

192.168.0.103 (WayVNC) - RealVNC Viewer

fayaz@raspberrypi: ~

Node-RED - Chromi..

Node-RED - Chromium

Node-RED x Node-RED Dashboard x +

127.0.0.1:1880

Getting Started Help Projects Safety Info

100% Reset

Deploy

Node-RED

filter nodes

rpi - gpio out

rpi - mouse

rpi - keyboard

Johnny5

dashboard

button

dropdown

switch

slider

numeric

text input

date picker

colour picker

form

text

gauge

chart

audio out

notification

Flow 1

timestamp

PIR

gas

LED ON

LED OFF

LDR

temperature

switch

environment

debug 1

chart

debug 2

debug 3

debug 4

led

LED on

LED off

dashboard

Layout Site Theme

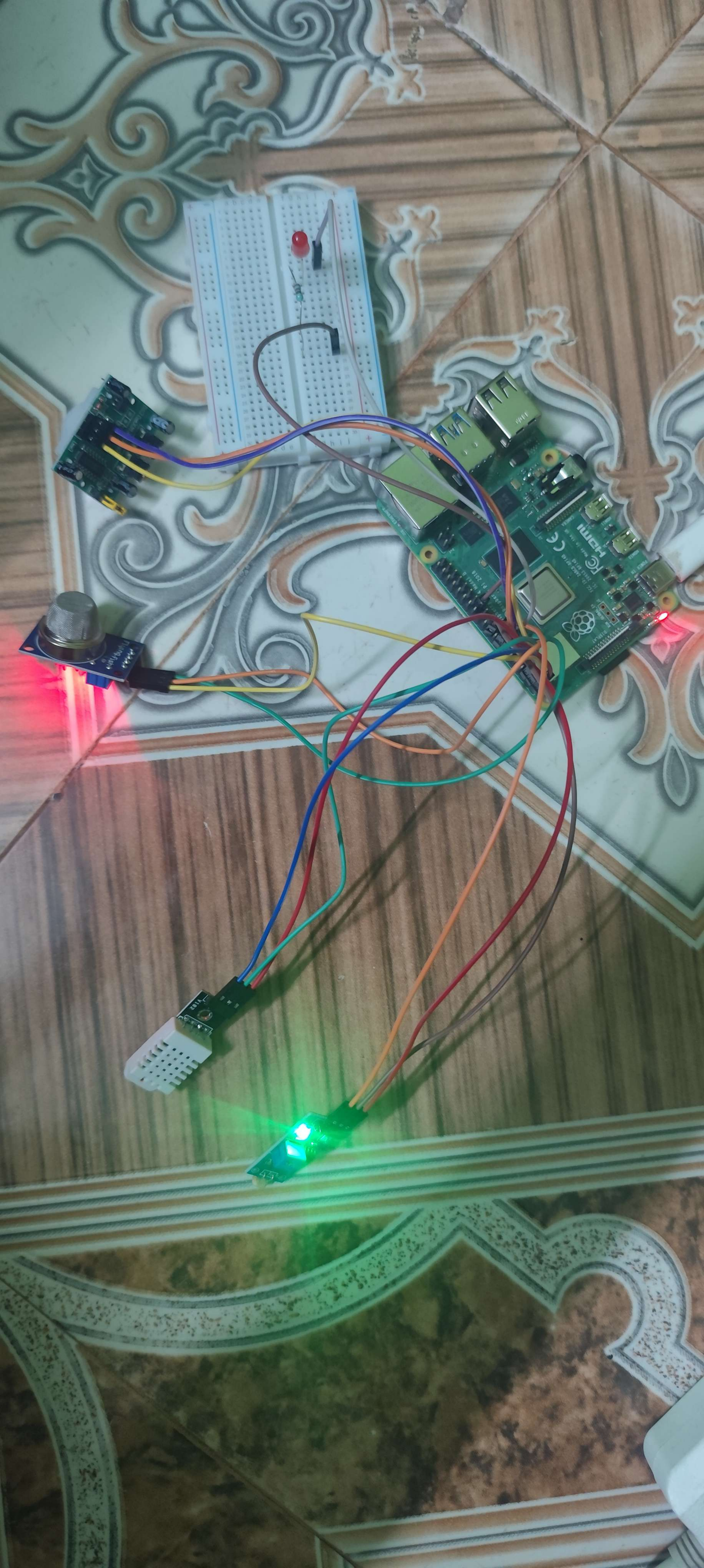
Tab 1

Group 1

environment

Group 2





Raspberry pi

Projects - Components.

- Raspberry pi
- Temperature & Humidity Sensor - DHT22.
- PIR motion sensor (HC-SR501).
- Smoke sensor module.
- Breadboard.
- jumper wires.
 - ⇒ male - Female
 - ⇒ male - male.
- LED's
- 220 Ω
- +5V power supply.
- micro SD.

1. DHT 22 (Humidity & Temperature).

VCC - 3.3V (Pin 1)

Data - GPIO 4 (Pin 7)

GND - GND (Pin 6)

2. PIR motion Sensor (HC-SR501)

VCC - 5V (Pin 2)

OUT - GPIO 17 (Pin 11)

GND - GND (Pin 14)

3. MQ-2 Gas Sensor (Digital output)

VCC - 5V (Pin 4)

DO - GPIO 27 (Pin 13)

GND - GND (Pin 9)

4. LED

Anode (+) - GPIO 22 (Pin 15)

Cathode (-) - GND via 220 Ω resistor.

Wire Type

- Sensor \rightarrow Pi GPIO \rightarrow Female - male.
- LED + resistor \rightarrow Breadboard \rightarrow Male - Male

Node required.

\Rightarrow node - sud - node - pi - gpio.

\Rightarrow node - sud - node - dht - sensor.

NODE RED FLOWS.

	DHT22	PIR motion.	MQ-2 Gas flow.
Drag nodes.	dht22 debug	ypi gpio in. debug	ypi gpio in debug
Configure	GPIO: 4 Sensor: DHT22.	GPIO: 17 mode: Input Pull-down: Enabled.	GPIO: 27. mode: input Pull-down: Enabled.
Connect	[dht22] → [debug]	[ypi gpio in] → [debug]. $\left\{ \begin{array}{l} \text{motion} = 1 \\ \text{No motion} = 0 \end{array} \right\}$	[ypi gpio in] → [debug]. $\{ \text{Gas detected} = 1 \}$

LED control flow.

inject

ypi gpio out

GPIO: 22

Type: Digital output.

[inject] → [ypi gpio out]

payload 1 → LED ON

payload 0 → LED OFF.

Auto LED on motion detected.

[PIR gpio in] → [Switch] → [LED gpio out].

Switch rule:

- msg.payload == 1 → ON
- msg.payload == 0 → OFF.