SIT315 Programming Paradigms

Module1 Real-time and Embedded Systems

TaskM1.T3C: Multiple-Inputs Board

Overview of the task

To fulfill the requirements of this task, you will need to modify your board from Task M1.2P to use more than one sensor as input while using interrupts to deal with the inputs.

In my implementation, I used the sound sensor available to me in the Arduino kit. It has four legs - from left to right as follows [A0 - Analog Pin 0 on the Arduino board, GND, + to 5V, and D0 - Digital Pin to maybe Arduino digital pin , we had the motion sensor connected to pin2]. Once you have the sound sensor connected, you will need to modify your program to capture the signal and maybe update the same led (built-in led) or update another led. Once you are done, please upload to the board and test your program.

Submission Details

Please make sure to provide the following:

- A diagram of your new board or image of the actual system/board,
- A screenshoot of your system monitoring log (from your screen), and
- The source code of your new program.

Instructions

1. Read Adruino Interrupts page here: http://playground.arduino.cc/code/interrupts
2. Watch this Youtube video: https://www.youtube.com/watch?v=J61_PKyWjxU
3. Add a new file to your Module1 called Task1.3C
4. Implement your program (save the file as Task1.2C) in the Module1 folder, upload it on Arduino and test it.
5. Submit your task as detailed on the submission details section above to OnTrack.