

# INVENIO

SMART DETECTOR & IMAGING SYSTEM

PATENT PENDING TECHNOLOGY  
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WORLD'S FIRST REAL TIME  
SMART DETECTOR & IMAGING SYSTEM  
PROVIDING THE SHAPE, DEPTH,  
DIMENSIONS AND DISCRIMINATION OF  
UNDERGROUND METALS AND GROUND  
ANOMALIES / CAVITIES.



THE LEARNING  
DETECTOR THROUGH  
ARTIFICIAL  
INTELLIGENCE



WARRANTY  
**2**  
YEARS

# THE START OF A NEW ERA IN METAL DETECTION! GO BEYOND BASIC BEEPS AND TARGET ID NUMBERS.

**INVENIO** is the first and single revolutionary step taken towards turning a dream into reality in the metal detector industry!

INVENIO represents one of the most dramatic advances in metal detection technology since conventional metal detectors first appeared on the market in the 1930s. While many new features and advancements in technology have been introduced since, INVENIO provides the first major step forward in meeting consumer expectations.

While the competition has simply pushed the existing patents and technology forward; none have gone much beyond generating basic beeps and IDs for targets.

On the other hand, users have been expecting a lot more from a detector:

- To discover deeper targets
- To know what type of a metal the detected target is
- To see the real depths of targets
- To see the real shapes of targets
- To determine the dimensions of targets
- To detect ground anomalies/cavities



Nokta & Makro Detectors, since its foundation, has been taking steps towards turning this dream of users into reality. After years of extensive Research & Development and advanced engineering studies, Nokta & Makro has achieved the development of the world's first Smart Detector & Imaging system – the INVENIO. Nokta & Makro owns the whole technology and know-how used in the INVENIO for which 3 different patents are applied for.

INVENIO is designed as a platform that can be advanced and it is planned to be integrated with all hobby detectors (coin and relic) as well as gold nugget detectors in the future.



## Artificial Intelligence

The Artificial Neural Network enables the device to provide superior shape extractions as well as depth indications by utilizing adaptive learning algorithms!



## Archive

You can save all 3D graphs and screenshots and transfer them to your PC if you wish.



## Multi - Purpose

Targets that you can detect with the INVENIO: Deep treasures, caches, coins, relics, ground anomalies/cavities such as underground caves, tunnels etc... In short, all you are looking for underground!



## 17 Languages

English / German / Greek / Turkish / French / Italian / Russian / Arabic / Spanish / Chinese / Persian / Bulgarian / Serbian / Romanian / Dutch / Portuguese / Polish



## Excellent Discrimination and Unmasking Ability

Save time by detecting the targets you want while spending less time digging.



## 2.4GHz Wireless Connection

The INVENIO system box and shaft communicate wirelessly. In addition, users who do not prefer wired headphones can purchase the optional 2.4GHz wireless headphones.



## High Performance and Unmatched Depth

Uncover deep treasures other detectors simply cannot detect.



## Online Firmware Updates

Stay up-to-date with firmware updates (via USB on PC) and get the most out of your detector.



## Fast Recovery Speed

Get ready to find out what other metal detectors missed amongst trash and iron!



## Vibration

When this feature is active, INVENIO will vibrate upon target detection. An essential feature for hearing impaired users and noisy surroundings.



## 3 Non - Motion Search Modes

Basic / Expert / Ground Anomaly & Cavity

## 3 Motion Search Modes

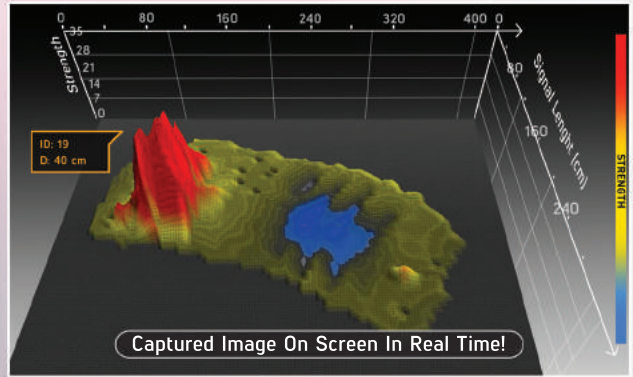
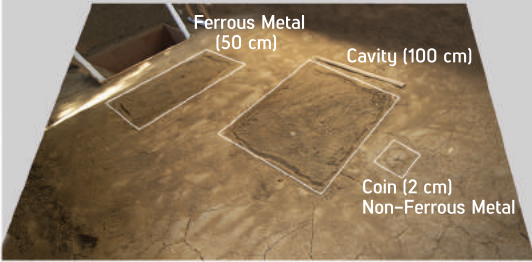
All Metal / Fast / Deep



