



# Hovermap ST

## SPECIFICATIONS

A versatile SLAM-based mapper, making data capture fast, simple, and safe. Hovermap ST is a smart mobile scanning unit equally capable above ground or belowground, indoors or out. Its tough, lightweight, IP65 weather sealed design enables the capture of data in harsh, GPS-denied or hazardous environments.

### MAPPING SPECIFICATIONS

<b>SLAM mapping</b>	Simultaneous Localization and Mapping (SLAM) based LiDAR mapping +/- 0.03% drift
<b>LiDAR range</b>	0.40 m to 100 m
<b>LiDAR accuracy</b>	+/- 30 mm
<b>Mapping accuracy</b>	+/- 20 mm in general environments +/- 15 mm in typical underground and indoor environments +/- 5 mm isolated change detection capability
<b>Angular field of view</b>	360° x 290°
<b>LiDAR data acquisition speed</b>	Single Return Mode: up to 300,000 points/sec Dual Return Mode: up to 600,000 points/sec
<b>Maximum data capture traveling speed</b>	Vehicle: 40 km/h (24.9 mph); flight: 5 m/s (16.4 fps) above ground, 2 m/s (6.6 fps) underground or confined spaces
<b>Start / stop scanning while walking or hovering</b>	Yes
<b>Outputs</b>	Full resolution point cloud, decimated point cloud, trajectory file
<b>Point cloud file format</b>	.las, .laz, .ply, .dxf, E57
<b>Point cloud attributes</b>	Intensity, range, time, return number (strongest & last) and ring number
<b>Processing parameters</b>	Pre-set profiles with 20+ adjustable parameters
<b>USB3</b>	High-speed data offload
<b>Storage</b>	512 Gigabytes – approximately 8 hours of sensor data
<b>Operating temperature</b>	-10 to 45° C (14 to 113° F)

### PHYSICAL SPECIFICATIONS

<b>IP Rating</b>	IP65
<b>Weight</b>	1.6 kg (3.63 lb)
<b>Input voltage</b>	14 - 54V, powered from a battery or auxiliary power input
<b>Deployment</b>	Drone/UAV, backpack, vehicle, tether, ground robot
<b>Supported drones</b>	DJI M210v1, DJI M300, Acecore Zoe
<b>Quick release mount</b>	Yes
<b>Auxiliary port</b>	Proprietary connector
<b>USB port</b>	Yes
<b>WiFi Antenna</b>	Internal

### AUTONOMY SPECIFICATIONS

<b>Flight modes</b>	Pilot Assist: Non-GPS flight, position hold, assisted flight, collision avoidance, regulated flight speed. Autonomous Waypoint Mode: Autonomous navigation to waypoints
<b>AL2 waypoint types</b>	2D, 3D, planar, height
<b>AL2 navigation modes</b>	Guided exploration, local and global path planning
<b>Autopilot compatibility</b>	DJI, ArduPilot (Acecore Zoe)
<b>Omnidirectional collision avoidance</b>	360° x 360°; size of an obstacle > 2 mm (5/64 ") wire; range 1.2 to 40 m (3.9 to 131 ft); In-flight adjustable safety distance

**INCLUDED ACCESSORIES**  
 Handle, cables, case  
 Universal mounting plate  
 V-Mount 98Wh, 14.8v battery  
 Standard battery charger  
 Battery belt clip

**OPTIONS AND ACCESSORIES**  
 Colorization kit;  
 Vehicle mounts; Protective cage; Hard case backpack ; Automated Ground Control targets; Cavity Monitoring System adaptor kit; Battery fast charger kit