



Alien 7"

Readytosky

Carbon fibre frame for a 7-inch FPV drone



Read this entire manual before building and before the first flight, and keep it for future reference.

User manual · EN · www.rotorama.com

Contents

1. Product description

- 1.1 Intended use
- 1.2 Technical data and package contents
- 1.3 Parts overview

2. Use - building the drone

- 2.1 What you need for the build
- 2.2 Build procedure
- 2.3 Mounting the battery

3. Safety and operating rules

- 3.1 Safety during building and flying
- 3.2 Legal conditions for operating the finished drone

4. Maintenance and inspection

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 Intended use

Readytosky Alien 7" is a carbon fibre frame (airframe) for building an FPV drone with propellers up to 7 inches in diameter. It is the classic Readytosky Alien frame with longer arms. The frame is supplied as a kit without electronics – you choose and install the motors, flight controller (FC), electronic speed controllers (ESC), camera, video transmitter (VTX) and receiver yourself.

The arms are made of 4 mm thick carbon fibre composite and, thanks to their width, are sufficiently stiff. The frame offers enough space for all the necessary components, so it can be built with either analog or digital video transmission. The package includes accessories such as a non-slip pad and landing pads.



Readytosky Alien 7" – assembled frame without electronics

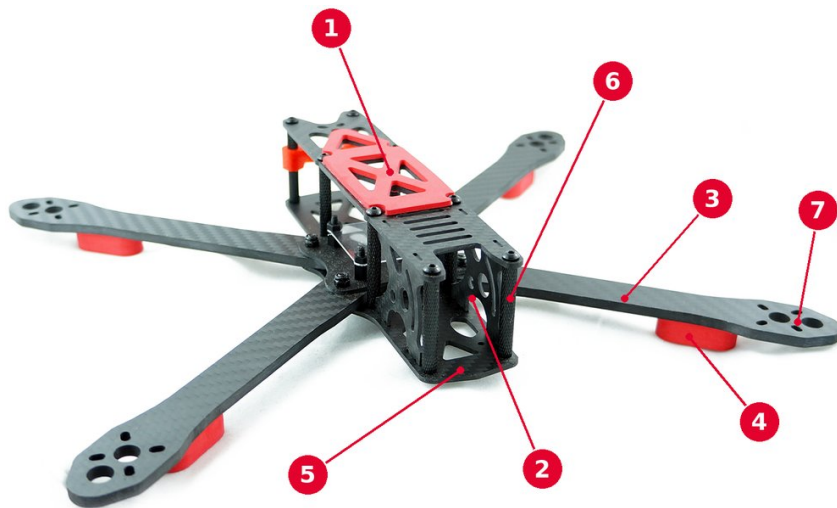
1.2 Technical data and package contents

Product designation	Readytosky Alien 7"
Manufacturer	ShenZhen ReadytoSky Technology Co., Ltd.
Product type	carbon fibre frame for an FPV drone (kit)
Max. propeller size	7"
Frame weight	139 g
Top plate	2 mm
Bottom plate	2 mm
Arms	4 mm
Package contents	1× frame, 1× accessory set (incl. non-slip pad and landing pads)

The package does NOT include any electronics: motors, flight controller (FC), electronic speed controllers (ESC), camera, video transmitter (VTX), receiver, propellers, battery or charger.

※ The weight is stated by the seller for the bare frame. The weight of the finished drone depends on the components and battery used – always weigh it yourself.

1.3 Parts overview



Main parts of the frame

- ① Non-slip pad on the top plate
- ② Side plates
- ③ Arm (4 mm carbon, 4 pcs)
- ④ Landing pad
- ⑤ Bottom plate
- ⑥ Standoff
- ⑦ Motor mounting holes

2. Use – building the drone

The frame is the load-bearing structure to which all the drone's electronics are attached. The manufacturer does not publish build instructions for the frame; the following procedure describes the generally established way of building an FPV drone. Work carefully and, if in doubt, consult an experienced modeller or the seller.

2.1 What you need for the build

- **4 motors** suitable for 7-inch propellers and matching **propellers** (max. 7"),
- **flight controller (FC) and electronic speed controllers (ESC)** – check that their mounting hole spacing matches the holes in the bottom plate of the frame,
- **FPV camera and video transmitter (VTX)** – analog or digital,
- **receiver** compatible with your radio transmitter (RC system),
- **Li-Po or LiHV battery** matching the selected motors and ESC, a **battery strap** and a suitable charger,
- tools: hex or Torx screwdrivers to suit the screws used, a nut driver, soldering iron, cable ties, heat-shrink tubing and medium-strength threadlocker.

※ The frame does not determine the battery cell count – this follows from the selected motors and ESC. Always follow their manufacturers' specifications.

