

Manual de ESP8266-UNO – Programar ESP-01S WiFi do Arduino

ESP-01S



1. INSTALAÇÃO PACK ESP8266 NO IDE

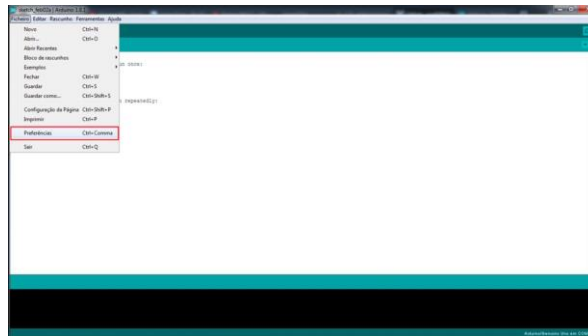
a. Configuração do link para a placa ESP

Link a ser colocado no IDE do Arduino

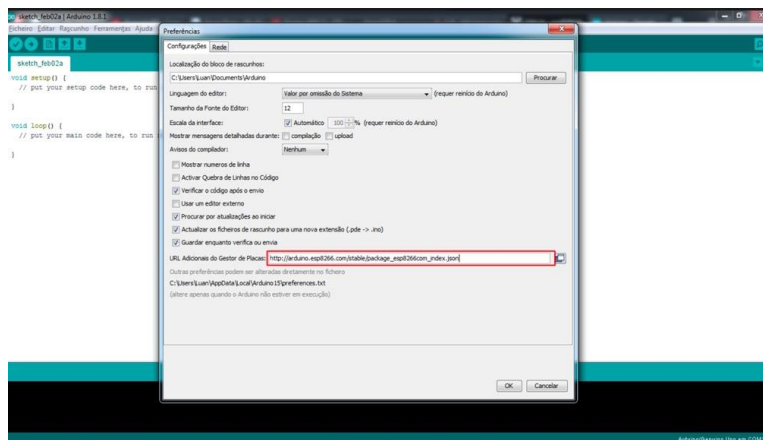
(<https://github.com/esp8266/Arduino>):

