

- ◆ < 250 grams' payload
- ◆ USB rechargeable
- ◆ > 2 hours battery life
- ◆ Secured 868 MHz connection

# Airobot Inspector for Falcon 8

Real-time anti-collision information on any mobile device

Georeferenced images with centimeter accuracy

Measure object size within images

The Airobot Inspector is a must-have tool for **inspections** and **mapping**.

The Inspector enables flights at high altitudes, close to infrastructure with the Falcon 8. Images are automatically georeferenced and the images can be calibrated with the Airobot Collect software to measure features or defects size within each image with standard image processing software.

### Independent Add-on module

The independent sensor module can be easily attached to the UAV without interfering with its electronics. Its ranging technology is based on proprietary ultrasonic sensors. They offer a wide field of view, function effectively on large white surfaces such as wind turbine blades and can detect cables and open structures. Alternatively, LIDAR based sensors are available for long range detection.

### Open ground station and iOS/Android app

Everybody involved in the operation can log in on the ground station to receive realtime situational feedback using their smart devices. Besides visual feedback, the system also offers audio feedback via voice commands; beep tones and adjustable target zones.

With each image taken the software logs coordinate, altitude and distance with regard to the object-visualised ready for post processing.



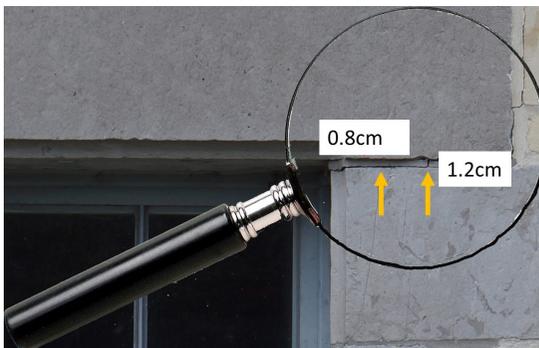
### Collision Avoidance

#### Ultrasonic:

- 7-meter range
- 55 degrees field of view

#### Lidar:

- 25-meter range
- 3 degrees field-of-view



### Georeferenced and Calibrated Images

- ◆ Land survey accuracy using RTK/PPK
- ◆ No ground control points
- ◆ GPS, GLONASS (GALILEO & BEIDOU optional)
- ◆ Works with all base stations & RTK networks
- ◆ Accurate camera shutter synchronization (<20ns)
- ◆ Robust against GPS jamming

Combined with the Airobot Collect Software, there is no need for ground control points during the flight. Afterwards, the aerial photographs are calibrated and updated with high precision camera locations for cm absolute accuracy and mm level defect size measurements.

### Mapping.

Ground control points link aerial imagery to accurate location coordinates on the ground. However, setting out and surveying the position of ground control points is time consuming and expensive. In addition, ground surveys of mines, freshly reclaimed land and other geographically challenging locations may be hazardous if not impossible.

### Inspections

The Airobot Collect Software can recalibrate all images using the logged distances. Now defects can be measured with mm-level accuracy. This provides for the same capability as putting a ruler next to the defect in order to have feedback of size. Additionally, using the GNSS data, the position of the defects on the infrastructure can be calculated.

*The Airobot Inspector turns aerial images into accurate, reliable surveying and inspection data for infrastructure and asset management.*

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## Turning drones into flying robots

### Airobot, your drone innovation partner

Airobot turns drones into flying robots to inspect difficult-to-reach areas or obtain a bird's-eye view while meeting the professional user's needs for safety and quality, and increasing the overall ROI. We create the necessary technology and integrate state-of-the-art collision avoidance, navigation and positioning technology to turn drones into flying robots.

When creating flying robots for close range inspections, we add active or passive collision avoidance and accurate georeferencing to any drone. The drone can then be used to produce calibrated images in which details can be measured with mm-level accuracy. For a flying mapping robot, we add accurate RTK GNSS technology to the drone to create centimetre-accurate maps and terrain models that do not require ground control points.

We supply major drone manufacturers with either individual components or performance packages for use in building their own flying robot specifically adapted to their inspection and/or mapping requirements. Airobot also assists companies to successfully integrate drones into their operations and supports them in this. We analyse our customers' needs, define the best solution, select the most suitable hardware, combine it with our technology and coach the team during implementation.

In short, we are the technology innovation partner for many drone operators: we supply them with advanced technology to enable them to better provide services to their customers..



### Who is behind Airobot?

Airobot is a young, dynamic technology company based in Hasselt, Belgium. We started in 2015 with the ambition of providing technology to drone operators and manufacturers to make operations with unmanned aircraft faster, safer and more reliable. The company is managed by Kristof Beenders (technology & innovation) and Jan Leyssens (sales and business development), who both have many years of experience with unmanned systems, and professional electronics and software development.

We don't believe in "one-size-fits all" solutions. Every business and application is different, so the technology should be adapted to the needs of our customers rather than the reverse. Our approach focusses on listening to the needs of our customers, and nothing is more important to us than delivering an Airobot that does the work required. For this, we use the best components available on the market and add our own technology and magic. We work closely with our customers, both in the office and in the field, until they are happy with the performance of our products

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