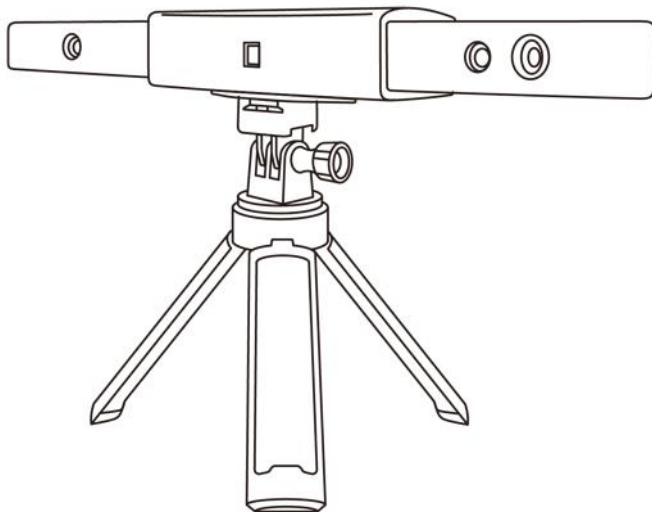


RANGE 3D SCANNER

Quick Start Guide

V2.0



REVOPOINT

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Read Before Your First Scan



Software Download

To use your Revopoint RANGE 3D Scanner, you must download the Revo Scan software. It can be found on Revopoint's website <https://www.revopoint3d.com/download/> for PC users, and for smartphones, it can be found by searching for "Revo Scan" in the Google Play or Apple App Store.



Windows V5.2.3

Updated 2023-08-09

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Mac V5.2.3

Updated 2023-08-09

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Android V5.2.2

Updated 2023-07-28

[Google Play](#) [Download](#)



iOS V5.2.2

Updated 2023-07-28

[App Store](#)

For the detailed functions of Revo Scan, please refer to the how-to-use guide in Revo Scan.

Scanning Dark, Transparent, or Reflective Objects

Like most 3D scanners, the RANGE will struggle to scan transparent, reflective, or black objects without first treating the object's surface with scanning spray, baby powder, or dry shampoo.

Scanning Objects with Plain Surfaces

Scanning objects with simple geometric features, like a football or wine bottle, requires using Marker stickers or marker points and scanning in Marker Mode.

1. Place the Marker stickers on the objects' surface irregularly and ensure that there are at least 5 Marker stickers in the frame for the entire scan, or the scanner will lose track.
2. Alternatively, reference objects (these are any objects with distinct features that can be easily tracked) can be used. Place 1 to 3 reference

objects around the item you are scanning for the 3D scanner to track. If doing this, you can use the scanner in Feature tracking mode for the scan.

Please watch the video tutorial for using Marker stickers by scanning the QR code.

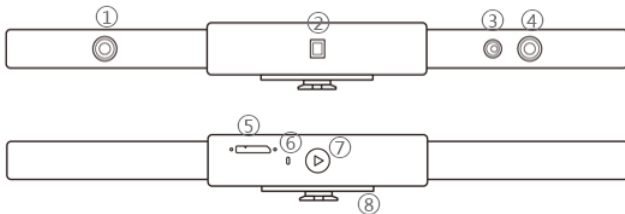


Color Scanning

If you want to accurately capture an object's color during a scan, please ensure that the object is evenly lit with soft light and that there are no dark or hard shadows.

