

Viewpro Gimbal Camera and

Pixhawk FC Integration

Date: 2021.10.21

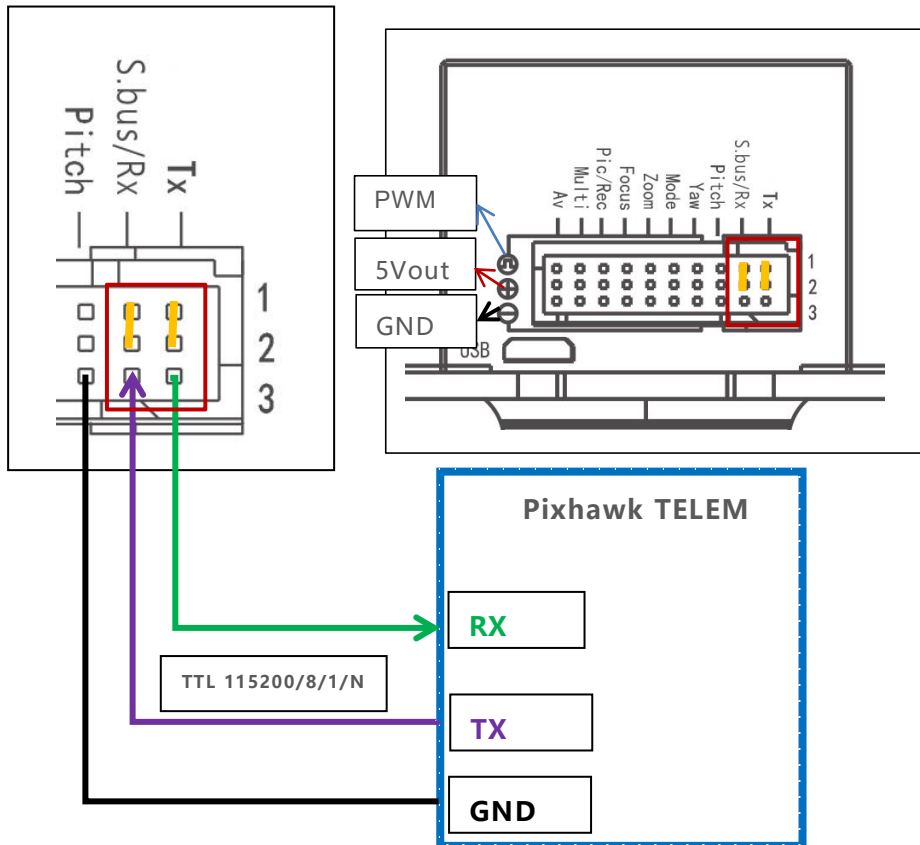
Content

1. Gimbal and FC Hardware Connection	3
2. Channel Settings	5

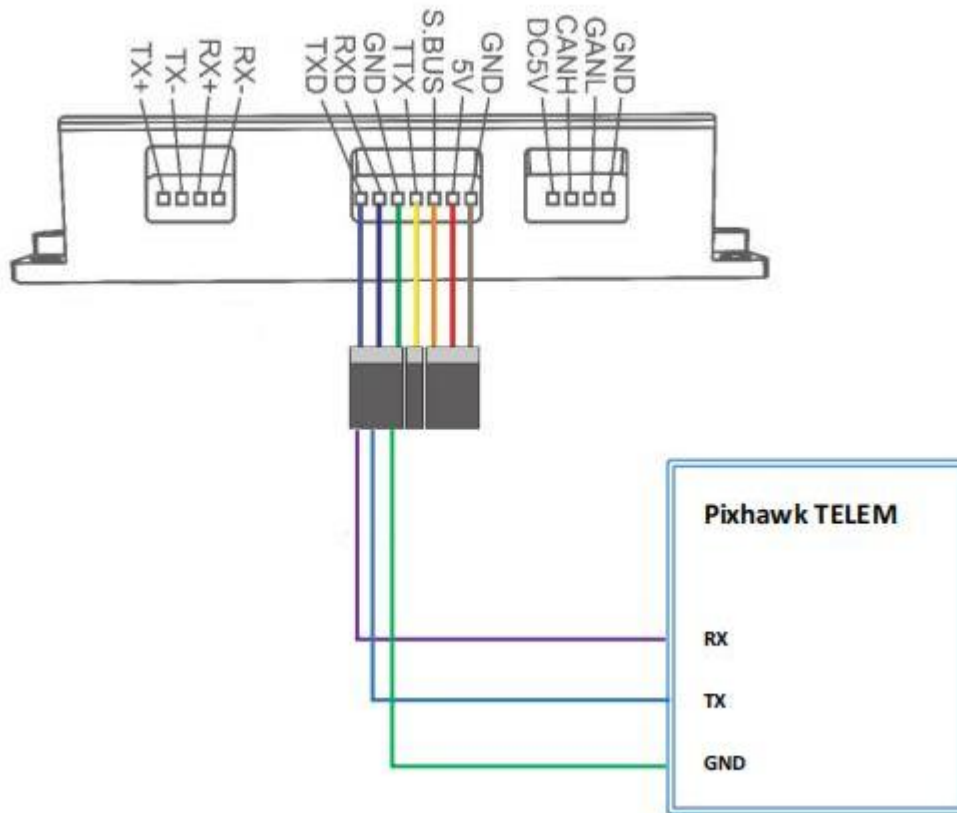
