How to activate Matrice 100 Drone with Intel NUC as onboard computer

In this article I have written what and all required to set-up to work with DJI onboard SDK.

1. Download the DJI PC Assistant 2 software for Windows/Mac.
   Download the DJI GO App to your mobile device.

2. Update Aircraft and flight controller to latest firmware versions.

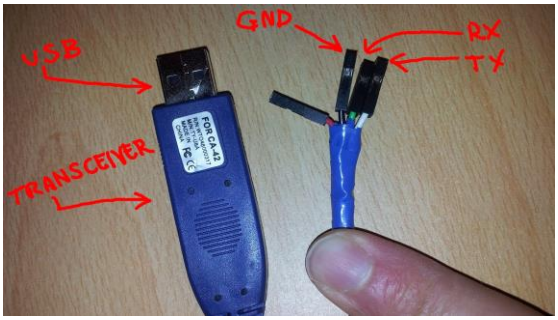
3. You must register with DJI as a developer and create an application ID and Key pair.
   (https://developer.dji.com/register/)

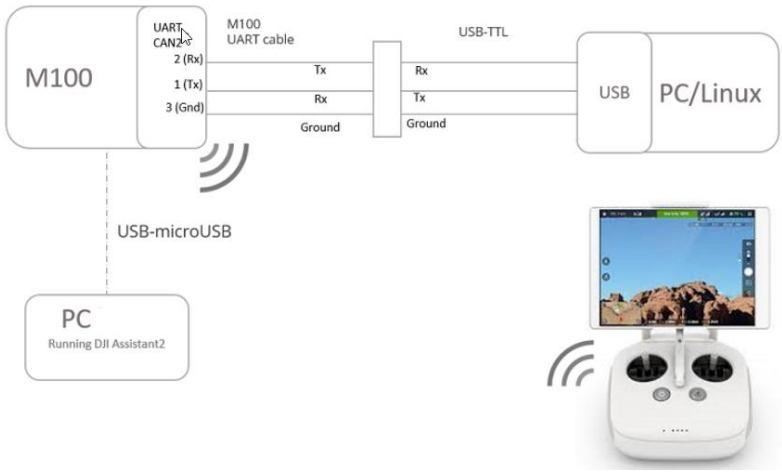
Hardware setup

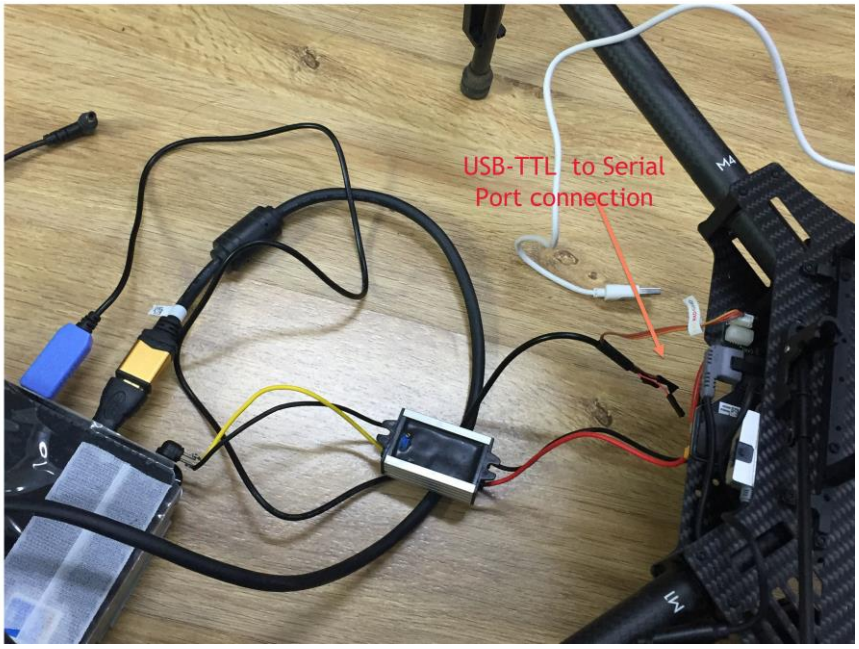
1. DC-DC power supply – to draw power from M100 (https://www.amazon.com/DROK-Converter-Regulator-1-5-24V-Adjustable/dp/B00KL7I9XC)

2. USB to TTL cable (https://www.amazon.com/ADAFRUIT-INDUSTRIES-954-SERIAL-RASPBERRY/dp/B00DJUHGHI/ref=sr_1_5?s=electronics&ie=UTF8&qid=1466208644&sr=1-5&keywords=usb+to+ttl)

3. Directly wire TTL End of cable to UART cable (UART is provided with drone) and plug it to UART Can2 port in drone (As shown in figures).



