

# NodeMcu ESP8266 CH340 WIFI Internet Development Board Module Model:NodeMcu V3



## **Description:**

- The LoLin V3 NodeMcu Lua WIFI Development Board is a highly integrated chip designed for the needs of a new connected world. It offers a complete and self-contained Wi-Fi networking solution, allowing it to either host the application or to offload all Wi-Fi networking functions from another application processor. It has powerful on-board processing and storage capabilities that allow it to be integrated with the sensors and other application specific devices through its GPIOs with minimal development up-front and minimal loading during runtime. Its high degree of on-chip integration allows for minimal external circuitry, and the entire solution, including front-end module, is designed to occupy minimal PCB area.
- The LoLin V3 NodeMcu Lua WIFI Development Board combines an 80Mhz 32 bit processor with 802.11 a, b, g and n support in both station and router modes at a fantastic price point, enabling a pervasive, low-cost Internet of Things. It comes in various different flavors and while Resistor Park hasn't tried them all we have tried a lot. We decided to pick the latest version of the NODEMCU, the V3. The primary difference between the V2 and the V3 is the use of the ESP-12 module, which exposes GPIO 9 and 10 another two GPIO pins come in very handy.
- We also feel it is timely to offer this module as the Arduino IDE now supports the ESP8266. This is much easier to use than programming with other IDEs, although if you wish you can use the LUA scripting language. Pretty much all of the base Arduino functions are complete usable including, Wi-Fi, webserver, the GPIO pins, interrupts, EEPROM, Wire library (I2C), SPI, timers using Ticker, Servo, DS1820 temperature sensors, DHT11 sensors, MQTT, real-time clocks and others.
- ESP8266 modules can be tricky to flash, but it's a pretty seamless process using the Arduino IDE as, most of the time, the boards need no intervention to upload your sketch. Occasionally you have to hit flash/reset to upload.

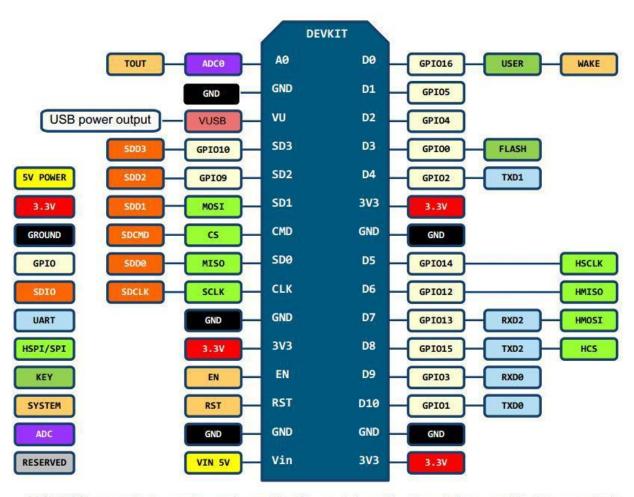
#### Features:

- Open-source, Interactive, Programmable, Low cost, Simple, Smart, WI-FI enabled
- This LoLin V3 NodeMcu Lua WIFI Development Board contains a full ESP8266 WiFi module with all the GPIO broken Out, a full USB-serial interface, and a power supply all on the one breadboard-friendly package. The NodeMCU is an open-source project and you can find all the design files and so on from their github page.
- This board is pre-flashed with NodeMCU an open-sourced firmware with a few Lua script lines.

## **Examples of its Use:**

- Arduino-like hardware IO Advanced API for hardware IO, which can dramatically reduce the redundant work for configuring and manipulating hardware. Code like Arduino or interactively in Lua script.
- Nodejs style network API Event-driven API for network applications, which facilitates developers writing code running on a 5mm\*5mm sized MCU in Nodejs style. Greatly speed up your IOT application developing process.

### PIN DEFINITION



DO(GPI016) can only be used as gpio read/write, no interrupt supported, no pwm/i2c/ow supported.

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