

SPRINT-1

WhatsApp x W sprint 1 - Wokwi Arduino and ES x +

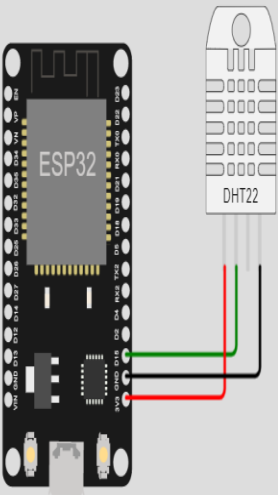
wokwi.com/projects/347955710119641684

WOKWI SAVE SHARE sprint 1 Docs

esp32-dht22.ino diagram.json libraries.txt Library Manager

```
1 #include "DHTesp.h"
2 #include <stdlib>
3 #include <time.h>
4
5 const int DHT_PIN = 15;
6
7 bool is_exhaust_fan_on = false;
8 bool is_sprinkler_on = false;
9
10 float temperature = 0;
11
12 int gas_ppm = 0;
13 int flame = 0;
14 int flow = 0;
15
16 String flame_status = "";
17 String accident_status = "";
18 String sprinkler_status = "";
19
20 DHTesp dhtSensor;
21
22
23 void setup() {
24   Serial.begin(99900);
25
26   /* sensor pin setups */
27   dhtSensor.setup(DHT_PIN, DHTesp::DHT22);
28   //if real gas sensor is used make sure the sensor is heated up for accurate readings
29   /*
30    - Here random values for readings and stdout were used to show the
31    working of the devices as physical or simulated devices are not
32    available.
33   */
34 }
35
```

Simulation



ESP32

DHT22

ENG IN 19:02 18-11-2022

OUTPUT:

The screenshot displays the Wokwi web IDE interface. On the left, the code editor shows the following C++ code:

```
1 #include "DHTesp.h"
2 #include <cstdlib>
3 #include <time.h>
4
5 const int DHT_PIN = 15;
6
7 bool is_exhaust_fan_on = false;
8 bool is_sprinkler_on = false;
9
10 float temperature = 0;
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12 int gas_ppm = 0;
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24   Serial.begin(99900);
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26   /**** sensor pin setups ****/
27   dhtSensor.setup(DHT_PIN, DHTesp::DHT22);
28   //if real gas sensor is used make sure the sensor is heated up for accurate readings
29   /*
30    - Here random values for readings and stdout were used to show the
31    working of the devices as physical or simulated devices are not
32    available.
33   */
34 }
35
```

On the right, the simulation window shows a visual representation of the ESP32 board and the DHT22 sensor connected via three wires (red, green, and black). Below the simulation, the JSON output is displayed:

```
{
  "senor_values":{
    "gas_ppm":503,
    "temperature":59.30,
    "flame":531,
    "flow":0,
  }
}
```

The bottom of the image shows a Windows taskbar with various application icons and a system clock indicating 19:02 on 18-11-2022.

WOKWI LINK: <https://wokwi.com/projects/347955710119641684>