SPIRIT ™

DEPENDABLE.
ALL-WEATHER.
MOSA-READY.

As the flagship platform of the world's only family of aircraft-grade coaxial UAVs, 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.

BLUE U A S CLEARED

NDAA COMPLIANT

SPIRIT

ROBINSON UNMANNED ™

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SPECIFICATIONS

SPIRIT

AIRFRAME

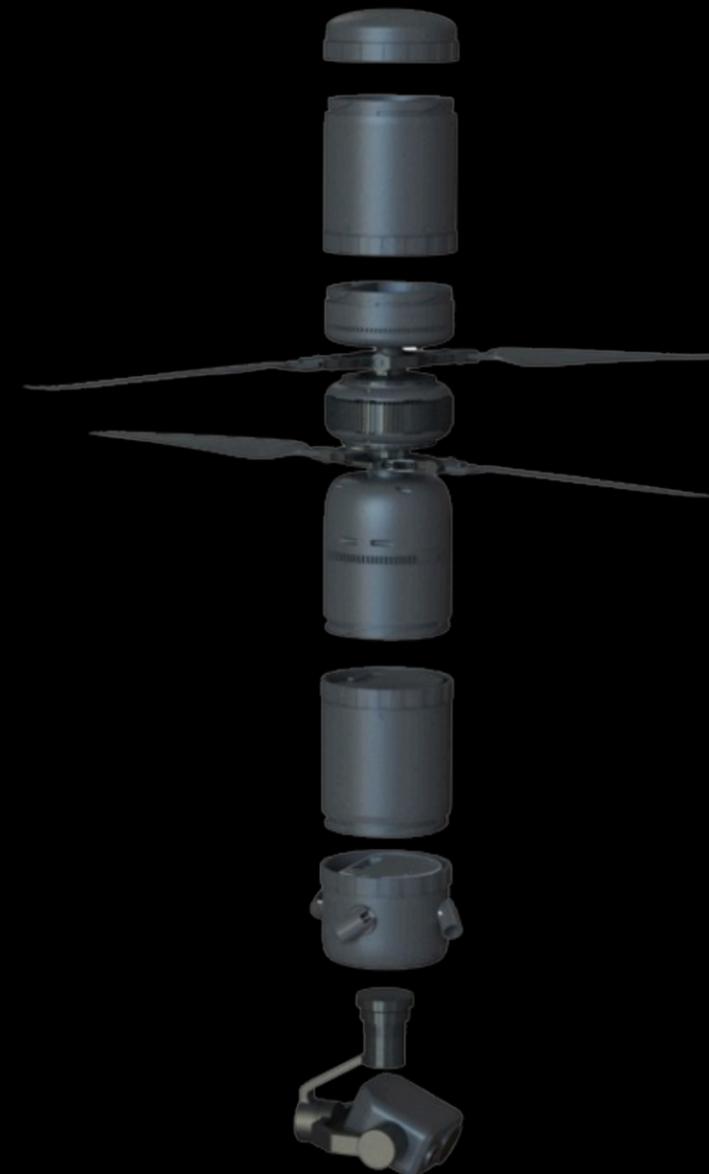|	
AIRFRAME	Coaxial Unmanned Aerial Vehicle
DESIGN MATERIALS	Polycarbonates, composites, aluminum
CORE HEIGHT	12 inches (305 mm) no battery or payloads
CORE DIAMETER	4.2 inches (106 mm)
TIP-TO-TIP SPAN	25.5 inches (648 mm) when rotating

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 14,600
MAX ALTITUDE	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: -20 to 130F (-28 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, BeiDOU + 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 SYSTEMS	GCS options include the NDAA-Compliant Freefly PilotPro, Herelink, 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.

PAYLOAD Module

Stackable modules
Variable height options

BATTERY Module

12S Lithium-Ion smart battery

CORE Module*

Rugged, reliable airframe
Open-architecture autopilot
Top & bottom quick-connects
with high speed data & power
***BlueUAS Framework Component**

BATTERY Module

12S Lithium-Ion smart battery

PAYLOAD Module

Stackable modules
Optional second battery
Downward-facing sensors
Landing gear

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.