#include <hd44780.h>

#include <Keypad.h>

#include <LiquidCrystal.h>

const byte ROWS = 4;

const byte COLS = 4;

char hexaKeys[ROWS][COLS] = {

{'/', '\*', '-', '+'},

{'=', '9', '6', '3'},

{'0', '8', '5', '2'},

{'X', '7', '4', '1'}

};

byte rowPins[ROWS] = {0, 1, 2, 3};

byte colPins[COLS] = {4, 5, 6, 7};

LiquidCrystal lcd(9, 8, 10, 11, 12, 13);

Keypad myKeypad = Keypad( makeKeymap(hexaKeys), rowPins, colPins, ROWS, COLS);

boolean valorActual = false;

boolean siguiente = false;

boolean final = false;

String num1, num2, num3;

float total;

float movimiento;

char op;

void setup(){

lcd.begin(16,2);

lcd.setCursor(0,0);

lcd.print("no sale");

lcd.setCursor(0,1);

lcd.print("gkjgkj");

delay(2500);

lcd.clear();

}

void loop(){

char key = myKeypad.getKey();

if (key != NO\_KEY && (key=='1'||key=='2'||key=='3'||key=='4'||key=='5'||key=='6'||key=='7'||key=='8'||key=='9'||key=='0')){

if (valorActual != true){

num1 = num1 + key;

float numLength = num1.length();

movimiento = numLength;

lcd.setCursor(0, 0);

lcd.print(num1);

}

else {

num2 = num2 + key;

float numLength = num2.length();

lcd.setCursor(movimiento+1, 0);

lcd.print(num2);

final = true;

}

}

else if (valorActual == false && key != NO\_KEY && (key == '/' || key == '\*' || key == '-' || key == '+')){

if (valorActual == false){

valorActual = true;

op = key;

lcd.setCursor(movimiento,0);

lcd.print(op);

}

}

else if (final == true && key != NO\_KEY && key == '='){

if (op == '+'){

total = (num1.toFloat() + num2.toFloat());

}

else if (op == '-'){

total = (num1.toFloat() - num2.toFloat());

}

else if (op == '\*'){

total = (num1.toFloat() \* num2.toFloat());

}

else if (op == '/'){

if(num2.toFloat()==0){

total = ' ';

}else{

total = (num1.toFloat() / num2.toFloat());

}

}

num3=int(total);

lcd.clear();

lcd.setCursor(15,1);

lcd.autoscroll();

if(total==' '){

lcd.print("Sintax Error");

}else{

lcd.print(total);

}

lcd.noAutoscroll();

}

else if (key != NO\_KEY && key == 'X'){

lcd.clear();

valorActual = false;

final = false;

num1 = "";

num2 = "";

total = 0;

op = ' ';

}

}