Advanced Embedded Systems

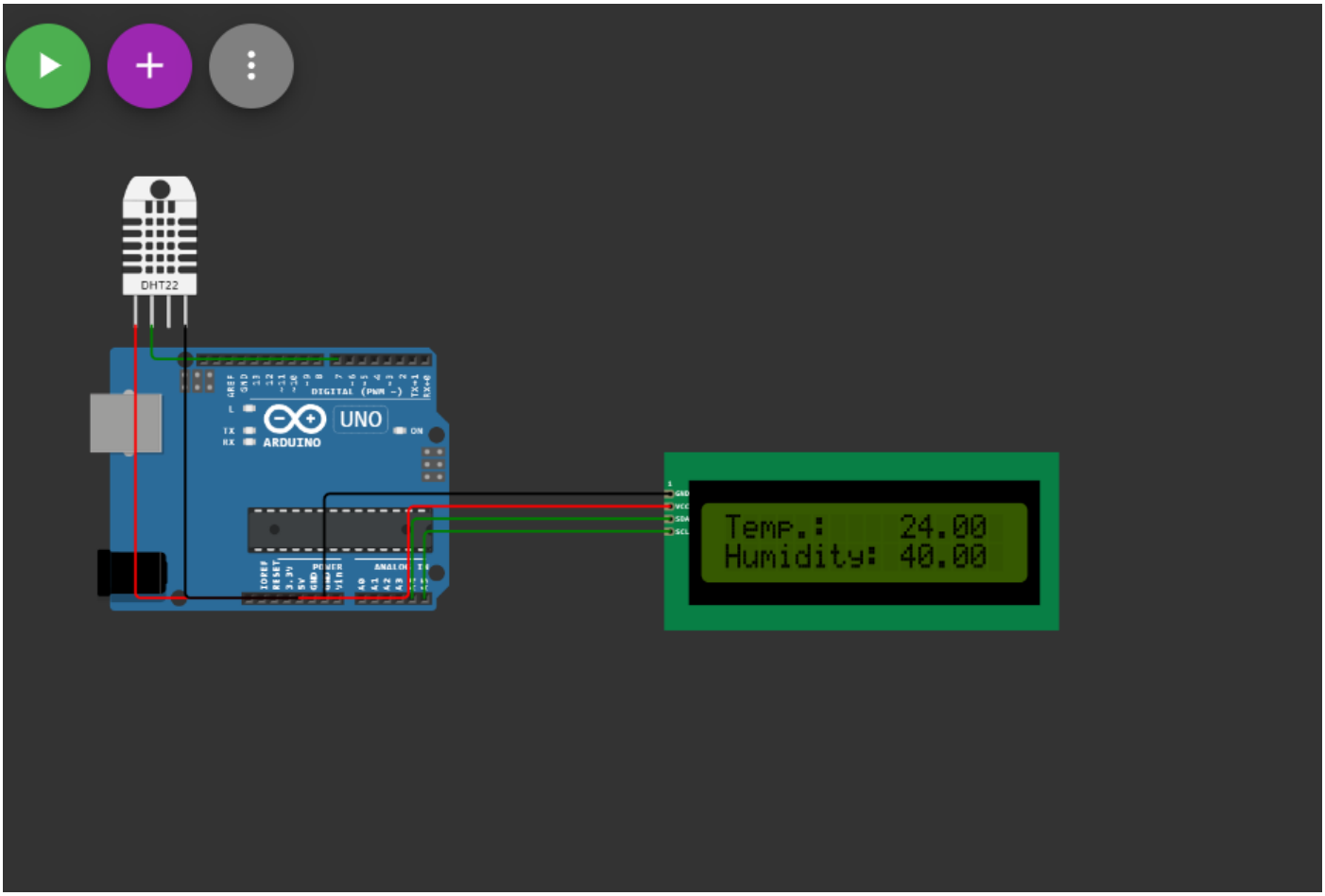
Mini Project

Aim: Using Arduino UNO, display temperature & humidity on LCD display which is being sensed by DHT11.

Components:

1. Arduino UNO (1x).
2. USB 2.0 Cable Type A/B (1x).
3. LCD I2C (16 rows, 2 columns) (1x).
4. Jump Wires (Male / Female) (12x)
5. DHT11 Sensor

Circuit Diagram:-



Connection:-

Groups	Pins	
	From Arduino	TO DHT22
Arduino to DHT22	7	SDA
	5V	VCC
	GND	GND

Groups	Pins	
	From Arduino	TO LCD
Arduino to LCD	GND	GND
	5V	VCC
	A4	SDA
	A5	SCL

Source Code:-

```
#include <dht.h>
#include <LiquidCrystal_I2C.h>
dht DHT;
LiquidCrystal_I2C lcd(0x27, 16, 2);

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(7);

        lcd.setCursor(0, 0);

        lcd.print("Temp.:");

        lcd.setCursor(10, 0);

        lcd.print(DHT.temperature);

        lcd.setCursor(0, 1);

        lcd.print("Humidity:");

        lcd.setCursor(10, 1);

        lcd.print(DHT.humidity);

}
```