

Dr. Frucht Systems Ltd.

Laser Radar Sensors for HLS



We Detect the Intruder

<http://bit.do/DFSL-HLS-LIDAR>



Advantages of LADAR Technology

- **Enable defining sharp and accurate detection borders .**
- **Detection non depending on clutter / background.**
- **Detection not depending on the temperature & lightning.**
- **Detection not depending on inclination to the ground.**
- **High Resolution.**

Dr. Frucht Systems Ltd (DFSL) Laser Radar – How it Works ?

- Time of Flight Technology.
- Builds a “map” of the environment.
- The algorithm continuously assesses the changes in the environment and adapts the detection thresholds (*Specific to DFSL*).
- Target is detected when the detection thresholds are exceeded (*Specific to DFSL*).
- Coping with moderate fog .
- Technology Superiority relative to competitors (**Smooth Tracking with PTZ, Higher Sensitivity, Control and Change Sensitivity from Control Room and more**).

DFSL Laser Radar Sensors

- **Area Laser Sensor (ALS)** –

Scans 360 degrees,
covers up to 700 m diameter.



- **Laser Fence Sensor (LFS)** –

High frequency scanning,
Scans 100 degrees,
detects up to 160m.



- **Perimeter Laser Sensor (PLS)** –

Scans 200-360 degrees,
detects up to 200 m diameter.



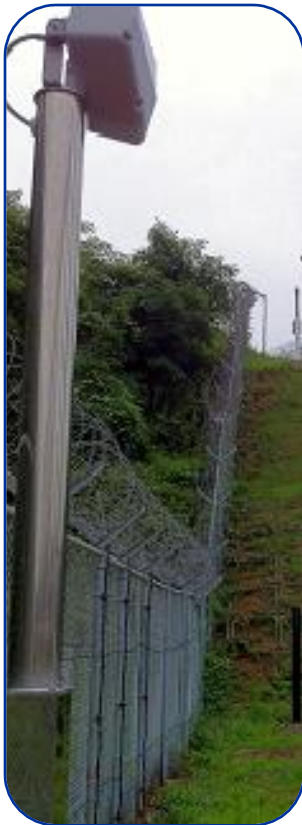
Examples of DFSL Laser Radar Installations:

Airports - Tracking intruders, the system connected to camera and illuminators.



DFSL Laser Radar Installations:

Fences – Provides detection layer to regular fences, in snow and desert conditions.



Examples of DFSL Laser Radar Installations:

Sea Ports – Detection and tracking system, aim intruders and swimmers.



Examples of DFSL Laser Radar Installations:

Critical Assets – Such as missile base and chemical facility.



Area Surveillance



Power Station



Snow & Low Temp.



Chemical Industry



ALS + PTZ System

Security of Temporary Assets



Power Plants Repair & Construction



DFSL Laser Radar Installations:

Sea Ports – Detection and tracking system, aim intruders and swimmers.



DFSL Laser Radar Installations: Commercial Center – Protecting roof and windows.

