Application of TFmini-S in PX4

PX4 is popular and used by a lot of customers. TFmini-S is popular in the LiDAR market. This article introduce the detail application of TFmini-S in PX4. This article is based on QGroundControl v3.4.4 and PX4 v1.8.2, any incomplete function at customer side should be upgraded in Ground Control Station and firmware.

I Hardware connection

We take Pixhawk as an example, the connection is shown as below:

Black line：GND
Green line：TX -> RX
White line：RX -> TX
Red line：5V power supply
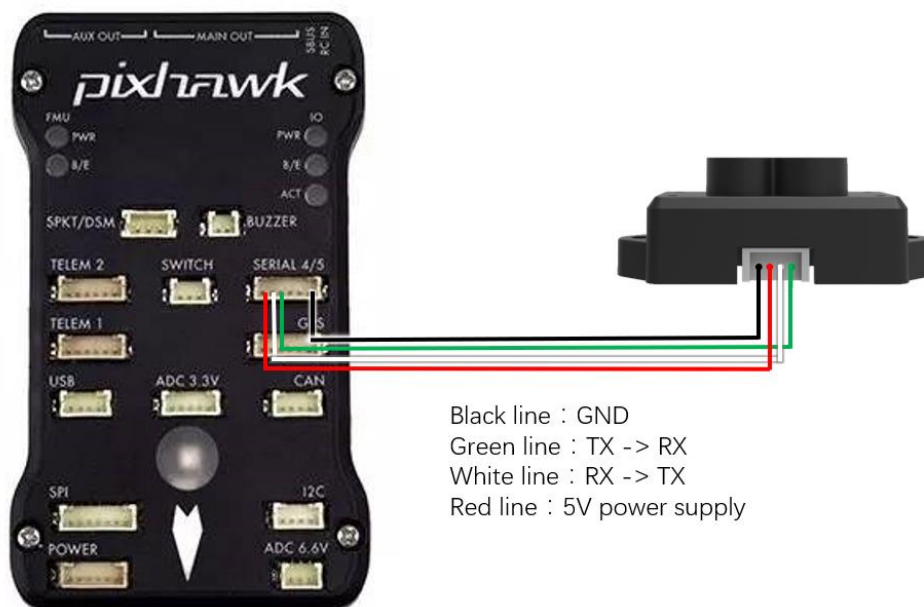
Please install TFmini-S on the aircraft and make sure it's firm, lens should face downward and there is no obstacle in front of lens.

