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## About NOVO DR



NOVO DR Ltd. offers the highest image quality in the portable digital radiography industry. The ruggedness and reliability of our systems combined with amazing X-Ray Images make them the best in the market. Our intuitive and easy to use products have been designed and engineered by our incredibly professional and highly experienced team!

We put a strong emphasis on the following points:

- Highest Image Quality
- Reliability
- Ease of Use
- Professional Support

# Why NOVO?



# Highest Image Quality

Decades of expertise, detectors built specifically for security applications and advanced software all attribute to the highest image quality.



## Reliable

Our systems are designed for outdoor operations! This is why we use the best raw materials; proprietary NOVO cables; MIL DTL 38999 connectors & rugged detectors.



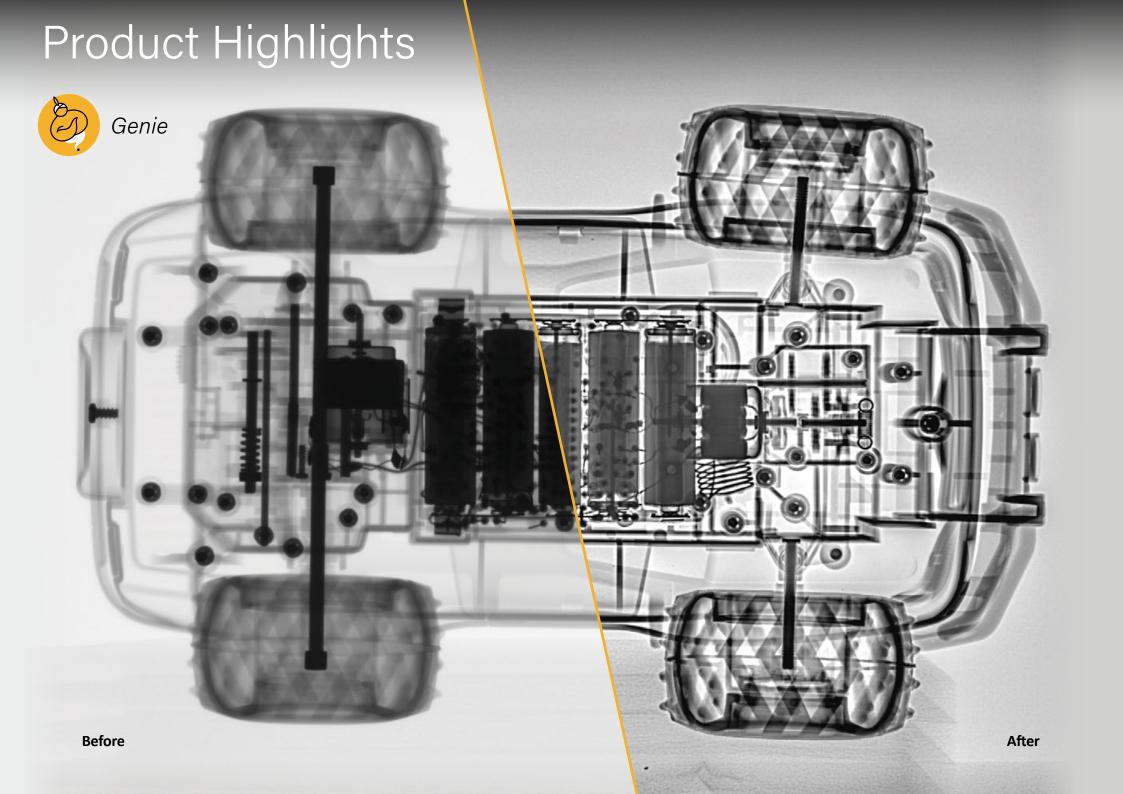
## Easy to Use

Having the lightest Detectors, Intuitive NOVO Touch Software and easy handling of our system components, the NOVO equipment is effortless to setup & operate.



