BETAFPV Meteor75 Pro

BETAFPV Meteor75 Pro Brushless Whoop Quadcopter User Manual

Model: Meteor75 Pro | Brand: BETAFPV

1. Introduction

The BETAFPV Meteor75 Pro Brushless Whoop Quadcopter is an advanced FPV drone engineered for superior flight performance and high-definition aerial photography. It integrates cutting-edge technology, including the Matrix 1S 3IN1 HD Flight Controller, designed to provide a stable and responsive flying experience. This manual provides essential information for the proper setup, operation, maintenance, and troubleshooting of your Meteor75 Pro.

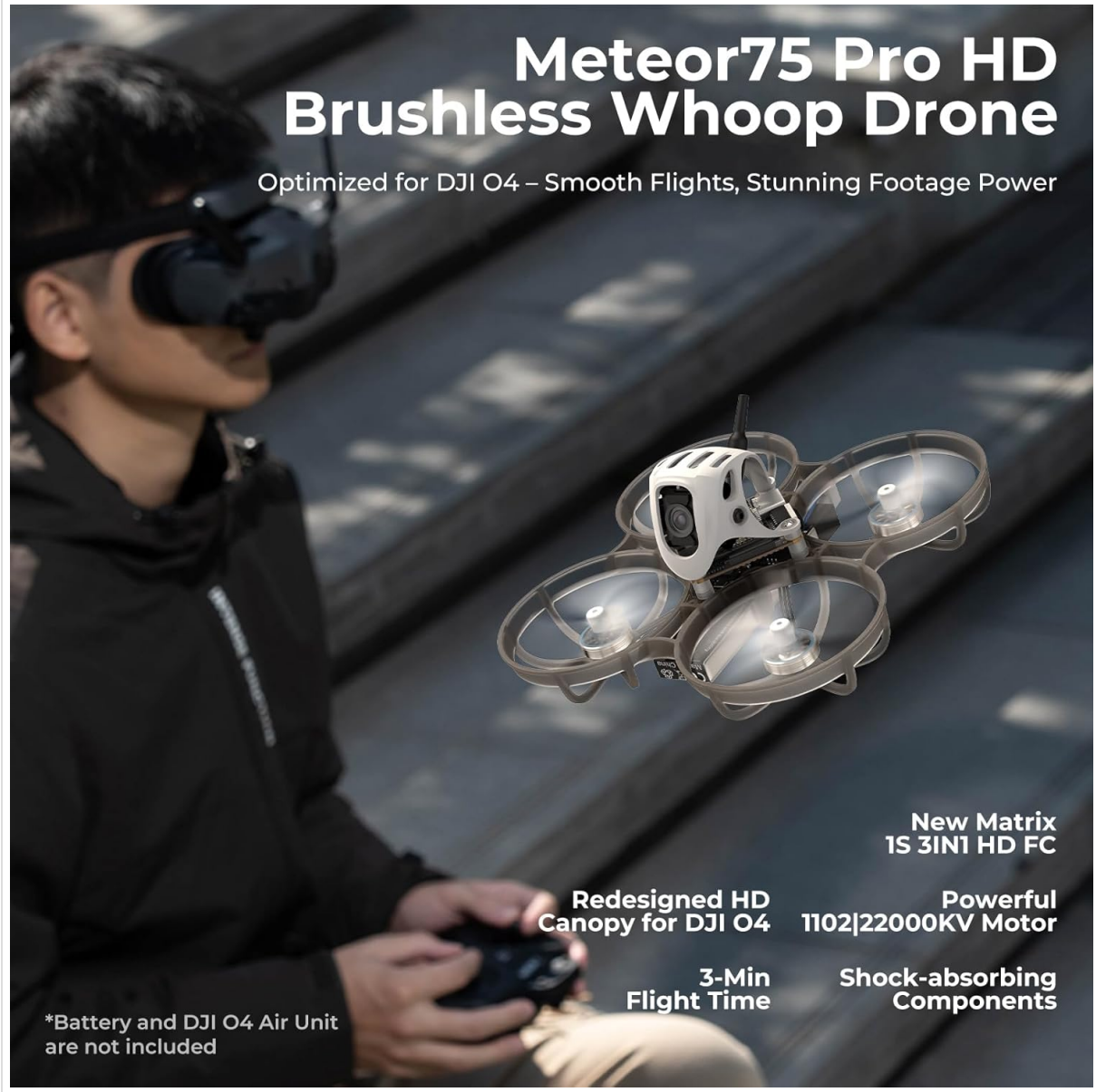

Figure 1: Overview of the Meteor75 Pro HD Brushless Whoop Drone, optimized for DJI O4 Air Unit.

2. Package Contents

Please verify all items are present in your package before proceeding with assembly or operation:

- 1* Meteor75 Pro HD Brushless Quadcopter (PNP Version)
- 1* Canopy for O4 Air Unit
- 4* GF 45mm 3-Blade Propellers
- 1* Type-C to SH1.0 Adapter
- 1* SH1.0-4Pin Adapter Cable
- 1* SH1.0-6Pin HD Cable
- 1* 5.8G VTX Antenna
- 4* Shock-absorbing Balls
- 8* Shock-absorbing Balls for O4
- 1* DJI O4 Camera Bracket
- 1* Shock-absorbing Mount for DJI O4 Camera
- 4* M1.4*10*4 Phillips Flat Washer Head Tapping Screws
- 4* M1.4*4 Phillips Flat Head Screws

- 4* M2*4 Flat Head Socket Cap Screws
- Tools: Phillips screwdriver, Tweezers, M2 screwdriver

