Dito Pro 5"

Carbon frame for a 5" racing FPV quadcopter
User Manual



Read this entire manual before assembling the frame and keep it for future reference.

Rotorama, s.r.o. · www.rotorama.com

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1. Product description

1.1 Purpose

The Rotorama Dito Pro 5" is a carbon frame for a 5" FPV quadcopter, designed primarily for the **race track**. It is a direct successor to the Samurai V3 Pro frame, with which it is compatible to some extent. The frame is durable, easy to build and service, and weighs only 66 g.

The Dito Pro 5" is made from parts of the modular **Rotorama Dito** set – 5" Pro arms with SFG parts (side force generators), a 20x20 bottom plate, side plates for a Nano-size camera and hardware. Mount your own electronics on the frame (motors, flight controller, ESCs, camera, video transmitter and receiver) to build a racing FPV quadcopter. Dito parts can later be replaced or combined, so you can rebuild the frame to suit your own needs.



Rotorama Dito Pro 5" – 5" Pro arms with SFGs and side plates for a Nano camera

1.2 Technical data and package contents

Rotorama states the following data for the Dito Pro 5" build in the supplied configuration of parts.

Frame weight	66 g
Stack space	50 × 25 mm
Stack mounting hole pattern	20 × 20 mm, M3
Motor mounting hole pattern	Ø 16 mm, M3
Configuration	True X
Camera size	Nano
Propeller size	5"

※ The technical data above apply only to the Dito Pro 5" build. With a different combination of parts (Chapter 2.3) they may differ.

▶ Package contents

Part (Dito set type)	Quantity
Arm 5" Pro	2×
SFG	2×
Bottom plate 20x20	1×
2x side plates – Nano camera	1×
Hardware – side plates	1×

▶ Not included in the package

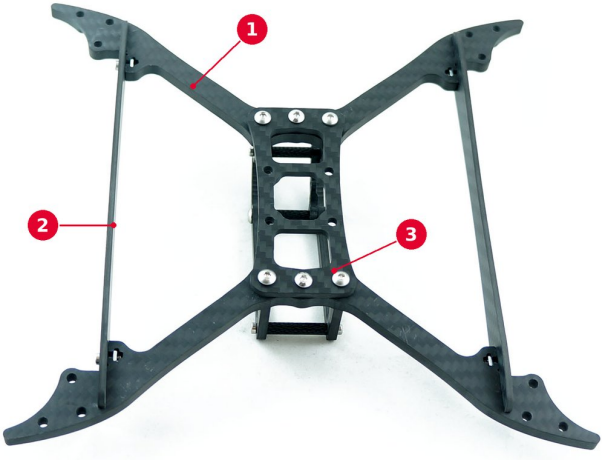
Motors, flight controller (FC), electronic speed controllers (ESC), camera, video transmitter (VTX), receiver, antenna, propellers, battery, battery strap and tools.

▶ Product identification

Rotorama Dito Pro 5" (frame made from Rotorama Dito parts). Manufacturer: Rotorama.

2. Use

2.1 Parts and design features



Assembled frame, view from below

① **5" Pro arm** – boomerang arm; the front arms are attached with three screws. The middle screw holds the arms in place even when the side plates are removed, which makes the frame much easier to service. The arm ends are shaped so that motors whose shaft protrudes below the mounting base can also be used.

② **SFG (side force generator)** – a part rigidly attached to the arms. It works similarly to an airplane and helps stabilise the quad in fast forward flight. Thanks to the rigid attachment to the arms, it also noticeably increases the stiffness and overall durability of the frame.

③ **20x20 bottom plate** – carries the stack with a 20 × 20 mm, M3 mounting hole pattern.

▶ **Stack and side plates**

- There is 50 mm of space between the arms, so the frame can accommodate larger ESCs such as the Foxeer Reaper 60A, Diatone Mamba Race 75A and HGLRC Zeus 45A, as well as all-in-one boards.
- The rear part of the side plates is slightly raised, so three larger boards fit comfortably into the stack and the frame can also be used with an HDZero video transmitter.
- The side plates are intended for **Nano**-size cameras. The camera is held in a 3D-printed mount, so the chance of damaging the camera is minimised in the event of a hard crash that destroys the canopy. The mount can easily be replaced with another one with a fixed camera angle.



Front view – side plates for a Nano camera

2.2 Assembly guidelines

The manufacturer does not publish a detailed assembly procedure or tightening torques. Follow the general principles of building FPV quads:

- Before assembly, lay out the parts and check that you have all the parts listed in Chapter 1.2.
- Tighten screws with care. Carbon parts can be damaged and 3D-printed parts deformed if a screw is overtightened.
- For screws threaded into metal (standoffs, nuts), you can use a medium-strength threadlocker. Do not use it on 3D-printed parts.
- Choose motor screws so that, once tightened, they do not reach the motor windings. Check the length before connecting the battery for the first time.
- Carbon composite is electrically conductive. Insulate the electronics from the carbon parts (silicone grommets, heat-shrink tubing) and make sure that wires do not rub against the edges of the parts.
- Mount the electronics in the stack using anti-vibration rubber grommets, if the board comes with them.
- After assembly, check that all propellers spin freely and do not touch the frame, wires or antenna.

2.3 Spare parts and combining with other parts

- All frame parts are also sold separately as **Rotorama Dito – Parts**. If a part is damaged, only that part needs to be replaced – order the corresponding type according to the table in Chapter 1.2.
- Dito parts can be combined with one another (other bottom plates, arms, side plates for a Micro camera, or a top plate with a 3D-printed camera mount), so the frame can be rebuilt, e.g. into a smaller 3" quad.
- Dito parts can also be combined with existing Samurai V3 frame parts (the bottom plate, the 4", 5" Light, 5" Standard and 5" Pro arms and the side plates). Exception: the separate 3" arms cannot be combined with the Samurai V3 bottom plate.

3. Safety, inspection and maintenance

3.1 Safety when handling the parts

- The edges of carbon parts may be sharp. Handle them with care.
- Do not sand or drill carbon parts without protection. Carbon fibre dust irritates the skin, eyes and respiratory tract and is electrically conductive. Wear a respirator and safety glasses and sand only when wet.
- Keep small parts and hardware out of the reach of children – risk of inhalation or swallowing.
- This product is not a toy. It is intended for building FPV quads by experienced users.

3.2 Inspection after a crash and maintenance

- After every crash, inspect the arms, SFG parts, bottom plate and side plates. Replace a cracked, delaminated or bent part immediately – never fly with it.
- Check that screws have not come loose, especially the arm and motor screws.
- Check the 3D-printed camera mount. Replace a cracked mount so that the camera does not change its angle in flight.
- Clean the parts with a dry or slightly damp cloth, without solvents.

3.3 Operating the assembled drone

The frame is only one component of a drone. Whoever builds and operates a drone from it is responsible for its safe and legal operation. 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 law of the country in which you operate the drone always prevails.** In the Czech Republic, the competent authority is the Civil Aviation Authority (www.caa.gov.cz).

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 product contains no electronic components or batteries and is not subject to take-back of electrical equipment.
- Dispose of unusable carbon and 3D-printed parts and hardware in accordance with local waste regulations (e.g. at a municipal collection yard).
- Sort the packaging by material type into the appropriate recycling containers.

5. Warranty and rights arising from defective performance

5.1 Rights of the buyer under Czech law

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.