



DRONEGUARD: INTERCEPTION OF INVADING DRONES

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Introduction

With the increasing incidents of unidentified drones invading private, commercial, military, and other restricted airspaces, there is an urgent need for a system that provides legitimate property owners with effective means of protection.

DRONOGUARD is a service developed by LEVPOWER, leveraging proprietary technology and procedures outlined in this paper. While we acknowledge the importance of law enforcement issues, this document focuses exclusively on the technological aspects of our solution.

Identification and Reporting

Our proprietary drones are equipped with advanced identification systems using Wi-Fi, Bluetooth, or other wireless communication technologies to interrogate and identify invading drones.

Key Features:

- Remote ID Interrogation:
 - Invading drones are pinged for their Remote IDs, which contain information such as a unique ID, location, and flight details.
 - These data are accessible to authorized personnel, including law enforcement.
- Incident Reporting:
 - Once the invading drone's ID is confirmed, DRONOGUARD provides the customer with the captured details.
 - Depending on the situation, DRONOGUARD may report the incident to the property owner and relevant government authorities for further action.

Interception

Drones lacking a Remote ID are classified by DRONOGUARD as potential threats. Such incidents, depending on the specifics of the agreement with the customer may trigger forceful interception.

Forceful Interception Technology:

1. Physical Incapacitation:

- DRONOGUARD drone approaches the invading drone as its proprietary system projects a jet of a liquid plastic substance targeting that drone.
- Upon contact, the DRONOGUARD's substance instantly expands into a firm foam, enveloping the invading drone entirely. This incapacitates the drone and falls to the ground, following the trajectory at the point of interception

2. Precision Fall:

- AI-driven software deployed on the DRONOGUARD calculates the optimal interception angle and timing to minimize risk of harming objects by the falling drone at the location of its landing.
- The foam envelope created at the moment of interception is designed to cushion the drone, preventing its damage upon impact and ensuring safe recovery for investigative purposes.
- DRONEGUARD drone lands near the intercepted drone-invader ready for guidance from its operator.

3. Communication Disruption:

- The foam produced by the proprietary DRONEGUARD interception system contains a small amount of metal powder to sever all communication between the drone and its operator as a security measure.

Safety Considerations:

- Impact Mitigation: The foam prevents harm to objects or people on the ground.
- Preservation for Analysis: The intercepted drone is kept intact for forensic examination to determine its origin and intent.

Ongoing Development

DRONOGUARD's technology continues to evolve in tandem with legal and regulatory considerations. Our legal team will work closely with the FAA and other government agencies to address law enforcement concerns and refine the operational framework for deploying its drone interception technology and procedures.