
CprE 491 WEEKLY REPORT 04

10/4 – 10/10

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

- **Weekly Summary**

This week we were able to take a look at the code for the big car that we obtained from ecg. We were all very busy this week with numerous exams and labs, however, we were still able to get together to get some work done for our project and figured out times that work well for us next week to make up for lost time from this week and make sure that we stay on schedule.

- **Past week accomplishments**

- Team Member 1: Alex Crandall: After the advice received from Dr. Bigelow and Ben's time at ETG, I was able to gather a better understanding of the sensors we have access to and the capabilities of each.
- Team Member 2: Wesley Jansen: Thought of new idea for project and redirected team to work on one car instead of 2 because of small group. Then we can also have all the same sensors and build the car together. We will document this well for future teams that have this project. Looked at previous years code and decided it would be easier to start from scratch. Looked at more options for hardware and decided to probably use a raspberry pi to connect over Bluetooth to a computer with higher processing power and more storage.
- Team Member 3: Elizabeth Schmitt: Discussed with Dr Bigelow more options for hardware. Decided on us all using the same car considering there are so few of us. Built up understanding of the general hardware that we need.
- Team Member 4: Benjamin Towle: Helped figure out what components are available to us and what components we may need to purchase for our hardware

design. Helped narrow down our goal for the first semester. That being to have a single vehicle prototype that will be shared among the two subgroups.

- Team Member 5: Lalith Vattiyam: Finished a pipelined schedule and also took a look at the code provided for etg and got an understanding as to how the big car works.
- **Pending issues**
- **Individual contributions**

<u>NAME</u>	<u>Individual Contributions</u> <i>(Quick list of contributions. This should be short.)</i>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Alex Crandall	Further researched components along with coming to a new consensus on what sensors to use.	6	23
Wesley Jansen	New Idea for project with 1 car instead of 2 cars. Discussed hardware.	6	20
Elizabeth Schmitt	Discussed Hardware options with Dr Bigelow. Learned more about the hardware we need.	6	20
Ben Towle	Met with Matt from ETG to figure out where the previous team's hardware components were located. Relayed the information back to Dr. Bigelow during our bi-weekly meeting.	6	22
Lalitha Vattiyam	Looked at code provided by ETG to understand how the components of the car are called for in the code	6	21

***Starting cumulative hours count on weekly report #1**

- **Plans for the upcoming week**
 - Alex Crandall – Discuss and start to put together an applicable parts list along with grasping a better understanding of what the car we have is, along with the sensors we have newly acquired
 - Wesley – Research components further and figure out how different components can communicate with each other and bluetooth. Maybe make a purchase for a raspberry pi. Also tear down last years car and salvage sensors and parts. Especially the car body.
 - Elizabeth – Begin to strip down the car from last year and get a clear idea of our hardware design moving forward. Start creating documentation for the car hardware.
 - Ben – Research the components we have readily available from either on the previous team's car, or from ETG. Specifically, those components will be the RealSense D455, the RPLidar sensor, and the Infrared and Ultrasound sensors that are mounted on the past team's vehicle.
 - Lalith – Get the group together to go over code and get started on budgeting for the next car

- **Summary of weekly advisor meeting**

During our bi-weekly advisor meeting, we updated Professor Bigelow on what components we have readily available from ETG and the car from last year. After figuring out what we have available, we concluded that our goal for this project will be to have both subgroups work on the hardware design of the vehicle (designed from scratch). That way, our hardware will be standardized and we set up our implementation to diverge based on the software of the vehicle. This meeting was very helpful in giving us a solid blueprint for what we need to get done during the next few weeks.