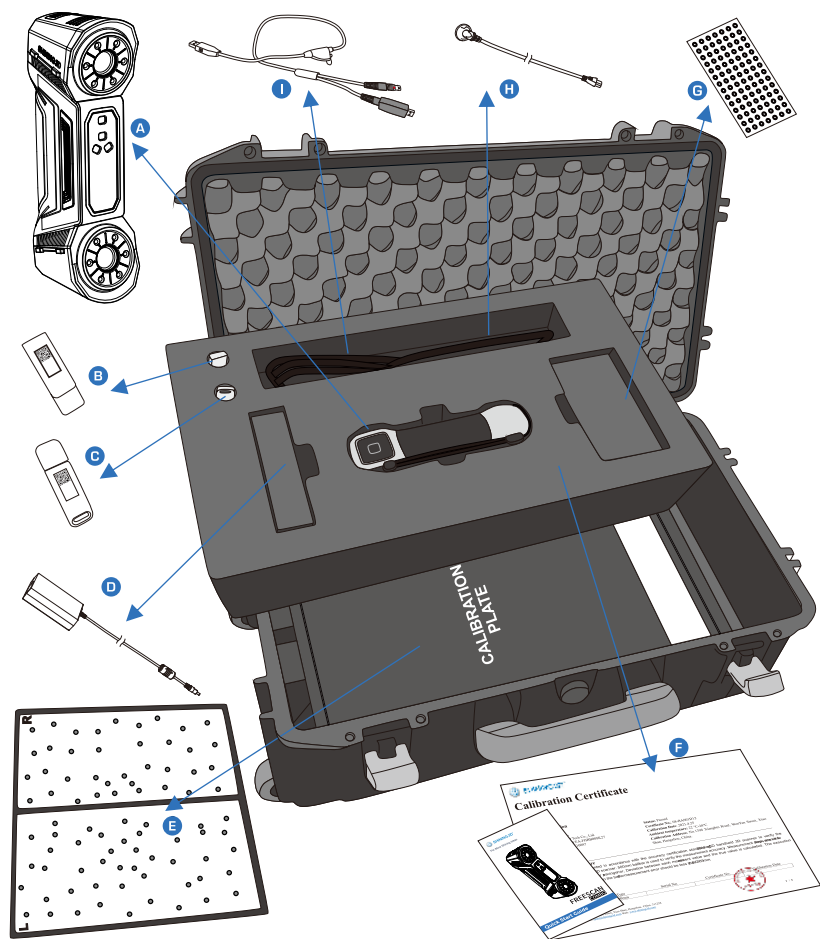
Welcome!

Thank you for purchasing the FreeScan Combo scanner. We hope you enjoy scanning with your new scanner.

This quick start guide will help you get started. For more detailed information, please visit our support center:

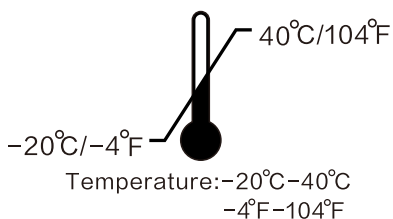
<https://support.shining3d.com/en/support/home>

WHAT'S IN THE BOX



- | | |
|----------------------------|--------------------------------------|
| A FreeScan Combo | F Certificate and Quick Guide |
| B USB Drive | G Markers |
| C Dongle | H Power Cable |
| D Power Adapter | I USB Cable |
| E Calibration Plate | |

