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# DRONES FOR HUMANITY



# Team Members' Positions

| Name             | Email  | Position                           |
|------------------|--|------------------------------------|
| Michael Mascari  | <a href="mailto:mmascari2017@my.fit.edu">mmascari2017@my.fit.edu</a>     | Programmer (Computer Vision/AI)    |
| Ballard Barker   | <a href="mailto:bbarker2017@my.fit.edu">bbarker2017@my.fit.edu</a>       | Project Manager/ Structures        |
| Matthew Backert  | <a href="mailto:mbackert2017@my.fit.edu">mbackert2017@my.fit.edu</a>     | Systems Engineer                   |
| Nicholas Davis   | <a href="mailto:davisn2017@my.fit.edu">davisn2017@my.fit.edu</a>         | Avionics/ Propulsion/ Aerodynamics |
| Brendan Sanders  | <a href="mailto:bsanders2017@my.fit.edu">bsanders2017@my.fit.edu</a>     | Production/ Structures             |
| CJ Gagni         | <a href="mailto:cgagni2019@my.fit.edu">cgagni2019@my.fit.edu</a>         | Avionics                           |
| Justin Williams  | <a href="mailto:justin2017@my.fit.edu">justin2017@my.fit.edu</a>         | Propulsion                         |
| Hamdan Alblooshi | <a href="mailto:halblooshi2016@my.fit.edu">halblooshi2016@my.fit.edu</a> | Propulsion                         |

# Faculty Advisor and Client

- The CS faculty advisor for this project is Dr. Debasis Mitra
- The client for this project is the project team
- Client meetings on Thursdays at 4PM

# Milestone 5



Connect All Physical Components



Data stream from camera to Pi



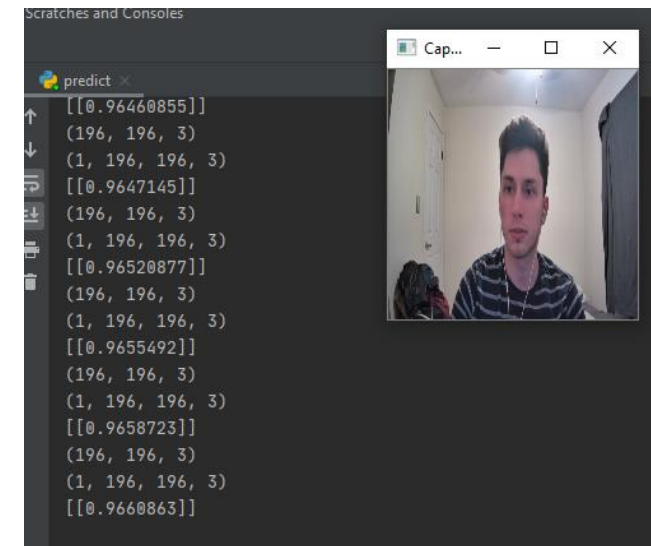
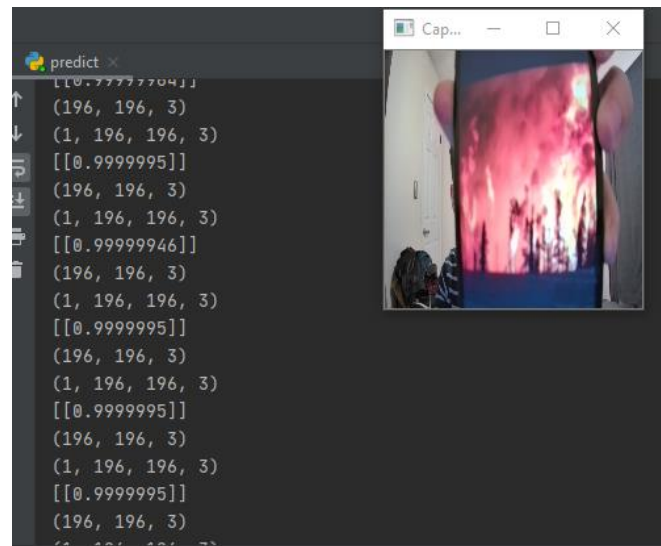
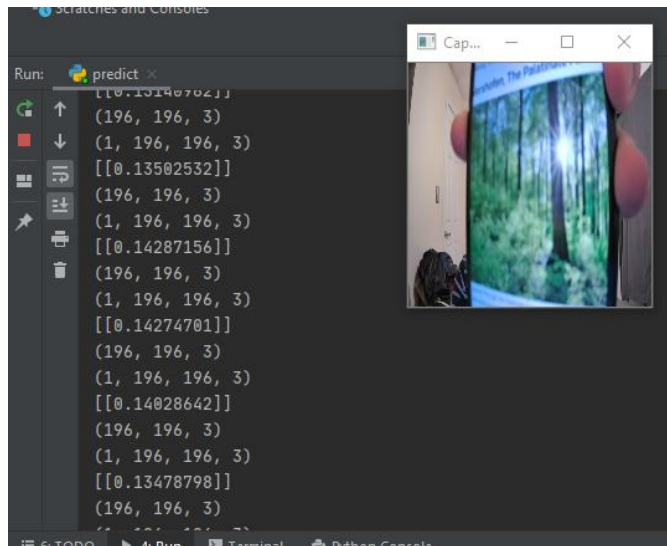
GPS Chip Signaling

# Task 1 – Connect All Physical Components

- Set up NOOBS OS on Raspberry Pi
- Installed Python Environment on the Pi
- Found a way to save neural networks to files so Pi would not need to train them. Saving space and processing time on the pi.

# Task 2 – Data Stream from camera to Pi

- GoPro did not perform like my project manager said. Could not connect it like a webcam to software.
- Used a different webcam, works fine.
- Neural Network works great!



## Task 3 – GPS Chip Signaling

- The task requirements were changed by the project manager
- Need to reassess task requirements with Aerospace team

# Milestone 6

- Task 1: Set up GPS signaling

Hopefully, aerospace team will be ready soon.

- Task 2: Find Raspberry Pi limitations

Find if the Raspberry Pi is able to handle the full data stream for a prolonged period, if not find a way to decrease framerate of data stream.

- Task 3: Bureaucratic responsibilities for senior showcase

Anything that Dr. Chan is asking for the completion of the project. Possibly including but not limited to a poster, a demo, updated website, an e-book, evaluation results, and anything else.