User Manual

X6 PRO DRONE

User Manual
(English Version)

X6 PRO Drone

CATALOGS

How to Use the X6 PRO Drone App · 25

Flight Control Operation Methods · 26

Headless Mode vs. Standard Mode · 33

Obstacle Avoidance Mode · 35

How to take off again after the drone collides with an obstacle and falls? · · · · · · · 37

Why does the drone experience loss of control when using the remote controller?
· 39

General Appendices · 40

FCC STATEMENT · 52

Information to User

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

⚠ **Important:**
Change or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

Preface

Welcome to our drone user manual. This manual has been carefully prepared for our users, ensuring that you can fully understand the operation of the drone and use it safely and effectively. To enhance your flying experience while complying with all safety regulations, this tutorial is divided into four detailed sections, covering every aspect from basic safety knowledge to flying techniques.

- Characteristics and important information of the X6 PRO Drone

1. UA Weight (with propellers, without battery): 104.6g

2. Maximum Takeoff Mass(MTOM) of Drone: 133g

3. Maximum Flight Speed of Drone: 9 m/s

4. Maximum Attainable Height: 30 m

5. UA Class: C0

6. UAV does not have payload capacity.

7. Equipment and Software for Drone Remote Control of UA: Equipment: Remote Control/Software: WiFi UAV.

8. Description of the behavior of drones and UA in the event of data link loss: When the data link is lost, the drone lands vertically on the ground.

9. Operating Restrictions: Avoid operating the aircraft outdoors in strong wind or thunderstorm conditions and ensure it is flown within visual line of sight at night.

10. **This aircraft is only suitable for operation by individuals aged 12 and above.** To ensure flight safety, please avoid flying near airports, highways, train stations, subway stations, and densely populated urban areas.
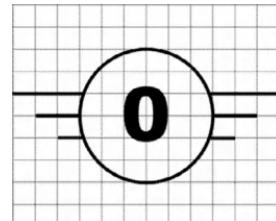
Part 1: Safety Guidelines

Before you start using the drone, understanding all safety-related information is crucial. This section provides essential safety rules and guidelines to prevent potential harm or damage. Adhering to these basic guidelines will ensure not only your safety and that of those around you but also the protection of the drone from damage.

Part 2: Product Component Introduction

To familiarize you with your drone, this chapter provides a detailed introduction to the names, functions, and operations of various components. By learning the basics of product components, you can diagnose issues quickly when they arise and make more effective use of the drone's diverse features.

Part 3: Flight Tutorial

This section comprehensively outlines the fundamental setup steps and operational tips, designed to assist beginners in easily mastering the activation of the drone and carrying out basic flight maneuvers. Once you have acquired proficiency in the drone's basic operations, this section will further guide you in enhancing your flying skills. It encompasses detailed flight procedures, operational techniques, the utilization of advanced features, as well as strategies for addressing potential emergency scenarios. Whether you are just embarking on your learning journey or are an experienced pilot, these in-depth tutorials will offer invaluable guidance and advice.

- We urge you to read each section of this manual carefully to fully understand all the features and safety measures of the drone. We hope you find both joy and safety in using your drone. Thank you for choosing our product, and we wish you a pleasant flight experience!

Part 1: Safety Guidelines

Flight environment

Indoor flight

Please choose a spacious indoor area with no obstacles, crowds, or pets nearby for flying. Make sure to keep infants and toddlers at a safe distance and avoid any physical contact with the drone to prevent unnecessary accidents.

Outdoor Flight

Please choose clear, calm, or slightly breezy weather. Opt for a location free from obstacles, crowds, pets, passersby, tall walls, and trees. It's especially important to stay away from heat sources, electrical wires, or electronic power sources to avoid collisions, entanglements, fires, electrocutions, and other potentially disastrous accidents.

⚠ Precautions:

1. Keep the drone within line of sight during flight and avoid obstacles such as power lines, trees, crowds, etc.

2. Do not fly in extreme weather conditions, including extreme cold, extreme heat, strong winds, heavy rain, etc.

Pre-flight Precautions

1. To avoid damaging or losing the drone due to inexperienced handling, it is recommended that beginners carefully read the instruction manual and watch instructional videos before flying. Keep the flight distance within 98 feet/30 meters and attempt high-altitude flights only after practicing low-altitude flights for 3 days.

2. Before each takeoff, the gyroscope must be calibrated. Otherwise, the drone might fly unstably or even become out of control. For calibration instructions, please refer to page25 under: Flight Tutorial > Pre-flight Preparation > Aircraft Calibration (Calibrate the Gyroscope).

3. To ensure a stable connection between the APP and the drone (WIFI connection) during flight, it's suggested to first go to the WLAN settings on your phone and turn off the auto-join option for stronger nearby WIFI networks.

4. Please ensure that the positive and negative terminals of the dry batteries in the remote control are correctly installed. Avoid using high-voltage batteries.

5. When Operating with the Remote Controller:
· If the APP is not connected, the shooting function will be unavailable, but all flight functions of the remote controller can still be used normally.
· If the APP is connected, the shooting function can be used, and the APP can assist in real-time viewing of the camera feed.

6. If you intend to operate the drone via an APP：
· You must first disconnect the remote controller; otherwise, the APP control functions will be disabled.
· The APP control functions include basic flight direction control and smart flight features.
· It is not recommended to use the APP as a substitute for the remote control to operate the drone. Using the APP to control the drone does not provide the same agility as using a remote control, and the effective distance of APP control is much shorter than that of remote control operation.

7. The maximum distance for the connection between the remote control and the drone is 230 feet/70 meters. Do not fly beyond this range, as it may cause the drone to crash or get lost due to lack of control.