Operating Condition

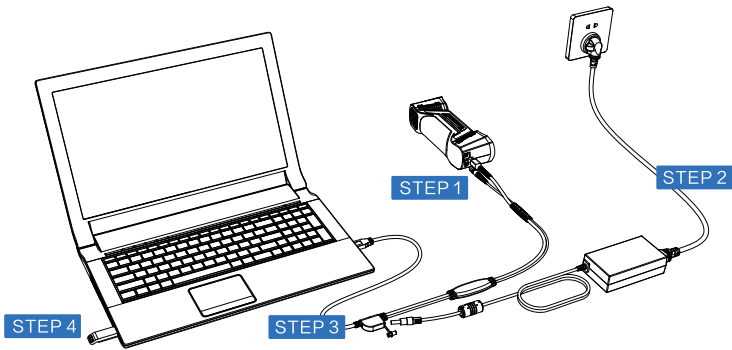


Humidity: 10-90%

Recommended System Requirements

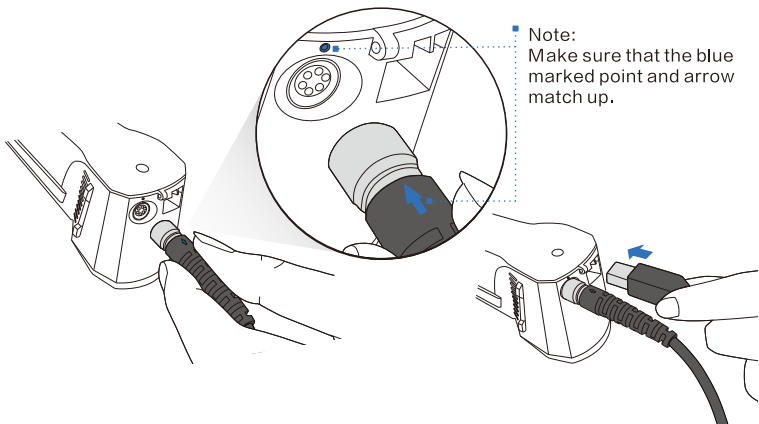
CPU	Intel Core i7 -10700 or above
Graphics card	NVIDIA GTX/RTX series cards, GeForce RTX 3060 or above
Graphics memory	6GB or above
RAM	32GB or above
USB	3.0
Operating system	Windows 10(or Pro), Windows 11(or Pro), 64-bit only

Connect Your Scanner

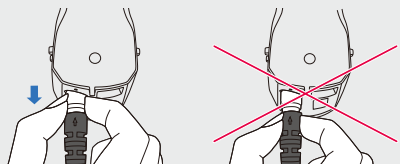


STEP 1

Align the plug of the cable into the bottom jack of the Combo.

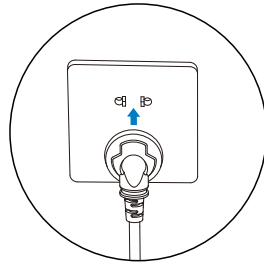
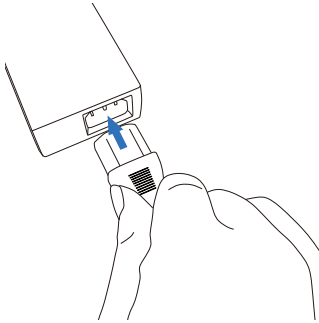
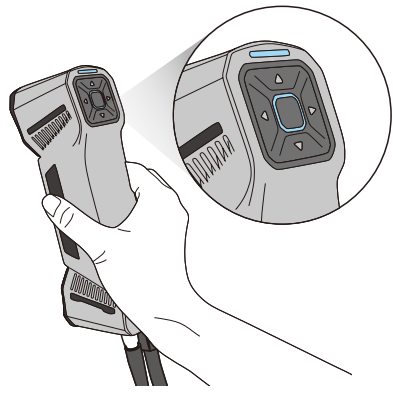
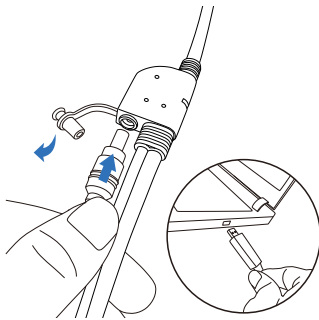


Note:
When unplugging, make sure to pinch the **METAL END** of the cable instead of the rubber part.



STEP 2

Connect adapter → Power on

**STEP 3**Open protective cover → Connect cables
→ Connect PC port

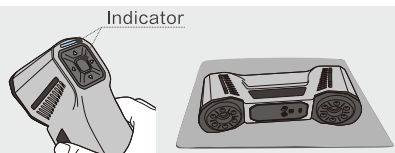
LED light shows blue

STEP 4

Insert the dongle.

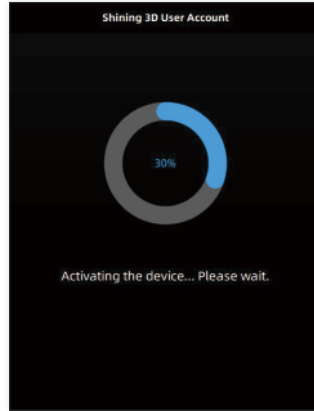
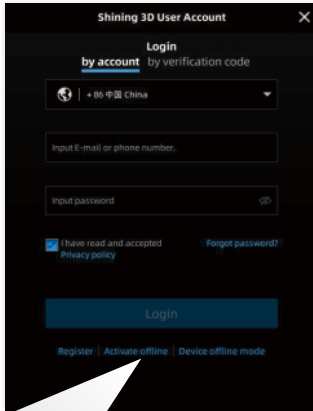
LED Indicator
Indicating scanning distance.

