Cineon C30 V2

Axisflying · 3" cinewhoop frame
Assembly and User Manual



Read the entire manual before building and before the first flight. The frame is a kit – motors, electronics, propellers and battery are not included.

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Contents

1. Product description

1.1 Purpose

1.2 Specifications and package contents

2. Use

2.1 What you need for the build

2.2 Assembly procedure

2.3 Action camera, GPS and battery

2.4 Checks and setup before the first flight

3. Safety and operation

3.1 Safety during the build

3.2 Safety of the built drone and Li-Po batteries

3.3 Legal conditions of operation

4. Maintenance

4.1 Post-flight inspection

4.2 Replacing the propeller guards

5. Information for the EU and Czech Market

5.1 Importer and responsible person in the EU

5.2 Disposal

6. Warranty and rights arising from defective performance

1. Product description

1.1 Purpose

The **Axisflying Cineon C30 V2** is a carbon frame for building a 3" cinewhoop – a small FPV drone with propellers enclosed in protective guards (ducts), designed for shooting smooth footage both outdoors and indoors. The enclosed propellers make flying close to obstacles safer. The frame carries an external action camera (e.g. GoPro or DJI Action), which is mounted on rubber dampers (soft mounts) that reduce the transfer of vibrations to the footage.

The frame is a kit: you fit the motors, flight controller (FC) with electronic speed controllers (ESC), FPV camera, video transmitter (VTX) and receiver yourself. The drone can be built with analog video or with the Walksnail Avatar or DJI O3 digital system. The FPV camera sits in silicone inserts in aluminium side plates, and the plastic propeller guards are easy to remove, which simplifies both the build and servicing.



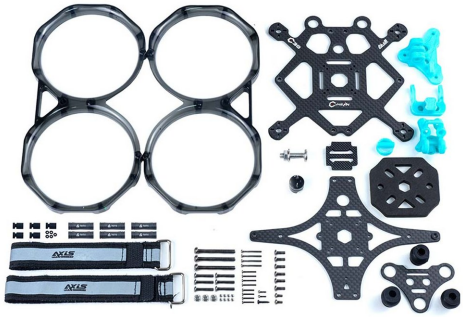
Axisflying Cineon C30 V2 – assembled frame (illustrative photo, the colour of the 3D-printed parts may differ)

1.2 Specifications and package contents

Product designation	Axisflying Cineon C30 V2
Type	3" cinewhoop frame with propeller guards
Plate material	T700 carbon fibre
Motor-to-motor diagonal	138 mm
Overall dimensions	186 × 194 mm
Max. propeller size	3"
Thickness of plate with arms	3.2 mm
Thickness of bottom plate	2 mm
Stack space height	27 mm
FPV camera width	14–20 mm
Stack mounting holes	20 × 20 mm and 25.5 × 25.5 mm, M2
Motor mounting holes	9 × 9 mm and 12 × 12 mm, M2
Weight	approx. 127.5 g (incl. 3D-printed parts)
Video transmission	analog, Walksnail Avatar, DJI O3

Package contents: carbon frame plates, aluminium FPV camera side plates, propeller guards, a set of 3D-printed parts including an action camera (GoPro) mount and a GPS module mount, rubber dampers for the camera mount, standoffs, hardware and battery straps.

※ NOT included: motors, flight controller (FC), electronic speed controllers (ESC), FPV camera, video transmitter (VTX), receiver, GPS module, propellers, battery, action camera or tools.



Frame parts (manufacturer's illustrative photo, the colour of the 3D-printed parts may differ)

2. Use

2.1 What you need for the build

- **Motors** with a 9 × 9 mm or 12 × 12 mm mounting hole pattern (M2 screws) and **propellers** with a diameter of max. 3".
- **Flight controller (FC) and ESC** – a separate stack or an AIO board with a 20 × 20 mm or 25.5 × 25.5 mm hole pattern (M2). The total stack height including the rubber dampers must fit within 27 mm.
- An **FPV camera** 14–20 mm wide, a **video transmitter** (analog, Walksnail Avatar or DJI O3) and a **receiver** for your radio system.
- Optionally a **GPS module** for the prepared 3D-printed mount.
- A **Li-Po battery** with voltage and power matching the selected motors and ESC – always according to the specifications of the manufacturers of these components.
- Tools: hex keys or screwdrivers matching the supplied screws, a soldering iron, cable ties and, if needed, medium-strength threadlocker.

