ESP8266 0.96 Inch OLED Board

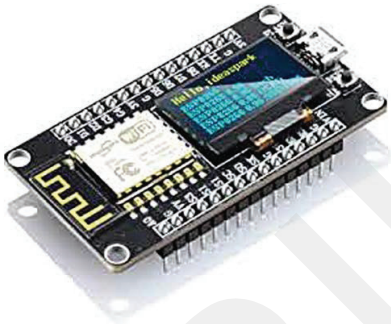
ESP8266 0.96 Inch OLED Board

- The ESP8266 NodeMCU board has all the features of the traditional ESP8266 module, with the same exact size and peripheral ports, offers seamless integration with a 0.96-inch OLED display, eliminating the need for frustrating wires and breadboards.Display features a high-resolution 128x64 with SSD-1306 driver and is compatible with I2C,SPI interfaces. Plus,It uses Micro usb cable to connect. Say goodbye to messy setups and hello to hassle-free electronics with the ESP8266 NodeMCU board
- This board uses I2C to connect to an OLED display via the SDA (D6 / GPIO12) and SCL (D5 / GPIO14) pins. With this board, it's easy to display a variety of information and data
- To install the new version driver for CH340, simply search for the keywords "CH340 Driver" on Google.com or Bing.com and follow the installation instructions provided.Recommended for Win10 Operating System
- ESP8266 NodeMCU board is equipped with ESP-12E module, which contains the Tensilica Xtensa 32-bit LX106 RISC microprocessor powering the ESP8266 chip. This microprocessor supports RTOS and operates at a clock frequency that can be adjusted between 80MHz and 160 MHz. It also boasts 128 KB of RAM and 4MB of Flash memory, providing ample storage for data and programs. With its high processing power, built-in Wi-Fi, and Deep Sleep Operating features, It's is an excellent choice for IoT projects
- This board is an outstanding option for various Internet of Things (IoT) projects. It can be used to display network connection status, monitor information, power levels, and other relevant data. Additionally, it's suitable for building Internet Weather Stations, News Stations, Clocks, and Other similar applications

Package List:

- 1 x ESP8266-0.96" OLED Board (Pin Header Soldered)

- This circuit board integrates the ESP8266 NodeMCU and a 0.96-inch OLED screen, providing all the functionality of the traditional ESP8266 module, with the same size and peripheral ports, as well as high-performance development tools and high-definition data display. It supports multiple programming modes, including Arduino IDE, MicroPython, and Lua scripts, and features the ESP8266 chip with a 80MHz main frequency and 4MB flash memory, enabling it to easily handle various tasks and applications, with a complete network protocol stack and security mechanism. It is low power consumption and high performance, suitable for beginners and professionals to develop and apply Internet of Things projects. The pins are soldered. Plug and play.



ESP8266 NodeMCU

Specifications &Features :

- Microcontroller:Tensilica 32-bit RISC CPU Xtensa LX106
- Driver:CH340G
- Operating Voltage:3.3V
- Input Voltage:7-12V
- Digital I/O Pins (DIO):16
- Analog Input Pins(ADC):1
- UARTs:1 SPIs:1 12Cs:1
- Flash Memory: 4 MB SRAM:64 KB Clock Speed: 80 MHZ
- Small Sized module to fit smartly inside your IoT projects
- USB-TTL based on CH340 is included onboard,Enabling Plug n Play

Applications:

- Network information display
- Internet of Things
- Home automation
- Measurement Tools
- Smart home gateway
- Sensor Network
- Industrial Control
- etc...

0.96 Inch SSD1306 OLED

Features :

- OLED self-luminous, no backlight
- Size: 0.96 inch
- Color: Yellow Blue
- Driver IC: SSD1306
- Voltage: 3.3V-5V DC
- Working Temperature: -30°C~70°C
- Module Size: 27mmx 27mm x 4mm
- Viewing angle: > 160°,High resolution: 128 x 64
- Screen material: glass, need good protection

I2C Interface :

- SCL: I2C Serial Clock
- SDA: I2C Serial Data

Applications:

- Display Wifi Connection Status
- Display debugging information
- Display battery power level
- Display network Weather, News and Clock
- MP3, MP4, watch
- etc...

