Weekly Report #1

Members:

Brogden Worcester - Client interaction

Dalton Holdredge - Document submitter/creator

Noah Brooks - Hardware team leader

Joseph Holtkamp - Software team leader

Jordan Suby - Individual component design

Cheyenne Smith - Team organizer

Tejas Agarwal - Finance officer

David Quan - Progress coordinator

What we've accomplished in the past week / what we've been researching:

Brogden Worcester - Ordered and presented a Raspberry Pi zero, camera, and cable for the team to use. Requested and communicated for team access to lockers to store supplies. Checked out Raspberry Pi, Arduino, and accessories from ETG for the team. Started researching electronic components may need in the future including H-bridge and DIY game controller. Checked access to GIT.

Dalton Holdredge - worked on the physical prototype of the robot and started researching how to interface and work with Raspberry Pi embedded systems. Started to research machine learning for object recognition using a camera.

Noah Brooks - worked on the physical prototype of the robot and started researching how to interface and work with Raspberry Pi embedded systems. Started to research machine learning for object recognition using a camera. Started the development of the prototype gui.

Joseph Holtkamp - Set up GitLab repo and Jira issue board. Researched tech stack for the application for driving our robots. Started the course for embedded machine learning provided to us.

Jordan Suby - Connected to git repository and did some sample tasks as a refresher. Joined the Jira board and explored options a bit as I have never used it before. Watched some various robotics videos on YouTube and joined the Coursera course on machine learning.

Cheyenne Smith - Looked into datasheets for the hardware we already had to have quick access to when we start going more in depth. Spent some time learning about machine learning and going through a bit of the Coursera course on the subject.

Tejas Agarwal - Worked on making sure git works and joined the jira board. Started the Machine learning course on coursera

David Quan - Worked on making sure git works and joined the jira board. Started to learn machine learning on coursera

What we're planning to do in the coming week:

Brogden Worcester - Join the jira board, Practice pushing and pulling to GIT. Bring more electronic supplies to campus. Work with prototype and document prototype capabilities if possible. Find 3D printers on campus.

Dalton Holdredge - Get the prototype connected to wifi and controlled through a simple GUI of some sort so we can see the physical speed and maneuvering capabilities. Research further into machine learning and how to accomplish object recognition with the camera on the robot.

Noah Brooks - finish gui, and bot functionality as far as controlled driving.

Joseph Holtkamp - Work with Noah on interface for driving robot prototype. Research Unity/Unreal Engine as possible tools for developing our application to be cross platform and distributable. Research websocket connections and how that can be applied to our robots. Get access to raspberry pi for testing purposes.

Jordan Suby - Do more research, including working on the coursera course. Push a working program to git without making a mess of the branching and merge requests to demonstrate that I can for future work. Help with group work as it comes up.

Cheyenne Smith - Work on more machine learning and seeing if any of that can be applied to the Pi. Run through git practice items to get refreshed on how git works before it is needed. Look for simple test code to run on a Pi and see what can be done from there.

Tejas Agarwal - Go through the Machine Learning course and try to get some meaningful output on gitLab.

David Quan - Progress through the machine learning course and attempt to push something to the repository to see if git is set up correctly.

Issues we had in the previous week:

Brogden Worcester - Family sickness. Rushed pregnant wife to ER on Sunday. All family members are stable now.

Dalton Holdredge - Broke the SD card while pulling out the Raspberry Pi, the wheels on the prototype initially were very wobbly and unstable, and I had difficulty setting up Gitlab and figuring out how to access the repo.

Noah Brooks - had to buy a new ssd card since dalton broke it

Joseph Holtkamp - Interviews conflicted with scheduled meeting times. Did not partition enough time in my schedule to focus on the embedded machine learning class or research game engines available.

Jordan Suby - Spent less time on schoolwork than planned due to an upset stomach and then unexpected company.

<u>Cheyenne Smith</u> - Had two exams this past week that took priority so I couldn't accomplish all that I would have liked to have done this week.

<u>Tejas Agarwal</u> - Got held up with the exams and assignments so couldn't do much.

<u>David Quan</u> - Had an interview during meetings two weeks ago.