## LED Flashlight and Screen Backlight

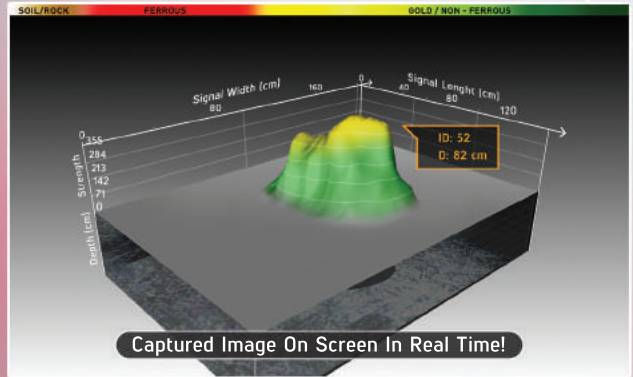
INVENIO's screen backlight and the flashlight, which illuminates your scan area, enable you to detect in the dark as well.

### Underground Cavity And Buried Metals



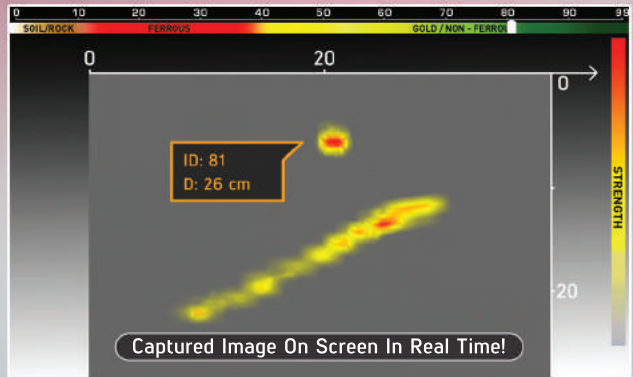
### Real Buried Target Underground

Copper Boiler Filled with Gold Coins  
Width 50 cm - Height 30 cm



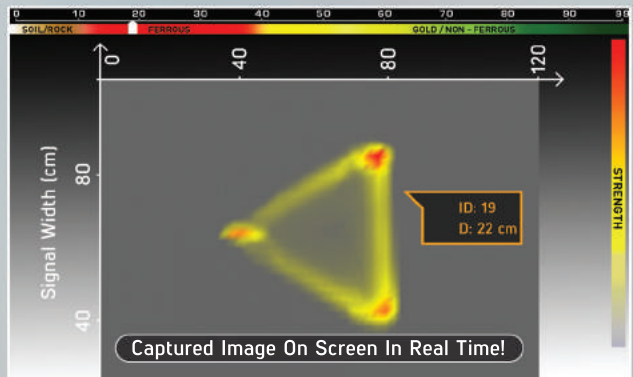
### Real Buried Targets Underground

Coin (2,5 cm) &  
Ferrous Metal (20 cm nail)



### Real Buried Target Underground

Equilateral Triangle Made of  
Iron Bars (50 cm each side)



# IPTU SENSOR

(Integrated Positional Tracking Unit)

Developed by Nokta & Makro Detectors, the IPTU unit, with the help of the integrated sensors, computes the right-left, forward-back movements of the search coil precisely and determines its location and height above the ground.

With the IPTU sensor, you can follow the start and finish points of the scanned area and view the locations of detected targets. In addition, you can determine the width and the length of the scanned area, the target depth and shape as well as the dimensions with the help of the IPTU sensor.



