HERON® MS TWIN

MAIN FEATURES

Suitable environment	indoor/outdoor
Handheld	possible [1]
Wearable	yes
Mountable on various mobile platforms (car, trolley, bike, quad, boat)	yes
No limits SLAM post-processing software included (HERON Desktop)	yes
Point cloud advanced processing software included (Reconstructor)	yes
Free software for x-ray maps visualization and measuring included (GoBlueprint)	yes
Output data	.e57, .las, .ply, export to ReCap
Points per second	600.000
Local accuracy	~ 3 cm
Max survey resolution	~ 2 cm
Global accuracy	~ 5 cm in short close rings [2]
Control points	yes (optional add-on)
Global accuracy with control points	~ 3 cm
Loop closure	not mandatory
Usable in every light conditions	yes
Initialization and calibration procedures	not required
Single operator	yes
Sensors working hours (in continuous acquisition)	~ 5 h
Real-time 3D point cloud visualization	yes
Real-time change detection & Automatic self-localization	yes (optional add-on)
Operating temperature	-10° ; +45°
Storage temperature	-40° ; +60°
Rugged transport case	yes

CAPTURE HEAD (REMOVABLE)

Laser sensor brand and type	Velodyne Puck LITE
No. of sensors	2
Laser safety classification	class 1
Laser wave length	903 nm
Laser max range	100 m
FOV	360° x 360°
IMU	yes
Weight	1826 g
Dimension	325 x 140 mm

1145 mm

370 mm   240 mm
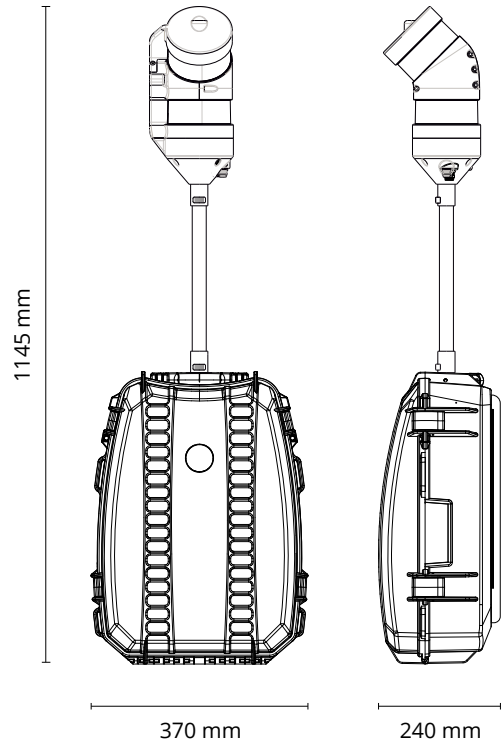
SYSTEM BATTERY

Type	Li-ion battery
Capacity	12-24V / 3A / 83Wh
Weight	430 g

RUGGED TOUCHSCREEN CONTROL UNIT

Processor	Intel® Core™ i7
Weight	1200 g
Dimension	277 x 195 x 24 mm
Storage and Memory	256 GB
Protection index	IP65
Shoulder harness	282 g
Display	10.1" IPS TFT LCD WUXGA
Capacitive	Multi-touch screen
Sunlight readable technology	1000 nits LumiBond®
Power	Li-ion battery
Battery working hours	~ 2 h

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HERON® MS TWIN

RUGGED BACKPACK

Wearable	yes
Dimension	540 x 400 x 220 mm
Weight	5250 g
Wired for system connection	yes
Storage and transport case	yes

OPTIONAL TOOLKITS

Telescopic pole with cables (from 560 to 1800 mm | 1000 g)
Car mount
Ring LED Light (4000 lumen | 36 W | 700 g)
High capacity battery for Control Unit (3 h)

SOFTWARE EQUIPMENT

Reconstructor	included
Reconstructor HERON add-on	included
3D navigation of point clouds and images	yes
Automatic scans registration	yes
Direct data import	.laz, .e57, .fls, .zfs, .rxp, .3dd, .x3s, .x3m, .clr, .cl3, .dp, .ixf, .nctri, .txt, .las, .ptx, .pts, .ptg, .asc, .ply, .csv, DEM Ascii
Point cloud filtering, managing and classifying	yes
Import .ifc BIM format	yes
Import terrestrial laser scanner data	yes
Import point clouds from UAV	yes
Import mobile mapping data	yes
CAD/Mesh models	.ifc, .obj, .dxf, .stl, .txt, .wrl, .vrml, .ply, .mvx, .dae
Export to ReCap Pro	yes
Cross sections and profiles (.dxf)	yes
Orthophotos & x-ray orthophotos (direct export to AutoCAD)	yes
Volumes and areas computation	yes
Mesh creation and manipulation	yes
Verification tool	yes

HERON Desktop	included
Drift effect reducing (global optimization)	yes
3D local maps patented algorithm	yes
Large coordinates for geolocalization	yes
Split/merge trajectories and point clouds	yes
Automatic post-processing mode	yes
Noise cleaning (attenuation)	yes
Moving objects removing	yes

GoBlueprint	free software
Volume calculation based on x-ray maps	yes
Take measures on x-ray maps directly (linear, angular, area)	yes
For any Windows-based PC and tablet (to bring your maps on-site too)	yes
Deliverables easy to manage and share	yes

HERON Constraints add-on	optional
HERON Tracking add-on	optional
Reconstructor MINING add-on	optional
Reconstructor COLOR add-on	optional
Reconstructor 3D Viewer	free tool
ClearEdge3D EdgeWise	optional
ClearEdge3D Verity & Rithm	optional
3DUserNetVISION (discount rates available)	optional
Cintoo Cloud	optional

(1) When needed, it is possible to use the capture head with the pole, to easily map hidden areas as holes, ravines, manholes, etc.

(2) The global accuracy depends on the effectiveness of the SLAM registration algorithm, which can be influenced by the geometry of the surveyed environment. Long trajectories in absence of loop closures and cross paths, as narrow tunnels or narrow stairs, can downgrade the global accuracy to 20-50 cm. The patented and unique algorithms present in HERON Desktop and the use of control points or control scans as constraints can dramatically improve the quality of the sensor accuracy up to 2cm. The Gexcel support team is always ready to provide you with more detailed information on this topic.

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