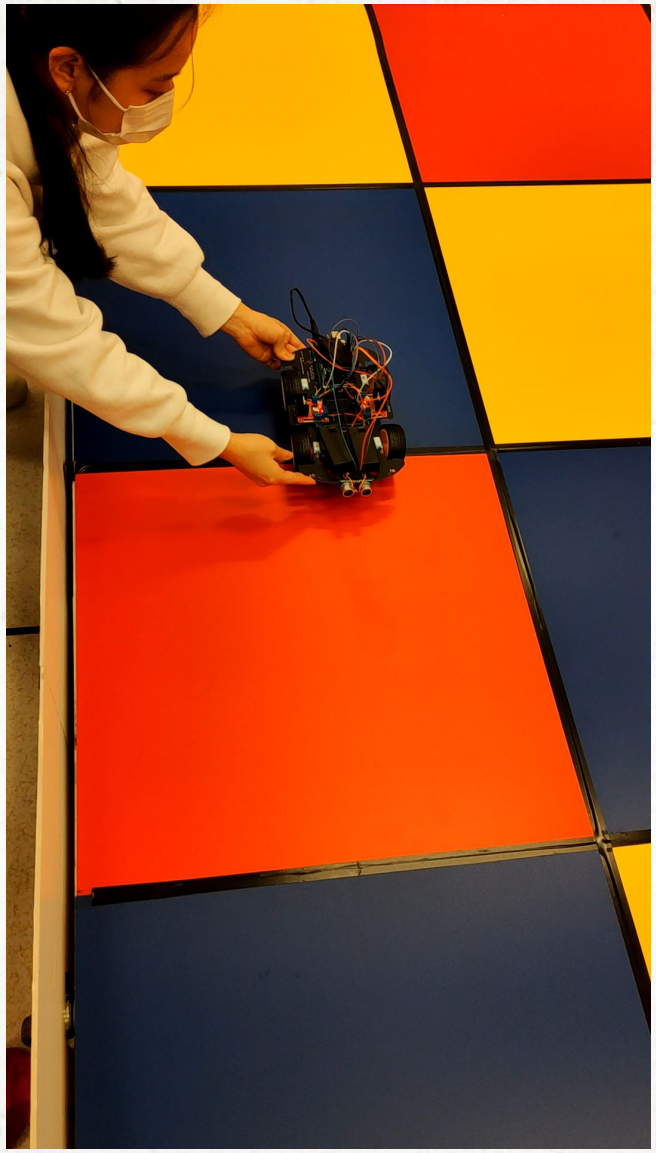
MOVEMENT OF THE CHASSIS

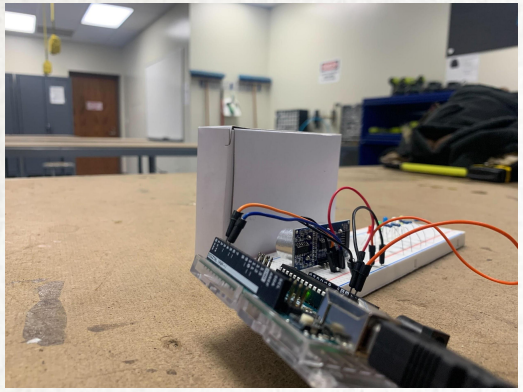


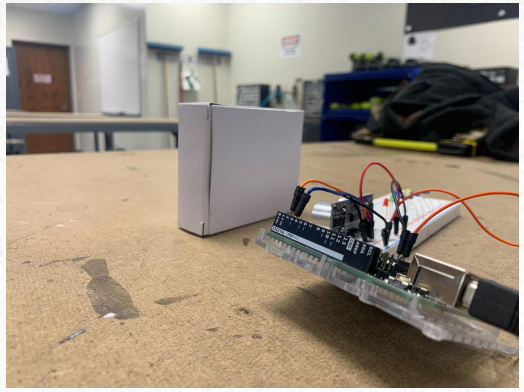
MOLE-WHACKER DEPLOYMENT

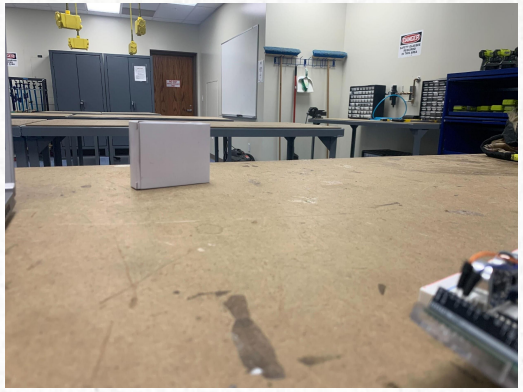
- Servo motor horn attached to a structure with slots for mole-whacker to be deployed
- Range of motion of the servo horn (< 180 degrees) to deploy the mole-whacker
- Need for designing the mole-whacker deployer and servomotor to the chassis