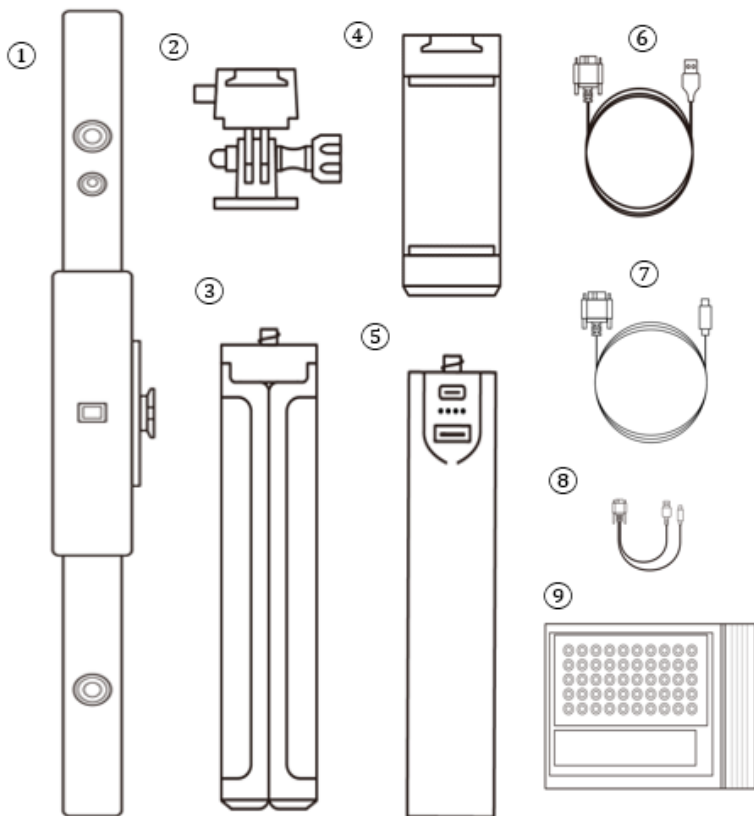
About the Scanner

The Revopoint RANGE 3D Scanner is an infrared structured light scanner designed for scanning large objects like cars, people, furniture, etc. Its self-developed chip and intelligent algorithms combined with its more powerful projector and dual IR cameras with aspheric lens enable a single capture range of 360 mm x 650 mm, a working distance of 300 mm to 800 mm, a scanning speed of 12 fps to 18 fps, and a single-frame precision of up to 0.1 mm.



- | | |
|-----------------|----------------------------|
| 1. Depth Camera | 5. Micro-B USB Port |
| 2. Projector | 6. LED Indicator |
| 3. RGB Camera | 7. Start/Pause Scan Button |
| 4. Depth Camera | 8. Quick Setup Board |

What's in the Box?



1. RANGE 3D Scanner

2. Quick Mount Kit

3. Tripod

4. Phone Holder

9. Gifts (Markers, Glue Tack, Black Sheet)

5. Power Bank Handle

6. USB Cable (Micro-B to Type-A)

7. USB Cable (Micro-B to Type C)

8. 2-in-1 Mobile Cable

RANGE on a Windows or Mac Device

Both Windows and macOS computers are compatible.

System Requirements



Windows: Win 10/11 (64-bit)

Memory: \geq 8GB

Processor: Intel Core i5 or better



Mac with Intel \times 86 chip: Mac OS 10.15 and models after

Mac with Apple M1 chip: Mac OS 11.0 and models after

Memory: \geq 8GB

* Minimum PC Display Screen Resolution: 1344 \times 768 (1920 \times 1080 is recommended).

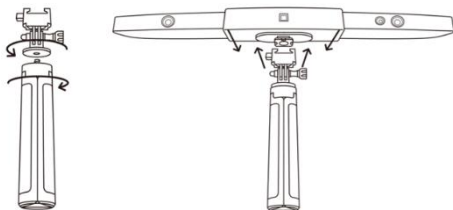
Connection Methods

	Windows	macOS
USB Mode	✓	✓
Wi-Fi Mode	✓	✓

Connect the RANGE to a PC Via USB

Step 1: Screw the Quick Mount Kit onto the Tripod.

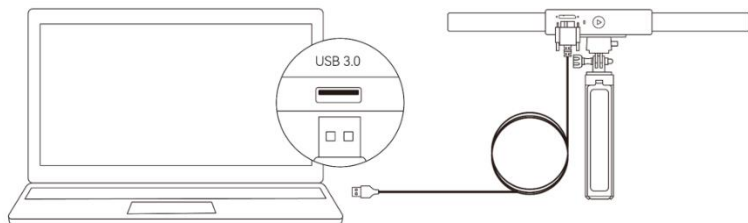
Step 2: Clip the RANGE to the top.



Step 3: Connect the Micro-B end of the USB cable to the back of your RANGE.

Step 4: Plug the Type-A end into your computer.

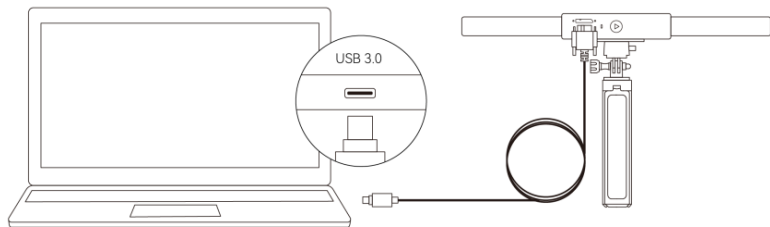
Step 5: Open Revo Scan on your computer.