8. The maximum connection distance between the APP and the drone (i.e., the drone's WIFI data transmission range) is 98 feet/30 meters. Exceeding this distance may result in issues receiving photos, videos, etc. properly.

9. When flying, please keep the drone within visual line of sight.

10. When the drone is taking off, please stay away (it is recommended to keep a distance of more than 6.5 feet/2 meters), and do not touch the drone during flight to avoid injuries caused by the rapidly spinning propellers.

Part 2: Product Component Introduction

Aircraft Component

-Aircraft Component Names

❶ Aircraft Power Switch

❷ Upper Shell

❸ Lower Shell

❹ Propeller

❺ Arm

❻ Battery

❼ Motor

❽ Front Camera

❾ Bottom Camera

❿ Propeller Guards

- Aircraft Battery Charging Method

Charging Procedure Steps

1. Pull the battery outwards from the position indicated by the arrow, then remove the battery.

2. Charge the battery using the USB charging cable.

USB charging

Li-ion Polymer Battery

3. The LED light will be on during charging and will turn off once charging is complete. The charging time is approximately 90 minutes.
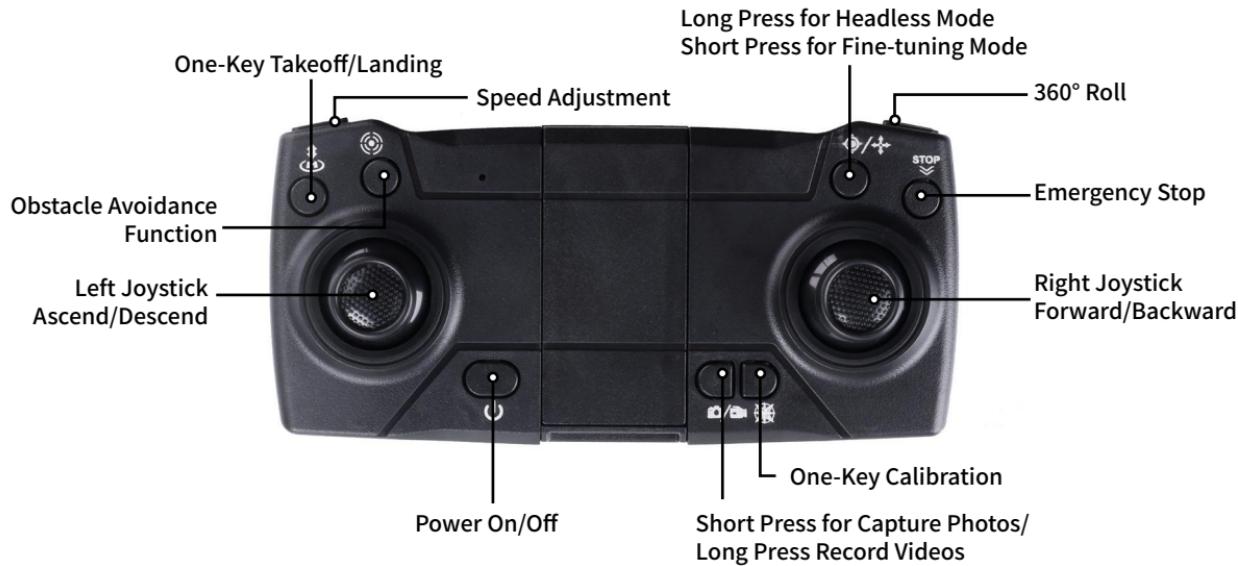
> ⚠ **Precautions:**
> Please use a charger with an output voltage less than or equal to 5V.

Safety Precautions

1. Using lithium batteries carries inherent risks, which may result in significant harm to people and property. Use with caution and assume all related responsibilities.

2. If the battery leaks, avoid contact with the liquid with the skin and eyes. If in contact with skin, wash immediately with soap and clean water. If in contact with eyes, rinse immediately with plenty of cold water and seek medical attention.

3. If the charger emits a suspicious odor, unusual noise, or smoke, disconnect the power immediately.

4. Do not charge batteries that are swollen, leaking, or damaged.

5. Avoid overcharging the battery. Disconnect the charger once the battery is fully charged.

6. Do not charge near flammable materials (such as carpets, wooden floors, solid wood furniture, etc.) or on conductive surfaces. Keep the battery within sight while charging.

7. Do not charge the battery immediately after use if it is still hot.

8. The battery should be charged at a temperature between 0° C and 40° C (32 °F to 104 °F).

Remote Controller Componet

- Remote Control Four-axis Aircraft Component Names

One-Key Takeoff/Landing

Speed Adjustment

Long Press for Headless Mode
Short Press for Fine-tuning Mode

360° Roll

Obstacle Avoidance
Function

Emergency Stop

Left Joystick
Ascend/Descend

Right Joystick
Forward/Backward

Power On/Off

One-Key Calibration

Short Press for Capture Photos/
Long Press Record Videos

Accessories List

Aircraft (with battery included) x1

Remote Controller x1

Spare Propellers Ax4 Bx4

Propeller Guards x4

Screwdriver x1

USB Charging Cable x1
(for 1-battery version)
USB Charging Cables x2
(for 2-battery and 3-battery version)

⚠ **Precautions:**

If you have purchased the dual-battery version, the package will include 1 additional spare battery. If you have purchased the triple-battery version, the package will include 2 additional spare batteries.

