

# A Beginner's Guide to the ESP8266

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An updated version of the [original guide](#).

This is very much a work in progress. If you have any suggestions, please [open an issue](#) on GitHub.

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## Introduction

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## Hardware

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## Software

A Beginner's Guide to the ESP8266.

## The ESP8266 as a Microcontroller

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## Network Protocols

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## Uploading

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## Establishing a Wi-Fi Connection

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## The Multicast Domain Name System (mDNS)

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## Web Servers

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## First Web Server

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## The SPI Flash File System (SPIFFS)

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## Uploading Files to the Server

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## Over-The-Air Updates (OTA)

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## **WebSocket Communication**

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## **The Network Time Protocol (NTP)**

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## **Data Logging**

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## **Email Notifier**

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## **Advanced Topics and Further Reading**

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## **Conclusion**

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