EE/CprE/SE 491 WEEKLY REPORT 02

9/19/2024 - 9/26/2024

sdmay25-21

Distributing a fleet of drones over an area with no-fly zones

Trajcevski, Goce

Nicholas Kokott
Melani Hodge
Cole Stuedeman
Everett Duffy
Ken Schueman
Samuel Russett

Weekly Summary:

Last week, our team learned the goals of the project from the bottom up, researching algorithms and techniques for coding this project. This week, we began by learning about the project from the top down. We plan to start a requirements document and understand the goals we want to achieve from a clients perspective. What functionalities do we want our final product to have? Along with this we will complete the product research assignment.

Past week's accomplishments:

This past week we were collectively told to read a research article that our advisor wrote a couple years back about drone shortest path algorithms that could be potentially useful in our endeavors. We also started looking up potential frameworks and tools to be used. As well as this we started to look at different data formatting types that could be used in order to transmit geographical, drone, and algorithmic data that can be sent between our front and backend. Nicholas and Cole looked more specifically into data transfer and discovered shapefile which can be used to send shape like data in an easier manner. Ken, Everett, Sam, and Melani looked more into the different frameworks and tools that we could utilize.

- Sam: 2 hours spent researching frameworks.
- Cole: 2 hours spent with Nick discovering data transfer techniques.
- Nick: 2 hours spent with Cole discovering data transfer techniques.
- Everett: 2 hours spent checking frameworks against our requirements.
- Melani: 2 hours spent checking frameworks against our requirements.
- Ken: 2 hours spent checking frameworks against our requirements.

Plans for the upcoming week*:*

- Nicholas Kokott will continue to look at different data formatting types that will be compatible with the frameworks and the tools that have been found so far.
- Cole Stuedeman will also continue to help look for different data formatting types.
- Ken Schueman will continue to examine different frameworks and tools
- Sam will assist Ken with finding new frameworks and tools that can be used
- Melani will examine the selected frameworks so far and write the pros and cons for them
- Everett will examine the selected tools and data formatting types that have been found and write pros and cons for them.
- EVERYONE will look at the literature that our advisor sent us as well as look at the AirSim simulator which is a product that we can draw some inspiration from for our project.