Additional Drone Accessories Available for Purchase

Spare Propellers Ax4 Bx4

Battery

USB Charging Cable x1
(for 1-battery version)
USB Charging Cables x2
(for 2-battery and 3-battery version)

Drone Optical Flow
Dual Camera

Drone Front Arm A

Drone Front Arm B

Propeller Guards ×4   Drone Rear Arm A   Drone Rear Arm B

If the drone parts are damaged or you wish to have additional spares, you can purchase the accessories listed above separately.

Additionally, we have provided a link for purchasing extra drone accessories as well as installation tutorials. If you need more detailed information, please feel free to contact us.

Part 3: Flight Tutorial

Pre-flight Preparation

-Pre-flight Check

1. Before starting your flight, please ensure that the drone's battery is fully charged. The LED lights will be on during charging and will turn off when the charging is complete. Charging typically takes approximately 90 minutes.

2. Check if the propellers are installed correctly. As shown in the diagram below, attach the propellers to the corresponding arms, and tighten the screws clockwise. Pay attention to differentiate between propellers labeled 'A' and 'B'.
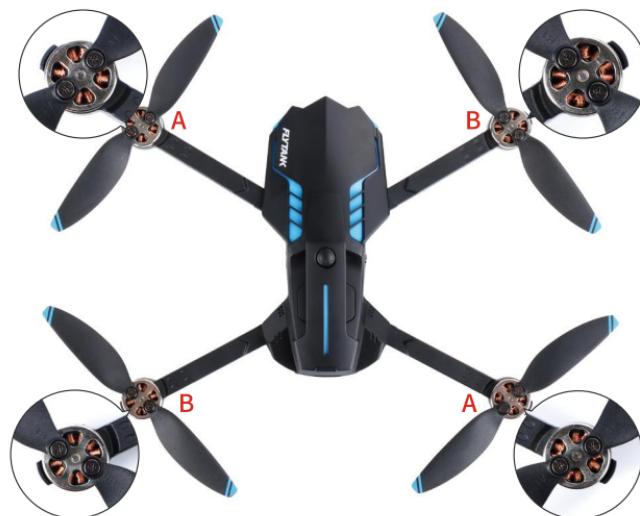
Propeller Installation Diagram

-Pairing the Drone and Remote Controller

Step 1: Open the drone arms

Opening Arm
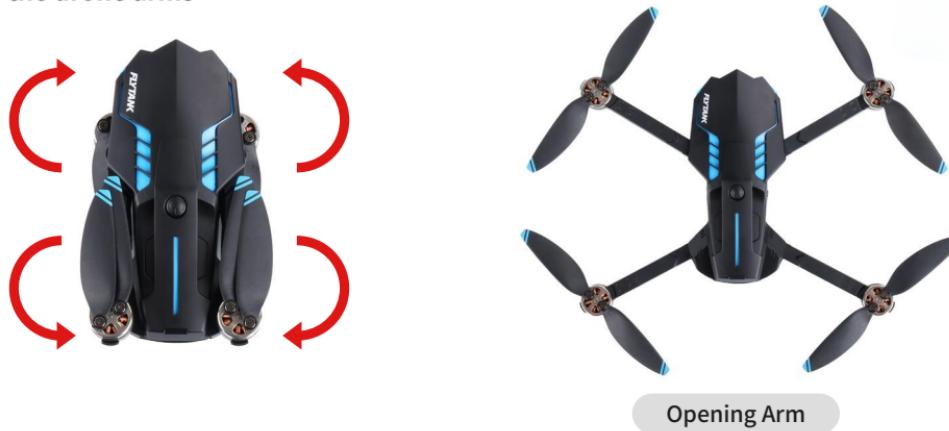
1. First, open the front arms (located on the side with the camera).

2. Then, open the rear arms.

3. When folding the drone, fold the rear arms first, followed by the front arms.

Step 2: Install and remove propeller guards

- Ensure the drone's power is off: Before starting any installation or removal steps, make sure the drone's power is turned off to ensure your safety.

- Inspect the propeller guards: Before beginning the installation, ensure the propeller guards don't have any damage or cracks.

Installation Order:

1. Locate the mounting point: Align the propeller guards with the drone's arm for mounting (Illustration 1) and press until it's in place.

2. Align and Insert: Position the propeller guards to the drone's mounting point and press upward at the location (Illustration 2) to secure the frame.

3. Confirm Installation: Ensure the propeller guards are fully and firmly attached to the drone and won't fall off during flight.

Removal Order:

1. Locate the illustrated position: Gently, but firmly, remove the propeller guards from the mounting point. Avoid using excessive force to prevent damaging the drone or the frame.

2. Store the protective frame: When not using the propeller guards, keep it in a safe place to avoid any damage.

Step 3: Installing Batteries in the Remote Control

1. Open the remote control battery cover. Use the provided screwdriver to loosen the screw on the battery cover and open it.

2. Please insert three AA batteries into the battery compartment following the direction indicated by the electrodes. (Batteries to be purchased separately)

Press and hold the power button. The indicator light will flash rapidly, indicating it's in pairing mode.

⚠ **Battery Usage Precautions**

1. When installing batteries, ensure the correct alignment of the positive (+) and negative (-) terminals. Do not insert them backward.

2. Do not mix new and old batteries.

3. Do not mix different types of batteries. Use the specified AA batteries (alkaline batteries).

4. There may be insulating stickers inside the battery compartment. A lack of electrical contact can cause remote control failure. Before connecting the remote control, try rotating the batteries inside the compartment several times to remove any insulating material. Do not use high-voltage batteries.

Step 4: Powering On the Aircraft and the remote controller for automatic pairing with the aircraft

Power Button

Press and hold the power button. The indicator light will flash rapidly, indicating it's in pairing mode.

