

# Sonoff Dual R2

## Overview

The Sonoff Dual R2 offers control of 2 relays on one board.



GPIO	Function
0	Button 0 on header
1	Serial Rx and Optional Sensor
3	Serial Tx and Optional Sensor
5	Relay 2 (RED LED)
9	Button 1 on header
10	Button on Case
12	Relay 1 (GREEN LED)
13	Blue Led (Inverted)

## Hardware Preperation

This device uses the ESP8285 module which is different than the other SONOFF products.

The four serial pins (VCC, Rx, Tx, GND) are available at the short end of the PCB and can be seen on the left of the image above.

You will want to solder on some header pins onto the VCC, Rx, Tx, GND points.

## Flashing the Tasmota Firmware

### Configuring the Software

- Startup the Arduino IDE
- Open sonoff.ino
- Update parameters in user\_config.h.
  - Set the SWITCH\_MODE to FOLLOW
  - Update the wifi settings: STA\_SSID1, STA\_PASS1, STA\_SSID2, STA\_PASS2

```
#define STA_SSID1          "mywifissid"           // [Ssid1] Wifi SSID
#define STA_PASS1         "mywifipwd"           // [Password1] Wifi password
#define STA_SSID2         "mywifissid2"         // [Ssid2] Optional alternate AP Wifi SSID
#define STA_PASS2         "mywifisspwd2"        // [Password2] Optional alternate AP Wifi
password

#define SWITCH_MODE       FOLLOW
```

- Set Board Info

```
Board: "Generic ESP8285 Module"
Flash Size: "1M (64K SPIFFS)"
Debug port: "Disabled"
Debug Level: "None"
lwIP Variant: "v2 Prebuilt (MSS=536)"
Reset Method: "ck"
Crystal Frequency: "26 MHz"
CPU Frequency: "80 MHz"
Builtin Led: "2"
Upload Speed: "115200"
```

## Entering Programming Mode

As with all ESP8266/ESP8285 modules pulling GPIO0 to GND is needed to put the chip in programming mode. You need to connect GPIO0 (button 0) and GND during power up.

Luckily both GND and GPIO0 (as BUTTON 0) are available on the second header. A simple jumper between GND and BUTTON 0 while programming will do the trick.

<PIC>

## Uploading the Firmware

From the Arduino IDE, click Sketch Upload

## Reference

Reference	URL
Product Info	<a href="http://sonoff.itead.cc/en/products/sonoff/sonoff-dual">http://sonoff.itead.cc/en/products/sonoff/sonoff-dual</a>
Schematic for Dual	<a href="https://www.itead.cc/wiki/images/1/1d/Sonoff_Dual_View.pdf">https://www.itead.cc/wiki/images/1/1d/Sonoff_Dual_View.pdf</a>
Sonoff-Tasmota	<a href="https://github.com/arendst/Sonoff-Tasmota/wiki/Sonoff-Dual-and-Dual-R2">https://github.com/arendst/Sonoff-Tasmota/wiki/Sonoff-Dual-and-Dual-R2</a>
Sonoff-Tasmota Switch Modes	<a href="https://github.com/arendst/Sonoff-Tasmota/wiki/Understanding-SwitchMode-and-SwitchTopic">https://github.com/arendst/Sonoff-Tasmota/wiki/Understanding-SwitchMode-and-SwitchTopic</a>