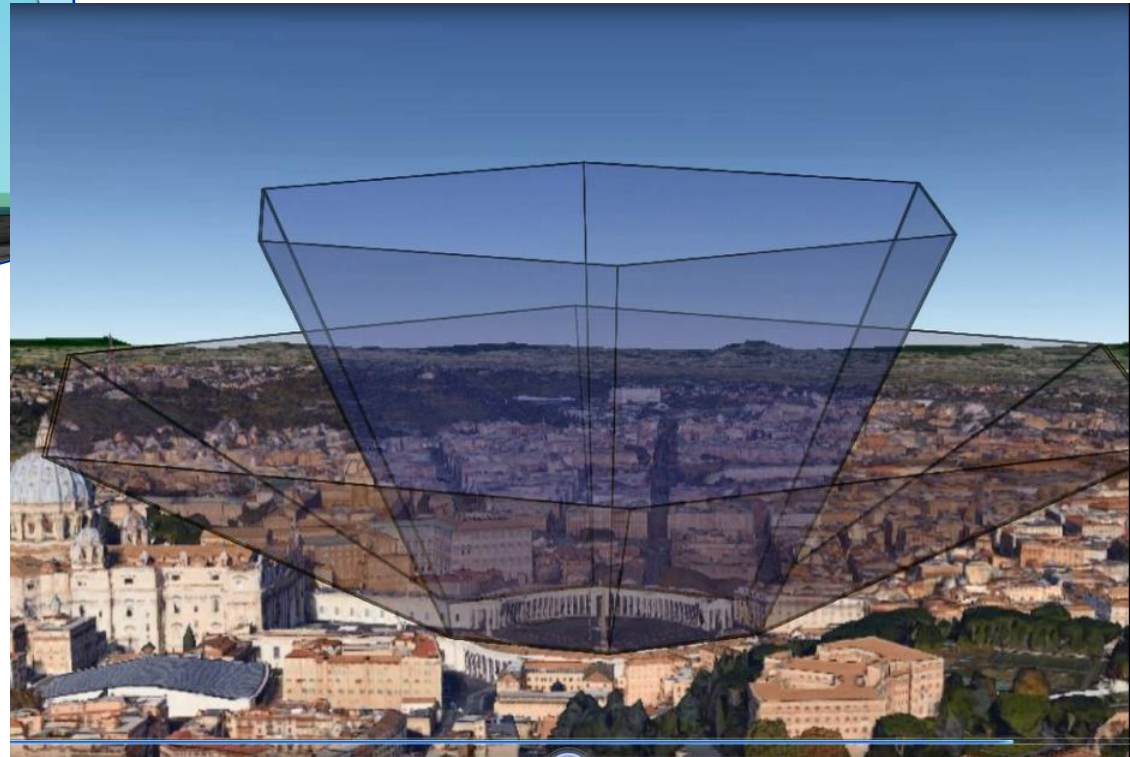
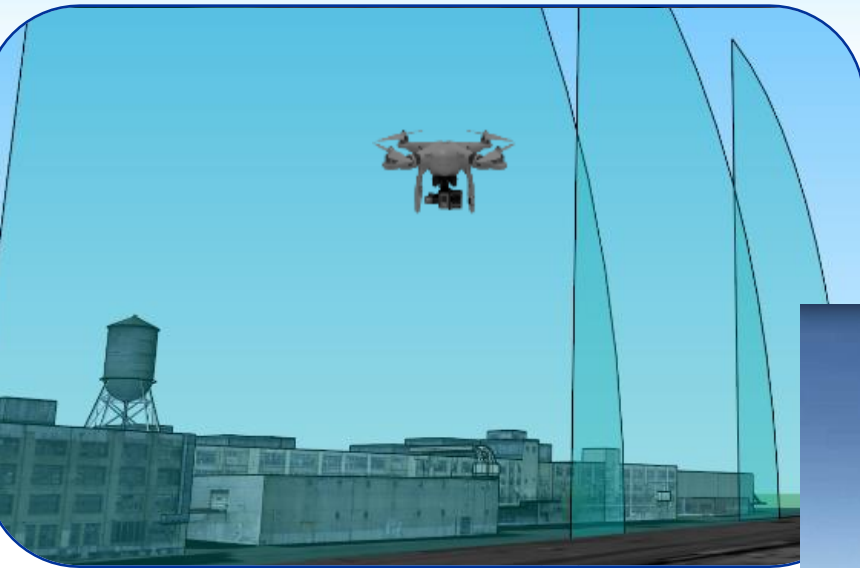


Examples of DFSL Laser Radar Installations: Secure Planes – Fast and easy deployment detection system



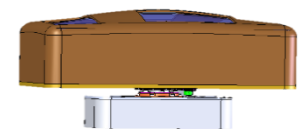
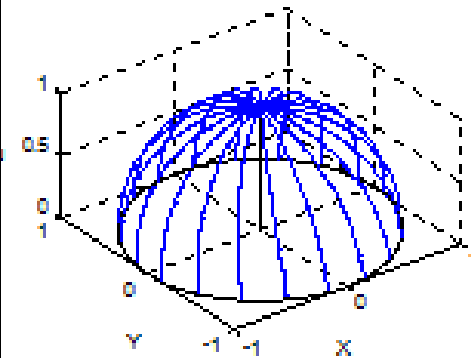
DFSL 2D Mini Drone Detector

Mini drones are detected when penetrate the “Detection Wall” at max 250 m



The Next Phase - 3D Laser Radar

- **Dome Drone Detector – 3D Laser Radar** for detecting and tracking mini drones
- The 3D Drone detector development project was submitted and approved by EU Horizon 2020 commission funds.
- **Prototype scheduled for November 2016.**



DFSL Laser Radar Sensors

DFSL presents state of the art **Laser Radar** which is superior to any existing parallel products in the market:

- ✓ **Superior sensitivity** - enables the system to detect lower reflective targets at longer distances than any other laser scanner on the market.
- ✓ **Auto Learning Algorithm** - reduces dramatically the False Alarm Rate, which is the major problem in any automatic detecting system. Smooth tracking with PTZ .
- ✓ **Efficient Design** – requires lower power , lower weight and smaller . The design enables lowering the production cost for mass production.

Thank You

