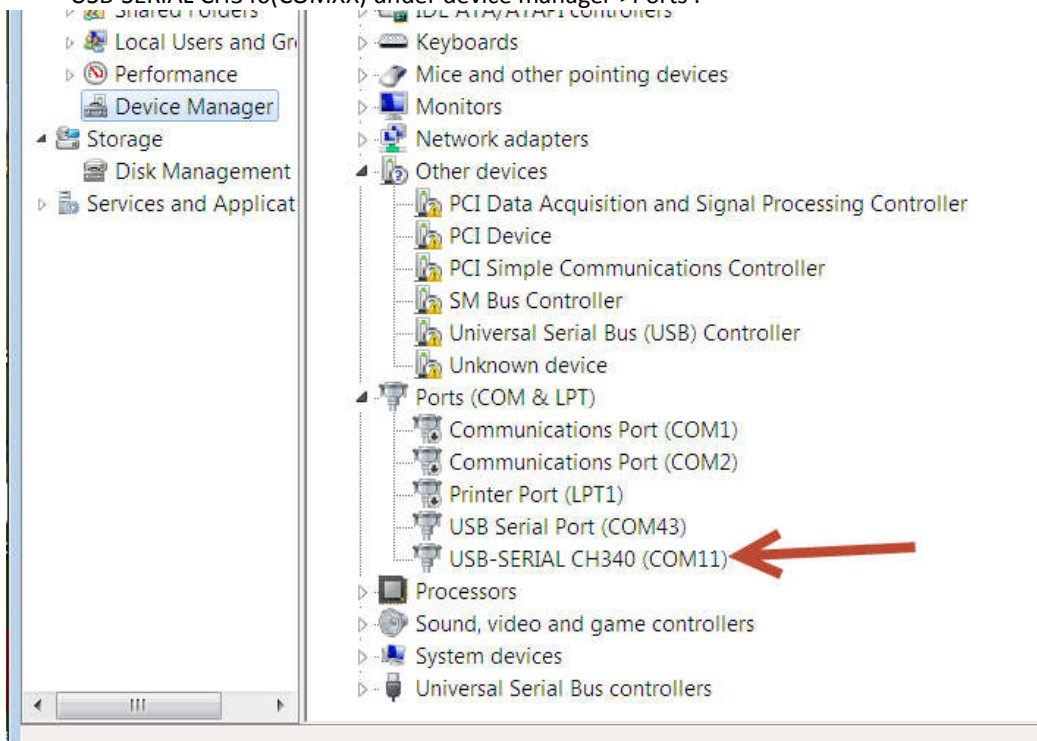# Bootloader update guide for T3-nano

1. Software tools and firmware
