

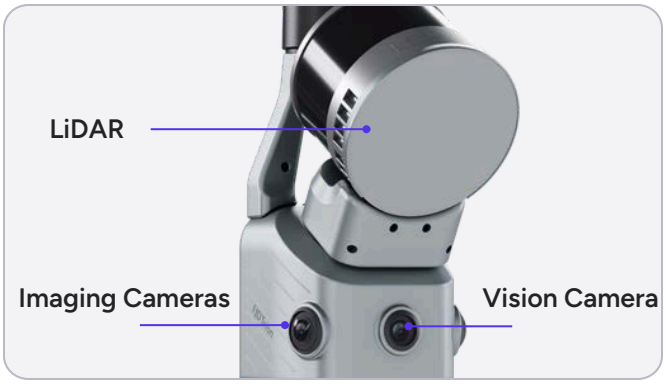
FJD Trion T1

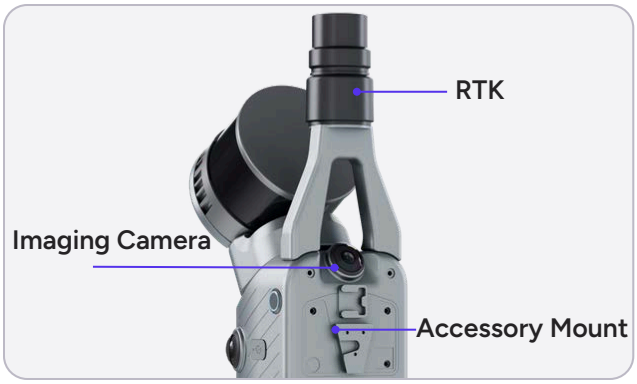
Hybrid Mobile & Terrestrial LiDAR Scanner

Professional Scanning on Your Terms.

Integrated by Design

RTK, built-in cameras and LiDAR come together in one modular system for quick on-site setup. Weighing just 1.65 kg, the main unit is easy to carry and reconfigure across the project.





One Scanner Across the Project

Efficiency and precision should not be an either-or choice. With FJD Trion T1, move through large sites for complete coverage, then switch to Terrestrial Mode where higher local accuracy matters. One scanner now covers the whole project.

Mobile Mode

Cover More of the Site

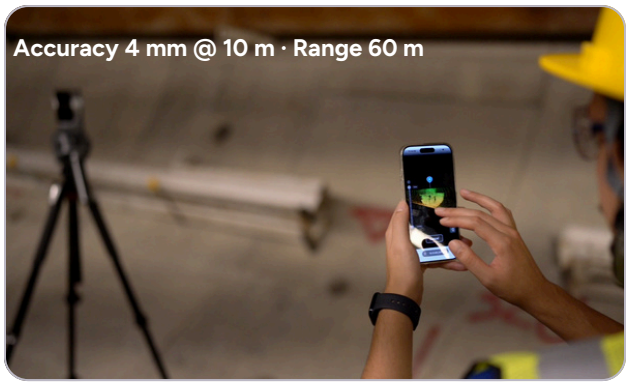
Move efficiently through complex, large-scale environments with handheld, vehicle-mounted or airborne capture. A scanning range of up to 120 m supports broader coverage across changing site conditions.



Terrestrial Mode

Refine What Matters

Not every area requires the same level of accuracy. For critical areas or environments where mobile SLAM may be less reliable, place T1 on a tripod for stable, fixed-position capture with 4 mm relative accuracy at 10 m and 8 mm at 30 m.



Mobile Mode Builds the Spatial Framework

See Your Coverage Clearly

View the colourised point cloud in real time in 2D or 3D to review the scan and identify potential coverage gaps before leaving the site.



Keep Large Projects Moving

Scan Longer

T1 supports continuous scanning sessions of up to 1 hour across large areas.

