



HOVERMAP™

SPECIFICATIONS

A versatile SLAM-based mapper, making data capture fast, simple, and safe. Hovermap is a smart mobile scanning unit equally capable above ground or belowground, indoors or out. It is ideally suited for the inspection of assets in GPS-denied or hazardous environments.

MAPPING SPECIFICATIONS

SLAM mapping	Simultaneous Localization and Mapping (SLAM) based LiDAR mapping +/- 0.03% drift
LiDAR range	0.40 m to 100 m
LiDAR accuracy	+/- 30 mm
Mapping accuracy	+/- 20 mm in general environments +/- 15 mm in typical underground and indoor environments +/- 5 mm for close range scanning
Angular field of view	360° x 360°
LiDAR data acquisition speed	Single Return Mode: up to 300,000 points/sec Dual Return Mode: up to 600,000 points/sec
Maximum data capture traveling speed	Vehicle: 40 km/h; flight: 5 m/s above ground, 2 m/s underground or confined spaces
Start / stop scanning while walking or hovering	Yes
Outputs	Full resolution point cloud, decimated point cloud, trajectory file
Point cloud file format	.las, .laz, .ply, .dxf
Point cloud attributes	Intensity, range, time, return number (strongest & last) and ring number
Processing parameters	Pre-set profiles with 20+ adjustable parameters
USB3	High-speed data offload
Storage	480 Gigabytes – approximately 12 hours of sensor data
Operating temperature	0-50°C

PHYSICAL SPECIFICATIONS

Weight	1.8 kg
Input voltage	12 - 50V, powered from a battery or auxiliary power input
Deployment	Drone/UAV, backpack, vehicle, tether, ground robot
Supported drones	DJI M210, DJI M300, Acecore Zoe
Quick release mount	Yes

AUTONOMY SPECIFICATIONS

Flight modes	Pilot Assist: Non-GPS flight, position hold and assisted flight, collision avoidance, regulated flight speed. Autonomous Waypoint Mode: Autonomous navigation to waypoints
AL2 waypoint types	2D, 3D, planar, height
AL2 navigation modes	Guided exploration, local and global path planning
Autopilot compatibility	DJI, ArduPilot (Acecore Zoe)
Omnidirectional collision avoidance	360° x 360°; range 1.2 to 40 m; size of an obstacle > 2 mm wire

INCLUDED ACCESSORIES

Handle
Universal carbon fiber mounting plate with appropriate drone mount

OPTIONAL ACCESSORIES

Colorization kit (hardware and software)
Vehicle mounts
Protective cage
Hard case backpack