**Jeffery: Smart Thermostat**

Sensor: Temperature & Humidity sensor, LED, LCD, buttons

Functions:

1. LCD is responsible for display **current temperature** and humidity (optional) value, as well as **desired temperature** value. if necessary, current time is also an option. The values are refreshed every x second.
2. Three LED is needed for this project, the color is Red, Green and Yellow separately. The **Red** LED indicate **heat** is on, the **Green** LED indicate **AC** is on, the **Yellow** LED indicate the **fan** which only turns on whenever heat or AC is on.
3. Two buttons are responsible for control the desired temperature. One button is decrease the temperature by 1 degree and the other is for increase. The **button callback** function is necessary for this function.