



HERON[®]

SMART REALITY CAPTURE

for unlimited 3D mapping



HERON[®]

Professional SLAM Systems

MADE IN ITALY
BY GEXCEL

- DEVELOP
- DESIGN
- PRODUCTION



HERON web page

- Indoor/outdoor acquisition
- Underground and complex fields
- Desktop software included
- Full control over SLAM parameters
- No extra cost for data processing

- **Compact capture head**
- **Remarkable accuracy**
- **Exceptional photo quality**
- **High versatility**





8K

360°

4-lens

single

double

32 chs

120 m

300 m

PANO CAMERA GEXCEL MG1

Engineered by GEXCEL

- 8K photos
- 4K live streaming
- Equirectangular panoramic images with minimal distortion
- **Ultra-compact** (70.5 x 70.5 x 82.5 mm)
- Smooth video capture
- Automatic processing

LIDAR SENSOR

Tailored performance



MS TWIN | MS TWIN Color

DOUBLE LIDAR SENSOR

Designed for large and complex fields



LITE | LITE Color

SINGLE LIDAR SENSOR

Ideal for confined spaces and frequent sites' updates

SYSTEM CONTROLLER

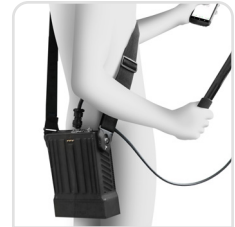
Smart . Powerful . Lightweight . Versatile



INSIDE THE WIRED
RUGGED BACKPACK



MOUNTED ON
ROBOTS & ROVERS

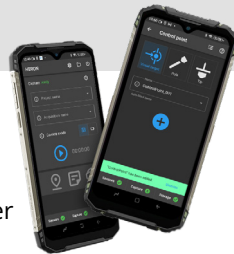


WEARABLE OVER
THE SHOULDER

- Lightweight — **1.085 g** only
- Remotely operated via PDA over Wi-Fi
- Compact and detachable for flex configurations
- USB stick data storage for privacy protection
- Internal battery
- Extra swappable batteries for continuous acquisition
- **Rugged** variant for harsh environments

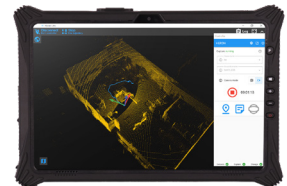
CONTROL UNIT

Reality capture and more



PDA

- Wi-Fi connection to the Controller
- User-friendly interface
- Advanced acquisition of control points
- Real-time point cloud visualization
- Pocket-sized usability



PDA Pro

- Enhanced trajectory visualization
- Automatic localization
- Real-time change detection
- Advanced tagging capabilities
- Rugged design

USABILITY

- **RGB** streaming video and **8K** single-shot images.
- **No initialization** or **calibration** required.
- Use of **control points** or **control scans as constraints**.
- **Free-path mapping** (patented algorithm).
- No need for loop closure.
- Rugged wired backpack for acquisition and transport.
- Compact capture head dockable to:
 - wired and rugged **backpack**;
 - ultra-slim **backplate**;
 - **telescopic poles** (various lengths up to 15 m) for scanning cavities and hard-to-reach areas, even upside-down;
 - **mobile units**: cars, robots, rovers, drones, overhead cranes, etc.
- **Real-time point cloud visualization** during the acquisition.
- Designed for **harsh environments**.
- Wide range of accessories for maximum flexibility.



RING LED LIGHT
color acquisition in
dark environments



CAR MOUNT
mobile mapping
configuration



CENTERING TIP
ceiling control
points acquisition



TELESCOPIC POLES
GCPs acquisition,
cavities and more



GNSS
outdoor 3D mapping
and positioning

DATA PROCESSING

- **High-accuracy 3D models** also in complex environments.
- **Automatic color mapping**.
- **Full professional control** over SLAM parameters.
- Point cloud editing software included.
- High-density point cloud rendering with multi-layer coloring.
- **3D virtual tours in 8K**.
- **Direct export** of 3D point clouds and 2D maps in open formats and CAD platforms: LAS, E57 with images, **ReCap**, **AutoCAD**.
- Easy export to **third-party software** (e.g. EdgeWise, Verity, Micromine, Surpac, TopoDOT).
- Data sharing on **cloud platforms** (e.g. Atis.cloud, Benaco, Cintoo Cloud, Geo-Plus, Topcon Collage Web).
- Advanced point cloud rendering for **features** highlighting and **details** emphasis.
- **Real-time change detection**.

INCLUDED SOFTWARE

Create . Navigate . Share

SOFTWARE STRENGTHS:

- 100% local processing — no cloud
- Full control of SLAM parameters
- No extra fee for data processing



HERON Desktop

SLAM data post-processing

Convert HERON data into high-quality 3D point clouds quickly, accurately, and completely under your control.

Includes:

- Patented SLAM algorithms.
- Time bar for process organization.
- Moving object filtering.
- Full control over SLAM parameters.
- Use of control points and control scans as constraints.



Reconstructor

Advanced 3D point cloud analysis

Edit and manage your point clouds professionally.

Key features:

- Import data from HERON, mobile, terrestrial, and UAV sensors.
- Automatic target-less scans alignment.
- Export to ReCap, E57, and standard formats.
- Third-party software and cloud platforms compatibility.
- RGB camera calibration.
- HERON survey navigation.
- Mesh and DTM generation, volume calculation, profiles and sections extraction.



GoBlueprint *free tool*

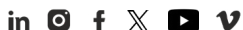
Blueprint map management

View scaled X-ray images, easily extract measurements (distances, areas, volumes) and quoted plans even if you are not an expert.

- Compatible with Windows tablets/PCs.
- Ideal for easily sharing and managing final results.



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Scan and get
further material



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