



Hovermap ST X

HOVERMAP ST-X EXTENDS THE REACH OF AUTONOMOUS LIDAR MAPPING.



LiDAR sensing range of 300 meters



More than a million points captured per second with triple returns



Detailed scans, however complex the asset or terrain



Robust, autonomous capability

Hovermap ST-X takes SLAM-based LiDAR mapping to new heights and enables autonomous mapping of large assets and complex terrains.

Building on the proven success of Hovermap ST's versatile autonomy and mapping capability, Hovermap ST-X incorporates the latest in LiDAR sensing technology to offer high density point clouds with increased coverage. Featuring a sensing range of 300 meters and more than a million points per second, it captures detailed, accurate data over a greater area in less time - giving you faster time to insight.

Hovermap ST-X also excels at indoor or close-range scans, producing sub-centimeter results thanks to the award winning Wildcat SLAM solution, Automated Ground Control Points and improved LiDAR sensor accuracy.

Uniquely versatile, Hovermap ST-X allows you to capture data in any environment. Mount it to a drone for autonomous aerial mapping even in GPS-denied environments. Easily remove it from the drone and use it as a handheld, backpack, or vehicle-mounted scanner. Use a combination of these to rapidly capture as-builts and digital twins in minutes rather than hours.

The tough, lightweight, and designed for IP65, weather sealed design makes Hovermap ST-X equally capable in the harshest environments, above ground or underground, indoors or out.

HOVERMAP™ ST-X SPECIFICATIONS

PHYSICAL

IP Rating	IP65
Operating Temperature	-10 to 45 °C 14 to 113 °F
Weight	1.57 kg 3.46 lb
Supported Drones	DJI M300 DJI M210v1 Acecore Zoe
Auxiliary port	Propriety Connector
USB port	Yes
WiFi Antenna	Internal
Maximum data capture traveling speed	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

MAPPING

LiDAR Sensing Range	0.5 to 300 m 1.6 to 984 ft
LiDAR	Single Return Mode: up to 640,000 points/sec Multi Return Mode (3 return): up to 1,920,000 points/sec 360 x 290° field of view Class 1 Eye Safe
Mapping Output	Full resolution point cloud, decimated point cloud, trajectory file. Point cloud file formats: .las, .laz, .ply, .E57
Mapping Method	Simultaneous Localization and Mapping (SLAM)
Mapping Accuracy	± 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
Onboard Storage	512 Gigabytes More than 4 hours of sensor data
Point Cloud Attributes	Intensity, range, time, return number (strongest & last), ring number, RGB / true color (optional)

AUTONOMY

Tap-To-Fly and Guided Exploration	Waypoint setting in real time 3D map and autonomous path planning
Collision Avoidance	LiDAR omnidirectional range of 1.2 to 40 m (3.9 to 131 ft) Size of an obstacle > 2 mm wire (3/32 in) In-flight adjustable safety distance
Intelligent Return To Home	Autonomous Return To Home navigation triggered by low battery or excessive dust
Assisted Flight	Non-GPS flight, position hold, assisted flight, collision avoidance, regulated flight speed

HOVERMAP ST-X HARDWARE KIT INCLUSIONS

- Hovermap ST-X
- Custom fitted tough case with space for accessories
- Hovermap handle, and belt clip
- 1.5 m power cable (handle-mount/battery)
- 0.35 m power cable (drone/platform)
- Battery Belt Clip
- V-Mount 98Wh, 14.8v 6600 mAh battery
- Standard charger with international adaptors (US/Canada/Japan, AUS/NZ, and Europe)
- Emesent data processing license key with Aura Lite software
- Hovermap scanning software USB

SOFTWARE

- Aura Software, with Automated Ground Control (GCP) and Colorization, is included in all subscription entitlements

TRAINING & SUPPORT

- Introductory training session / video, and manual
- Global Support and Service

ENTITLEMENTS AVAILABLE

- Hovermap Autonomy
- Hovermap Plus
- Hovermap Mapping

ADDITIONAL HARDWARE

- Emesent Control Point targets
- GoPro and colorization kit
- Hovermap fitting kits for DJI M210 and M300
- Samsung tablet and tablet display kit for DJI Smart Controller

ACCESSORIES

- Backpack (hardcase for walking scans and storage)
- Cavity Monitoring System (CMS) adaptor kit
- Long Range Radio
- Magnetic or Suction vehicle mounts
- Protective Cage
- Telescopic Boom Pole

FRONTIER PRECISION
UNMANNED
uas@frontierprecision.com
www.frontierprecision.com/unmanned