Doua Yang
ECGR 4161
Partner: Tien Mai
Lab 7

URL link 1: https://www.youtube.com/watch?v=_vNfboUZdA8

In this lab experiment,

The objective of the lab was to program a robotic vehicle to travel 1.5x1.5 m to 2x2 m wall with obstacles. The car must have no modifications on it but may run at any speed without using any bumpers for maximum amount of points.

The first problem we encounter was not having the left ultrasonic sensor reading any values. We had to correct that by changing the name of the sensor and setting it to different pins for trigger and echo by adding an extra level converter. The second problem we had was the two ultrasonic interfering with each other causing the robot to run into walls. The only way to correct that was to increase the distance for the code as there was a delay reading both sensor. Last problem we encounter was driving the robot in a straight line. We tried using the encoder but that ended up causing the robot to stall. We fixed that by writing two different speed for the wheels. As the robot tends to swerve to the right, we controlled the right wheel with a faster speed for the robot to continued driving straight.