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Electrical Engineering Department

Simulation Assignment

First semester 2014/2015

Write a code ( using MikroC program) to control the speed and direction of DC motor .

\*\* PIC16f877a @ 4MHZ

**Specifications**

1. Push button1 -> PortD.RD0 -> used to turn on/off the motor.
2. Push button2 -> PORTD.RD1 -> used to control the direction(CW/CCW).
3. Potentiometer -> PORTA.RA0-> used to control the speed.
4. PORTC.RC1 used to control the motor speed in CW case.
5. PORTC.RC2 used to control the motor speed in CCW case.
6. Red led connected to PORTD.RD2 turned ON when the motor run CCW.
7. Green led connected to PORTD.RD2 turned ON when the motor run CW.
8. The Speed percentage, the motor status (ON/OFF)(CW/CCW) must be printed on LCD at every change.
9. At the beginning the LCD must print your name and ID number for 5 second.

***Note: Don’t use any delay function(use timer interrupt).***

1. The LCD must be connected as shown below

