

Aero Systems West Launches ROAM™ Modular Open Architecture Drone Kit

ROAM™ (Reconfigurable Open-Architecture Multirotor) is a US manufactured drone kit for institutions requiring education and training for industrial drones.

SAN JOSE, CA, UNITED STATES, August 26, 2026 /EINPresswire.com/ -- Aero Systems West (ASW), a leading California-based developer of heavy-lift unmanned aerial systems, today announced the official release of the [ROAM™ \(Reconfigurable Open Architecture Multirotor\) drone platform](#). Engineered to meet the growing demand for compliant, versatile domestic hardware, the modular kit is purpose-built to support academic curriculum, applied research, systems integration, and professional flight training.



ROAM is fully open-source and can be built in 2-3 hours

The launch introduces a dual-kit framework designed to maximize flexibility and lower barriers to entry for complex aerospace programs. By decoupling core hardware from final flight configurations, the platform bridges the gap between consumer-grade hobby kits and large-scale industrial aircraft, offering a professional-grade learning environment.

Versatile, Modular Architecture Built for Scale

The ROAM™ platform introduces a structural shift in how institutions deploy unmanned aerial systems. The dual-kit framework splits components into a Frame Kit—housing the core structure, carrier board, GPS, radios, and autopilot—and an Accessory Kit containing the motors, propellers, battery, Remote ID module, and controller. This configuration gives operators flexibility to deploy, modify, or swap out hardware based on specific curriculum or mission requirements.

The open-architecture ecosystem allows engineers, students, and developers to understand how their systems integrate and behave in flight. By interacting directly with raw avionics and structural engineering layouts, operators gain hands-on technical competencies that are

impossible to replicate using closed, proprietary, ready-to-fly platforms.

Field-Serviceable Design Minimizes Operational Downtime

To reduce repair costs and long-term maintenance barriers, ASW built the drone utilizing highly accessible parts. All major structural and electronic components are modular and individually replaceable, allowing institutional programs to stock critical spares and conduct field maintenance directly. This architecture eliminates the need for restrictive manufacturer repair cycles, ensuring fleets remain operational and maximizing classroom or training time. Institutional bulk pricing and program-level support packages are available to support scaled infrastructure.

Heavy-Lift Capacity and Advanced Payload Integration

The platform delivers industrial performance, featuring a tested payload lifting capacity of up to 2.0 kg. Equipped with a modular payload rail system, it supports the integration of off-the-shelf, in-development, or one-of-a-kind sensors. A full data package is included with the ROAM, allowing users to expedite internal design and development.

[Rapid Deployment and Programming Setup](#)

The ROAM includes a free publicly available assembly and programming video workflow emphasizing practical technical comprehension without unnecessary complexity. First-time builders can expect to complete full physical assembly and software programming in three to four hours. System configuration, calibrations, and pre-flight parameter tuning are handled seamlessly through the programming desktop utility.

Regulatory Alignment and Safety Standards

The platform is designed to align with strict modern procurement frameworks. The Frame Kit features core components that support NDAA-aligned sourcing, making it a viable solution for institutions prioritizing domestic logistics pipelines and long-term public funding compliance. Furthermore, through ASW's parent company, Nippon Kayaku, the platform will soon offer an industry-leading industrial parachute safety device, PARASAFE®, implementing aviation safety as an institutional standard.

[About Aero Systems West](#)

Aero Systems West (ASW) is a California-based, American manufacturer and provider of heavy-lift multirotor unmanned aerial vehicles (UAV) and systems. Backed by over a century of industrial reliability and manufacturing experience from its parent company, Nippon Kayaku, ASW develops dependable, open-architecture, and custom-engineered autonomous solutions for civil, industrial, and government sectors globally.

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