INSPIRE 3D SCANNER

Quick Start Guide   V1.0
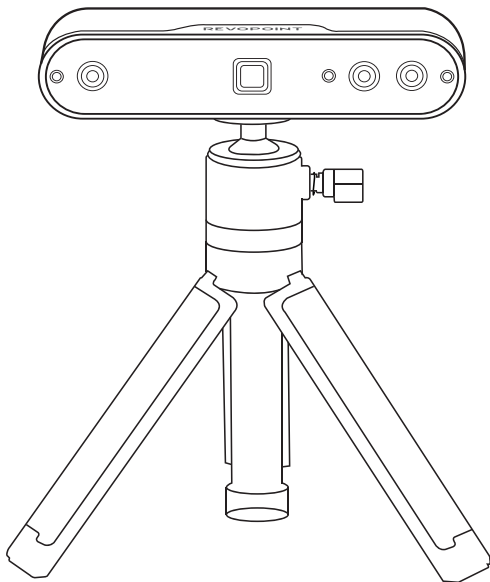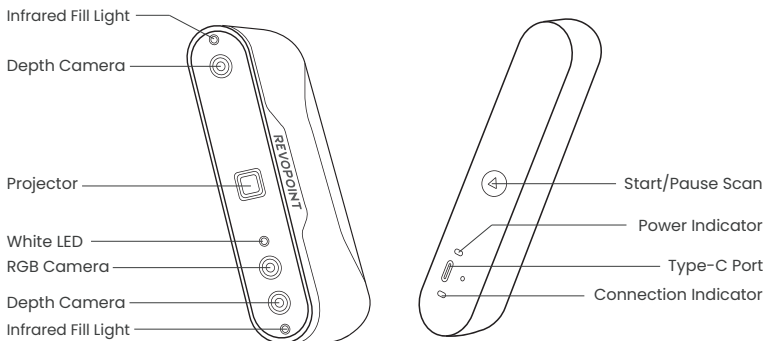

