NOVO
Digital Radiography

NOVO DR Systems Integration with
Boston Dynamics & RADēCO
Spot Robot

Whether you are working with large or small, older or newer EOD Robots, NOVO DR provides the ideal solutions for Robot Integration, delivering the highest image quality in the market of portable X-Ray systems.

Configuration Example

NOVO Spark Mesh Battery Free Controller

Golden XR-150 X-Ray Generator

NOVO 12SF Detector - 6.75" x 10.1" (17.2cm x 25.8cm)

NOVO Robot Frame 12SF

NOVO DR's X-Ray Integration with the Spot Robot

- Lightest Detector in the Market- Only 2.2 lbs. (1kg)!
- Improved Genie Algorithm- 4 times faster!

Additional EOD Robot Integrations:

The NOVO Equipment Can Be Integrated With Many EOD Robot Platforms

- **Full Integration** - The NOVO system uses the Robot's internal comms. This method allows installation of the NOVO Touch Software on the Robot's Control Unit, or a separate tablet can be allocated Up-Range.
- **Semi Integration** - This method uses the Robot as a mule, while the X-Ray system is independently controlled via NOVO Comms and a NOVO Tablet.

Examples:

Robot Accessories

NOVO offers various Robot Detector Holders for the NOVO 12SF, the NOVO 15WS and the NOVO 22WS Detectors.

- Lightweight, shock absorbent, customized robot NOVO Detector Frame
- The NOVO Detectors can be used in both portrait and landscape orientation when using the robot accessories
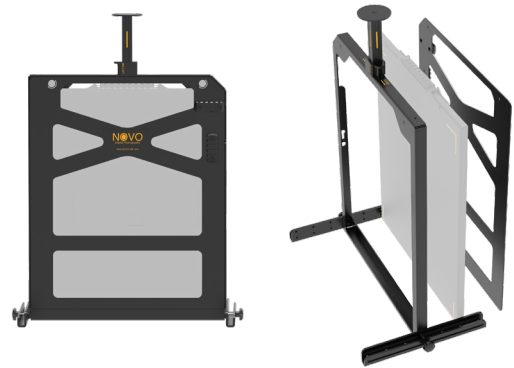
C-Arm
For Medium and Large Robots

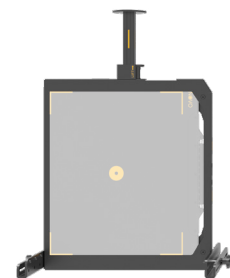*Holds Detector, X-Ray Source and Controller*
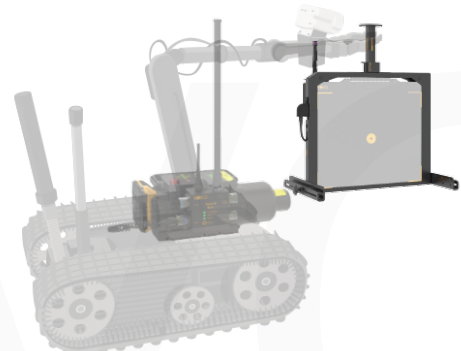

