

NY Drone Tech Startup Thrax Launches Universal Payload Drop System for sUAS

The DF-001 "DropFlight" bridges a critical gap in unmanned logistics, offering a reliable, U.S.-sourced release mechanism for commercial and government.

MALTA, NY, UNITED STATES, February 26, 2026 /EINPresswire.com/ -- Following an intensive rapid-prototyping development cycle encompassing over a hundred design iterations, hardware startup Thrax LLC has launched a universal mechanism that allows small unmanned aircraft systems (sUAS) to drop payloads on command. The company has officially opened its [Payload Dominance Program](#), arriving at a critical moment for U.S. commercial and government drone procurement.



The Thrax DropFlight DF-001 payload release mechanism during flight testing in Florida, carrying a test payload on a Group 1 sUAS platform.

Thrax CEO and Chief Engineer Anthony Milazzo intentionally bypasses traditional, sluggish aerospace development cycles. The company's primary test platform isn't a pristine lab model—it's a ruggedized test drone custom-built for extreme stress testing, featuring a carbon fiber frame, GPS module, and a Picatinny rail mount for rapid iteration. It is built to mirror the field-ready platforms operating in austere environments.

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Anthony Milazzo, CEO & Chief Engineer, Thrax LLC

Mounted underneath this testbed is a capability that sUAS operators desperately need: a reliable, bolt-on mechanism that lets small drones release payloads mid-flight with

industrial-grade precision. Engineered from carbon fiber nylon, the device mounts seamlessly onto standard frames and drops attached payloads using a standard PWM signal.

They call it DropFlight.

The DF-001 is a servo-actuated payload release mechanism designed specifically for Group 1 and Group 2 drones—the small, portable unmanned systems that have become essential for both commercial logistics and tactical field operations. As government agencies, first responders, and commercial fleet operators scramble to field thousands of small drones with payload capabilities—whether for dropping emergency medical supplies, deploying remote sensors, or moving field equipment—they lack a standardized, reliable way to physically release those payloads mid-flight.

That is the hardware gap Thrax is filling.

"There's no true COTS (Commercial Off-The-Shelf) solution for this," Milazzo said. "Government and commercial fleet programs are establishing standardized interfaces for drone payloads, which opens the door to mount this on thousands of drones currently in production. Everyone is focused on the aircraft, the batteries, and the software. Nobody built the hardware in between."

Operating out of Malta, New York, Thrax leverages advanced additive manufacturing to move faster than traditional contractors. The startup designs, manufactures, and flight-tests every unit in-house to maintain strict quality control. The DropFlight mechanism utilizes a rotary latch with an over-center locking geometry; essentially, it is held shut by its own structural design rather than relying on the servo motor. If the aircraft's electronics fail, the payload stays locked. It only releases upon deliberate command.

With a provisional patent filed in February, Thrax has already begun responding to RFIs for standard UAS payload interface solutions. Crucially for government procurement and NDAA compliance, every component in the DropFlight supply chain is sourced from the United States or allied nations.

Opening Up to Partners

This week, Thrax launched the Payload Dominance Program, inviting drone manufacturers, system integrators, and fleet operators to natively integrate the DF-001 into their platforms.

The integration pitch is straightforward: DropFlight bolts onto existing drones using standard 30x30 or 20x20 mounting patterns, runs on a standard servo signal recognized by any flight controller, and requires zero design changes from the aircraft manufacturer. For drone companies racing to add delivery and drop capabilities to win government, state, or commercial contracts, DropFlight eliminates months of expensive engineering overhead.

"We aren't building drones, and we aren't building the payloads. We are building the critical infrastructure that connects them," Milazzo added. "The companies making Blue UAS-approved platforms and commercial workhorse drones—those are our target partners. We want

DropFlight to be the payload release mechanism that ships natively in the box."

The partner program offers technical documentation, integration support, and volume pricing. The DropFlight is [available for purchase](#) at thrax.ai, priced at \$449 for single commercial evaluation units. Government and enterprise partner pricing is available by inquiry.

About Thrax LLC

Headquartered in Malta, New York, Thrax LLC is an agile hardware startup specializing in physical mechanisms and integration solutions for small unmanned aircraft systems (sUAS). By bridging the gap between flight platforms and payload delivery, Thrax provides reliable, COTS-ready mechanisms designed for commercial scalability and austere environments.

Anthony Milazzo

Thrax LLC

info@thrax.ai

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