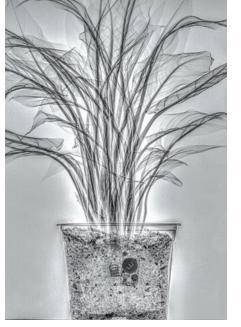
# **Professional Support**

Fast response, the expertise of the team and direct support from our in-house developers, makes your journey with NOVO sure and simple.













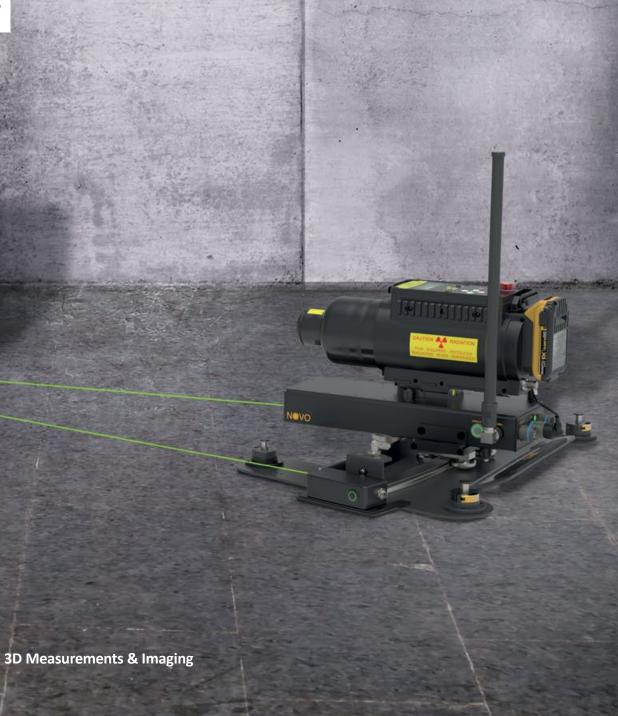


# 3D Measurements & Imaging

3D Arc Provides Exact X, Y, Z Measurements









# **Bright XL Tablet**



- 21.5" Touch Display
- 1500 NIT Super Brightness!
- 6+ Hr. Battery Life\*
- Windows® 10
- Designed for Harsh Field Use
- MIL-STD-810G
- Glove Operation

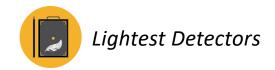


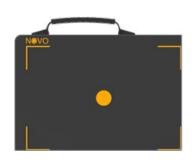
# Bright L Tablet



- 17" Touch Display
- 1500 NIT Super Brightness!
- 7+ Hr. Battery Life\*
- Windows® 10
- Designed for Harsh Field Use
- MIL-STD-810G
- Glove Operation



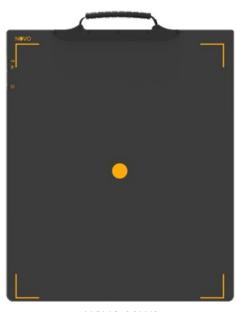




NOVO 12SF 2.2 lbs. (1 kg)



NOVO 15WS 3.5 lbs. (1.6 kg)



NOVO 22WS 6.1 lbs. (2.8 kg)

- Lightest in the Market
- Unmatched Image Quality
- Titanium Magnetic Connector
- Steel Penetration\* 3.5" (90mm)
- 16-bit Latest Generation

<sup>\*</sup> Tested with Golden XRS-3 at ~10" (25cm)





# NOVO Rover II System

# 22WS - Bright XL



Wireless Ranger USB

System software is compatible on Android app

Wireless Ranger USB

# 15WS - Bright L



System software is compatible on Android app

<sup>\*</sup> Fits the Golden XR150, XR200 & XRS-3 X-Ray Sources \*\*Other tablets and laptops are available



# NOVO Ultimate II System

**22WS** 



Panasonic Toughpad FZ-G1 Rugged 10" Tablet & NOVO Touch Standard Software\*\*

NOVO 22WS Detector

System software is compatible on Android app

<sup>\*</sup> Fits the Golden XR150, XR200 & XRS-3 X-Ray Sources \*\*Other tablets and laptops are available