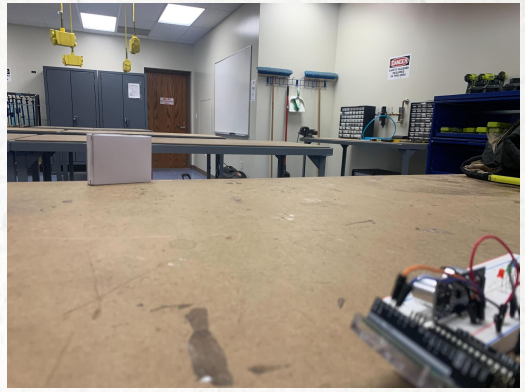
SENSOR MODALITIES: ULTRASONIC SENSOR

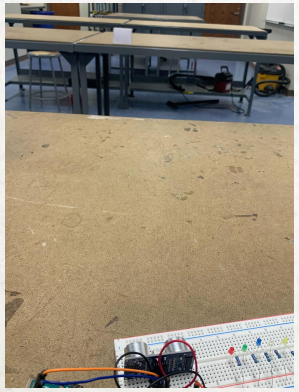
- Objective: verifying whether the ultrasonic sensor is interfacing correctly with the Arduino Microcontroller
- Measure the output signal corresponding to the position of the target (white box)
- Outcome: Obtained the characteristic of the ultrasonic sensor in a near-actual setting







