

01266212 Cyber Physical System Design
Lab 2: Answer Sheet

Name: Pattavapak Chutisanont

ID: 64011532

Task 1:

Q1. Record the minimum number and the maximum number that display on the monitor by blocking or unblocking the sensor.

Max: 12200 μ s

Min: 1.26 μ s

Q2. Block the sensor totally with the paper and check the number. Why is it so large?

I got 46675 μ s since the sensor can't read anything

Q3. Compute the speed of sound wave using the average value of the 10-duration data.

Task 2:

$$\text{Speed} = \frac{\text{Average speed collected}}{t/2} = 422 \text{ m/s}$$

(shown in class)

Q4. Find the minimum and maximum distance the system can detect and compare with the max and min range from the specification table.

Max: 1200 cm

Min: 2.6 cm

The minimum value is quite close but the max isn't

Q6. Submit your Python Code.

Assignment:

Submit your code.