RUIDE XScan

Highly efficient & Cost-effective
3D LiDAR Scanner





Weighs only 1.12 kg,extra portable.

Scanning range isup to 100 meters

360°

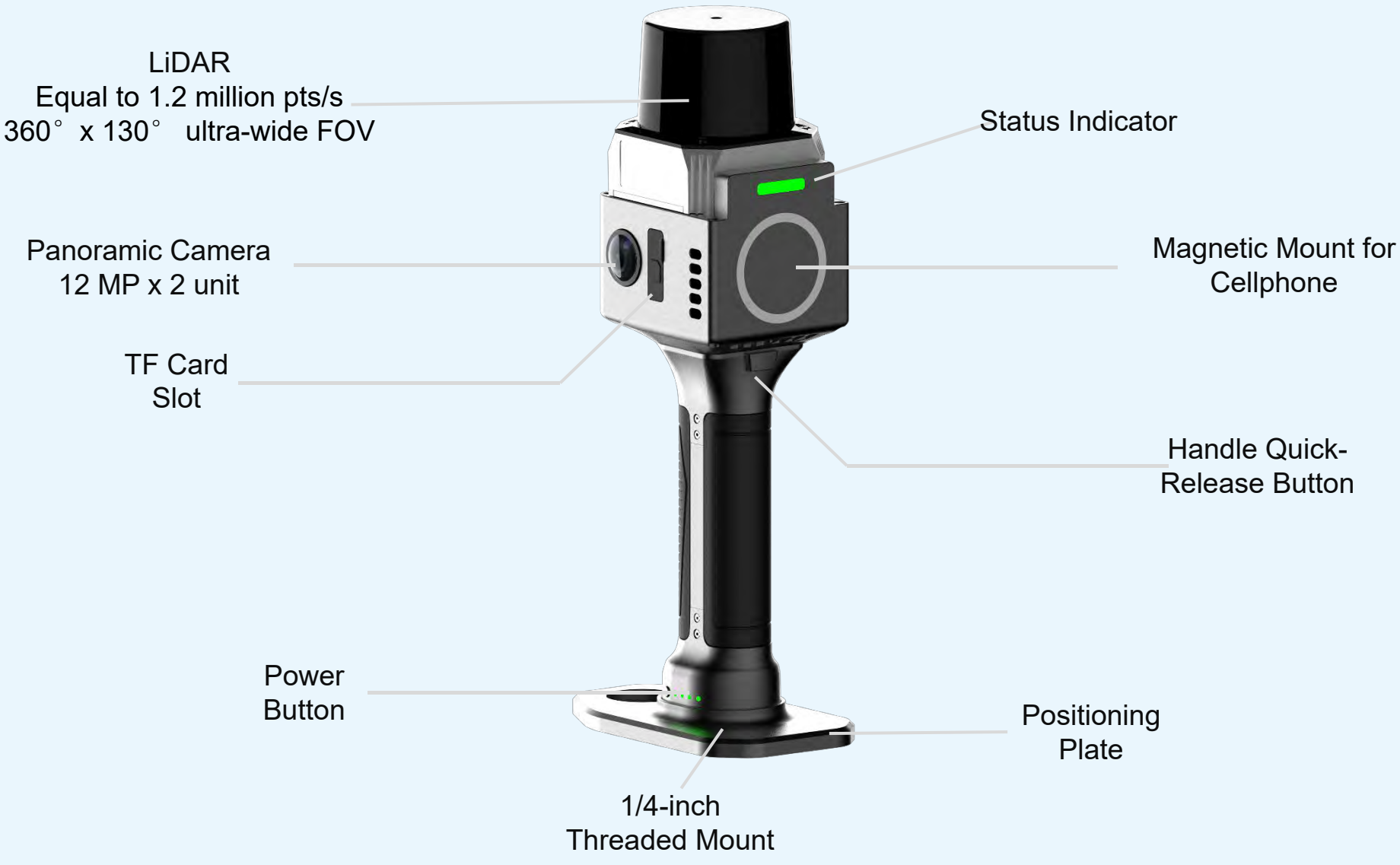
130° 130°

360°(H) x130°(V) optimized Field of View

1 cm Relative accuracy,150 mins working time

Learn more at
ruideinstrument.com

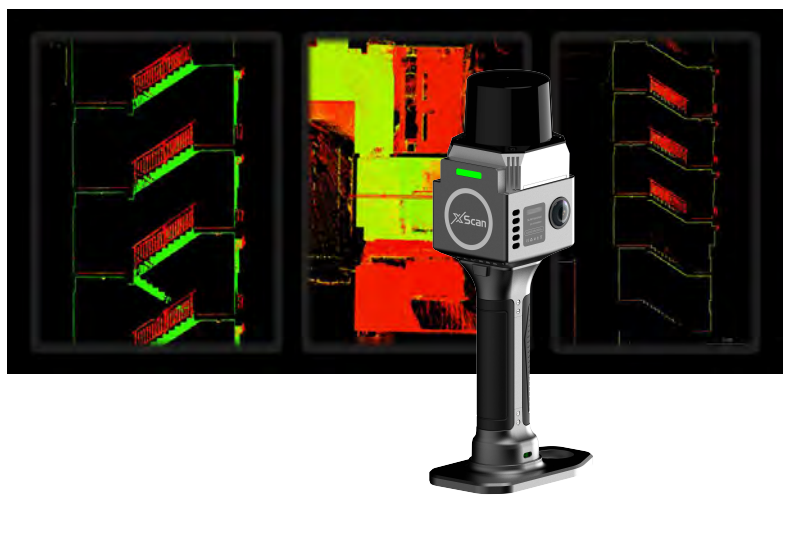
RUIIDE



Vivid Colorization, Detail-rich Deliverables

