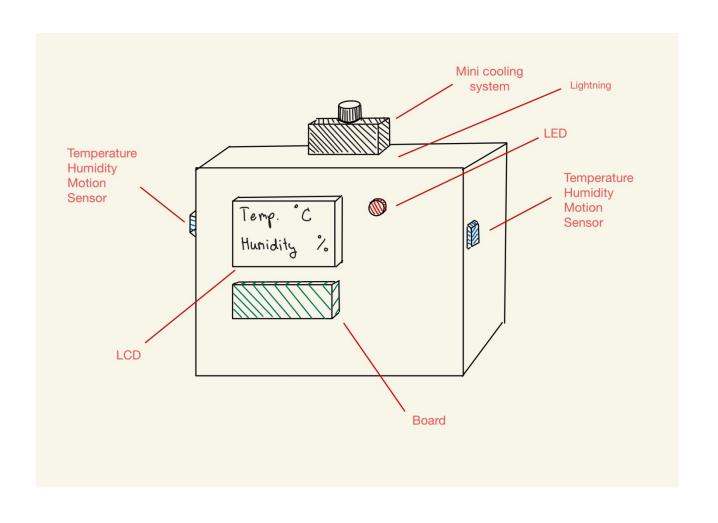
# IoT In-home Display Development Project applied to energy Management

**Smart Room** 

## Conceptual Design



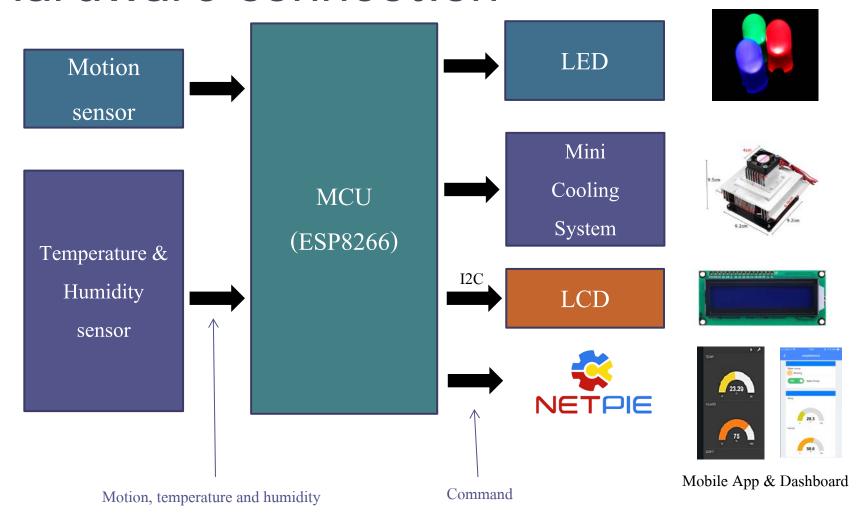
#### **Features**

- Real-time measurements & LCD display
  - Temperature in degree celcius
  - Humidity in percentage
- Mini-Cooling system
  - Control temperature automatically
  - Notification and auto turn off with motion sensor
- Lighting control
- Smart plug control
  - Motion sensor control
- WiFi connection to controling and monitoring

### System components

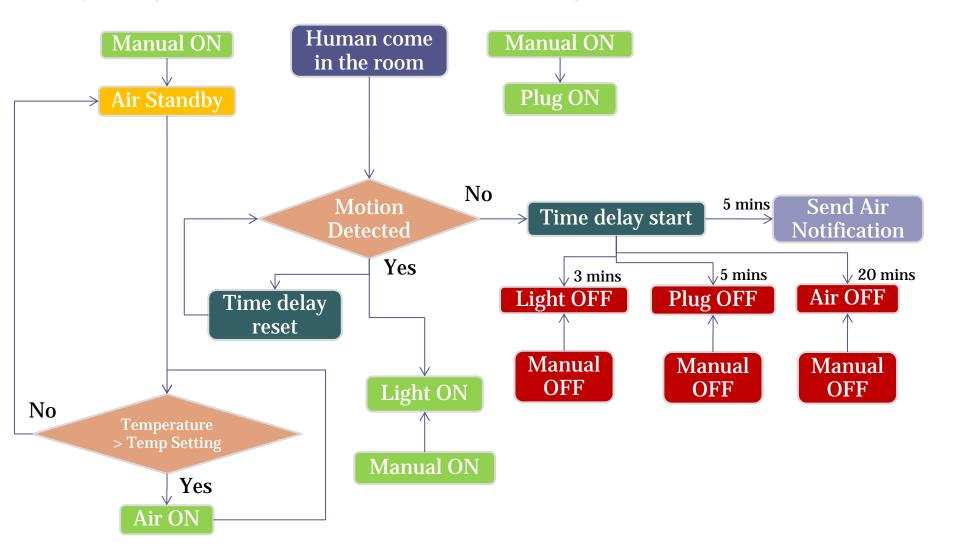
- 1. The box (imitate room)
- 2. Sensor
  - Motion sensor
  - Temperature sensor
  - Humidity sensor
- 3. Arduino ESP8266
- 4. LED
- 5. Mini cooling system
- 6. LCD
- 7. Smartphone

#### Hardware connection



#### Software Flowchart

Lighting/Air conditioner/Smart plug



## Project Timeline

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Prepare equipment								
Design & Software Programing & Testing								
-Lighting								
-Air Conditioner					_			
-Smart plug								
-Netpie								
Hardware implementation								
-Lighting								
-Air Conditioner			-					
-Smart plug								
Record & Presentation								

#### Work distribution

- Lighting & Smart Plug system
  - Design & software programing
- Air conditioner system
  - Design & software programing
- Hardware implement & Netpie
  - Design layout
  - Install hardware
  - Design and build Netpie