Windows or macOS

Note:

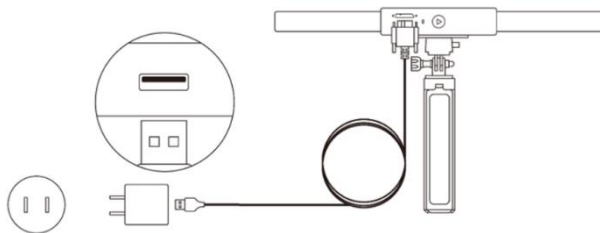
- 1) Connect the RANGE to a USB 3.0 port or above, as USB 2.0 will not supply sufficient operating power. Ensure your USB 3.0 port is not damaged or worn out.
- 2) If there is no Type-A port on your laptop, use the other USB Cable(Micro-B to Type C).



Windows or macOS

Connect the RANGE to a PC Via Wi-Fi

Step 1: Power the RANGE on with a power bank or an AC adapter.
(Note: Do not plug it into your PC, or it will be in USB mode by default.)



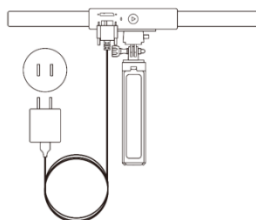
Step 2: Connect the PC to the RANGE.

- 1) Go to your Wi-Fi setting, search for a network called RANGE-XXXXXX and connect. (No password is required)
- 2) Wait a few seconds for the scanner to be connected.



Windows or macOS

Wi-Fi



Step 3: Open Revo Scan on your computer.

RANGE on Smartphones

Android devices can connect via either USB or Wi-Fi. However, iOS devices only support Wi-Fi mode.

System Requirements



Android: \geq Android 9.0
 Harmony OS is supported.
 RAM: \geq 6GB



iPhone: iPhone 8 Plus or models after
iPad: 6th generation iPad or models after
System Version: \geq iOS 13.0

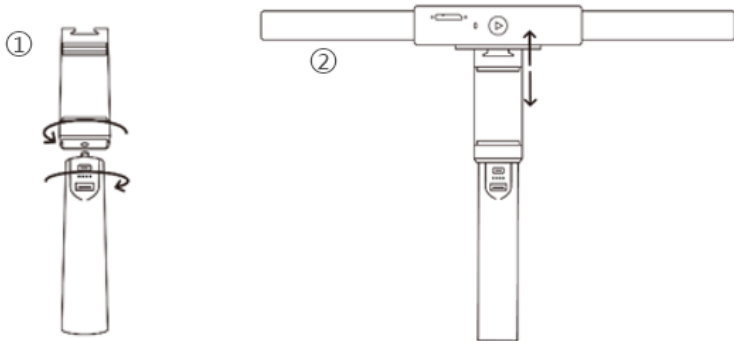
Connection Methods

	Android	iOS/iPadOS
USB Mode	√	x
Wi-Fi Mode	√	√

Connect the RANGE to an Android Phone via USB

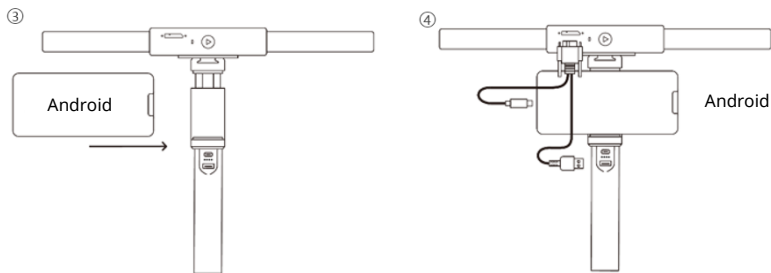
Step 1: Screw the Phone Holder onto the Power Bank.

Step 2: Clip the RANGE to the top of the Phone Holder.



Step 3: Pull open the Phone Holder's clamps and fit your smartphone.