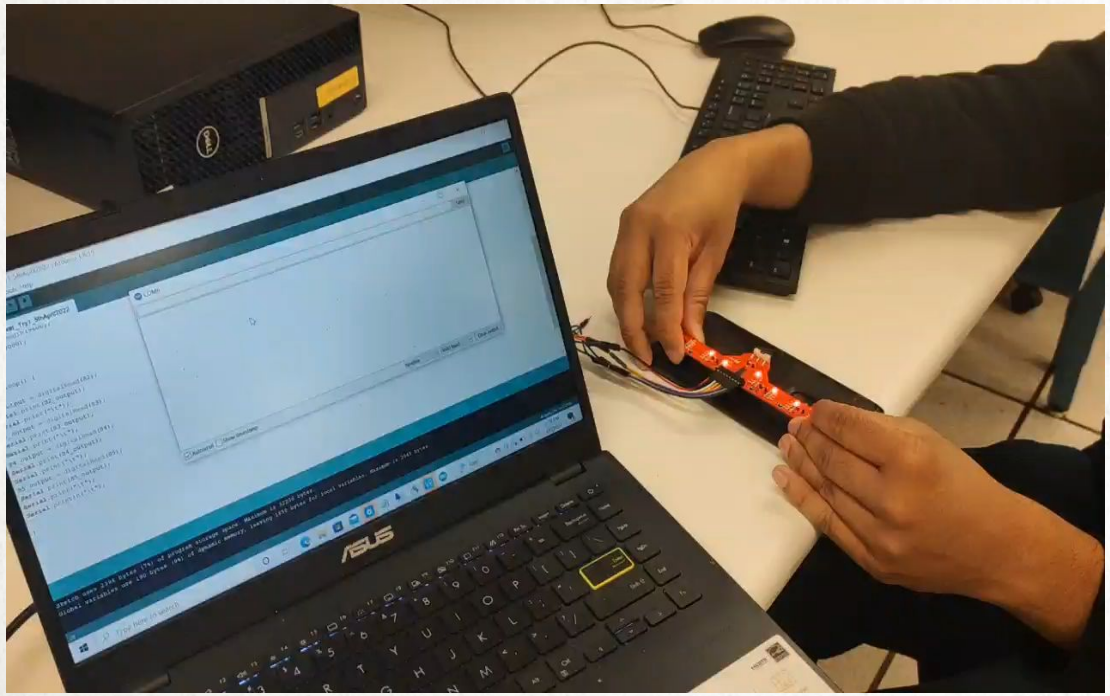


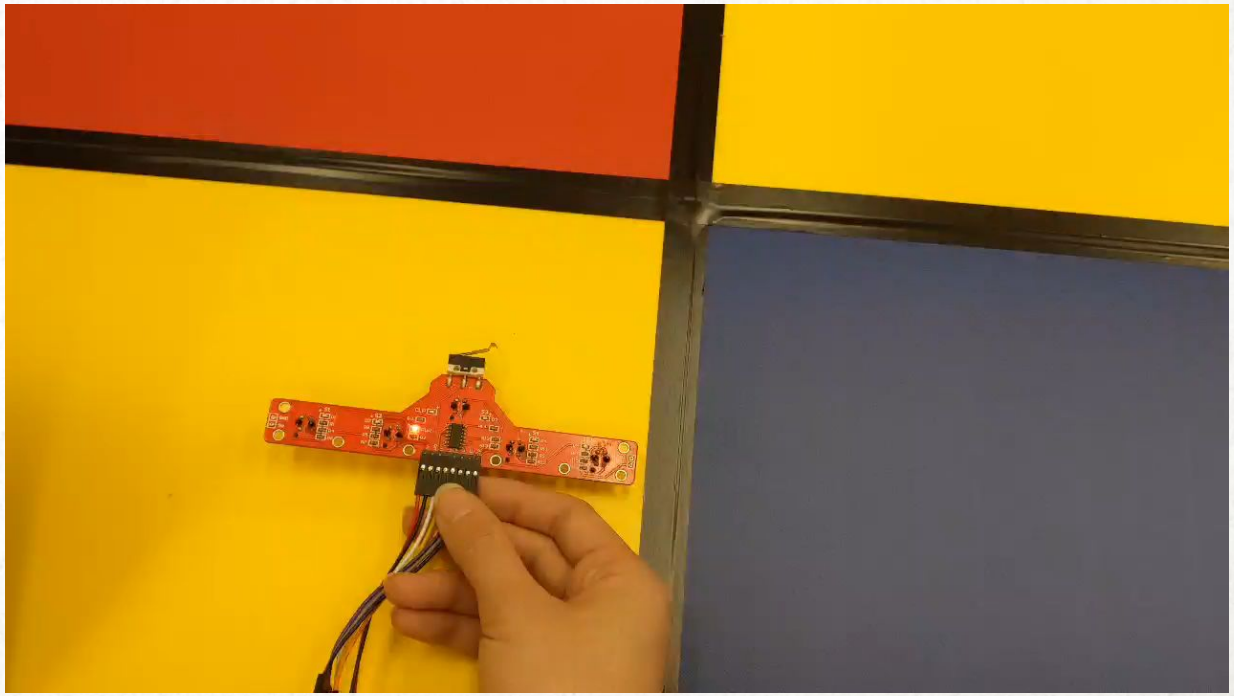


Observations	Distance (cm)
1	2
2	5
3	21
4	34
5	51
6	170

SENSOR MODALITIES: LINE FOLLOWER

- Objective: sense and track the dark lines of the playing field to ensure robot maintains direction
- 4 working LEDs for the line follower, with digital outputs: 1 (line sensed) and 0 (no line)
- Present demonstration: use of line-sensor outside the chassis and complete verification of code





VISUAL INDICATOR

- R, Y, B LEDs for indicating target color
- Start LED for indicating the game has started (white)
- Green LED for indicating that the current square is the same as the target color