Dept. of Biomechatronics Engineering, National Taiwan University

Automated System Design
Lab. 5

Deadline: Demo to TA, before Dec. 8th

- 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 Node-RED to build a subscriber to subscribe to the topic of the environmental messages and display them on the Node-RED Dashboard
- Also create two buttons on Node-RED (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 a 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)