

H1 HANDHELD 3D LASER SCANNER

Version 05-12-2025

LASER

Laser Product	Class 1 Eye Safe
Classification	
Accuracy	1.5cm@10m; 3cm@20m; 5cm@40m
Scan Radius	40-70m (measured at >10% or >80% reflectivity)
Scan Range	80-140m
Max. Effective	480,000 points/sec
Measurement Rate	
Wavelength	905nm
FOV (Horizontal)	360°
FOV (Vertical)	63.5°
Scanning Channel	32-lines

CAMERA

Camera System	- Fisheye camera *2 - NIR tracking camera *1
Resolution	13 MP (fisheye camera)
Sensor Size	1-inch CMOS (fisheye camera)
HDR Mode	Supports 3-5 EV
FOV	360°×300°

GNSS PERFORMANCE

Channels	1408
Satellite Tracking	BDS, GPS, GLONASS, Galileo, SBAS, QZSS
RTK	8mm+1ppm Horizontally 15mm+1ppm Vertically
PPP	5cm Horizontally 10cm Vertically
IMU	6-axis IMU module

CONNECTIVITY & EXPANSION

Interface	USB Type-C×2 (1 for external power, 1 for data transmission)
Screen	3.9" AMOLED touchscreen
CPU	8-core 2.4 GHz
Storage	32 GB storage (expandable via TF card)
IMU	High-precision 6-axis IMU
Network	WiFi 5

DATA OUTPUT

Point Cloud (colorized)	PCD, LAS, E57, PLY
Mesh (colorized)	OBJ
3D Gaussian Splatting	PLY

ENVIRONMENT

Waterproof & Dustproof	IP65
Operating Temperature	-10°C~50°C

PHYSICAL & ELECTRICAL

Size	120*145*85mm (without handle)
Weight	900g without handle
Battery Handle	Dual battery handles - 12000mAh, support up to 1-hour continuous work - Size: 64*158*38mm - Weight: 342g

SYSTEM REQUIREMENTS FOR POST-PROCESSING SOFTWARE

CPU	- Minimum: 8-core - Recommended: 32-core or higher
GPU	- Minimum: NVIDIA, 8 GB - Recommended: NVIDIA, 16 GB or higher
RAM	- Minimum: 32 GB - Recommended: 64 GB or higher

All specifications are subject to change without notice.

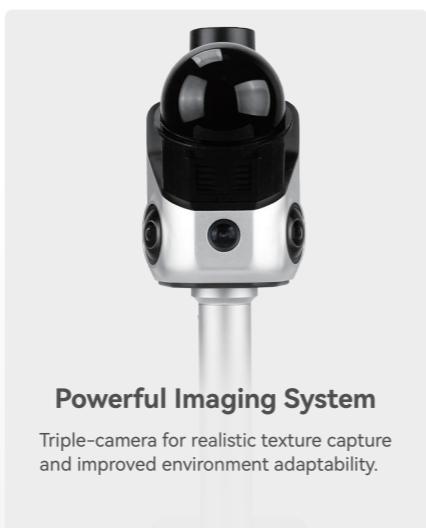
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H1 HANDHELD 3D LASER SCANNER

Capture Reality, Define Precision





Integrated GNSS + SLAM
Alongside its LiDAR, the H1's full-constellation RTK delivers centimeter-level absolute positioning for accurate real-world alignment.

Dual 12000mAh Batteries
Two 12,000 mAh battery handheld grips each deliver up to 1-hour runtime, with external power support for drone, vehicle, and other setups.

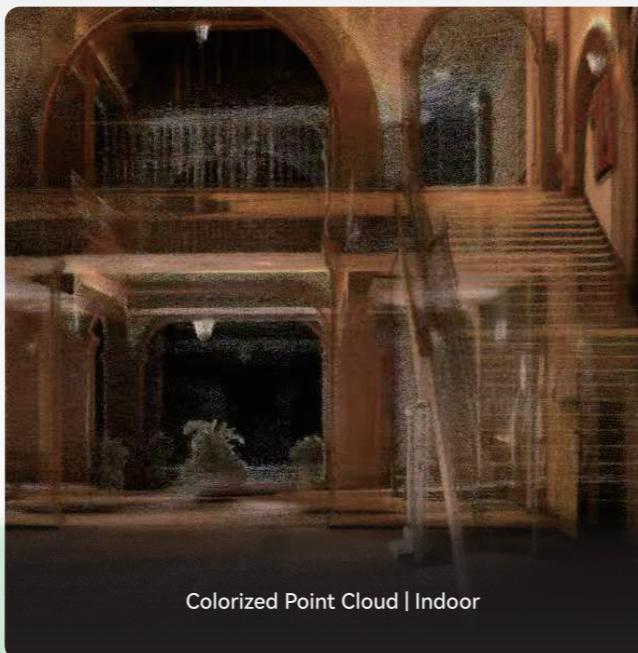
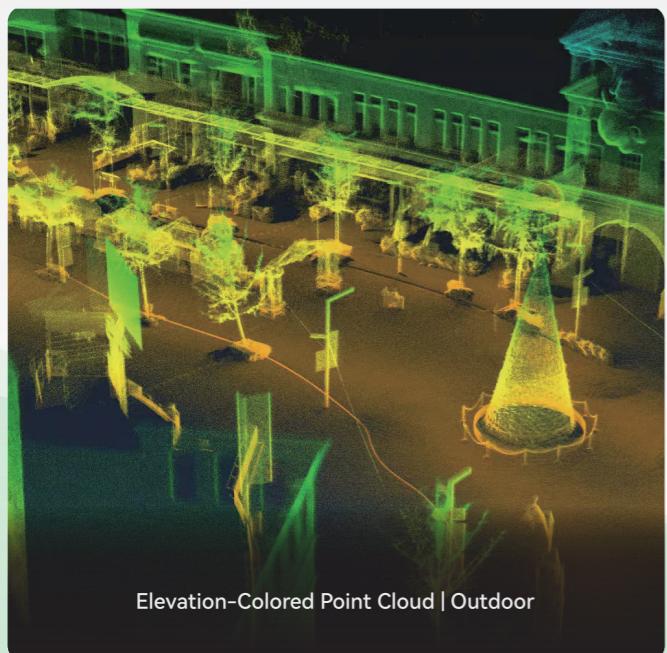
Rugged Metal Body
Built with an IP65-rated metal body, H1 stands up to demanding environments.

Ultra-Wide 360°x63.5° FOV
With a 360° horizontal and 63.5° vertical FOV, the H1 minimizes blind spots and is ideal for detailed interior, facade, and industrial scanning.

Connectivity & Cooling Design
H1 provides Type-C ports for data and power, an SD card slot for storage, optimized cooling inlets/outlets, and built-in Wi-Fi connectivity.

900g Compact Build
The 900g compact build of H1 keeps field use light and convenient.

HIGH-DENSITY, HIGH-PRECISION POINT CLOUDS



COMPANION SOFTWARE



Point Cloud Post-Processing Software

- Intuitive point cloud refinement & editing
- Coordinate system setup and versatile calibration
- Coloring, Gaussian Splatting, panorama stitching modes
- Supports point cloud measurements

Onboard Real-time Point Cloud Viewer

- Real-time viewing in point cloud, photo, split modes
- Adjustable settings for scans and point cloud details
- Intuitive onsite device status checking
- Enables quick review & export of all field projects