Equipped with dual 12MP cameras, XScan captures high-quality image data with rich textures and natural colors. Advanced colorization algorithms accurately fuse image data with point cloud, delivering realistic colorized point clouds with fine details.

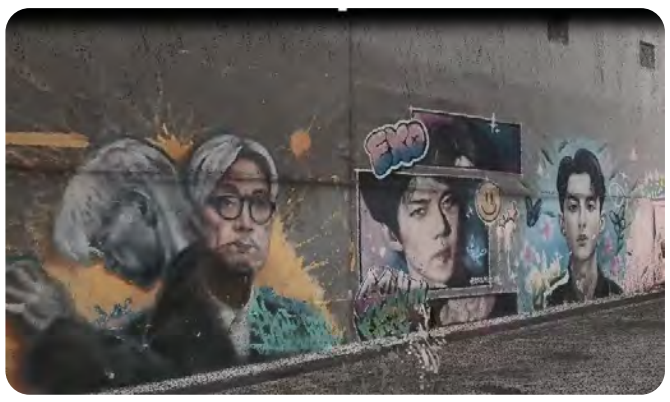




INS + SLAM Fusion for Reliable Mapping

With a high-precision IMU with 0.5° /h bias instability built-in, the XScan can accurately track motion in feature-poor environments such as corridors and multi-level staircases and ensure accurate and stable scanning result.

