



Datasheet

Hugo the drone

Hugo is an RnD drone that you can purchase as a kit or preassembled with all the equipment you might need for your research and development endeavors.



Contents

1.	General information.....	2
2.	Versions of the drone.....	2
1.1	Options:	2
1.2	Pre-Configurations.....	2
1.3	Power electronics	3
1.4	Cables	3
3.	Control of the drone.....	4
4.	Further Docs.....	4



1. General information

Maximum takeoff weight	25 kg
Arm span (without props)	143 cm
Weight without batteries	8,2 kg
Payload Capacity with aeroPAX6 – 16 Ah	9 kg
Flight time without additional loads	50 min (4x aeroPAX6 - 16Ah) 65 min (4x aeroPAX6 - 20Ah) 100 min (4x aeroPAX6 - 30Ah)
Standard battery set	4x aeroPAX6 16Ah

2. Versions of the drone

We offer different versions of the drone Hugo that you can customize to your own needs.

The basic version is the unassembled kit with or without motors comes with 4 aeroPAX6 carriers as well as 4 aeroPAX6 16Ah batteries

1.1 Options:

- Assembled base frame
- Motors
- Different battery capacity
- Cube Orange
- Companion computer (Orin, Panda, Pi)
- Remote Controller and antenna integration
- Lidar (facing down)
- GPS and antenna integration
- 350° lidar
- OAK-D
- Gimbal camera (e.g. SIYI)
- Wiring for all the requested components
- Shipping within continental Europe or pick up in Landstuhl Germany
- Other upon request

1.2 Pre-Configurations

1. **QSP-25KG-FM-ROS - Frame + Motors:** This includes an assembled frame, motors, and a power distribution board compatible with AeroPAX6 batteries. Power wires are pre-connected to their receptacles, and signal wires are crimped and ready to be connected to the autopilot.
2. **QSP-25KG-FMCG-LD-ROS - Frame + Motors + Cube + GPS + Lidar:** This ready-to-fly configuration is ideal for basic missions. It includes the autopilot running ArduPilot, a GPS with heading, and a Lidar with a range of up to 120m for altitude measurement. All signal lines are connected, and wires are crimped, so you can easily attach a remote, tune, and fly the copter.



3. **QSP-25KG-FMCGR-LD-ROS - Frame + Motors + Cube + GPS + Lidar + Remote:** This kit includes everything in the Basic Configuration, along with a state-of-the-art remote control running ground control software like QGroundControl, and a front-facing camera.

1.3 Power electronics

The power distribution board integrated into the drone includes redundant 5V power output to reliably supply the autopilot. Additional power conversions can be easily configured, and we can provide a list of approved power converters compatible with the power distribution board for further customization.



1.4 Cables

We provide custom cables, including power cables for the Cube, 4-pin CAN JST-GH connectors, and more. A standard set of cables is included with all kits.



3. Control of the drone

The drone can be equipped with a fully functional handheld ground control station.



This includes following features:

- 2 Operator mode – Two remotes for the drone so that 2 operators can take over control of the drone or one operator controls the gimbal and the other flies the drone.
- Broadcast of feed to ground control to different monitors or through LTE or other connectivity to remote locations.

4. Further Docs

Further documentation: <https://docs.aerotate.com>