#include <P18F4550.h>

void lcdcmd(unsigned char value);

void lcddata(unsigned char value);

void MSDelay(unsigned int itime);

#define ldata PORTB // PortB acts as 8 data lines

#define rs PORTAbits.RA0 // Register select pin

#define en PORTAbits.RA1 // Enable pin

void main() {

TRISB = 0x00; // Set PORTB as output

TRISAbits.TRISA0 = 0; // Set RA0 as output for RS

TRISAbits.TRISA1 = 0; // Set RA1 as output for EN

ADCON1 = 0x0F; // Disable analog input

en = 0; // Initialize enable pin to 0

MSDelay(250);

// LCD Initialization commands

lcdcmd(0x38); // Initialize LCD for 2 rows, 16 columns in 8-bit mode

MSDelay(250);

lcdcmd(0x0E); // Display ON, cursor ON

MSDelay(15);

lcdcmd(0x01); // Clear display

MSDelay(15);

lcdcmd(0x06); // Entry mode set, cursor moves right

MSDelay(15);

lcdcmd(0xC0); // Move cursor to the second line

MSDelay(15);

// Display "PICCER" on LCD

lcddata('P');

MSDelay(15);

lcddata('I');

MSDelay(15);

lcddata('C');

MSDelay(15);

lcddata('C');

MSDelay(15);

lcddata('E');

MSDelay(15);

lcddata('R');

MSDelay(15);

while(1); // Infinite loop to keep display on

}

// Function to send a command to the LCD

void lcdcmd(unsigned char value) {

rs = 0; // RS = 0 for command mode

ldata = value; // Send command to data port

en = 1; // Enable pulse

MSDelay(1);

en = 0; // Disable pulse

}

// Function to send data to the LCD

void lcddata(unsigned char value) {

rs = 1; // RS = 1 for data mode

ldata = value; // Send data to data port

en = 1; // Enable pulse

MSDelay(1);

en = 0; // Disable pulse

}

// Millisecond delay function

void MSDelay(unsigned int itime) {

unsigned int i, j;

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

for(j = 0; j < 135; j++); // Adjust this loop for timing

}

}