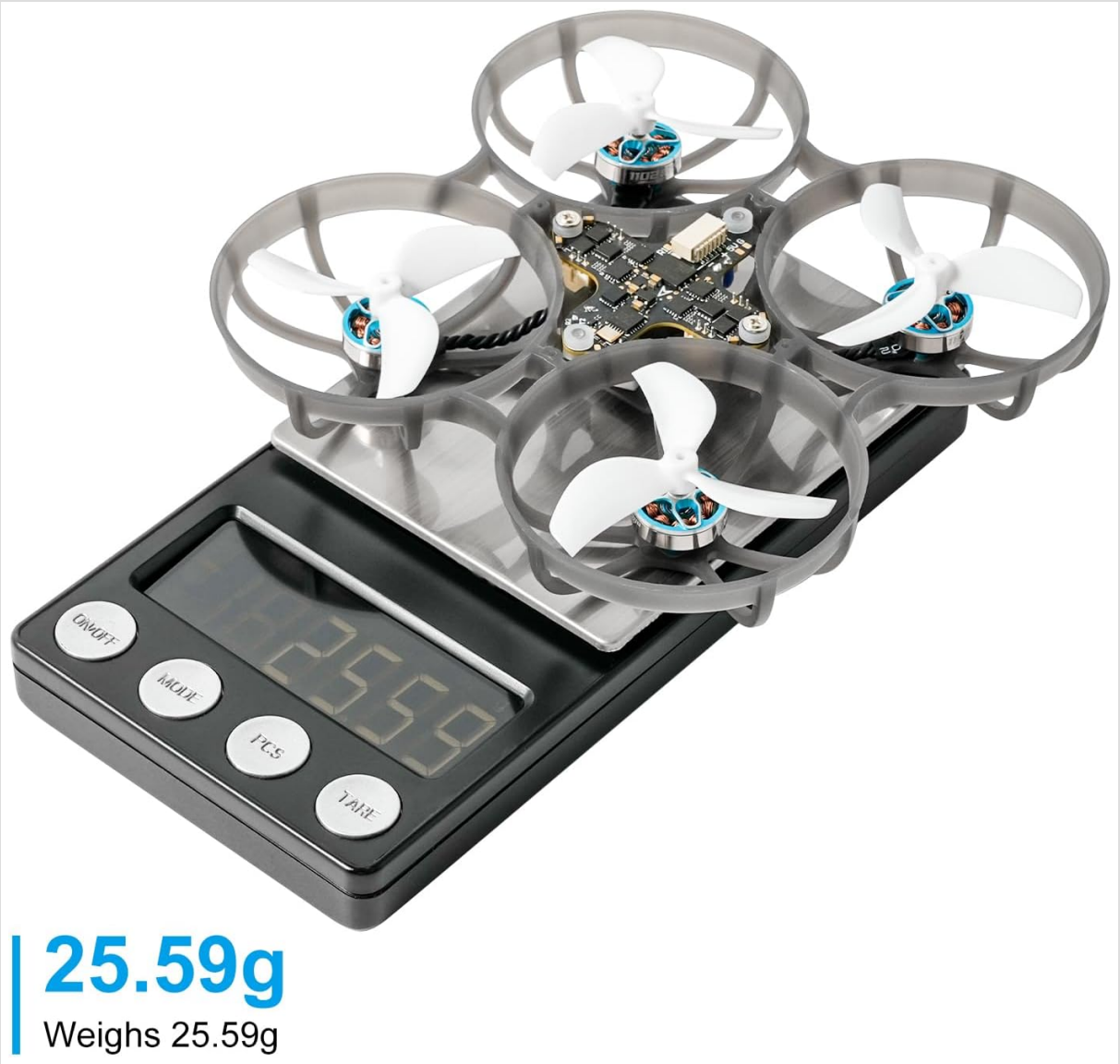

Figure 2: All components included in the Meteor75 Pro package.

3. Setup and Installation

Follow these steps carefully to assemble and prepare your Meteor75 Pro for flight. Refer to the accompanying video for visual guidance.

3.1 DJI O4 Air Unit Installation

1. Insert the O4 camera into the camera bracket. Ensure the forward direction of the O4 camera aligns with the connector.
2. Place the slots of the O4 camera bracket into one hole of four shock-absorbing balls separately. Repeat for all four balls.
3. Install the shock-absorbing mount's slots into the corresponding holes of these balls. Repeat for all four points.
4. Check the installation status of the shock-absorbing balls. The camera protection should be upward.
5. Place the side of the camera with the connector facing towards the canopy. Align the holes of the camera's shock-absorbing mount with the holes in the canopy.

6. Secure the camera and canopy with two M2*4 flat head socket cap screws from both sides. After adjusting the camera angle (10° to 35°), tighten the screws to ensure proper installation.

3.2 VTX Shock Absorption Module Installation

1. With the side of the HD module that has the antenna facing up, insert the 6.6mm shock-absorbing balls into the module's holes, ensuring that the higher end of the shock-absorbing balls is facing down.
2. Insert the 6Pin connector cable into the O4 VTX module.
3. Insert the VTX antenna into the antenna connector on the O4 VTX module.
