

**CS331: Microprocessor Systems** Assigned: Sunday 15th Oct, 2017

Due: Sunday 22nd Oct, 2017

## **Assignment 4**

## **Temperature warning system**

- Use the LM35 to measure the current air temperature and print the readings in Centigrade (°C) on the serial monitor.
- Use the IR receiver (IR1383) to set a temperature threshold using your remote control. You should assume that the user will enter any number of digits and then click "OK button" to set the threshold.
- If the temperature exceeds this threshold), a buzzer and an LED must turn ON. If it drops below (threshold -1) then the LED and buzzer should stop.

## **NOTE:**

- In order for you to increase the surrounding temperature use any heating device that doesn't use flames. (Hairdresser for example or any similar device).
- The video should clearly show the reading on the serial monitor as well as the warning buzzer and LED turning ON when certain temperature is exceeded, also it should include your steps for setting the theshold.
- In order to read the value of each remote control button you have to use an external library:https://github.com/z3t0/Arduino-IRremote Please read the library documentation and how to use it since there will be a collision with the RobotIRremote library that comes already with the arduino software. One approach is to delete the RobotIRremote, the other is to simply rename the dowloaded library files and includes to another name.

## **Delivery Policy**

- Same groups as the spreadsheet.
- Represent the requirements using components (LM35, buzzer, IR receiver, etc....) and code.
- Send the video as attachment in piazza
- Inside the post body include your **full names** as well as any note you'd like to mention.
- **Due Date:** Sunday 22/10/2017
- **Late delivery** = -25% for each day of delay.