EGR 1200 – Smartbeam

Group 1

Homework Assignment 9, #2

1. A screen shot of a computer program

   Description automatically generated

bi. 5.0 V / 2^12 counts = 0.00122070312 V/Count = 1.22070312 mV/count

bii. The .340 value represents the speed of sound, .034 cm/microseconds. It’s divided by two because the value of interest is the distance between the object and sensor, whereas the value represents the duration for the round-trip (sensor-object-sensor)

biii. The 250 & 750 values represent the frequency (Hz) that the alarm will play at.

biv. If voltmode=false, then the LCD display will show the distance, “FAR”, or “CLOSE”, depending on if the distance exceeds the defined limits.