



Clear Runway Solutions

# FODetect®

## Automated Foreign Object Debris Detection System

**FODetect** is a state-of-the-art distributed sensor system consisting of Surface Detection Units (SDU) located along airport travel surfaces for high-resolution and high-speed detection of Foreign Object Debris (FOD).

**Ideally positioned** - The SDUs are integrated into elevated runway or taxiway edge lights infrastructure converting them into smart edge lights, or a separate infrastructure may be used. The SDU location is optimized for meeting the demanding requirements of detecting small FOD in challenging weather conditions, while utilizing existing power and data infrastructure to minimize installation costs.

**Dual technology** - The SDU combines a millimeter-wave radar sensor and an optic sensor with NIR illumination, running Xsight's proprietary advanced image processing software technology includes a powerful local processing unit connected to the system server and operator interface.

**Close-range detection** - Each SDU scans a portion of the runway and analyzes the data locally, detecting changes on the runway surface or presence of foreign objects, providing the FODetect operator an audio and visual alert in the case of positive detection.

**FOD visualization** - FODetect's User Interface allows the operator real-time interrogation, visualization and approval of FODs detected. The UI provides the operator with precise location and size of detected debris. Each SDU includes a built-in laser pointer for highlighting FOD locations for efficient removal at night.

**High-speed, high resolution** - FODetect multi-sensor deployment guarantees complete and effective coverage, scanning the entire airport's runway/taxiway surfaces in under a minute with detection resolution down to the size of an aircraft rivet.

### FODetect Highlights

- Automatic scanning of runways and airport surfaces
- Dual technology – 77GHz Radar and Optic Sensor
- High resolution detection capability
- Fast detection of FODs – between runway movements
- No runway false alarms – video interface for operator FOD approval
- FOD source identification and documentation
- Scalable solution – hot spots to entire runway
- Full runway visual coverage for situational awareness





### 1 Scan and Detect

Each SDU continuously scans a section of the runway using radar and advanced image processing technologies.



### 2 Alert

Upon detection of a FOD, an audio visual alarm is raised at the operator console showing the FOD's location.

# The FODetect Process



### 3 Interrogate & Classify

An operator views a high resolution image and receives FOD physical data (size, location) from the SDU, supporting a decision to take action.



### 4 Remove

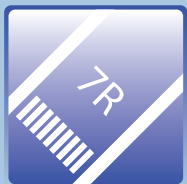
An operations vehicle is sent to clear the FOD. GPS coordinates and laser pointer assist in efficient removal.

### 5 Document and Tag

FOD data and actual images are archived and FOD is tagged.



## FODetect Applications



Runways



Intersections



FOD Source Ascription



Military



Surveillance



Wildlife



## Clear Runway Solutions

Xsight Systems is a market leader in the development of sensors and advanced solutions for runway status awareness and surveillance. Xsight's patented FODetect system offers a unique solution for detection of Foreign Object Debris (FOD) combining 77GHz radar with optical sensing technology. FODetect is the only system available capable of detecting FOD between aircraft movements even for the world's busiest airports where runway movements occur as frequently as every 60 seconds.

FODetect offers airports an essential tool for control and monitoring of their main source of revenue – the runways, and enhances safety of operations.

For more information please contact: [sales@xsightsys.com](mailto:sales@xsightsys.com)

[www.xsightsys.com](http://www.xsightsys.com)

### North America

Xsight Systems Inc.

T: +1-781-330-8466

E: [us-sales@xsightsys.com](mailto:us-sales@xsightsys.com)

### Worldwide

Xsight Systems Ltd.

T: +972-3-910-2562

E: [sales@xsightsys.com](mailto:sales@xsightsys.com)

