**Project:** Group #19 | Raspberry pi / Drones

**Problem Sponsor:** Company/agency and contact point.

**Meeting Date:** 2023-09-20 / 2:30 PM – 7:00 PM

**Group Members present**: Carlo Leiva, Aleysha Santiago, Colton Rohan

**Group Members absent**: Rayan Rabbi

**Next Meeting: Undecided**

**Summary:**

We met up on Wednesday to combine all the hardware pieces we bought/collected to assemble the drone. Due to upcoming deadlines we decided to use a Nazgul Evoque as a body for the drone instead of 3d printing or laser cutting a body ourselves. At the meeting Carlo and Aleysha began by setting up the raspberry pi and downloaded the flight software onto it. Colton began with the hardware and started assembling the drone with the Nazgul drone body. The drone build came with a lot of mislabeled and unlabeled pieces so a bit of time was spent organizing the pieces so they would be ready to assemble. There were some issues with trying to download the flight software onto the raspberry pi but after a bit of trial and error it was successfully loaded onto the device. Since the body kit was specifically built to use their hardware for flight, we will need to spend our next team meeting planning and finding a way to attach our hardware onto this body. We ran into some issues with how we would send signals to the drone since we would not be able to connect to the schools WIFI for demonstration.

Game Plan:

* 1 raspberry pi Pico, use a flight software, 4 ESC modules, 1 lightweight battery, quad propellor, receiver, transmitter, gyroscope, Nazgul drone body.
* Choose between arduopilot/betaflight and download the flight software.
* Instead of laser cutting a body we will be using a Nazgul body.
* The ESC controllers were causing some issues, and we might swap them out, but for now we will continue to use them.
* We didn’t have the controller with us this meeting. That will be our main flight controller for the drone, the specific controller we will use is still undecided.

**Action Items:**

* **The drone is in a rough draft state and is almost ready to put the electronics onto the body.**
* **The fight software has successfully been loaded onto the raspberry PI.**
* **Carlo is working with the flight software to better understand what code we need to get flight.**
* **We need to make sure that after assembly the device Is heavy to the point where it can’t achieve lift.**
* **The drones blades might cause issues with the raspberry pi on the drone, we might have to put the blades on the underside**