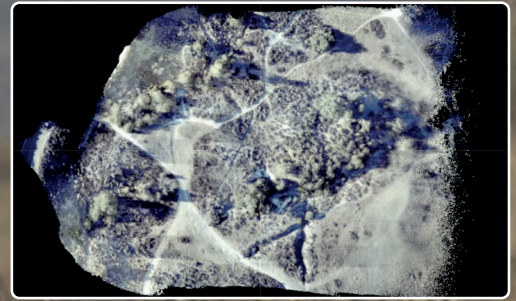


SPIRIT™ + MOVIA™ Air Plus Integrated Mapping UAS

Live 3D maps. With or without GPS. On an all-weather, Blue UAS-cleared airframe.

A ready-to-fly system that pairs Robinson Unmanned's SPIRIT™ Group 1 unmanned aircraft system (UAS) with MicroVision's MOVIA™ Air Plus lidar-camera perception payload. Operators get a fully dimensioned, colorized 3D model of the area streamed to the ground while the aircraft is still flying – plus lidar-based navigation for GNSS-denied environments.

Built for Defense Operations at the Edge.



Real-Time Mapping

3D Maps streamed to operators in real time



NDAA Compliant

Blue UAS-cleared airframe



ATAK Integration

Measures slope, distance and dimensions in 3D, compatible with ATAK



Persistent Overmatch

Uncompromised day-or-night perception

Product proof points

30 min

Mapping endurance
(20 min / 1 battery)

5 cm

Voxel resolution

IP 56

All-weather airframe,
40+ mph wind

40 m

Mapping altitude

Why Robinson Unmanned SPiRiT™ + MOViA™ Air Plus?

Answers while you're still in the air

Onboard edge processing fuses lidar and low-light camera into one colorized 3D model and streams it live — no post-processing, no waiting to land.

Sees what cameras miss

Multi-echo lidar reaches true ground through foliage, camouflage, dust and rain; low-light EO sensor supports day and night ops. Passive mode for low-emission missions.

Navigates when GPS can't be trusted

Lidar odometry and SLAM provide high-rate positioning in GNSS-denied or jammed environments.

Built to fly when others can't

SPiRiT's coaxial airframe is designed for IP56, handles Class 8 (40+ mph) winds, and operates up to 5,000 m MSL.

Open, modular, mission-ready

MOSA-ready, MAVLink/Pixhawk Cube, ATAK-compatible.

Missions

- ▶ Day/Night ISR
- ▶ Breach Site Assessment
- ▶ Battle Damage Assessment
- ▶ Infrastructure Inspection

- ▶ GNSS-denied Mapping and Navigation
- ▶ Urban Tactical Planning
- ▶ Disaster Mapping
- ▶ Mining & Construction

System Specifications

Integrated System	Specifications
Configuration	SPiRiT™ + MOViA™ Air Plus, bottom payload station
Mapping endurance	20 min (1 battery) · 30 min (2 batteries)
Mapping altitude	Up to ~40 m AGL
Payload margin	~2 kg free for 2nd sensor or battery
Data to ground	Live 3D stream over Spirit C2/MANET link; ATAK-compatible
Compliance	NDAAs; airframe Blue UAS-cleared

SPiRiT UAS	Specifications
Airframe	Coaxial, direct drive, 2× brushless motors
Max takeoff weight	6.1 kg (13.5 lb)
Max payload	3.0 kg (6.5 lb), dual stations (top & bottom)
Endurance, no payload	38 min (1 battery) · 53 min (2 batteries)
Speed / Ceiling	18 m/s auto · 27 m/s manual · 5,000 m MSL
Environmental	Designed for IP56 · -28 to 54 °C · Class 8 wind
Autopilot / C2	Pixhawk Cube (MAVLink); Herelink, Doodle Labs, L3Harris

MOViA™ Air Plus Payload	Specifications
Sensors	MOViA™ L 60° Lidar (multi-echo) + low-light EO
Field of View (H x V)	60° × 37.5°
Range / Accuracy	40 m / ±3 cm
Map Resolution	0.05 – 1 m voxels
Processing	Jetson Orin: SLAM, fusion, odometry onboard
Mass / Power	900 g / 25 W
Interface	1000BASE-T Ethernet



MOViA™ Air Plus Payload

- ▶ MOViA™ L 60° Lidar
- ▶ Framos low-light EO camera
- ▶ NVIDIA Jetson Orin edge processor
- ▶ Mass: 900 g
- ▶ Power: 25 W

Field Proven

Flown at JIFX (August 2026) across multiple urban-terrain and off-road sites, delivering live, dimensioned 3D maps in both RTK-GPS and GNSS-denied (lidar-inertial) modes.

