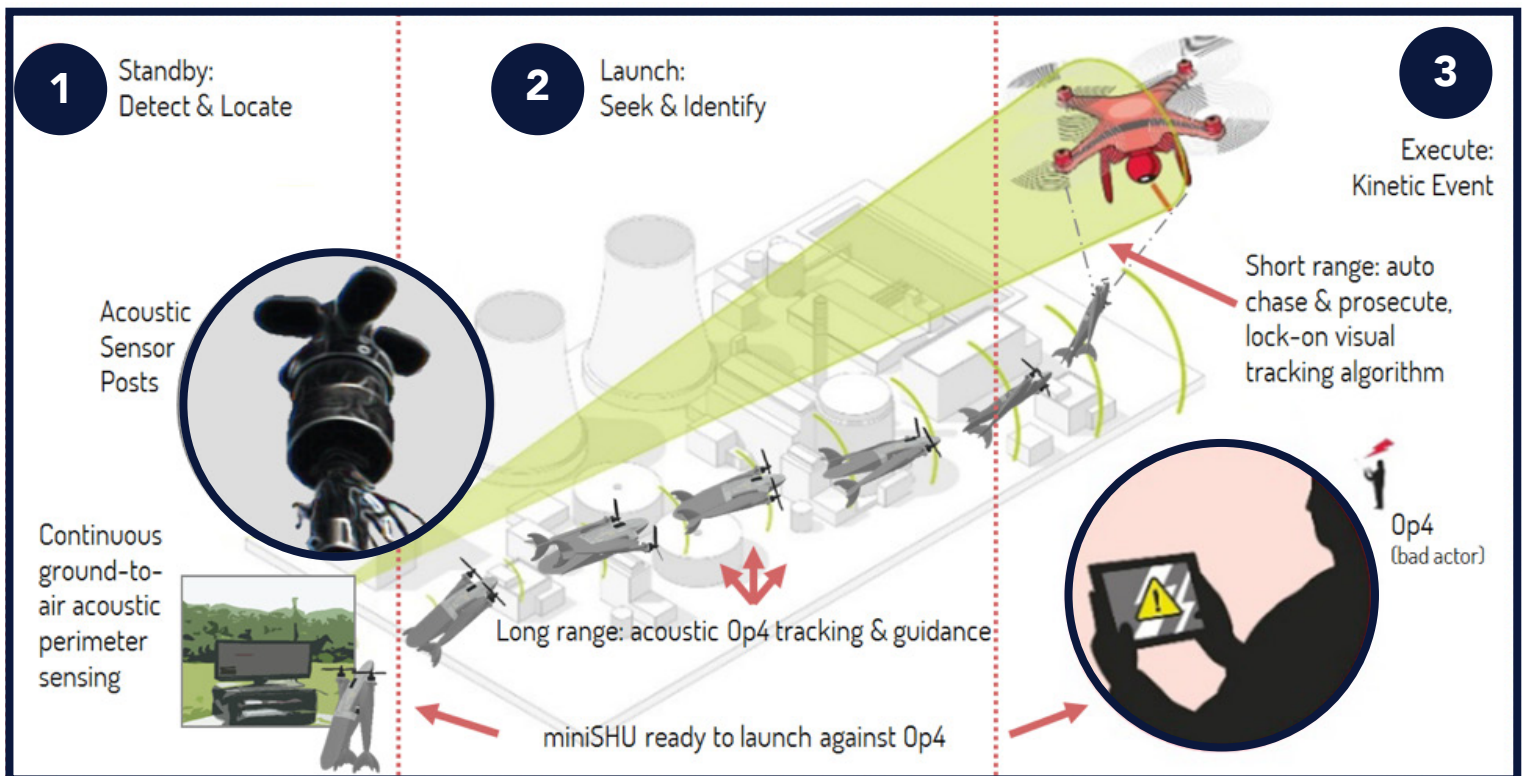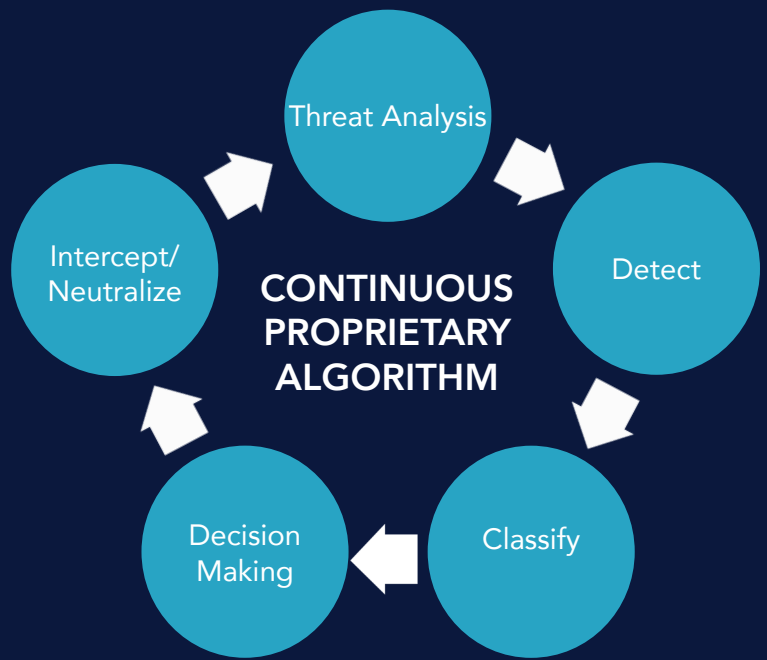# Autonomous Drone Hunter

Airgility utilizes a vision-based algorithm that continuously scans the sky searching for incoming threats. The integrated system includes the proprietary miniSHU (patent pending) UAS that is optimized for both vertical and forward flight regimes, and uniquely blends design and operational flexibility (quick reaction to evolving threats), aerodynamic efficiency, and can be launched to chase and destroy a rogue drone. As adversaries leverage the offensive capabilities of drones, and their operational advantages, Airgility's solutions provides a means for protecting vital locations and assets. Our integrated system detects and engages.

1. Standby: Detect & Locate

Acoustic Sensor Posts

Continuous ground-to-air acoustic perimeter sensing

2. Launch: Seek & Identify

Long range: acoustic Op4 tracking & guidance

miniSHU ready to launch against Op4

3. Execute: Kinetic Event

Short range: auto chase & prosecute, lock-on visual tracking algorithm

Op4 (bad actor)

AIRGILITY - miniSHU

Size:	17 inch diameter
Weight:	3.5 lbs
Payload Weight:	0.75 lbs
Vcruise:	~40 mph
Vmax:	~55 mph
Endurance Vcruise:	10 minutes
Endurance Vmax:	6.5 minutes
Ground Control Station	
• ArduPilot Mission Planner	
• Open Source	

SMARTSENSE - DRONE DETECTION SYSTEM - ACOUSTIC ARRAY

Frequency Response:	1 Hz to 50 kHz
Response Type:	Dipole Cardoid
Detector:	LED light driven detector is 100% passive.
EMI Immunity:	Optical microphones & cabling are impervious to electromagnetic interference.
Smaller Footprint:	SSC optical microphones don't require pre-amplifiers, signal conditioners or amps. Transortable and modular design.
Ground Station Camera Tracking/Feedback	360° PTZ, 30x zoom, auto locate with manual tracking.
Outdoor Rated:	All weather, -20°C to +60°C

CONTINUOUS PROPRIETARY ALGORITHM

Threat Analysis → Detect → Classify → Decision Making → Intercept/Neutralize → (cycle)

Contact Information

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