

Pocket2 Accessories

Modular Design for Maximum Efficiency

Pocket2 features plug-and-play accessories like the RTK module and phone mount, which can be installed or removed without tools. For scenarios that don't require high-precision positioning, such as indoor renovation inspections, users can skip the RTK module to reduce device weight and improve handling flexibility.

This modular design also enhances cost-effectiveness—you only purchase the accessories needed for your specific work scenarios, avoiding unnecessary expenses. The accessories feature user-friendly installation with precisely aligned slots and smooth plug-and-play operation, allowing even beginners to get started quickly with no extra learning curve.

Accessories Standard



Battery Handle



SLAM



Phone Holder



RTK Module



Extension Pole



SPECIFICATIONS



General

Relative Accuracy	≤1 cm
Absolute Accuracy	≤5 cm (Typical 3 cm)
Weight	1275g (Battery:485g/Unit:790)
Dimensions	115 ×113×120 mm
Battery Capacity	44.4Wh(4000mAh)
Data Interface	Type C-USB 3.0
Storage	Built-in SSD, 256 GB
Battery Life (Single Battery)	Ups to 120 minutes
Working Temperature	-10° C ~ 40° C
Water/Dust Proof	IP56
GCPs Collection	Supported
Phone Holder	Supported
Real-time Color Point Cloud	Supported
Visual-SLAM	Supported



Camera

Number of Cameras	3
Camera System	3 × 2 MP
Shutter Type	RGB Cameras
Image Size	Global shutter
	1600*1296 pixels



RTK(Optional)

Supported Constellations	BDS B1I, B2I, B3I, B1C, B2a,B2b GPS L1C/A, L2C, L2P(Y), L5 GLONASS G1, G2 Galileo E1,E5a,E5b,E6 QZSS L1C/A,L2C, L5
Global Positioning Accuracy	Better than 5 cm Typical 3 cm



LiDAR

Class	Class 1/905 nm
Range	0.1~40m@10% reflectivity; 0.1m~70m@80% reflectivity
Point Cloud Rate	200,000 points/s
Point Cloud Thickness	≤1 cm
LiDAR FOV	Horizontal 360°; Vertical 59° (-7° to +52°)
LiDAR Installation	Tilt 15° to the ground
Point Cloud Accuracy	Better than 1cm
Laser Channels	40 channels
Point Rate	200,000 points/sec



Software

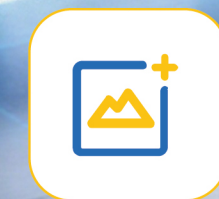
Point Cloud Format	.las, .laz, .fbx, .e57, .pcd, .ply, .obj
MindCloud Studio	Support .usd format export (NVIDIA Omniverse) for robotic simulationand training Generate grayscale and true-color mesh models Support external control point import
MindCloud Go (APP)	Annotation mode with label import and quick review workflow One-tap switching between intensity and true-color rendering modes One-click cloud upload for LAS and colored point cloud data

Pocket2

Seamless Real-time Spatial Scanner



Fast
Processing



High
Definition



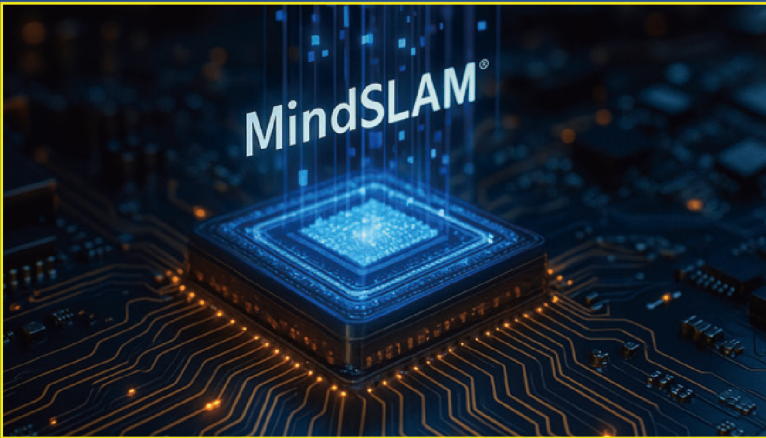
Cost
-Effective

Scan the World
Define the Future

With built-in multi-scenario templates and one-click cloud upload, Pocket2 quickly generates standardized deliverables for a wide range of applications, including interior measurement, forestry surveys, digital asset capture, and robot deployment. Whether for individual users, collaborative teams, or industry-scale projects, Pocket2 simplifies complex workflows into a single, standardized process, enabling faster execution and higher efficiency.