1. Gimbal and FC Hardware Connection

Step 1: Gimbal serial port connect to FC data link serial port (telem1 or telem2)

Viewpro Gimbal standard version:

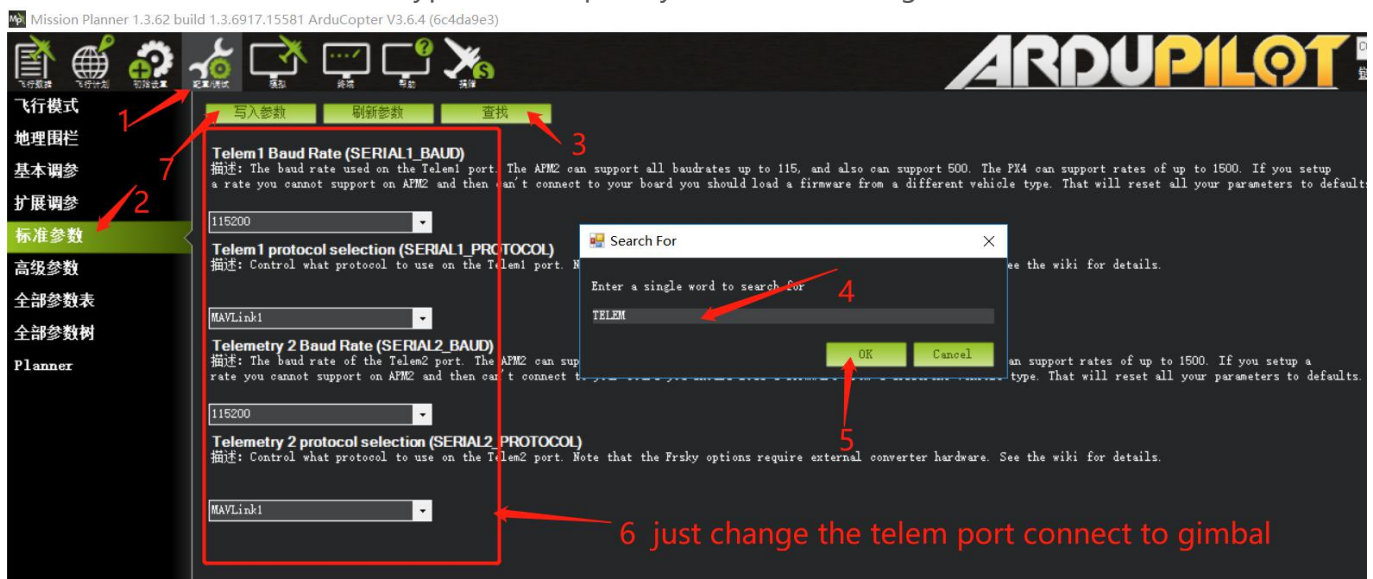


Viewpro Gimbal Viewport version:

