

HGLRC Wind5 Lite V2

HGLRC Wind5 Lite V2 FPV Racing Drone Frame Kit Instruction Manual

MODEL: WIND5 LITE V2

1. Introduction

The HGLRC Wind5 Lite V2 is a lightweight racing frame designed for FPV racing drone competitions. This instruction manual provides essential information for the assembly, maintenance, and optimal use of your frame kit. Please read this manual thoroughly before beginning assembly to ensure correct installation and safe operation.

2. Product Overview

The Wind5 Lite V2 frame features a positive X structure with a 195mm wheelbase, optimized for agile flight performance and precise control. It is constructed from high-strength carbon fiber material and utilizes 7075 aviation-grade aluminum columns for enhanced durability and crash resistance. The frame includes arm protection bars to minimize damage during impacts.

Key features include:

- **Lightweight Design:** Optimized for racing with a 195mm wheelbase.
- **Durable Construction:** High-strength carbon fiber and 7075 aviation-grade aluminum columns.
- **Arm Protection:** Integrated arm protection bars reduce crash damage.
- **Quick-Release Arms:** Single-screw design for easy arm replacement and maintenance.
- **Component Protection:** Custom aluminum standoffs protect camera and flight stack.
- **Versatile Mounting:** Top plate includes 20x20*M3 holes for HDZero digital VTX.
- **Included Accessories:** Simulated RHCP mini hammer antenna and non-slip battery strap.

3. Package Contents

Verify that all components listed below are present in your package. If any parts are missing or damaged, please contact your retailer.



This image displays the complete contents of the HGLRC Wind5 Lite V2 Frame Kit package, including all carbon fiber plates, aluminum parts, screws, and accessories.

- Arm x 4
- Arm protection bar x 2
- Top plate x 1
- Middle plate x 1
- Bottom plate x 1
- Battery anti-slip sticker x 1
- Battery Strap 15*250mm x 2
- Dustproof belt x 1
- Camera mount x 1 (Default standard Foxeer Nano Predator 5)
- TPU shark fin x 1
- Antenna mount x 1
- Antenna x 1 (Default standard analog version antenna)
- CNC arm limiter x 1
- M3*25mm 7075 aluminum column x 4

- Round head M3*25mm x 4
- Countersunk head M3*16mm x 4
- Round head M3*12mm x 4
- Round head M3*10mm x 4
- Countersunk head M3*10mm x 2
- Round head M2*4mm x 2
- M3 Nylon nut x 4

4. Setup and Assembly

Follow these general steps for assembling your HGLRC Wind5 Lite V2 frame kit. Refer to the images for visual guidance.

1. **Arm Installation:** Attach the four arms to the bottom plate using the appropriate screws. Ensure the arm protection bars are also installed at this stage.

The frame is made of high-strength carbon fiber material

The default arm protection bar is standard to reduce the loss of the drone



This image shows the frame constructed from high-strength carbon fiber material, emphasizing its durability. The arm

protection bar is also visible, designed to reduce damage to the arms during impacts.

2. **Aluminum Column Installation:** Install the 7075 aviation-grade aluminum columns onto the bottom plate. These columns will support the middle and top plates, as well as protect internal components.

Customized high-strength aviation-grade aluminum columns

To better protect cameras/stack and other equipment



This image highlights the customized high-strength aviation-grade aluminum columns. These columns provide structural integrity and protect internal components such as the flight controller and camera stack.

3. **Middle Plate and Electronics:** Mount the middle plate. Install your flight controller and VTX onto the designated 20x20*M3 mounting holes. Ensure proper orientation and secure fastening.
4. **Camera and Antenna:** Attach the camera mount and your FPV camera. Install the antenna mount and the simulated RHCP mini hammer antenna. Note that the frame's antenna mount is specifically compatible with the new HGLRC mini hammer antenna.

A new design

The default standard is simulated RHCP mini hammer antenna

(The frame antenna mount is only compatible with the new HGLRC mini hammer antenna, if you need a digital antenna, you can purchase it yourself)



This image displays the frame with the simulated RHCP mini hammer antenna installed. It also shows the antenna mount, noting that the frame's antenna mount is specifically compatible with the new HGLRC mini hammer antenna.

