

Test #1: ECE 461 / 661

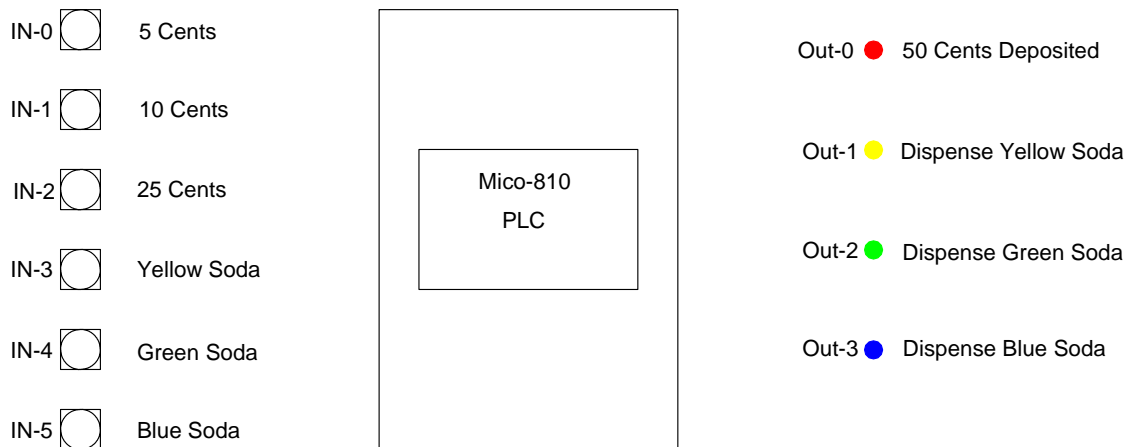
Due Monday, September 17th

You may work in groups of 1-2 if you like. Each person should understand and be able to explain the code, however.

Test solutions can be turned in in class, in my office, or emailed to jacob_glower@yahoo.com

A PLC is to control a pop machine. The coin slot can accept either nickels, dimes, or quarters.

- A Yellow Soda costs 50 cents
- A Green Soda costs 75 cents
- A Blue Soda costs 100 cents
- If you add enough money and press the corresponding button, the corresponding light turns on for 2 seconds, indicating that the soda is being dispensed.
- If you are due change after buying a pop, the red light blinks on and off (1/2 second on, 1/2 second off) indicating that you are being given 5 cents in change per blink. The light keeps blinking until you have been given all of your change.



Problem 1) Write and demonstrate a ladder-logic program to implement the soda pop controller that gives change.

Problem 2) Write and demonstrate a Structured Text (Pascal) program to implement the soda pop controller that gives change.