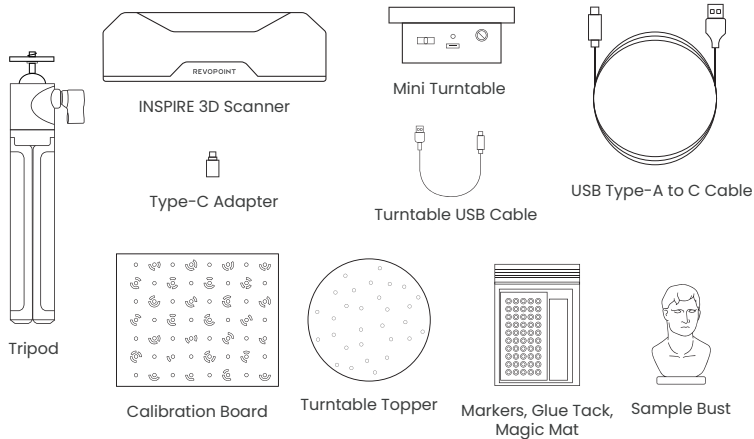# REVOPOINT

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White LED

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Depth Camera

Infrared Fill Light

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INSPIRE 3D Scanner

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Turntable Topper

Markers, Glue Tack, Magic Mat

Sample Bust

Software Download

Download it at
www.revopoint3d.com/download/

Scanner Connection

Connect INSPIRE to a PC via USB

3

USB Type-A to C Cable

4
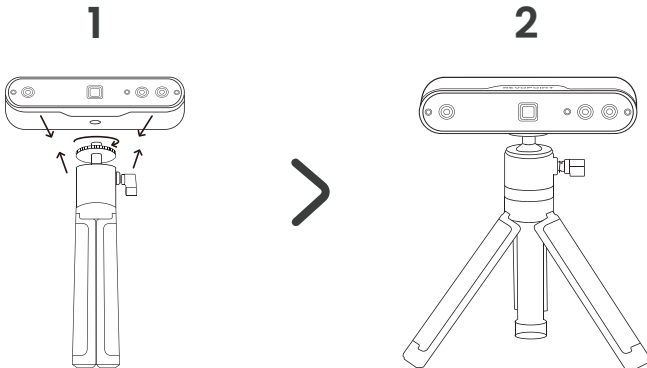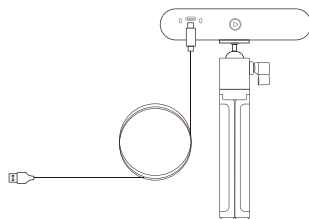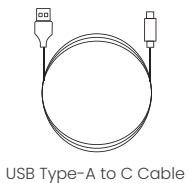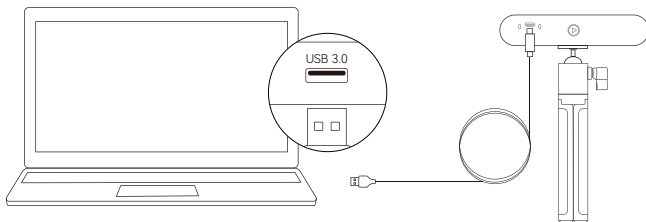
USB 3.0

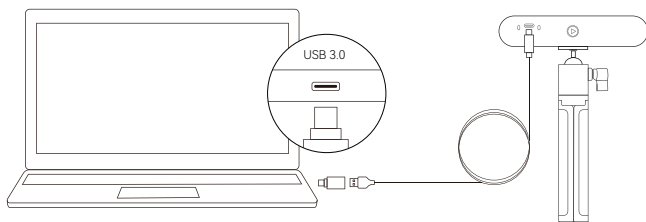Or Using the Type-C Adapter

USB 3.0

- Connect INSPIRE to a USB 3.0 port or above (USB 2.0 will not supply sufficient operating power). Ensure your USB 3.0 port is not damaged or worn out and its output meets the minimum power requirements 5V/1A.
- If there is no Type-A port on your computer, use the Type-C Adapter.
- The scanner is powered when the INSPIRE's power indicator turns solid green.

5

Revo Scan 5
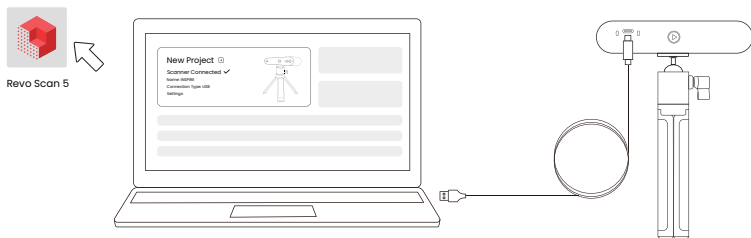
- Open Revo Scan 5 to see if the scanner connected successfully.

■ To learn how to connect INSPIRE to a PC via Wi-Fi, please check out the User Manual on Revopoint's official website.

Connect INSPIRE to a Phone via Wi-Fi

1
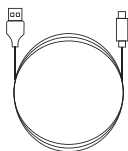
USB Type-A to C Cable

2
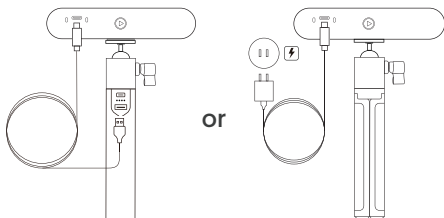
or

- To use the Wi-Fi connection, the scanner must be powered by a power bank or power outlet. Do not plug into your PC, or it will be in USB mode by default.
- The Power Bank Handle is sold separately. You can use your own power bank if it's rated 5V/1A or power it with an outlet.
- The scanner is powered when the INSPIRE's power indicator turns solid green.

3

- Go to your smartphone's Wi-Fi settings, search for the network called **INSPIRE-REVO-XXXXXXX**, and connect (No password is required).

- Wait a few seconds for the scanner to connect.

