Embedded C Coding Test

Thank you in advance for taking your time to complete our coding test.

The assignment can take up to 30-60 minutes of your time and you'll have up to 48 hours to complete this test. However, if you could complete this as soon as you can, I would appreciate it as we will be reviewing the result as and when they come in to move forward in our recruitment process.

Thank you again for your interest in EVBox and looking forward to your completed test!

* Required

Email *

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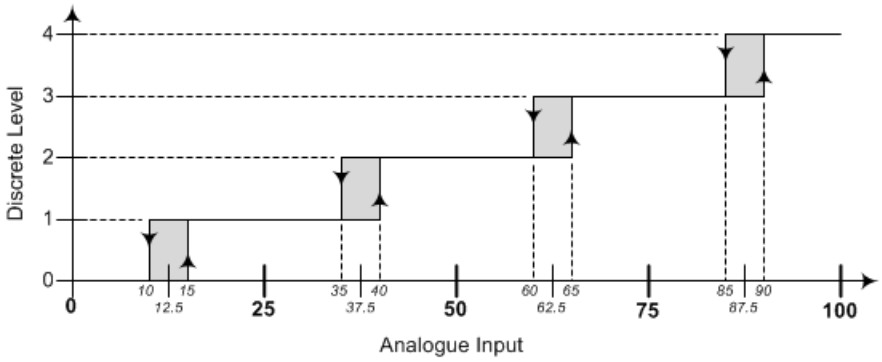
In a microcontroller-based system, analogue to digital converter (ADC) is sensing analogue voltage coming on one of the analogue channels. This analogue voltage needs to be converted into a discrete level (0-4) depending upon the value of input voltage in such a way that some hysteresis is added to reject sudden voltage variations due to noise. Following graph shows the relationship between analogue voltage read (%age) from the channel to the discrete level that need to be encoded by the software. Write code that will perform this job. Use this prototype so the code can be tested: unsigned int hysteresis(unsigned int input_percent)

Hint: If analogue voltage increases from 9% to 15% encoded step shall be 1 and if it decreases back to 11% from 15%, the encoded level shall remain 1 unless voltage drops to 10%.



unsigned int hysteresis(unsigned int input_percent) {

}

Submit

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