

CMPE 127 Lab 1

Design a prototype board using LPC1769 CPU module to realize GPIO input and output testing/debugging function. Your prototype board should have the following function:

1. Power circuit with LM7805 regulator or equivalent, with red LED to indicate the external power is connected, and a switch to turn the external power on and off.
2. Use IDE software to write your C program, to test GPIO output, by sending 1 or 0 to GPIO port pin to turn LED on or off. Your program should also test GPIO input by reading 1 or 0 when a switch is toggled between Vcc and GND (Be sure to provide proper design with resistors as discussed in the lecture). Your implementation for GPIO output testing should support both output 1s and 0s options.

So is your implementation for GPIO input testing for both 1s and 0s.

3. Have your lab report ready when doing the lab demo. Submit an IEEE style report with the source code, both hardcopy (in the lab) and softcopy on line to CANVAS.

(END)