4. After the installation of O4, please check the canopy in various views to ensure shock-absorbing balls are tight and no risk of falling off.

3.3 Final Assembly

1. Remove the two screws that secure the flight controller on the Meteor75 Pro O4.
2. Distinguish the front of the drone, ensuring that the head of Meteor75 Pro O4 aligns with the arrow on the flight controller.
3. Insert one end of the O4 VTX cable into the connector on the flight controller.
4. Make the O4 VTX module upward, and then place the O4 VTX module on the flight controller so that its holes align with the holes of the entire flight control unit.
5. Tighten the forward shock-absorbing ball of the O4 VTX module with one M1.4*10*4 Phillips flat washer head tapping screw by Phillips screwdriver.
6. Place the canopy on the O4 VTX module, making sure the camera is forward and the holes of the canopy align with the shock-absorbing balls.
7. Place the VTX antenna through the rear hole of the canopy.
8. Tighten the canopy with three M1.4*10*4 Phillips flat washer head tapping screws by Phillips screwdriver.
9. After installation, please check the tightness of the shock-absorbing balls on the O4 VTX module. It is recommended that the shock-absorbing balls should not be significantly compressed so that the balls maintain the height to achieve optimal shock absorption.
10. Replace the camera cable with tweezers. To reduce vibration, ensure the camera cable is suspended and prevent it from touching the canopy.