Remote Control's Power Switch

After turning on the aircraft's power switch, place the drone on a level surface, and long-press the remote control's power switch. The drone will automatically pair with the remote control. When you hear two beeps and both the remote control's indicator light and the drone's LED light stay on continuously, the pairing is complete.

-Aircraft Calibration (Calibrate the Gyroscope)

Before each flight, it is essential to calibrate the gyroscope.

In a state where the remote controller and the aircraft have been successfully paired, press the "One-Key Calibration" button, and the drone's indicator light will flash rapidly. Wait until the indicator light remains steady to complete the calibration.

If the drone's flight is unstable, you can attempt to recalibrate it before taking off again.

⚠ **Note:**

Ensure the drone is on a level surface and stable during calibration for the best results.

One-Key Calibration

How to Use the X6 PRO Drone App

You can scan the QR code on the "X6 PRO Drone APP User Guide" to download the APP.

Flight Control Operation Methods

- Remote Control Four-axis Aircraft Component

One-Key Takeoff/Landing

Speed Adjustment

Long Press for Headless Mode
Short Press for Fine-tuning Mode

360° Roll

Obstacle Avoidance
Function

Emergency Stop

Left Joystick
Ascend/Descend

Right Joystick
Forward/Backward

One-Key Calibration

Power On/Off

Short Press for Capture Photos/
Long Press Record Videos
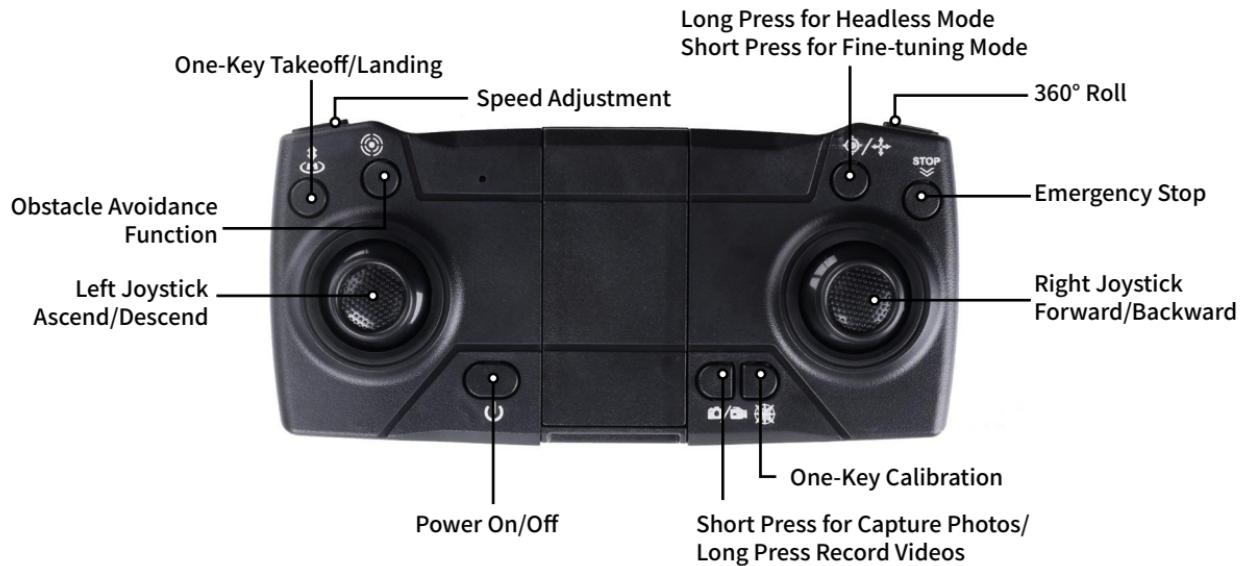
-Direction Control

Ascent

Descent

Ascent

Descent

Turn Left

Turn Right

Turn Left

Turn Right

Fly to Left

Fly to Right

Forward

Backward

Fly to Left   Fly to Right

Forward

Backward

- One-Key Takeoff/Landing

One-Key Takeoff

One-Key Takeoff

To take off, press the "One-Key Takeoff/Landing" button. The drone's blades will start rotating, and it will automatically ascend to a height of approximately 5 feet/1.5 meters.

One-Key Landing

To land, press the "One-Key Land" button. The drone will gently and slowly descend to the ground at its current location.

⚠ **Note:**

Due to the influence of environmental airflow, the drone might experience a shift during takeoff or landing. This is considered a normal occurrence.

- Hovering

When both left and right joysticks are released, the drone will hover at its current altitude.

⚠ **Note:**

Due to environmental air currents, the drone may drift when hovering, this is normal.

-Fine-tuning function

❶ Forward / Backward Fine-tuning
❷ Left/Right Side Fly Fine-tuning

1. If the drone exhibits unstable flight behaviors, such as drifting in a certain direction or spinning in mid-air, the trim function can be used to correct it.

2. Briefly press the "Headless Mode/Fine-Tuning Function" button. Upon hearing a "beep", the drone will enter the fine-tuning mode.

3. Move the joystick in the opposite direction of the drone's drift to make fine-tuning adjustments.

4. After entering the fine-tuning mode, briefly press the "Headless Mode/Fine-tuning" button. Upon hearing a "beep", the drone will exit the fine-tuning mode.

5. If no action is taken within 5-6 seconds after entering Fine-tuning mode, the mode will automatically exit.

- Speed Adjustment

1. Lightly press the speed adjustment button to switch the drone between different speed settings. There are three speeds in total: low speed, medium speed, and high speed.

2. By default, the drone starts in low-speed mode.

3. When pressing the speed adjustment button for the first time, the remote controller will emit "DI DI" beeps, indicating it has shifted to medium speed.

