Sixth Sense Omnidirectional Drone Detection (SSODD)

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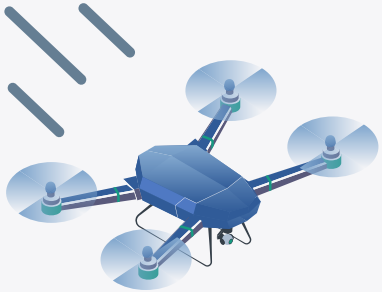
Background

- Increased drone usage in the modern battlefield
- Quality and sophistication greatly vary
- Used for surveillance and demolition, often in tandem
- US Armed Forces currently have no reliable way to dynamically detect small UAVs

Our Challenge



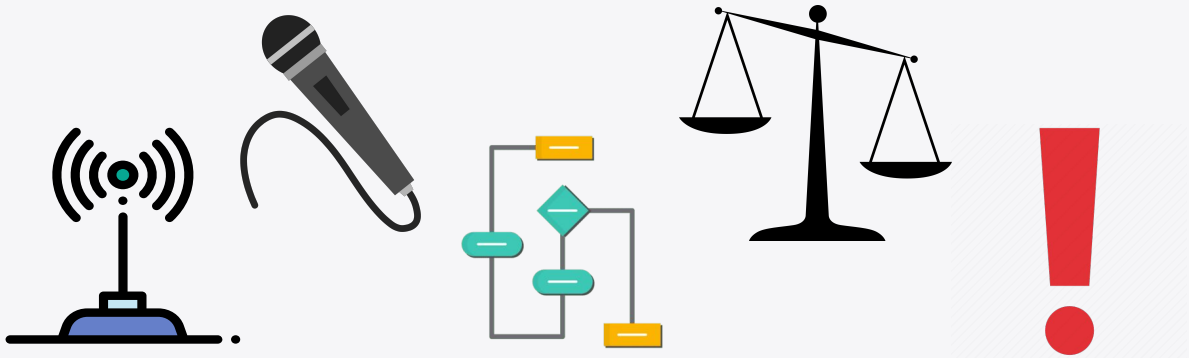
Develop a UMS early warning or deterrence system – could the solution be wearable?

Our Solution

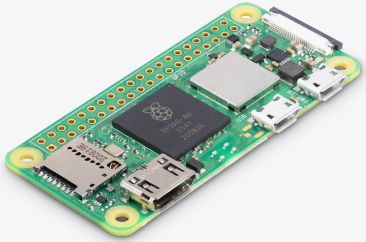
- Detect incoming RF and audio
- Quickly process data to determine a threat level
- At a high enough threat level, administer an electronic stimulus
- Emulate the sensation of the hair on your neck standing up

Demonstrated Features

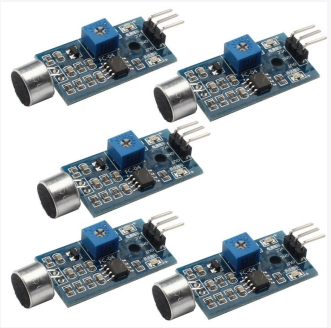
- Directional RF Detection of Drones
- Directional Audio Frequency Analysis-based detection of drones
- RF signal processing
- Weighted algorithm output indicating likelihood of incoming drone
- Analog sensory stimulus to provide warning of incoming drones

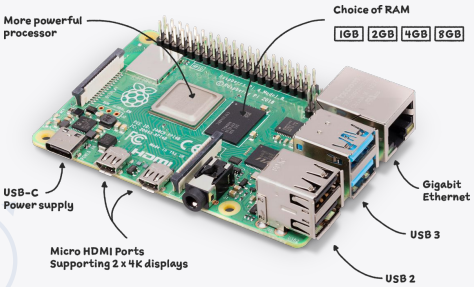


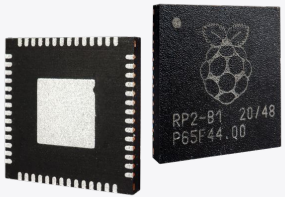
Available Technologies



- There are a range of available technologies which we plan to leverage in our design







Sponsors & Stakeholders

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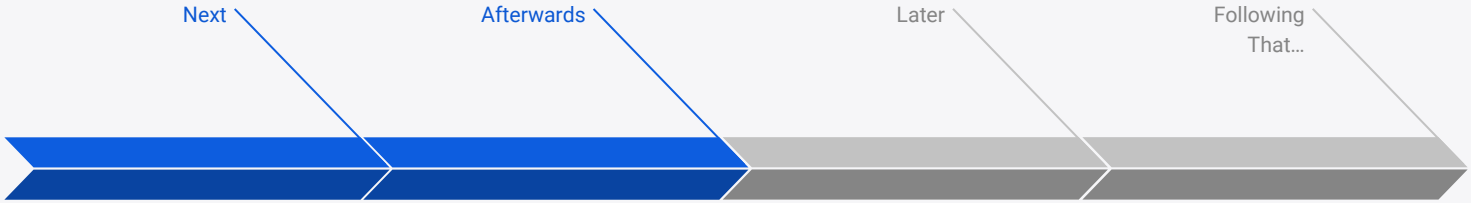
Path Forward / Timeline



Next

- **Board Design**
- **Preliminary Testing of part compatibility**

Afterwards

- **System and Processing Algorithm Design**

Later

- **Testing...**
- **Improve system design**
- **Possible component improvements**

Following That...

- **Get permission to fly drones on campus**

Questions?