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Video 1: Detailed installation guide for the Meteor75 Pro Brushless Drone with DJI O4 Air Unit.

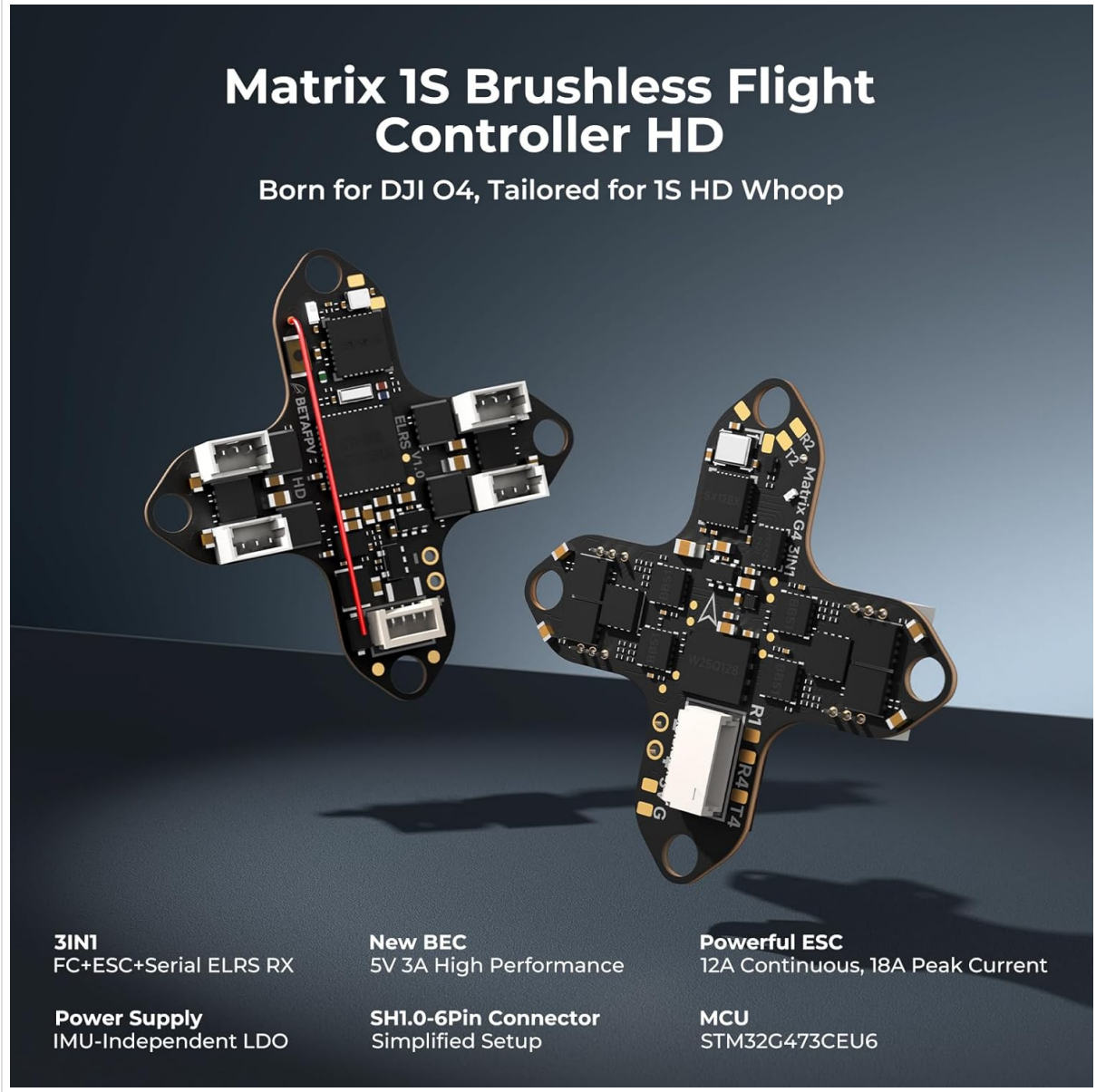

Figure 3: Close-up view of the Matrix 1S Brushless Flight Controller HD.

