

FARO® Freestyle 2 Handheld Scanner

The Most Portable 3D Scanner for Fast, Photorealistic 3D Reality Capture

The FARO Freestyle 2 is a superior handheld 3D scanner designed for professionals who require quick and easy complete scene documentation. Delivering fast, photorealistic 3D reality capture with unparalleled real-time display results, Freestyle 2 offers total mobility to scan even the most confined spaces and difficult objects.



Features

Real-Time Visualization

- Display lets you view what you capture as you scan

Wide-Range of Scanning Distances

- Captured 3D Points starts at 0.4 m
- Can be set to a maximum of 10 m

Capture in Variety of Lighting Conditions

- Designed for normally illuminated interiors and outdoors, including in overcast conditions
- Even provides usable data in complete darkness

One-Hand Operation

- Lightweight with no bulky tablet or long cables

Guided Scanning

- Haptic feedback alerts operator when adjustments need to be made to the users scanning technique
- Proprietary tracking engine enables users to make natural movements while scanning

On-Site Compensation

- White-balancing, post-processing can be done at the scene
- No annual calibration required

Integrated Training

- Live display of data quality with integrated training videos, and tutorials

Benefits

Ultimate Flexibility

- Freestyle 2 is portable, without the need for bulky computers
- Self-contained unit gives the freedom to scan around objects or inside spaces

Save Time

- Scan scenes and objects without data voids in minutes
- Captures data easily and in more detail in less time

Photorealistic Results

- Get high-quality, colored, 3D data with up to 0.5 mm accuracy

Confidence in What You Capture

- See a display of data as you capture to ensure you are getting what you need

Easy-to-Learn & Easy-to-Use

- Modern user interface, proprietary tracking algorithms, integrated video tutorials

| Performance Specifications | |
|----------------------------------|--|
| Range | 0.4 - 5 m (up to 10 m with limited data quality) |
| Identifiable feature | Up to 0.2 mm |
| 3D point accuracy ¹ | ≤0.5 mm |
| Long range accuracy ² | 0.5 mm at 1 m distance 5 mm at 5 m distance 15 mm at 10 m distance |
| Single image point density | Up to 45,000 points/m ² in 0.5 m distance Up to 10,500 points/m ² in 1 m distance |
| Acquisition Rate ³ | Up to 220,000 points/s, point cloud density increases with time |
| Typical Noise ⁴ | • 0.3 mm @ 0.4 m distance • 35 mm @ 5 m distance • 0.75 mm @ 1 m distance • 100 mm @ 10 m distance • 10 mm @ 3 m distance |
| Lighting conditions ⁵ | Full daylight, 10,000-45,000 lux (reduced performance in direct sunlight) |
| Light source | Integrated LED flash |
| Scan volume | 39.5 m ³ @ max range 5 m |
| Typical field of view (HxW) | • 420 mm x 550 mm @ 0.5 m • 2740 mm x 3160 mm @ 3 m • 930 mm x 1170 mm @ 1 m • 3600 mm x 4160 mm @ 4 m • 1800 mm x 2160 mm @ 2 m • 4470 mm x 5150 mm @ 5 m |
| Exposure time | 0.1 ms - 7 ms (autoexposure) |
| Texture color | 24 bit |
| Dimensions | 285 mm x 256 mm x 130 mm |
| Connectivity | HDMI, USB 3.0, WiFi |
| Weight | 1.48 kg |
| IP rating | IP 52 |
| Compensation | Onsite - with supplied compensation plate |
| Op temperature range | 0 - 40° C |
| Op humidity range | Non-condensing |
| Eye Safety | Class 1 Laser |
| Wavelength | 798-816 nm |

¹ 1 sigma standard deviation measured on reference scales of lengths between 0.3 m and 1 m, in 1 m distance, for a lateral scanner movement of 1 m, using targets for distance measurement | ² Typical error at measured distances | ³ Point density depends on scanned surface and lighting conditions | ⁴ RMS | ⁵ Limited range and point density in sunlight

* Dust protection 5. Water protection 2: Protection against dripping water whilst device in standard idle position with sensor side facing downward.

Mobile PC Specifications

Microsoft Windows 10 pro, 64-Bit Intel® Core™ i7

256 GB hard disc with 16 GB RAM

HDMI; USB 3.0 ports; WiFi

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