#include <LiquidCrystal.h>

#include <Servo.h>

#include <Key.h>

#include <Keypad.h>

int ledPin = 31; // the pin that the LED is atteched to

int inputPin = 33; // the pin that the sensor is atteched to

int pirState = LOW; // by default, no motion detected

int val = 0; // variable to store the sensor status (value)

const int rs = 12, en = 11, d4 = 5, d5 = 4, d6 = 3, d7 = 2;

LiquidCrystal lcd(rs, en, d4, d5, d6, d7);

Servo myservo1;

Servo myservo2;

Servo myservo4;

Servo myservo5;

int pos = 0;

const byte ROWS = 2; //four rows

const byte COLS = 3; //four columns

char keys[ROWS][COLS] = {

{'1','2'},

{'4','5'}

};

byte rowPins[ROWS] = {41, 43}; //connect to the row pinouts of the keypad

byte colPins[COLS] = {45, 47}; //connect to the column pinouts of the keypad

Keypad keypad = Keypad( makeKeymap(keys), rowPins, colPins, ROWS, COLS );

void setup(){

myservo1.attach(6);

myservo2.attach(7);

myservo4.attach(8);

myservo5.attach(9);

pinMode(ledPin, OUTPUT); // initalize LED as an output

pinMode(inputPin, INPUT); // initialize sensor as an input

lcd.clear();

// set up the LCD's number of columns and rows:

lcd.begin(16, 2);

delay(3000);

}

void loop()

{

lcd.clear();

char key = keypad.getKey();

if(key){

lcd.setCursor(0, 0);

lcd.print(key);

lcd.setCursor(0,1);

}

if (key == '1'){

lcd.print("Cough Drops");

delay(1500);

servo1();

}

else if (key == '2'){

lcd.print("Cold Medicine");

delay(1500);

servo2();

}

else if (key == '4'){

lcd.print("Hand Sanitizer");

delay(1500);

servo4();

}

else if (key == '5'){

lcd.print("Tissues");

delay(1500);

servo5();

}

else{

lcd.print("Please press 1,2,4, or 5");

delay(1000);

}

val = digitalRead(inputPin); // read input value

if (val == HIGH) { // check if the input is HIGH

digitalWrite(ledPin, HIGH); // turn LED ON

if (pirState == LOW) {

// we have just turned on

//Serial.println("Motion detected!");

lcd.print("Hello!");

delay(1500);

// We only want to print on the output change, not state

pirState = HIGH;

}

} else {

digitalWrite(ledPin, LOW); // turn LED OFF

if (pirState == HIGH){

// we have just turned of

//Serial.println("Motion ended!");

// We only want to print on the output change, not state

pirState = LOW;

}

}

}

void servo1() {

myservo1.write(90); // tell servo to go to position in variable 'pos'

delay(1250); // waits 15ms for the servo to reach the position

myservo1.write(94); //stops

delay(5000);

}

void servo2() {

myservo2.write(90); // tell servo to go to position in variable 'pos'

delay(1250); // waits 15ms for the servo to reach the position

myservo2.write(94); //stops

delay(5000);

}

void servo4() {

myservo4.write(90); // tell servo to go to position in variable 'pos'

delay(1250); // waits 15ms for the servo to reach the position

myservo4.write(94); //stops

delay(5000);

}

void servo5() {

myservo5.write(90); // tell servo to go to position in variable 'pos'

delay(1250); // waits 15ms for the servo to reach the position

myservo5.write(94); //stops

delay(5000);

}