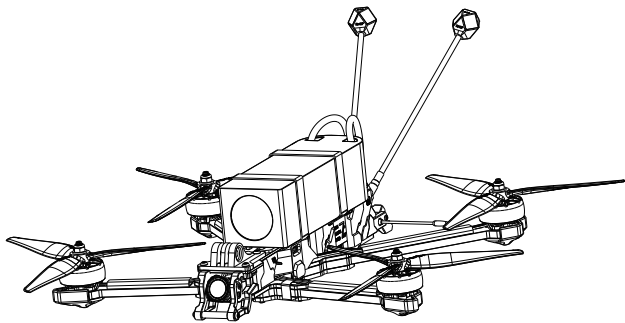


Chimera 7 Pro

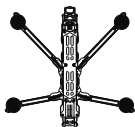
Quick Start Guide
快速入门指南



I. Overview

The Chimera7 is a super-efficient iFlight 7.5inch Long-Range bird that can go where you couldn't go before and can carry bigger batteries to get the flight time to surf the swiss alps if you want! A super stiff frame for minimum resonance and XING2 2809 motors for maximum 7.5inch prop control. Fly big batteries top-mounted, or even bigger batteries bottom-mounted, 6cells recommended or 5cells for slow cruising. But whatever style you fly, a Lipo or Lion pack will just do the job.

Packing List



Chimera 7 Pro V2 x1



CW propeller x4



CCW propeller x4



Antenna x2



Battery pad x2



Battery strap x2



Accessory pack x1



Sticker x1



Safety warning card x1



Disclaimer x1



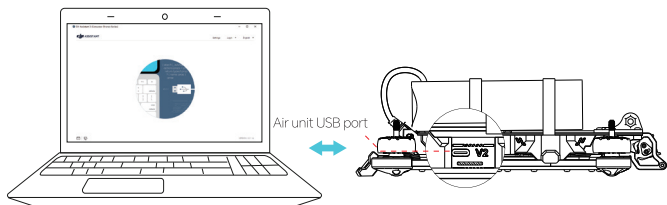
GPS Rescue Mode Precautions x1

II. Air Unit Activation and Binding

Note: Before activation, please make sure the propellers are removed. The propellers can only be installed after the aircraft binding and Betaflight¹ settings are completed.

If improper operation results in personal injury, you will be solely responsible for it. Please operate with caution to ensure safety.

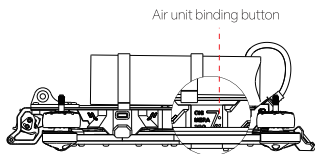
1. Air Unit Activation: Power on the Chimera 7 Pro and DJI Goggles separately, connect the corresponding device to the computer using the USB-C port and then run DJI Assistant 2² (Consumer Drones Series) for activation and firmware upgrade. Please refer to the DJI-O3 Air Unit User Manual for details.



2. Aircraft and Goggles Binding

(Make sure that all devices have been updated to the latest firmware versions before binding.)

- ① Power on the aircraft and the goggles separately.
- ② Press the bind button of the air unit, the binding status indicator of the air unit blinks red.
- ③ Press the bind button of the goggles and the goggles start to beep continually.
- ④ Make sure the distance between the air unit and the goggles is within 0.5 m. Once linking is successful, the binding status indicator of the air unit turns solid green. The goggles stop beeping and the image transmission can be displayed normally.



Note: This is the procedure for HD version, if the aircraft is analog version, please refer to Part III for the corresponding receiver binding procedure.

- ◆ DO NOT use the air unit for an extended period in high-temperature environments with poor ventilation. This may lead to overheating and loss of image transmission.
- ◆ When the air unit is powered on, it automatically enters the low-power state to avoid overheating, which negatively affects image transmission performance. Once the aircraft takes off or the recording starts, the air unit automatically exits the low-power state and resumes normal image transmission performance. Make sure to take off as soon as possible or the air unit is well ventilated.
- ◆ DO NOT connect the power cable with the power GND cable directly or plug or unplug the cables after the air unit is powered on. Otherwise, the equipment may be damaged.
- ◆ Make sure you fully understand and abide by local laws and regulations before using this product.
- ◆ This product is not intended for children.

