

# SMART MDD



Scan this QR code to see the potential of the SMART harness in urban areas.



 SWISS MADE

## THE NEW SOLUTION FOR MINE DETECTION DOGS

### FREE-RUNNING & VOICE-GUIDED

Developed in collaboration with the Geneva International Center for Humanitarian Demining (GICHD)

OVERVIEW

#### ACCESS & YIELD

Free-running mine detection dogs can cover vast areas even on rough terrain and with dense vegetation.

#### COLLECTED & STORED DATA

The dog's position and the area covered are collected in real time and stored in a consolidated database for analysis.

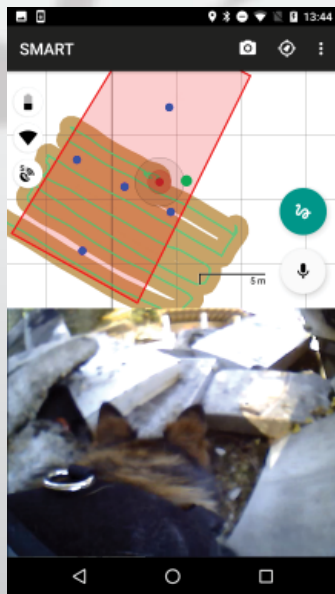
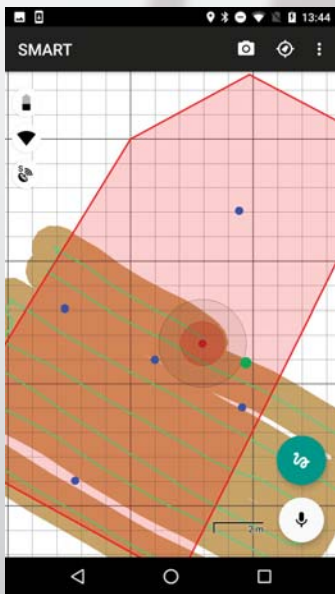
#### MICROPHONE & LOUDSPEAKER

The built-in audio system allows the handler to give commands to the dog in real time through a simple smartphone.

#### LIVE VIDEO FEED

The camera on the harness captures the live feed and acts as a Quality Assurance tool [QA].

# SOFTWARE INTEGRATION & EFFICIENCY FOR ACCELERATED LAND RELEASE



On the smartphone, the handler monitors the map, the live camera feed and relevant statistics, all in real time. The built-in wireless transmitter allows the communication and exchange of data between the harness and a smartphone.

Once the work is completed, an IMSMA\* compatible report can be easily generated. The effectiveness of the SMART system is proven by this systematic integration of all recorded informations in a centralized database.

\*IMSMA (Information Management System for Mine Action): information management tool aiming to supply decision-makers with appropriate information regarding field action, standards, guides, good practice, etc. The system was developed by the GICHD and helps operational planning by gathering information from all parties involved in mine action.

The SMART system allows handlers to get rid of the leash – the major obstacle to the huge potential of dogs in explosive detection. With the equipped GPS and audio system, dogs can operate at a distance of up to 100 meters in medium vegetation.




Cambodge




Bosnie-Herzégovine

# COST EFFECTIVENESS & SAVINGS BY REDUCING EXCESSIVE USE OF CLEARANCE RESSOURCES

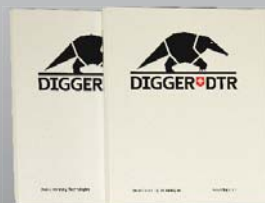
With the new SMART system, procedures involving lengthy and expensive ground preparations to enable access to an area for a dog are no longer compulsory. The deployment of a free-running dog accelerates the search of large areas, permitting its use for technical surveys.