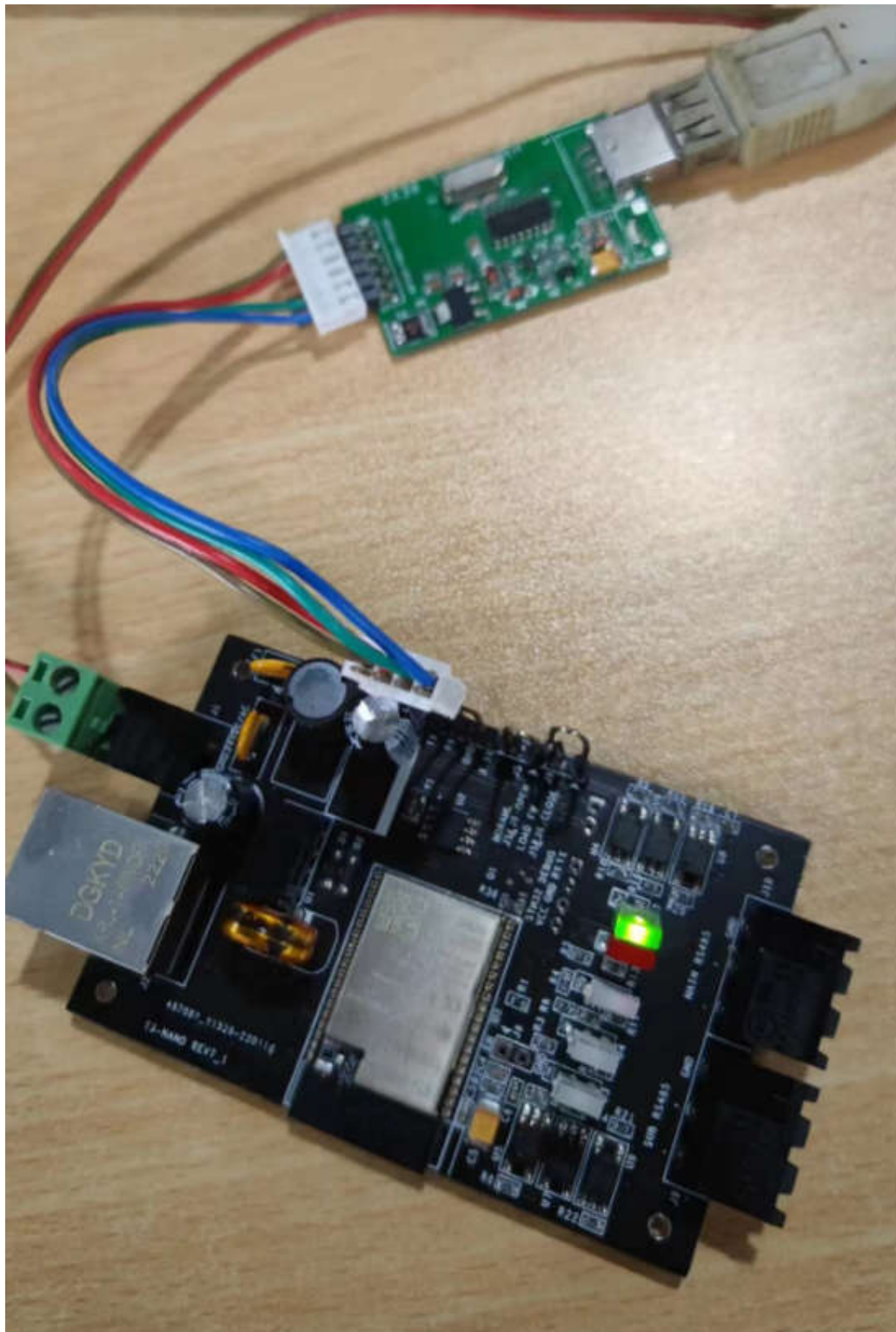
    (1) ESP32 download firmware tool and ESP32 firmware