Place the scanner properly.
(Please refer to Safe Handling P17)



Activate the device

1. Go to passport.shining3d.com to register a free user account.
2. Login with your new account, and the device will be activated automatically.

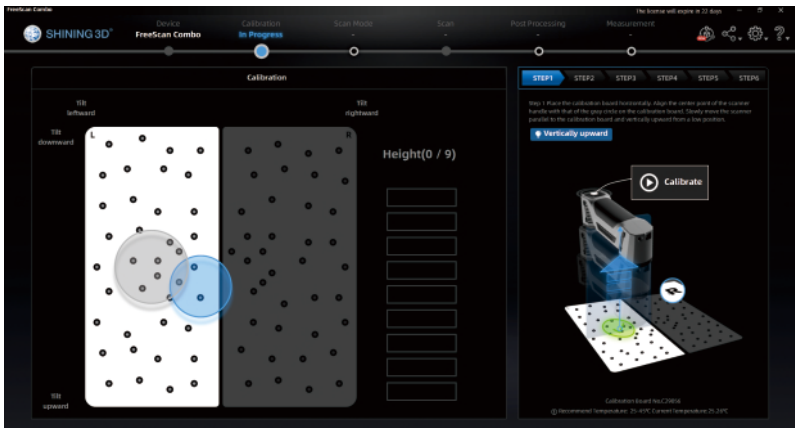


Note:

If the computer is not connected to the internet, you can click and activate the scanner offline.

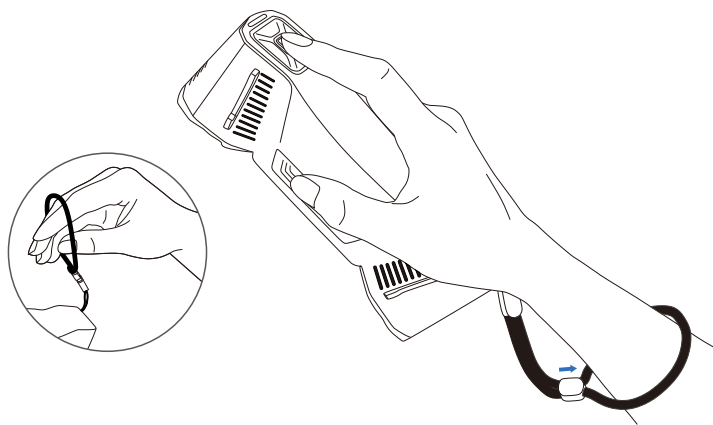
The software enters the calibration interface after activation.

(Please refer to P6 How to hold the scanner and Calibration)



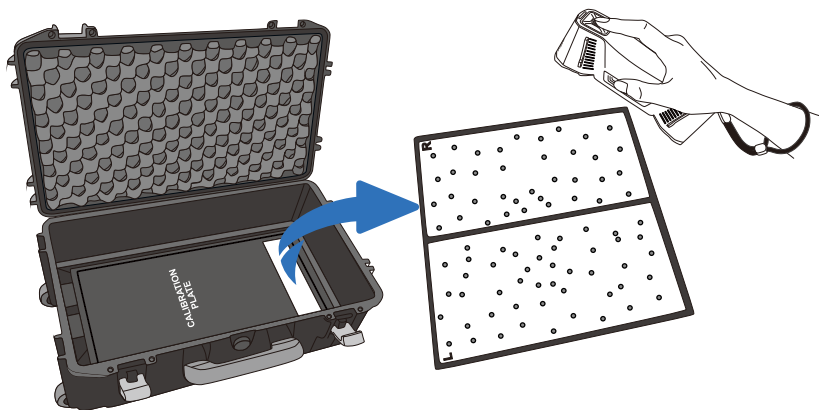
How to hold the scanner

Put on and tighten the wrist strap. Hold the scanner securely as shown in the picture.



How to calibrate

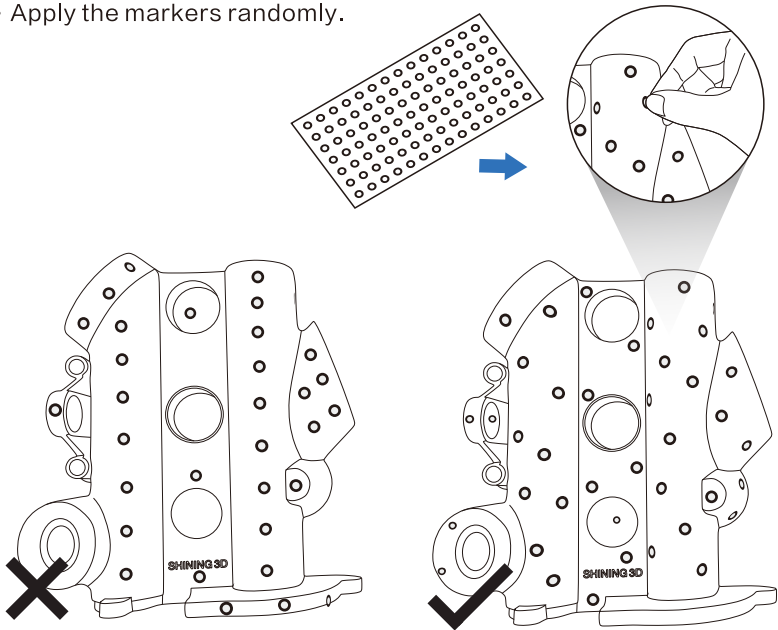
Follow the steps of the calibration wizard in the software.