https://arduino.esp8266.com/stable/package_esp8266com_index.json

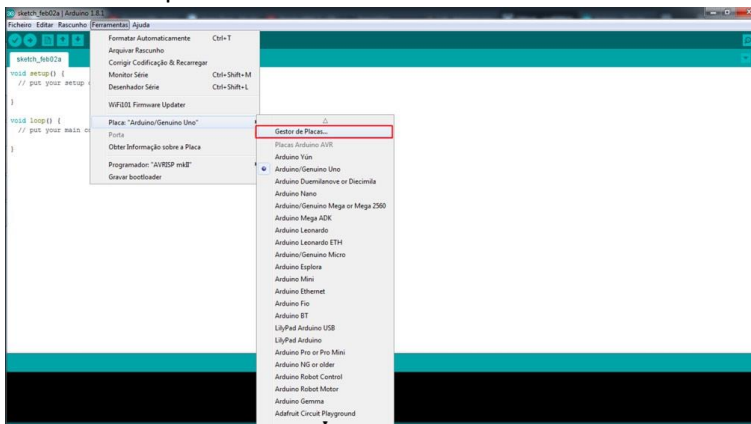
1: Preferências



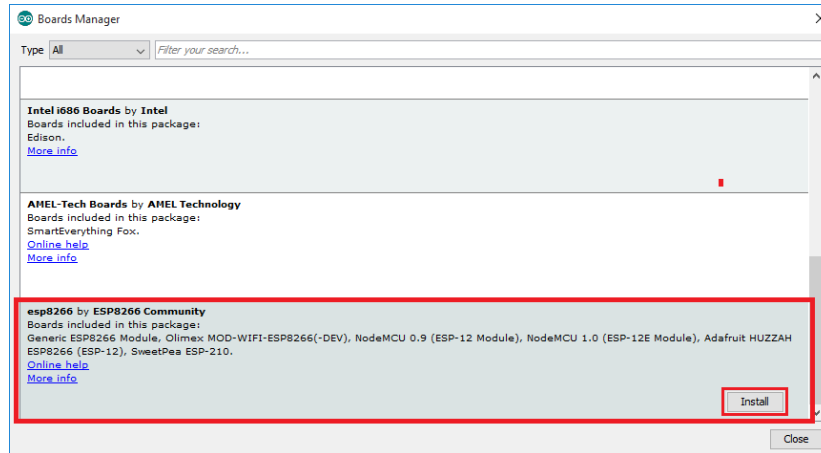
2: Copy e Cole LINK



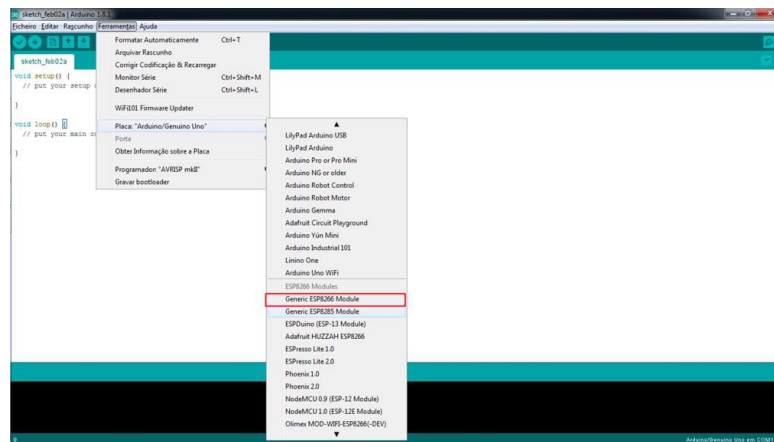
3: Gestão de placas



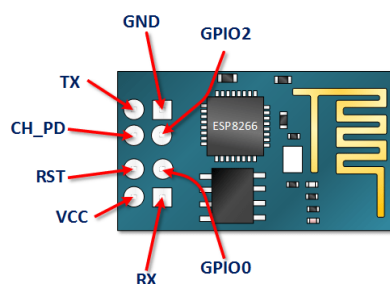
4: instalar ESP8266 community



5: Escolher “Generic ESP8266”

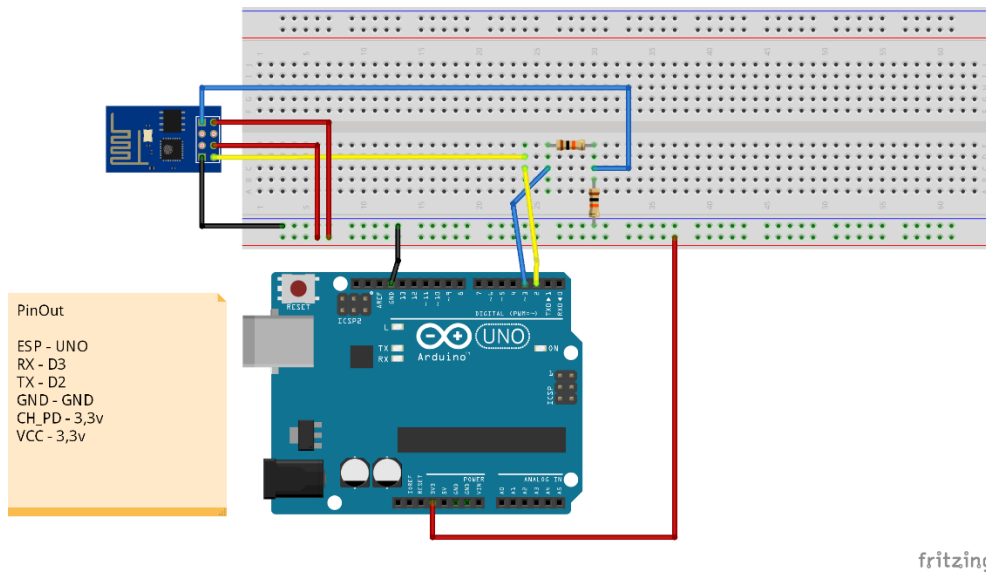


b. Desenhar o esquema da ligação entre ESP e UNO ESP8266



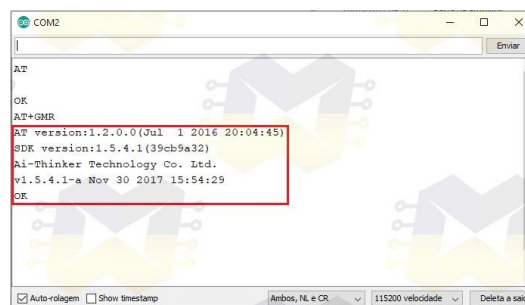
Especificações e características:

- Controlador: ESP8266
- Tensão de operação / nível lógico: 3.3VDC
- Suporte a redes: 802.11 b/g/n
- Potência de saída: +20dBm no modo 802.11b
- Alcance: ~90m
- Taxa de dados: 250kbps a 2Mbit
- Consumo em Standby: <1.0mW
- Processador: Arm 32 bits
- Comunicação: Serial
- Comunicação: TCP / UDP
- Criptografia: OPEN / WEP/WPA_PSK / WPA2_PSK / WPA_WPA2_PSK
- Temperatura de operação: -40 a 125° celsius



c. Testar a placa ESP com UNO

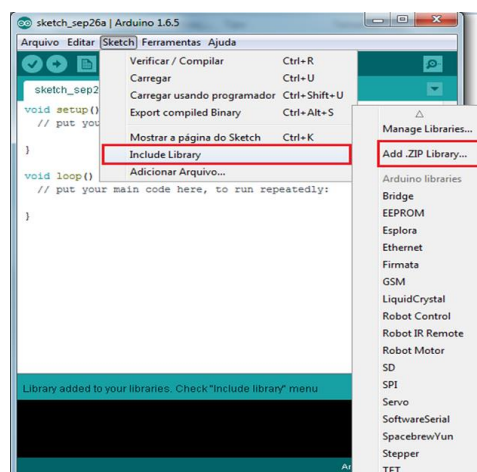
- Carregar o código vazio no Arduino UNO com a placa UNO selecionada.
- Clicar no **Monitor Serial** e colocar o comando AT e AT+GMR



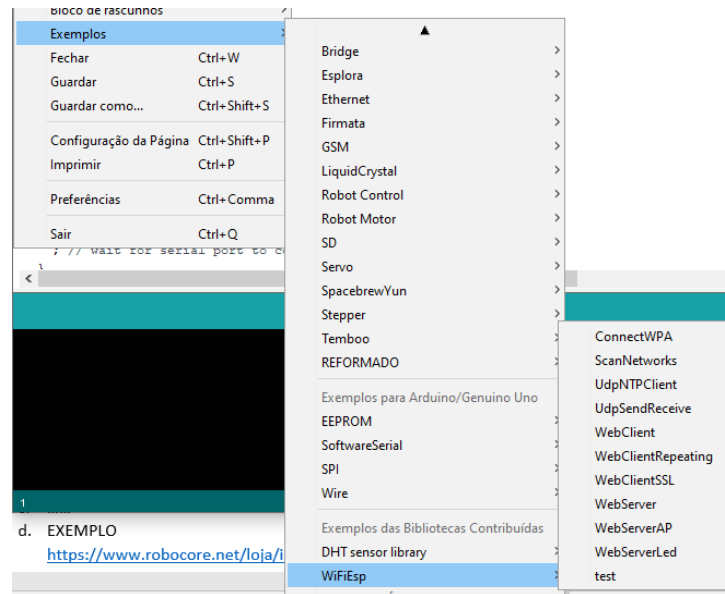
2. ARDUINO UNO + ESP8266 + Biblioteca WiFiEsp

a. Biblioteca WiFi ESP

Download: <https://github.com/bportaluri/WiFiEsp>



EXEMPLOS:



b. WebServer

- Carregar o código do exemplo

- Alterar o SSID da rede local

```
char ssid[] = "Twim";    // your network SSID (name)
```

- Alterar a PW da rede Local

```
char pass[] = "12345678"; // your network password
```

- Alterar os pinOut (2, 3)

```
SoftwareSerial wifiSerial(2, 3); // RX, TX for ESP8266
```

- Fazer Update para o Arduino



- Ver o IP atribuído pela rede:

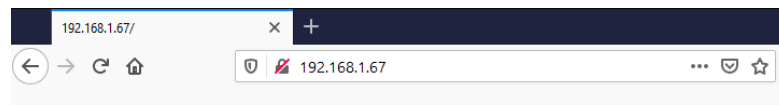
```
COM6

[WiFiEsp] Initializing ESP module
[WiFiEsp] >>> TIMEOUT >>>
[WiFiEsp] >>> TIMEOUT >>>
[WiFiEsp] >>> TIMEOUT >>>
[WiFiEsp] Initialization successful - 1.5.4
Attempting to connect to WPA SSID: WiFi_3lDF
[WiFiEsp] Connected to WiFi_3lDF
You're connected to the network
SSID: WiFi_3lDF
IP Address: 192.168.1.67

To see this page in action, open a browser to http://192.168.1.67

[WiFiEsp] Server started on port 80
```

- Navegador do PC ou no Mobile colocar o IP (192.168.1.67).



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Requests received: 1
Analog input A0: 471