Panasonic Toughpad FZ-G1 Rugged 10" Tablet & NOVO Touch Standard Software



System software is compatible on Android app

<sup>\*</sup> Fits the Golden XR150, XR200 & XRS-3 X-Ray Sources

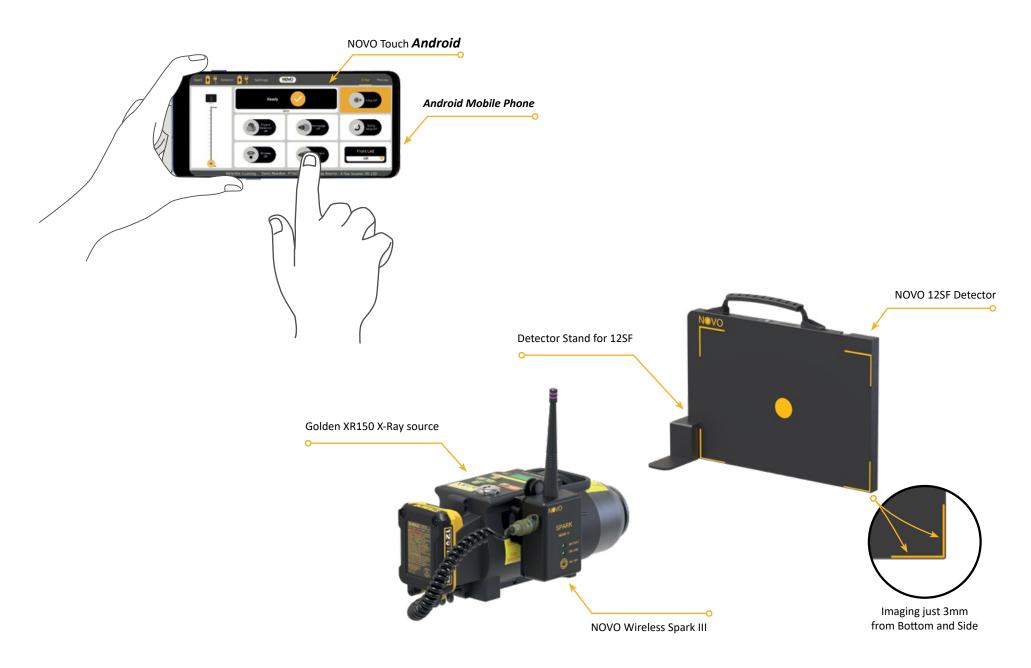
# Shadow System

- Wired and Wireless Operation Modes
- Only 1Kg Detector!
- 80% Active Area
- Drop Tested
- Imaging Just 3mm from Bottom and Side
- Android Phone/Windows Tablet Operation
- Dead Man's Switch Option (No Mobile Phone/Tablet/System Controller Required)
- Compatible with Android XTK



