

# START<sup>®</sup> Sensor Network



SENSE | TARGET | TRACK

START<sup>®</sup> Sensor Network is a low-power, mesh network intrusion detection system that creates an invisible Radio Frequency (RF) tripwire between the sensor nodes to detect intruders. The nodes can be rapidly deployed in the desired area without the need for extensive planning. START's map-based interface can be accessed remotely and identifies the locations of deployed nodes to pinpoint contacts of interest and serves as a communications backhaul system for other Unattended Ground Sensors (UGS).

*The START<sup>®</sup> Sensor Network consists of a mesh of low-power sensor nodes, cluster nodes, and third-party integration accessories.*



## Sensor Node

The START Sensor Node is the core component of the system, which when deployed over an area or around a perimeter, creates an electronic tripwire capable of detecting and tracking targets. Each node transmits its own GPS information.



## Cluster Node

START Cluster Nodes provide the communication gateway to the remote monitoring system and to personnel managing any deployments of sensor nodes.



## Remote Trigger

The START Remote Trigger allows the system to remotely activate third-party systems such as cameras, LiDar and UGS, extending the range and effectiveness of any currently deployed equipment. *Left: Remote camera trigger strapped over a stock 6V game camera.*



## Third-Party Interface

The third-party interface allows the system to accept third-party sensors incorporating them into the START network. START can provide an early warning to other systems to save power when the area is clear of intruders.



## Features

- Target Detection & Tracking
- RF Tripwire-based Intrusion Detection
- Rapidly Deployable & Mobile
- Perimeter & Area Monitoring
- Stand-alone or Integrated with Existing Systems
- Can Trigger COTS Cameras extending their effectiveness
- Self-healing mesh network
- Solar & Battery Powered
- Rugged Easily Concealable Enclosures
- Remote or local monitoring
- Satellite Map Based GUI
- Node is staked into the ground

# About us

WilliamsRDM is a woman-owned, small business dedicated since 1963 to the design and manufacture of military grade automated test equipment, cable assemblies, connectors/adapters, and electronic hardware. We have decades of experience in all phases of electrical, mechanical, and software engineering—performing innovative new product development and manufacturing in Fort Worth, Texas.

We have a reputation for consistently meeting customer requirements for quality, delivery, risk, and value. WilliamsRDM is a complete turn-key operation; all manner of business—from fabrication and assembly to design and engineering—are conducted in-house.



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## Applications

- Ground Sensors
- Border Security
- Prisons
- Tactical Operations
- Special Forces
- Game Management
- Wildlife Detection
- FOBs

## Specifications

SENSOR NODE	
DIMENSIONS SENSOR NODE (SENSOR NODE ONLY)	2.8" x 1.75" x 9"
WEIGHT (SENSOR NODE ONLY)	15.2 oz
ANTENNA HEIGHT (WITH SENSOR NODE)	2-5ft depending on terrain*
INTERNAL BATTERY	Rechargeable 6500 mAh Li-Ion
BATTERY LIFE WITHOUT SOLAR	2 wks
SOLAR INPUT VOLTAGE RANGE	5-40V > 2W (deployment Dependent)
RADIO FREQUENCY	2.4GHz @ 100mW
TRIPWIRE RANGE	50-350ft depending on terrain
REMOTE TRIGGER OUTPUT POWER	3V @ 1A (other options available)
THIRD PARTY INTERFACE VOLTAGE OUTPUT	9V @ 330mA (other Options Available including 3V, 5V, 12V)
THIRD PARTY INTERFACE INPUT SIGNAL VOLTAGE	3-15V Active High (Other Options Available)

CLUSTER NODE	
DIMENSIONS	10.8" x 9.9" x 4.9"
WEIGHT	3.5 lbs
INPUT VOLTAGE RANGE	12 – 24VDC @ 4W
INTERFACES	Cellular (optional: WiFi, Ethernet, Satellite)



\*Antenna height is adjustable to accommodate the deployment environment.