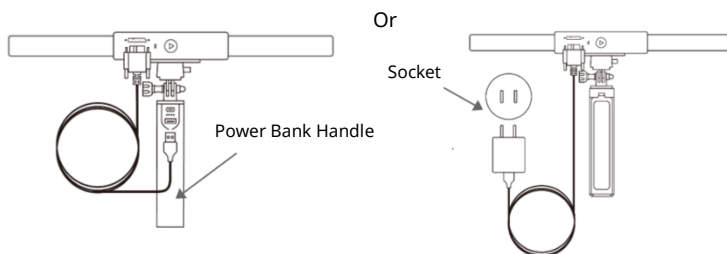
Step 4: Connect the Micro-B end of the 2-in-1 Mobile Cable to the RANGE's port, Type-A to the Power Bank, and Type-C to an Android smartphone.



Connect the RANGE to a Phone Via Wi-Fi

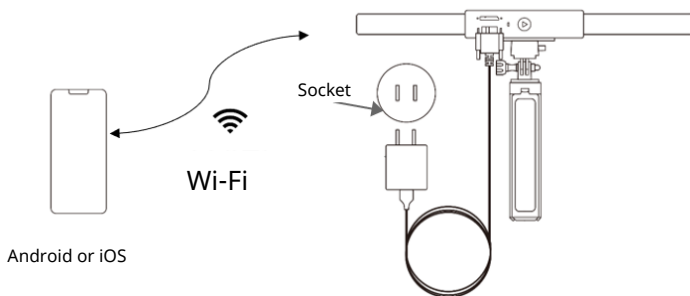
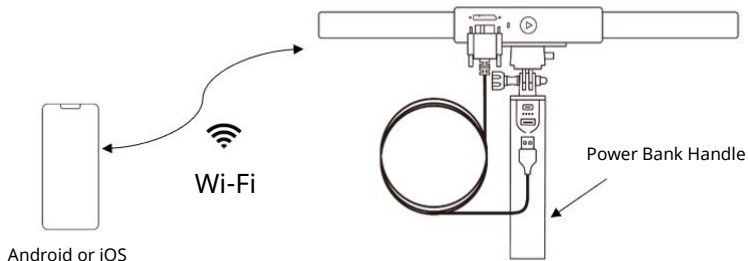
Both Android and iOS Phones are compatible.

Step 1: Power the RANGE on via the Power Bank Handle or a Socket.



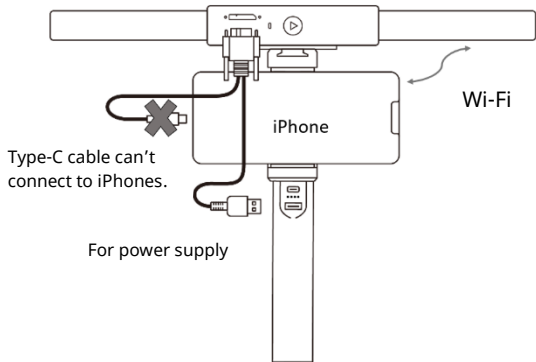
Step 2: Connect the Smartphone to the RANGE.

- 1) Go to your Wi-Fi setting on your smartphone, search for a network called RANGE-XXXXXX and connect. (No password is required)
- 2) Wait a few seconds for the scanner to be connected.



Step 3: Open Revo Scan on your phone.

Note: If you have an iPhone, and want to use the 2-in-1 Mobile Cable to scan, it works like:



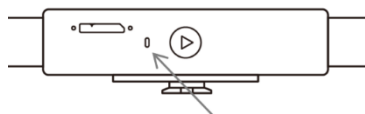
Appendix

Specifications

Product Name	Revopoint RANGE
Technology	Biocular Dual Camera Infrared Light
Single-frame Precision	Up to 0.1 mm
Single-frame Accuracy	Up to 0.3 mm
Single Capture Range	360 mm x 650 mm @600 mm
Working Distance	300 mm – 800 mm
Minimum Scan Volume	70 mm x 70 mm x 70 mm
Scanning Speed	12 fps – 18 fps
Light Source	Class 1 Infrared Light
Tracking Methods	Feature, Marker
Color Scanning	Yes
Output Formats	PLY, OBJ, and STL
Point Distance/ Resolution	0.3 mm
Special Object Scanning	Use scanning spray for transparent, dark, or highly reflective objects.
Scanning Environment	Indoors and Outdoors
Outdoor Scanning	The RANGE cannot scan objects well in direct bright sunlight.
Scanner Weight	210 g

