Topcon CR-M1

Your World, Captured in Motion.

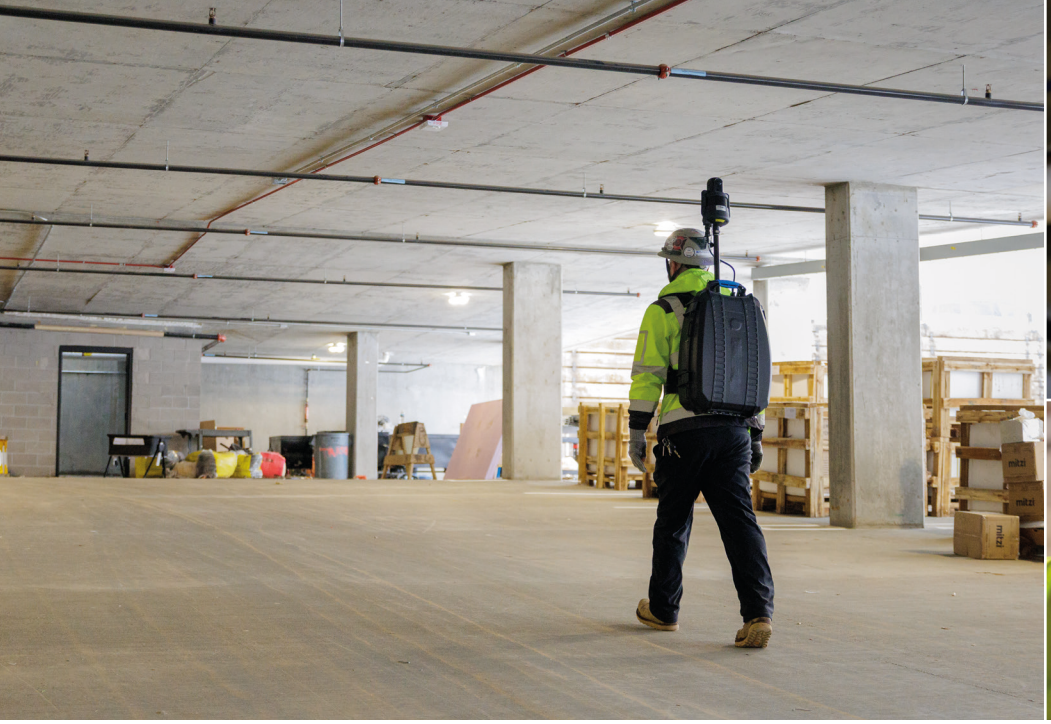




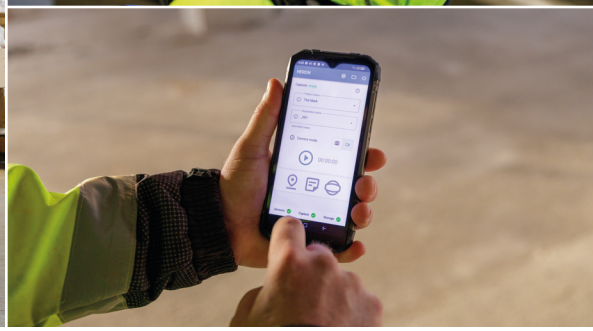
Experience advanced versatile mapping - achieve accurate results even where traditional scanners cannot operate

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How can you survey complex environments with speed and accuracy?

Professionals working in construction, land surveying, engineering, mining, facility management, and real estate need to collect precise 3D data and visual records, often in demanding or time-sensitive environments. These teams are tasked with planning, monitoring, and documenting projects while facing challenges such as confined spaces, difficult access, or the need for rapid turnaround without sacrificing data quality.

The Topcon CR-M1 is designed to address these requirements. Its compact handheld form factor ensures it can be easily transported across various job sites, including those inaccessible to larger equipment. By integrating a high-performance laser scanner with a panoramic camera, the system allows professionals to capture colorized point clouds by simply walking the area. Real-time data visualization displays immediate survey coverage, so users can confirm data completeness as they work. As a result, the CR-M1 helps reduce field time and supports efficient decision-making.

- » Rapid data acquisition: Capture comprehensive 3D data simply by walking through the area
- » Lightweight and ergonomic for comfortable, single-operator use
- » Real-time feedback: Monitor survey coverage and data quality instantly on the controller
- » High-quality color data: Integrated 360° camera adds realistic color to point clouds
- » Flexible trajectory: Loop closure is not mandatory for accurate data processing
- » Versatile mounting options: Mount on poles, backpacks, or vehicles for any terrain.

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Continuous SLAM technology further streamlines the workflow. Users can complete surveys without precise trajectory planning or loop closure, which increases flexibility and reliability across a range of environments. This combination of advanced features provides a measurable benefit: improved productivity and data accuracy in fewer field visits. By meeting the challenges of modern project sites with integrated technology, the CR-M1 empowers professionals to deliver consistent, high-quality results while optimizing survey resources.

The CR-M1 integrates a high-performance laser sensor with an industry-leading 360° camera, making it a versatile tool for capturing detailed, colorized point clouds. Its compact and lightweight design allows for operation in spaces inaccessible to larger scanners, offering you true portability without compromising data quality.

Applications for every industry

The versatility of the CR-M1 makes it an ideal solution for a wide range of professional fields.



Land survey:
Perform precise topographic surveys for mapping and planning.



Construction:
Monitor site progress and conduct as-built verification quickly.



Architecture & engineering:
Create detailed 2D plans and 3D models for renovation.



Facility management:
Develop accurate digital twins for maintenance and asset planning.



Real estate:
Produce immersive virtual tours and accurate floor plans.



Forestry & landscape:
Survey parks, gardens, and dense vegetation easily.



Mining & tunneling*:
Map underground environments and stockpiles safely and efficiently.

*For mining and tunneling applications a specific pole configuration is available including a portable rugged control unit which is immune for dust ingress.

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Streamlined workflow from field to finish

The CR-M1 system is designed for end-to-end efficiency, integrating seamlessly with various software platforms.

1. Define your project scope and survey path.
2. Walk the site with the CR-M1. Use the real-time display to verify coverage.
3. Automatically process data to merge point clouds and imagery. Utilize advanced parameters or automatic modes.
4. Export to industry-standard formats like .rcp or .e57. Share data easily via Collage Web.
5. Utilize advanced analytical tools such as measurements, volume calculations, and virtual tours to gain valuable insights from your data.
6. Customize your data outputs to meet specific project requirements using various settings and options within the software.
7. Seamlessly integrate with other software platforms such as CAD software or GIS systems for a comprehensive workflow.
8. Continuously monitor project progress.

Software

Onami

- Onami Live
- Onami Desktop
- Onami Reconstructor

- Collect your data in the field with Onami Live
- Handle large, multi-trajectory projects in a single survey
- Fully offline processing — no cloud or internet required, no extra costs
- Two processing modes:
  - Automatic (preset-based)
  - Advanced (custom settings for complex cases)
- Edit trajectories: split or delete segments in Onami Desktop
- Global optimization: merge, constrain, and geo-reference data; supports external 3D point clouds
- Supports natural/physical control points (e.g., window corners, inaccessible spots)
- Full software suite with Onami Reconstructor tools
- Export E57 RGB point clouds with embedded images
- Direct integration with Collage Web

Specifications subject to change without notice.

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