4. When pressing the speed adjustment button for the second time, the remote controller will emit "DI DI DI" beeps, indicating it has shifted to high speed.

5. When pressing the speed adjustment button for the third time, the remote controller will emit a single "DI" beep, indicating it has returned to low-speed mode, which is the default speed setting.

- Emergency Stop

Emergency Stop Button

In situations where the drone is operating and its propellers get entangled, or due to operational errors the drone collides with people, animals, or objects, you can urgently shut it down by long-pressing the emergency stop button for 3 seconds. The drone will power off, and the propellers will stop rotating.

⚠ **Important Notice:**

Do not activate the emergency stop while the drone is in stable flight. If you do, the drone's propellers will halt, causing it to fall from the sky, leading to potential damage or injuries to people or animals below.

- 360° Roll

Flip Left   Flip Right

1. After the drone reaches a height of 10 feet/3 meters or more, press the roll button, and the drone will enter a standby state for rolling.

2. Move the right joystick (directional stick) to the left or right to perform a roll in that direction.

- Short Press for Photo/Long Press for Video

Once you have successfully connected the X6 PRO Drone APP to the drone, a short press of this button allows you to take photos. While a long press of 3 seconds initiates video recording, pressing the button again will stop the recording. Photos and videos captured will be automatically saved to your mobile device's photo gallery.

Please note that this function is only applicable after a successful connection has been established between the X6 PRO Drone APP and the X6 PRO drone via mobile device Wi-Fi.

- Regarding the "Ground Effect" Explanation

The "Ground Effect" refers to the phenomenon when an aircraft is flying close to the ground (for example, less than 1 foot/0.3 meters above the ground), the airflow beneath its wings is affected by the ground, causing the aircraft to become unstable.

Headless Mode vs. Standard Mode

- Standard Mode Overview

In standard mode, the drone's front aligns with the direction of its camera or LED indicator. The drone's flight direction is controlled by the relative direction of the remote control.

This relative direction might be confusing for beginners, especially when the drone turns to face the operator.

- Headless Mode Overview

Headless mode is a special flight mode for drones. In this mode, regardless of the actual direction of the drone, its movements (forward, backward, left, and right) are based on the operator's relative position to the drone, not the drone's own orientation.

For instance, no matter where the drone's front is pointing, when the operator pushes the joystick forward, the drone will fly away from the operator; conversely, pulling the joystick back will make the drone fly toward the operator.

- How to Activate and Deactivate Headless Mode

1. After the drone takes off, it defaults to standard mode. To enter headless mode, Long press the "Headless Mode/Fine-Tuning" button for 3 seconds; a single beep from the controller indicates headless mode is activated.

2. When in headless mode, Long press the "Headless Mode/Fine-Tuning" button for 3 seconds and hears prolonged beep exiting headless mode.

3. Please be aware that pressing the "Headless Mode/Fine-Tuning" button before takeoff has no effect. The drone always starts in standard mode every time it takes off. If you want to use headless mode, please activate it by pressing the "Headless Mode/Fine-Tuning" button only after the drone has taken off.

Headless Mode/Fine-Tuning

- How to Choose Between Standard and Headless Mode

Headless mode is particularly suitable for beginners or situations where the drone's orientation is hard to discern at a distance, as it simplifies operations and control.

Experienced pilots might prefer standard mode as it offers more precise control and a more intuitive flying experience.

Obstacle Avoidance Mode

- How to Turn the Obstacle Avoidance Mode On and Off

1. After the drone takes off, briefly press the obstacle avoidance button. At this time, the lights of the drone will flash, indicating that it has entered obstacle avoidance mode.

2. After the drone enters obstacle avoidance mode, briefly press the obstacle avoidance button again, and the drone will exit the mode. After exiting, the lights of the drone will return to a steady-on state.

3. Please note that the obstacle avoidance mode must be activated after the drone takes off. Pressing the obstacle avoidance button before takeoff will have no effect.

Obstacle Avoidance Button

-**Working Principle of Drone Infrared Obstacle Avoidance**

The system's infrared emitter emits infrared rays which, upon encountering an obstacle, are reflected and captured by the infrared receiver. By analyzing the time difference between the emission and reception of these rays, the system can deduce the distance and position of the obstacle, thus adjusting the drone's flight path to avert collisions.

The drone's infrared obstacle avoidance system relies on infrared technology for detecting and avoiding obstacles.

- **Obstacle Avoidance Orientation**

The X6 PRO drone has a three-sided obstacle avoidance feature.

The system can detect obstacles in the horizontal direction to the front, left, and right of the drone.

Obstacles to the rear and in the vertical direction cannot be detected. Stay away from obstacles in these directions.

- **Precautions**

When flying outdoors, the obstacle avoidance feature may not work effectively under intense sunlight. Be cautious and avoid colliding with obstacles.

For indoor flights, if the room size is less than 20 feet/6 meters in any dimension, it's recommended not to activate the obstacle avoidance feature. Limited space might cause constant activation of the obstacle avoidance, rendering the drone immobile.

With obstacle avoidance mode activated, the drone's speed will reduce, and cannot switch to high-speed mode.

The infrared obstacle avoidance feature's accuracy may significantly decrease or even fail in the following situations. Exercise caution to prevent the drone from hitting obstacles:

· Obstacles with smooth surfaces that reflect light.

· Transparent obstacles.

· Thin tree branches or dense foliage (avoid flying near trees).

How to take off again after the drone collides with an obstacle and falls?

1. Power Off: First, immediately shut down the power of both the drone and the remote control. This step is critical to prevent further damage or issues.

