MANIFOLD TECH

MindPalace

Pocket2 – Seamless Real-time Spatial Scanner

Enterprise power. Team-level decision.



MindPalace Pocket2 is a handheld, real-time spatial scanning productivity tool. It integrates high-precision depth perception, real-time point cloud reconstruction, wireless data transmission, and cloud collaboration into a single, streamlined device. Powered by Manifold Tech proprietary MindSLAM® algorithm, Pocket2 achieves hardware-level synchronization across multiple sensors and pixel-level data fusion, removing the traditional complexity of 3D reconstruction and making professional-grade scanning accessible even to non-experts.

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 higher efficiency.

CORE FUNCTIONS



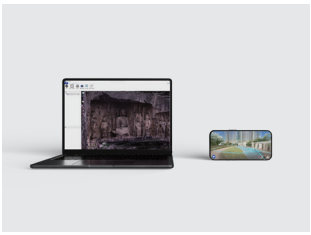
Multi-Modal Sensor Fusion

No specialized training required, it is ready to use out of the box. 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.



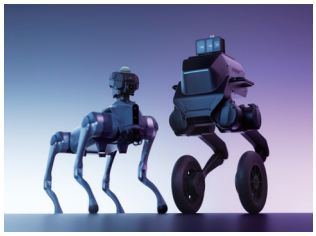
Real-Time Point Cloud & Measurement

It 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.



One-Tap Cloud Sync & Multi-Device Collaboration

Seamless integration of device, app, and cloud connectivity generates high-quality yet compact 3D files for instant multi-device sync. Users are able to collaborate, edit, and export in real time to accelerate project delivery.



Robotic Collaboration Ecosystem

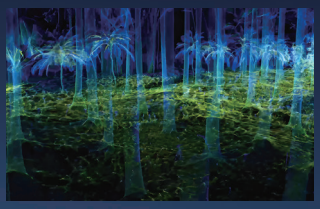
Pocket2 is the entry point to the Manifold Tech ecosystem. By integrating high-precision 3D data into robotic platforms, it bridges the gap between environmental perception and autonomous decision-making.

APPLICATION SCENARIOS



Interior Measurement & Renovation Planning

Instant capture for point cloud and structural models. Pocket2 enables fast generation of CAD drawings and dimensioned files, providing solid data support and clear visualization for design, construction, and reporting.



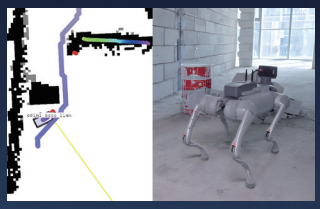
Forestry Survey & Ecological Sampling

For forestry applications, Pocket2 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 effortless to generate 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.



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 series module, it enables rapid robot deployment, accurate relocalization, and dynamic obstacle avoidance.

Technical Specifications

Item	Specification
Dimensions	4.5 × 4.4 × 4.7 in (115 × 113 × 120 mm)
Device Weight	1.74 lb (790 g)
Handle Battery Weight	1.07 lb (485 g)
Operating Temperature	14°F to 104°F (-10°C to 40°C)
Data Interface	USB 3.0
Storage	Built-in SSD, 256 GB
Battery Capacity	4000 mAh
Battery Life (Single Battery)	Up to 120 minutes
Point Cloud Accuracy	Better than 0.4 in (≤ 1 cm)
Camera System	3 × 2 MP Global Shutter RGB Cameras
Laser Wavelength	905 nm
Laser Channels	40 channels
Point Density	200,000 points/sec
Measurement Range	131 ft @ 10% reflectivity / 230 ft @ 80% reflectivity (40 m / 70 m)
Global Positioning Accuracy	Better than 2 in (≤ 5 cm), typically around 1.2 in (≈ 3 cm)
MindCloud Software Suite	· MindCloud Studio(PC · Local Professional Processing) · MindCloud Go(Mobile · On-site Viewing & Uploading) · MindCloud Render (PC/Cloud · Gaussian Rendering Software) · MindCloudX.ai(Cloud · Multi-core Computing & Deep Application Platform)

ABOUT US

Manifold Tech is a leading enterprise in spatial intelligence and 3D reconstruction. We integrate proprietary, patented technology into robotics, surveying, and digital twins. By leveraging multi-sensor fusion SLAM and autonomous navigation, we deliver precise real-time mapping and assist intelligent decision-making, driving the global evolution of spatial intelligence.

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