



Mark4 10" V2

Readytosky

Carbon frame for a 10" FPV drone – assembly manual



Read this entire manual carefully before assembly. This product is not a toy - it is intended for persons aged 14 and over.

www.rotorama.com

Contents

1. Safety instructions

- 1.1 Before you start
- 1.2 Carbon parts
- 1.3 The finished drone

2. Product description

- 2.1 Package contents – carbon parts
- 2.2 Package contents – hardware
- 2.3 Specifications

3. Frame assembly

- 3.1 What you will need
- 3.2 Assembly procedure

4. Installing the electronics

- 4.1 Motors
- 4.2 Stack – flight controller (FC) and ESCs
- 4.3 Video transmitter, receiver and antennas
- 4.4 Battery

5. Pre-flight check

- 5.1 Before the first flight and before every flight

6. Maintenance

- 6.1 After a crash
- 6.2 Regular maintenance

7. Information for the EU and Czech Market

8. Warranty and rights arising from defective performance

1. Safety instructions

1.1 Before you start

This product is a carbon frame for building a 10" FPV drone. It cannot fly on its own – only once it is fitted with motors, electronics, propellers and a battery does it become an aircraft, and the builder and operator are responsible for building and flying it safely.

- Read this entire manual and the manuals of all components you will install in the frame before assembly.
- This product is **not a toy**. It is intended for persons aged 14 and over.
- Keep small parts (screws, nuts) out of the reach of small children – they could be swallowed.

1.2 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 try to glue it.

1.3 The finished drone

- A spinning 10" 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 of the country of operation and away from people, animals and property.

2. Product description

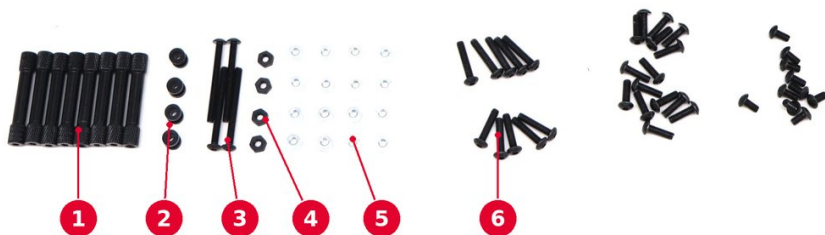
2.1 Package contents - carbon parts



Carbon parts and pads

- ① Bottom plate – carries the stack (flight controller and ESCs) and the standoffs
- ② Top plate – the battery is mounted on it
- ③ Arms (4 pcs)
- ④ Arm braces (2 pcs) – connect the front and rear arm on each side
- ⑤ Camera side plates (2 pcs)
- ⑥ Rear part
- ⑦ Small bracket
- ⑧ Anti-slip battery pad
- ⑨ Foam arm pads (4 pcs)

2.2 Package contents - hardware



Hardware

- ① Aluminium standoffs (8 pcs)
- ② Rubber grommets for stack mounting (4 pcs)
- ③ Long stack screws (4 pcs)
- ④ Black nuts (4 pcs)
- ⑤ Lock nuts (16 pcs)
- ⑥ Button-head screws in several lengths

✳ **Screws for the motors, camera and electronics are not included. They come with the individual components.**

2.3 Specifications

Parameter	Value
Diagonal motor distance	427 mm
Frame weight	270 g
Arm thickness	7.5 mm
Top plate	2 mm
Bottom plate	3 mm
Stack mounting	30.5 × 30.5 mm M3 20 × 20 mm M2
VTX mounting	30.5 × 30.5 mm M3 20 × 20 mm M2
Motor mounting	16 mm / 19 mm, M3
Camera	Micro (19 mm)
Propeller size	10"

The frame is designed for analog video transmission. A digital video transmitter (VTX) can be fitted, but requires a more careful component layout.

3. Frame assembly

3.1 What you will need

- Hex drivers matching the screws in the package
- A wrench or nut driver for the nuts
- Medium-strength threadlocker
- Fine sandpaper for smoothing edges

Lay out the parts and check them against Chapter 2. Sort the screws by length – this makes it easier to pick the right screw at each step.

*** A screw must pass through all layers and engage the nut with its full thread. It must not, however, protrude into the space where wires will run.**

3.2 Assembly procedure

► Step 1 - Arms and bottom plate

Place the arms ③ against the underside of the bottom plate ① so that the holes in the arm roots line up with the holes in the plate. Join the arms to the plate with screws and lock nuts. Tighten the screws only lightly for now.

► Step 2 - Stack screws

Push the four long screws up from below through the stack holes in the bottom plate and secure them with the black nuts. Later you will fit the rubber grommets and the stack onto these screws.

► Step 3 - Arm braces

Place a brace ④ on the left side of the frame so that it connects the front and rear arm. At each end, fix it to the arm with two screws and lock nuts. Repeat on the right side.



Brace-to-arm joint – two screws with lock nuts

► Step 4 - Tightening the lower assembly

Check that the arms sit symmetrically and the braces are not under tension. Then tighten all screws of the lower assembly firmly, step by step and crosswise. Place the foam pads ⑨ on the underside of the arms as shown.



*Bottom view of the assembled arms
with braces and foam pads*

► Step 5 - Standoffs, camera side plates and rear parts

Screw the eight standoffs into the bottom plate (screws from below). We recommend a drop of threadlocker on the standoff threads. At the front of the frame, mount the camera side plates ⑤, place the camera between them and fix it with the screws supplied with the camera. Mount the rear part ⑥ and the bracket ⑦ at the rear of the frame.



*Side view - standoffs, stack screws and camera side
plates*

► Step 6 - Electronics

Before fitting the top plate, install the electronics as described in Chapter 4. The top plate limits access to the inside of the frame.

► Step 7 - Top plate

Place the anti-slip pad ⑧ on the top plate ②. Fit the plate onto the standoffs and screw it down. Do not use threadlocker on these screws - this way the frame can be opened later.

4. Installing the electronics

4.1 Motors

- Screw the motors to the arm tips using the 16 mm or 19 mm hole pattern and M3 screws.
- 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.

4.2 Stack - flight controller (FC) and ESCs

- Fit a 30.5 × 30.5 mm stack onto the long screws through the rubber grommets. Mount a 20 × 20 mm stack in the M2 holes.
- 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.

4.3 Video transmitter, receiver and antennas

- Place the video transmitter (VTX) at the rear of the frame. Mounting 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.

4.4 Battery

- Place the battery on the anti-slip pad ® on the top plate and secure it with a strap (not included).
- 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.

5. Pre-flight check

5.1 Before the first flight and before every flight

- 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.

6. Maintenance

6.1 After a crash

- Check all arms, braces and plates for cracks or delamination.
- Check that no screws or standoffs have come loose.
- Replace damaged parts. Spare parts are available at www.rotorama.com.

6.2 Regular maintenance

- 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.

7. Information for the EU and Czech Market

7.1 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

7.2 Product identification

- **Product:** Readytosky Mark4 10" V2 carbon frame.
- **Manufacturer:** Readytosky, www.readytosky.com.
- The frame is a mechanical part without any electrical components. It is not covered by any EU legislation requiring the CE marking and therefore does not bear it.

7.3 Disposal

- The frame contains no electrical components. It is not electrical equipment and is not subject to take-back of electrical equipment.
- Dispose of carbon parts and pads with mixed waste or at a collection yard according to your 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.

8. 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 7.1.
- 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.