Avatar HD Nano Camera V3

Walksnail · digital FPV camera
User manual



Read this manual before installation. Connect and disconnect the camera only with the video transmitter power disconnected.

Rotorama, s.r.o. · www.rotorama.com

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1. Product description

1.1 What it is for

The **Walksnail Avatar HD Nano Camera V3** is a miniature camera for the **Walksnail Avatar** digital video transmission system. With a front size of 14 × 14 mm and a weight of 3 g (without cable), it is ideal for small drones – whoops and 2–4" drones – but it can also be used in 5" racing drones.

The camera is connected by a coaxial cable to a Walksnail Avatar video transmitter (VTX), which powers it and passes the image to the goggles. The 2.1 mm lens with a 160° field of view and the 1/3.2" 4 MP sensor with a native 4:3 aspect ratio provide a clear and sharp image for FPV flying. The camera itself does not transmit any radio signal.



① lens ② side mounting hole
③ coaxial cable ④ camera body

1.2 Specifications and package contents

Model	Walksnail Avatar HD Nano Camera V3
Image sensor	1/3.2", 4 MP, 4:3
Resolution	1080p/60 fps, 720p/120 fps, 720p/60 fps
Aspect ratio	4:3 (native) / 16:9
Lens	2.1 mm, aperture F2.0
Field of view (FOV)	160°
Shutter	rolling shutter
Min. illumination	0.001 lx
Dimensions	14 × 14 × 16.8 mm
Weight	3 g (without cable)
Coaxial cable	90 mm (manufacturer also lists 140 mm)
Package contents	1× camera with coaxial cable
Not included	video transmitter (VTX), goggles, camera mount
Identification	Avatar HD Nano Camera V3, manufacturer CaddxFPV

2. Use

2.1 Safety instructions

- Connect and disconnect the camera **only with the power disconnected** from the drone and the video transmitter.
- The camera is powered exclusively by the Walksnail Avatar video transmitter via the coaxial cable. Do not connect it to any other power source.
- The electronics are sensitive to static electricity. Before handling, discharge yourself by touching a grounded object and do not touch the connector contacts.
- Protect the camera from water, moisture, dust and impacts. Do not point the lens directly at the sun for long periods.
- The camera is a small part – keep it out of the reach of children.

※ A drone with a camera is subject to Regulations (EU) 2019/945 and 2019/947 as well as national regulations. These differ from country to country – the law of the country in which you operate the drone always prevails. In the Czech Republic and other EU countries, registration as a drone operator is generally mandatory for a drone with a camera.

2.2 Mounting in the drone

- The camera has a front size of 14 × 14 mm. It is mounted in a frame or camera mount for cameras of this width using the side mounting holes ②.
- Choose screws to suit the mount and tighten them gently to avoid damaging the camera body or the mount.
- Set the camera tilt according to your flying style – less for slow flying, more for fast flying.
- Check that neither the propellers nor the ducts are in the field of view and that the lens cannot come into contact with a propeller.
- Route the coaxial cable ③ so that it is not pinched, sharply bent, stretched or within reach of the propellers. Secure it, but never right next to the connector.

2.3 Connecting to the video transmitter

① Disconnect the drone battery.

② Insert the coaxial cable connector straight, without tilting, into the camera connector on the Walksnail Avatar video transmitter and press it until it seats.

③ Check the cable routing as described in chapter 2.2.

④ Connect the battery, switch on the goggles and check that the camera image is displayed.

When disconnecting, always pull the connector, never the cable. The manufacturer also supplies the camera in the *Walksnail Avatar HD Nano Kit V3*

with the *Avatar HD Mini VTX V3* transmitter. For any other transmitter, check its documentation to confirm that the camera is supported.

❊ The manufacturer does not specify the supply voltage or power consumption of the camera – the camera is powered by the video transmitter.

2.4 Image settings

- The video mode (1080p/60 fps, 720p/120 fps, 720p/60 fps) and the aspect ratio (4:3 or 16:9) are selected in the menu of the Walksnail Avatar goggles. The available options depend on the video transmitter and goggles used and their firmware.
- The native aspect ratio of the sensor is 4:3. Select the aspect ratio according to the goggles display, otherwise the image will be stretched or cropped.
- The lens is focused at the factory. Do not turn or unscrew it – you could defocus the image or let dirt into the camera.

3. Care and troubleshooting

3.1 Care

- Clean the lens with a dry microfibre cloth. Do not use solvents or abrasive materials.
- After every crash, check the lens, the camera body, the mounting and the coaxial cable. Replace a damaged cable.
- Store the camera in a dry place and protect it from dust.

3.2 Troubleshooting

Problem	Possible cause and solution
No camera image in the goggles	The coaxial cable is not inserted or is damaged – check both connectors and the cable. Make sure the video transmitter is powered and paired with the goggles.
The image occasionally drops out or flickers	Loose, pinched or damaged coaxial cable – check the routing and connectors, replace a damaged cable.
The image is blurred	Dirty or scratched lens – clean it. After a crash, check whether the lens is damaged.
The image is stretched or cropped	Wrong aspect ratio selected – in the goggles menu select 4:3 or 16:9 according to the display.

4. Information for the EU and Czech Market

4.1 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

4.2 Disposal of electrical equipment



- The crossed-out wheeled bin symbol on the product, its packaging or in the documentation means that at the end of its service life the product **must not be disposed of together with mixed municipal waste**.
- Hand it over at a take-back point for electrical equipment – at a collection yard, at a take-back point of a collective system, or at the retailer when purchasing a new equivalent product. Take-back is free of charge for the end user.
- The obligations under Act No. 542/2020 Coll., on end-of-life products, are fulfilled by the importer through a collective take-back system.
- Proper disposal helps prevent negative impacts on the environment and human health and contributes to the reuse of secondary raw materials.

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.

5. 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 4.1.
- 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.