





## Innovative Design with Top Quality Data

- Configurable for inspection or surveying
- Use multiple sensors at the same time
- Resistant to magnetic interference
- Operational in windy areas
- Low noise, emission free operation

The Falcon 8 is a rotary-wing UAS designed for inspection and monitoring or survey and mapping applications, depending on which camera payloads are used.

Offering flexibility to get into small spaces and compromising situations, the Falcon 8 uses best-in-class sensors, active vibration damping and an actively compensating camera mount. The Falcon 8 InspectionPRO can be used for multiple types of inspection projects that require high resolution imaging and/or videography. The GeoEXPERT is well suited for mapping projects up to 30 hectares (86 acres) per flight.

### InspectionPRO

The InspectionPRO payload consists of the Panasonic Lumix DMC-TZ71 for true color RGB images and the FLIR Tau 2 640 for infrared imaging.

With the InspectionPRO, users can accomplish close-up inspections to detect millimeter damage, fine hairline cracks, leaks or heat power losses. A panoramic picture can also be taken for a wider view. Georeferenced true color RGB and 14-bit raw thermal images are delivered simultaneously. The PJ810 is an optional payload for live videography for both the InspectionPRO and GeoEXPERT configurations while the Panasonic Lumix DMC-TZ71 features a zoom lens.

### GeoEXPERT

The GeoEXPERT is an innovative solution for small mapping projects and volume calculations. High-resolution geo-referenced aerial images can be taken from various heights within set GPS tolerances and offer a complement to conventional methods. The GeoEXPERT includes a 36 MP RGB camera (Sony Alpha 7R) and delivers orthophotos or 3D models in the Agisoft Photogrammetric Kit for Topcon.

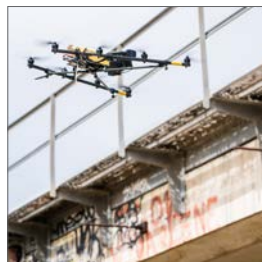


### Mobile Ground Station (MGS)

Data links, remote control of the camera, video link, video display and the controls for the Falcon 8 are completely integrated into the MGS and provide absolute freedom of movement. Optional independent camera control and video goggles allow two-person operation for inspection flights.



Flight Systems	
Type	V-Form Octocopter
Dimensions	770 x 820 x 125 mm
Engines	8 electric brush-less motors
Rotor Diameter	20 cm
Rotors	Total Rotors: 8 Weight: 6 g each
Weight	Without payload 1086 g Max Take-off 2.3 kg Max payload 800 g
Flight Time	Up to 22 minutes
Flight Range	Up to 1 km
Tolerable Wind Speed	GPS 12 m/s Manual 15 m/s
Navigation Sensors	
AscTec® Trinity (IMU, barometer and compass)	
AscTec® high-performance GPS (GNSS)	
Maximum Airspeed	
Manual / Height Mode	16 m/s
GPS Mode	4.5 m/s
Maximum Climb / Sink Rate	
Manual Mode	6 - 10 m/s
Height / GPS Mode	3 m/s
Wireless Communication	
2x Diversity control/data links, 2.4 GHz	
1x Diversity video link, 5.8 GHz	
LiPo Battery Types (mAh)	
PP 6250 / 3 Cells 6250 (~ 426 g)	
Available Payload Options	
Sony Alpha 7R	
Sony Alpha 6000	
Sony Camcorder HDR-PJ810E	
Panasonic Lumix TZ71 + FLIR TAU 640	
Certifications	
CE and RoHS	



### Ease-of-Use

- Minimal pilot corrections
- Simple plug and play camera integration
- MGS includes built-in automated flight functions
- Use a PC for advanced flight planning
- Automated, reproducible 3D flights

### Designed for Stability

- Balanced V-shape design
- Unaffected by magnetic interference
- Automatic compensation for wind gusts
- Active vibration damping

### Built-in Fail-safes

- Three autopilots
- Redundant electronics
- Redundant propulsion system
- Redundant radio links

### Top Quality Data

- Best-in-class sensors
- Automatically compensating camera mount
- Delivers detailed data
- Workplace tested since 2009



For more information:  
[topconpositioning.com/falcon8](http://topconpositioning.com/falcon8)

Specifications subject to change without notice.  
 ©2015 Topcon Corporation All rights reserved.  
 7010-2190 A 12/15

