# TRINITY PRO

Trinity Pro is a future-proof mapping solution, built on a reliable, easy-to-use and safe platform. It is designed to adapt to changing requirements with evolving capabilities, and to accelerate decision making through aerial data. As technology evolves, so will the Trinity Pro.

It integrates the latest Quantum-Skynode autopilot. This high performance product provides increased computing power and internal storage, as well as connectivity and AI readiness onboard the UAV.

With the ability to perform in the most challenging environmental conditions, Trinity Pro captures more data per mission than almost any other comparable drone on the market. Trinity Pro also comes with the largest range of sensors in the industry, which are simply “plug and play”.

Quantum Systems strives for constant expansion of its software solutions. The proprietary nature of the software stack allows us to push the envelope for the drone’s capabilities, and the operational and workflow features.

## FEATURES

**AI READY**
The Quantum-Skynode allows for downstream integration of new capabilities, such as AI supported animal counting.

**SELF-SYSTEM CHECKS**
Extensive pre-flight checks and auto servo calibration gives the user confidence in the system and little to worry about.

**PLAN MISSIONS WITH EASE**
Set up to 300 waypoints and benefit from automatic wind simulation and advanced terrain following.

**EASY TO CARRY**
A backpack to carry and store Trinity Pro is offered as an option

**A/B MISSIONS**
Take-off and land in different locations enables long corridor mapping.

**DRONE-BASED LIDAR TECHNOLOGY**
The Qube 640 is a LiDAR sensor with a 176° FOV, integrated colorization through an 8MP camera, enhanced vegetation penetration and vertical scanning.

**TERRAIN AWARENESS**
Down facing LiDAR for safe landing through ground avoidance and embedded landing confirmation

**TRINITY PRO CAMERAS**
Trinity Pro users have the choice between five different fully integrated cameras, including RGB, oblique, multispectral and LiDAR. They are easy to swap using the quick-lock mechanism of the payload compartment. The entire system architecture allows easy downstream integration of next generation cameras and simpler workflows.

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## TECHNICAL DATA

| | | |
|---|---|---|
| Max. take-off weight | 5.75 kg | 12.68 lbs |
| Max. payload weight | 1 kg | 2.20 lbs |
| Wingspan | 2.394 m | 7.85 ft |
| Transport case dimension L x W x H | 1002 x 830 x 270 mm | 39.4 x 32.7 x 10.6 ” |
| Max. flight time1 | 90 min | 90 min |
| Linear coverage | 100 km | 62 mi |
| Area coverage2 | 700 ha | 1,730 ac |
| Max. take-off altitude [above MSL] | 4800 m | 15,748 ft |
| Maximum flight altitude | 5500 m | 18,045 ft |
| Optimal cruise speed | 17 m/s | 33 kn |

**WIND TOLERANCE**

| | | |
|---|---|---|
| Hover phase (take-off/landing) | 11 m/s | 21.4 kn |
| Continuous (cruise) | 14 m/s | 27.2 kn |
| Gusting (cruise) | 18 m/s | 35 kn |

| | | |
|---|---|---|
| Ingress protection rating | IP55 | IP55 |
| Operating temperature range | -12 to +50 °C | 10.4 to 122 °F |
| Transmitter frequency | 2,4 GHz | 2,4 GHz |
| Transmitter output power | 100 – 1,000 mW | 100 – 1,000 mW |
| Command and control range | 5 – 7.5 km | 3.1 – 4.7 mi |