How to apply markers?

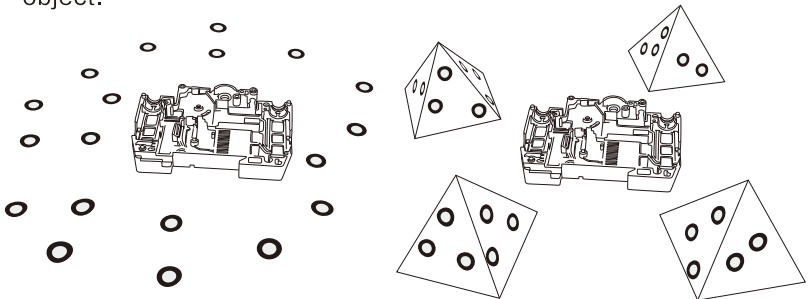
Using markers alignment.

- Mandatory for laser.
- Apply the markers randomly.

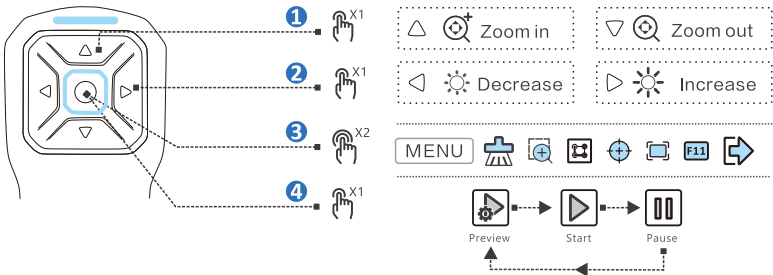


Small object

- Apply the markers around the object (on the table).
- Apply the markers on pyramids, and put pyramids around object.



Scanner button controls

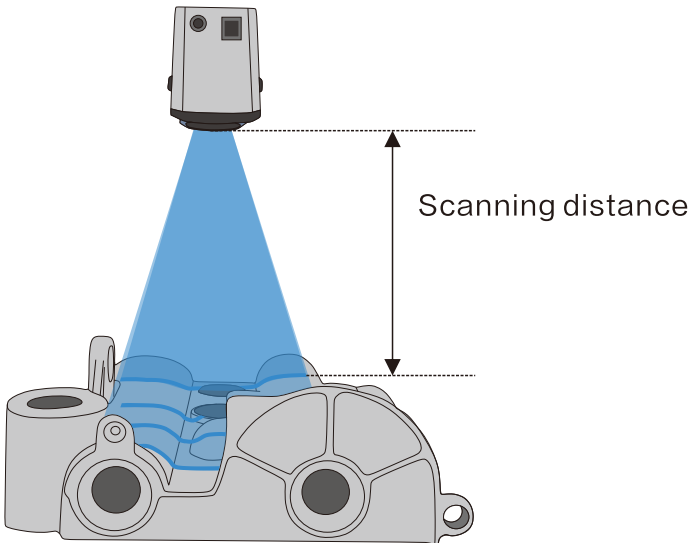


- 1 Click to zoom in or zoom out.
- 2 Click to increase or decrease brightness.
- 3 Double click to call out menu.
- 4 Click to switch scanning status.

Scan

1. Straight

During scanning, keep the scanner cameras facing straight to the object.

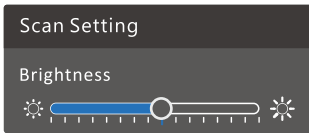


2. Moving

Move the scanner around the subject steady while checking the image on the screen. Maintain a suitable distance while moving.

