

SuperFox⁶

The autonomous multirotors for long-term topographic missions



The SuperFox⁶ is a fully automated drone. With 43 minutes of autonomy and a wind resistance of 55 km/h, the SuperFox⁶ can carry out missions of up to 150 ha. Moreover, this versatile drone is compatible with the LiDAR System and with the Photogrammetric System.



Direct Georeferencing

- RTK/PPK modes with Dronebox RTK
- 0,03 m X-Y; 0,05 m Z accuracy
- No need for ground control points

Versatile & Productive

- Up to 43 min endurance
- Wind resistance 55 km/h
- Up to 150 ha scanning area
- Compatibility LiDAR System & Photogrammetric System

Many Applications

- Surveying & Mapping, Inspection, Videography
- Bridges, vegetation, buildings, construction, as built
- 3D modelling, Volume, Data georeferencing
- RGB, IR, multispectral, LIDAR payload options



SuperFox⁶

Powered by Dronebox

DroneBox incorporates the navigation function with GNSS and inertial sensors, the communication modules hosting the powerful firmware for all critical functions such as navigation management, sensors and communication management.

DroneBox is the "plug & play" precision navigation and measurement device usable across the Heliceo product range. Moving a single DroneBox around allows to optimize the investment performing data acquisition with multiple vehicles and sensors.

SuperFox⁶ is equipped with DroneBox RTK for centimeter GNSS positioning allowing direct georeferencing without



Features	Dronebox Slim	Dronebox RTK
Hardware		
• Material	Composite & ABS	Composite & ABS
• Dimensions	130 x 170 x 270 (mm)	130 x 170 x 270 (mm)
• Weight	0,550 Kg	0,667 Kg
• Temperature Range	-10 °C to +60°C	-10 °C to +60°C
Navigation		
• Satellites	Single band L1 GPS Navigation	Dual band L1/L2 GPS/Glonass
• RTK	No	Yes
• PPK	No	Yes
• Precision	1 to 3 m	0,03 m X-Y: 0,05 m Z
• IMU	MEMS 3D Attitude 1°	MEMS 3D Attitude 1°
Firmware		
• Flight Management	Autopiloting, navigation, flight plan change	Autopiloting, navigation, flight plan change
• Communication Management	GNSS board, camera, inertial components time synchronization and others	Positions, photos, time, inertial data and others.
• Data logging	On-board autopilot, telemetry, GNSS	On-board autopilot, telemetry, GNSS

Key Features

- High autonomy and high accuracy of images on wider area
- 6 rotors redundant flight control and propulsion
- Centimeter grade GSD Imagery resolution
- GCP free RTK accuracy with DroneBox RTK
- Compatibility LiDAR System & Photogrammetric System with the "Hconnect" connection
- Very short set-up time

Operation

Type	Multicopter / 6 carbon blades
Setting Up and Start	Less than 3 minutes
Take-off & Landing	Full Automatic (or manual)
Flight Management	Full Automatic (or manual)
Endurance	43 min
Cruise Speed	30 km/h (18 mph)
Maximum Speed	50 km/h (31 mph)
Maximum Altitude	5000 m (16 404 ft)
Radio link Range	Up to 2 km (1.25 mi)
Crossing Distance	Up to 10 km (6.2 mi)
Wind Resistance	55 km/h (34 mph)
Temperature range	-10 °C to +45 °C

Hardware & Communication

Material	Carbon Structure, Aluminium gimbal, Composite Dronebox
Dimensions	1,120 m X 1,400 m X 0,530 m
Motors	6 brushless motors
Weight	
• Without Payload	6.0 kg
• Max Take-off (MTOW)	10.0 kg
• Max Payload	4.0 kg
Batteries	Lithium Polymer
Parachute (Option)	Pyrotechnic (1.0s)
Radios	
• Remote Control	2.4 GHz and others (please ask)
• Telemetry	433-868-915 Mhz and others (please ask)
• Video (FPV) option	5.8 Ghz and others (please ask)
Mission Modes	Manual; Stabilize; Auto; Loiter; Alt Hold; RTL

Data Collection and Software

Typical scanning area	Up to 150 ha (370 acres)
Software	
• Mission Planning	HASK – Planner
• GNSS Processing	POSPac MMS and HASK Geoprocessor
• Image processing (option)	Pix4DMapper Pro or MicMac ou autres
Output Data	Image files, log data Densified cloud 3D data (LAS,LAZ,PLY,XYZ) 3D textured mesh (FBX,OBJ,DXF,PLY,3D PDF) Orthophotos (GEOTIFF), Digital Terrain Model DSM & DTM (XYZ,LAS,LAZ) Contour lines (SHP,PDF,DXF)