III. Remote Controller Binding Instruction

1. DJI Remote Controller Binding

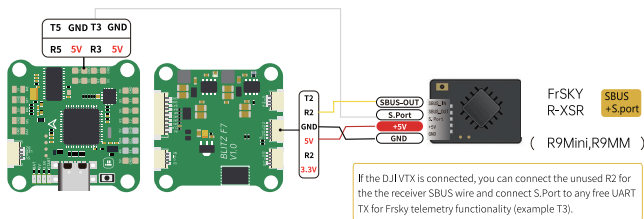
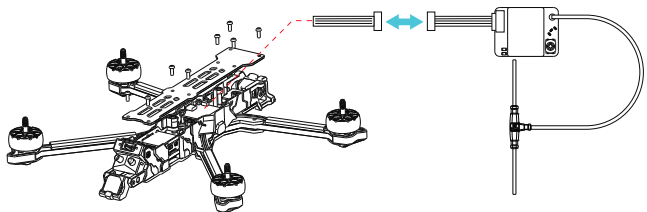
①Power on the remote controller and long-press the power button until the indicator flashes rapidly, indicating the binding mode is activated.

②Press the bind button on the air unit to enter the binding mode, the indicator light on the remote control stops flashing and turns solid green after the binding is successful.

2. PNP Wiring Diagram

Customers can connect TBS, ELRS, etc. by themselves (requires removing the top plate).

Connect the receiver to the antenna and wires, plug them into the PNP reserved wires. Place the receiver antenna into the receiver antenna mount.



Receiver

Serial (via UART)

Receiver Mode

• The UART for the receiver must be set to 'Serial Rx' (in the Ports tab)

• Select the correct data format from the drop-down, below:

FrSky FPort

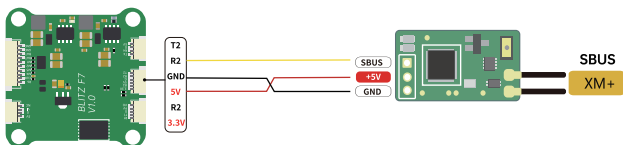
Serial Receiver Provider

Telemetry

TELEMETRY

Telemetry output

Identifier	Configuration/MSP	Serial Rx	Telemetry Output
USB VCP	☒ 115200	☐	Disabled ▾ AUTO ▾
UART1	☒ 115200	☐	Disabled ▾ AUTO ▾
UART2	☐ 115200	☒	Disabled ▾ AUTO ▾
UART3	☐ 115200	☐	SmartPort ▾ AUTO ▾
UART4	☐ 115200	☐	Disabled ▾ AUTO ▾
UART5	☐ 115200	☐	Disabled ▾ AUTO ▾
UART6	☐ 115200	☐	Disabled ▾ AUTO ▾

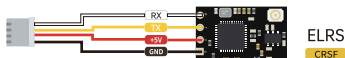
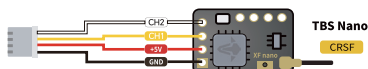
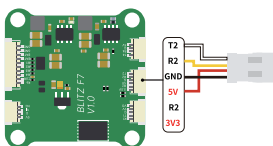


Receiver

Serial (via UART) Receiver Mode

- The UART for the receiver must be set to 'Serial Rx' (in the Ports tab)
- Select the correct data format from the drop-down, below:

SBUS Serial Receiver Provider



Receiver

Serial (via UART) Receiver Mode

- The UART for the receiver must be set to 'Serial Rx' (in the Ports tab)
- Select the correct data format from the drop-down, below:

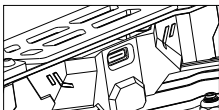
CRSF Serial Receiver Provider

Telemetry

☒ **TELEMETRY** Telemetry output

3. Receiver Binding Methods + Steps (ELRS+TBS)

1. Traditional Binding Procedure (Example: iFlight ExpressLRS 900TX)

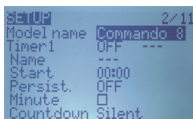


Plug and unplug the USB port for three times

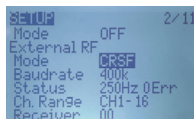
Power on and off the aircraft for three times, or plug and unplug the USB port for 3 times to supply power to the receiver when the aircraft is power off, the blue LED will start to double flash continuously. BIND mode active.