2. Adjust the Drone Arms: Next, adjust the drone's arms. Move the two front arms upwards to the topmost position and the two rear arms downwards to the lowest position. When the arms are fully extended, they should be perfectly aligned. If there is a gap, it indicates that the arms are not fully opened, and you need to continue adjusting until they are completely aligned. Otherwise, it may cause the drone to deviate from its flight direction.

3. Check and Address Propeller Issues: If the propellers are stuck together, be sure to manually separate them promptly, as this entanglement could cause the drone to go out of control. Similarly, if any foreign objects are entangling the propellers, immediately untangle and clear them, as these objects would affect the normal rotation of the propellers and could result in the drone losing control.

4. Restart the Drone: After checking and adjusting the drone, you need to restart the drone. Turn the power of both the drone and the remote control back on. This action will give you a fresh start.

5. Calibration: Before takeoff, remember to perform a one-click calibration on level ground. This step is crucial as it helps maintain the drone's stability during flight.

6. By following these steps, you can take quick action after a drone collision to prepare it for safe flight again. These measures are designed to ensure that your drone is properly handled in the event of an accident and to reduce the risk of any further damage.

Why does the drone experience loss of control when using the remote controller?

1. Operator Error:

   a. The operator may accidentally press the wrong button or is not yet familiar with the direction controls of the joystick, resulting in the drone's behavior not matching expectations. For joystick direction control, please refer to page 27: Flight Tutorial > Flight Control Operation Methods > Direction Control.

   b. The operator may confuse the two direction control modes of the drone, which are the normal mode and headless mode. Please refer to page 33: Flight Tutorial > Headless Mode vs. Standard Mode.

2. Signal Interference: If there are many wireless signals or signals from other devices in the vicinity, it may interfere with the connection between the remote controller and the drone.

3. Low Battery: Low battery levels in either the remote controller or the drone can affect their performance, causing ineffective control or delayed response.

4. Excessive Distance: If the drone flies beyond the maximum control range of the remote controller, it may lose its connection with the remote controller.

5. Environmental Factors: Strong winds or other environmental factors may affect the drone's flight path, making it appear as if it's out of control.

6. Hardware Malfunction: ome components of the remote controller or the drone may experience malfunction or damage, preventing them from functioning properly.

⚠ If you encounter such a situation, it is recommended to find a safe place for an emergency landing and then conduct troubleshooting and handling. If possible, consider flying again in an area without signal interference and always ensure that the batteries of the remote controller and the drone are fully charged.

General Appendices

Generalities

1.List of Items, including Qualified Accessories:

　-Model: X6 PRO Propeller; Weight (4 pairs): 4.7g; Size: 57.69mm X 14.62mm X 5.78mm; Maximum Rotation Speed: 37000 RPM

　-Model: X6 PRO Battery (Model: WH 952540); Weight (1 pc): 22.8g; Size: 57mm×21.6mm×7.7mm

　-Model: X6 PRO Propeller Guards; Weight (4 pcs): 3.7g; Size: 77.30mm X 25.27mm

2.List of UAS Combinations:

　-Combination 1: X6 PRO, X6 PRO Remote Controller

The remote controller pairs automatically, manual mode.

　-Combination 2: X6 PRO, Mobile Phone App (WiFi UAV)

App pairing: After clicking the app control button, it automatically pairs with the drone, manual mode.

3.Distinguishing Similar Products by the Same Manufacturer:

　-Similar products made by the same manufacturer can be distinguished by product model and exterior color.

MTOM Statement

1. The MTOM (Maximum Takeoff Mass) of the X6 PRO, including the aircraft, propellers, battery, and propeller guards, is 133 grams, which complies with the C0 category standard. There are no additional payloads.

2. To ensure that your X6 PRO drone meets the C0 requirements, it is crucial to adhere to the maximum takeoff weight regulations. Users must follow the instructions below:

-DO NOT add any payload to the aircraft.

-DO NOT use any non-qualified replacement parts, such as intelligent flight batteries or propellers, etc.

-DO NOT retrofit the aircraft.

-Overweight Warning: Failure to comply with the above requirements may result in decreased flight stability, operational difficulties, and an increased risk of accidents. Moreover, the product will no longer meet the C0 requirements.

-Regulatory Compliance: When operating the drone, ensure that all local and international aviation regulations are followed to avoid legal liabilities and potential safety hazards.

Equipment to control the UA remotely

1.Remote Control Model: X6 PRO RC
  -Operation Frequency: 2410~2470MHz

2.Application: WiFi UAV
  -The "app manual" is included with the product and is compatible with Android 6.0 or above and iOS 9.0 or above.

3.Reminder Descriptions
  -Low Battery Alarm: Emits a "beep beep beep" sound as a warning.
  -Automatic Frequency Pairing: Emits a single "beep" sound to indicate successful pairing.
  -Headless Mode: Short press the headless mode button on the remote controller, and a long "beep" sound will indicate the entry into headless mode.
  -Speed Mode Switching: Press the speed mode button; a single "beep" sound indicates slow mode, two "beep beep"

sounds indicate medium mode, and three "beep beep beep" sounds indicate fast mode.
  -Remote Controller Activation: Emits two quick "beep beep" sounds when the controller is turned on.

Loss of Command and Control Link

1.The X6 PRO drone can reach a maximum altitude of 30 meters above the takeoff point. When the drone reaches this altitude, the system will automatically prevent it from ascending further, although it can still be operated in other directions. During flight, environmental factors or signal interference may cause the drone to lose control and descend uncontrollably, making it difficult for the pilot to effectively control the drone's ascent or other movements, thereby increasing the risk to flight safety. To ensure safety and prevent the loss of the drone, users should thoroughly understand and adhere to the 30-meter altitude limit before operating. Please be mindful of your surroundings and fly in areas with strong signal reception to avoid flight risks.

