CprE 4920 Status Report 2

01/31/2025 - 2/13/2025

Group number: 8

Project title: Race of Doom

Client &/Advisor: Dr Bigelow

Team Members/Role: Alex Crandall, Wesley Jansen, Elizabeth Schmitt, Ben Towle, Lalitha Vattyam

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- **Weekly Summary**

This week, we started looking deeper into software practices for the race between the two teams. We started a basic implementation of creating the pi hat in order to use our battery as the primary source of power for the RC car. Each of the software teams are now diving deeper in creating their basic implementation for basic movement on the car.

- **Past Week Accomplishments**
  - Team Member 1: Alex Crandall: After meeting with Matt from ETG, I have started looking into resources he recommended such as KiCad and "Getting to blinky" for starting my research on PCBs.
  - Team Member 2: Wesley Jansen : Past two weeks have been refamiliarizing myself with the car and getting back the knowledge forgotten over break. I also updated the readme making it closer to what we are looking for and brainstormed how it should look overall.
  - Team Member 3: Elizabeth Schmitt : In the past 2 weeks I have been working primarily on getting more familiar with the hardware. Going onto the Raspberry Pi and seeing what all of that data looks like, really getting to know it has been good. This is helpful to understand when we really get into the software.
  - Team Member 4: Benjamin Towle : Researched how to send data from the webcam to the pi
  - Team Member 5: Lalith Vattyam: Started initial design and development of skeleton code

- **Pending issues**

Currently we are still working on the pi hat which is our primary issue, as that is the only way we can have the RC car move autonomously without us having to drag a power cord behind it.

- **Individual contributions**

NAME	Individual Contributions *(Quick list of contributions. This should be short.)*	Hours These weeks	HOURS cumulative
Alex Crandall	Began research on the Raspberry Pi hat	15	81
Wesley Jansen	Brainstormed Readme, got back in groove	12	80
Elizabeth Schmitt	Tested how the hardware and sensors work	12	79
Ben Towle	Completed the installation of the raspberry pi 5 module	11	77
Lalitha Vattyam	Worked on creating an initial skeleton code for our RC cars autonomous movement.	12	79

*Starting cumulative hours count on weekly report #1

- **Plans for the upcoming week**
  - Alex Crandall – I am attending the soldering seminar in Coover Tuesday night to further enhance my knowledge and create a basic PCB. Finishing the "Getting to blinky" starter course will also be a main goal.
  - Wesley – Perfect the Readme so that us and future groups will not have trouble connecting to and getting onto the car uploading their code and get to the software much more easily.
  - Elizabeth – Start working on the software for the basic movements and get those basic movements done.
  - Ben – finish embedding the webcam into the hardware design and have sprints planned out for software development.
  - Lalith – Work with Ben to complete our skeleton code and start the more complicated implementation for autonomous movement.

- **Summary of weekly advisor meeting**
  We had a meeting with Dr. Bigelow last week and we will be meeting with him today. Last week we discussed more about our group in terms of what went right in accomplishing our tasks and goals and what needed improvement. Our biggest takeaway from the meeting was to make sure that we don't fall behind and lose progress. As this is our final semester for everyone on our team, it is important for us to stay on track and complete our tasks in a timely fashion.