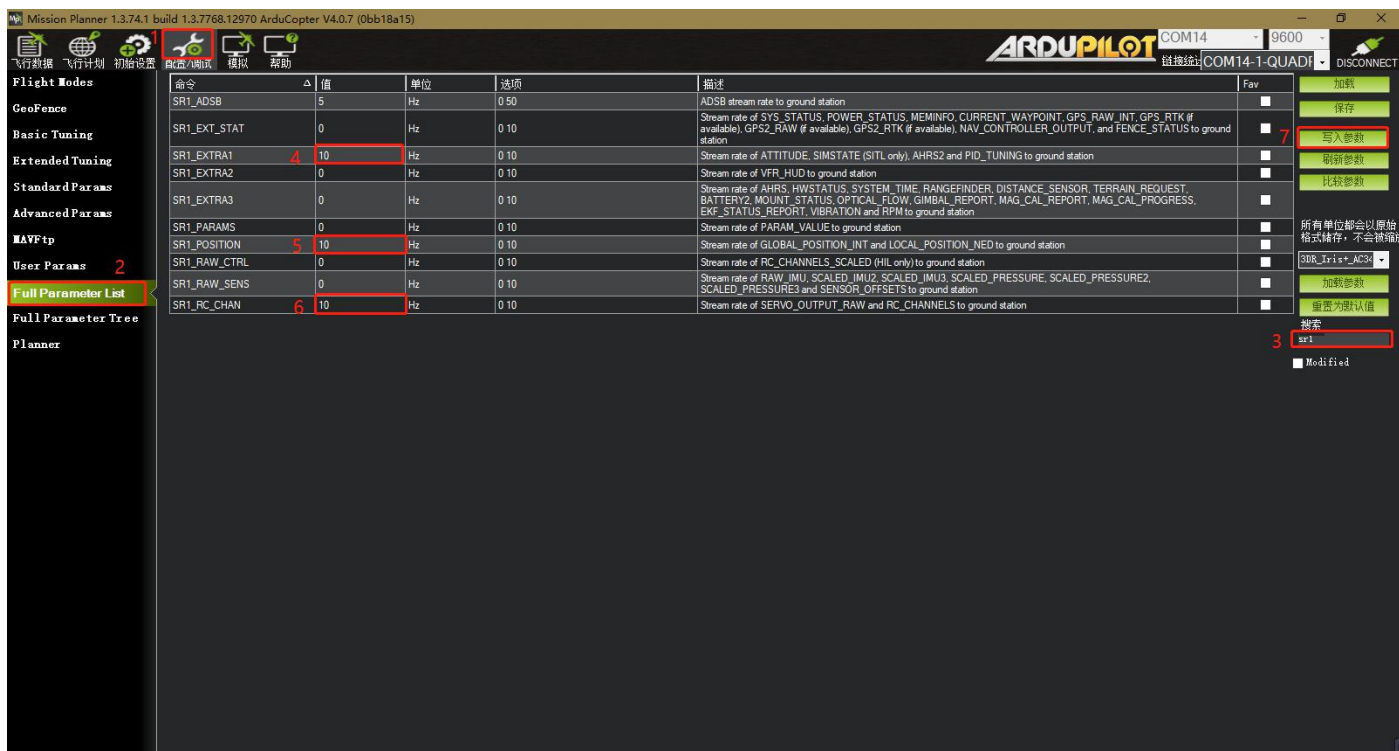


Step2: As Pic 1, set Pixhawk Telem1 or Telem2 (which is connecting with the gimbal serial port), baud rate 15200 & choose MAVlink1 or MAVlink2. (The example is mission planner, choose the corresponding telem port to set)

As Pic 2, set the data type and frequency from FC to the gimbal.