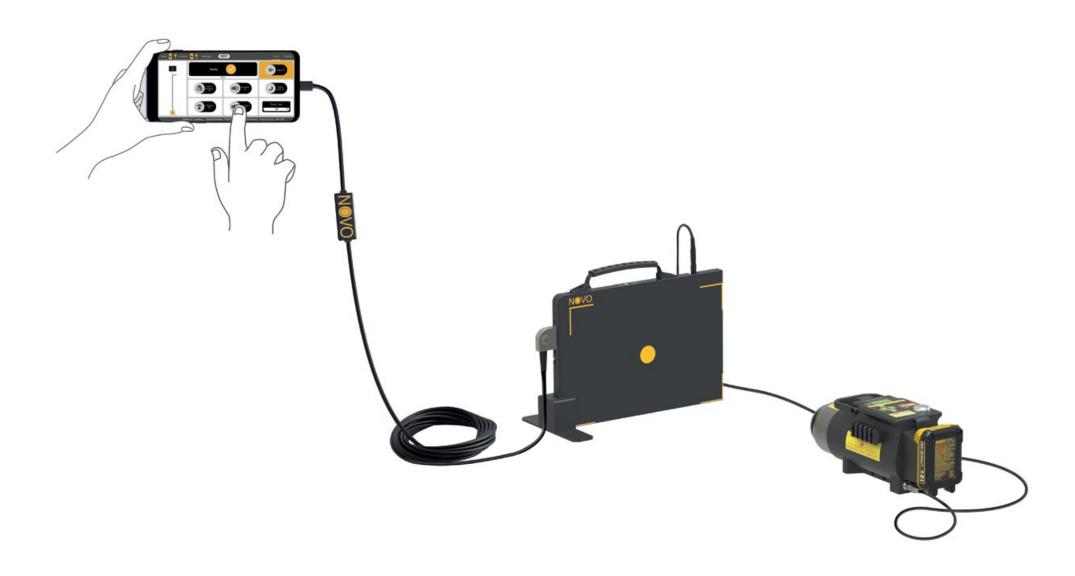
Custom 5.11 Rush 12™ Backpack

12SF



NOVO Shadow System
12SF

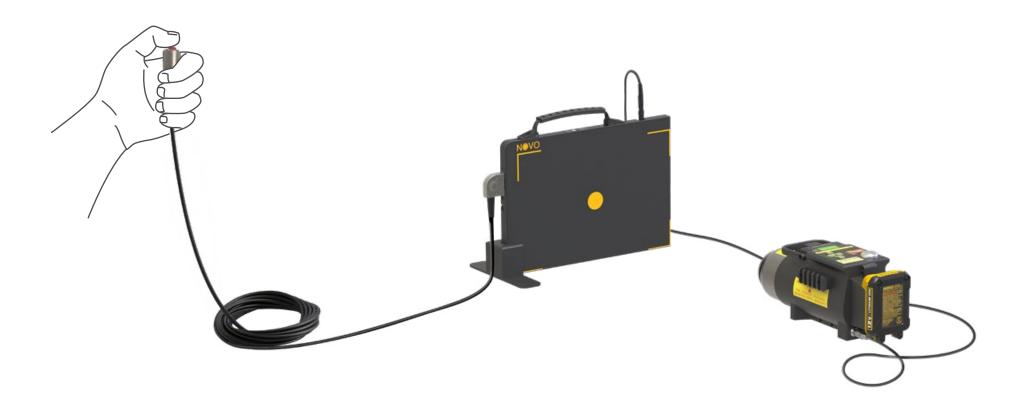
Wired Setup with Phone



12SF

# Dead Man's Switch Option

(No Mobile Phone/Tablet/System Controller Required)





## **NOVO Touch Software**

The NOVO Touch Software is a proprietary software developed to provide the best user experience and functionality in harsh & extreme field conditions.

## Software Highlights

- User friendly, native touch interface
- Powering Enhancing Tools: Genie, HDR, Manual & Automatic Stitching
- Intuitive operation for grabbing X-Ray images, annotating, archiving and sharing information
- Controls the operation of the NOVO accessories
- Compatible with the latest touch screen technology & standard PC's
- Windows® 10

## Key Software Features

- Genie (One-touch Enhancement Software Feature)
- HDR (High Dynamic Range)
- Manual & Automatic Stitching
- Averaging
- Automatic & Manual Summing
- 1600% Zoom
- Window Leveling
- Measurements
- Annotations-Text, Shape Etc.
- Audio Documentation
- Pseudocolor
- Subtraction
- Sharpness
- Emboss

and many more....





Brief Case X-Rayed Through Wall

#### Compatible with the XTK® Software





## The Genie Enhancement Feature - Proprietary State-of-the-art Algorithm

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

# **NOVO Touch Software**



## 3D Measurement & Imaging

The 3D Arc provides precise location & exact measurements for IED disruption & manual entry. Extremely easy to use touch interface, provides accurate X, Y, Z measurements and 3D imaging in seconds.



