



Aerial vision  
for ground  
troops

and other projects

# Who we are

- 2 + 1 part time software developers
- 1 graphics designer
- Headquarters left behind in Kyiv 

# Projects before the war

- App@Hololens for teaching Massage
- App with AR translation overlay/audio for printed books
- App@Hololens - RDP/SSH terminal

# 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

Navalny sentenced to 9 years in prison by Russian court

### C. System's server

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

- II. Tracking of targets

Russian aircrafts chose to drop bombs on the Mariupol infrastructure. Factories and industrial enterprises that provided employment and were the metallurgy centers of interest are being destroyed now by the enemy. Occupiers are trying to destroy Ukraine's economy in that way

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

Russia may not stop with Ukraine – NATO looks to its weakest link

Russia summons US ambassador, warns ties with Washington on verge of collapsing

Russia threatens Poland in lengthy letter days before Joe Biden's visit

9 Awards

Russia threatens Poland in lengthy letter days before Joe Biden's visit

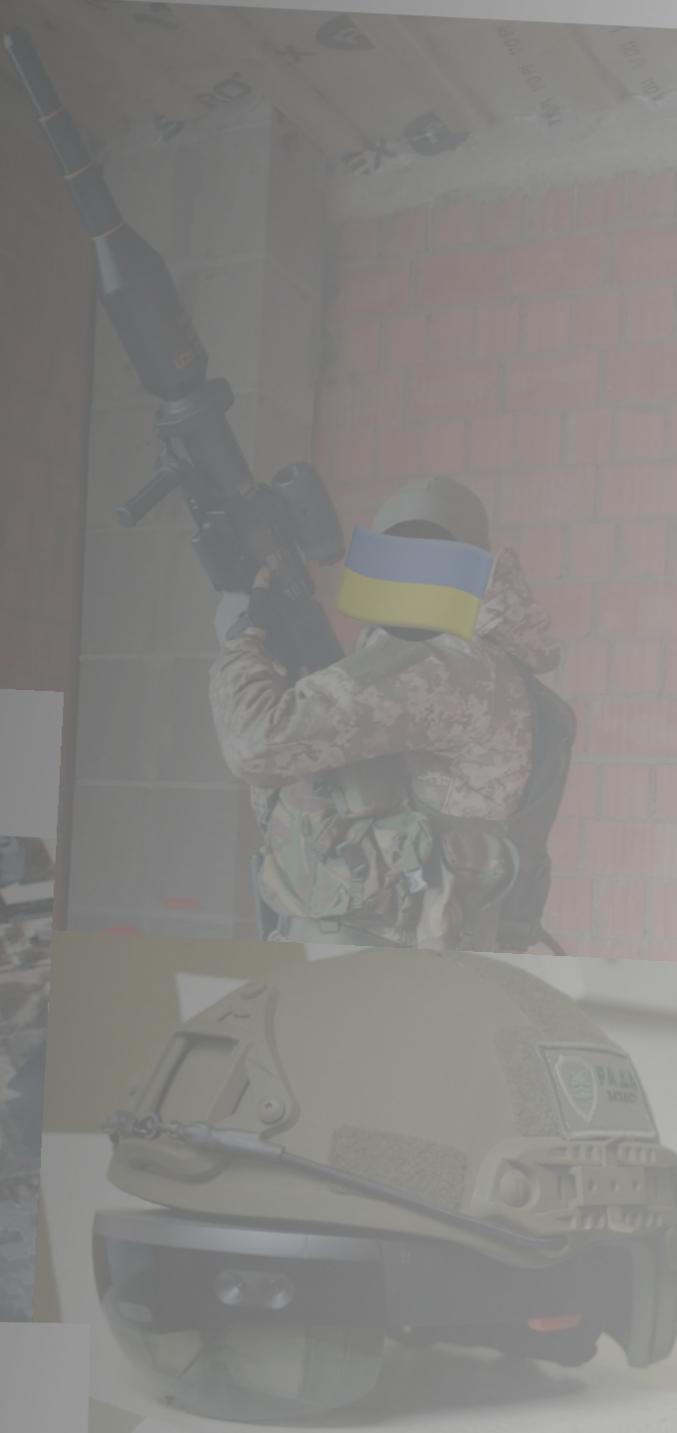
News

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Popular

47 Awards

Ukrainian troops are now deploying Panzerfaust-3IT anti-tank weapons received from Germany. These systems can reputedly kill any Russian tank in service.



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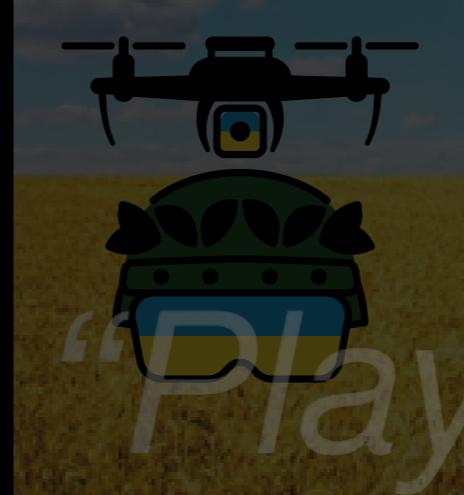
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## D. Hololens/Helmet mount 3d print