## IDEAL FOR:

- o DEEP TREASURE HUNTERS
- o ARCHEOLOGISTS
- o MUNICIPALITIES
- o UTILITY COMPANIES
- o CSI & LAW ENFORCEMENT AGENCIES





INV56 Waterproof DD Search Coil  
56 x 49 cm (22" x 19")



INV40 Waterproof DD Search Coil & Cover  
40 x 35 cm (15.5" x 14")



INV28 Waterproof DD Search Coil & Cover  
28 x 18 cm (11" x 7")



Waterproof (IP67) Hard Transport Case



Headphones



Spare 9500 mAh LiPo Battery



System Box Carrying Case



INV56 Search Coil Carrying Bag



IPTU Sensor Carrying Bag



Protective Covers



Screen Sunshade



Harness/Carrying Belt/Bungee Cord



Carrying Belt



AC & Car Charger



USB Cable

**INVENIO**  
(14kHz)

**INVENIO PRO**  
(Multi Frequency - 5 / 14 / 20kHz)

- INV56 Waterproof DD Search Coil 56 x 49 cm (22" x 19")
- INV40 Waterproof DD Search Coil 40 x 35 cm (15.5" x 14")
- INV28 Waterproof DD Search Coil 28 x 18 cm (11" x 7")
- Waterproof (IP67) Hard Transport Case
- Headphones
- Spare 9500 mAh LiPo Battery
- System Box Carrying Case
- INV56 Search Coil Carrying Bag
- IPTU Sensor Carrying Bag
- Protective Covers
- Screen Sunshade
- Harness / Carrying Belt / Bungee Cord
- Carrying Belt
- AC & Car Charger
- USB Cable

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# TECHNICAL SPECIFICATIONS

Operating System	: Embedded Linux System
Graphic Process	: OPEN GL
Sensor	: IPTU (Integrated Positional Tracking Unit)
Operating Principle	: VLF
Operating Frequency	: <b>INVENIO</b> : 14kHz – <b>INVENIO Pro</b> : 5kHz / 14kHz / 20kHz
Audio Frequencies	: 150Hz – 700Hz adjustable
Search Modes	: 3 Non-Motion (Basic / Expert / Ground Anomaly & Cavity) and 3 Motion (All Metal / Fast / Deep)
Iron Audio	: Yes
Tone Break	: Yes
Notch Filter	: Yes
Languages	: English / German / Greek / Turkish / French / Italian / Russian / Arabic / Spanish / Chinese / Persian / Bulgarian / Serbian / Romanian / Dutch / Portuguese / Polish
Ground Balance	: Automatic / Manual / Tracking
Pinpoint	: Yes
Frequency Shift	: Yes
Vibration	: Yes
Sensitivity Setting	: 1 – 99
Target ID	: 00 – 99
Search Coils	: <b>INVENIO</b> : INV28 Waterproof DD 28 x 18 cm (11" x 7"), INV40 Waterproof DD 40 x 35 cm (15.5" x 14") <b>INVENIO Pro</b> : INV28 Waterproof DD 28 x 18 cm (11" x 7"), INV40 Waterproof DD 40 x 35 cm (15.5" x 14"), INV56 Waterproof DD 56 x 49 cm (22" x 19")
Display	: 7" 800 x 480 18 Bit RGB TFT Screen
Backlight	: Yes
LED Flashlight	: Yes
Weight	: System Box: 1.7 kg (with 5500 mAh battery) Shaft and Handle: 2.4 kg
Length	: 121 cm – 152 cm adjustable
Battery	: Shaft Battery: 7.4 V 5400 mAh LiPo System Box Battery: 7.4 V 5500 mAh LiPo System Box Spare Battery: 7.4 V 9500 mAh LiPo (included in pro package only)
Battery Life	: Shaft Battery Life: Approximately 9 hours System Box Battery Life: Approximately 5 hours System Box Spare Battery Life: Approximately 9 hours
Warranty	: 2 years
Patents	: Displaying the shape & dimensions of metals, displaying the depth of metals, displaying ground anomalies / cavities