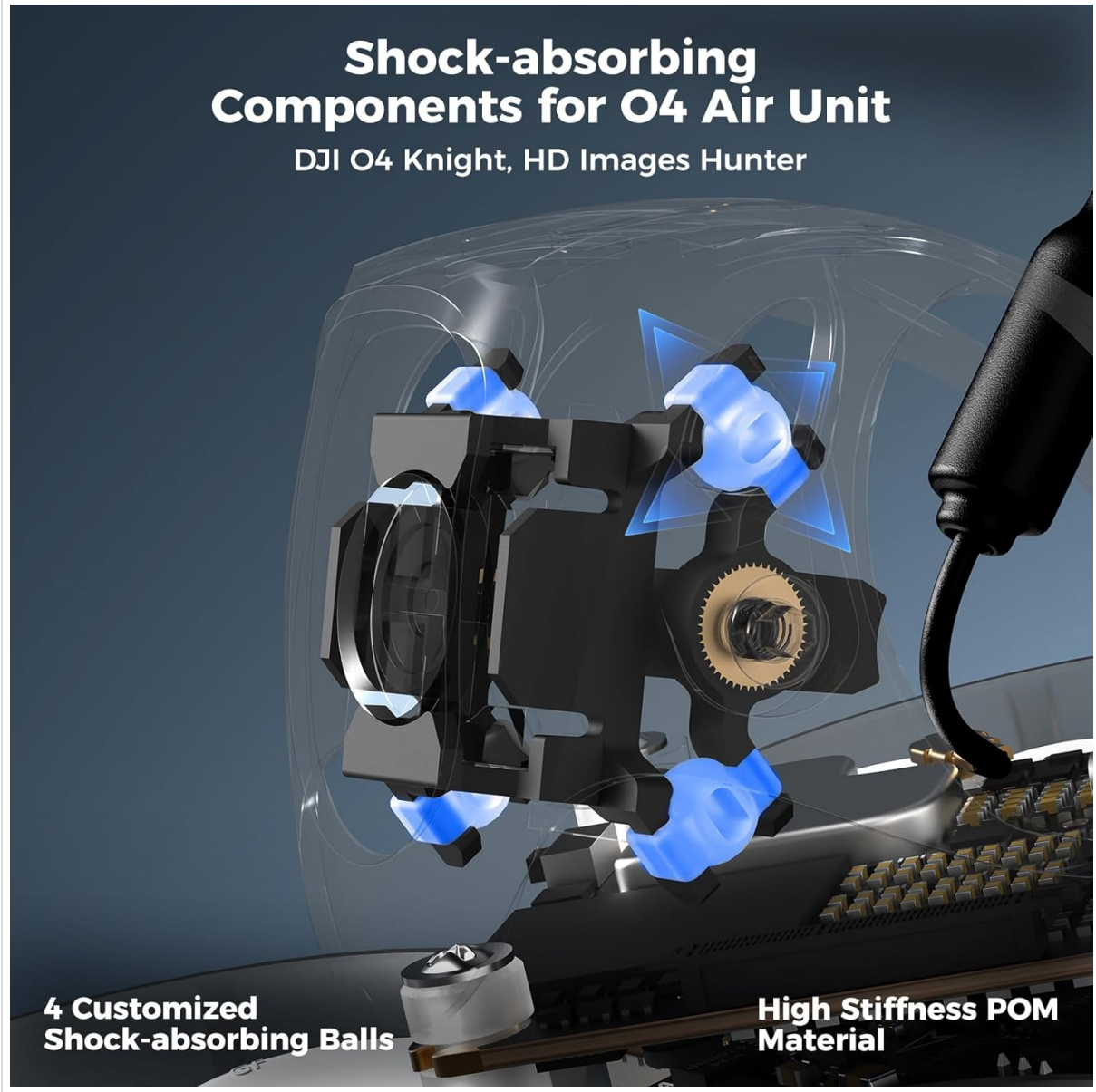

Figure 4: Illustration of the shock-absorbing components designed for the O4 Air Unit.

