



SURVEY GRADE INDUSTRIAL DRONE

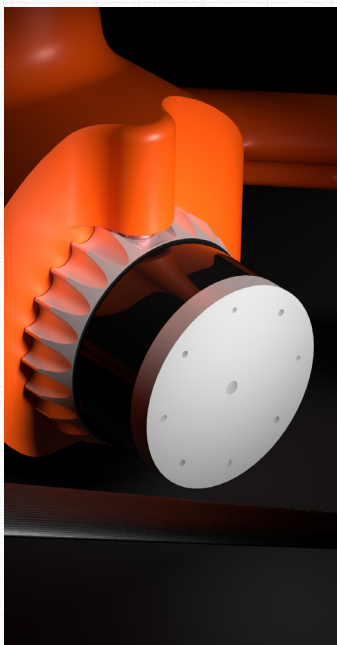
MAGELLAN™

Magellan™ is a reasonably-priced, American-made industrial drone designed specifically with surveyors in mind. Get the ease of use and reliability you expect from a critical field tool with the position accuracy and US-based support your work depends on.



Built for the work. Built for the workflow.

Magellan™ isn't a repurposed drone with upgrades or, conversely, an over-engineered drone with features you don't need or want to pay for. It's engineered from the ground up for the realities of land surveying.



Fewer flights. Fewer surprises.

With up to 39 minutes of uninterrupted flight time and the ability to cover up to 150 acres per mission, Magellan™ is built to do the job in fewer flights and with fewer surprises. This includes a high-performance LiDAR engine that delivers:

- 5.2 million pts/sec
- 2.5 cm accuracy
- 170 m max range
- Dual returns for canopy & ground data



Survey-grade positioning with sub-centimeter confidence

Magellan's™ survey-grade INS & GNSS system offers 0.010 m CEP and support for all major constellations—GPS, GLONASS, BeiDou, and Galileo—giving you the precision required for accurate mapping and confident decision-making on the ground.



Field ready. Even when you're not.

With 25 mph wind resistance, a service ceiling up to 29,029 ft, a 10–122°F operating range, and a unique, enclosed payload design, Magellan™ offers something most platforms don't: real protection. Whether you're working in heat, dust, wind, or light rain, your LiDAR and cameras stay shielded and operational instead of dangling from a gimbal waiting to get clipped.

Magellan™

vs. Other Commercial Drones

Feature	Magellan™	DJI Matrice 400	Wingtra Ray	Freefly Astro Max	IF800 Tomcat
Per Flight Coverage	150 acres	Approx. 80–100 acres* (depends on payload)	Approx. 70–90 acres* (based on payload & flight conditions)	30–100 acres* (depends on payload & conditions)	40–120 acres* (depends on payload & conditions)
Flight Time (per bat.)	39 min	Up To 59 min (no payload, H30T gimbal); ~25 min with L1 LiDAR	Up to 59 min (MAP61, Survey61, RedEdge-P), 45 min (LiDAR)	39 min (no payload); ~28 min w/ camera; ~18 min max payload	Up To 54 min (no payload); ~42 min w/ 1.5 kg payload
LiDAR Points / Sec	5.2 million	~520,000pts/sec (Zenmuse L1)	Variable	640K–1.9M pts/sec (w/ Hovermap ST-X)	Variable (w/ YellowScan Mapper+)
Vertical Accuracy	~4 cm	~1.5 cm (with RTK + L1 LiDAR)	~3 cm (with PPK, no GCPs)	~1.5 cm (w/ Hovermap ST-X LiDAR)	~4 cm (w/ YellowScan Mapper+)
Wind Resistance	25 mph	27 mph / 12 m/s	27 mph / 12 m/s	~18–22 mph (8–10 m/s max)	22–27 mph (10–12 m/s gusts)
Operating Temperature	10–122 °F	–4 °F to 122 °F (–20–50 °C)	14 °F to 104 °F (–10–40 °C)	–4 °F to 122 °F (–20–50 °C)	–4 °F to 113 °F (–20–45 °C)
Service Ceiling	Approx. 20,000 ft	Approx. 16,400 to 23,000 ft	Approx. 16,400ft (w/ AMSL high-altitude drivetrains)	Approx. 20,000 ft	Approx. 14,000 ft
Payload Protection	Fully Enclosed	Exposed Payload	Interchangeable Payload	Exposed Payload	Exposed Payload
System Type	Ready To Survey	Requires Add-On LiDAR Payload	Ready To Survey	Develop-Your-Own	Requires Add-On Payloads
U.S. Manufacturing	American-Made	Chinese import	Swiss Import	American-Made	German Import
Included Software	Pulse Processor	Requires DJI Terra	Requires WingtraCLOUD	Third-Party Required	Inspired Ground Control
System Price (3-Year total)	\$45,000 (with pre-order)	\$61,420 (w/ separate LiDAR & Camera payloads)	\$132,652–138,652 (w/ separate LiDAR & Camera payloads)	\$80,775–\$86,775 (w/ separate LiDAR & Camera payloads)	\$97,000–103,000 (w/ separate LiDAR & Camera payloads)

* Varies on flight pattern, altitude, payload weight, sensor type, and mission parameters.



Real-World Surveying Scenarios

SCENARIO 1:

100-Acre Construction Site

On a 100-acre construction site, Magellan™ gets the job done in just 2 flights (~3 hours on-site) while competitors often need twice the flights and double the time. Its LiDAR captures over 120 million survey-grade points at 0.15 ft (4 cm) accuracy, delivering precise models on the first pass, no do-overs needed.

Metric	Magellan™	Competitor
Flights Needed	2 x 39 Min	4-5 x ~25 Min
Time on Site	~3 Hours	~6-8 Hours
Points Collected	~120M	~40-60M
Model Accuracy	Survey Grade, 0.15 ft (4 cm)	Standard Grade (5-10 cm)

SCENARIO 2:

Forested Mining Site (Windy Conditions)

In challenging environments like forested mining sites, wind speeds over 20 mph often ground other drones. Magellan™, however, keeps flying with its 25 mph wind tolerance. Its dual-return LiDAR penetrates canopy cover while enclosed sensors stay shielded from debris, so you can keep surveying when others are forced to wait.

Metric	Magellan™	Competitor
Wind Tolerance	25 Mph~3 Hours	15-20 Mph
Canopy Penetration	Excellent (5.2M pts/s dual return)	Limited (~700k pts/s)
Equipment Protection	Fully Enclosed Sensors	Exposed Sensors At Risk

The future of drone mapping
is **American**.
We're built for it.



Contact products@smartdrone.com to tell us about your
surveying needs or visit smartdrone.com to learn more
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