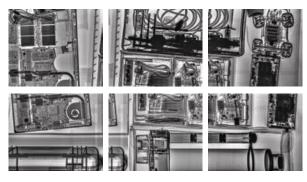


3D Measurement Screen

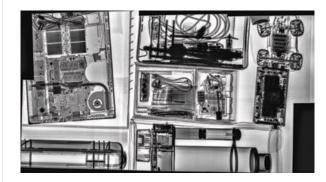


## Stitching Feature

Stitch multiple images using our easy to use, Manual Stitching feature or our extremely fast, Automatic Stitching feature.



Before: Multiple X-Ray Images

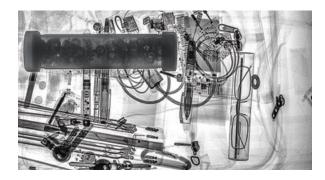


After: One Large X-Ray Image

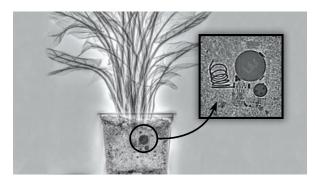


## HDR Feature

Allows for taking two images at different exposures, combined for the best result providing High Dynamic Range Imaging.



Steel Pipe Bomb inside a Backpack



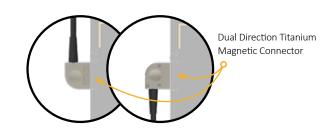
Electronic Device inside a Plant



# Components - Detectors

The NOVO range of Detectors provide outstanding image quality in a rugged, durable, thin design and are the latest in DR imaging technology.

- Lightest in the Market
- Dual direction Titanium magnetic connector
- Wireless & wired operation
- Specifically designed for fieldwork & harsh weather conditions
- Quick removable & rechargeable battery









NOVO 15WS 3.5 lbs. (1.6kg)



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	2.2 lbs. (1kg)	3.5 lbs. (1.6kg)	6.1 lbs. (2.8kg)
Detector Load Proof	220 lbs. (100kg)	661 lbs. (300kg)	661 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)	14.0" x 16.8" (35.6cm x 42.7cm)
Detector Size	7.7" x 11.1" (19.5cm x 28.2cm)	10.6" x 13" (26.9cm x 33cm)	15.2" x 18.2" (38.5cm x 46.2cm)
Active Area (Imaging Area / Detector Size)	80% Active Area	74% Active Area	85% Active Area
Detector Drop Test	30" (75cm)	39.4" (100cm)	39.4" (100cm)
Detector Thickness	0.6" (15mm)	0.6" (15.6mm)	0.6" (15.6mm)
Bit Depth	16 bit latest generation	16 bit latest generation	16 bit latest generation

<sup>\*</sup> Tested with Golden XRS-3 at ~10" (25cm)

# Components - Controllers

## Falcon II

The Falcon II is lightweight (900g) controller that has a built-in GPS and provides up to 500m Line of Sight (LOS) Wireless Communication and a Wired Communication up to 300m. Its built-in battery allows for 6+ hours of operation and unlimited operation when the System is connected to External AC. The Falcon II works with rugged MIL-DTL 38999 connectors. It supports operation of both old and new RS223 Golden Engineering Sources.



Falcon II

#### Control Box

The Control Box can provide up to 24 hours of battery operation as well as continuous use when connected to external power. In addition, the Control Box elevates the X-Ray source to provide full coverage of the Detector and has a white LED and infra-red flashlights. The Control Box supports the rugged MIL-DTL 38999 connectors.



## Wireless Spark III

The Wireless Spark III is the NOVO lightest controller. Making it the ideal controller when minimum weight on target is required. It also supports the rugged MIL-DTL 38999 connectors.