High Quality Data Result



Colorful point cloud



3D Gaussian Splatting

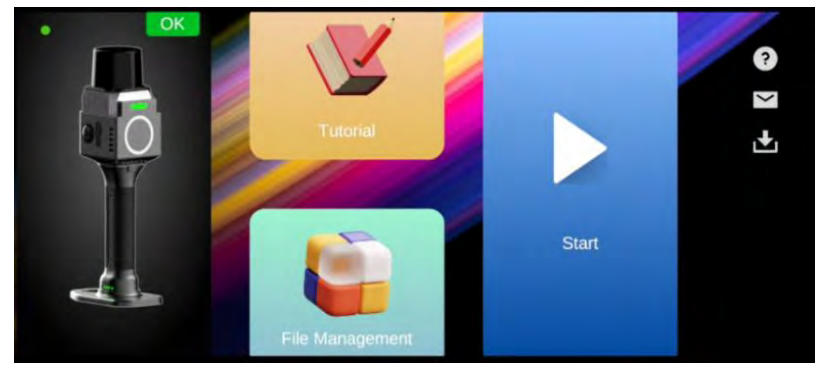


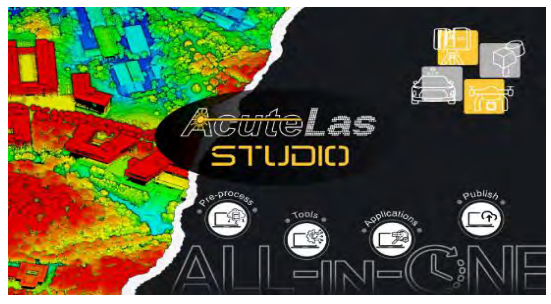
Mesh Model

Field Work Control App: MAP STAR

The mobile Android app supports collection control, file management, enables real-time viewing of panoramic imagery and true-color point cloud and firmware upgrades, etc.

- Users can switch between RGB, Intensity, and Elevation modes to verify scan quality and completeness directly in the field.
- Dynamic trajectory tracking with real-time survey-quality visualization
- Tutorial guide is available inside App.







Pre-Processing Software: AcuteLas Studio

The software optimizes point cloud quality through denoising, filtering, and RTK/GCP registration. It supports colorized point cloud, mesh, 3DGS, and CAD outputs, with built-in tools for measurement, volume calculation, etc.

AcuteLas Studio can process data captured from different source: SLAM scanner, Terrestrial scanner, Mobile LiDAR Scanner. One click, full automation.

From Point Cloud to Drawing: CAD Builder

CAD Builder is to streamline the drafting process and quickly create architectural drawings.

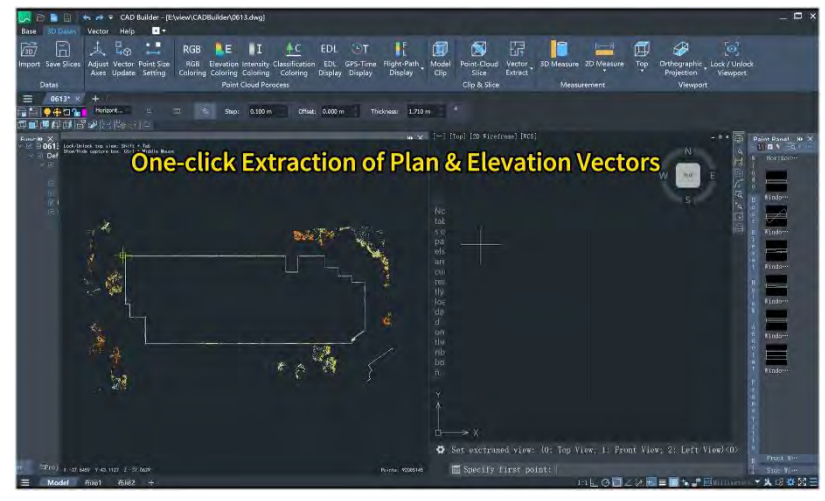
* Users can directly operate on point cloud data without converting it into RCP or MESH formats beforehand.

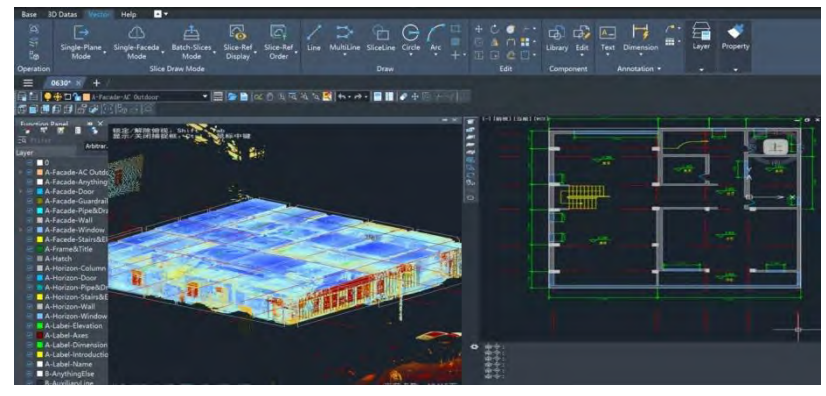
* Users can draw directly on slices without repeatedly exporting them to PNG or DXF files.

