

Archer

AAT Auto Antenna Tracker Gimbal

User Manual

V1.0

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FOXTECH

Note

1. After the tracking gimbal is power-on, the pitch will automatically reset to zero. Please mind your hand. If you choose the magnetometer usage mode as "OnlyPwrOn / Never", the gimbal will rotate to the desired position after three times alarms when the gimbal is powered on.

When using the OnlyPwrOn / Never mode, please do not rotate the gimbal at random after the gimbal is powered on.

2. The gimbal magnetometer is susceptible to interference. Please use it away from the magnetic interference environment.

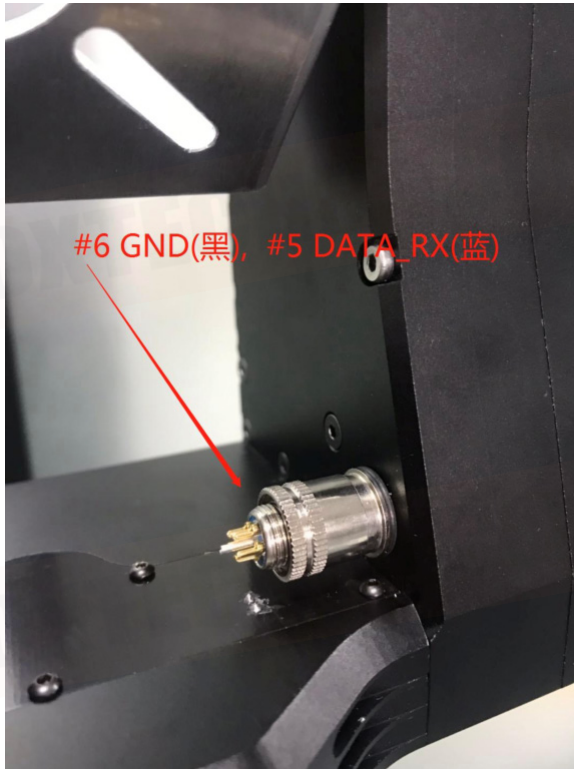
1. The power supply voltage of the gimbal is 12~15V.
2. The gimbal power supply port.



3. At the bottom of the gimbal there is a 1/4-20 standard tripod holder quick mounting plates connecting threaded mouth. Please fix it on a solid tripod.



4. An aviation plug comes with the gimbal.



5. Please insert it into the corresponding socket on the top of the gimbal. And connect your datalink GND with the aviation plug #6 (black wire), the datalink TX wire with the aviation plug #5 (blue wire).

6. Through the Baud rate option of the menu to select the correct baud rate.

If the baud rate is correct, the gimbal receives the mavlink data, the main interface will display like DLink 95% indicating communication quality.

7. If the data does not work, will display 0%.

8. In addition, we will provide a video description and how to use the buttons.

Gimbal Operation Guide

Main interface:

The first row: the following three show in turn

Batt: Battery voltage

GPS: GPS satellite number

Second row:

Dist: Distance of the aircraft (unset home is shown as N/A)

The third row:

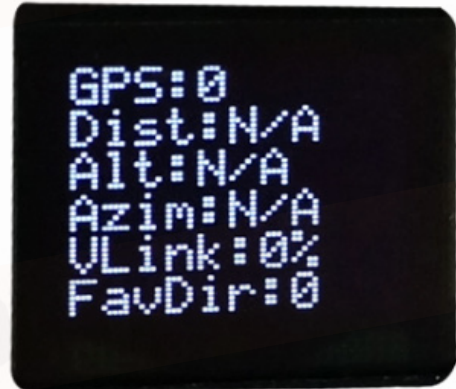
Alt: the height of the plane

The fourth row:

Dir: the direction angle of the aircraft

The fifth row:

Mlink / Vlink: It will be better if the signal quality value is larger. When using data transmission tracking, it will be displayed as Mlink. When using the image transmission, it will be displayed as Vlink.



Main interface button operation: long press-greater than or equal to 1.5s, short press-less than 1s

Left button: long press (enter menu)

Right button: long press (set the common flight direction), short press (set home)

When the common flight direction mode is used, the gimbal will limit the free rotation angle, and the range of rotation is the set angle ± 225 degrees.

Menu interface button operation:

Left button: long press (return to main menu), short press (switch menu column)

Right button: short press (select the corresponding column)

When the menu interface is opened, the default selected column of the selection box is the current value of the relevant setting parameter. If the current interface is not parameterized interface, the default selection is the column selected in the previous exit interface.

MotorCurr - motor drive current

CurrentLev -title bar

4Amp Max.single motor 4A

2Amp -single motor 2A

1Amp -single motor 1A

Exit

CalMag
 CalMag -title bar
 MAX -X-axis Max. value of magnetometer
 MIX -X-axis minimum value of magnetometer
 MAZ -Z-axis
 MIZ -Z-axis
 X -The current X-axis value
 Z -The current Z-axis value
 A - the current magnetometer angle
 Finish -Complete the calibration (select this option to save data after the calibration is completed)
 Exit

CaliPitchpos -calibrate the pitch angle
 CaliPitch -title bar
 Drive -Press the key to select this option and drive motor to turn forward, release to stop,
 Reserve

AD -The AD value of potentiometer at this time
 An -Angle calculated by potentiometer
 RecP1 -Select this option to record the first point and consider it to be 0 degrees
 RecP2 -Select this option to record the second point
 Finish -finish calculate relevant parameters
 Exit

TrimVbiCompV - comparison voltage during Vbi setting(only needed during video tracking)
 VbiCompVol -title column
 INC -increase
 DEC -decrease
 CpVol -current voltage
 DeCnt -The number of correct decoding, it will be better if the value is larger.
 StartAuto -Start automatic setting. OK will pop up after setting
 Exit

TrimOffsetAngle - Set the fixed offset angle when tracking, unit-degree
 OffsetAngle - title column
 Yaw - offset angle of the yaw direction, range +-20 degrees
 Pitch - the offset angle of the pitch direction
 Exit

Ver -version number
 T -software compilation time
 Hw -hardware version number
 Exit

LoadPreHome

LoadPreHome --title column

H1:D:800 - The most recent home position, 800 represents the distance of the aircraft from this point. Unit:m.

H2:D:111

H3:D:111

H4:D:111

H5:D:111 -the oldest home position

Exit

MagUsageMode -magnetometer usage mode

MagUsageMode -title bar

OnlyPowerOn -uses a magnetometer only when it is powered on. After powering up for 3s, the buzzer sounds three times and then rotates to the north, the pitch rotates to 0 degree.

Always -always used, wait for 1s after power-on, the buzzer sounds three times, and the pitch direction returns to the initial position.

Never -Never use, wait for 3s after power-on, the buzzer sounds three times and then rotates to the position of the photoelectric sensor (needs to manually face north), and the pitch direction returns to the initial position.

Exit

TrackerID.

TrackerID. -title column

TrackerID. -Machine number, used as number when planning for multiple gimbal communication, range 1-9

Exit

SystemInfo

Ver -version number

T -software compilation time

Hw -hardware version number

Exit

Exit

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