2.Drone's Response When the Remote Control Disconnects:
  -The drone's indicator lights will start flashing, and the drone will then begin to descend slowly.

Crew Health Precautions

1.When operating this drone, ensure that the operator (you) is in a clear and alert state, free from the influence of alcohol, drugs, or other substances. Additionally, avoid flying if you experience dizziness, fatigue, nausea, or any other health conditions that could potentially affect the safety of the operation.

Ground Handling - Relevant Guidelines

1.Safe Handling of Energy Storage (Batteries):

  -When installing and replacing batteries, ensure the correct polarity and avoid using damaged or incompatible batteries.

  -Use the original charging cable when charging. Avoid charging near flammable materials and ensure that the charging environment is between 0℃ and 40℃ .

  -Disconnect the power immediately after charging is complete to prevent overcharging.

  -If the battery shows signs of swelling, leakage, or other abnormalities, discontinue use and handle it promptly.

2.Cleaning and Maintenance:

  -Regularly clean the drone's exterior and propellers, ensuring that there is no dust, dirt, or foreign objects attached to the equipment.

  -Inspect each part of the drone, especially moving parts and connection points, to ensure there is no wear or damage.

3.Pre-Flight Calibration:

  -Before turning on the drone and remote controller, ensure that the drone is placed on a level surface.

  -Follow the steps in the manual to perform one-key calibration and frequency pairing, ensuring the drone's flight posture is accurate.

4.Installation of Protective Guards:

  -Before flight, check and properly install the protective guards, ensuring they are secure and can effectively prevent accidental collisions during flight.

5.Use of Plugs and Protective Covers:

-When using and storing the remote controller and other accessories, protect the electronic interfaces and plugs from dust and moisture.

6.Selection of Flight Environment:
  -Choose an open and obstacle-free environment for flight, avoiding crowded areas or regions with animals.
  -Avoid flying in extreme weather conditions, such as strong winds, rain, snow, or extreme temperatures.

Transportation and storage of the UA, the equipment to control the UA remotely and the batteries.

1.Packaging of the Drone and Remote Controller:
  -Use the original packaging materials or equivalent protective materials to pack the drone and remote controller to prevent shock or pressure damage during transport.
  -Ensure that each component of the drone and remote controller is securely fixed to avoid damage caused by movement.

2.Safe Transport of Batteries:
  -Remove the battery from the drone and store it separately in fireproof and explosion-proof packaging.
  -Avoid exposing the battery to extreme temperatures or direct sunlight to prevent overheating.
  -Adhere to local transportation regulations when shipping batteries, especially those pertaining to lithium batteries.

3.Storage Environment:
  -Store the drone and remote controller in a dry, clean, and temperature-appropriate environment, avoiding moisture or extreme temperature conditions.

-The storage area should be kept away from any potential heat sources, such as heaters or direct sunlight, to prevent material aging or damage to the equipment.

4.Long-term Battery Storage:
  -If the battery will not be used for an extended period, maintain the battery charge at approximately 50%, avoiding full charge or complete discharge.
  -Regularly check the stored battery's condition, charging or discharging it at least once every three months to maintain battery activity and safety.

5.Inspection and Maintenance:
  -Regularly inspect the stored drone and remote controller for any signs of physical damage or functional abnormalities.
  -Ensure that all connections and interfaces are clean and dust-free to prevent corrosion or poor contact that may occur during long-term storage.

Post-Flight Operations - To ensure the safety and performance of the X6 PRO drone after each flight, the operator must conduct a comprehensive visual inspection, including checking the battery and all key components. The detailed inspection steps are as follows:

1.Battery Inspection:
  -Visual Inspection: Remove the battery and carefully check for any signs of damage, deformation, leakage, or swelling on the battery casing.
  -Touch Inspection: Gently touch the battery surface to check for any abnormal temperatures (overheating or coldness).
  -Connector Inspection: Inspect the battery connectors and wiring to ensure they are intact, with no signs of loosening or poor contact.

  -Power Level Inspection: Use a battery power detector or the drone's built-in power display function to check if the remaining battery level is normal.

2.Body Inspection:

  -Appearance Inspection: Visually inspect the drone body for cracks, scratches, or other physical damage, especially on the arms, landing gear, and propeller mounts.

  -Structural Integrity: Gently shake the drone to check for any loose parts or abnormal noises, ensuring the drone's structure is solid.

  -Sensor and Camera Inspection: Check the surfaces of the drone's sensors and cameras to ensure they are clean and free from scratches or other damage, ensuring proper operation.

3.Propeller Inspection:

  -Appearance Inspection: Check the propellers for cracks, bends, or other damage. Replace damaged propellers immediately if necessary.

Installation Check: Ensure that the propellers are securely mounted and not loose. Check that the propeller locking mechanism is functioning properly.

4.Motor Inspection:

  -Appearance Inspection: Visually inspect the motor casing for any signs of damage or deformation.

  -Rotation Check: Gently rotate each motor by hand to check for smooth operation without sticking or abnormal sounds.

5.Wiring and Connector Inspection:

  -Visual Inspection: Inspect all internal and external wiring and connectors of the drone, ensuring there are no breaks, wear, or looseness.

-Connector Check: Ensure all connectors are securely connected, with no signs of loosening or poor contact.

6.Remote Controller Inspection:
  -Appearance Inspection: Check the remote controller's casing for any damage or cracks.
  -Function Check: Turn on the remote controller and check that all buttons and control sticks are working properly, ensuring normal connection with the drone.

