//Arduino execution code for water conservation project

#include<LiquidCrystal.h>

#include<Servo.h>

Servo myservo;

int Contrast=120;

int pos=0;

int a=0,c=0;

int b=0,d=0;

LiquidCrystal lcd(12, 11, 5, 4, 3, 2);

void setup() {

//lcd setup

analogWrite(6,Contrast);

lcd.begin(16, 2);

//servo begins

myservo.attach(9);

//left sensor

pinMode(A0,INPUT);

pinMode(A1,OUTPUT);

pinMode(A2,OUTPUT);

digitalWrite(A2,HIGH);

digitalWrite(A1,LOW);

//right sensor

pinMode(A3,INPUT);

pinMode(A4,OUTPUT);

pinMode(A5,OUTPUT);

digitalWrite(A5,HIGH);

digitalWrite(A4,LOW);

//down sensor

pinMode(7,INPUT);

pinMode(8,OUTPUT);

pinMode(10,OUTPUT);

digitalWrite(10,HIGH);

digitalWrite(8,LOW);

Serial.begin(9600);

}

void loop() {

//lcd display

lcd.setCursor(0,0);

lcd.print("water");

lcd.setCursor(0,1);

lcd.print("conservation");

delay(5000);

lcd.clear();

if((digitalRead(A3)==LOW)&&(digitalRead(7)==LOW))

{

a+=1;

c=a\*41;

Serial.println("c");

lcd.setCursor(0,0);

lcd.print("mist mode ");

while(pos<=90)

{

myservo.write(pos);

delay(10);

pos+=1;

}delay(5000);

while(pos>=0)

{

myservo.write(pos);

delay(10);

pos-=1;

}

lcd.setCursor(0,1);

lcd.print(c);

lcd.print("ml used");

delay(5000);

lcd.clear();

lcd.setCursor(0,0);

lcd.print("95% conserved!");

delay(5000);

lcd.clear();

return 0;

}

else if((digitalRead(A0)==LOW)&&(digitalRead(7)==LOW))

{

b+=1;

d=b\*250;

Serial.println(d);

lcd.setCursor(0,0);

lcd.print("spray

mode");

while(pos<=180)

{

myservo.write(pos);

delay(10);

pos+=1;

}delay(5000);

while(pos>=0)

{

myservo.write(pos);

delay(10);

pos-=1;

}

lcd.setCursor(0,1);

lcd.print(d);

lcd.print("ml used");

delay(5000);

lcd.setCursor(0,0);

lcd.print("60% conserved");

delay(5000);

lcd.clear();

return 0;

}

else

{

lcd.print("THE DOTS...");

delay(5000);

lcd.clear();

return;

}

}

//Arduino code ends here