

# AirWarden

Drone and Bird Surveillance



## Quick Summary

By implementing an advanced drone identification system, airports can greatly enhance airfield safety and establish proactive threat mitigation. This system employs innovative machine learning techniques to distinguish between drones and birds in real-time, effectively minimizing potential risks and disruptions to airfield operations.

## The Tech Stack

The following technologies were employed in the development of the Drone-to-Drone Identification system:

- **Python** for the development of machine learning algorithms
- **Keras** for deep learning modeling
- **Edge** computing for real-time data processing on devices such as **Raspberry Pi** and **Jetson Nano**

## Ready to Start?

Take the first step towards enhanced airfield safety today. Our client-centric approach ensures minimal risk with a refundable deposit and affordable proof of concept stage. Should there be any critical issues, your deposit will be promptly refunded. If the project proceeds beyond the concept stage, the deposit will be applied to the overall project cost.

## The Problem

Airports worldwide face persistent challenges in maintaining airfield safety. The growing prevalence of drones, while providing a range of benefits, poses a significant threat to air safety. Misidentification of drones and birds adds another layer of complexity to this issue, making it crucial to develop a reliable identification and mitigation system.

## The Solution

An advanced Drone-to-Drone Identification system was deployed to address these concerns. The system employs state-of-the-art machine learning algorithms to identify and track drones in real-time. What sets this solution apart is its ability to differentiate between drones and birds, a crucial factor in ensuring accurate real-time threat detection. It can be deployed on edge devices such as Raspberry Pi and Jetson Nano. Customizable alerts enable swift response to potential security issues, and the system can seamlessly integrate into existing airport infrastructure.

## The Outcomes

The implementation of the Drone-to-Drone Identification system led to significant enhancements in airfield safety by:

- Providing real-time drone detection and tracking
- Enhancing proactive threat mitigation with adaptive security protocols
- Minimizing disruptions to airport operations
- Ensuring reliable drone identification through drone visuals