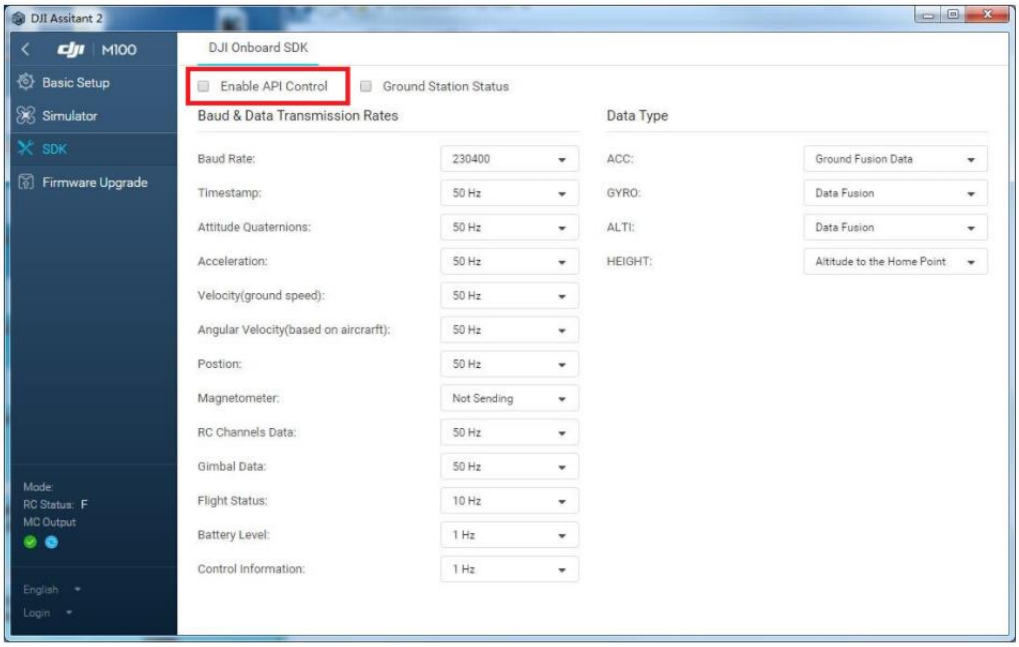




Software setup

1. The OSDK API needs to be enabled to allow communication between the onboard computer and the aircraft or flight controller also change to F mode in RC.

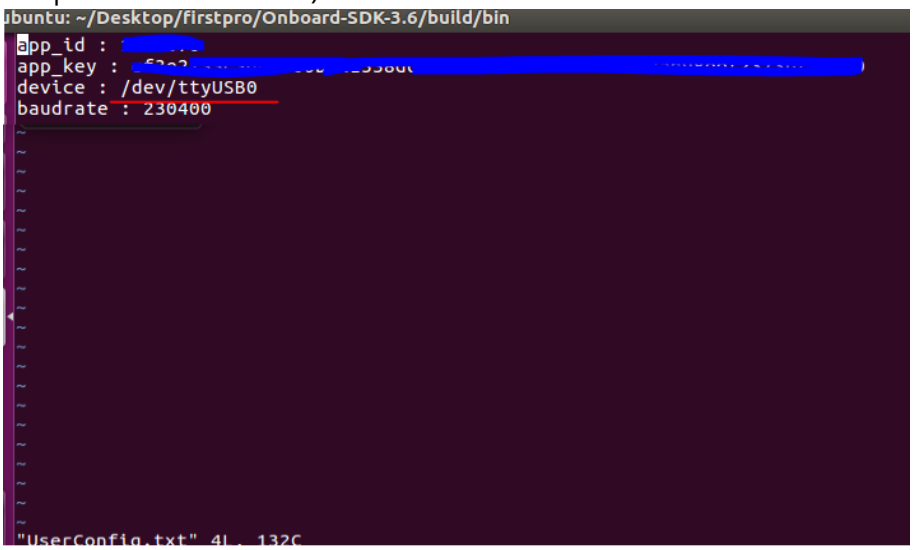
2. With your aircraft/flight controller connected to your PC/Mac, launch DJI Assistant 2 and check the box marked Enable API Control on the SDK page.



3. Set baud rate as 230400 it should be same in DJI Assistant 2. (https://askubuntu.com/questions/592386/ubuntu-putty-and-serial-port?utm_medium=organic&utm_source=google_rich_qa&utm_campaign=google_rich_qa)

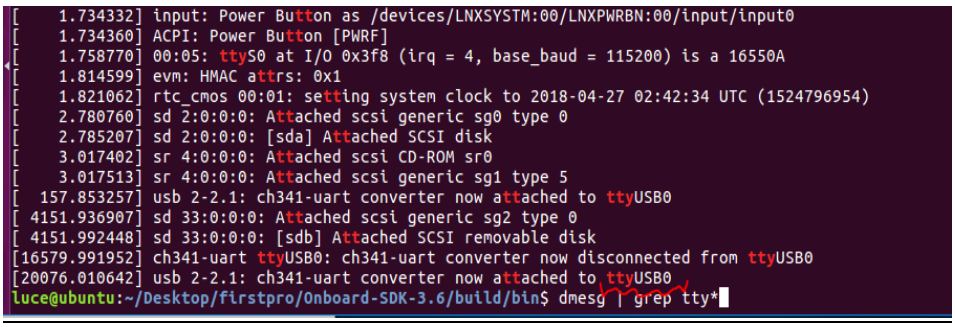
4. You need to add your user to the dialout group to obtain read/write permissions for the UART communication.
   Type `sudo usermod -a -G dialout $USER` in a terminal

5. Mention your appid and key in respective files (File location varies based on the platform of the SDK)



6. Give read and write permissions to serial port.

```
sudo chmod 666 /dev/ttyUSB0
```



Set up and build samples
https://developer.dji.com/onboard-sdk/documentation/sample-doc/sample-setup.html#linux-onboard-computer