2.2 Assembly procedure

The procedure below describes the usual order for building a cinewhoop. Refer to the photos of the frame in this manual and to the manuals of the components used.

① Check the package contents and lay out the parts according to the photo in chapter 1.2. The edges of the carbon plates may be sharp – if necessary, lightly sand them wet (see chapter 3.1).

② Screw the **motors** to the arms with M2 screws. The screws must not be too long – they must not touch the motor windings. Route the motor wires along the arms so that they cannot reach the propeller.

③ Mount the **flight controller (FC) and ESC** on the bottom plate in the 20 × 20 mm or 25.5 × 25.5 mm holes. Use the rubber dampers supplied with the electronics and orient the flight direction arrow on the FC forward.

④ Solder the motors to the ESC and the battery lead according to the manual of the electronics. We recommend a protective capacitor on the power supply if the electronics manufacturer specifies one.

⑤ Insert the **FPV camera** between the aluminium side plates with silicone inserts and set its tilt. Fit the **video transmitter** and **receiver**; route the antennas out of reach of the propellers and as far from the carbon plates as possible.

⑥ Fit the standoffs and the **top plate with arms**, attach the **propeller guards** and the **3D-printed parts** (action camera mount, GPS mount).

⑦ Tighten all screws gently – do not overtighten the carbon plates or plastic parts. Medium-strength threadlocker may be used on screws threaded into metal threads; do not apply it to plastic parts.

® **Do not fit the propellers yet.** First carry out the checks and setup according to chapter 2.4.

2.3 Action camera, GPS and battery

- **Action camera** (GoPro, DJI Action etc.) is mounted in the 3D-printed mount on rubber dampers. Always secure the camera against falling out in a crash and check that the propellers and guards are not in the lens's field of view.
- Place the **GPS module** in the 3D-printed mount so that its antenna faces upwards and is not covered by carbon or the battery.
- Secure the **battery** with the supplied straps. Route the strap so that it cannot come loose or get into the propellers, and always check that the battery is held firmly before flight.
- The action camera and battery significantly affect the centre of gravity and the total take-off mass. After fitting them, weigh the drone – the mass is decisive for the legal conditions of operation (chapter 3.3).

2.4 Checks and setup before the first flight

- Before connecting a battery for the first time, check with a multimeter that the power supply is not short-circuited; ideally use short-circuit protection (smoke stopper).
- Set up the flight controller (motor order and direction of rotation, receiver, failsafe) **always without propellers**, according to the manual of the electronics and firmware used (e.g. Betaflight).
- Fit the propellers only after verifying the motor direction of rotation. Check that the propellers rotate freely inside the guards and do not rub anywhere.
- Verify the Arm (motor start), Disarm (motor stop) and failsafe functions, first without propellers.

3. Safety and operation

3.1 Safety during the build

- The edges of carbon parts may be sharp. Sanding or drilling produces fine conductive carbon dust that irritates the airways and skin – sand only wet, wear a respirator and gloves, and keep the dust away from electronics.
- When soldering, work in a well-ventilated area on a non-flammable surface.
- Keep small parts and screws out of the reach of children – they could be swallowed.
- The product is not a toy and is not intended for children.

3.2 Safety of the built drone and Li-Po batteries

- Rotating propellers can cause serious injury even behind the guards. When handling the drone with a battery connected, always keep it in Disarm and keep your hands away from the propellers.
- Never fly over people, animals or near other people's property. Fly only where it is permitted and safe.
- Before every flight, check that all screws, propeller guards, propellers, the camera mount and the battery fastening are secure. Replace cracked parts before flying.
- Always insert a **fully charged** battery before flight: Li-Po 4.20 V/cell, LiHV 4.35 V/cell.
- End the flight at the latest when the voltage drops to **3.5 V/cell**. For storage, charge or discharge the battery to **3.8 V/cell**.
- Charge Li-Po batteries only under supervision, on a non-flammable surface and with a charger designed for the cell type. Do not use a damaged, swollen or punctured battery.

3.3 Legal conditions of operation

Regulations (EU) 2019/947 and 2019/945 apply in all member states of the European Union, but national implementing rules differ from country to country – registration portals, minimum pilot age, geographical zones, compulsory insurance, permitted frequency bands and maximum transmit power. The information in this chapter describes the situation in the Czech Republic. If you operate the drone in another country, you must follow the regulations of the country in which you fly.

