MADDOS

- Combat-proven solution
- Scalable for huge sites and borders
- Effective against FPV drones and Loitering Munition
- 360° x 90° protection coverage
- Extremely high detection range
- Fully automatic operation with AI support
- Detection of all types of UAVs
- Locates drone swarms and drone operators
- Data Fusion with low false alarm rate

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MADDOS RF

A radio frequency (RF) detector is a fully passive device used to detect the presence of RF waves in physical transmission mediums. MADDOS system uses these RF Detectors to accurately detect drones and drone pilots.

RF SkyProtector distinguishes drones from common RF signals by using learned patterns and AI algorithms, and can identify almost all types of threats as well as the location of the drone pilot. Additionally it identifies the manufacturer and/or model of the drone. This applies to almost all commercial and home-made drones.

Key features

- RF frequency range covering 75MHz – 6GHz
- Displays drone geo-position (latitude and longitude and altitude) or direction
- Detection of more than 60 drones at the same time
- Extracts drone Serial number and operating protocol
- 99,9% Identification & classification with nearly zero false alarms
- Drone library – more than 400 models of drones – growing continuously
- AI for detecting new and unknown drones not covered in the library
- Tracks and locates the operator(s) controlling the drone(s)
- Very long detection range up to 35km in the rural area (up to 6km in the urban area)
- Portable and stationary version

SPECIFICATION	MADDOS RF SkyProtector
Detection range	LR: up to 10km SR: up to 3km
Coverage	360 x 90° (full dome)
Tracking accuracy	up to 5°
Frequency coverage	75MHz – 6GHz
False alarm rate	<1% (near zero false alarms)
Classification of threat outside of library	1. Drone
	2. Telemetry
	3. Remote Controller (RC)
Differentiation between Friend and Foe	Yes
Recording of events	Yes
Triangulation	Yes
Weight and IP	<15kg & IP66
Operating temp	-25 to +55°C

MADDOS RF

MADDOS Camera

MADDOS camera sensor is a fully integrated, optical and thermal solution for drone tracking and identification. Camera is perfectly matched to the RF and Radar detection mechanisms of the MADDOS system and can automatically turn to the pointed target. It enables the user to visually spot detected drones, even from large distances, and identify potentially dangerous payloads attached to the drone, such as explosives.

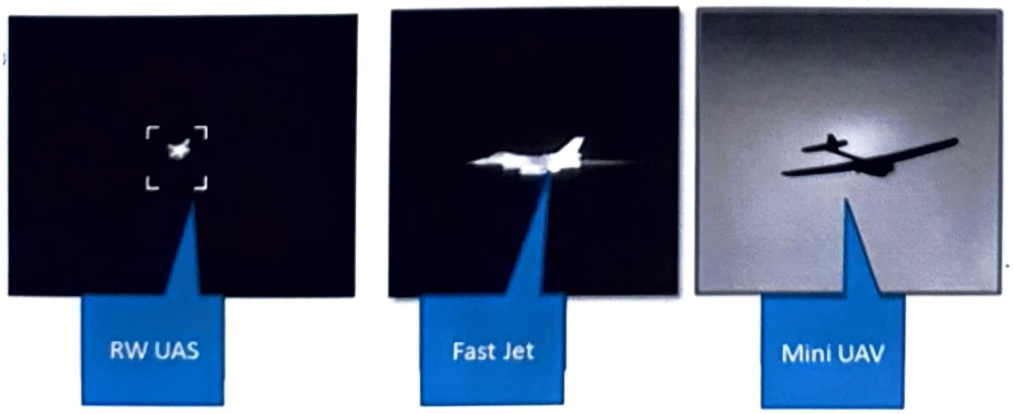
Key features

- Thermal camera + Day/Night camera on Pan & Tilt
- Cooled and uncooled thermal sensors
- Automatic slew to cue (target position obtained from radar or RF)
- Automatic target tracking
- Continous zoom on both cameras
- 360° coverage

MADDOS Camera

Visual Example

Drone // Distance	500 m	1000 m	1500 m	2000 m	2500 m
Phantom 4 (White Hot Filter)					
Phantom 4 (Black Hot Filter)					
Mavic (White Hot Filter)					
Mavic (Black Hot Filter)					



Thermal camera view

MADDOS ToC

MADDOS ToC – Take over Control is a cyber counter-drone platform. Designed to automatically detect, take over and safely land unauthorized commercial drones in a designated zone. By design, ToC has been developed to protect 24/7 dense urban areas from unauthorized commercial drones, without interference and/or collateral damage. It does not have impact on wireless communication and GPS signals during mitigation.

