#include <Servo.h>

#include <Wire.h>

#include <LiquidCrystal\_I2C.h>

LiquidCrystal\_I2C lcd(0x27,16,2);

Servo myservo;

int pos = 0;

int sensorValue =0;

void setup() {

lcd.backlight();

Serial.begin(9600);

lcd.begin(16,2);

myservo.attach(9);

lcd.clear();

lcd.setCursor(0,0);

lcd.print("AUTOMATIC");

lcd.setCursor(0,1);

lcd.print("CAR WIPER");

delay(5000);

}

void loop() {

sensorValue = analogRead(A0);

Serial.println(sensorValue);

if(sensorValue>800){

  myservo.write(180);

  lcd.clear();

  lcd.setCursor(0,0);

  lcd.print("NO RAIN");

  delay(1000);

}

if (sensorValue <=800 && sensorValue>600){

  lcd.setCursor(0,0);

  lcd.print("IT IS RAINING      ");

  lcd.setCursor(0,1);

  lcd.print("AMOUNT: LOW    ");

  for (pos = 180; pos >=0; pos-=1) {

    myservo.write(pos);

    delay(3);

  }

  for (pos = 0; pos <=180; pos+=1){

    myservo.write(pos);

    delay(3);

  }

  delay(2000);

}

if (sensorValue <=600 && sensorValue>460){

  lcd.setCursor(0,0);

  lcd.print("IT IS RAINING    ");

  lcd.setCursor(0,1);

  lcd.print("AMOUNT: MEDIUM    ");

  for (pos = 180; pos >=0; pos-=1) {

    myservo.write(pos);

    delay(3);

  }

  for (pos = 0; pos <=180; pos+=1){

    myservo.write(pos);

    delay(3);

  }

  delay(1000);

}

if(sensorValue<460){

  lcd.setCursor(0,0);

  lcd.print("IT IS RAINING    ");

  lcd.setCursor(0,1);

  lcd.print("AMOUNT: HIGH    ");

  for (pos = 180; pos >=0; pos-=1) {

    myservo.write(pos);

    delay(3);

  }

  for (pos = 0; pos <=180; pos+=1){

    myservo.write(pos);

    delay(3);

  }

  delay(100);

}

}