Dept. of Biomechatronics Engineering, National Taiwan University
Automated System Design
Lab. 6

Deadline: Demo to TA, before Dec 22th

- Connect the following five sensors with Arduino (as a publisher) and build an MQTT IoT architecture (Use HiveMQ as a broker) to publish the detected environmental messages
- Use AI inventor to create an APP interface. With it, subscribe to the topic of the environmental messages above and display them on the APP (The interface has the functions of connecting to the broker, displaying sensing data, and LED press buttons)
- Use PHP to create a webpage interface. With it, subscribe to the topic of the environmental messages above and display them on the webpage (The interface has the functions of connecting to the broker, displaying sensing data, and LED press buttons)
- Also create two buttons on APP and webpage (as a publisher) and send the button states to the broker
- At the same time, the Arduino subscribes and outputs the button state to light on or off the LED connected with Arduino

Five sensors:

- DHT11 (Temperature and Humidity Sensor)
- BH1750 (Illuminance Sensor)
- BMP280 (Pressure Sensor)
- MQ135 (CO_2 Sensor)
- GP2Y1014AU (PM2.5 Sensor)