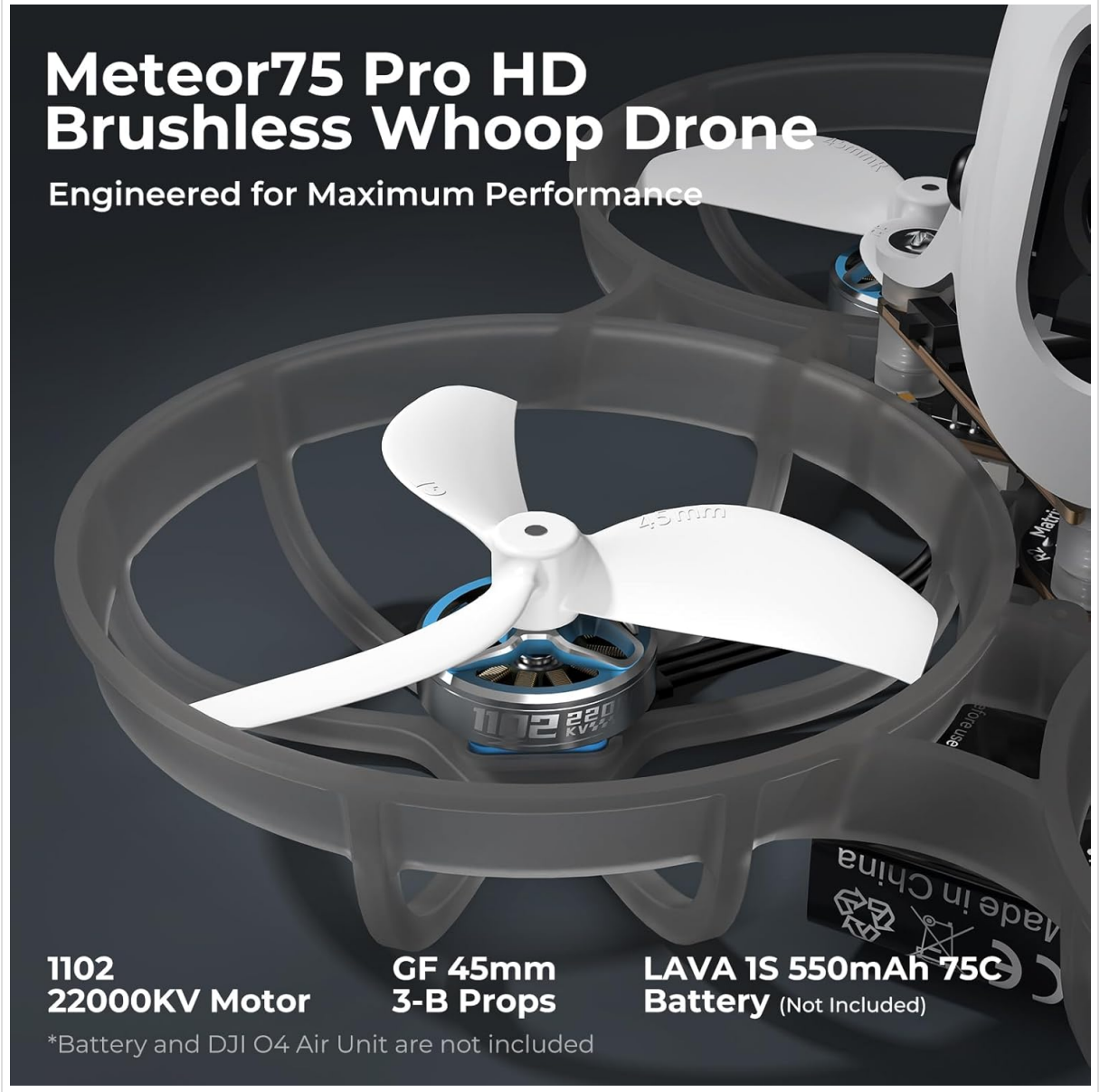

Figure 5: The specially designed canopy for the O4 Air Unit, allowing adjustable camera angles.

4. Operating Instructions

The Meteor75 Pro is designed for advanced users familiar with FPV drone operation. It requires a compatible remote control and FPV goggles (not included) for flight. Ensure your remote control is properly bound to the drone and all settings are configured according to the flight controller's software (e.g., Betaflight) before attempting flight.

4.1 Pre-Flight Checks

- Inspect propellers for any damage or cracks.
- Ensure the battery is fully charged and securely attached.
- Verify all connections (camera, VTX, motors) are secure.
- Check the flight area for obstacles and ensure it is safe for flight.

4.2 Basic Flight

After powering on the drone and connecting your FPV goggles, arm the motors using your remote control's designated switch. Gently increase throttle for takeoff. Practice hovering and basic maneuvers in an open, safe environment before attempting advanced flights.

4.3 Landing

Reduce throttle slowly to descend. Disarm the motors once the drone has safely landed to prevent accidental propeller spin.

5. Maintenance

Regular maintenance ensures the longevity and optimal performance of your Meteor75 Pro.

- **Propeller Inspection:** Regularly check propellers for bends, nicks, or cracks. Replace damaged propellers immediately as they can cause vibrations and affect flight stability.
- **Cleaning:** Use a soft brush or compressed air to remove dust and debris from the motors, flight controller, and other components. Avoid using liquids directly on electronics.
- **Battery Care:** Store LiPo batteries at storage voltage (around 3.8V per cell) when not in use for extended periods. Do not overcharge or over-discharge batteries.
