**CA LAB 4**

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**Code 1:**

float temp;

int reading;

int temppin = 0;

void setup() {

analogReference(INTERNAL);

Serial.begin(9600);

}

void loop (){

reading = analogRead(temppin);

temp = (reading \*5.0/1023) \* 100.0;

Serial.print("temperature = ");

Serial.println(temp);

delay(1000);

}

**Code 2:**

#include <LiquidCrystal.h>

const int temperaturePin = A0, rs = 12, en = 11, d4 = 5, d5 = 4, d6 = 3, d7 = 2;

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

void setup() {

Serial.begin(9600);

}

void loop() {

int sensorValue = analogRead(temperaturePin);

float temperatureC = (sensorValue\*5.0/1023) \* 100.0;

lcd.begin(16,2);

lcd.print("Temp: ");

lcd.print(temperatureC);

lcd.setCursor(0, 1);

lcd.print("Status: ");

// Determine the status message based on the temperature range

String status;

if (temperatureC >= 0 && temperatureC <= 100) {

status = "Cold";

} else if (temperatureC >= 150 && temperatureC <= 200) {

status = "Fair";

} else {

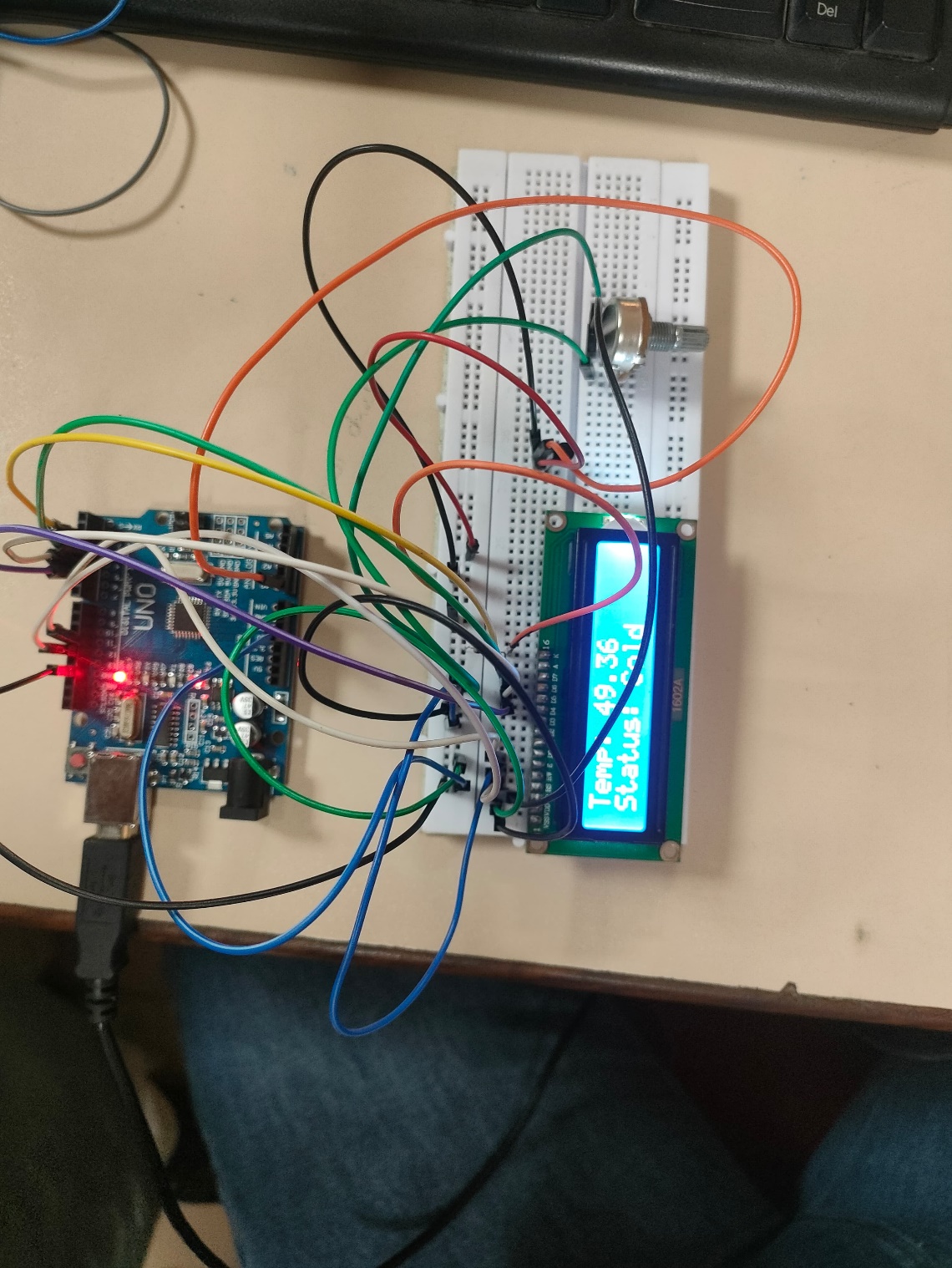
status = "Warm";

}

lcd.setCursor(8, 1);

lcd.print(status);

delay(1000);

****}