5. **Top Plate:** Secure the top plate to the aluminum columns.
6. **Battery Strap:** Attach the non-slip battery strap to the frame.
7. **Final Check:** Verify that all screws are tightened appropriately and all components are securely mounted before proceeding with flight controller setup and initial flight.

5. Operating Considerations

The Wind5 Lite V2 frame provides the structural foundation for your FPV racing drone. Proper operation depends on the correct installation and configuration of all electronic components, including the flight controller, ESCs, motors, camera, and video transmitter. Ensure all components are securely mounted and wired according to their respective manuals.

The 195mm wheelbase and positive X structure are designed for agile and responsive flight characteristics, making it suitable for competitive FPV racing. Always perform pre-flight checks and ensure your drone is in optimal condition before flying.

6. Maintenance

Regular maintenance is crucial for the longevity and performance of your frame kit.

- **Inspection:** Regularly inspect the carbon fiber frame for any signs of cracks, delamination, or damage, especially after crashes.
- **Screw Tightness:** Check all mounting screws for tightness before each flight. Vibrations can cause screws to loosen over time.
- **Arm Replacement:** The quick-release arm design facilitates easy replacement of damaged arms. To replace an arm, remove the single retaining screw, detach the arm, and install a new one, securing it with the screw.

The arm quick-release design

Only requires one screw
to quickly remove the arm for easy maintenance



This image illustrates the quick-release arm mechanism, showing an arm detached from the main frame. The design allows for easy removal and replacement of arms using a single screw, simplifying maintenance and repairs.

- **Aluminum Columns:** Inspect aluminum columns for bends or damage, particularly after hard impacts. Replace if compromised.

- **Cleaning:** Clean the frame periodically to remove dirt, dust, and debris that can accumulate during use.

7. Troubleshooting

This section addresses common issues related to the frame kit.

- **Frame Damage:** If the frame sustains damage (e.g., cracks in carbon fiber, bent aluminum columns) after a crash, inspect all components thoroughly. Replace damaged carbon fiber plates or aluminum columns immediately to maintain structural integrity and flight performance. Continuing to fly with a damaged frame can lead to further component failure.
- **Loose Screws:** Vibrations during flight can cause screws to loosen, potentially leading to component detachment or instability. Regularly check and tighten all mounting screws, especially those securing arms, the flight controller, and motors.
- **Component Fit Issues:** Ensure all electronic components (flight controller, VTX, camera) fit correctly within the designated mounting spaces. Refer to the specifications for compatible sizes (e.g., 20x20*M3 mounting holes for flight controller/VTX). Do not force components into place.

8. Specifications

Detailed specifications for the HGLRC Wind5 Lite V2 Frame Kit:



This image shows the packaging dimensions and the total weight of the kit, alongside the weight of the assembled frame.

Model	Wind5 Lite V2 racing frame
Material	High-strength carbon fiber
Frame Wheelbase	195mm
Installation Space	26mm

Flight Control Mounting Hole	20X20*M3
VTX Mounting Hole	20X20*M3
Motor Mounting Hole	16X16*M3
Frame Size (L*W*H)	172.5mm × 169mm × 70mm (6.79"L x 6.65"W x 2.75"H)
Default Camera Mount	FOXEEER predator 5NANO 45-degree
Frame Thickness	Top plate 2mm / Middle plate 3mm / Bottom plate 2mm / Arm 5mm / Protective rod 3mm
Single Frame Weight	69.5g (including printed parts/aluminum column/screws)

Recommended Parts (Not Included):

- **ESC:** SPECTER 60A
- **Flight Controller:** SPECTER F722 MINI
- **Motor:** SPECTER 2306.5-1900KV
- **Camera:** FOXEEER predator 5NANO / Runcam Nano4
- **Propeller:** Gemfan 51466

9. Warranty

Warranty information for the HGLRC Wind5 Lite V2 Frame Kit is not provided in this manual. Please refer to the manufacturer's official website or contact your retailer for specific warranty details and terms.

10. Support

For technical support, troubleshooting assistance, or further inquiries regarding your HGLRC Wind5 Lite V2 Frame Kit, please visit the official HGLRC website or contact your product retailer. Ensure you have your product model and any relevant purchase information available when seeking support.