Detector Frame
For Small to Large Robots

Detector Frame - Landscape
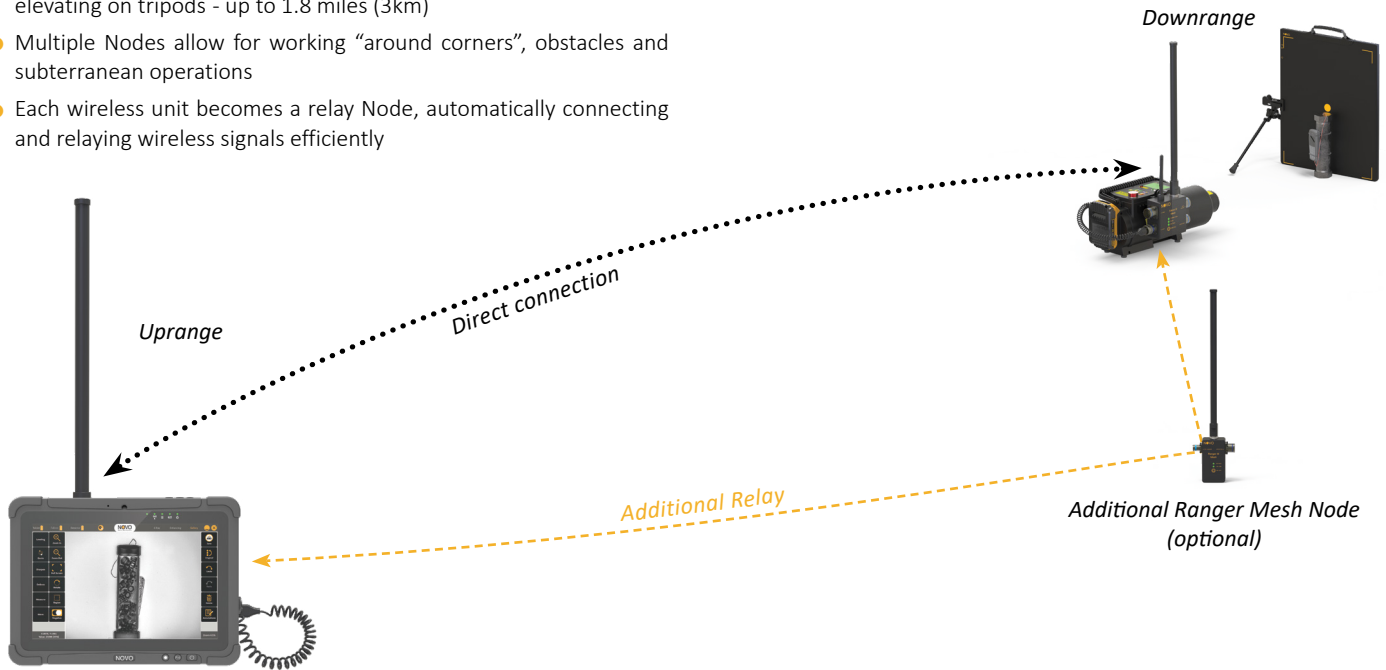

Detector Frame - Portrait

NOVO Wireless Mesh Technology

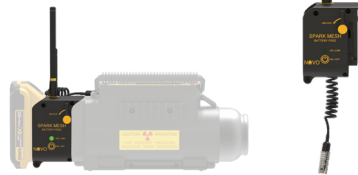## Unique technology providing unmatched wireless performance:

- Strong signal stability in crowded RF environments, especially ideal for urban scenarios
- Up to 0.6 miles (1000m) LOS between Nodes, longer range when elevating on tripods - up to 1.8 miles (3km)
- Multiple Nodes allow for working "around corners", obstacles and subterranean operations
- Each wireless unit becomes a relay Node, automatically connecting and relaying wireless signals efficiently

Downrange

Direct connection

Uprange

Additional Relay

Additional Ranger Mesh Node (optional)

Components

Controllers

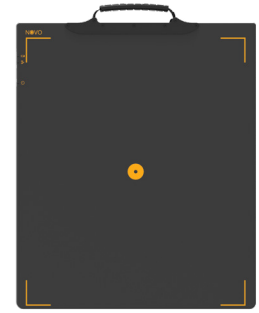|	Spark Mesh Battery Free	Falcon III Mesh
Controller Weight	0.9 lbs. (0.4kg)	2 lbs. (0.9kg)
Battery	6 hours* battery with 4000 pulses	6 hours built-in battery
Wireless Range	Up to 0.31 miles (500m) Line of Sight	Up to 0.6 miles (1000m) Line of Sight
AC Connection	X	Unlimited operation with AC (POE)
Connectors	DeWalt 20V mount	MIL-DTL 38999 connectors
Golden Generators Supported	DeWalt 20V	All
Quick Connection to Generator	✓	✓
Weatherproof	✓	✓
LED Indications	✓	✓
Supports Golden On/Off& Battery Status Info	✓	✓
Robots Integration	Yes, "mule" only	Integration module for robots with quick connection