Key features

- Detects and tracks over 98% of commercial drones
- Geolocates drone and its operator
- Displays drone serial number
- Detection range up to 7km
- Mitigates the drone after it crosses a no-fly zone or after being pointed by system operator, by taking control over the drone and then landing it in a predefined place
- Prevents take-off within a protected area
- White-listing – Friend or Foe
- Easily expandable by more sensors

MADDOS ToC

Operation

Drone detection	Detects drone activity up to a 7 km radius per sensor, using a 24/7 monitoring system.
Drone identification	Identifies drone type and extracts information like: drone position, altitude, speed, serial number and also drone operator location and Home Point Friendly drones can be whitelisted according to their serial (tail) number.
Drone tracking	Real-time tracking and displaying updated drone position on map with its trail.
Drone mitigation (airborne)	Once the drone breaches the No-fly zone, the system automatically mitigates the drone and guides it to safe landing point. System operator can also mitigate the drone by clicking on it, even before it reaches the zone. After landing, the drone can be investigated and data from SD card can be captured.
Denying take-off (ground)	Denies drones from taking off within a predefined geofenced area.

MADDOS HARD-KILL DRONE

ASSASSIN

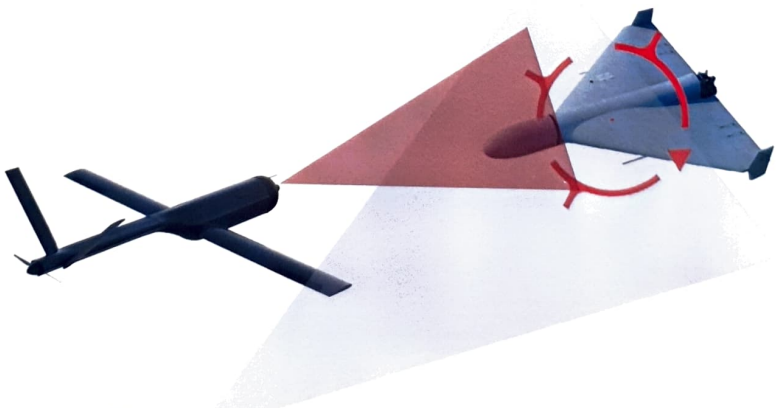
MADDOS ASSASSIN is an advanced, mini-size, fully autonomous fixed-wing UAV. Drone is able to stop any intruding UAS, including pre-programmed, autonomous drones that can't be jammed or hacked by kinetically destroying them. The system includes a 4D ground-based radar that detects the intruder and sends coordinates to the guidance system. ASSASSIN automatically takes-off from a pneumatic, multiple launch system and calculates the optimal route to intercept the enemy. In the next phase the on-board visual seeker is activated to increase the precision of hit. In the final phase of flight, the drone's proximity sensor activates the warhead increasing the blast area.

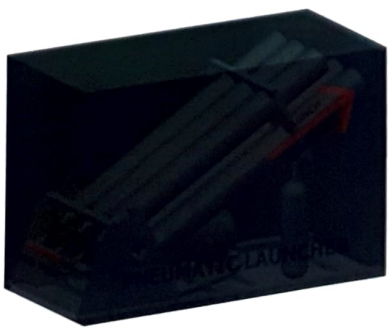
Key features

- Effective against NATO Class 1 & 2 drones
- Designed to counter loitering munition
- Day & night operative Fully autonomous
- Range up to 8km from launcher
- Max speed up to 200km/h
- Advanced AI capabilities
- Resistant to EW
- Equipped with warhead
- Swarming capabilities

*under development

MADDOS ASSASSIN





MADDOS ASSASSIN operation scheme

MADDOS UAV

Key features

- VTOL configuration (vertical take-off and landing)
- Fully automatic operation
- Operations in GNSS denied environment
- Long endurance – over 10h
- High payload capacity – up to 20kg
- Long operation range – up to 150km
- Day & night operation
- Modular design – fast field assembly

Application