(Pic 1)

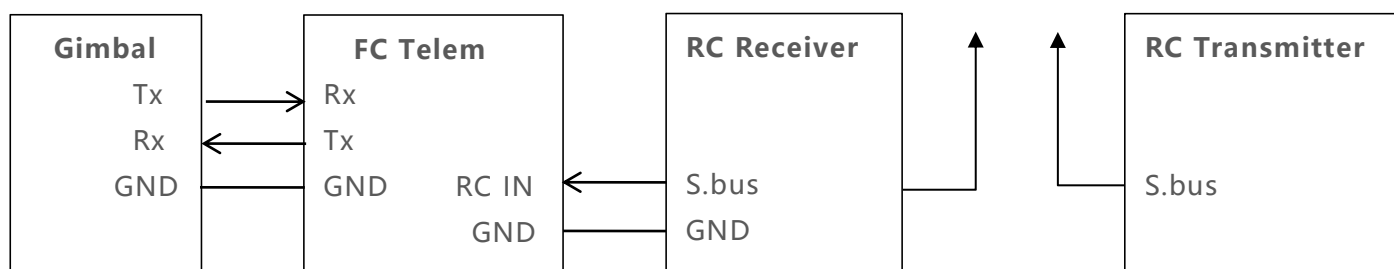


(Pic 2)

Time:

Set SRx_EXTRA3 to 10 to get time sync.

Step 3: Connect "RCIN" to SBUS port of Futatba receiver, you can control the gimbal via Futaba RC or other SBUS control device.



2. Channels Settings

mode1: AA 55 10 01 FF (1~7ch)

YAW = chan_1; PITCH = chan_2; MODE = chan_3; ZOOM= chan_4; FOCUS=chan_5; PIC/REC = chan_6; MULTI = chan_7

mode2: AA 55 10 02 FF 6~12ch

YAW = chan_6; PITCH = chan_7; MODE = chan_8; ZOOM= chan_9; FOCUS=chan_10; PIC/REC = chan_11; MULTI = chan_12

mode3: AA 55 10 03 FF 9~15ch

YAW = chan_9; PITCH = chan_10; MODE = chan_11; ZOOM= chan_12; FOCUS=chan_13; PIC/REC = chan_14; MULTI = chan_15

User custom mode:

Step1: AA 55 08 04 FF

enter user mode

Step2:

AA 55 11 YW PT MO ZM FC RP MU FF custom channels map set. (all byte is hex data, set to 0 if no control)

AA 55 11 YW PT MO ZM FC RP MU FF
 Frame head body frame tail

Command format: (do not change red bytes, just change blue bytes as your channel setting), one byte define two channels,

bit 0-3 is chan#A 1100us < >1500us(initial value)

bit4-7 is chan#B 1900us < >1500us(initial value)

AA 55 11 YW PT MO ZM FC RP MU FF

										__Multi :chan# = 0x0M track (1900), chan# = 0x0U stop track (1100)
										__PIC/REC: chan# = 0x0R record (1900), chan# = 0x0P picture (1100)
										__Focus:chan# = 0x0F focus in (1900),chan# = 0x0C focus out (1100)
										____ Zoom: chan# = 0x0Z zoom in (1900),chan# = 0x0M zoom out (1100)
										____ Mode:chan# = 0x0M recenter (1900),chan# = 0x0O slow speed (1100)
										____ Pitch: chan# = 0x0P pitch down (1900),chan# = 0x0T pitch up (1100)
										____Yaw: 0x0Y= yaw right (1900),0x0W = yaw left (1100)

For example: 1(yaw), 2(pitch), 3(mode), 4(zoom), 5(focus), 6(picture), 7(record), 8(stop track), 9(start track)

AA 55 11 11 22 33 44 55 76 98 FF

										__ Multi :channel 8: from 1500 to 1100 channel 9: from 1500 to 1900
										__ PIC/REC:channel 6: from 1500 to 1100 take a picture, channel 7: from 1500 to 1900 start/stop record
										__ Focus: channel 5: 1100 focus out, 1500 focus stop, 1900 focus in
										____ Zoom:channel 4: 1100 zoom out, 1500 zoom stop, 1900 zoom in
										____ Mode:channel 3: 1100 low speed, 1500 mid speed, 1900 recenter
										____ Pitch:channel 2: 1100 pitch up, 1500 pitch stop, 1900 pitch down
										____Yaw: channel 1: 1100 yaw left, 1500 yaw stop, 1900 yaw right

For example: use 7~14chan to control

AA 55 11 77 88 99 AA BB CC DD FF