Wireless Spark III

	Weight	Unlimited operation with AC	Built-in Battery	Wired/ Hybrid	Wireless	Supports All Golden Sources	Quick connection to source	MIL-DTL 38999 connectors	Weatherproof design	GPS	LED Indications	White LED flashlight	Infra-red flashlight	Supports Parallel Multi Location Control & Display
Falcon II	2lbs (0.9 kg)	<b>√</b>	6+ hours	<b>√</b>	Up to 500m Line of Sight	<b>√</b>	<b>√</b>	<b>√</b>	✓	$\checkmark$	✓	×	X	✓
Control Box	5.3 lbs. (2.4 kg)	<b>√</b>	24 hours	<b>√</b>	Up to 400m Line of Sight	<b>√</b>	<b>√</b>	<b>√</b>	✓	X	<b>√</b>	<b>√</b>	<b>√</b>	✓
Wireless Spark III	0.7 lbs. (0.3 kg)	X	6 hours	×	Up to 400m Line of Sight	<b>√</b>	<b>√</b>	$\checkmark$	✓	X	<b>√</b>	X	X	X

# Components - Tablets

NOVO offers a variety of tablets that can be operated from our customized case or used handheld.

- Pre-installed with the NOVO Touch Software
- Used to control the system's operation
- One or multiple parallel location control & display
- Ruggedized Tablets- MIL-STD-810G
- Rugged 7" up to a 21.5" Full HD display
- A variety of Laptops Available
- Windows® 10





## **Most Popular**



Samsung S20



Panasonic Toughpad™ FZ-G1- 10"



Panasonic Toughbook® CF-33- 12"



NOVO Bright L 17"



NOVO Bright XL 21.5"

	Samsung S20	Panasonic Toughpad™ FZ-G1	Panasonic Toughbook® CF-33	NOVO Bright L	NOVO Bright XL
Screen Size	6.2"	10.1"	12"	17"	21.5"
Screen Resolution	3200x1440	1920x1200	2160x1440	Full HD	Full HD
Screen Brightness (NIT)	800	800	1200	True Sun Readable 1500 NIT Super Brightness	True Sun Readable 1500 NIT Super Brightness
Touch Screen	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Operating System	Android 10	Windows 10	Windows 10	Windows 10	Windows 10

<sup>\*</sup>Additional tablets and laptops supported

# Components

### Cases

NOVO offers a wide array of customized cases for a range of applications.

- Customized Internal & External Design
- Rugged
- Smallest Foot Print
- Lightweight



NOVO's Customized Cases	Description	Case External Dimensions
Rover II Case	Rugged 1607 Pelican Case	24.13" x 18.80" x 13.25" (61.3cm x 47.8cm x 33.7cm)
Ultimate Backpack	NOVO's Customized Ultimate Backpack	23.0" x 17.3" x 9.45" (58cm x 44cm x 24cm)
Tactical II Backpack	Custom 5.11 All Hazards Prime Backpack	11.5" x 7.5" x 20.5" (29.2cm x 19.1cm x 52.1cm)*
Shadow Backpack	Custom 5.11 Rush 12™ Backpack	11" x 6.5" x 18" ( 27.9cm x 16.5cm x 45.7cm)*

<sup>\*</sup> Main compartment dimensions

## X-Ray Sources

The NOVO systems are designed to operate with the entire range of Golden Engineering X-Ray sources (both old and new generations) and other X-Ray sources.

- Specially designed connector/picatinny connects the Golden Source to the NOVO system controllers
- Operational safety distance is easily obtained with wired or wireless capabilities
- The Golden X-Ray sources are portable, battery operated, lightweight & contain no radioactive materials



