**IoT Lab Instructions**

**Notes:**

* The wireless connection is:
  + SSID: devnetcreate
  + PASS: devnetcreate
* Your IP address is 192.168.50.X, where “X” is <Your Device Number> + 30.
* Your client ID is “ESP8266” + Your Name (e.g. ESP8266-MATT)
* Use the code block below to test various IoT devices.
* In MicroPython, you can press CTRL+D for a soft reset – You will need to reconnect WebREPL afterwards.

**MQTT Publisher Code Block:**

from umqtt.simple import MQTTClient

client = MQTTClient(client\_id=”ESP8266-<NAME>”, server=“192.168.50.10”, port=8883, ssl=True)

client.connect()

client.publish(‘<topic>’, ‘<message>’)

**Available Topics:**

“neo”

{

“command”: “<one/loop>”,

“pixelNum”: <0-11>,

“color”: “(<0-255>, <0-255>, <0-255>”

}

“lcd”

{

“command”: “<text/date/time>”,

“text”: “<text>”

}

“rgb”

{

“color”: “(<0-255>, <0-255>, <0-255>)”

}

“servo”

{

“command”: “<left/right/center/wave>”

}

**Examples:**

Neopixel Loop Show:

{

“command”: “loop”

}

NeoPixel Pixel #5 Blue:

{

“command”: “one”,

“pixelNum”: 5,

“color”: “(0, 0, 255)”

}

LCD Custom Text:

{

“command”: “text”,

“text”: “Hello!”

}

LCD Show Time:

{

“command”: “time”

}

RGB LED Green:

{

“color”: “(0,255,0)”

}

Servo Wave Show:

{

“command”: “wave”

}

Servo Arm Center:

{

“command”: “center”

}