Multi-Modal Sensor Fusion

No training required - simply power on and scan. Pocket2 combines a global shutter camera, LiDAR, and IMU with the MindSLAM® algorithm to deliver stable odometry and real-time,high-precision colored point clouds, even in complex or dynamic environments.



One-Tap Cloud Sync & Multi-Device Collaboration

It connects seamlessly with your app and the cloud, automatically generates high-quality, lightweight 3D files. Data can be viewed, edited, and exported across devices, enabling real-time collaboration and accelerated project delivery.



Real-Time Point Cloud & Measurement

Pocket2 supports a true "scan and see" workflow, allowing instant detail refinement. This reduces sparse areas and occlusion blind spots while ensuring data completeness, accuracy, and usability for measurement and modeling.

Robotic Collaboration Ecosystem

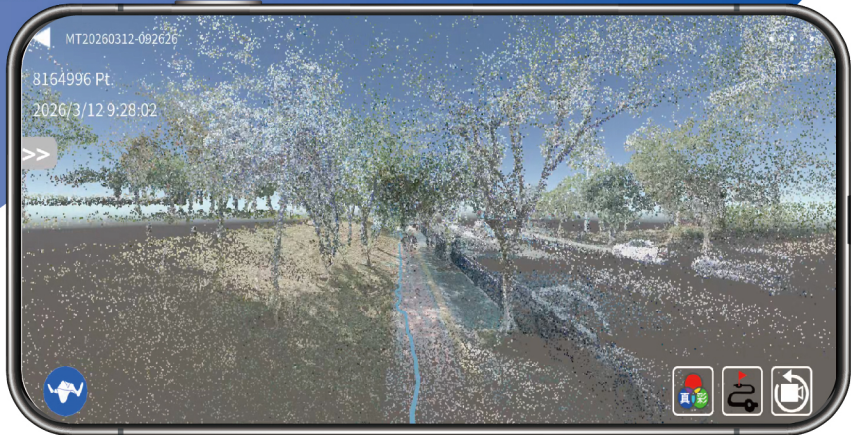
More than a scanner! It is the entry point to the Manifold Techecosystem. Through deep integration with the Odin module, it feeds precise 3D environmental data into robotic systems, enabling advanced perception and autonomous decision-making.

Mobile Software

MindCloud Go

Designed for seamless on-site data acquisition and real-time point cloud visualization.

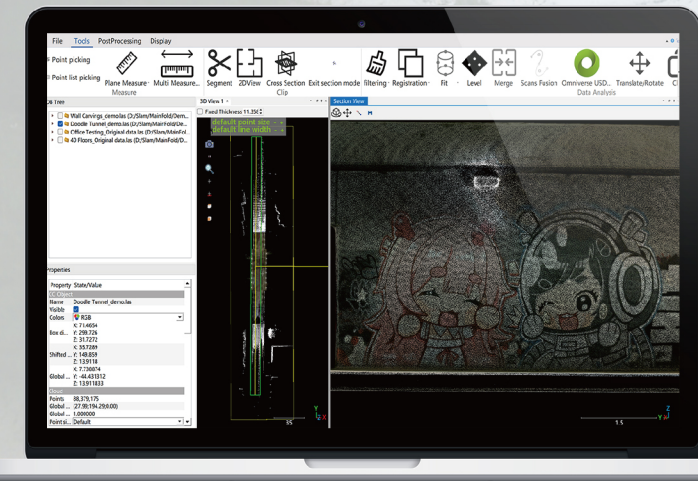
- Flexible Acquisition Modes: Supports both RTK and GCP (Ground Control Point) modes for high-precision data collection.
- Versatile Rendering: Instantly switch between Intensity, Elevation, and True Color rendering modes.
- Adaptive Scanning: Toggle between Standard and Degraded Scanning modes to handle challenging environments.
- On-Device Management: Features local project storage and real-time point cloud preview.



Desktop Processing Software

MindCloud Studio

Designed for efficient point clouds computation and conversion.



- High-Speed Computation: Advanced algorithms ensure rapid processing and superior visualization.
- Extensive Format Support: Fully compatible with .las, .laz, .fbx, .e57, .pcd, .ply, and .obj.
- Simulation & Modeling: Exports USD (NVIDIA Omniverse) format; generates White and True Color Meshes.
- Precision Registration: Features manual tie-point selection and ICP fine registration.
- Seamless Stitching: One-click scan relay for automatic multi-station data merging.
- GCP Integration: Supports importing external control points for enhanced accuracy.