ICM Litex	XR150	XR200
120	150	150
5.6 lbs.(2.5kg)	4.9 lbs. (2.2 kg)	10.7 lbs. (4.8 kg)
11.7" x 3.2" x 4.7" (29.9cm x 8.2cm x 12cm)	9.1" x 3" x 4.1" (23.1cm x 7.7cm x 10.3cm)	10.7" x 4.3" x 5.8" (27.2cm x 10.8cmx 14.8cm)
XRS-3	XRS-4	
270	370	
11.8 lbs. (5.3 kg)	18.3 lbs. (8.3 kg)	
14.2" x 4.3" x 5.8" (36.1cm x 10.9cm x 14.8cm)	19.3" x 4.8" x 7.1" (48.9cm x 12.2cmx 17.9cm)	
	120 5.6 lbs.(2.5kg) 11.7" x 3.2" x 4.7" (29.9cm x 8.2cm x 12cm) XRS-3 270 11.8 lbs. (5.3 kg) 14.2" x 4.3" x 5.8"	120 150  5.6 lbs.(2.5kg) 4.9 lbs. (2.2 kg)  11.7" x 3.2" x 4.7" 9.1" x 3" x 4.1" (29.9cm x 8.2cm x 12cm) (23.1cm x 7.7cm x 10.3cm)  XRS-3 XRS-4  270 370  11.8 lbs. (5.3 kg) 18.3 lbs. (8.3 kg)  14.2" x 4.3" x 5.8" 19.3" x 4.8" x 7.1"

<sup>\*</sup>We can also work with continuous sources, high energy sources and isotopes

# Accessories - Lookout

The NOVO Lookout is a Lightweight, 3 in 1 accessory enabling the following capabilities.

#### Organic Detection

- Assists in identification of the content and nature of an inspected item by providing organic / inorganic detection
- A Colorized X-Ray Image is Automatically Displayed
- The Organic Detection Dual Energy Images comply with airport security standards

#### Live Video

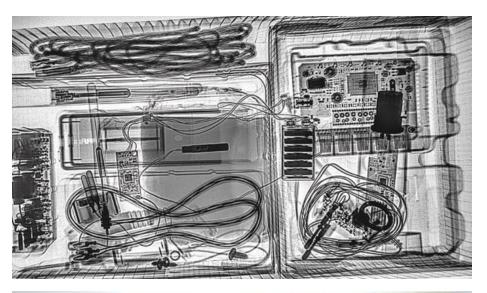
- Provides a Live Video stream of the inspected item
- The Camera switches automatically between day/night mode (Infra-red)
- Provides a Still Image that can be grabbed and used for analysis and documentation

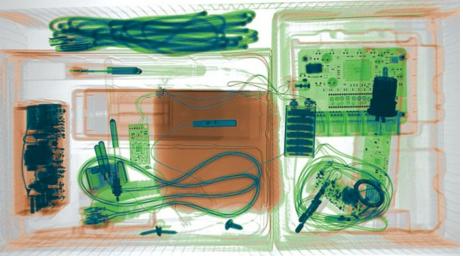
#### Live Audio

- Provides a Live Audio stream of the inspected environment allowing the operator to hear the Golden's "clicks" in addition to monitoring the sounds in the surrounding area
- Controlled completely by the NOVO Touch Software
- Compatible with all Golden Engineering sources including the XRS4









# Accessories - Robot Accessories

NOVO offers various Robot detector holders for both the NOVO 15WS and the NOVO 22WS detectors.

- Lightweight, shock absorbent, customized robot NOVO Detector Frame
- The NOVO C-Arm to carry both the Detector and the X-Ray source
- The NOVO Detectors can be used in both portrait and landscape orientation when using the robot accessories





# Accessories - Folding Slider II & Folding Slider XXL

The NOVO Folding Sliders are ideal for screening large objects, such as walls.

- Built in Controller and Power Supply
- Wired and Wireless Operation
- Controlled by the NOVO Touch Software
- Completely Automated Movement

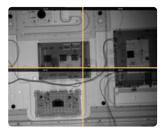
 $\bullet$  Automatically Generates an Outstanding High-Quality Mosaic Image

Built in GPS

## Folding Slider II

- Small footprint for max portability & easy storage
- Fits into the Trunk of a Standard Vehicle



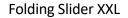


Mosaic Image

\*Wireless X-Ray recommended accessory

Folding Slider II	NOVO 15WS Detector	NOVO 22WS Detector
Grabbing Size	3x2	2x2
Imaging Area	33.5" x 18.1" (85.2cm x 46.1cm)	33.5" x 27.4" (85.2cm x 69.6cm)
Case Dimensions	44.2" x 16.1" x 14.0" (112.2cm x 40.9cm x 35.6cm)**	44.2" x 16.1" x 14.0" (112.2cm x 40.9cm x 35.6cm)**

