# Perception

Data accumulates faster than humans can process



Large scale automation





Mentors: Ron Fitzgerald and Ron Scrofano

Issue: Want to track target objects in video



## What We Tackled

Given: Target Image, Video Recording

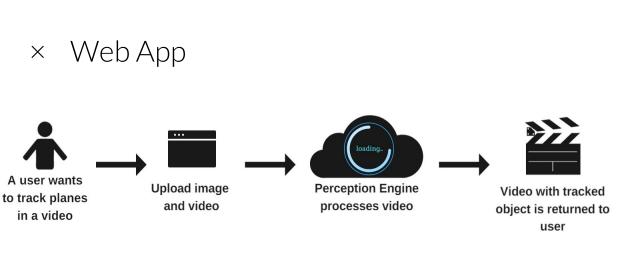
We Return: Object Tracked in Video



## **Product Overview**

### Two Components:

Object Tracking API





## **Use Cases**

- × Military Applications
- × Surveillance
- × Consumer Sports



# Demo



## **Product Features**

- × Seamless User Interface
- × Accuracy in Desired Object Detection
- × Scalability



### **User Flow**

- × **Guest:** Can 'Try it Out' if non-registered user
- Recurring User: Allows users to login to their own dashboard
- User Features: Dashboard lays out user's uploaded media.



## **Dashboard**

- Dashboard: User's central hub of media management
- My Files: Previously uploaded videos and images
- × Saved Trackings: Save Perception engine outputs



# **Modified YOLO**

### Vanilla



### **Modified**



### **Future Goals**

- × Siamese Neural Network
- × Statistics
- × Live Time Tracking



# Thank You

The Team - Aerospace



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