FARO Freestyle^{3D} Scanner

Efficiency In Your Hands

One-Stop Handheld Laser Scanning

The FARO Freestyle^{3D} is a top-quality, high-precision, handheld scanner. It quickly and reliably documents rooms, structures and objects in 3D and creates high-definition point clouds. With unbeatable precision it is suitable for all uses in which installations or properties must be quickly measured from various perspectives. The applications of the FARO Freestyle^{3D} include construction, industrial production, and forensics. Thanks to its lightweight carbon fiber body, the handheld scanner is highly mobile. A tablet PC is included with the Freestyle^{3D} and supports intuitive data acquisition.

FREESTYLE^{3D}

Features

Handheld Color Laser Scanner
Effortlessly capture almost any surface type in a wide range of environments by simply pointing the FARO Freestyle^{3D} to the surface of the object

Intuitive Plug and Play System
The Freestyle^{3D} provides high-productivity in the field with no warm-up time

Real-Time Point Cloud Visualization
Point cloud viewing during scanning provides assurance of accurate data acquistion

Lightweight Industrial-Grade Device
Durable carbon fiber design equips the user with a versatile and ergonomic tool for performing accurate scanning in confined spaces

3D Documentation Solution
The user can seamlessly combine results from the Focus^{3D} and the Freestyle^{3D}

Benefits

- Ability to measure and scan in tight and hard-to-reach areas
- Scan around corners where there is limited visibility
- Memory-scan technology allows users to pause and resume scanning at any time
- Flexibility to work with or without artificial targets
- Seamless integration with Focus^{3D} laser scanner data
- Precision handheld scanning - accuracy to 1.5mm / 0.059 in
- Easy-to-use scanning software
- Worldwide service and support from local FARO facilities

Industries and Applications

- Architecture, Engineering & Construction (AEC)
- Forensics & Law Enforcement
- Oil & Gas
- Virtual Reality
- Maritime
- 3D Scanning Service Providers

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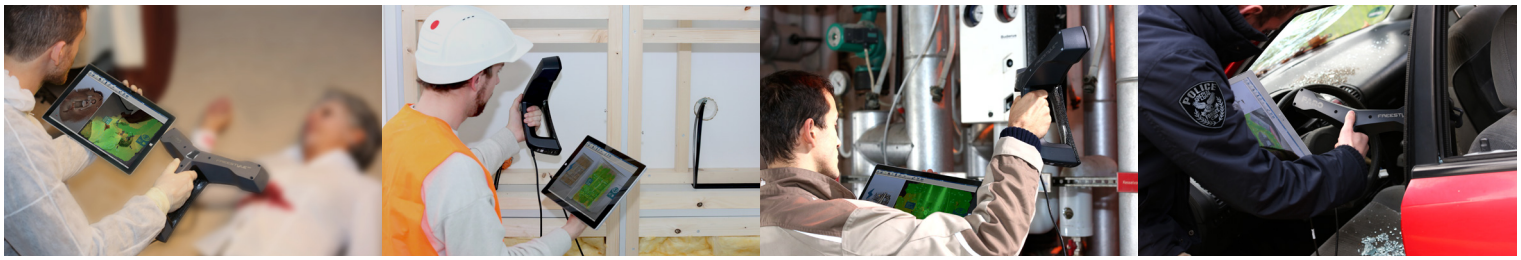

Performance Specifications

Range	0.5 - 3m / 1.6 - 9.8 ft
Resolution at 0.5m / 1.6 ft	Lateral: 0.2 - 1mm / 0.008 - 0.039 in Depth: 0.2mm / 0.008 in
3D point accuracy/whole scan accuracy[1]	<1.5mm / 0.059 in
Typical lateral accuracy[2]	<1mm / 0.039 in
Single image point density	Up to 45,000 points/m² at 0.5m distance Up to 10,500 points/m² at 1m distance
Recorded 3D points[3]	Up to 88,000 points/sec; point cloud density increases with time
Typical Noise (rms)	0.7mm at 0.5m distance 0.75mm at 1m distance 2.5mm at 2m distance 5mm at 3m distance
Eye safety	Class 1 laser
Lighting conditions[4]	Up to 10,000 Lux
Light source	Built-in LED flash
Typical field of view (HxW)	450mm x 530mm at 0.5m 930mm x 1,100mm at 1m 1,800mm x 2,000mm at 2m 2,600mm x 2,900mm at 3m
Typical angular field of view (HxW)	45°x56° at 0.5m / 0.020 in 45°x59° at 1m / 0.039 in 49°x54° at 2m / 0.079 in 49°x52°at 3m / 0.118 in

Exposure time	0.02ms - 10ms (auto exposure)
Texture color	24-Bit
Dimensions	260 x 310 x 105mm / 10.24 x 12.20 x 4.13 in
Connectivity	USB 3.0
Weight	0.98Kg / 2.2 lb
Power supply	5W, USB3.0-powered
Calibration	Optional in-field user calibration with supplied calibration plate
Operating temperature range	0 - 40°C / 32 - 104°F
Operating humidity range	Non-condensing

[1] Measured on a 1m reference scale, in 1m distance, for a lateral scanner movement of 1m, using targets for distance measurement

[2] Measured in 0.5m-3m / 1.6-9.8 ft distance

[3] Point density depends on scanned surface and lighting conditions [4] Limited range and point density in sunlight

Recommended System Requirements for Tablet

The Freestyle^{3D} is shipped with a Microsoft Surface™ tablet:

- Microsoft Windows 8.1 pro, 64-Bit
- 4th generation Intel® Core™ i5
- 256GB hard disc with 8GB RAM
- MicroSDXC
- Microsoft® Surface Pro 2 or 3 is a recommended device

CLASS 1 LASER PRODUCT

ISO 9001 BUREAU VERITAS Certification

ANAB ACCREDITED

GSA Contract Holder

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