Scanner Dimensions	295 mm x 41.5 mm x 28.2 mm
3D Printing Compatible	Yes
Compatible OS	Windows 10/11 (64-bit), Android, iOS, macOS
PC Display Screen Resolution	>1344x768 (1920×1080 is recommended.)
Connection Methods	USB 3.0 or Wi-Fi
Bluetooth	4.1
Hardware Button	Start/Pause Scan
<p>Note:</p> <ol style="list-style-type: none"> 1. Accuracy was acquired in a controlled lab environment. Actual results might vary, subject to the operation environment. 2. iOS devices only support Wi-Fi connection. 3. Class 1 Laser: Avoid direct eye exposure for extended periods! Refer to Standards for Class 1 Lasers for details. 	

LED Indicators



Indicator in Red:
Powered on, and starting



Indicator in Green:
Working properly

Update the Firmware

When you connect your RANGE to Revo Scan, a pop-up will notify you of any firmware updates. If you want to update your firmware, follow the install wizard's prompts and ensure that your RANGE has a stable power supply.

Scanner Calibration

Your RANGE 3D Scanner was calibrated in the factory and only needs to be recalibrated after a year of use or if the scanned results do not match the specified accuracy.

Safety Maintenance Instructions

1. Small parts, such as markers, are dangerous if swallowed. Keep all components out of reach of children and animals to avoid serious injury to them.
2. Store the scanner and all accessories in a cool, dry place away from direct sunlight.
3. Do not allow the scanner to come into contact with or become immersed in water or other liquids. If it gets wet, wipe them dry with a soft, absorbent cloth. Operating a scanner that has fallen in water may cause permanent component damage.
4. Keep the cameras (the two IR cameras, one RGB camera and a projector) clean. Use 95% isopropyl alcohol and a soft cloth to clean them.
5. Handle the scanner with care to avoid hitting the cameras.
6. The operating temperature range of this product is 0°C to 40°C (32°F to 104°F).
7. Do not take apart the scanner. If there are any problems or questions, contact the Revopoint customer service team at customer@revopoint3d.com.

Troubleshooting

1. What to do if you get a “check internet connection” error when trying to download a firmware update?

Check your device's Firewall Settings and confirm Revo Scan is not being blocked or the Firewall is off. Try to open api.infly3d.com in a web browser. If you can access this website, it means Revopoint's server is working correctly.

2. What to do if my RANGE turns on but its LED never turns solid green, indicating that it's ready to connect?

Connect your RANGE to a power source, then press the RANGE's Start/Pause scan button ten times to reset the RANGE. If that doesn't resolve the issue, please get in touch with customer support.

3. What to do if the RANGE always loses tracking when scanning?

Try using scanner spray, dry shampoo, or baby powder to lightly coat any shiny or dark surfaces on the object. If the object has plain surfaces, you'll need to place Marker stickers (place them irregularly and ensure that at least five will always be in the frame when you're scanning) and select Marker mode for the scan. Ensure your model has no deep shadows and is evenly lit with a soft light.

4. What to do if the object you want to scan isn't clear in the preview window?

Increase the brightness in Revo Scan till the object looks clearly defined and has as few red and blue patches in the preview window as possible.

5. What to do if your scanned model's surfaces lack detail or the details are smeared?

Unfortunately, you'll need to redo the scan, but be careful and ensure you only scan an area once rather than multiple times. Basically, the smaller the number of frames, the better the scan quality. Scanning the

same spot twice will only lower the detail.

6. What to do if you keep running out of memory when scanning?

The object you're scanning is too large for your computer or smartphone's amount of RAM. If this happens, pause the scan, fuse the model, and start a new scan from where you had to pause your previous scan. These separate scans can be merged together in Revo Studio to make a whole model once you've finished scanning the object.

7. What should I do if the firmware upgrade fails and the LED light keeps showing blue?

Connect your RANGE to a power source, then press the Start/Pause button 10 times continuously to restore the RANGE scanner to the normal scanning mode.

Customer Service

If you need any assistance with your scanner, please don't hesitate to contact us at customer@revopoint3d.com or drop us a line at +1 (888) 807-3339 or chat with one of our customer service agents online on our website www.revopoint3d.com. click the speech bubble on the bottom right corner of the screen.

This content is subject to change.



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to support@revopoint3d.com or our forum
<https://forum.revopoint3d.com/>.