## ARDUINO MEGA 2560 WIFI BT

## USER MANUAL



Operating mode is selected by means of DIP switches on-board:


Switch status and mode selection:

| $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ |  |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CH34O connect to ESP8266 <br> (upload sketch) | OFF | OFF | OFF | OFF | ON | ON | ON | No USE |
| CH34O connect to ESP8266 <br> (connect) | OFF | OFF | OFF | OFF | ON | ON | OFF | No USE |
| CH34O connect to ATmega2560 <br> (upload sketch) | OFF | OFF | ON | ON | OFF | OFF | OFF | No USE |
| CH34O connect to Mega2560 <br> COM3 connect to ESP8266 | ON | ON | ON | ON | OFF | OFF | OFF | No USE |
| Mega2560+ESP8266 <br> All modules work independent | OFF | OFF | OFF | OFF | OFF | OFF | OFF | No USE |

Also, have switch for change of connecting port between ATmega2560 and ESP8266


After choosing the mode of the board can proceed to set up the IDE
It is important that when the ESP8266 module is programming, it is necessary to press the button
"Mode"


To begin open the Arduino IDE programming environment and go to settings


Then in the window that appears in the row, Additional Boards Manager URLs additional scripts that would work with the modules ESP8266 and click OK

| Preferences |  | -x |
| :---: | :---: | :---: |
| Setitbook locaton: |  |  |
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| Show verbose outut diring: 8 complation $\mathbb{X}$ upload |  |  |
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| Eenobe Code Foidno |  |  |
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| POred for updates on starto |  |  |
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|  | © | Cancel |

Then go to the Tools>Board> Boards Manager

| (3) sketch_mar09a \| Arduino 1.65 | $\square-\square-x=$ |
| :---: | :---: |
| File Edit Sketch Tools) Help |  |
| ( $\rightarrow$ A Auto Format CtreT | $\rho$ |
| Archive Sketch |  |
| sketch_mar09 Fix Encoding \& Reload | * |
| vold setup() Serial Monitor Ctrr+Shift+M | , |
| Boart "Arduino Yûn" | Boards Manager- |
| Port | Arduino AVR Boards |
| void loop() for Programmer: "USBasp" | Arduino Yûn |
| Burn Bcotloader | Arduino/Genuino Uno |
| $)$ | Arduino Duemilanove or Diecimila |
|  | Arduino Nano |
|  | Arduino/Genuino Mega or Mega 2560 |
|  | Arduino Megs ADK |
|  | Arduino Leonardo |
|  | Arduino/Genuino Micro |
|  | Arduino Esplora |
|  | Arduino Mini |
|  | Arduino Ethernet |
|  | Arduino Fio |
|  | Arduino BT |
|  | LilyPad Arduino US8 |
|  | LilyPad Arduino |
|  | Arduino Pro or Pro Mini |
|  | Arduino NG or older |
| 。 | Arduino Robot Control |
|  | Arduino Robot Motor |
|  | Arduino Gemma |

In the window that appears, scroll through the list down to the script esp8266 by ESP8266 Community and click


In the lower right corner will be able to select the version of the software, select the version 2.1.0 (the newest) and click the Install button


After installation, close the window and go to Tools> Board and see the list of available devices on the chip programming ESP8266


Next, you need to select the card as shown in the picture (Generic ESP8266 module)

| Debug Level: "None" | $>$ |  |
| :--- | :---: | :--- |
| Reset Method: "ck" | $>$ |  |
| Upload Speed: "115200" | 9600 |  |
| Port | 57600 |  |
| Get Board Info | 256000 |  |
| Programmer: "AVRISP mkIl" | 512000 |  |
| Burn Bootloader | 921600 |  |

Select the upload speed - 115200

## Tools Help

| Auto Format | Ctril $T$ |
| :---: | :---: |
| Archive Sketch |  |
| Fix Encoding \& Reload |  |
| Serial Monitor | Ctrl + Shift + M |
| Serial Plotter | Ctrl+Shift+L |
| ESP8266 Sketch Data Upload | , |
| Wifi101 Firmware Updater |  |
| Board: "Generic ESP8266 Module" | > |
| Flash Mode: "DIO" | , |
| Flash Frequency: "40MHz" | , |
| CPU Frequency: "80 MHz" | , |
| Flash Size: "512K (64k SPIFFS)" | , |
| Debug port: "Disabled" | , |
| Debug Level: "None" | > |
| Reset Method: "ck" | , |
| Upload Speed: "115200" | , |
| Port | , |
| Get Board Info |  |
| void setup() | Tmega2560=== |
| \{ |  |
| Serial3.begin (115200); |  |
| pinMode (13,OUTPUT); |  |
| delay (500); |  |
| Serial3.println ("AT+CIPMUX=1"); |  |
| Delay (2000): |  |
| Serial3.println ("AT+CIPSERVER=1,5000"); delay(2000); |  |
| Serial3.println ("AT+CIPSTO=3600"); |  |
| Delay (2000): |  |
| \} |  |
| void loop() |  |
|  |  |
| While (Serial3.available()) |  |
| \{ |  |
| char Rdata; |  |
| Rdata=Serial3.read (); |  |
| If (Rdata= ' $A^{\prime}$ ' $\operatorname{Rdata}==^{\prime} \mathrm{a}^{\prime}$ ) |  |
| $\{$ |  |
| digitalWrite (13,HIGH); |  |
| delay (50); |  |

```
}
    else if(Rdata=='B'|Rdata=='b')
    {
        digitalWrite (13,LOW);
        delay (10);
        digitalWrite( 13,HIGH);
        delay (10);
        digitalWrite (13,LOW);
    }
    else
    {
        digitalWrite (13,LOW);
    }
}
}
```