ESP8266 and OLED Port Mapping

ESP8266 ---------- 0.96" OLED

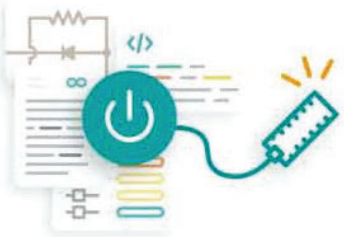
VCC(3.3V) ---------- *VCC*

GND ---------- *GND*

D6(GPIO12) -------- *SCA*

D5(GPIO14) -------- *SDL*

SRIS-PCB



How to Make ESP8266-OLED Board Work:

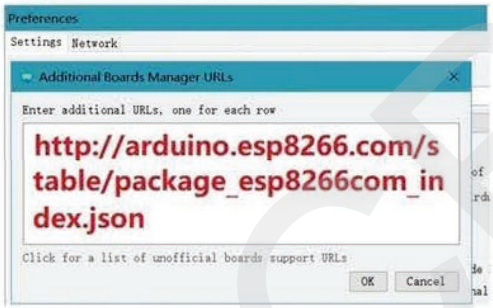
- Refer to the **Picture**.Download the driver, connect board to the computer with Micro USB cable, configure the IDE, and upload the code to board

1 Web Search CH340 Driver

- Search,download driver.Recommended for Win10 OS

2 Add Boards Manager URLs in IDE

- IDE -> "Preferences" -> "Additional Boards Manager URLs" Copy the link in red to your IDE

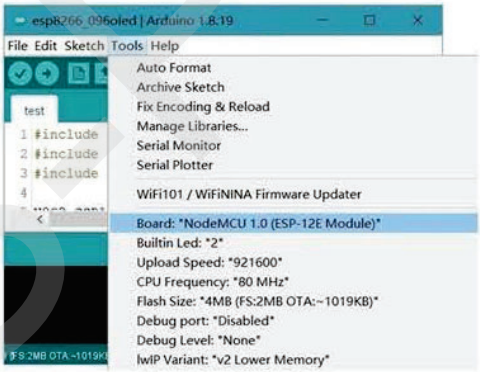


3 Install ESP8266 Board Package

- IDE -> "Board" -> "Boards Manage"

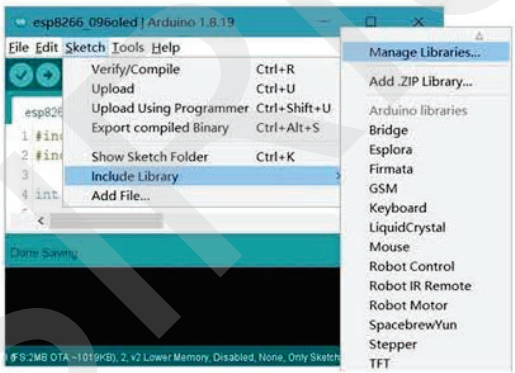
4 Select ESP8266 Board

- IDE -> "Tools" -> "Board: NodeMcu 1.0(ESP-12E Module)"



5 Include Library

- IDE -> "Sketch"->"Include Library"->"Manage Libraries"

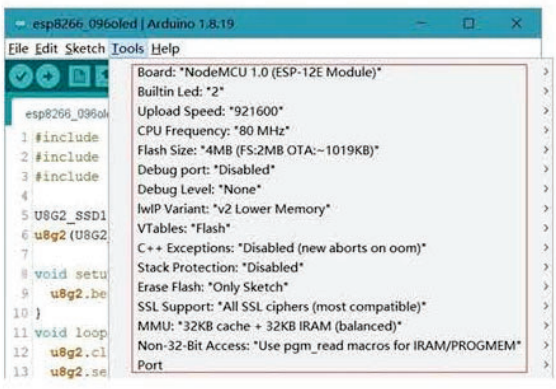


6 Install Library "U8g2"

- Install 2.19.8 version u8g2 Library by oliver

7 Set Board and Processor

- Configure the Tools parameters as shown in the figure



8 Run Sample Code

- Copy the code in the figure to your IDE

SHUSPCB