

# ECE 476/676 - Homework #12

*WiFi - Due Monday, December 8th*

## Roulette!

Write a Python program to play a simplified game of Roulette on your Pico board from your cell phone with a WiFi interface

- On reset, you start with \$100 in your bank account.
- Your bank value is displayed on
  - The LCD display and
  - Your cell phone via a WiFi web page
- You can then place bets on numbers 1..8 using
  - the keyboard or
  - your cell phone with a WiFi web page
- Once bets are placed a random number in the range of 50..80 is generated
  - The marble moves one position every 100ms
  - Where it stops is the winning number (position mod 8)
- Bets that win increase your bank balance by 8x that amount
- Bets that lose decrease your bank balance by that amount
- The game then repeats

## Grading

- (10pt) Display your bank balance on the LCD display
- (10pt) Display your bank balance on the WiFi web page
- (10pt) Display the numbers and amount bet on each number on the LCD display
- (10pt) Accept bets from your cell phone via a WiFi web page
  - Use the keyboard if you can't get WiFi to work (no points for this)
- (10pt) Can spin the wheel from your cell phone via a WiFi connection
  - Use a button if you can't get WiFi to work (no points for this)
- (10pt) Display the changing numbers on the LCD display as the marble goes around the roulette wheel
- (10pt) Bank balance decreases on all losing bets
- (10pt) Bank balance increases 8x for all winning bets
- (10pt) Game then restarts (can play over and over)
- (10pt) Demonstrate your Roulette wheel