    https://temcocontrols.com/ftp/file/flash_download_tool_v3.8.5.zip

    https://temcocontrols.com/ftp/file/BootloaderT3NanoRev27.zip

    (2)CH340SerSetup   for   USB-to-TTL debug board

    https://temcocontrols.com/ftp/file/CH340SerSetup.zip

    (2) UartAssist.exe   print debug messages via USB-to-TTL board

    https://temcocontrols.com/ftp/file/UartAssist.zip
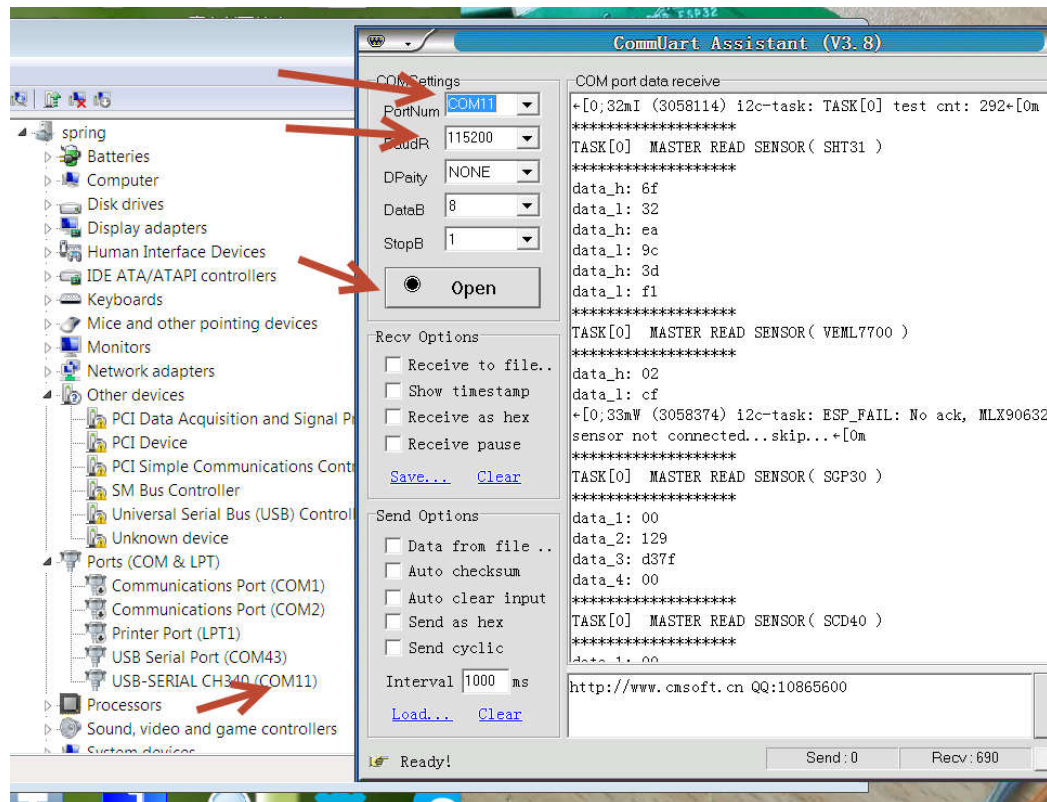
2. Print Debugging Information

（1）   Plug USB-to-TTL debug board to your PC , Download and install CH341 driver , you will find a new USB-SERIAL CH340(COMXX) under device manager->Ports .

