//Robu.in

#include "DHT.h"

#include<LiquidCrystal.h>

LiquidCrystal lcd(7, 6, 5, 4, 3, 2);

#define DHTPIN 12 // what pin we're connected to

#define DHTTYPE DHT11 // DHT 11

#define pwm 9

byte degree[8] =

{

0b00011,

0b00011,

0b00000,

0b00000,

0b00000,

0b00000,

0b00000,

0b00000

};

// Initialize DHT sensor for normal 16mhz Arduino

DHT dht(DHTPIN, DHTTYPE);

void setup() {

lcd.begin(16, 2);

lcd.createChar(1, degree);

lcd.clear();

lcd.print(" Fan Speed ");

lcd.setCursor(0,1);

lcd.print(" Controlling ");

delay(2000);

analogWrite(pwm, 255);

lcd.clear();

lcd.print("Robu ");

delay(2000);

Serial.begin(9600);

dht.begin();

}

void loop() {

// Wait a few seconds between measurements.

delay(2000);

// Reading temperature or humidity takes about 250 milliseconds!

// Sensor readings may also be up to 2 seconds 'old' (its a very slow sensor)

float h = dht.readHumidity();

// Read temperature as Celsius

float t = dht.readTemperature();

// Read temperature as Fahrenheit

float f = dht.readTemperature(true);

// Check if any reads failed and exit early (to try again).

if (isnan(h) || isnan(t) || isnan(f)) {

Serial.println("Failed to read from DHT sensor!");

return;

}

// Compute heat index

// Must send in t in Fahrenheit!

float hi = dht.computeHeatIndex(f, h);

Serial.print("Humidity: ");

Serial.print(h);

Serial.print(" %\t");

Serial.print("temperature: ");

Serial.print(t);

Serial.print(" \*C ");

Serial.print(f);

Serial.print(" \*F\t");

Serial.print("Heat index: ");

Serial.print(hi);

Serial.println(" \*F");

lcd.setCursor(0,0);

lcd.print("temp: ");

lcd.print(t); // Printing terature on LCD

lcd.print(" C");

lcd.setCursor(0,1);

if(t <20 )

{

analogWrite(9,0);

lcd.print("Fan OFF ");

delay(100);

}

else if(t==26)

{

analogWrite(pwm, 51);

lcd.print("Fan Speed: 20% ");

delay(100);

}

else if(t==20)

{

analogWrite(pwm, 102);

lcd.print("Fan Speed: 40% ");

delay(100);

}

else if(t==28)

{

analogWrite(pwm, 153);

lcd.print("Fan Speed: 60% ");

delay(100);

}

else if(t==29)

{

analogWrite(pwm, 204);

lcd.print("Fan Speed: 80% ");

delay(100);

}

else if(t>29)

{

analogWrite(pwm, 255);

lcd.print("Fan Speed: 100% ");

delay(100);

}

delay(3000);

}