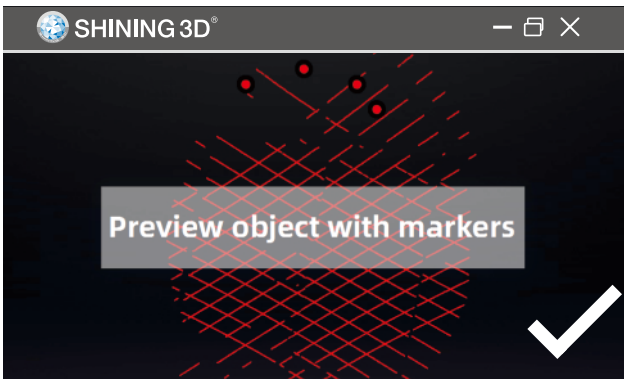
Move the scanner over the surface to scan the entire object.

3. Adjust the brightness until the laser line is basically complete and clear.



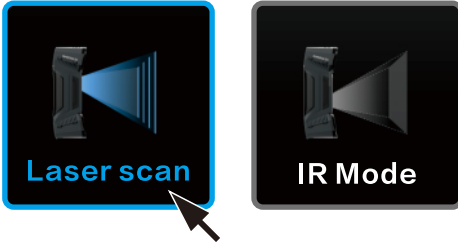
You can adjust the brightness by clicking and moving the slider left and right to set a value.

You can also adjust the brightness with the scanner button.
(Please refer to P8 Scanner button controls)

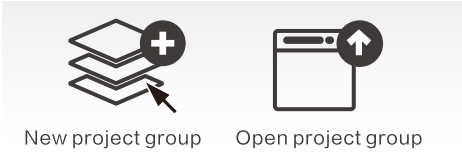


Laser scan mode

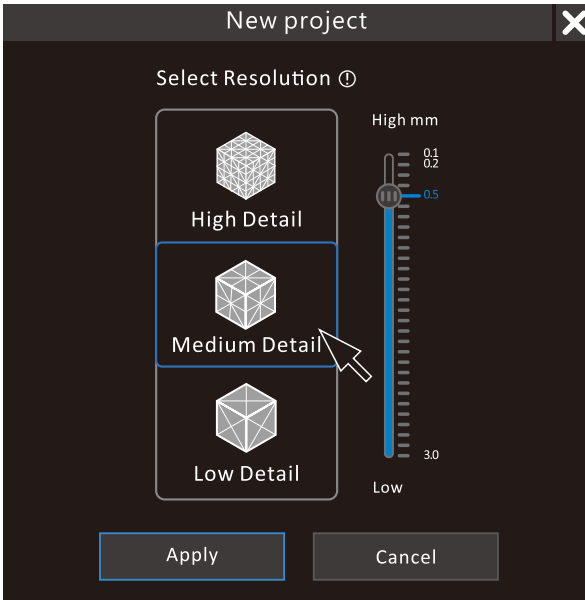
1. Select Scan mode “Laser scan” .



2. Create a New project group (or Open project group).

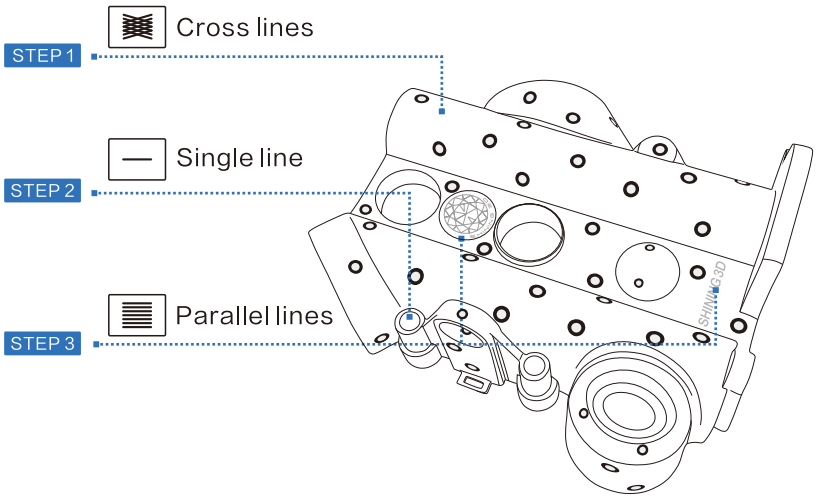


3. Select the suitable resolution.



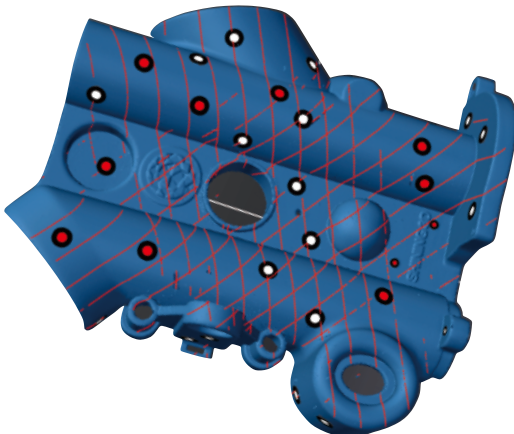
Light source mode

Choosing the right light source to get complete data faster.



