**TEAM 2 - WEEK 8 REPORT - MARCH 13th - 408i SPRING 2022**

**Michael Delatte**

This week Michael spent a lot of time trying to find a good comparison to model his code after. After some research, he found that the game Snake was the most comparable. Using some code and a video he found he began to construct the ML PyTorch code to actually create a model. He needs 3 main classes: model, environment, and actions. Fortunately, the environment was already made from previous testing and needed slight tweaks. The actions class is mostly finished, as it needs the completion of the model to be properly debuged. The model class is the most complicated and new to Michael, be he has a good reference due to the Snake code he found. Coming up this current week, Michael plans to find out how to write a script so that all 3 coding languages we are using can properly communicate. This will be done through a text doc and read/write commands.

**Wesley Catbagan**

This week in the lab Wesley worked with the group to test Erik’s motor control and PID controller. After he briefly worked on his map file with little success. Due to midterms and being out of town for spring break he was unable to do as much as he would have liked. He will spend this week’s lab and a good portion of the week finishing the map code so that we can finally put all of our work together.

**Erik Bryson**

Awesome sauce progress. The robot detects all turns, it then halts once a turn, intersection, or dead-end has been detected. It remains in halt until it receives a decision that is appropriate for the situation detected. Now it is simply a matter of making the special move sequences. After that additional code will accommodate receiving the halt and turn around commands in the middle of following a line and not just at turn detections.

Also, we helped another team (Team 1 ?) in getting proper motor control. Hossein was so receptive to the help that he in no time helped us back with better code, even finding errors in the PID functions that we had written which got rid of our jerkiness we had last lab, being able to re-tune the Kp Ki Kd for much better motor control.

Lastly, the ESP32’s seem to have better PWM and therefore stronger, quieter motor control. We are seriously thinking to switch to the the EPS32’s time permitting.