Generation of PWM signal for DC Motor control.

#include<p18f4520.h>

#pragma config OSC=HS

#pragma config WDT=OFF

#pragma config DEBUG=OFF,LVP=OFF

void msdelay(unsigned int itime);

void main(void)

{

TRISD = 0x00;

LATDbits.LATD0 = 1; /\* Initial Direction \*/

LATDbits.LATD1 = 0;

TRISCbits.TRISC2 = 0;

PR2 = 249; /\* 1 kHz frequency \*/

T2CON = 0x01; /\* Prescaler 4 \*/

TMR2 = 0;

PIR1bits.TMR2IF = 0; //Timer overflow flag bit

T2CONbits.TMR2ON = 1;

while (PIR1bits.TMR2IF == 0);

while (1)

{

CCP1CON = 0x2C; /\* 50% DUTY CYCLE \*/

CCPR1L = 124;

msdelay(10);

CCP1CON = 0x1C; /\* 25% DUTY CYCLE \*/

CCPR1L = 62;

msdelay(10);

CCP1CON = 0x3C; // 75% DUTY CYCLE

CCPR1L = 186;

msdelay(10);

CCP1CON = 0x0C; // 100% duty cycle

CCPR1L = 249;

msdelay(10);

}

}

void msdelay(unsigned int itime)

{

unsigned int i, j;

for (i = 0; i < itime; i++)

for (j = 0; j < 1275; j++);

}

