

# HC-05\_preparation-for-connection

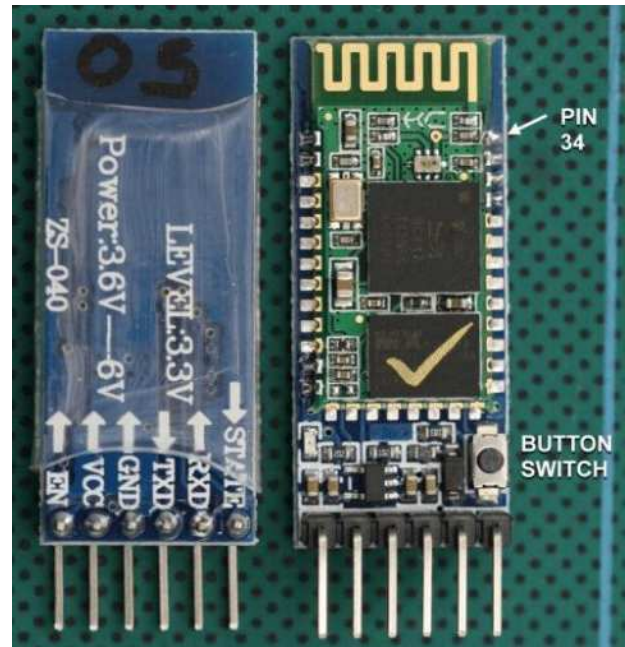
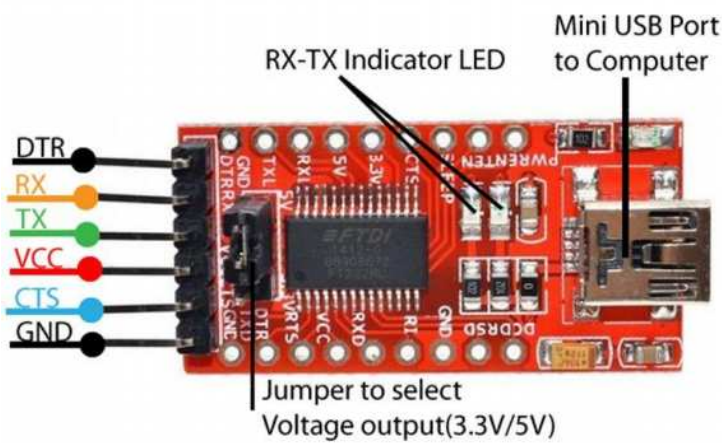
Gyula Molnar

<https://groups.io/g/nanovna-beta-test/message/1183> with adds

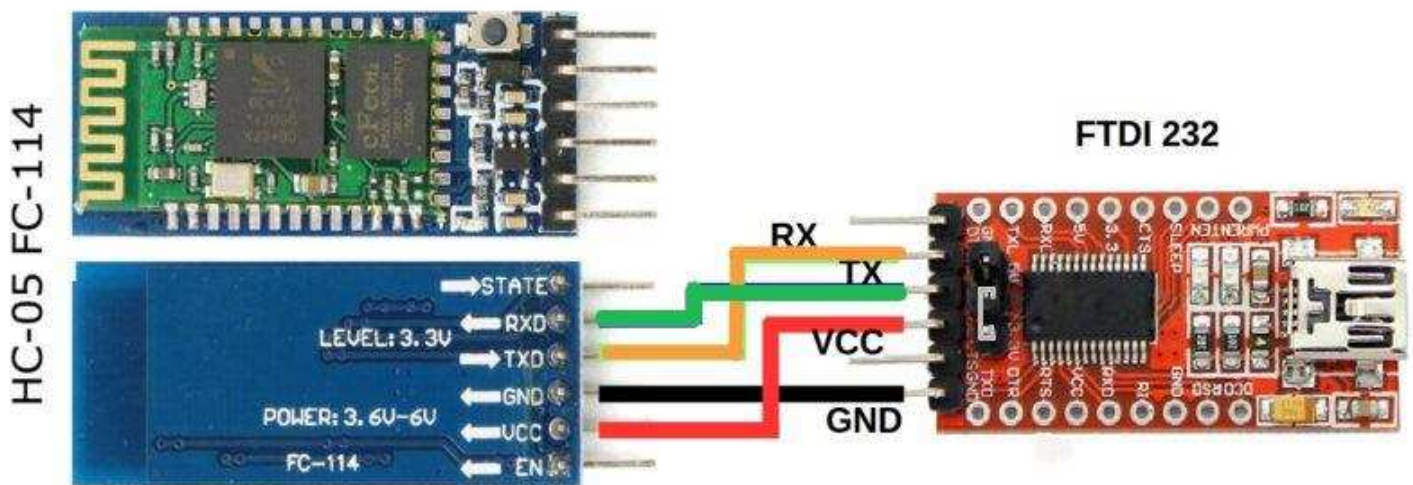
## Use USB-TTL module

When I read your message, I also tried to install the BT HC-05 since it arrived today.

I smartened the **HC-05** with a **Tera Term** terminal program via a **USB-TTL serial PL2303 module**.



**Jumper to select Voltage output: 3V3**



First I had to install the PL2303 driver and then restart the PC to understand the presence of the driver.