* Tested with Golden XR150

Components

Detector Options

	NOVO 12SF 2.2 lbs. (1kg)	NOVO 15WS 3.5 lbs. (1.6kg)	NOVO 22WS 6.1 lbs. (2.8kg)
Detector Model	NOVO 12SF	NOVO 15WS	NOVO 22WS
Steel Penetration *	3.5" (90mm)	3.5" (90mm)	3.5" (90mm)
Detector Weight (Including Battery)	2.2 lbs. (1kg)	3.5 lbs. (1.6kg)	6.1 lbs. (2.8kg)
Detector Load Proof	440 lbs. (200kg)	660 lbs. (300kg)	660 lbs. (300kg)
Detector Imaging Area	6.75" x 10.1" (17.2cm x 25.8cm)	9.1" x 11.2" (23.1cm x 28.4cm)	13.9" x 16.7" (35.5cm x 42.6cm)
Detector Size	7.7" x 11.1" (19.5cm x 28.2cm)	10.6" x 12.9" (26.9cm x 32.9cm)	15.2" x 18.3" (38.5cm x 46.5cm)
Active Area (Imaging Area / Detector Size)	80% Active Area	74% Active Area	85% Active Area
Detector Drop Test	40" (100cm)	40" (100cm)	40" (100cm)
Detector Thickness	0.6" (15mm)	0.6" (15mm)	0.6" (15mm)
Bit Depth	16 bit latest generation	16 bit latest generation	16 bit latest generation
Connector	Magnetic Dual Direction Connector	Magnetic Dual Direction Connector	Magnetic Dual Direction Connector

* Tested with Golden XRS-3 at ~ 10" (25cm)

Tablets

NOVO Bright XL 21.5"

- 1500 NIT Super Brightness!
- 21.5" Touch Display
- Windows®
- 6+ Hr. Battery Life*
- MIL-STD-810G
- Glove Operation

*Tested at 800 NIT.

NOVO Bright L 17"

- 1500 NIT Super Brightness!
- 17" Touch Display
- Windows®
- 7+ Hr. Battery Life*
- MIL-STD-810G
- Glove Operation

NOVO Bright S 10"

- 1500 NIT Super Brightness!
- 10.1" Touch Display
- Windows®
- 6+ Hr. Battery Life*
- MIL-STD-810G
- Glove Operation

Samsung Galaxy S

- 980 NIT Brightness
- 6.1'' Touch Display
- Android Operation System
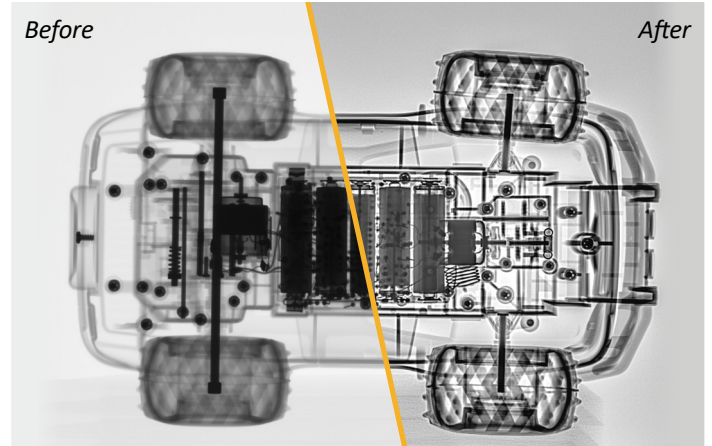- 10+ Hr. Battery Life*

Components

NOVO Touch Software

The NOVO Touch Software is a proprietary software developed in-house to provide the best user experience and functionality in harsh & extreme field conditions.
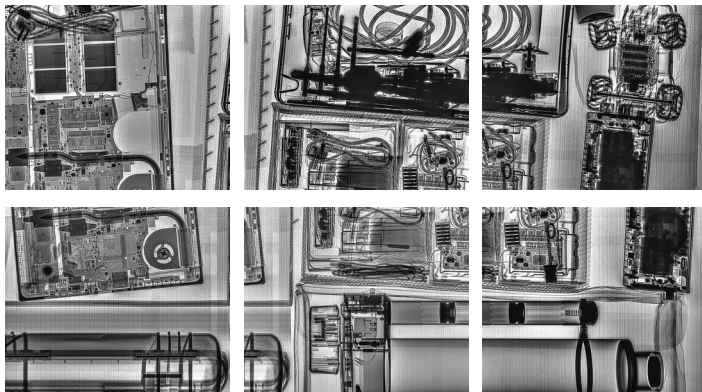
Improved Genie Algorithm - 4 times faster!

