# **NodeMCU**

The ESP8266 is the name of a micro controller. The ESP8266 itself is a self-contained WiFi networking solution offering as a bridge from existing micro controller to WiFi and is also capable of running self-contained applications. This module comes with a built in USB connector and contains rich assortment of pin-outs. With a micro USB cable, you can connect NodeMCU to your laptop and flash it without any trouble, just like Arduino. It is also immediately breadboard friendly.

**SPECIFICATION**:

• Voltage:3.3V.

• Wi-Fi Direct (P2P), soft-AP.

• Current consumption: 10uA~170mA.

• Flash memory attachable: 16MB max (512K normal).

• Integrated TCP/IP protocol stack.

• Processor: Tensilica L106 32-bit.

• Processor speed: 80~160MHz.

• RAM: 32K + 80K.

• GPIOs: 17 (multiplexed with other functions).

• Analog to Digital: 1 input with 1024 step resolution.

• +19.5dBm output power in 802.11b mode

• 802.11 support: b/g/n.

• Maximum concurrent TCP connections: 5.

**PINS**:

1. GPIO-General Purpose Input Output
2. SDIO-Secure Digital Input Output
3. SPI-Serial Periphery Interphase
4. UART-Universal Asynchronous Receiver Transmitter
5. PWM-Pulse Width Modulation
6. ADC-Analog to Digital Converter

**MAJOR APPLICATION**:

Major ﬁelds of NodeMCU applications to Internet-of-Things include:

• Home Appliances

• Home Automation

• Smart Plug and lights

• Mesh Network

• Industrial Wireless Control

• Baby Monitors

• IP Cameras

• Sensor Networks

• Wearable Electronics