    (3) Connect the USB-to-TTL debugging board and motherboard J4 through the male and female connector , pay attention to keep MARK point in the same position .
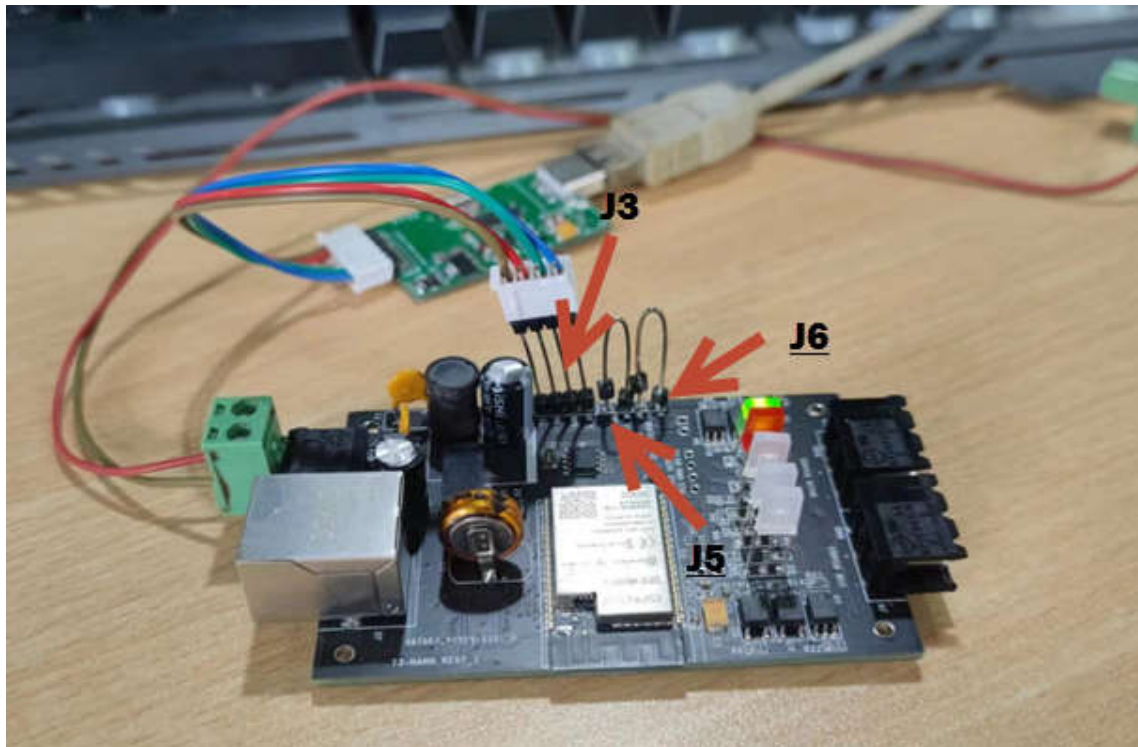
(4) Power on and open commUart   Assistant which print some messages about sensors
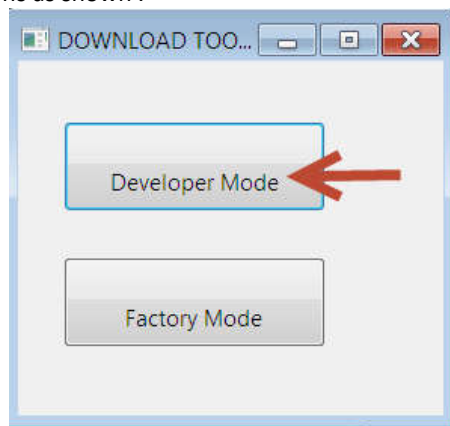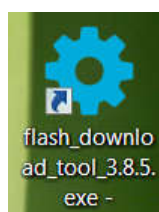
3. **ESP32 update firmware .**
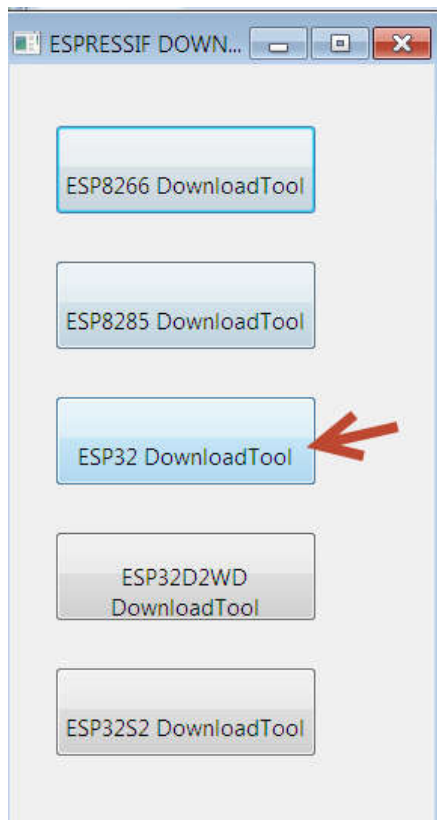
(1) Hardware connection

USB-to-TTL connect to J3 , Short J5 and J6 by a jumper until the end of the download firmware , turn on 24V power .