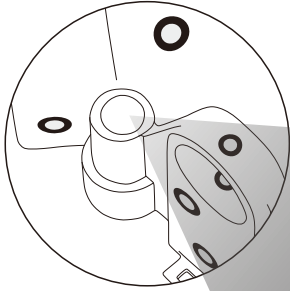
STEP 1 Scanning large area quickly.

 Cross lines

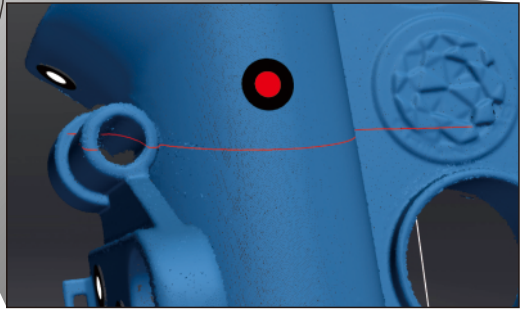


Light source mode

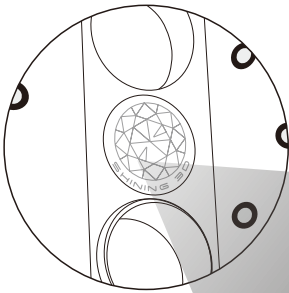
STEP 2 Scanning deep holes.



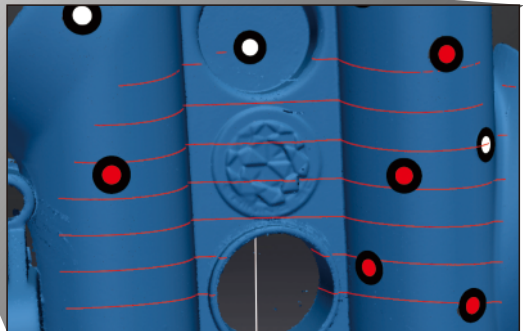
 Single line



STEP 3 Scanning fine details.

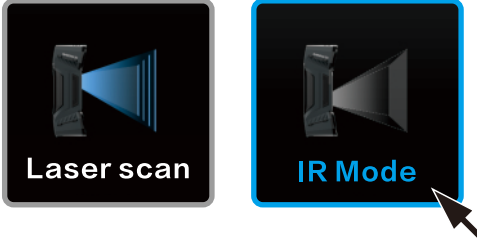


 Parallel lines

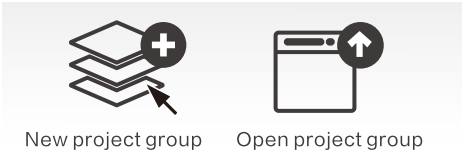


IR scan mode

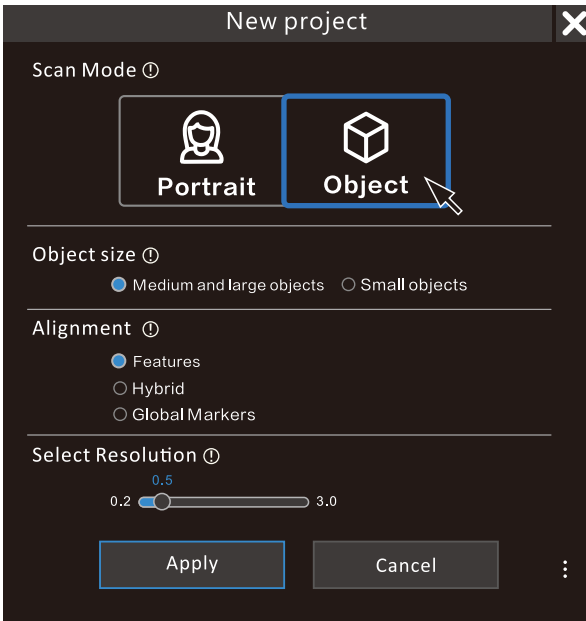
1. Select Scan mode “IR Mode” .



2. Create a New project group (or Open project group).

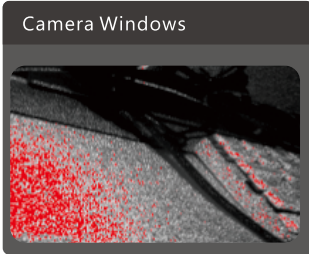


3. Select Scan mode “Object” and the suitable object size.



Scan setting

Adjust the brightness until the camera window pattern is clear and the object is slightly reddish.

