AUTONOMOUS
FLIGHT TECHNOLOGIES

MADE IN USA

MAV-MT

Expendable Group 1 sUAS Target Drone

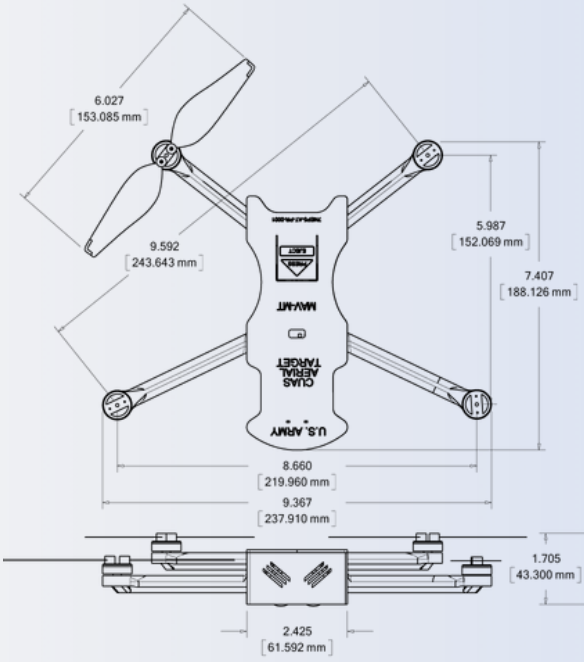
"The Affordable Clay Pigeon for Modern Drone Warfare"

Purpose-built as a low-cost, highly realistic aerial target, the MAV-MT supports individual warfighter C-UAS training and live-fire validation of kinetic counter-UAS systems.

- **High-volume expendability**
- **FPV micro threat replication**
- **Swarm-enabled**
- **Rapid field deployment**

Key Features:

- **Ultra-affordable & expendable — ideal for high-volume training**
- **Powered by two off-the-shelf 18650 Li-ion batteries — simple, field-swappable energy source**
- **30+ minute endurance in realistic conditions**
- **Compact, IP65-rated design for all-weather operations**
- **Secure dual-band, long-range C2 with AES encryption**
- **Autonomous + manual control for dynamic threat replication**
- **Swarm-capable GCS for multi-drone operations**
- **Modular, field-serviceable build for low lifecycle cost**



Why Choose the MAV-MT?

Designed as a compact, FPV-style attack platform, the MAV-MT prioritizes realism, affordability, and true expendability to accurately replicate modern small UAS threats seen on today's battlefield. Its streamlined, low-cost architecture supports high-tempo training operations, allowing units to operate without hesitation or concern over platform loss while maintaining flight performance and profiles that closely mirror real-world FPV attack drones.

Purpose-built for individual warfighter live-fire training, unit-level counter-UAS (C-UAS) exercises, and kinetic intercept system testing, the MAV-MT delivers a highly adaptable and repeatable training solution. Operators can execute more frequent and aggressive scenarios with greater fidelity, enabling improved target acquisition, engagement timelines, and overall system effectiveness—ultimately strengthening combat readiness and operational response in contested environments.

AUTONOMOUS
FLIGHT TECHNOLOGIES

Contact Autonomous Flight Technologies Visit
www.autonomousflight.us
Email: info@autonomousflight.us |
Phone: (540) 647-0484
FAA-Approved for Commercial UAS Operations
(Exemption No. 13319)

MAV-MT Technical Specifications

Aircraft Physical & Dimensional Specifications

Parameter	Specification
Dimensions (L × W × H) Unfolded (w/o rotors)	188 × 237 × 43 mm (7.4” × 9.3” × 1.7”)
Wheelbase	244 mm (9.6”)
Propellers diameter	153 mm (6.0”)
Empty Weight (no battery/payload)	158g (0.35 lbs)
Typical Takeoff Weight	245g (0.54 lbs)
Maximum Takeoff Weight (MTOW)	454 g (~1 lbs)
Construction	PETG FDM additive manufacturing
Environmental Protection	IP-65 dust & water resistance

Payload & Safety

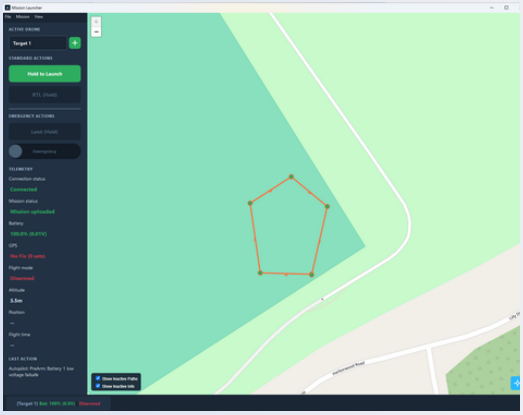
Category	Specification
Maximum Payload Capacity	209g (0.46 lbs)
Safety Features	Geofencing, low-voltage return, autonomous failsafe RTH
Classification	Group 1 sUAS (well below FAA Part 107 55 lb limit)
Data Link Security	Frequency hopping + AES128/AES256

AUTONOMOUS FLIGHT TECHNOLOGIES

Control, Communications & Avionics

Parameter	Specification
C2 Link	Dual-band 2.4 GHz / 915 MHz, up to 16 km (10 mi) LOS
Encryption	Frequency hopping + AES128 / AES256 telemetry
Flight Controller	6-DoF IMU, barometer, compass, multi-constellation GNSS
Flight Modes	Autonomous waypoint missions (dynamic planning), full manual control, Return-to-Home (failsafe & pilot-initiated)
GCS Software	Proprietary Windows & Linux app (swarm simulation, point-and-click multi-drone control, dynamic altitude/speed profiles) MAVLink compatible with Mission Planner & QGroundControl
Remote ID	Available (not included in standard C-UAS target configuration)

Custom GCS SAWRM Cappable (Windows & Linux)



Performance & Flight Characteristics

Parameter	Specification
Endurance	30+ minutes
Maximum Speed	56 kph (35 mph) level flight
Maximum Range	~16 km (10 mi) clear line of sight
Service Ceiling	6,000 m ASL ~20,000 ft
Wind Resistance	10 m/s (20 mph) 15 m/s (35 mph) gusts
Operating Temperature	0–40 °C (32–104 °F)

Power & Charging

Parameter	Specification
Battery	2S Li-Ion, 3500 mAh
Charging	3C fast charge capability (avg. 1 hour)

Setup & Support

Parameter	Specification
Deployment Time	Typically under 5 minutes
Ground Control Station	Linux & Windows proprietary interface with swarm simulation
Maintenance	Field-serviceable modular components

Notes Specifications subject to change. Performance data obtained under test conditions (sea level, moderate temperature, no payload unless noted). Actual results may vary with payload, wind, altitude, and temperature. Optimized for cost-effective, high-volume expendable use.