# Hướng dẫn lập trình ESP8266 NodeMCU dùng Arduino IDE

<https://dientuviet.com/huong-dan-lap-trinh-esp8266-nodemcu/#index2>

# Onboard LEDs? NodeMCU's got two!

<https://lowvoltage.github.io/2017/07/09/Onboard-LEDs-NodeMCU-Got-Two>

Default LED – GPIO2

# CP2102 USB to UART Bridge Driver

<https://www.usb-drivers.org/cp2102-usb-to-uart-bridge-driver.html>

# [ESP8266 Arduino Core](https://arduino-esp8266.readthedocs.io/en/latest/index.html)

<https://arduino-esp8266.readthedocs.io/en/latest/Troubleshooting/debugging.html>

# WiFiManager with ESP8266 – Autoconnect, Custom Parameter and Manage your SSID and Password

https://randomnerdtutorials.com/wifimanager-with-esp8266-autoconnect-custom-parameter-and-manage-your-ssid-and-password/

# Change WiFi Credentials of ESP8266 without uploading code again

<https://www.circuitschools.com/change-wifi-credentials-of-esp8266-without-uploading-code-again/>

# Installing Libraries

<https://docs.arduino.cc/software/ide-v1/tutorials/installing-libraries#using-the-library-manager>

<https://support.arduino.cc/hc/en-us/articles/5145457742236-Add-libraries-to-Arduino-IDE>

<https://docs.arduino.cc/software/ide-v2/tutorials/ide-v2-installing-a-library>

# View Serial Output in Arduino

<https://www.tutorialspoint.com/view-serial-output-in-arduino>

# Interfacing TM1637 4-Digit 7-Segment Display with Arduino

<https://lastminuteengineers.com/tm1637-arduino-tutorial/>

# Interface DS3231 Precision RTC Module with Arduino

https://lastminuteengineers.com/ds3231-rtc-arduino-tutorial/

# TM1637 4-digit 7-segment LED display Arduino tutorial

https://www.makerguides.com/tm1637-arduino-tutorial/

# NTP-Based Clock

https://steve.fi/hardware/d1-ntp-clock/