

SPiRiT

Dependable, All-weather Unmanned Aerial Vehicle. Designed and Built in the USA.

As the flagship platform of the world's only family of **aircraft-grade coaxial UAVs**, the Spirit's modular, open-architecture design makes it easy to deploy the newest software and payloads to meet mission-critical requirements, today and tomorrow.



Whether your task is to inspect, detect, measure, or transport, Ascent AeroSystems has a high-performance coaxial UAV platform and payload option that can get the job done. **When not flying is not an option.**

PAYLOAD INTEGRATIONS: *

EO/IR Sensors

NextVision, Gremsy

Inspection, Mapping & Photogrammetry

Sony ILX-LRI Industrial Camera, LiDAR

Modular Command & Control (C2)

Microhard, DoodleLabs, Herelink, L3Harris, Others

Swarm

Data Blanket, Autonodyne, and others

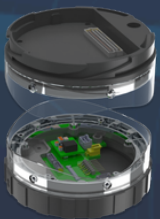
Ground Control Systems

UXV Navigator Tab 5, Herelink

Software

AscentQ

PAYLOAD DEVELOPMENT KIT



Available Product Development Kits (PDKs) make it easy to quickly configure custom payloads, sensors, and C2 for the top or the bottom of the aircraft.



* The Spirit's modular open systems approach to both hardware and software enables the integration of virtually any custom payload.

SPIRIT PLATFORM SPECIFICATIONS



AIRFRAME

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|------------------------|---|
| AIRFRAME DESIGN | Coaxial Unmanned Aerial Vehicle |
| MATERIALS | Polycarbonates, composites, aluminum 12.0 |
| CORE HEIGHT | inches (305 mm) no battery or payloads |
| CORE DIAMETER | 4.2 inches (106 mm) |
| TIP-TO-TIP SPAN | 25.5 inches (648 mm) when rotating |



PERFORMANCE

| | |
|---------------------------|---|
| MAX TAKEOFF WEIGHT | 13.5 lbs. (6.1 kg) |
| CORE WEIGHT | Core Vehicle (no battery or payload) 4.1 lbs. (1.8 kg) |
| MAX PAYLOAD | Maximum payload: 6.5 lbs. (3.0 kg) with one battery Supports dual payloads (top and bottom) |
| DRIVE SYSTEM | Direct drive with 2x brushless motors |
| POWER | 12S 44.4 volts Lithium-ion |
| ENDURANCE | ONE BATTERY: 38 min. w/ no payload 16 min. w/ max payload DUAL BATTERY: 53 min. w/ no payload 32 min. w/ max 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 | IP56 OPERATING TEMP: -40 to 130F (-40 to 54C) WIND RESISTANCE: CLASS 8 (40+mph) |

COMMAND & CONTROL (C2)

| | |
|---|--|
| AUTO PILOT | Pixhawk Cube. NDAA-compliant, MAVLink compatible. Other autopilot options available. |
| GPS | GPS, Glonass, Galileo, Beidou and QZSS. Other options available. |
| AIRBORNE EQUIPMENT & GCS OPTIONS | A wide range of C2 hardware is available to support manual and autonomous operations. Airborne options include Microhard, Herelink, DoodleLabs and L3Harris and others. GCS options include Herelink, UXV Navigator Tab5, and ruggedized Linux, Windows and Android systems. |

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.