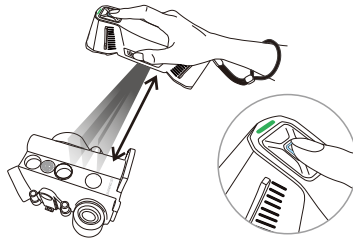
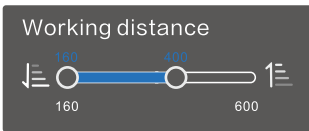


You can adjust the brightness by clicking and moving the slider left and right to set a value.

You can also adjust the brightness with the scanner button.
(Please refer to P8 Scanner button controls)

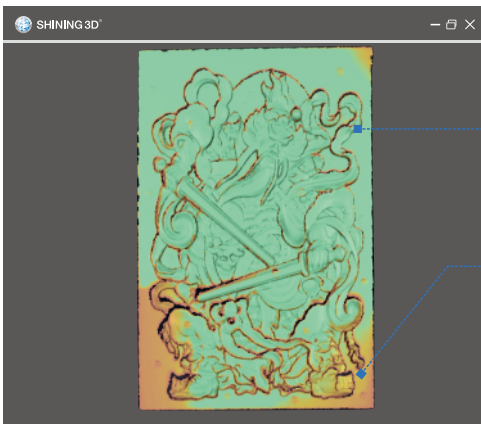
Scan within the working distance range, the indicator turns green.

(Please refer to P15 Distance)



Data quality indicator can help you assess the surface quality.

Data Quality Indicator



Green

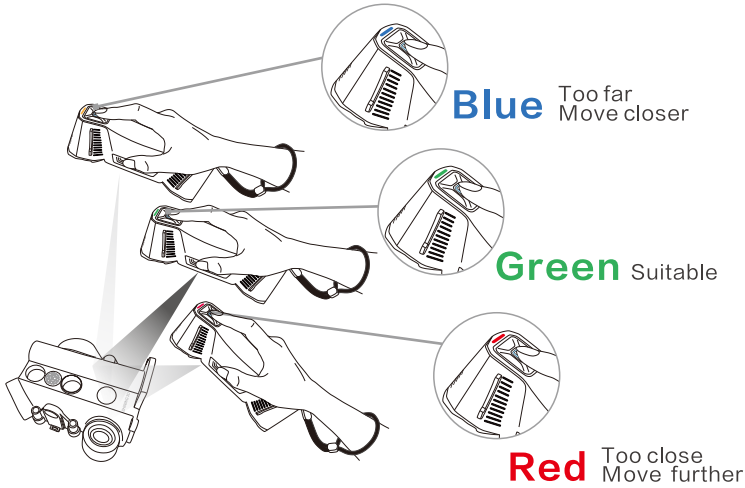
Sufficient data

Red

Insufficient data (area needs further scanning)

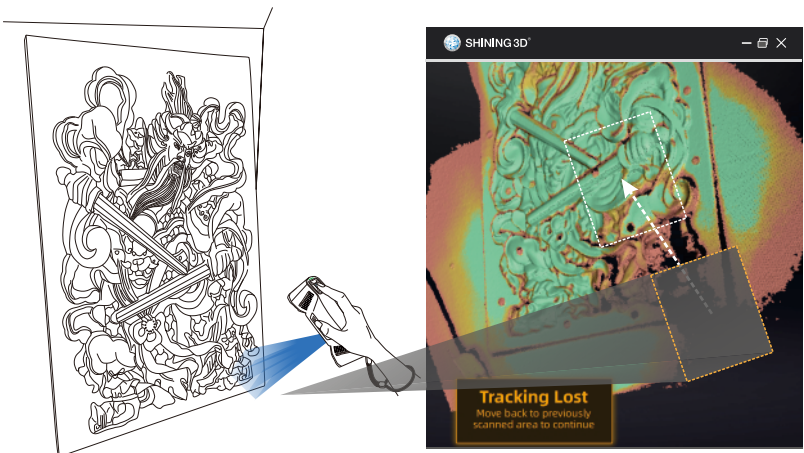
Distance

During scanning, it is crucial to maintain the distance between the scanner and the object being scanned.



Tracking Lost

When "tracking lost" appears, re-direct Combo to a region which you have already previously scanned in order to resume scanning process.

