Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Course yr. and section: \_\_\_\_\_\_\_\_\_ Instructor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Group No: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Laboratory Work No.7

**ULTRASONIC DISTANCE SENSOR**

I. Objectives

To know the operation and utilize of Ultrasonic Distance Sensor in a circuit.

To simulate the design a circuit using Arduino simulator.

II. Materials

TinkerCAD Arduino simulator

III. Problem

Instruction: Upload the video simulating the circuit on the week tab of the courseware and paste your codes on the box provided after each problem.

1. Create a program and design a circuit, use an ultrasonic sensor as an input device that will rotate then stop a DC motor using DIGITAL pins 9, 10, 11, and 12 for output. The DC motor is connected to L293D and use rgb LED as an indicator when the ultrasonic sensor changes its distance. In serial monitor, it should display the distance of the object in inch and cm.

2. Create a program and design a circuit, use an ultrasonic sensor as an input device that will rotate then stop a two DC motor using DIGITAL pins of Arduino board for output. The DC motor is connected to L293D and use rgb LED as an indicator when the ultrasonic sensor changes its distance.

IV. Discussion

V. Conclusion