

ESP WiFi Relay Module

Hardware

The [XC3804](#) Wi-Fi Relay Module uses an ESP8266 in a small module, connected to a relay shield. The ESP8266 is the same chip as used in products such as our [XC3802](#) WiFi Mini board, in a more bare-bones package.

Setting up

We've done some work for you on this one, so it's fairly easy to set up.

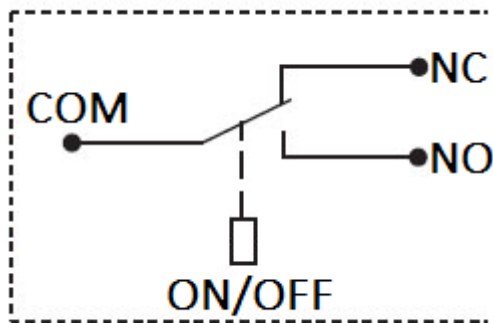
Power the device by connecting up a 5V power source to the VCC and GND connections. Then have a look for a new "duinotech Wi-Fi relay" hotspot in your area.

1. Connect to the network with your phone or computer
2. Go to <http://relay.net> on your phone or device that is connected to the Duinotech WiFi network.
3. Press the on / off button to turn the relay on / off.

You should both hear the relay "click" and see an LED light on the board light up to indicate that the relay is turned on.

How a relay works

Keep in mind how a relay operates and what it is meant to do:



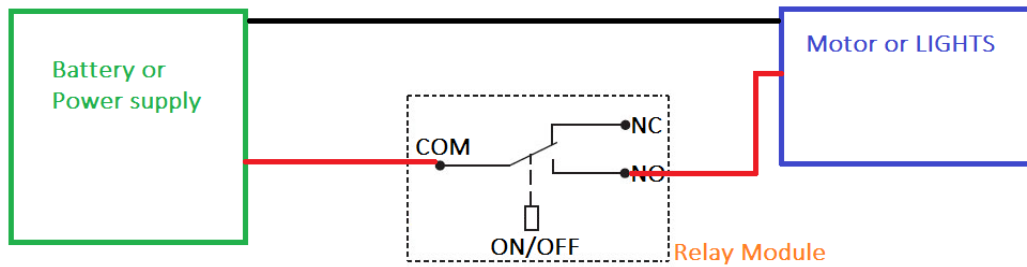
When the signal is OFF, (or the device is powered off) there will be a connection between the **COM** and **NC** pins on the relay. If you can't see the **NC** connection, you should be able to use a multimeter between the middle pin (which is **COM**) and one of the other pins.

When you activate the relay, through the phone app. The connections swap, so **COM-NC** will no longer be activated (ie: there will be a break in the circuit) and **COM-NO** will be activated, (there will be a short in the circuit.)

Example circuit

If you wanted to have the relay activate a motor, you would put one of the power connections (ie: positive) into the common pin, and out the **NO** pin through to the motor, so when you turn it on, it will complete the circuit, as shown below.

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You can see that when the relay is activated, the circuit will complete and the power will be applied to the motor. Similar could be done if you wanted to “disconnect” power when the relay was activated, by using the NC pin.