ECE 476/676 - Homework #9

Acceleration, I2C, and NeoPixels - Due Wednesday, November 13th

HW9: Acceleration: How High Can You Jump?

1) (30 points): Write a Python program which measures how high can you jump using an accelerometer

- Start a new test by pressing button GP15
- Measure acceleration using a GY-521 accelerometer (or similar sensor)
- Detect then duration that you're experiencing zero g's
- From that time, compute distance you jumped
- Display top three distances on the graphics display

2) (10 points): Add a NeoPixel to your design as a starter tree:

- Press button GP15 to start a jump session
- When pressed, the lights on the NeoPixel light up, one at a time
- When all lights are lit, it's time to jump (data collection starts)

3) (10 points): Demo your program