**TEAM 2 - WEEK 2REPORT - FEB 7th - 408i SPRING 2022**

**Michael Delatte**

During lab this week, Michael developed a maze solver. This shows the correct paths to take when the algorithm finds a solution. This will need to be improved, to actively use two than three active robots in the search. For now, I have decided to have the robots do an exhaustive search and use any extra robots at the first available T/Plus intersection. I also read up on Team 1, to prepare my algorithm. I will be implementing their thoughts this week. I have a long-term goal of looking into a machine-learning algorithm to solve the maze. This problem is not trivial to solve, like the one robot case, so ML might be able to find some nuance that I cannot.

**Wesley Catbagan:**

During the lab this week, Wesley worked on creating the project schedule and assigning tasks for each team member. He also began to develop and research about how to store position data and map out the location of the mice in the maze. He has currently decided to work on two different ideas. One idea is to create a two dimensional array and assign values to the positions to map the mouse location. The other idea is creating a tree to store the data for mapping the location of the mouse. He drafted two different code files to test out in the next lab session in combination with Michael’s and Eirk’s code as well. He developed the code by using the encoders to measure and track the path the mouse has taken.

Moving forward his main focus will be to test and debug the code in the lab and to develop a main file to implement the other’s work.

**Erik Bryson:**

We worked together in creating and delegating our team responsibilities through the exercise of the Gantt chart scheduling assignment. Further discussion was made between the modular alignment of our tasks, from hardware control, to communications and data management of mapping/tracking, to the brains of decision making solver. The dependency’s of those three aspects, Controls, Data management, and Dicision making, are to be mapped out, so that each team member can see how there there virtual module providers and receives from adjacent models. Already we setup the ability to detect the encoder read-out for the data management, mapping and tracking module.

Moving forward my primary focus is testing the encoders ability to reliably read in values despite the introduction of code, or if it is properly arranged on separate interrupts so as to take priority above the main code execution.

Furthermore, data filtering is suspected and anticipated in order to contrast the arrayed values of the tapes detection from its analog sensors.