2.2 Build procedure

- ① **Check the parts.** Before building, check that no carbon part is cracked or delaminated and that you have all the screws, nuts and standoffs from the accessory set.
- ② **Arms and bottom plate.** Screw the arms to the bottom plate. Tighten the screws evenly, crosswise and with feeling – overtightening can damage the thread or the carbon.
- ③ **Motors.** Attach the motors to the holes at the ends of the arms. Use screws of such a length that, once tightened, they do not reach into the motor windings – a screw that is too long will damage the windings and cause a short circuit. Secure the screws with threadlocker.
- ④ **Electronics.** Mount the ESC and the flight controller (FC) in the centre of the frame on rubber damping grommets. Route the motor wires along the arms and secure them with cable ties.
- ⑤ **Camera and VTX.** Mount the camera between the side plates at the front of the frame; position the VTX and receiver so that the antennas are not shielded by carbon and cannot get into the propellers.
- ⑥ **Top plate.** Place the top plate on the standoffs and screw it down. Before final tightening, check that no wire is pinched.

- ⑦ **Landing pads.** Attach the pads to the underside of the arms as shown in the figure in chapter 1.3.
- ⑧ **Setup and check.** Configure the flight controller firmware according to its manufacturer's instructions. Check the FC orientation, the motor order and the direction of rotation – all **with the propellers removed**.

Carbon fibre composite is electrically conductive. Protect the frame edges where wires run and never let a stripped wire or solder pad touch the carbon – there is a risk of short circuit and battery fire.

2.3 Mounting the battery

Place the battery on the non-slip pad on the top plate and secure it firmly with a battery strap (not included). The battery must not shift or fall out in flight. Position it so that the centre of gravity of the finished drone lies roughly in the middle between the motors.

- Before every flight, connect a **fully charged** battery: Li-Po 4.20 V/cell, LiHV 4.35 V/cell.
- End the flight at the latest at a voltage of **3.5 V/cell** (under load).
- For storage, leave the battery at **3.8 V/cell**.
- Route the battery lead so that it cannot get into the propellers and is not stressed by a sharp carbon edge.

3. Safety and operating rules

3.1 Safety during building and flying

- This product **is not a toy** and is not intended for children. If handled improperly, a finished FPV drone can cause serious injury or damage.
- Sanding or drilling carbon produces fine dust – work with a respirator, safety glasses and in a well-ventilated area. The edges of carbon parts may be sharp.
- Keep the **propellers removed** during building, setup and any work on the drone.
- Arm (motors on) only at the take-off site, at a safe distance from people, animals and obstacles. After landing, always Disarm (motors off) first and only then disconnect the battery.
- Set up and test the failsafe – the drone's response to loss of the radio signal.
- Handle Li-Po and LiHV batteries according to their manufacturer's instructions: charge under supervision on a non-flammable surface, do not use swollen or damaged cells and do not expose them to heat.
- Before every flight, check the frame, screws, motor mounting, propellers and battery mounting.

3.2 Legal conditions for operating the finished drone

Regulations (EU) 2019/947 and 2019/945 apply in all EU member states, 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 and is operated as a **privately built UAS**: in subcategory A1 only with a maximum take-off mass below 250 g, otherwise in subcategory **A3** (far from people and at least 150 m from residential, commercial, industrial and recreational areas), or within a model aircraft club. Actually weigh the finished drone including the battery.
- If the drone has a camera, you must **register** as an operator with the Civil Aviation Authority (in the Czech Republic: ÚCL) and display the registration number on the drone. The pilot must hold the appropriate certificate.
- Observe the maximum height of 120 m, do not fly over assemblies of people, respect geographical zones and consider third-party liability insurance.
- When flying with FPV goggles, an observer must stand next to the pilot and keep the drone in direct visual line of sight.
- The user is responsible for the frequency and transmit power settings of the installed video transmitter and RC system; in the Czech Republic, the conditions

of the ČTÚ general authorisations apply.

4. Maintenance and inspection

- After every flight, and especially after every crash, check the arms and plates for cracks, fractures or delamination (layers of carbon separating at the edges). Replace a damaged part – do not continue to use it.
- Regularly check that the screws of the arms, motors and top plate are tight. Vibration can gradually loosen the joints.
- Check the wire insulation where wires touch carbon edges.
- Clean the frame with a dry or slightly damp cloth. Do not use solvents that could attack rubber and plastic parts.
- Replace worn landing pads and the non-slip pad so that both the battery and the drone remain securely held.

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

Manufacturer: ShenZhen ReadytoSky Technology Co., Ltd., Shenzhen, Guangdong 518109, China, info@readytosky.com.

5.2 Disposal

- The bare frame contains no electronics or batteries and is not electrical equipment. At the end of its service life, take the carbon parts, metal screws and standoffs, and plastic and rubber parts to a municipal collection point or dispose of them according to your local rules.
- Do not burn carbon parts.
- Electronics and batteries that you install in the frame **must not be disposed of with mixed waste** – take them to a collection point for electrical equipment and batteries according to their manufacturers' instructions. Take-back is free of charge for the end user.

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.