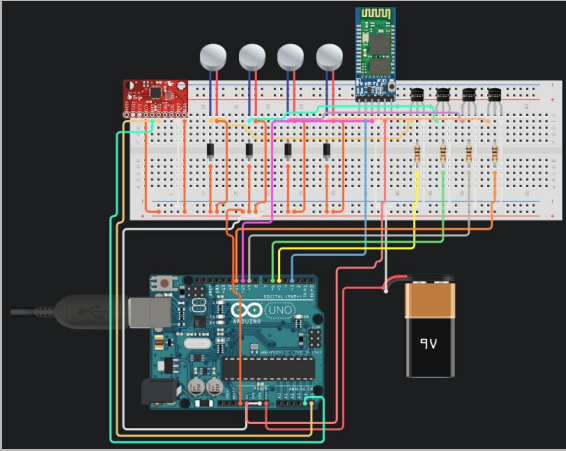


# Comp140 Assignment 2 Part B

Maze Roller - Thomas O'Leary

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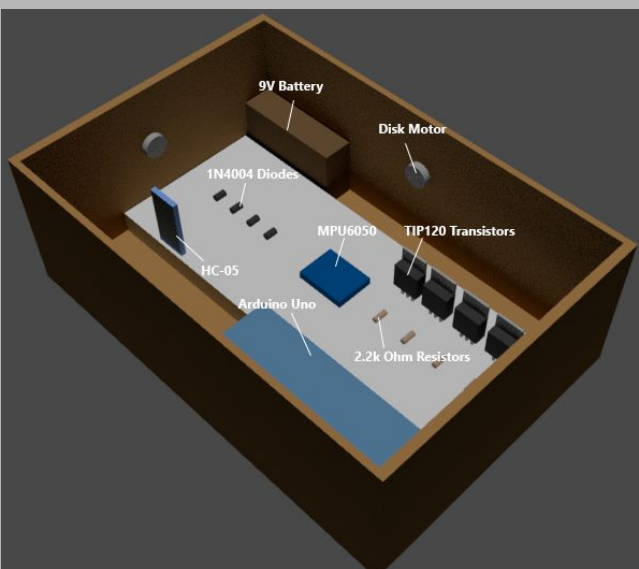
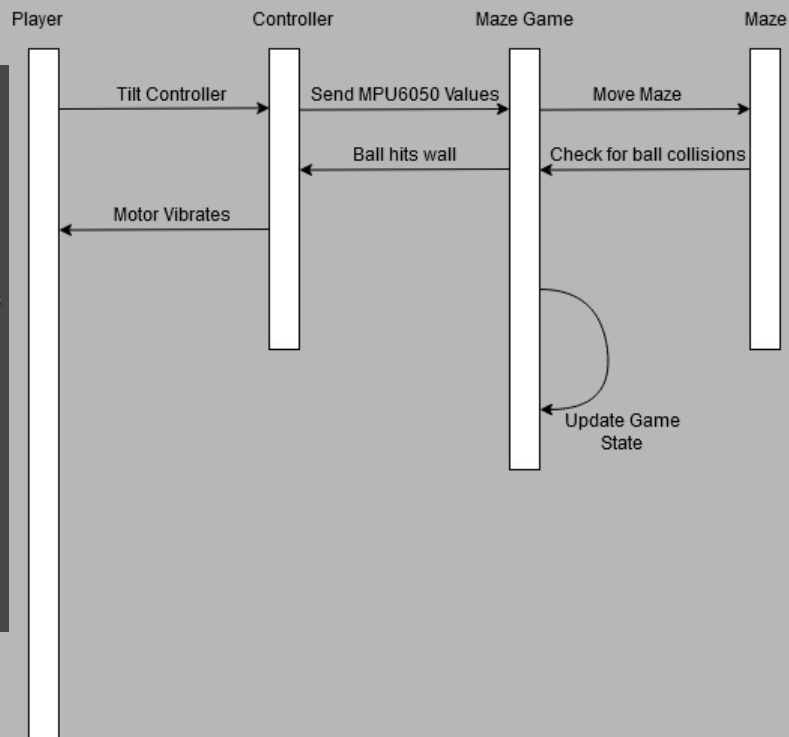
Maze Roller is a simple game in which the player has to roll a ball through a maze from its start to finish! To do this, all the player needs to do is tilt the controller! If the ball collides with a wall, a small haptic vibration alerts the player!

The controller itself contains:

- 1× Arduino Uno
- 1× MPU6050
- 1× HC-05 Bluetooth Module
- 1× 9V Battery (and connector)
- 4× 3.3v Vibrating Disk Motors
- 4× 2.2k Ohm Resistors
- 4× 1N4004 Diodes
- 4× TIP120 Transistors
- Jumper Wires & Breadboard

Built within a small box, the controller uses the MPU6050 accelerometer to calculate pitch and roll! Along with this, it utilises the HC-05 module to allow the controller to be wireless.

One additional feature of the controller is that it uses 4 disk motors for the haptic feedback.



A labelled 3D model of what the inside of the controller would look like!\*

\*3D model is to scale