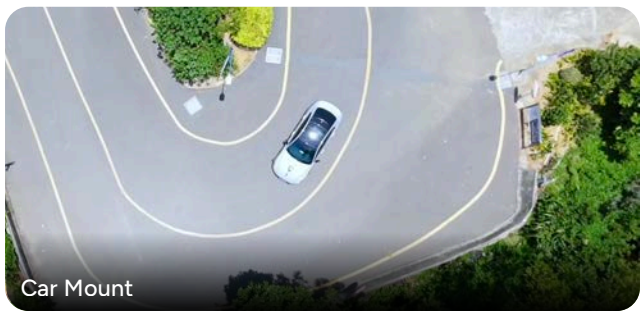
Pause and pick up where you left off

Scan large sites in stages or return later to capture updates. Simply match a previously scanned area on site, and the software automatically combines the data: no manual point cloud stitching needed.



Air-to-Ground Coverage

Combine handheld, vehicle-mounted, and airborne scanning to extend coverage across roads, infrastructure, forests, and other large or complex sites.





Terrestrial Mode Adds Focused Detail

Keep Every Station Connected

As you move between stations, multi-sensor SLAM records their spatial relationships, helping align scans from different stations more efficiently in post-processing.



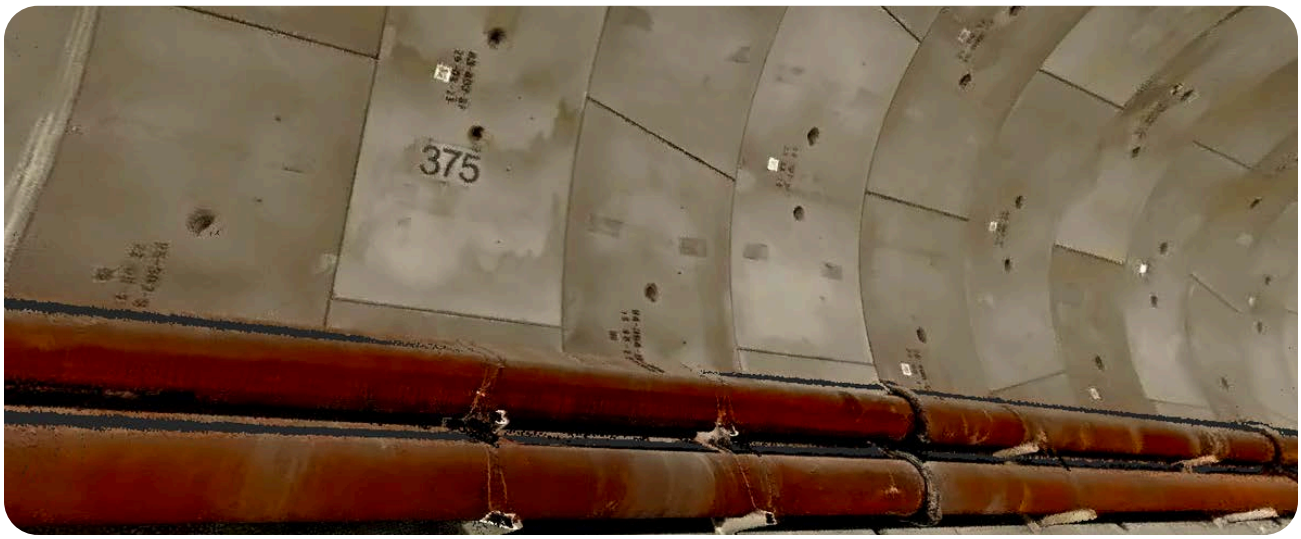
Balance Speed and Detail at Every Station

Capture in as little as 30 seconds, or choose higher density in up to 2 minutes, all at the same rated accuracy.

30 s	2 min	4 mm
Fastest Scan per Station	Higher Density	Accuracy at 10 m

See the Site, Not Just the Scan

Three 48 MP cameras deliver 360° panoramas and richly coloured point clouds, bringing the site to life in 3D.



