



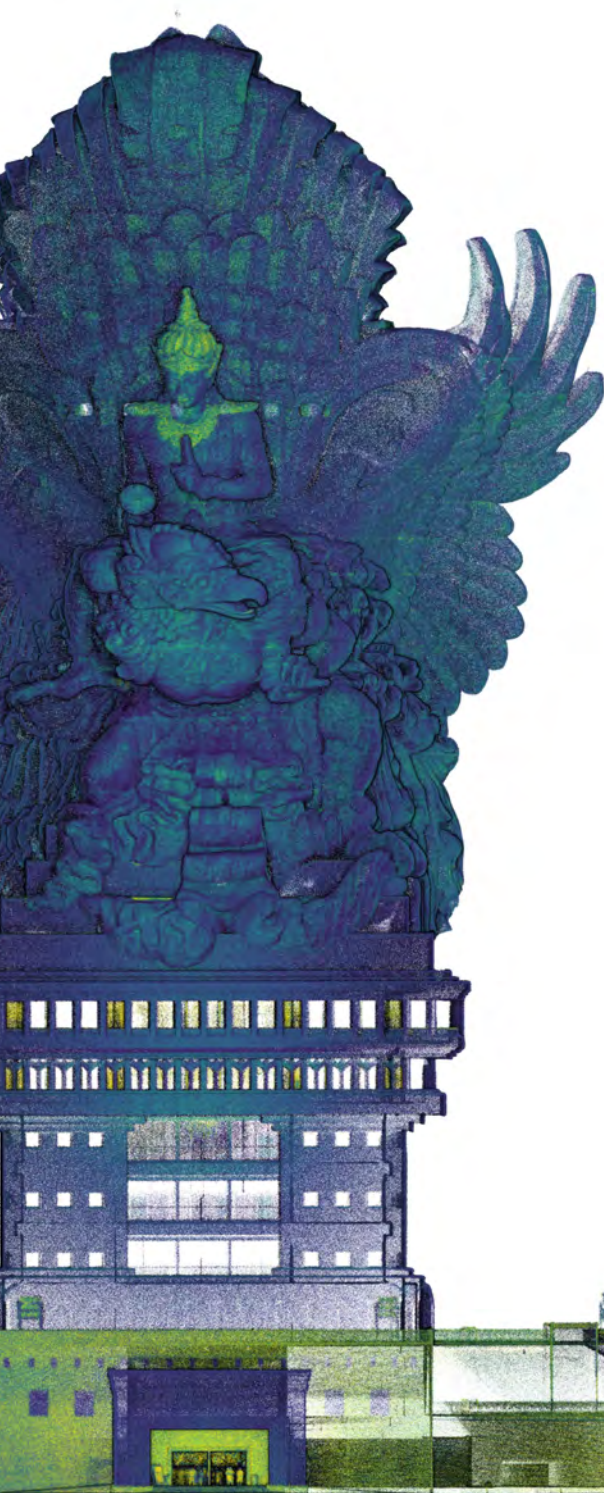
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# Hovermap



THE  
WORLD'S  
ONLY

SLAM BASED LIDAR  
MAPPING & DRONE  
AUTONOMY PAYLOAD



# Introducing Hovermap

The versatile SLAM based mapper, making data capture fast and simple.

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Hovermap is a smart mobile scanning unit which can be hand held or mounted to a drone to provide autonomous mapping in challenging inaccessible areas. Equally capable above ground or underground, indoors or out, Hovermap is your complete mobile LiDAR mapping solution.

Hovermap's quick release mechanism makes it easy to switch from drone to handheld use, enabling the collection of critical data both in the air and on the ground, with the ability to automatically merge the results. Weighing only 1.8kg, it is easily portable and compatible with smaller drones such as the DJI M210.

With this powerful combination you'll be on your way to capturing LiDAR data like never before.

# RAPID SCANNING

ADAPTABLE TO ANY ENVIRONMENT



## COLLISION AVOIDANCE

Hovermap's 360 degree Virtual Ellipsoidal Shield technology provides industrial-grade collision detection and avoidance capabilities that can keep drones safe during all phases of flight, in any environment (underground, indoor and outdoor), day or night.

The system acts as a virtual safety bubble around the drone to prevent collisions. LiDAR data is processed on-board in real-time to produce a local 3D map of the surroundings.

Obstacles such as telecom towers, fences, trees, poles, wires and people can all be detected and avoided.

**QUICK RELEASE MECHANISM**  
FOR EASY DRONE-TO-HANDHELD  
SCANNING TRANSITION



**LIGHT WEIGHT DESIGN**  
1.8KG ALLOWS USE ON SMALLER  
DRONES

**ROTATING LIDAR**  
PROVIDES 360 X 360 DEGREE FIELD OF VIEW  
FOR MAPPING AND COLLISION AVOIDANCE



## GPS-DENIED FLIGHT

Drones usually rely on GPS for localisation, navigation and flight control. Hovermap uses LiDAR data and advanced algorithms on-board in real-time to provide reliable and accurate localisation and navigation without the need for GPS.

This allows drones to fly autonomously in GPS-denied environments, enabling a host of new applications such as flying and mapping in underground mines, inside warehouses or inspecting underneath bridges.



## SLAM-BASED 3D MAPPING

World leading Simultaneous Localisation and Mapping (SLAM) allows mobile mapping even when GPS is unavailable.



## MAPPING SPECIFICATIONS

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LiDAR range	Up to 100m
LiDAR accuracy	+/-3cm
Global SLAM accuracy	+/- 0.1% typical
Angular field of view	360° x 360°
Data acquisition speed	300,000 points/sec
File size	~300MB/min
Flight speed	Up to 5m/s (scene dependant)
Laser safety class	Class 1 eye safe
Power	Max. 90 W
Input voltage	12 – 50 V (e.g. 4s LiPo)
Weight	1.8 kg

## AUTONOMY SPECIFICATIONS

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Flight Modes	Manual Pilot Assist
Autopilot Compatibility	DJI A3
Collision Avoidance field of view	360° x 360°
GPS-denied flight	Yes

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