DJI Mavic 2 Enterprise Advanced  
MS HoloLens 2  
DJI Mavic 2/3/Air  
iPhone XR

[zirukraine+donations@gmail.com](mailto:zirukraine+donations@gmail.com)

Press “**Play**”

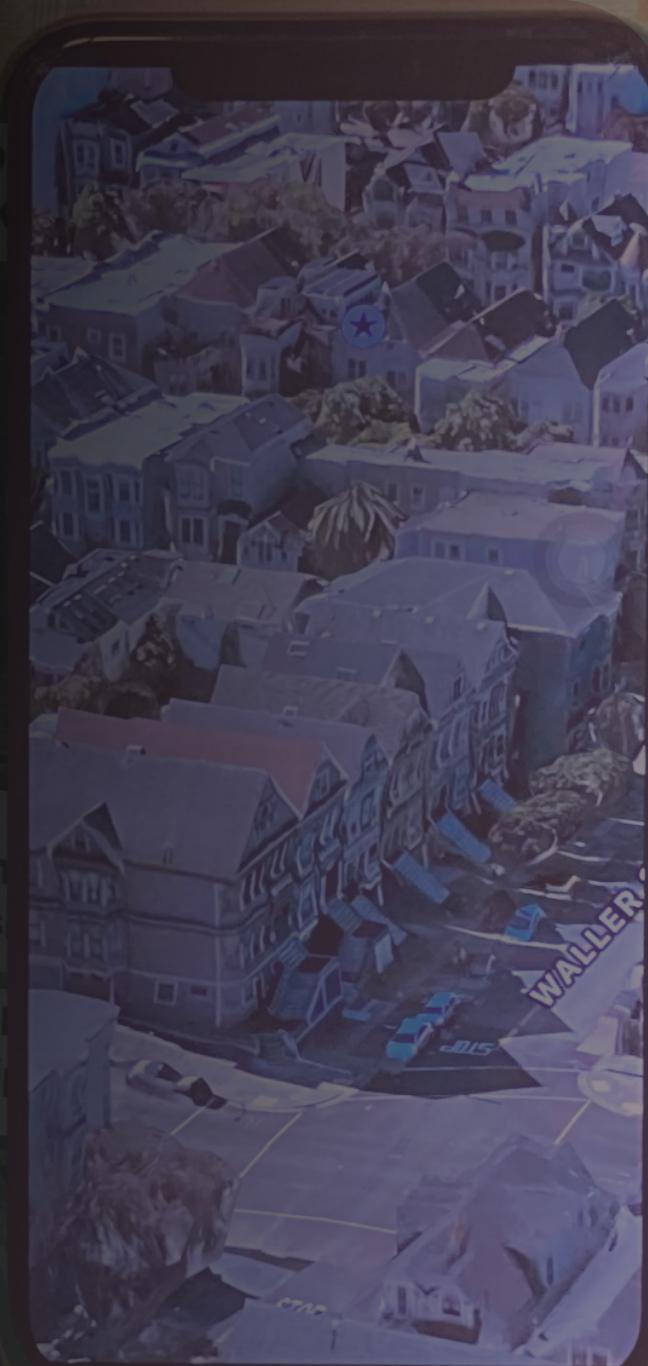


CV/ML Scientist  
Mobile Software Engineer  
Industrial Designer

[zirukraine+jobs@gmail.com](mailto:zirukraine+jobs@gmail.com)

# What do we have

- Dedicated people
  - Software engineer generalist
  - Unreal Engine software engineer
  - Part time iOS developer
  - Graphics designer
- Early technical prototypes
- Users/testers in Ukraine



# What do we need

- Drones/Headsets
- New hires
  - ML/CV Specialist
  - Robotics engineer
- HQs in Ukraine

[https://docs.google.com/spreadsheets/d/1-NtKYwN4m6r7G4Tm98FI7RFcuJ5Ybfkj8-hZJ\\_KEkY/edit?usp=sharing](https://docs.google.com/spreadsheets/d/1-NtKYwN4m6r7G4Tm98FI7RFcuJ5Ybfkj8-hZJ_KEkY/edit?usp=sharing)



<b>\$ 341 k</b>	<b>Cost of first stage</b>
<b>\$ 61 k</b>	<b>Starting cost</b>
<b>\$ 47 k</b>	<b>Monthly Upkeep</b>
<b>\$ 4 k</b>	<b>Software Generalist Hire</b>
<b>\$ 4 k</b>	<b>SW hardware kit</b>
<b>\$ 4 k</b>	<b>Unreal Engine Developer Hire</b>
<b>\$ 4 k</b>	<b>SW hardware kit</b>
<b>\$ 4 k</b>	<b>Robotics engineer Hire</b>
<b>\$ 4 k</b>	<b>SW hardware kit</b>
<b>\$ 1 k</b>	<b>ML/CV specialist Hire</b>
<b>\$ 4 k</b>	<b>SW hardware kit</b>
<b>\$ 26 k</b>	<b>Mac Pro maxed out</b>
<b>\$ 7 k</b>	<b>Mavic 2 Enterprise Advanced</b>
<b>\$ 2 k</b>	<b>Heisha D80 Drone Dock</b>
<b>\$ 5 k</b>	<b>MS Hololens 2 Industrial</b>

# Support refugees in Europe:





# ETH/USP T

# Metamask