Flexible Results for Every Project Need

Process mobile and terrestrial scans separately, or fuse them into a single point cloud, depending on whether the project requires site-wide coverage, higher-accuracy local detail, or both.

Mobile Point Cloud

Cover and Review the Whole Site

Best for: Site-wide overview and documentation

Terrestrial Point Cloud

Inspect and Measure Critical Areas

Best for: Local detail and precision measurement

Merged Point Cloud

Bring Coverage and Detail Together

Best for: Complete project review and delivery



Driven by Project Outcomes



Process with Professional Control

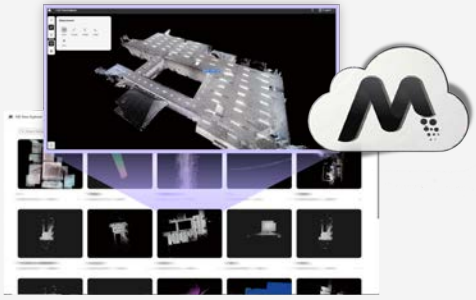
FJD Trion Model

Handle large-scale capture with FJD Trion Model, using professional tools for point cloud processing, mesh, 3DGS, CAD/BIM, cross-section analysis, forestry analysis, and more, helping teams extract more value from complex reality-capture data.

One Source of Truth

FJD Trion Model Web

Keep large projects connected with cloud-based access, sharing, and delivery. FJD Trion Model Web helps teams review and collaborate on project data across locations.



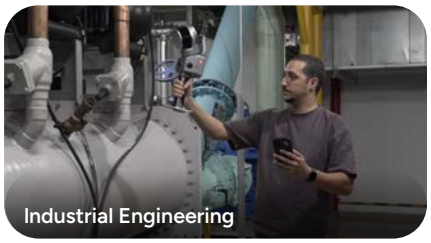
Coming Soon · Upload scan data from your mobile device and start cloud processing with one tap.

Versatility Across Industries

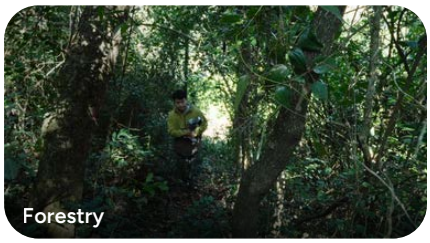












Specifications

	Mobile Scanning	Terrestrial Scanning
Relative Accuarcy	≤ 1cm	4mm @ 10m, 8mm @ 30m
Scanning Range	0.5–120 m	0.5–60 m
Active Cameras	1 × 1080p + 2 × 48 MP	3 × 48 MP

LiDAR

LiDAR Range	120 m @ 80%; 80 m @ 10%
Scan Speed	640,000 pts/s
Laser Safety	Class 1
Wavelength	905 nm
FOV	360° × 270°

Imaging Unit

Resolution	48 MP
FOV	360° × 235°
Aperture	f/2
Camera Quantity	3

Vision Unit

Resolution	1080p RGB
FOV	80° × 47°
Aperture	f/2.2
Camera Quantity	1

General Specifications

Battery Life	3.5 h (dual handles)
Battery Capacity	43.2 Wh
Power Supply	Handle battery + DC power
Storage	512 GB, expandable to 1 TB
Power Consumption	24 W
Data Export	Wi-Fi, USB Type-C
Weight	1.65 kg (main unit)
	2.23 kg (incl. battery, base and RTK)
Dimensions	108 × 173 × 433 mm
Operating Temperature	-20 °C to 50 °C
IP Rating	IP54

GNSS

Satellite Constellations	BDS / GPS / GLONASS / Galileo / QZSS
RTK Accuracy	H: 8 mm + 1 ppm RMS
	V: 15 mm + 1 ppm RMS
PPK Mode	√

Transforming the World with World Models

FJDTrion

Free Quote: sales@fjdtrion.com
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