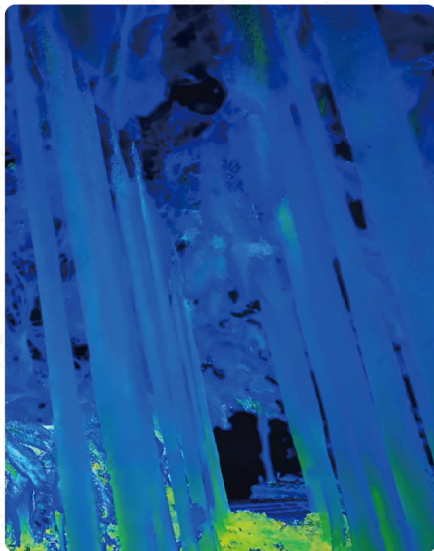


Application Scenarios



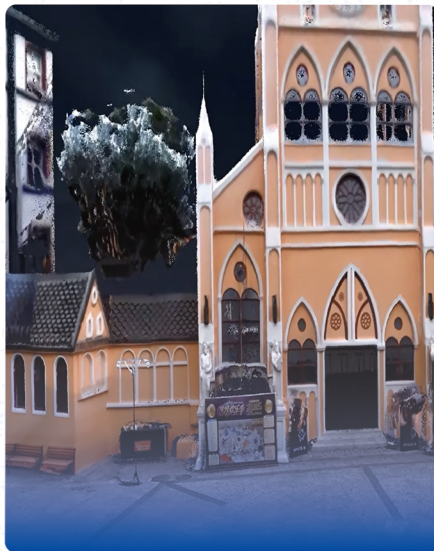
Interior Measurement & Renovation Planning

After capture, Pocket2 enables one-click cloud upload and fast generation of CAD drawings and dimensioned files, providing solid data support and clear visualization for design, construction, and reporting.



Forestry Survey & Ecological Sampling

For forestry applications, Pocke2 labels tree species and locations while generating high-density forest point clouds. It supports exporting structured data such as species type and spatial distribution, making it easy to produce sampling files and statistical reports.



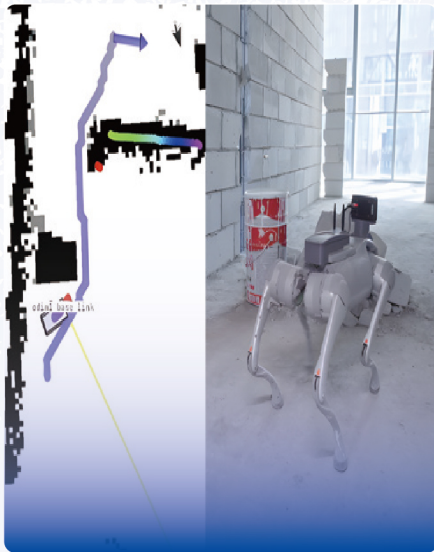
Digital Asset Capture & Cultural Heritage Recording

For cultural heritage and historical architecture, Pocket2 captures facades, textures, and structural details with high fidelity. The data can be imported into Blender, Unreal, or BIM platforms for modeling, restoration, and digital reconstruction.



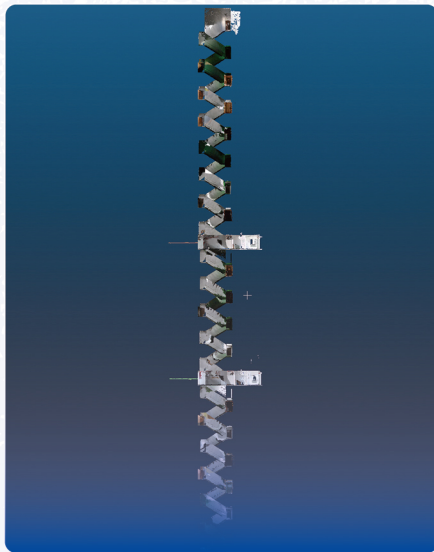
Indoor 3D Recording & AI Visualization Design

For interior design and renovation measurement, Pocket2 supports integrated 3D reconstruction and texture output. With MindCloud, it generates mesh models and Gaussian renderings for AI-assisted design and spatial planning.



Robotic Deployment & Navigation Mapping

Use Pocket2 to quickly scan robotic work environments and generate high-precision navigation maps with one click. When combined with the Odin module, it enables rapid robot deployment, accurate relocalization, and dynamic obstacle avoidance.



Degradation-Prone Scenarios & Robust Mapping

Algorithmic Superiority: Leverages unique algorithms to maintain accuracy in challenging environments. Featureless Environments: Specifically optimized for narrow spaces and areas lacking distinct visual features. Application Scope: Ideal for high-rise staircases, tunnel interiors, and other complex structural inspections.

