Current project

- Aerial vision for ground troops using consumer hardware
  - DJI Mavic Air 2s - $700
  - DJI Mavic Advanced Industrial - *portable aerial thermal imaging solution* $6000
  - MS Hololens 2 mounted on the helmet - *could be replaced by smartphone client in majority of situation* $3000

Roadmap

1. Oracle

A. iPhone Ground Station app

I. connects to DJI remote over DJI SDK

II. Connects to system’s server

III. Broadcasts repacked video from drone via 4G connection

IV. Pilots drone according to the instruction from the server

B. iPhone/Hololens 2 Fighter app and a webpage

I. Displays received from broadcast Video from camera of drone

II. Displays GPS coordinates of Drone and of the Fighter

C. System’s server

I. Supporting multiple concurrent connections of the iPhone Ground Station apps

II. Efficiently and scalable records multiple drone camera streams

D. Hololens/Helmet mount 3d print

2. Raven

A. iPhone Ground Station app

B. iPhone/Hololens 2 Fighter app

I. Shows GPS markers of recognized targets received from the System’s server

C. System’s server

I. CV/DeepML (trained YOLO model) for recognition of humans, vehicles in aerial footage

II. Tracking of targets

3. Tempest

1. On-board 4G/Starlink connectivity for DJI Mavic
2. Custom firmware for DJI Mavic
3. System’s Server on Matrice 300 RTK
    1. *Direct control of DJI Mavic’s*