

# Freestyle 2

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

The FARO® Freestyle 2 is a superior handheld 3D scanner designed for investigators and reconstructionists 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

<b>Range</b>	0.4 - 5 m (up to 10 m with limited data quality)
<b>Identifiable feature</b>	Up to 0.2 mm
<b>3D point accuracy<sup>1</sup></b>	≤0.5 mm
<b>Long range accuracy<sup>2</sup></b>	0.5 mm at 1 m distance 5 mm at 5 m distance 15 mm at 10 m distance
<b>Single image point density</b>	Up to 45,000 points/m <sup>2</sup> in 0.5 m distance Up to 10,500 points/m <sup>2</sup> in 1 m distance
<b>Acquisition Rate<sup>3</sup></b>	Up to 220,000 points/s, point cloud density increases with time
<b>Typical Noise<sup>4</sup></b>	<ul style="list-style-type: none"><li>• 0.3 mm @ 0.4 m distance</li><li>• 0.75 mm @ 1 m distance</li><li>• 10 mm @ 3 m distance</li><li>• 35 mm @ 5 m distance</li><li>• 100 mm @ 10 m distance</li></ul>
<b>Lighting conditions<sup>5</sup></b>	Full daylight, 10,000-45,000 lux (reduced performance in direct sunlight)
<b>Light source</b>	Integrated LED flash
<b>Scan volume</b>	39.5 m <sup>3</sup> @ max range 5 m
<b>Typical field of view (HxW)</b>	<ul style="list-style-type: none"><li>• 420 mm x 550 mm @ 0.5 m</li><li>• 930 mm x 1170 mm @ 1 m</li><li>• 1800 mm x 2160 mm @ 2 m</li><li>• 2740 mm x 3160 mm @ 3 m</li><li>• 3600 mm x 4160 mm @ 4 m</li><li>• 4470 mm x 5150 mm @ 5 m</li></ul>
<b>Exposure time</b>	0.1 ms - 7 ms (autoexposure)
<b>Texture color</b>	24 bit
<b>Dimensions</b>	285 mm x 256 mm x 130 mm
<b>Connectivity</b>	HDMI, USB 3.0, WiFi
<b>Weight</b>	1.48 kg
<b>IP rating</b>	IP 52
<b>Compensation</b>	Onsite - with supplied compensation plate
<b>Op temperature range</b>	0 - 40° C
<b>Op humidity range</b>	Non-condensing
<b>Eye Safety</b>	Class 1 Laser
<b>Wavelength</b>	798-816 nm

<sup>1</sup> 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 <sup>2</sup> Typical error at measured distances <sup>3</sup> Point density depends on scanned surface and lighting conditions <sup>4</sup> RMS

<sup>5</sup> 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

Local offices in over 25 countries around the world. Go to [www.faro.com](http://www.faro.com) to learn more.

#### FARO Global Headquarters

250 Technology Park, Lake Mary, FL 32746, USA

US: 800 736 0234 MX: +52 81 4170 3542

BR: 11 3500 4600 / 0800 892 1192

info@faro.com

#### FARO Europe Regional Headquarters

Lingwiesenstr. 11/2

70825 Korntal-Münchingen, Germany

00 800 3276 7253

info.emea@faro.com

#### FARO Asia Regional Headquarters

No. 3 Changi South Street 2, #01-01 Xilin  
Districentre Building B Singapore, 486548

+65 65111350

asia@faro.com