

# DroneX 5000

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# 1. Introduction

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## 1.1: What is DroneX 5000?

Welcome to the exciting world of aerial photography and videography with the SkySight DroneX 5000! This state-of-the-art drone is designed to capture stunning aerial footage with ease and precision. With its advanced GPS navigation system, 4K camera, and obstacle avoidance technology, the DroneX 5000 is the perfect companion for outdoor adventures. Whether you're a professional photographer or a hobbyist, the DroneX 5000 offers unparalleled performance and control to elevate your aerial photography experience to new heights.

## 1.2: Important Safety Information

Before you begin using your DroneX 5000, it is important to familiarize yourself with the following safety precautions to ensure a safe and enjoyable flying experience.

- Always fly the DroneX 5000 in open, unobstructed areas away from people, animals, and buildings.
- Check and follow all local laws and regulations regarding the use of drones in your area.
- Do not attempt to modify or repair the DroneX 5000 on your own. Any repairs or maintenance should be performed by authorized technicians only.
- Keep the DroneX 5000 in sight at all times during flight and avoid flying in adverse weather conditions such as strong winds, rain, or snow.
- Always maintain a safe distance from other aircraft and respect the privacy of others when capturing aerial footage.

Safety is our top priority at SkySight, and we want you to enjoy using your DroneX 5000 while staying safe and responsible.

## 2. Assemble

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### 2.1 Unboxing

To assemble your DroneX 5000, start by unboxing the package and laying out all the components. Check that you have all the parts listed in the contents section of this manual. If any parts are missing or damaged, please contact SkySight customer support immediately.

### 2.2 Attaching the Propellers

When attaching the propellers, make sure to match the color-coded marks on the propellers with the corresponding marks on the motors. The front-left propeller should be attached to the motor with the same color-coded mark. Repeat this process for the front-right, rear-left, and rear-right propellers.

### 2.3 Installing the Battery

Insert the fully charged battery into the designated slot on the DroneX 5000. Make sure the battery is securely in place before proceeding.

### 2.4 Securing the Camera

Carefully attach the 4K camera to the gimbal mount on the drone body. Ensure that the camera is properly secured and that all connections are tight before turning on the device.

### 2.5 Powering On

To power on the DroneX 5000, press and hold the power button located on the top of the drone body. The LED indicator lights will illuminate, indicating that the drone is ready for flight.

### 2.6 Connecting the Remote Controller

Turn on the remote controller and wait for it to establish a connection with the drone. Once connected, you will see the status displayed on the remote controller screen.

### 2.7 Testing the Obstacle Avoidance Technology

Before takeoff, test the obstacle avoidance technology by gently moving the drone towards an obstacle and observing its response. The drone should stop and hover in place if it detects an obstacle in its path.

## **2.8 Calibrating the GPS**

To ensure accurate navigation, it is important to calibrate the GPS system. Follow the instructions in the GPS calibration section of this manual to complete this step.

## **2.9 Final Checks**

Before taking off, perform a final check of all components to ensure everything is properly assembled and functioning. It is also recommended to review the pre-flight checklist in the user manual to ensure a safe and successful flight.

## 3. Getting Started

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### 3.1: Charging the Battery

Before you begin using your DroneX 5000, it's essential to ensure the battery is fully charged. Follow these simple steps to charge the battery:

1. Locate the battery compartment on the underside of the drone.
2. Slide the battery release switch to the unlock position and remove the battery.
3. Connect the battery to the provided charger, ensuring the correct polarity.
4. Plug the charger into a power source and allow the battery to charge fully. The indicator light will turn green when the battery is fully charged.
5. Once charged, reinsert the battery into the drone and secure the battery release switch.

**Note:** Always use the provided charger to avoid damaging the battery and ensure optimal performance.

### 3.2: Pairing the Remote Control

To control the DroneX 5000, you will need to pair the remote control with the drone. Follow these steps to pair the remote control:

1. Turn on the remote control by pressing the power button located on the top right-hand side.
2. Next, turn on the DroneX 5000 by pressing the power button located on the underside of the drone.
3. On the remote control, press and hold the "Pair" button for 3 seconds until the LED indicator starts blinking rapidly.
4. Within 30 seconds of activating pairing mode on the remote control, press and hold the power button on the drone for 3 seconds until the LED indicator starts blinking rapidly.

Once paired, the LED indicators on both the remote control and the drone will stop blinking and remain solid. You are now ready to take to the skies and unleash the full potential of your DroneX 5000.

## 4. Operating Instructions

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### 4.1: Taking Off and Landing

To take off with your DroneX 5000, make sure to place it on a flat surface and turn on the power button, located on the bottom side of the drone. Once the drone is powered on, press and hold the takeoff button on the remote control until the motors start spinning. Then, gently push the throttle stick upwards to lift the drone off the ground. To land, simply press and hold the landing button on the remote control, and the drone will descend slowly until it touches the ground.

### 4.2: Using GPS Navigation

DroneX 5000 is equipped with advanced GPS navigation technology, allowing for precise and accurate flight control. To activate GPS mode, press the GPS button on the remote control. Once activated, the drone will lock onto satellites and maintain its position, ensuring stable flight and smooth footage capture. The GPS mode also enables features such as return-to-home and waypoint navigation, providing you with a seamless flying experience.

### 4.3: Capturing Aerial Footage

With its high-quality 4K camera, DroneX 5000 allows you to capture stunning aerial footage and photos. To begin recording, press the record button on the remote control, and the camera will start capturing video. Use the camera tilt control on the remote to adjust the angle of the camera for different perspectives. Additionally, you can take still photos by pressing the photo capture button. The captured footage and photos will be saved directly to the onboard memory card for easy access.