Summary:
By following the detailed inspection steps above, operators can ensure the safety and performance of the X6 PRO drone after each flight. Regular visual inspections help identify potential issues early, allowing for timely maintenance and repairs, ultimately extending the drone's lifespan.

Relevant Limitations

1. Speed Limitations
 - High: 9 m/s
 - Medium: 5.5 m/s
 - Low: 1 m/s (Indoor use only)

2.Specific Flight Limitations - Horizontal Distance from Buildings:
  -To ensure the safe operation of the X6 PRO drone while maintaining a safe distance from buildings:
  -The drone should always maintain a horizontal distance of at least 50 meters from buildings during flight unless special authorization is obtained.
  -When flying in urban or densely populated areas, extra caution should be taken to maintain a greater safety distance to avoid collisions or interference with buildings.

3.Environmental Limitations - Wind Speed Limitations for Operation:
 - Wind Resistance: 3 m/s

4.Environmental Limitations: - Altitude for Operation, Transport, and Storage:
4.1. Operation:
  -Maximum Takeoff Altitude (Allowed flying altitude: 1000m)
4.2. Storage:
  -The drone should be stored at an appropriate altitude, avoiding storage in extremely high or low altitude areas.
  -When storing the drone at high altitudes, control the storage environment's temperature and pressure to ensure the drone's components are not damaged by pressure changes.
4.3. Transport:
  -During transport, especially air transport, be aware of and comply with relevant altitude restrictions to ensure the drone's safety during high-altitude transport.

5.Environmental Limitations: - Humidity for Operation, Transport, and Storage:
5.1. Operation:
  -Avoid operating the drone in high humidity (relative humidity above 80%) or low humidity (relative humidity below 20%) environments.
  -Avoid flying in fog, drizzle, hail, or snow to prevent the drone from becoming wet or freezing.
  -After flight, immediately check all parts of the drone for moisture or condensation. If necessary, wipe clean with a dry, soft cloth.
5.2. Storage:
  -Ensure all electronic components and the battery of the drone are well-sealed to prevent moisture from entering.

-Store the drone in a dry, well-ventilated environment, avoiding storage in humid places or near water sources.

-The storage environment's relative humidity should be maintained between 40% and 60%. If necessary, use a dehumidifier or desiccant to control humidity.

5.3. Transport:

-During transport, store the drone and its accessories in moisture-proof packaging materials, such as moisture-proof bags or sealed containers.

6.Environmental Limitations: - Other (Thunderstorms, Bird Flocks, Sandstorms):

-Avoid operating the drone in special environmental conditions such as thunderstorms, bird flocks, or sandstorms to ensure the safety and reliability of the drone system.

According to the European Union Regulation (EU) 2019/947, operators should be fully aware of the following key risks and take necessary measures to ensure safety:

1.To Ensure the Safety of the Drone System During Maintenance Operations:

1.1 Regular Inspections:

-Regularly inspect and test the key components of the drone, such as the battery, motor, propellers, and control system.

-Perform basic checks before and after each flight to ensure the drone is in good working condition.

1.2 Battery Maintenance:

-Regularly check the battery for signs of swelling, leakage, or damage, and replace any problematic batteries promptly.

-Avoid overcharging or over-discharging the battery, and follow the manufacturer's charging guidelines.

1.3 Hardware Maintenance:
  -Inspect and tighten all screws and connectors to ensure the stability of the drone's structure.
  -Clean the drone's exterior and sensors to prevent dust and debris from affecting its performance.

2.To Ensure the Safety of the Drone System During Transport:
  -The drone and its accessories should be packed in sturdy, appropriate protective packaging to prevent mechanical damage during transport.
  -Use shock-absorbing materials (such as foam) inside the packaging to reduce vibrations and impacts that could damage the drone.
  -Ensure that the battery is securely stored and transported separately from the drone to prevent short circuits or overheating during transport.
  -Avoid transporting the drone and battery in extreme temperature conditions to prevent damage caused by high or low temperatures.
  -Prevent the drone from coming into contact with moisture or water sources to avoid short circuits or corrosion.

3.To Ensure the Safety of the Drone System During Shelf Storage:
  -The drone should be stored in a dry, well-ventilated environment, avoiding humidity, high temperatures, and direct sunlight.
  -The storage area should be kept away from flammable, explosive materials, and chemicals.
  -The battery should be stored separately from the drone to avoid excessive discharge or charging.
  -Before long-term storage, charge the battery to approximately 50% to extend its lifespan.

Safety Instructions

Ensuring the integrity and security of the software is crucial when using the X6 PRO drone. The following are safety instructions regarding software integrity:

   -Download Only from Official Channels: Ensure that all videos, images, and software updates are downloaded only from official or trusted sources, such as the manufacturer's official website or certified app stores.
Avoid Using Third-Party Software: Avoid downloading any software or updates from unknown sources or unverified third-party websites to prevent malware infections and data breaches.

Information related to Privacy rights-When operating the drone, special attention must be paid to protecting the privacy of individuals who may be inadvertently captured on camera. The following are guidelines and requirements for privacy protection:

1.Legal Operation:

   -When operating the drone for video recording or camera shooting, ensure compliance with local laws and regulations, especially when operating over public spaces or private property.
   -Before operating, familiarize yourself with and adhere to relevant privacy protection laws, including obtaining necessary permits or authorizations.

2.Informed Consent:

  -When operating the drone in situations where individuals might be captured on camera, make an effort to inform the public in advance, such as by posting notices or publishing notifications on a website to inform about the time and area of drone operation.
  -Avoid recording specific individuals without their consent, particularly in private settings or during private activities.

FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

   This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/ TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.