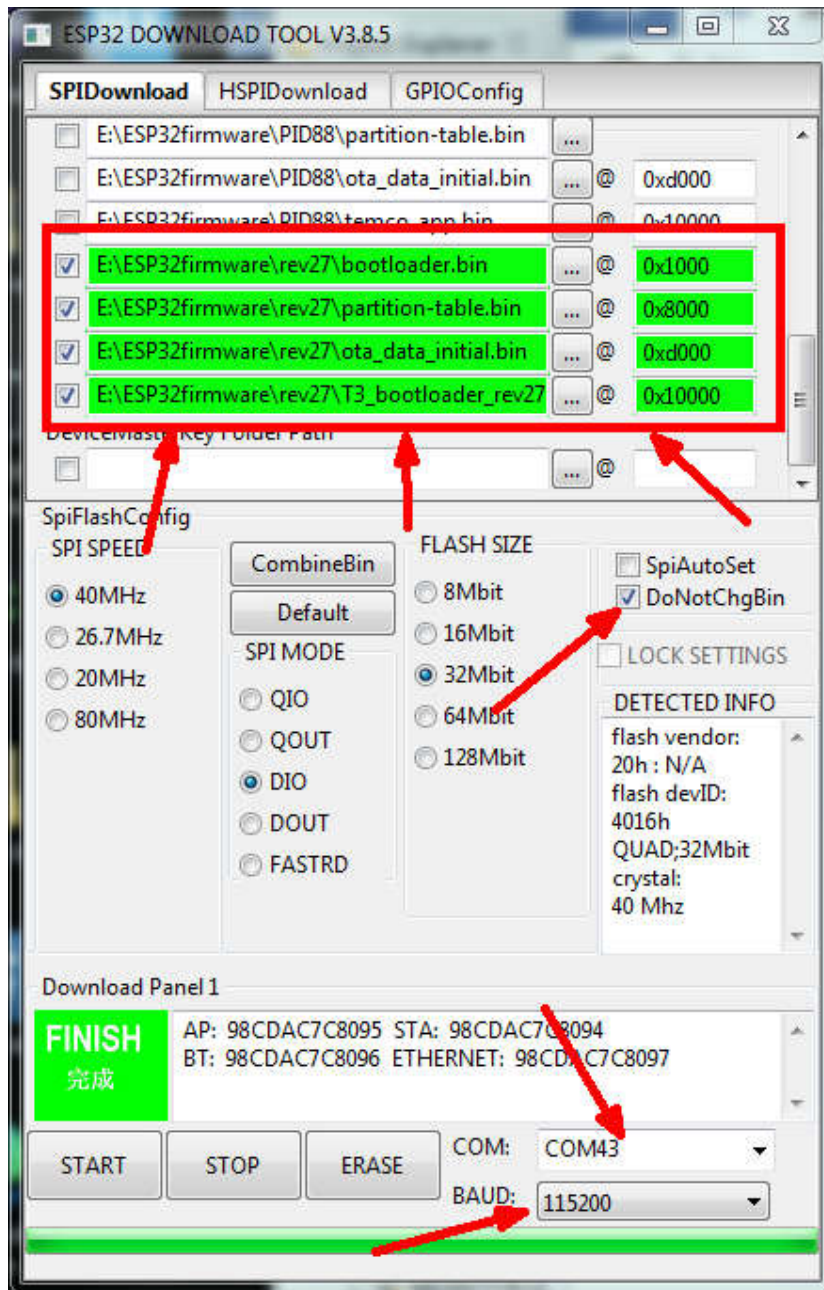## (2) Set ESP32 firmware download tool configurations

Run flash_download_tool_3.8.5.exe ,   Developer Mode ->ESP32 Download Tool   ,
Set some options as shown .

ESP32 firmware contains four parts .

Name	Date modified	Type	Size
bootloader.bin	6/1/2022 10:25 AM	BIN File	25 KB
ota_data_initial.bin	6/1/2022 10:25 AM	BIN File	8 KB
partition-table.bin	6/1/2022 10:25 AM	BIN File	3 KB
T3_bootloader_rev27.bin	6/10/2022 02:18 PM	BIN File	725 KB

Click the Start button to download the latest firmware .
When it show Finish , please remove jumper on J5 & J6 and power on again,
If UartAssist.exe is running , you can see debugging messages .