### 4.4: Avoiding Obstacles

The DroneX 5000 features sophisticated obstacle avoidance technology that helps prevent collisions during flight. When flying in environments with obstacles, the drone's sensors will detect obstructions and automatically adjust its flight path to avoid them. If an obstacle is detected, the drone will emit a warning sound, and the obstacle avoidance system will kick in to ensure safe and smooth flight. This feature provides added security and confidence when flying in challenging terrain.



## 5. Maintenance

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### 5.1: Cleaning the DroneX 5000

To ensure optimal performance of your DroneX 5000, regular cleaning is essential. Follow the steps below to properly clean your drone:

1. Before cleaning, ensure that the drone is powered off and the battery is removed.
2. Use a soft, dry cloth to gently wipe the exterior of the drone, removing any dirt or debris.
3. For cleaning the propellers, use a small brush to remove any dust or particles that may have accumulated.
4. Do not use water or any liquid cleaning agents on the drone or its components.
5. After cleaning, allow the drone to air dry completely before reassembling and powering it on.

### 5.2: Replacing Parts

In the event that any parts of your DroneX 5000 need replacement, it is important to use genuine SkySight replacement parts to maintain the integrity and performance of the drone. Follow the steps below to replace parts:

1. Refer to the DroneX 5000 user manual to identify the specific part that needs replacement.
2. Contact SkySight customer support or visit an authorized dealer to obtain the correct replacement part.
3. Power off the drone and remove the battery before attempting any replacement.
4. Using the appropriate tools, carefully remove the damaged part from the drone.
5. Align the new replacement part with the corresponding slots or connectors on the drone and securely fasten it in place.
6. Once the replacement part is installed, reassemble the drone and perform a test flight to ensure proper functionality.

## 6. Troubleshooting

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If you experience any issues with your DroneX 5000, refer to the following troubleshooting guide to help identify and resolve the problem.

### 6.1 Power and Connectivity Issues

#### 6.1.1 Drone Not Powering On

If your DroneX 5000 does not power on, ensure that the battery is properly connected and fully charged. Check for any damage to the battery or power cable.

#### 6.1.2 Connectivity Failure

If you are unable to connect the drone to the remote controller, make sure that both devices are turned on and within range. Check for any obstructions or interference that may be affecting the signal.

### 6.2 Camera and Recording Issues

#### 6.2.1 Blurry Footage

If the footage captured by the 4K camera appears blurry, clean the camera lens with a soft, dry cloth. Ensure that the lens is not obstructed by dirt or debris.

#### 6.2.2 Recording Malfunction

If the drone is unable to record or save footage, check the storage capacity of the microSD card. Replace the card if it is full or damaged.

### 6.3 Flight and Navigation Problems

#### 6.3.1 Drifting or Unstable Flight

If the DroneX 5000 is drifting or exhibiting unstable flight behavior, perform a recalibration of the GPS and compass. Ensure that the drone is operated in an open area with clear GPS signal.

#### 6.3.2 Obstacle Avoidance Failure

If the obstacle avoidance technology is not functioning properly, inspect the sensors on the drone for any damage or blockages. Clean the sensors with a soft, dry brush to remove any dirt or debris.

## **6.4 General Performance Issues**

### **6.4.1 Unresponsive Controls**

If the drone does not respond to controls from the remote, check the remote's battery level and connection to the drone. Replace the batteries if necessary and ensure that the remote is properly synced with the drone.

### **6.4.2 Abnormal Sounds or Vibrations**

If you notice unusual sounds or vibrations during flight, land the drone immediately and inspect the propellers for any damage or imbalance. Replace any damaged propellers before resuming flight.

## **6.5 Technical Support**

If you are unable to resolve the issue using the troubleshooting guide, contact SkySight technical support for further assistance.

## 7. Technical Specifications

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### 7.1 Dimensions and Weight

- **Dimensions:**
  - Length: 12 inches
  - Width: 12 inches
  - Height: 3 inches
- **Weight:** 2 lbs

### 7.2 Battery

- **Type:** Lithium polymer
- **Capacity:** 3000mAh
- **Voltage:** 11.1V
- **Charging time:** 2 hours
- **Operating time:** 20 minutes
- **Charger:** Input 110-240V, Output 12.6V 2A

### 7.3 Camera

- **Resolution:** 4K Ultra HD
- **Field of view:** 110 degrees
- **Stabilization:** 3-axis gimbal
- **Storage:** Micro SD card (not included)
- **Max capacity:** 128GB

### 7.4 GPS Navigation

- **Satellite System:** GPS/GLONASS
- **Accuracy:** Horizontal:  $\pm 1.5\text{m}$ , Vertical:  $\pm 0.5\text{m}$
- **Modes:**
  - GPS Mode
  - Follow Me Mode
  - Waypoint Mode

### 7.5 Obstacle Avoidance

- **Sensors:** Front and bottom
- **Detection Range:** 0.5-20 meters
- **Obstacle Avoidance Speed:** 10 m/s

## 7.6 Remote Controller

- **Operating Frequency:** 2.4GHz
- **Max Transmission Distance:** 1.5 km
- **Battery:** 1000mAh, 3.7V
- **Smartphone Holder:** Yes
- **Compatible Devices:** iOS, Android

## 7.7 Motors

- **Type:** Brushless
- **Maximum Speed:** 50 km/h
- **Operating Temperature:** -10°C to 40°C

## 7.8 Additional Features

- **Return to Home:** Yes
- **Altitude Hold:** Yes
- **One-Key Takeoff/Landing:** Yes
- **Headless Mode:** Yes
- **LED Lights:** Yes