- A drone built on this frame has no C0–C4 class label. It is operated as a **privately built UAS** in the open category: in subcategory A1 only with a maximum take-off mass below 250 g (and a speed below 19 m/s), otherwise in subcategory A3, or within a model aircraft club or association. Subcategory A2 is not available.

- Because the drone carries a camera, **operator registration is mandatory** regardless of mass. Display the registration number on the drone. The pilot must hold the appropriate competency.
- Fly up to a height of 120 m, within visual line of sight and never over assemblies of people. In subcategory A3, keep a distance of at least 150 m from residential, commercial, industrial and recreational areas.
- When flying with FPV goggles, an **observer** who watches the drone directly with their own eyes must be next to you.
- The user is responsible for setting the transmit power and frequencies of the video transmitter and radio system; they must comply with the regulations of the country of operation.
- We recommend taking out liability insurance for damage caused by operating the drone and respecting the privacy of others.

4. Maintenance

4.1 Post-flight inspection

- After every flight, and especially after a crash, inspect the carbon plates and arms for cracks or delamination. Replace any damaged part.
- Inspect the propeller guards, 3D-printed parts and the rubber dampers of the camera mount; replace worn or torn parts.
- Tighten any loose screws and check the propellers – even a slightly damaged propeller causes vibrations in the footage.
- Remove dirt with a dry brush or compressed air. Do not wash the frame if it has electronics fitted.

4.2 Replacing the propeller guards

The propeller guards are fixed to the frame with four screws (marked with red circles in the picture). After removing them, the guard can be taken off and replaced. When reassembling, tighten the screws gently so that the plastic of the guard does not crack, and check that the propellers rotate freely inside the guard.



The four screws securing the propeller guards (manufacturer's illustrative photo)

5. Information for the EU and Czech Market

5.1 Importer and responsible person in the EU

The product is placed on the European Union market by the importer stated below, who is at the same time the responsible person within the meaning of Article 16 of Regulation (EU) 2023/988 of the European Parliament and of the Council on general product safety (GPSR).

Importer / responsible person in the EU	Rotorama, s.r.o.
Company ID (IČO)	051 57 692
VAT ID (DIČ)	CZ05157692
Registered office	Okrajová 1351, 674 01 Třebíč, Czech Republic
E-mail	info@rotorama.cz
Phone	+420 252 252 098
Website	www.rotorama.com

5.2 Disposal

- The frame itself contains no electronics or battery. Hand in the carbon, aluminium and plastic parts at a collection yard or dispose of them according to the instructions of your municipality. Do not burn carbon parts.
- If the frame is fitted with electronics (motors, flight controller, video transmitter, camera etc.), it is electrical equipment which at the end of its service life **must not be disposed of together with mixed municipal waste**. Hand in the electronics and batteries at a take-back point.

Through its contractual partner **ASEKOL a.s.**, the company ensures the take-back of waste electrical equipment from households and the separate collection of waste electrical equipment, batteries and accumulators in accordance with the applicable legislation. The customer is entitled to hand over old electrical equipment or a battery or accumulator at any collection point of the above contractual partner. The addresses of these take-back points are listed at www.asekol.cz, www.ecobat.cz and also https://visoh2.mzp.cz/RegistrMistZO/RegistrMistZOPublic/MapaMistZpetOdberu.

6. Warranty and rights arising from defective performance

The rights and obligations of the contracting parties are governed by Czech law, in particular by Act No. 89/2012 Coll., the Civil Code, and Act No. 634/1992 Coll., on consumer protection.

- The seller is liable to the buyer for the product being free of defects on receipt. If the buyer is a consumer, a defect may be notified **within two years of receipt** of the product (Section 2165 of the Civil Code).
- If a defect appears within **one year** of receipt, the product is deemed to have been defective already at the time of receipt (Section 2161(5) of the Civil Code).
- When purchasing online, a consumer has the right to **withdraw from the contract within 14 days** of receiving the goods without giving a reason (Section 1829 of the Civil Code).
- Claims should be made with the retailer from whom you purchased the product. The importer's contact details are given in Chapter 5.1.
- The competent body for out-of-court settlement of consumer disputes is the **Czech Trade Inspection Authority**, Štěpánská 796/44, 110 00 Prague 1, www.coi.cz.