EE/S E Senior Design: sddec20-28

Micro-Mouse Maze Runner Showcase
Week 7&8 Report
Client: Dr. Jones
Advisor: Dr. Jones

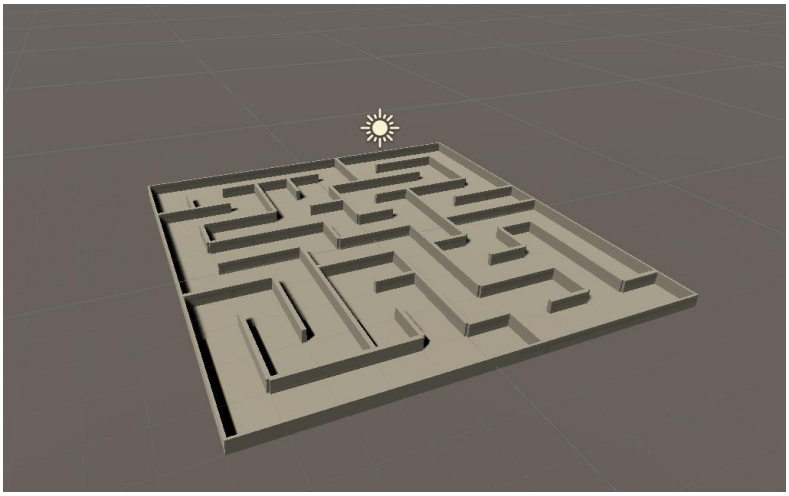
Team Members:
Richard Anderson
Austin Chesmore
Tyler Fuchs
Jorge Gomez
Aaron Walter
Joshua Wooi

Bi-weekly Summary

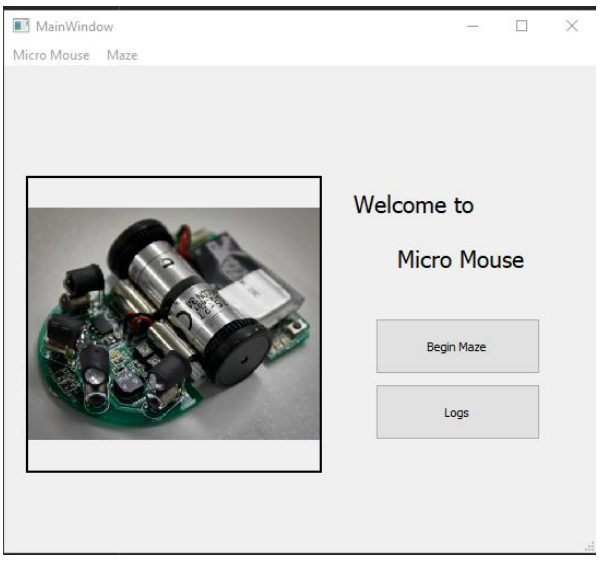
In the last two weeks our group has put together a contingency plan in place that allows our team to continue working while the remaining of the semester is virtualized. Work has been completed on the maze and UI. A maze model was created in a game engine called unity that will be used to virtually test the mouse with the maze. A prototype GUI has been created using the PyQT library. A simple Window is now displayed to the user and they can interact with it.

Past Weeks Accomplishments:

- Unity-built maze that will be used to test the mouse



    - Randomly generated maze
    - Started working on sensor IO and micromouse physics
- GUI prototype built



- Eagle software selected for PCB design
- Began learning autocad inventor for body design

Pending Issues:

- Physical Micro Mouse prototype for tests
- Final part for prototype still in ETG

Individual Contributions:

Team Member	Contribution	Prev Week	This Week	Report Total	Total
Richard Anderson	Started virtual micromouse sim (maze gen),	1+1	1+7	10	47
Austin Chesmore	Worked with the physical hardware assembly,	1+3	1+3	8	53
Tyler Fuchs	Worked on Getting a prototype UI created	1+2	1+3	7	42
Jorge Gomez	Working on developing Eagle skills in order to design a pcb.	1+2	1+2	6	41
Aaron Walter	Created initial virtual micromouse simulator - Can generate a randomized maze.	1+2	1+7	11	57
Joshua Wooi	Studied PCB design techniques, skimmed through Python libraries and noise filters	1+3	1+3	7	37

Plans for Coming Week:

- Continue working on the GUI
- Continue working on PCB design

- More work on micromouse sim, start playing with ray tracing, start making endpoint for gui
    - We can try to start using socket connections for now, but this might not be fast enough, so we might look into something else.