Ahsanullah University of Science & Technology

Department of Computer Science & Engineering

Object and Human Following Robot

Microcontroller Based System Design Lab

Submitted By:

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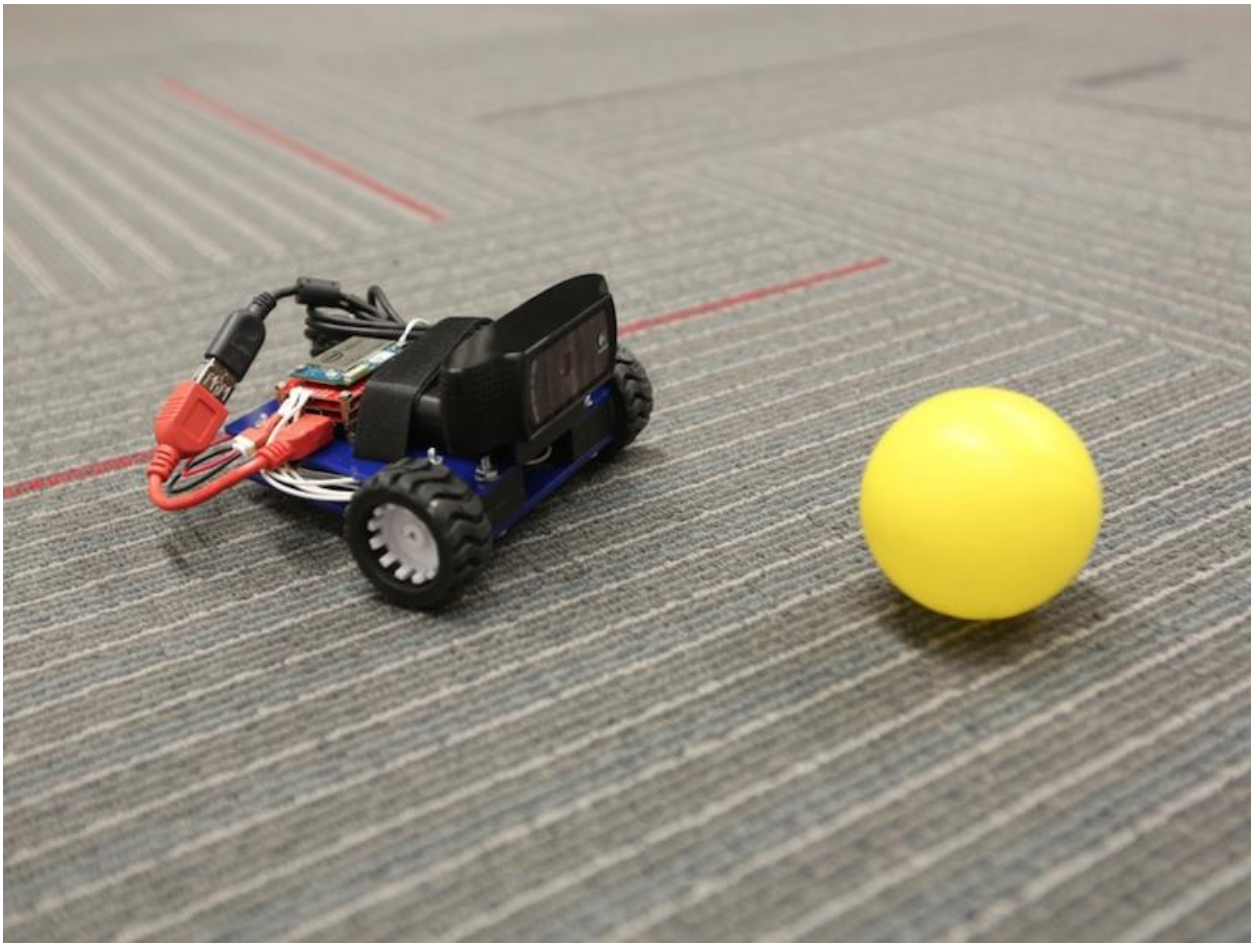
Project Objective: An object and human following robot can detect an object or human within a certain range .The robot will follow the object or human when the object or human is moving away from it. The robot will also go away from the object or human when the object or human is approaching the robot.