## OTHER POTENTIAL USES: SEARCH & RESCUE OPERATIONS



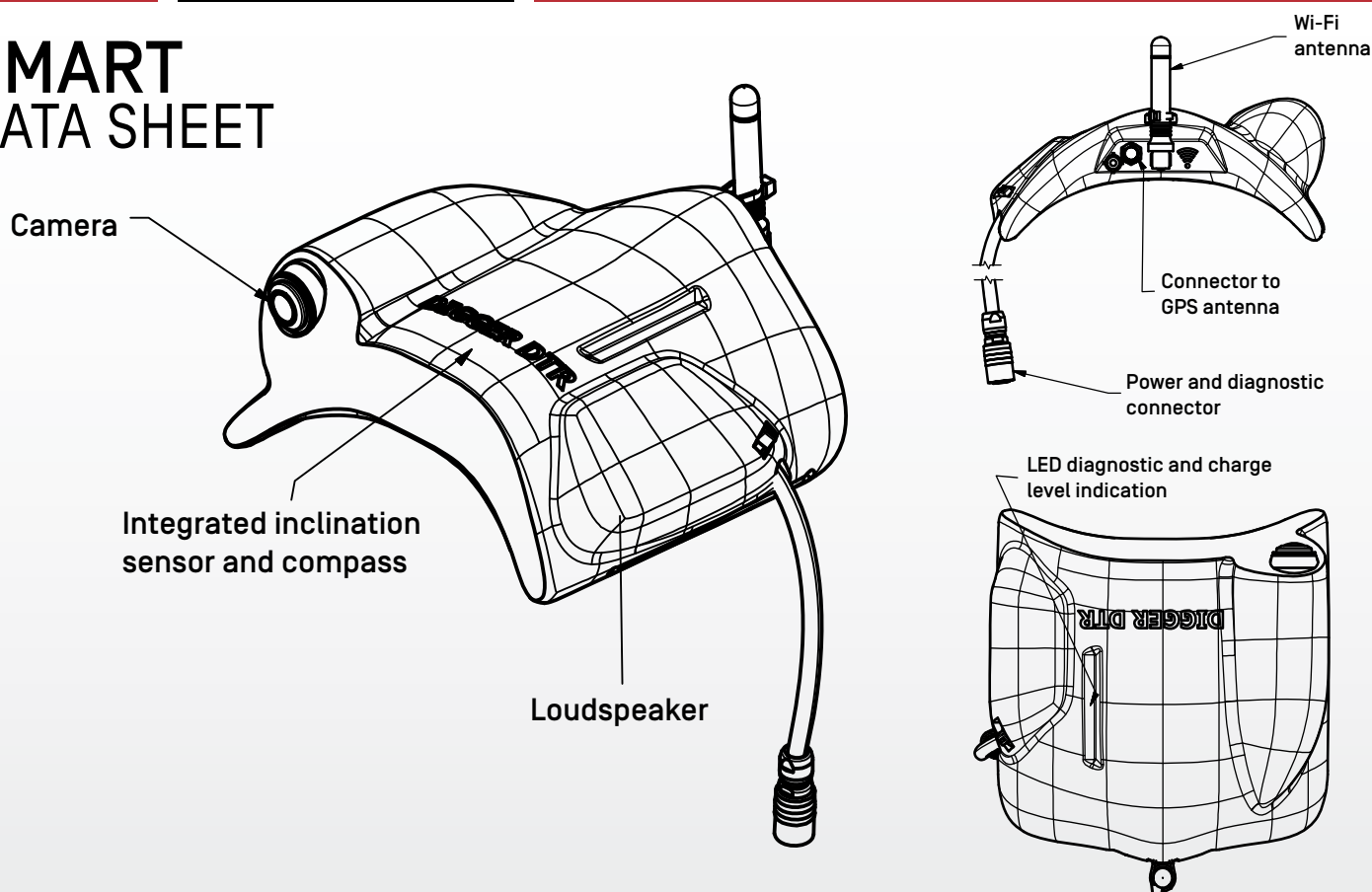
## WHAT'S IN THE BOX ONE SET INCLUDES:

- 2 HARNESES EQUIPPED WITH THE SMART SYSTEM
- 4 HARNESS ACCUMULATORS SETS
- 2 ANDROID SMARTPHONES
- 2 EARPIECES
- 1 LAPTOP ACTING AS THE SERVER
- 1 WI-FI RUGGED ACCESS POINT
- 1 WI-FI ANTENNA
- 2 WI-FI ACCESS POINT ACCUMULATORS
- 2 INSTRUCTION MANUALS



One set comes in three highly resistant cases.

# SMART DATA SHEET



## PHYSICAL DATA

Weight (with harness)	900 grams
Harness Material	Cordura ®
Casing Material	Flexible Polyurethane
Harness size	Base harness for belgian shepherd (Malinois), fully adjustable Other sizes on request

## CAMERA

Sensor	CMOS
Sensor power consumption	Low, 0.12 W
Resolution	640x480 @ 60 fps
Lens	Wide angle 163° diagonal Hard coating Anti-fog
Streaming format	H.264

## SOFTWARE

Digger Operation Management Environment (DOME)  
DOME Android client

Database and operation management tool capable of storing data from multiple dogs simultaneously (included)  
Information and statistics on the dog, area covered, etc. (included)

## COMMUNICATION

Wi-Fi	IEEE 802.11a/b/g/n
GPS network	GPS and GLONASS
GPS accuracy	Standalone mode: 5 m PPP/DGPS mode: 1 m
Communication range	Line of sight: 150 m Dense vegetation: 70 m

## BATTERY

Type	Interchangeable 2 cells Li-Ion battery pack
Autonomy	4 hours
Number of battery packs	2
Charging time	2 hours to 90% charge
Protection	Rugged and waterproof PUR enclosure (IP65 standard)

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- RIGOROUS FOLLOW-UP ON PROJECTS WITH TECHNICAL SUPPORT

- DEVELOPMENT OF INNOVATIVE SOLUTIONS FOR POST-CONFLICT EXPLOSIVE CLEARANCE
- UNIQUE KNOW-HOW AND SWISS QUALITY
- CAPACITY BUILDING AND KNOWLEDGE TRANSFER TO LOCAL OPERATORS, GUARANTEING MAXIMUM INDEPENDANCE