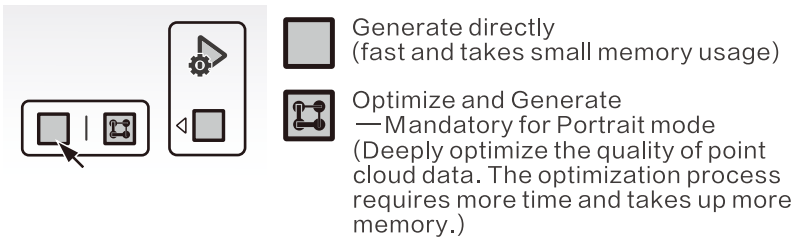


Generate Point Cloud

Editing the data after completing or pausing the scan.



Generate point cloud after scanning and editing data.



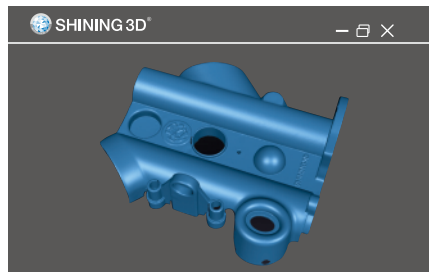
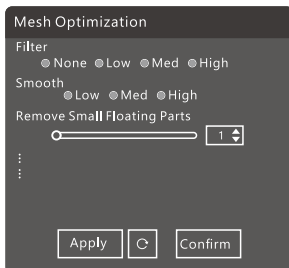
Mesh

Meshing is to convert the point cloud into a triangular mesh surface.

Select the suitable mesh type for post-processing.



Click Apply to preview meshing. Click Confirm to go with current result.



Safe Handling

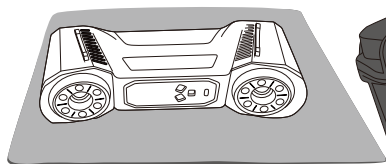
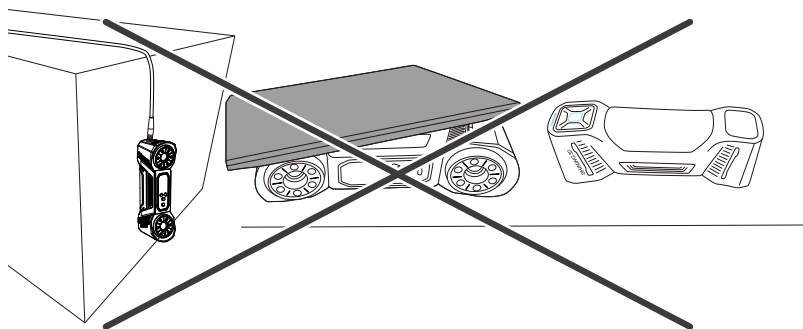
Calibration plate

1. Always make sure that the working side of the calibration plate is clean and free of scratches.
2. If cleaning board becomes necessary, gently wipe it with damp cloth without chemicals and alcohols, avoid markers.
3. After using the calibration plate, put it back in the original case.

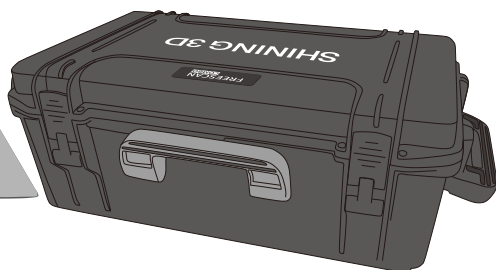
Scanner

Avoid dropping, hanging or applying force to the scanner.

Avoid placing the cameras of the scanner facing down. Place the scanner on a soft blanket when not in use.



To protect the camera glass



Please store all the items in the original case after each use.



Technical Support

Register at <https://support.shining3d.com/en/support/home> to submit a support ticket and track your ticket status.

User manual: <file:///C:/Shining3d/FreeScan/res/docs/freescan/1.2.4/combo/en-us/disclaimer/disclaimer.html>

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Instagram: <https://www.instagram.com/shining3d/>

YouTube: <https://www.youtube.com/Shining3DScanner>

APAC Headquarters

SHINING 3D Tech. Co., Ltd.

Hangzhou, China

P: +86-571-82999050

Email: sales@shining3d.com

No. 1398, Xiangbin Road, Wenyan,

Xiaoshan, Hangzhou, Zhejiang, China,

311258

EMEA Region

SHINING 3D Technology GmbH.

Stuttgart, Germany

P: +49-711-28444089

Email: sales@shining3d.com

Breitwiesenstraße 28, 70565,

Stuttgart, Germany

Americas Region

SHINING 3D Technology Inc.

San Francisco, United States

P: +1415-259-4787

Email: sales@shining3d.com

1740 César Chávez St. Unit D.

San Francisco, CA 94124