SPARTAN OVERVIEW

ASCENT AEROSYSTEMS
A ROBINSON HELICOPTER company

Engineered to Deliver Cutting-Edge Performance and Rugged Reliability

Spartan delivers unmatched speed, range, endurance, and payload capacity – all in a compact, portable form factor. Built for cutting-edge performance and rugged reliability – SPARTAN is engineered to fly longer, farther, and faster, even in the most extreme conditions.

FEATURES & BENEFITS

COMPLIANT NDAA

Fly Longer & Farther

70+ minutes of flight endurance delivers up to 24 miles of A-B range and 1,800 sq. miles of coverage

Fly Faster & Carry More

Streamlined airframe and superior physics allows a top speed of 65+ mph and support of payloads up to 15.3 lbs.

All-Weather Performance

Rugged IP56 airframe reliably operates in any weather, even heavy rain, sleet, snow, sand, and winds over 40mph

MOSA Flexibility

Click-ring payload interaction makes it easy to quickly swap or integrate custom payloads

Optimized Landing Gear

Durable landing legs feature increased ground clearance to safely support larger payloads

FAA-Compliant Lighting System

Strobing night regulation lights meet the requirement for night operation and fully addressable RGB LEDs deliver precise, real-time status monitoring

Integrated Core

Sleek core delivers robust strength, custom electronic speed controls for long-term reliability, and a heatsink to withstand extreme temperatures.

USE CASES

PUBLIC SAFETY

- Search & rescue
- Disaster response
- Fire scene overwatch
- Traffic accident mapping
- Emergency supply delivery

INDUSTRIAL

- Remote pipeline inspection
- Power line surveys
- Site mapping & modeling
- Agricultural monitoring
- Inventory management

MILITARY

- Border surveillance
- Supply mission support
- Target recon and acquisition
- Communications relay
- Tactical battlefield mapping

SPARTAN

PLATFORM SPECIFICATIONS

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AIRFRAME

AIRFRAME DESIGN	Coaxial Unmanned Aerial Vehicle
MATERIALS	Polycarbonates, composites, aluminum
AIRFRAME HEIGHT	30.4 inches (771 mm)
CORE DIAMETER	5.8 inches (147 mm)
TIP-TO-TIP SPAN	36 inches (914 mm)

PERFORMANCE

MAX TAKEOFF WEIGHT	30 lbs. (13.6 kg)
CORE WEIGHT	Core Vehicle (no battery or payload) 5.95 lbs. (2.7 kg)
MAX PAYLOAD	Maximum available payload w/ one battery: 15.3 lbs. (6.9 kg) Maximum available payload w/ dual battery: 8.7 lbs. (3.9 kg)
DRIVE SYSTEM	Direct drive with 2x brushless motors
POWER	12S 44.4 volts Lithium-ion
ENDURANCE	**ONE BATTERY**: 20 min. w/ 15.3 lbs. payload **DUAL BATTERY**: 65+ min. w/ no payload | 50 min. w/ 7.5 lbs. payload
MAX ALTITUDE	14,600 feet above MSL (5,000 m) (observed)
MAX SPEED	Manual: 60+ mph (100 kph, 27 m/s) Auto (Recommended): 40 mph (65 kph, 18 m/s)
ENVIRONMENTAL	**IP54** **OPERATING TEMP**: -20 to 130F (-28 to 54C) **WIND RESISTANCE**: CLASS 8 (40+ mph)

COMPLIANT NDAA

COMMAND & CONTROL

DATA LINK	Standard configuration 2.4 GHz. Other options available.
AUTOPILOT	Pixhawk Cube. NDAA-compliant, MAVLink compatible. Other autopilot options available.
GPS	GPS, GLONASS, BEIDUO + RTK support. Other options available.
AIRBORNE EQUIPMENT	A wide range of C2 hardware and software is available to support manual and autonomous operations. Airborne options include Herelink, DoodleLabs, L3Harris and others. ATAK Compatible.
GROUND CONTROL STATIONS	GCS options include the NDAA-compliant Freefly Pilot Pro, Herelink, and ruggedized Linux, Windows and Android tablets.

Performance details for specific combinations of C2 equipment are available upon request.
New C2 options are added often and custom options are available. Please contact us for details.