Mark4 13" V3 Pro

Readytosky

Carbon frame for a 13" FPV drone – user manual



Read this entire manual carefully before assembly. This product is not a toy.

www.rotorama.com

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1. Product description

1.1 Intended use

Readytosky Mark4 13" V3 Pro is a carbon frame for building a large 13" long-range quadcopter. The diagonal motor distance is 570 mm; the arms are made of 8 mm thick carbon and are connected to each other by braces for greater frame stiffness. A Micro-size camera (19 mm) is mounted between carbon side plates that protect it. The centre of the frame takes a stack with 30.5 × 30.5 mm or 20 × 20 mm mounting holes, and the rear section provides space for the video transmitter (VTX).

The frame is designed for analog video transmission; experienced builders can also fit a digital video transmitter. The frame cannot fly on its own – it is the mechanical basis of a drone. It only becomes an aircraft once it is fitted with motors, electronics, propellers and a battery, and the builder and pilot are then responsible for building and flying it safely.



Assembled frame (without electronics)

1.2 Specifications and package contents

Parameter	Value
Product designation	Readytosky Mark4 13" V3 Pro
Propeller size	13"
Diagonal motor distance	570 mm
Motor axis spacing (per drawing)	455 × 343 mm
Frame weight	520 g
Arm thickness	8 mm
Top plate	2 mm
Bottom plate	3 mm
Stack mounting	30.5 × 30.5 mm M3 20 × 20 mm M2
Video transmitter (VTX) mounting	30.5 × 30.5 mm M3 20 × 20 mm M2
Motor mounting	30 mm, M4
Camera	Micro (19 mm)



Frame dimensions in mm

▶ Package contents

1× frame, disassembled: carbon parts (including 4 arms, 4 arm braces, bottom and top plate, camera side plates), hardware and standoffs, 3D-printed parts and anti-slip battery pads.



Package contents

※ Motors, flight controller (FC), ESCs, video transmitter (VTX), camera, receiver, antennas, propellers and battery are not included.



Assembled frame – side view

2. Safety instructions

2.1 Carbon parts

- The edges of carbon parts can be sharp. Work carefully and lightly sand the edges if necessary.
- Dust from sanding, cutting or drilling carbon irritates the skin, eyes and airways. Sand wet or wear a respirator, in a well-ventilated area, and do not inhale the dust.
- Carbon fibre is **electrically conductive**. A sharp edge can wear through wire insulation and cause a short circuit. Route wires so that they cannot rub against the frame edges, and insulate the electronics from the frame.
- After every crash, check the parts for cracks or delamination. Replace a damaged part – do not glue it.
- Keep small parts (screws, nuts) out of the reach of small children – they could be swallowed. This product is not a toy.

2.2 The finished drone

- A spinning 13" propeller can cause serious injury. Fit the propellers only after the build and setup are complete, never while working on the drone at the bench.
- Charge Li-Po and LiHV batteries only under supervision, on a non-flammable surface and with a suitable charger. Do not use a damaged, swollen or overheated battery.
- A finished drone on a frame of this size is heavy and fast. Fly only in accordance with the regulations and away from people, animals and property.
- Drone operation throughout the EU is governed by Regulations (EU) 2019/947 and 2019/945, but national rules differ from country to country (registration, zones, insurance, frequencies). **The law of the country in which you operate the drone always applies.**

3. Assembly and use

3.1 What you will need

- Hex drivers matching the screws in the package and a wrench for the nuts.
- Medium-strength threadlocker, fine sandpaper, cable ties.
- Components: 4 motors with a 30 mm mounting hole pattern for M4 screws, a 30.5 × 30.5 mm or 20 × 20 mm stack (flight controller and ESCs), a Micro camera (19 mm), video transmitter, receiver, 13" propellers, a battery and a battery strap.

Lay out the parts and check them against the package contents picture in Chapter 1.2. Sort the screws by length – this makes it easier to pick the right screw during assembly.

3.2 Assembling the frame

- Attach the arms to the bottom plate and connect them with the braces as shown in the picture of the assembled frame in Chapter 1.1. Tighten the screws only lightly for now.
- Check that the arms sit symmetrically and the braces are not under tension. Only then tighten all screws firmly, step by step and crosswise.
- A screw must pass through all layers and engage the nut with its full thread, but it must not protrude into the space where wires will run.
- We recommend a drop of threadlocker on the standoff threads. Do not use threadlocker on the top plate screws – this way the frame can be opened again later.
- Install the electronics **before** fitting the top plate (Chapter 3.3); the top plate limits access to the inside of the frame.

3.3 Installing the electronics

▶ Motors

- Screw the motors to the arm tips with M4 screws using the 30 mm hole pattern.
- A screw may only reach as deep as the motor's thread. A screw that is too long will damage the motor windings.
- Route the motor wires along the arms and secure them with cable ties or heat-shrink tubing.

▶ Stack – flight controller (FC) and ESCs

- Mount the stack in the 30.5 × 30.5 mm (M3) or 20 × 20 mm (M2) holes in the centre of the frame, ideally on rubber grommets.
- The arrow on the flight controller (FC) must point forward, towards the camera.
- The electronics must not touch any carbon parts – risk of a short circuit.

▶ Camera, video transmitter, receiver and antennas

- Mount the Micro camera (19 mm) between the carbon side plates using the screws supplied with the camera.
- Place the video transmitter (VTX) in the rear section of the frame; holes with 30.5 × 30.5 mm M3 and 20 × 20 mm M2 spacing are provided.
- Route the video transmitter and receiver antennas away from the propeller path. Never power the video transmitter without an antenna connected.

▶ Battery

- Place the battery on the anti-slip pads on the top plate and secure it with a strap.
- The centre of gravity of the finished drone should be roughly in the middle of the frame.
- Always insert a **fully charged** battery before flight.

3.4 Pre-flight check

- All frame and motor screws are tight and the arms have no play.
- No wire reaches into the propeller path or rubs against a carbon edge.
- The motor direction has been verified in the configurator – without propellers fitted.
- The propellers are fitted in the correct orientation and firmly tightened.
- The battery is fully charged and firmly secured.

3.5 Maintenance

- After a crash, check the arms, braces and plates for cracks or delamination, and check that no screws or standoffs have come loose. Replace damaged parts.
- Every few flights, check that the screws are tight – vibration can loosen them. Replace worn lock nuts with new ones.
- Clean the frame with a dry cloth or a soft brush.

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

- The frame contains no electrical components. It is not electrical equipment and is not subject to take-back of electrical equipment or to CE marking.
- Dispose of carbon parts and pads with mixed waste or at a collection yard according to local rules. They do not belong in sorted plastic waste.
- Dispose of the metal standoffs, screws and nuts as metal waste.
- Do not burn, crush or grind carbon parts – this produces harmful dust.
- Dispose of the electronics and batteries of the finished drone according to their own manuals – they belong to take-back schemes for electrical equipment and batteries.

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.