1. Once you power on the radio, press and hold the the Model setup to enter the MODELSEL page.



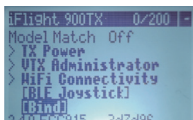
2. Press Next Page to enter the SETUP page.



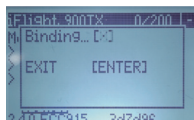
3. Scroll down to External RF and select CRSF.



4. Select the ExpressLRS LUA scrip (latest version installed). Press to enter.



5. Scroll down to Bind, press Enter to enter the binding mode. Bind mode active.



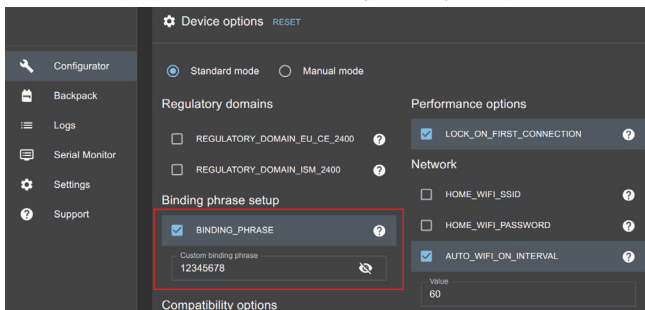
6. After binding, the blue LED on the receiver will turn to solid blue. Bind was successful.

[Caution]

1. Be quick with this process and set the receiver in binding mode first.
2. After the binding process is completed, it's recommended to re-power receiver and transmitter.
3. The distance of receiver and transmitter should be more than 1m during the process.
4. The receiver firmware version should be consistent with the transmitter firmware version. If you can't bind your hardware, please try to update to the latest firmware.
5. If you can't bind your equipment, please try to reboot and several times if necessary.

2. Using Custom Binding Phrase

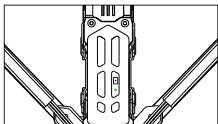
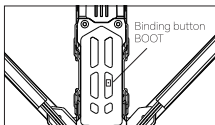
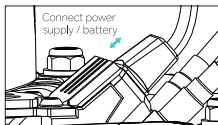
When flashing the latest ELRS firmware for Receiver and Transmitter, just set a unique custom binding phrase to automatically bind all your hardware. Do not set a too simple binding phrase, otherwise other pilot's devices with the same binding phrase might link up as well.



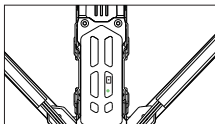
For more specific information please refer to the ELRS quick start tutorial on the official website.

TBS Crossfire Binding Method: Using Button Binding

Power on the aircraft and after the aircraft completes self-check, use tweezers to short press the TBS Crossfire receiver BOOT button. If the green light flashes, it means binding mode activate. Enter the TBS Crossfire transmitter or TX module settings page, scroll down to [BIND], press the button to enter. After successful binding, the TBS Crossfire receiver indicator light will turn to solid green.

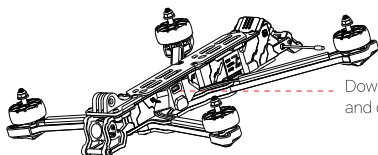


Receiver green light flashes, binding mode activate



After the binding is successful, the receiver light turns solid green

IV. Betaflight Setup



Download Betaflight Configurator*1
and connect to Flight Controller

a. Receiver Port/Protocol

ELRS/TBS Receiver: CRSF

Identifier	Configurator/MSP	Serial Rx	Telemetry Output	
USB VCP	☒ 115200	☐	Disabled	AUTO
UART1	☒ 115200	☐	Disabled	AUTO
UART2	☐ 115200	☒	Disabled	AUTO
UART3	☒ 115200	☐	Disabled	AUTO
UART4	☐ 115200	☐	Disabled	AUTO
UART5	☐ 115200	☐	Disabled	AUTO
UART6	☐ 115200	☐	Disabled	AUTO