After that I started the terminal program and had to find the '**Prolific USB-to-Serial Comm Port**' which I set in the terminal prg.

**Tera Term SETUP> SERIAL PORT> SPEED: 38400 this module's communication speed if this you change it, there is no OK answer.**

Tera Term SETUP> TERMINAL> New-line: Receive: CR + LF Transmit: CR + LF and Local echo box signed finally OK.

Of course, I pre-connected the USB-TTL Serial with four wires: TXD-to-RXD, RXD-to-TXD, VCC-to-3V3, GND-to-GND.

**To enter AT mode, first time the pushbutton in front of the HC-05 KEY connector pin must be pressed while applying power to the device.**

Once we see the LED flashing slowly, we are in AT mode.

I typed an AT command on the terminal, which was: OK, so there is a connection.

I received a response to AT + VERSION request VERSION: 3.0-20170601.

Then I got a response from AT + NAME on request + NAME: HC-05.

**I changed this to AT + NAME = nanoVNA.** (you can use any name so you can easily identify it when you use it)

Then I got AT + UART request + UART: 9600,0,0 response.

**I changed this to AT + UART = 115200,0,0**

Since I didn't want to change anything else, I quit AT mode.

For verification, I logged in again and queried for my changes, which were ok, BT ok.

Make a label "**NanoVNA, 115200 Bd**" and stick it on the Bluetooth panel.

The PC I use is a desktop computer, so I first had to add a bluetooth with a USB connection.

You have **installed the required driver** from the net and then it is displayed in the **device manager as 'Bluetooth radios'**.

Next step, I connected the previously wired BT to the nanoVNA H4 by pairing it with the four wires similarly to what was described earlier. (Vdd=3V3)

**I turned on nanoVNA power and set Connection> Serial and then Connection> Serial Speed to 115200.**

A **Bluetooth device was added to the PC**, at which point the password for the device found as 'nanoVNA' had to be entered.

**Two COMports assigned to the device.** These also appeared in Device Manager and in the NanoVNA-App port list.

I set the **NanoVNA-App COM port speed to 115200** and **click Connect** to communicate nanoVNA via BT.

I didn't plan on connecting BT to nanoVNA-H4, but due to Jos's concerns, I thought I'd try too.

I hope I didn't miss a step, after that others can build up.

References: "[AT-command-mode-of-HC-05-Bluetooth-module](#)"

ps .:

1. DiSlord uses nanoVNA for USB-TTL serial conversion (so you don't need a separate device) to change Bluetooth features - and the nanoVNA-App program created by OneOfEleven also works as a terminal program.

2. Then the USB cable should not be used as the nanoVNA and the PC must communicate via BT. The PC must be smartened for new hardware, and a driver must be searched for if necessary.

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73, Gyula HA3HZ

# How use DiSlord

<https://groups.io/g/nanovna-beta-test/message/1171>

Connect HC-05 to NanoVNA as:

Rx to Tx

Tx to Rx

Gnd

And 5v to 5v (HC-05 use linear converter to 3.3v)

Connect NanoVNA to CPU over USB

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1 step - HC-05 made module config (setup speed) **need do only one time.**

**You not know current speed setting** - so for 1 step need press key on HC-05 and power on NanoVNA.

Now HC-05 enter to command mode **on speed 38400**

**Begin config module:**

**On NanoVNA select CONNECTION->USB, CONNECTION->SERIAL SPEED->38400**

Now possible send commands from nanoVNA console to serial port (send commands to HC-05 and get answer)

Run NanoVNA-App, connect to nanoVNA **over USB** on any speed

Select **VNA Usart comms** console (right from NanoVNA console button)

In VNA usart console run

AT (result in console):

47.628 tx: "AT"

47.644 rx: "AT"

48.141 rx: **OK**

You should get answer OK if all good (or ERROR on error, or nothing)

Now setup speed (to 115200):

**AT+UART=115200,0,0**

Result:

>09.843 tx: "AT+UART=115200,0,0"

>09.861 rx: "AT+UART=115200,0,0"

>10.358 rx: OK

Should get answer OK

After you can power off/on NanoVNA

On CPU connect to HC-05 module:

This can be different from system

Run **Add Device**, select **HC-05** from list (if device not added), select **connection password** '1234'

If you do this step, not need to do it again, in system you should get 2 COM ports

**I have COM14 and COM15 (numbers can be different)**

Step 1 complete (if you get OK in all cases)

After no need run this, all settings stored in HC-05

Step 2 (connect to NanoVNA over bluetooth):

Power on NanoVNA, HC-05 should fast flash led

**On NanoVNA Select Connection->Serial, speed 115200**

Run NanoVNA-App, select COM14 (need select your com port number)

After connection Led on HC-05 should stop fast flash

Now all should work as need



HC Serial Bluetooth Products. User Instructional Manual.pdf

<https://docplayer.net/storage/63/49413449/1626778030/ciLqsXbydFIJp-SO8PvPqQ/49413449.pdf>

[http://wiki.bernardino.org/index.php/Using\\_the\\_HC-05\\_Bluetooth](http://wiki.bernardino.org/index.php/Using_the_HC-05_Bluetooth) for Linux user