#include <p18f4550.h>

#include "vector\_relocate.h"

#define LCD\_DATA PORTD

#define en PORTEbits.RE2

#define rw PORTEbits.RE1

#define rs PORTEbits.RE0

void LCD\_cmd(unsigned char cmd);

void myMsDelay(unsigned int time)

{

unsigned int i, j;

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

for (j = 0; j < 710; j++);

}

void init\_LCD(void)

{

LCD\_cmd(0x38);

myMsDelay(15);

LCD\_cmd(0x01);

myMsDelay(15);

LCD\_cmd(0x0E);

myMsDelay(15);

LCD\_cmd(0x80);

myMsDelay(15);

}

void LCD\_cmd(unsigned char cmd)

{

LCD\_DATA = cmd;

rs = 0;

rw = 0;

en = 1;

myMsDelay(15);

en = 0;

myMsDelay(15);

}

void LCD\_write(unsigned char data)

{

LCD\_DATA = data;

rs = 1;

rw = 0;

en = 1;

myMsDelay(15);

en = 0;

myMsDelay(15);

}

void main(void)

{

unsigned int val[4], ADC\_Result = 0;

unsigned char i, str[] = "Result:";

TRISD = 0x00;

TRISC = 0x00;

TRISE = 0;

TRISA = 0xFF;

init\_LCD();

ADCON1 = 0x0C;

ADCON2 = 0b10001110;

ADCON0 = 0x09;

while (1)

{

ADCON0bits.GO = 1;

while (ADCON0bits.GO == 1);

ADC\_Result = ADRESL;

ADC\_Result |= ((unsigned int)ADRESH) << 8;

for (i = 0; i < 4; i++)

{

val[i] = ADC\_Result % 0x0A;

val[i] = val[i] + 0x30;

ADC\_Result = ADC\_Result / 0x0A;

}

LCD\_cmd(0x80);

for (i = 0; str[i] != '\0'; i++)

LCD\_write(str[i]);

LCD\_cmd(0x87);

LCD\_write(val[3]);

LCD\_write(val[2]);

LCD\_write(val[1]);

LCD\_write(val[0]);

}

}