Write a C-program to run on the AT89C51CC03 board which will input from the A/D converter on channel 0 and send the most significant 8 bits of the converted number to a PWM channel on P1.3.

To test your program you will need to connect a potentiometer to channel 0 on the A/D converter P1.0 and Pin 1 on CN2. You will have to insure that the analog signal coming in does not exceed the VAREF voltage which is set to 2.5 volts. One way to do this is to connect a series resistor to the potentiometer as shown in Figure 1. If \( R_s = R_p \), the voltage to the A/D will always be less than 2.5 volts.

For the output connect an LED to P1.3 as shown. As you adjust the potentiometer the PWM signal will vary and change the brightness of the LED.

Turn in the following:
1. A cover sheet with your name, assignment number, and the date turned in.
2. A hard copy of your commented C-code
3. A signed verification sheet (see below).
I verify that the C-program written by

was successful. The program ran on the AT89C51CC03 board.

Signed: ___________________________________________________
Randall, Cron, or Blandford
Date: _______________________________________________________

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<td>Changing the potentiometer alters the brightness of the LED</td>
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