How it will look like:

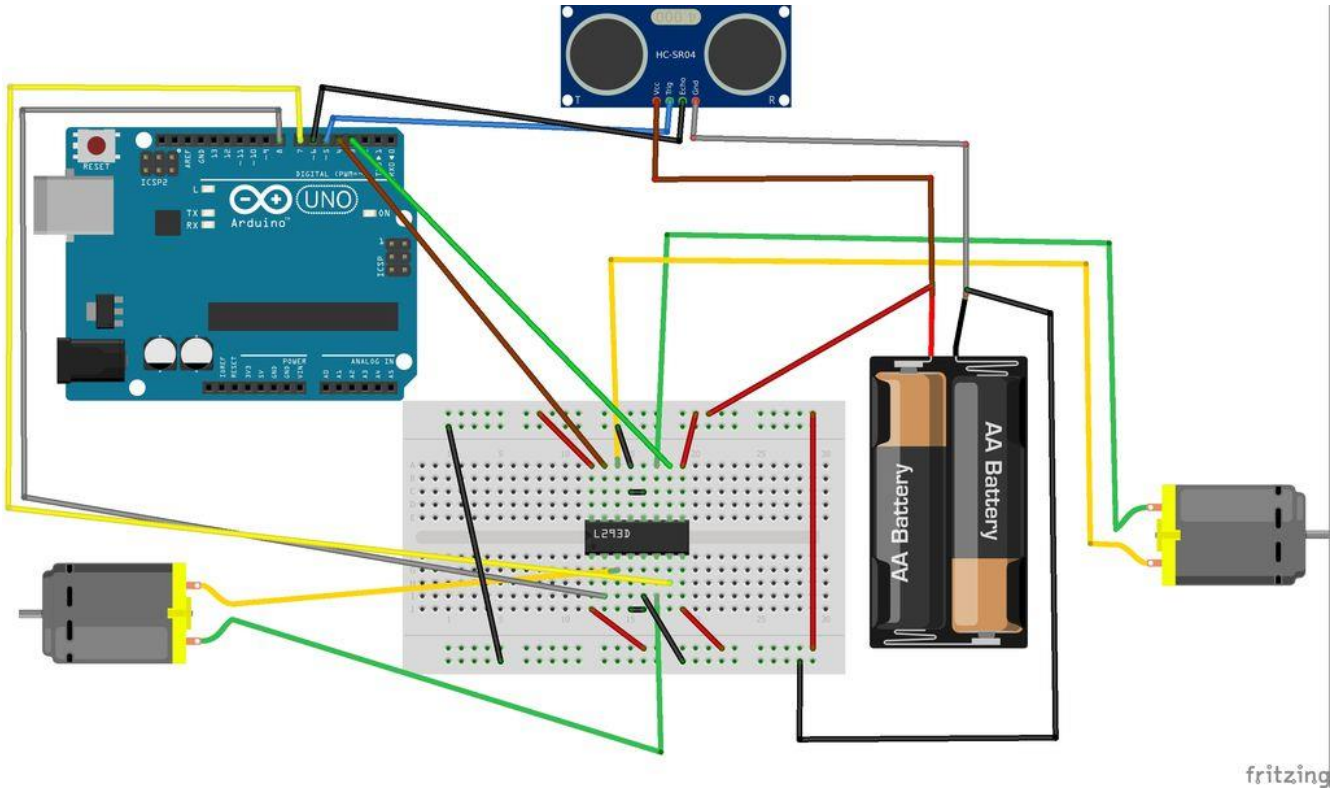


Required Equipments :

- ✓ Arduino Uno (1)
- ✓ Dc gear motor (2)
- ✓ Ultrasonic Sensor HC-SR04 (1)
- ✓ Jumper wires (1)
- ✓ L293d motor driver (1)
- ✓ Breadboard (1)

- ✓ Wheels (2)
- ✓ Chassis (1)
- ✓ 9v battery/Power bank (1)

Circuit Diagram:



Functionalities:

- This robot will work depending on ultrasonic sensor which will help to find any object or human in a specified range.
- Ultrasonic sensor works in 180 degree angle. If distance is more than 40cm then robot will be stopped.
- If distance of ultrasonic sensor is more than 25cm then the robot moves forward and if distance is less than 25cm then robot moves backward.

Conclusion:

We hope this project will help us to understand more about how an Arduino project works.