

# ECE 476/676 - Homework #12

*WiFi - Due Monday, May 5th*

## WiFi Weather Station

Use a BME280 sensor along with a CdS light sensor to build a weather station you can monitor over a WiFi network. Display in real time on a WiFi screen

- Temperature
- Humidity (optional)
- Pressure
- Light level

Also allow the user to set the color of a NeoPixel over the WiFi network.

WiFi Transmit:

- 1) Hardware: Specify the hardware for connecting sensors to your Pico chip
- 2) Software: Give the Python code for reading the sensors and seeing their values on your cell phone over a WiFi link
- 3) Testing: Collect data to verify you can read temperature / pressure / light remotely over a WiFi link

WiFi Rective

- 4) Software: Give the Python code to allow you to drive the NeoPixel using your cell phone and a WiFi link
- 5) Testing: Collect data to verify you can control the NeoPixel with your cell phone and a WiFi link
- 6) Demo. In-person or on video.