Interface analog voltage 0-5V to internal ADC and display value on LCD.

#include<p18f4520.h>

#pragma config OSC=HS

#pragma config PWRT=OFF

#pragma config WDT=OFF

#pragma config DEBUG=OFF, LVP=OFF

void lcdcmd(unsigned char value);

void lcddata(unsigned char value);

void msdelay(unsigned int itime);

#define ldata PORTD

#define rs PORTEbits.RE0

#define rw PORTEbits.RE1

#define en PORTEbits.RE2

void main(void)

{

unsigned int i, d;

unsigned char val, temp[3];

TRISD = 0;

PORTD = 0;

TRISE = 0x00;

PORTE = 0;

ADCON0 = 0X01;

ADCON1 = 0x0E;

ADCON2 = 0b10001010;

msdelay(15);

lcdcmd(0x38);

msdelay(15);

lcdcmd(0x0E);

lcdcmd(0x01);

lcdcmd(0x06);

while(1)

{

lcdcmd(0x81);

msdelay(20);

ADCON0bits.GO = 1;

while (ADCON0bits.DONE == 1);

temp[0] = (ADRESH & 0x0F);

temp[1] = (ADRESL & 0xF0) >> 4;

temp[2] = (ADRESL & 0x0F);

for(d = 0; d < 3; d++)

{

if (temp[d] < 10)

temp[d] = temp[d] + 0x30;

else

temp[d] = temp[d] + 0x37;

lcddata(temp[d]);

msdelay(15);

}

msdelay(10);

}

}

void lcdcmd(unsigned char value)

{

ldata = value;

rs = 0;

rw = 0;

en = 1;

msdelay(1);

en = 0;

}

void lcddata(unsigned char value)

{

ldata = value;

rs = 1;

rw = 0;

en = 1;

msdelay(1);

en = 0;

}

void msdelay(unsigned int itime)

{

unsigned int i, j;

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

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

}