Receiver

Serial (via UART) Receiver Mode

• The UART for the receiver must be set to 'Serial Rx' (in the Ports tab)
• Select the correct data format from the drop-down, below:

CRSF Serial Receiver Provider

Telemetry

☒ **TELEMETRY** Telemetry output

b. Channel Map Setting

Receiver Channel Map: "AETR1234" Mode 1 Throttle, "TAER1234" Mode 2 Throttle

Setup

Ports

Configuration

Power & Battery

Presets

PID Tuning

Receiver

Modes

Motors

OSD

Video Transmitter

Blackbox

CLI

Preview

Roll [A] 1100

Pitch [E] 1100

Yaw [R] 1100

Throttle [T] 885

AUX 1 1100

AUX 2 1100

AUX 3 1100

AUX 4 1100

AUX 5 1100

AUX 6 1100

AUX 7 1100

AUX 8 1100

AUX 9 1100

AUX 10 1100

AUX 11 1100

AUX 12 1100

Receiver

Serial (via UART) Receiver Mode

• The UART for the receiver must be set to 'Serial Rx' (in the Ports tab)
• Select the correct data format from the drop-down, below:

CRSF Serial Receiver Provider

Telemetry

☒ **TELEMETRY** Telemetry output

RSSI (Signal Strength)

☐ **RSSI_ADC** Analog RSSI input

Channel Map

RSSI Channel

AETR1234 Disabled

Stick Low Threshold

Stick Center

Stick High Threshold

1050 1500 1900

RC Deadband

Yaw Deadband

3D Throttle Deadband

0 0 50

RC Smoothing

On Smoothing Mode

Refresh Save

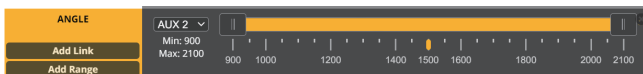
c. Mode Switch (Default Angle)

The default mode is Angle, and customers can also switch to other modes.

ARM: ARM/DISARM channel switch for arm and disarm the aircraft, default factory setting is AUX1, low range for disarm, high range for arm, The icon is lit to indicate arm, the icon is grey to indicate disarm.

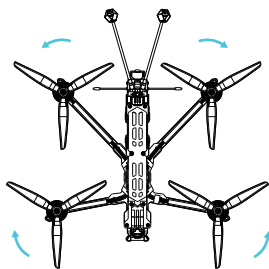


ANGLE: Angle channel switch, used to turn on the Angle flight mode, the default factory setting is AUX 2, this mode remains on throughout the flight. The icon is illuminated to indicate Angle mode is on, the icon is grey to indicate Angle mode.



V. Propellers Installation – Diagram

Identify CW & CCW propellers and install them correctly on the aircraft.



Caution ⚠

- ◆ Before removing or installing the propellers, please make sure the aircraft is powered off.
- ◆ Handle propellers carefully to avoid accidental cuts.
- ◆ Propellers are consumables; inspect and replace them if worn, damaged, or deformed.
- ◆ Ensure propellers are installed correctly and securely before each flight.
- ◆ Avoid close contact with rotating propellers and motors.
- ◆ This product is not intended for children.

VI. Pre-Flight Check

1. Make sure the antenna is installed correctly before powering on the aircraft.
2. Make sure the aircraft batteries are fully charged and there is no obvious damage, deformation or leakage in the battery.
3. Make sure the battery model is compatible with the aircraft and the voltage specification is correct (e.g. for 6S battery, it should be about 22.2V).
4. Make sure the aircraft battery is properly connected and secure, there is no looseness, dirt or damage.
5. Make sure the transmitter is powered on and linked to the aircraft, and make sure the receiver indicator light flashes normally or shows connected.
6. Make sure the motor rotates in the right direction, take off the propellers and connect the aircraft to Betaflight Configurator, then push the throttle to confirm the rotation on the motor page.
7. Make sure propellers are in good condition and mounted onto the motors correctly and securely.
8. Only fly in open areas without tall buildings and large metal structures around. Buildings with a large number of concrete irons will affect the signal and interfere with the flight. It is recommended to fly at least 10m away from buildings, poles, obstacles, etc.
9. If it is the first flight or after a major upgrade, it is recommended to conduct a ground test first to make sure all functions are normal before flying in the air. These preventive inspections can effectively reduce flight accidents caused by negligence and ensure the safe operation of FPV drones.