<sup>\*\*</sup>External Dimensions



- Super Sized, Imaging Area 2.5m x 1.3m
- Two Rails Connected for Easy Breakdown



Folding Slider XXL	NOVO 15WS Detector	NOVO 22WS Detector
Number of Images	8 x 5 Images	6 x 4 Images
Imaging Area*	86" x 43" (220cm x 110cm)	98" x 53" (250cm x 135cm)
Folding Slider Dimensions*	104" x 57" (266cm x 145cm)	104" x 57" (266cm x 145cm)
Folded Dimensions	13" x 10" x 64" (33cm x 25cm x 163cm)	13" x 10" x 64" (33cm x 25cm x 163cm)

<sup>\*</sup>Double Rail Mode

# Accessories

## Eagle - Long Range Wireless

The NOVO Eagle is an Extremely Long Range Wireless transceiver, which extends the wireless communication between the tablet and the inspection area – Detector and X-Ray Source.

Connection to X Ray

Via Picatinny

- Up to 3.3km (2 miles) LOS
- Fully wireless or hybrid communication
- Ideal for Urban scenarios with high RF interference
- Ultimate CBRNE accessory where long operation distances are required
- 1/4" standard threading for tripod connection
- 6 Hours of internal battery operation
- Allows for robot integration



(Downrange)





## Wireless Ranger

The NOVO Wireless Ranger is a wireless transceiver, which extends the wireless communication range between the tablet and the inspection area.

- Battery-free
- Lightweight
- Up to 500m (0.31 miles) LOS with Falcon II
- Built in magnets to mount on any ferromagnetic object tablet, case, vehicle etc.



## Wireless Super Ranger

The NOVO Wireless Super Ranger is a special booster that increases wireless distance and stability of our standard Ranger device, allowing for operation in extreme condition.

- Same size as Standard Wireless Ranger
- Built-in Magnets and ¼" Thread for a Variety of Mounting Options
- 20+ Hours Built-in Battery





### Communication Cable

The communication cable provides reliable and fast data transmission between the various system parts.

- Power Over Line for unlimited operation when using an external power source (using the Control Box and Falcon II)
- Maximum of 300m wired operation range
- Lightweight, robust custom reel- connected to the case or as "stand-alone"
- Extension cables of 50m, 100m and 150m



Built-in 50m Rugged Reel





Backpack Reel



# Accessories

### Armor Kit

The Armor Kit Contains the NOVO Armor, which provides additional mechanical protection to the NOVO Detectors, Armor Stand and a traveling soft cover.

- Newest shock absorbent technology case
- Water resistant design
- Supports wired & wireless communication
- Multiple positioning options
- Tripod connection using the Built-in 1/4" threads
- Simple Detector battery replacement



NOVO Armor 22



NOVO Armor 15



NOVO Armor 12SF



NOVO Armor Stand



### Soft Protective Cover

The Detector Soft Protective Cover provides additional protection for the NOVO 15WS & 22WS Detectors.

- Additional weather & impact protection
- Special opening for Tripod Mount access
- Various positioning options using a carrying strap or D-Rings
- Supports wired & wireless communication
- Lightweight & small footprint





# Accessories

### **Detector Stand**

The Detector Stand is a custom-made accessory that firmly holds the Detector in an upright position (portrait or landscape).

- Low profile design
- Utmost flexibility in tight places
- Multiple positioning options- standalone (figure a) or leaning on a wall (figure b)





## **Tripod Mounts**

The Tripod Mount is a lightweight accessory that firmly holds the detector and provides various positioning options.

- Four 1/4" standard threads (for portrait and landscape) for tripod or manipulation arm connection
- Secured connection to the Detector using a safety pin
- Numerous positioning options



NOVO 22 Tripod Mount



NOVO 15 Tripod Mount