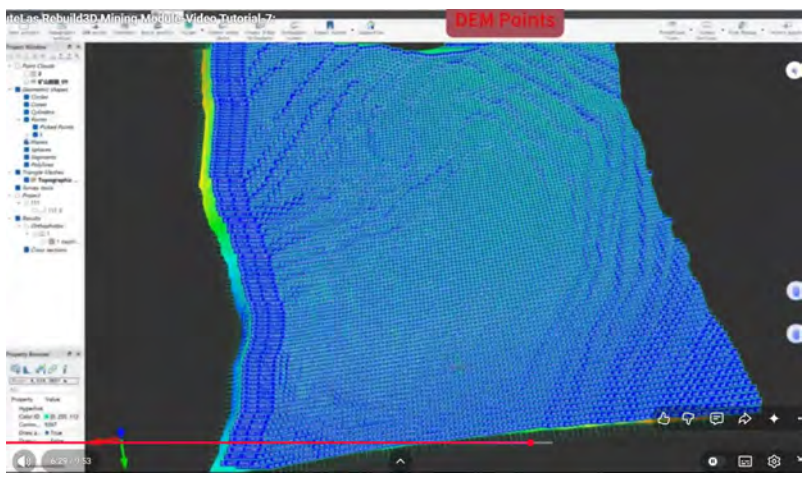
* The software automatically detects rooms, converts them into editable vector graphics, and enables one-click extraction of plan and elevation vectors.

* one-click alignment of plan, elevation, and section views, alongside flexible slicing and dynamic adjustment.

* Equipped with a full set of drafting tools, and supports exporting drawings directly to DWG and PDF formats.







Advanced Processing Plugin: Rebuild 3D

Rebuild 3D is designed to turn 3D laser scanner and SLAM point cloud data into actionable design deliverables. (This plugin is optional)

- Architectural 3D Mesh Generation
- One-Click RCP Export
- Cross-Section & Profile Extraction
- Orthophoto and X-ray Orthophoto Generation
- Mining and Topography Modules
- ……

Learn more at ruideinstrument.com

RUIDE

Application



Building Surveying



Interior Design
and Refurbishment



Public Safety and
Forensic Scene Survey



Heritage Conservation

SPECIFICATIONS

Scanning & Optical Performance

Scan Range	0.1-40m @10% reflectivity; 0.1-100m @90% reflectivity
FOV	360°(H,)x130°(V,) optimized for data redundancy
Scanner Sensor	Mixed solid-state laser with stable internal structure
Scan Rate	200,000 pts/sec (equivalent to 1.2 million pts/sec resulted from non-repettive scanning and exclusive vari-frequency tech)
Laser Class	Class-1 eye-safety
Camera Lens	2x 12MP
Accuracy Performance	≤1cm relative accuracy

Data Processing & System

Mapping Method	SLAM, with realtime point cloud display
Process Mode	Realtime and post-process both
Geo-referencing	Control points establishment for localization
Fieldwork Control	MapStar
Data Process	AcuteLas Studio

Storage & Connectivity

Data Management	TF card and Type-C
Memory Capacity	128 GB, expandable

Physical & Environmental Specifications

Ingress Protection	IP5X
Net Weight	1.12 kg
Dimension	111x222x33 mm
Working Temperature	-20°C to 45°C
Storage Temperature	-20°C to 60°C

Power & Battery

Power Supply	Handgrip battery, 3,150mAh, 45.36Wh
Power Consumption	23W
Endurance	150 min

RUIDE

7F, Sicheng Road, Guangzhou 510663, China
www.ruideinstrument.com
export@ruideinstrument.com

ruideinstrument
RUIDEPositioning