VII. Takeoff/Landing

Takeoff Procedure:

Start by pushing the throttle to the lowest position, then gradually increase it to lift the aircraft approximately 10–20 centimeters off the ground. Once the aircraft's attitude is stable, throttle down and disarm the remote controller. Put on FPV goggles or face the monitor (such as a handheld monitor), arm the remote controller and slowly increase the throttle to smoothly ascend.

Landing Procedure:

1. Decrease altitude, before landing, gradually lower the aircraft to an appropriate altitude, maintaining a stable flight speed and attitude.
2. Approach landing spot, control the aircraft to slowly approach the pre-selected landing area, preferably using a gliding approach to better control the distance.
3. Reduce throttle, slowly decrease throttle output to allow the aircraft to land slowly.
4. Disarm the aircraft when it touches the ground or is 5–10 centimeters away from the ground, be careful to avoid hard landings that could cause damage.
5. After landing, unplug the battery immediately to power off the device to avoid injury.

Precautions:

- Monitor battery level: You can check the remaining battery power by checking the OSD information in the FPV goggles or the monitor during flight. You need to judge the remaining flight time and leave enough redundancy for safe landing. When the voltage of a single battery cell approaches 3.7, you need to pay attention to return and land. Over-discharge will cause irreversible damage to the battery.
- Observe surroundings: Before landing, double-check the surrounding environment for safety, ensuring no people or animals are in the landing area.
- Disconnect battery: After landing, it is important to first power off the aircraft to avoid accidentally triggering the remote control switch to arm it again, thereby avoiding accidents and personal injury.

VIII. Possible Reasons for Successful Binding but Failure to Disarm

1. Check if the actual wiring of the serial port and receiver protocol settings match the serial port connected to the receiver.
2. Conflicting mode settings leading to arm failure, verify the mode settings on Betaflight Configurator.
3. Verify if the motor options are set to bidirectional DShot and if the ESC supports bidirectional DShot on Betaflight Configurator.
4. Make sure the receiver channel presets match those of the transmitter.
5. Aircraft may be unable to arm at tilted angles, check the maximum arm angle setup on the Betaflight configuration page.
6. Aircraft with GPS pre-installed may fail to arm due to unsuccessful satellite acquisition, check if GPS rescue in the fail-safe settings is enabled.
7. The specific reasons can be checked in the Arming Disable Flags on the settings page in betaflight^{*1}

IX. GPS Rescue Mode

When setting up GPS, please connect the aircraft battery to ensure that GPS can be set up normally in Betaflight^{*1}

1. The GPS is preset on this aircraft. Refer to the GPS Rescue Mode Precautions for settings.
 2. Rescue Operation:
 - ① If GPS rescue mode is triggered automatically, take control by moving either stick, not by toggling the GPS rescue switch.
 - ② If manually triggered, toggle the rescue switch again to regain control after the aircraft returns.
- If the GPS rescue mode is automatically triggered and the remote controller successfully takes over, manually toggling the switch will reactivate GPS rescue mode. If the rescue conditions are not met, this will cause the drone to disarm and fall.

Warning: Read all precautions in the GPS Rescue Mode Precautions before enabling GPS rescue mode and operating the aircraft.

X. Disclaimer

This product is not a toy and requires basic knowledge for control. Progress gradually. Before using the aircraft, thoroughly read this manual and the Disclaimer and Safety Guidelines for important notes and warnings.

Caution:

*1: Betaflight is the flight controller software (firmware) used to configure your aircraft. Please download at this link: <https://betaflight.com/download>.

*2: DJI Assistant 2 (Consumer Drones Series) supports the consumer drones series products activation and firmware upgrade. Please download at this link: <https://www.dji.com/avata/downloads>.

IFLIGHT INNOVATION TECHNOLOGY LIMITED

TEL: +86752-3866-695

Email: support@iflight.com

Website: www.iflight.com

ADD: 6th Floor, Building B2, Galaxy IMC, Beixin Road,
Zhongkai Avenue, Huizhou 516006, Guangdong, CHINA



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