DroneCAN GPS Setup Guide

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Using Ardupilot Firmware

Using one DroneCAN GPS

Connect the 4-pin CAN cable connector to the CAN1 or CAN2 port on the flight controller.

Power the flight controller and connect it to Mission Planner. Go to "Config/Tuning > Full Parameter List" and modify the following parameters:

CAN_D1_PROTOCOL: 1 set virtual driver of CAN1 to DRONECAN

CAN_D2_PROTOCOL: 1 set virtual driver of CAN 2 to DRONECAN

CAN_P1_DRIVER: 1 set this parameter to enable the CAN1 bus

CAN_P2_DRIVER: 1 set this parameter to enable the CAN2 bus

GPS_TYPE: 9 set the communication protocol type of GPS 1 to DRONECAN

NTF_LED_TYPES: 231 Set to DRONECAN for LED type

There is no external safety switch. Set BRD_SAFETYENABLE as 0 to disable the safety switch, or connect an physical external safety switch

Click "Write Params" when done. CAN functions will be available after rebooting the flight controller.

Using two DroneCAN GPS

As the document is written, the firmware used for flight control is ArduCopter 4.1.5, which automatically allocates 2 node IDs for the GPSs; you can perform the following operation directly.

Connect two CAN cables to the CAN1 and CAN2 ports of the flight controller

Power up the flight controller and connect to Mission Planner. Go to "Config/Tuning > Full Parameter List" and modify the following parameters:

CAN_D1_PROTOCOL: 1 set virtual driver of CAN1 to DRONECAN

CAN_D2_PROTOCOL: 1 set virtual driver of CAN 2 to DRONECAN

CAN_P1_DRIVER: 1 set this parameter to enable the CAN 1 bus

CAN_P2_DRIVER: 1 set this parameter to enable the CAN 2 bus

GPS_TYPE: 9 set the communication protocol type of GPS 1 to DRONECAN

GPS_TYPE2 9 sets the communication protocol type of GPS 2 to DRONECAN

NTF_LED_TYPES: 231 Set to DRONECAN for LED type

There is no external safety switch on the DroneCAN GPS. You can set BRD_SAFETYENABLE to 0 to disable the safety switch, or connect a physical external safety switch

Click "Write Params" when done. CAN functions will be available after rebooting the flight controller.

Using PX4 firmware

Load PX4 firmware into the controller. Connect the 4-pin CAN connector from the DroneCAN GPS to the CAN1 or CAN2 port on the flight control.

Connect to the flight control and set the parameter "UAVCAN_ENABLE" to "Sensor Automatic Config".