- **Screw Tightness:** Periodically check all screws, especially those securing the flight controller and motors, to ensure they are tight.

6. Troubleshooting

This section addresses common issues you might encounter.

Problem	Possible Cause	Solution
Drone does not power on	Disconnected battery, faulty battery, loose power cable	Ensure battery is connected and charged. Check power cable connections. Try a different battery.
Unstable flight/Excessive vibration	Damaged propellers, loose motor screws, improperly installed shock-absorbing components	Replace damaged propellers. Tighten motor screws. Re-check shock-absorbing component installation as per Section 3.
No video signal in FPV goggles	VTX not powered, VTX antenna disconnected, incorrect VTX channel/band	Check VTX power connection. Ensure VTX antenna is securely connected. Verify VTX channel/band matches goggles.
Drone not responding to remote control	Remote control not bound, low remote control battery, receiver issue	Re-bind remote control to drone. Charge/replace remote control batteries. Check receiver connection on flight controller.

7. Specifications

Feature	Detail
Brand	BETAFPV
Model Name	Meteor75 Pro
Video Capture Resolution	4K
Connectivity Technology	ExpressLRS, 5.8GHz
Battery Capacity	550 Milliamp Hours (Battery not included)

Feature	Detail
Video Capture Format	MP4
Control Type	Remote Control
Wireless Communication Technology	Radio Frequency, Proprietary (OcuSync 3.0)
Product Dimensions	5.1"L x 5.1"W x 2.5"H
Item Weight	5.6 ounces

8. Warranty and Support

For warranty information and technical support, please refer to the official BETAFPV website or contact their customer service directly. Keep your proof of purchase for any warranty claims.
For additional resources and community support, you may visit theBETAFPV Store on Amazon.