4
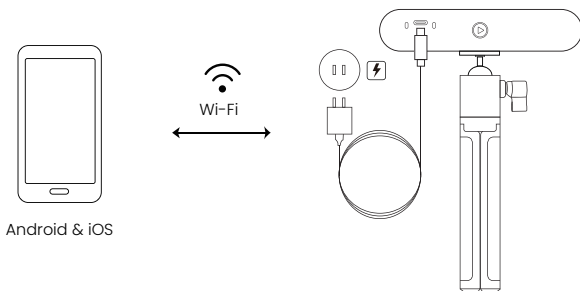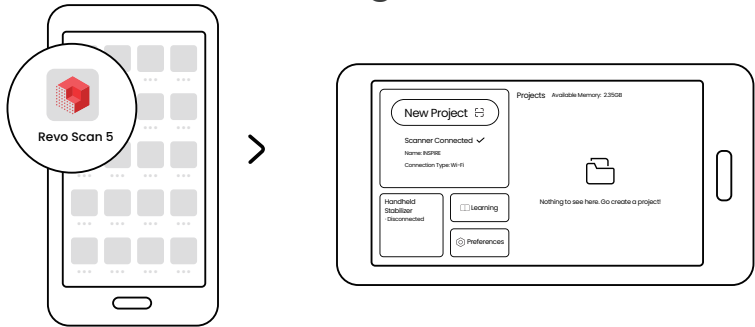
Wi-Fi

Android & iOS

- Both Android and iOS phones can connect to INSPIRE via Wi-Fi.

- To learn how to connect INSPIRE to a smartphone via USB, please check out the User Manual on Revopoint's official website.

Mini Turntable Connection

- AC Adapter is not included.
- The Mini Turntable's indicator turns solid green when powered. Then, move the switch left or right to adjust rotation direction and twist the dial to adjust the rotation speed.

3
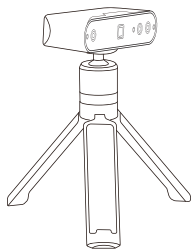
Setup the Scanning Environment

Distance of about 25 cm

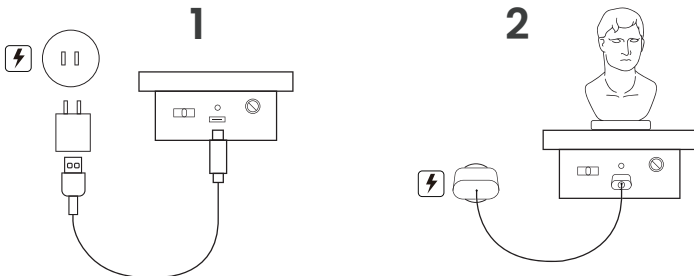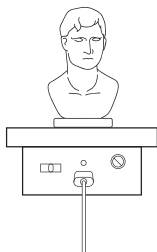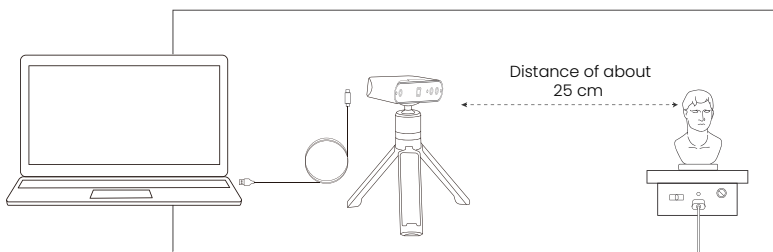- Power on the turntable and adjust it to its maximum speed.
- Put Sample Bust on the turntable.
- Connect the scanner to a PC and attach it to its tripod. Angle the scanner toward the Sample Bust bust and slightly above it.
- The scanner is angled down towards the object at a distance of about 25 cm.
- Use the Magic Mat or a black bin bag as the background.
- Check the Sample Bust to ensure that there are no shadows on its surface and that the overall lighting is even and bright.

Introduction to Revo Scan 5

Scanning Workflow

New Scan/Cancel   Start/Pause   Complete

Scan Preview: Click the "New Scan" button to preview the scan and adjust the scan's settings.

Start: Click the "Start" button to begin the scan.

Pause: Click the "Pause" button to pause and check the scan.

Complete: Click the "Complete" button to finish the scan.

Cancel: Click the "Cancel" button to cancel the scan and clear the captured data.

1. New Scan

Adjust settings in the scan preview interface.

① Scan Settings

Accuracy

Standard Accuracy: The post-processing time will be longer, but the results are more suitable for applications needing more detail.

High-speed (18 fps): The frame rate can be up to 18 fps, and the scanner can quickly capture an object's 3D data.

Tracking Mode

Feature Tracking: Used to scan objects with detailed, distinct features, like the sample bust.

