

# Hovermap ST X

## SPECIFICATIONS



Hovermap ST-X, a versatile SLAM-based mapper with the latest in LiDAR sensing technology, provides high density point clouds and extensive coverage. It is uniquely versatile, allowing you to capture data in any environment as a handheld, backpack, or vehicle-mounted scanner. The tough, lightweight, and IP65 certified, weather sealed design makes Hovermap ST-X equally capable in the harshest environments, above ground or underground, indoors or out.

### MAPPING SPECIFICATIONS

<b>SLAM mapping</b>	Simultaneous Localization and Mapping (SLAM) based LiDAR mapping +/- 0.03% drift
<b>LiDAR range</b>	0.50 m to 300 m (1.6 to 984 ft)
<b>LiDAR accuracy</b>	+/- 10 mm (3/8 in)
<b>Mapping accuracy</b>	+/- 15 mm (19/32 in) in general environments +/- 10 mm (3/8 in) in typical indoor and underground environments +/- 5 mm (7/32 in) isolated change detection capability
<b>Angular field of view</b>	360° x 290°
<b>LiDAR data acquisition speed</b>	Single Return Mode: up to 640,000 points/sec Multi Return Mode (3 return): up to 1,920,000 points/sec
<b>Maximum data capture traveling speed</b>	Vehicle: 60 km/h (37.3 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, E57
<b>Point cloud attributes</b>	Intensity, range, time, return number (strongest, first, & last), ring number, RGB/true color (optional)
<b>Storage</b>	512 Gigabytes – approximately 4 hours of sensor data
<b>Operating temperature</b>	-10 to 45° C (14 to 113° F)

#### KIT INCLUSIONS

- Hovermap ST-X
- Custom fitted tough case
- Handle & belt clip
- Power cable
- Battery & charger
- Aura Lite software
- Hovermap scanning software USB

#### ENTITLEMENTS AVAILABLE

- Hovermap Autonomy
- Hovermap Plus
- Hovermap Mapping

#### TRAINING & SUPPORT

- Introductory training
- Global Support & Service

### PHYSICAL SPECIFICATIONS

<b>IP Rating</b>	IP65
<b>Weight</b>	1.57 kg (3.46 lb)
<b>Input voltage</b>	14 - 54 V, 64W powered from a battery or auxiliary power input
<b>Deployment</b>	Drone/UAV, handheld, 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 (3/32 in) wire range 1.2 to 40 m (3.9 to 131 ft) In-flight adjustable safety distance

#### ADDITIONAL HARDWARE

- Emesent Control Point targets
- GoPro & Colorization kit
- Fitting kits for DJI M210 & M300
- Samsung tablet and tablet display kit for DJI Smart Controller

#### ACCESSORIES

- Backpack
- CMS adaptor kit
- Long Range Radio
- Magnetic vehicle mount
- Suction vehicle mount
- Cage
- Telescopic boom pole