Department of Electronic and Telecommunication Engineering, University of Moratuwa

EN2532 Robot Design and Competition

Laboratory Sheet-Practical No: 4

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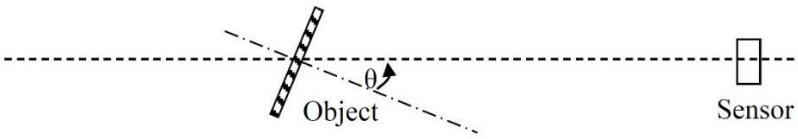
Name:	……	Group No:	……

1. Comment on your observations of the sensor readings and how you can obtain the distance value according to the particular reading.

2. Place objects of different size at the same distance from the sensor and identify the minimum dimensions of the object that is detected by the sensor.
3. Place a cardboard sheet at a fixed distance with different ultrasound wave incident angles (θ) with the sensor and observe the measurement. Vary θ from 0^0 to 70^0 at steps of 10^0.



4. Comment on your observations.

5. Place an object with minimum detectable dimensions. Then vary the angle from 60^0 to 0^0 in steps of 10^0 and obtain the maximum object detectable distance of the sensor for each angle and plot them in the given graph below,