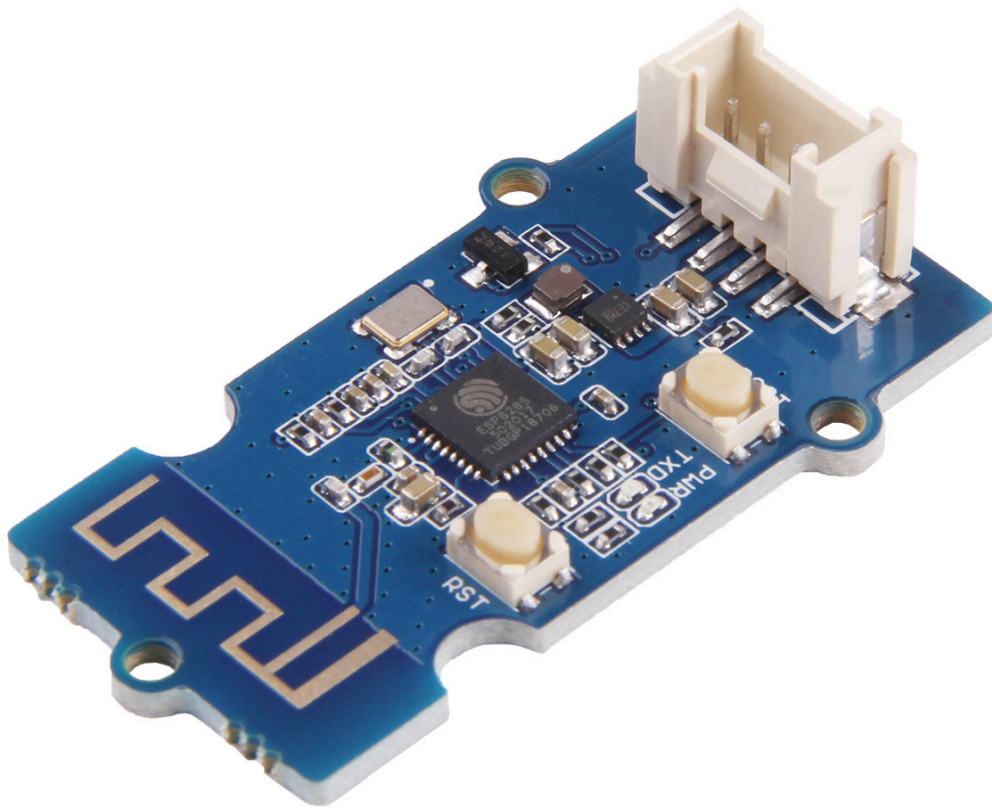


WiFi addition to ARM cortex-M3 (STM32F103RCT6) (Nov 15,2020)

in this article we are going to connect a WiFi module and fetch a page from www.arduino.cc. we have chosen seed studio serial to WiFi module (https://wiki.seeedstudio.com/Grove-UART_Wifi_V2/)



Grove - UART Wifi V2

we also need AT command to wifi api library WiFiEsp, it can be installed in arduino using manage library menu option.

to work with ARM some modification to the library is needed , open file libraries/WiFiEsp/src/utility/EspDrv.h

and paste following lines of code at the begging o file

```
#ifdef __STM32F1__  
typedef __gnuc_va_list va_list;  
#define vsnprintf_P vsnprintf  
#endif
```

now edit file Arduino/libraries/WiFiEsp/src/utility/EspDrv.cpp

and paste following line

```
#include <stdarg.h>
```

in arduino go to library example WebClientRepeating and comment out lines pertaining to software serial

```
// #include "SoftwareSerial.h"  
// SoftwareSerial Serial1(6, 7); // RX, TX
```

as STM32F103RCT6 has serial1 , change the baud rate of Serial1 to 115200

enter your wifi network SSID and Pass phrase in the arduino sketch

Grove wifi module and STM32F103RCT6 Serial1 connections

connect grove cable to uart wifi module, connect red wire (Vcc) to 3,3v power supply and black to ground , white is TX (transmit) yellow is RX (receive)

connect yellow receive (RX) to PA9 of jumper JP5 on STM32F103RCT6 board and connect white transmit (TX) to PA10 pin of jumpier JP5

compile and load sketch to STM32F103RCT6 board and you will see arduino ascii logo being displayed in serial monitor as shown below