Allows for taking a single image and enhancing both easy to penetrate and difficult to penetrate objects on the same image, while showing all elements and highlighting all the threats with just one touch.
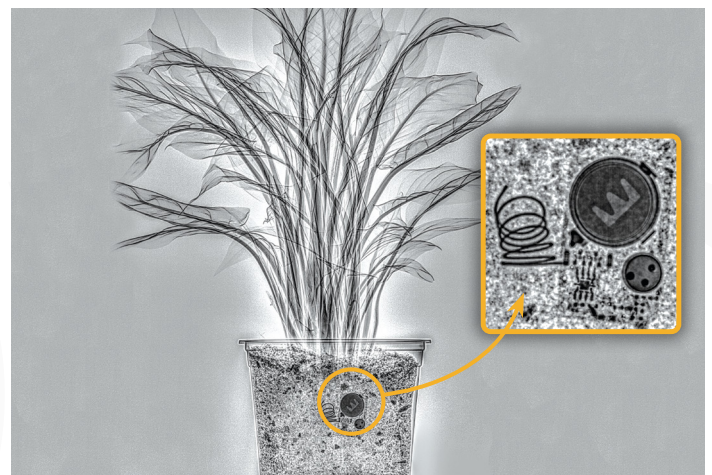

Before

After

Stitching Feature

Rapidly stitch multiple images together in seconds either by using Automatic Stitching feature or easy to use Manual Stitching with advanced tools, such as HDR etc.

HDR Feature

Allows for taking a high exposure image to penetrate difficult areas, combined with a low exposure image showing delicate items and producing a hybrid High Dynamic Range X-Ray image.
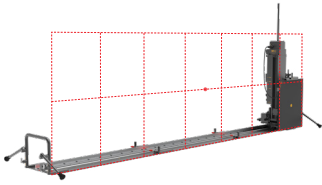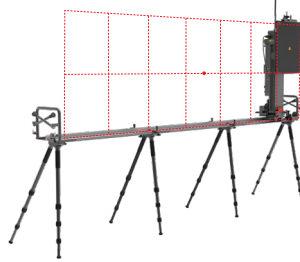

Electronic Device inside a Plant

Additional Accessories

Supporting NOVO Mesh Technology

Folding Slider L
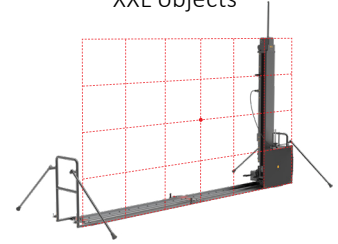
Ideal for screening large objects
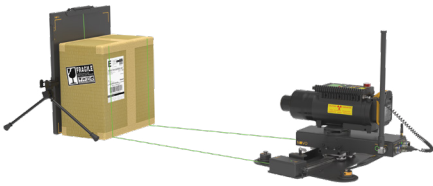
Elevated Mode

Folding Slider XXL

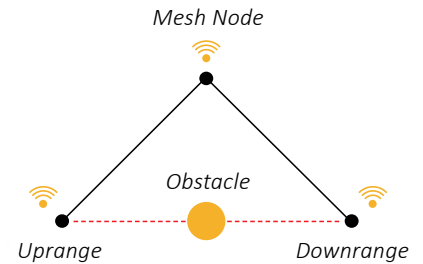Super sized, ideal for screening XXL objects

3D Arc Mesh

3D automated imaging with exact X, Y, Z measurements
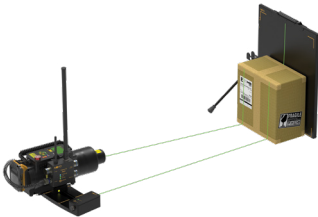

Additional Ranger Mesh Node

Multiple Nodes allow for working "around corners", obstacles and subterranean operations.

Mesh Node

Obstacle

Uprange   *Downrange*

Other Accessories

3D Arc Lite

Small 3D Imaging with exact X, Y, Z measurements

Extension Cables

Available at 50m, 100m and 150m for a total of 300m

Protective Casing

Armor

Soft Cover

Diagonal Tripod Mount

Firmly holds 12/15/22'' detectors and provides various positioning options

Lookout

Organic detection, live Video & Audio

Compatible with the XTK® Software

NOVO

Digital **R**adiography

Portable Digital Radiography Systems

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