#include <LiquidCrystal.h>

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

int tempin = A0; // the output pin of TMP36

int temp;

int cel;

int tempmin = 69.632;

int relay = 7;

void setup() {

pinMode(tempin, INPUT);

Serial.begin(9600);

lcd.begin(16, 2);

pinMode(relay, OUTPUT);

}

void loop() {

temp = analogRead(tempin);

cel = temp \* 0.48828125;

Serial.print(cel);

Serial.println();

if (tempmin < temp) {

lcd.setCursor(0, 1);// move cursor to next line

lcd.print("Relay Status:");

lcd.print("ON"); // display the temperature

digitalWrite(relay, LOW);

}

else {

lcd.setCursor(0, 1);// move cursor to next line

lcd.print("Relay Status:");

lcd.print("OFF"); // display the temperature

digitalWrite(relay, HIGH);

}

lcd.setCursor(0, 0);

lcd.print("Temperature:");

lcd.print(cel); // display the temperature

lcd.print("C ");

delay(3000);

lcd.clear();

}