II Software setting

1.Choose *Setting--Parameters--EKF2--EKF2_RNG_AID*, select *Range aid enabled*:
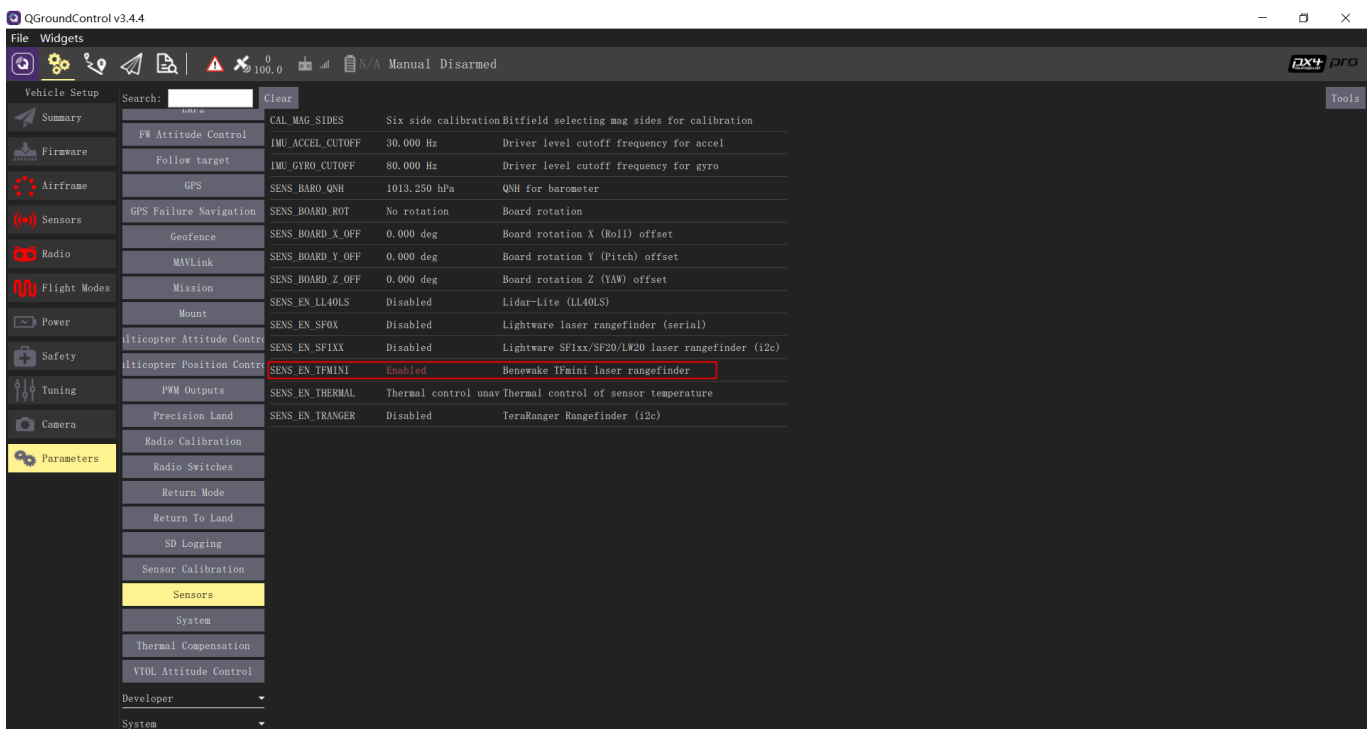
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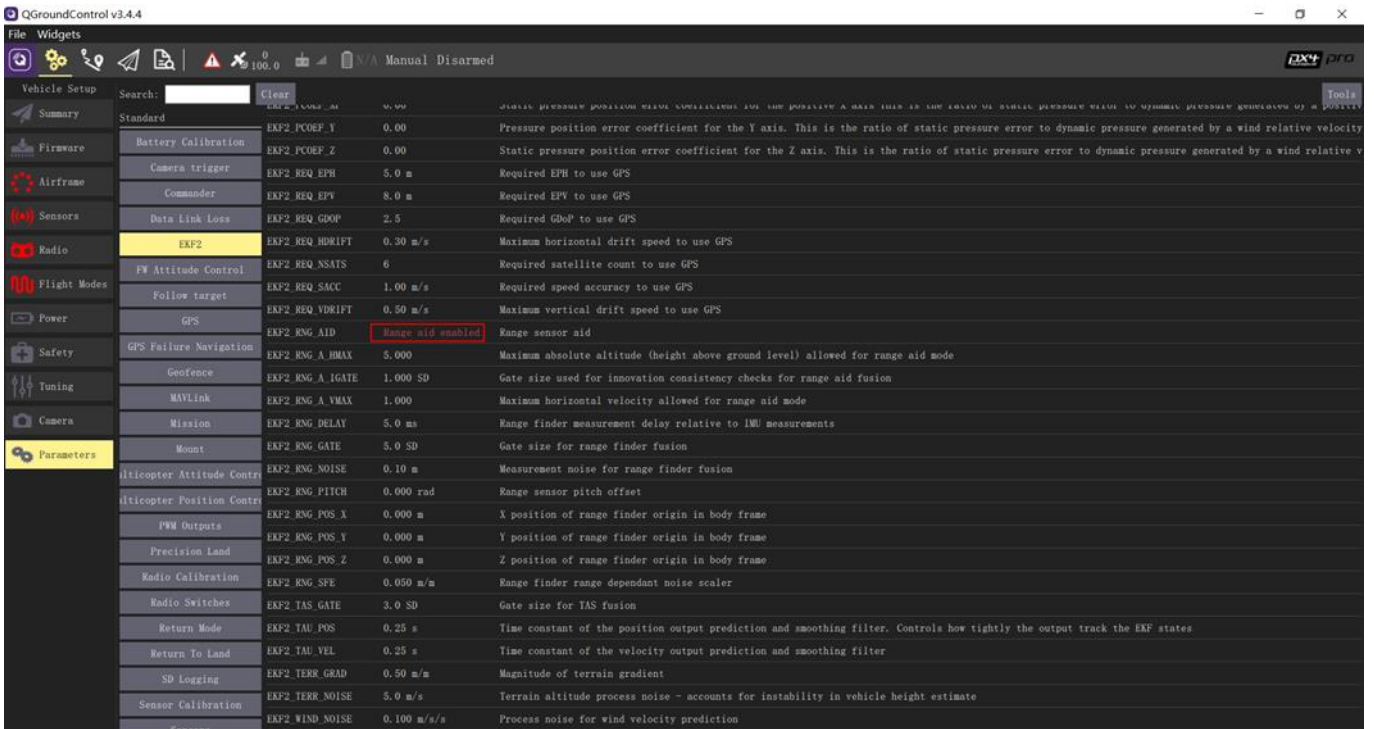
Customer setting:

(1) EKF2_RNG_A_VMAX

(2) EKF2_RNG_A_HMAX

Detail description could be found at the parameters place.

2.Select *Setting--Sensors--SENS_EN_TFMINI*，select *Enabled:*

2. TFmini-S measurement result will be displayed on the panel:

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