

Advanced Embedded Systems

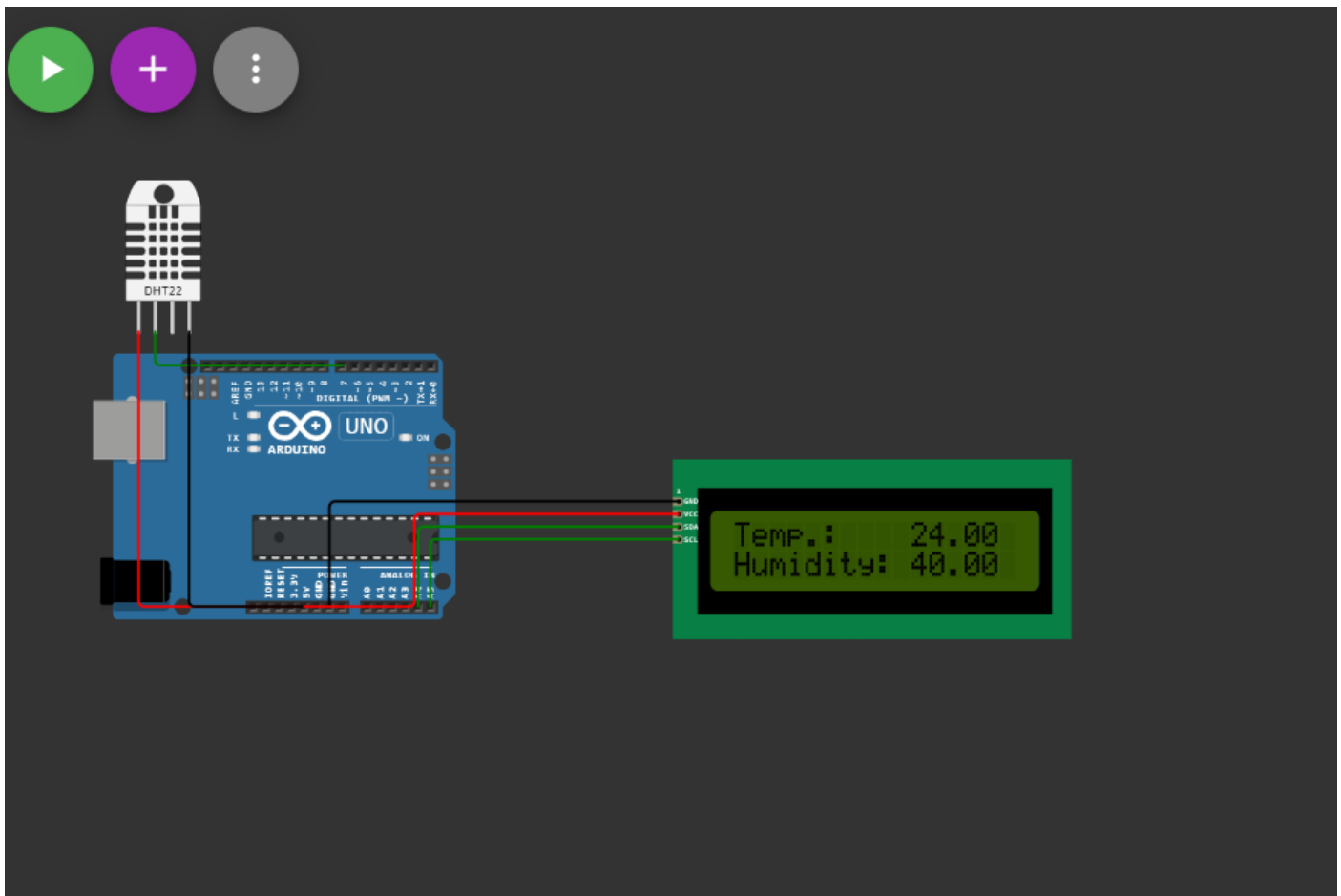
Mini Project

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);
```

```
}
```