Marker Tracking: Used to scan objects with simple geometric features, like the basketball or bowl.

Object Type

General Object: Used to scan most objects with distinct features.

Dark Object: Used to scan objects with dark surfaces or distinct surface color contrasts.

Face: Used to scan people's faces.

Body: Used to scan the entirety of the body, from the upper and lower regions to the limbs and hair.

Color Scanning

Toggle Color Scanning: The scanner captures the color and shape information of the object when scanning. [Texture Mapping] can be applied during post-processing.

Untoggle Color Scanning: The scanner only captures the shape information of the object when scanning. [Texture Mapping] is not supported during post-processing.

② Distance Adjustment

Move the scanner or object to adjust the distance between them. When the scanning distance indicator bar displays green, the scan distance is at an optimal range.
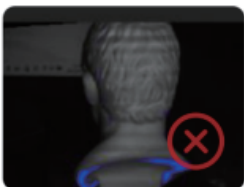
③ Depth Cameras' Exposure Settings
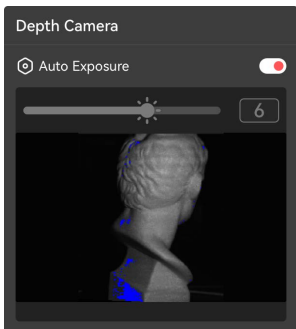
- Ensure only the scanned object is shown in the depth cameras' preview window. Use the Magic Mat or a black bin bag if necessary.
- Drag the slider bar to increase or decrease exposure.
- If there are large red areas on the object, it indicates overexposure. If there are large blue areas on the objects, it indicates underexposure.
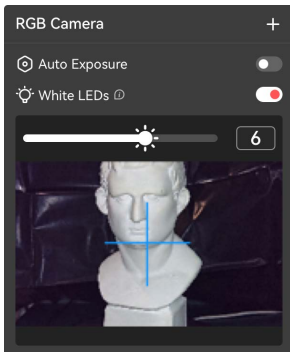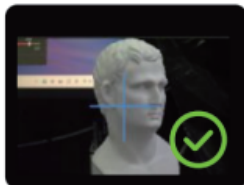

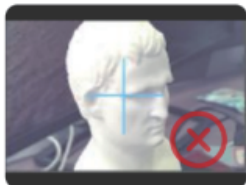| Correct Exposure | Underexposed | Overexposed |

④ **RGB Camera Exposure Settings**

- Adjusting the RGB camera's exposure is crucial for color scanning.
- Use the blue crosshair as a reference point to aim at the object.
- Toggle or untoggle [White LEDs] as required.
- Drag the slider bar to adjust the RGB camera's exposure. See the examples below:
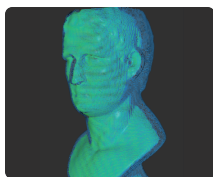

Correct Exposure   Underexposed   Overexposed

2. Start

Start scanning when all settings are correct.

- Blue shows the already scanned area, while green shows the area currently seen by the scanner.
- For handheld scanning, slowly and steadily move the scanner around the object to prevent tracking loss.

Scanning Errors

If a "tracking lost" notification appears during scanning, re-target the scanner to a previously scanned area (blue) with plenty of distinct features. Keep it still for several seconds to re-acquire tracking. When the red portion of the display changes to green, resume scanning.

During scanning, click the Start ▷ / Pause ❚❚ button as required to adjust the model.
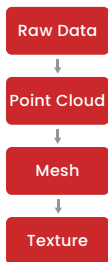
If you want to cancel the scan after starting, click the Cancel ✕ button.

3. Complete

Complete scanning after all data is captured.

To export the model, please perform point cloud fusion first.

Post-processing

Raw Data

The unprocessed and unfiltered data points captured during the scanning process. It cannot be exported.

Point Cloud

Combine datasets captured by both depth cameras into a complete point cloud dataset.
It can be exported in the PLY or OBJ formats.

Mesh

Create a 3D model with the captured point cloud data. It can be exported in PLY, OBJ, or STL formats.

Texture

Apply textures or color information to the mesh. It can be exported in PLY or OBJ formats.

Export the Model
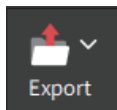
Export the point clouds, mesh model, or texture model file.

Online Support

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