

Advanced Embedded Systems

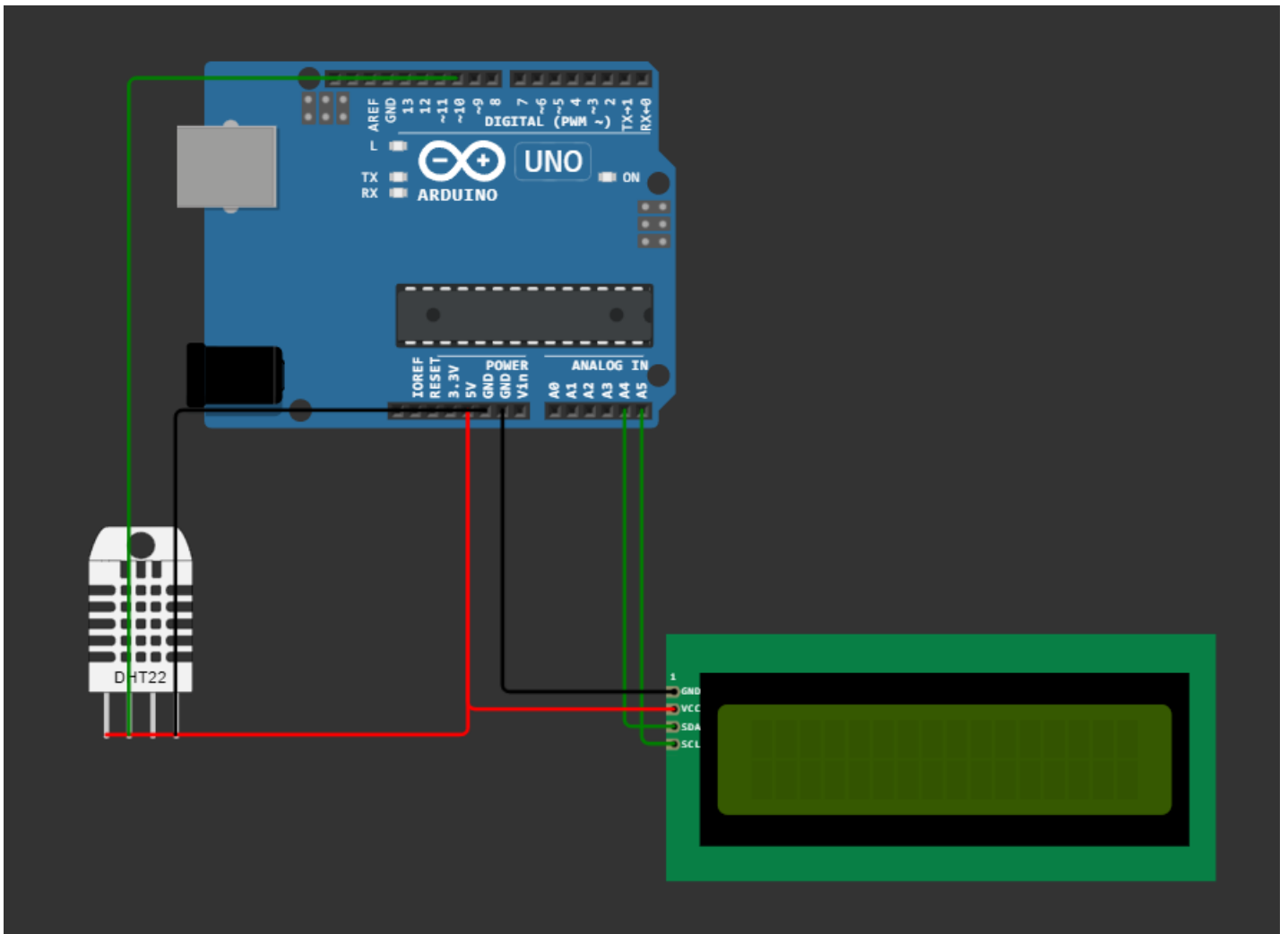
Mini Project

Aim: Using Arduino UNO, display temperature and humidity on LCD display which is being sensed by DHT22.

Components:

- Arduino UNO
- USB 2.0 Cable Type A/B
- LCD I2C (16 rows, 2 columns)
- DHT22
- Jump Wires (Male / Female)

Circuit Diagram:



Connections:

Groups	Pins	
	From	To
Arduino to DHT	10	SDA
	5V	Vcc
	GND	GND
Arduino to LCD	5V	Vcc
	GND	GND
	A4	SDA
	A5	SCL

Source Code:

```
#include <dht.h>

#include <LiquidCrystal_I2C.h>

#define DHT22_PIN 10

dht DHT;

LiquidCrystal_I2C lcd(0x27, 16, 2);

int cursorColumn = 0;


void setup() {    // put your setup code here, to run once:
    lcd.init();
    lcd.backlight();
}


void loop() {    // put your main code here, to run repeatedly:
    int chk= DHT.read(DHT22_PIN);
    lcd.setCursor(0,0);
    lcd.print("Temperature: ");
    lcd.setCursor(12,0);
    lcd.print(DHT.temperature);
    lcd.setCursor(0,1);
    lcd.print("Humidity: ");
    lcd.setCursor(12,1);
    lcd.print(DHT.humidity);

    delay(500);
}
```

Note: The project link can be found [here](#)