Parker Brown

EE 420

Dr. Akbas

EE420 Engineering Notebook

**Thursday September 15th:**

Day 1, introduction to team. Got onto the team discord and GitHub, along with communicating with Alejandro about the specific Jetson processor being used. Assigned tasks to myself on GitHub for the project to be completed during this sprint and over a longer period.

Also talked with Dr.Macchiarella about gaining access to the lab with the UAV to work on the thermal hardware issue

**Sunday September 18th:**

Virtual team meeting discussing current progress and what needs to be accomplished, also assigned members to look into the SDD and the SRS to be prepared for the next class period.

**Monday September 19th:**

Had a more formal meeting with Dr.Macchiarella to gain access to the lab, along with working on this and other projects surrounding Turtle Tech. Attended a zoom meeting with all of Turtle Tech which included discussion on the thermal hardware issue.

**Tuesday September 20th:**

In class meeting where all of the sections for the SDD and the SRS were assigned, with rough drafts due next week. Also discussed more details with the project with Alejandro and Dr.Akbas, along with a confirmation that the team will get a jetson processor to work with in the near future.

**Thursday September 22nd**

Review current progress on documentation and future plans for this sprint, also worked on assigned portions of documentation.

**Sunday September 24th**

Had virtual meeting discussing documentation progress, also worked on assigned documentation.

**September 27th**

Had a small meeting with Dr.Akbas to get a greater understanding of the system requirements and outputs for the product. Worked on documentation for the SRS and SDS. Small meeting with only a few people, but info was/is getting relayed out to other members who were busy preparing for the hurricane.

**September 29th – October 1st**

No power or cell service to due hurricane

**October 3rd**

Checked in with Dr.Akbas and discussed with team starting the proof reading phase of the documentation. Worked on updating documentation with newly received information from the past few weeks.

**October 6th**

Met with Liz (hardware lead) in the morning to discuss problems facing the current payload. Have a plan moving forward to acquire a power supply to create manual voltage disturbances and measure affect on Jetson performance. Also met with team for final check in on documentation before the due date, and discussed with Alejandro the file time stamping. The time stamps for the photos from the first flight are only available on the turtle tech laptop, however there is now a plan to have the file names for each photo include the time stamp. Plan on organizing the time stamp of the photos, to make a function of # of photos / time, to better determine shut off time.

**October 7th**

Worked on finishing the SDS and SRS v1. Also attended team meeting to finalize submission of SDS and SRS.

**October 10th**

Made progress on portions of the Sprint 1 presentation.

**October 13th**

Made progress on portions of the Sprint 1 presentation in class, discussing with groupmates how to prepare for the presentation.

**October 14th**

Attended team meeting over discord to discuss the progress of the Sprint 1 presentation and to prepare who would speak on which topics. Became responsible for speaking on the hardware lessons learned and current issues.

**October 18th**

Started work on Test Plan v1, discussed with teammates which portions would be covered by which people.

**October 25th**

Made more progress on Test Plan v1 remotely.

**October 28th**

Completed assigned portions of the Test Plan v1.

**October 30th**

Attended team meeting over discord. Discussed the improvement of the neural network and the upcoming deliverables due.

**November 2nd**

Reviewed other sections of Test Plan with teammates before submission.

**November 3rd**

Reviewed feedback on the SRS and SDD v1 in class with groupmates, made plans for addressing issues.

**November 6th**

Attended team meeting to work on and discuss the revisions of the SRS and SDD.

**November 7th**

Made slight progress on assigned revision portions of the SRS and SDD.

**November 8th**

Met with William before class to work on Neural Network (on Jetson nano) for an hour. Helped try to troubleshoot issues with the Jetson processor throwing errors when trying to install necessary libraries. Also finalized fixes to the SRS in sections 2.5, 2.7, and 3.2. Also added newly revised diagrams to the SDD. Reviewed with teammates the documentation before submission.

**November 10th**

Aircraft payload shutdown issue is resolved with separate power supply.

**November 13th**

Created updated slides for the sprint 2 presentation. Also had discussion with Dr. Akbas about other project functionalities, specifically the system output.

**November 14th**

Worked on assigned slides for the sprint 2 presentation.

**November 15th**

Finished slides for the sprint 2 presentation and met with group members beforehand to review and rehearse presentation.

**November 16th**

Started working on research for how to timestamp the images. Created small programs on how to time stamp images.

**November 17th**

Continued working on timestamp code.

**November 22nd**

Demonstrated time-stamp code to teammates, which embeds text onto the image of the current time of the device before thanksgiving break.

**December 2nd**

Started work on my SRS and SDD v2 revisions to prepare for the final versions of these documents for the semester. Continued research on how to improve time-stamping code to work in real time.

**December 3rd**

Finalized and reviewed the SRS and SDD for the semester.

**December 5th**

Prepared for final sprint presentation by memorizing material.

**December 6th**

Made final touches to PowerPoint before presenting. After presenting, started completing some edits the Test Plan document.

**December 8th**

Met with group to record 3-minute video in person for the project sales pitch. Also finished making changes to assigned sections of the Test Plan document before submission.