

# A8V MIND

**M**obile **IN**trusion **D**etection

3D Surveillance



## A8V MIND Powered by Accur8vision

**A8V MIND is a special portable version of the Accur8vision volumetric detection system.**

It uses lidar technology for detection. The detector spreads laser beams into space. The reflected laser pulse informs about the distance of the intruder from the detector with an accuracy of 2cm. In this way, the area around the detector is monitored in real time up to a distance of 120 meters. Detection zones can be defined in the system. If the system triggers an alarm, it immediately shows the operator the number of intruders, their exact positions, object sizes, movement speeds, and the system also displays the trajectories of the objects' movements.



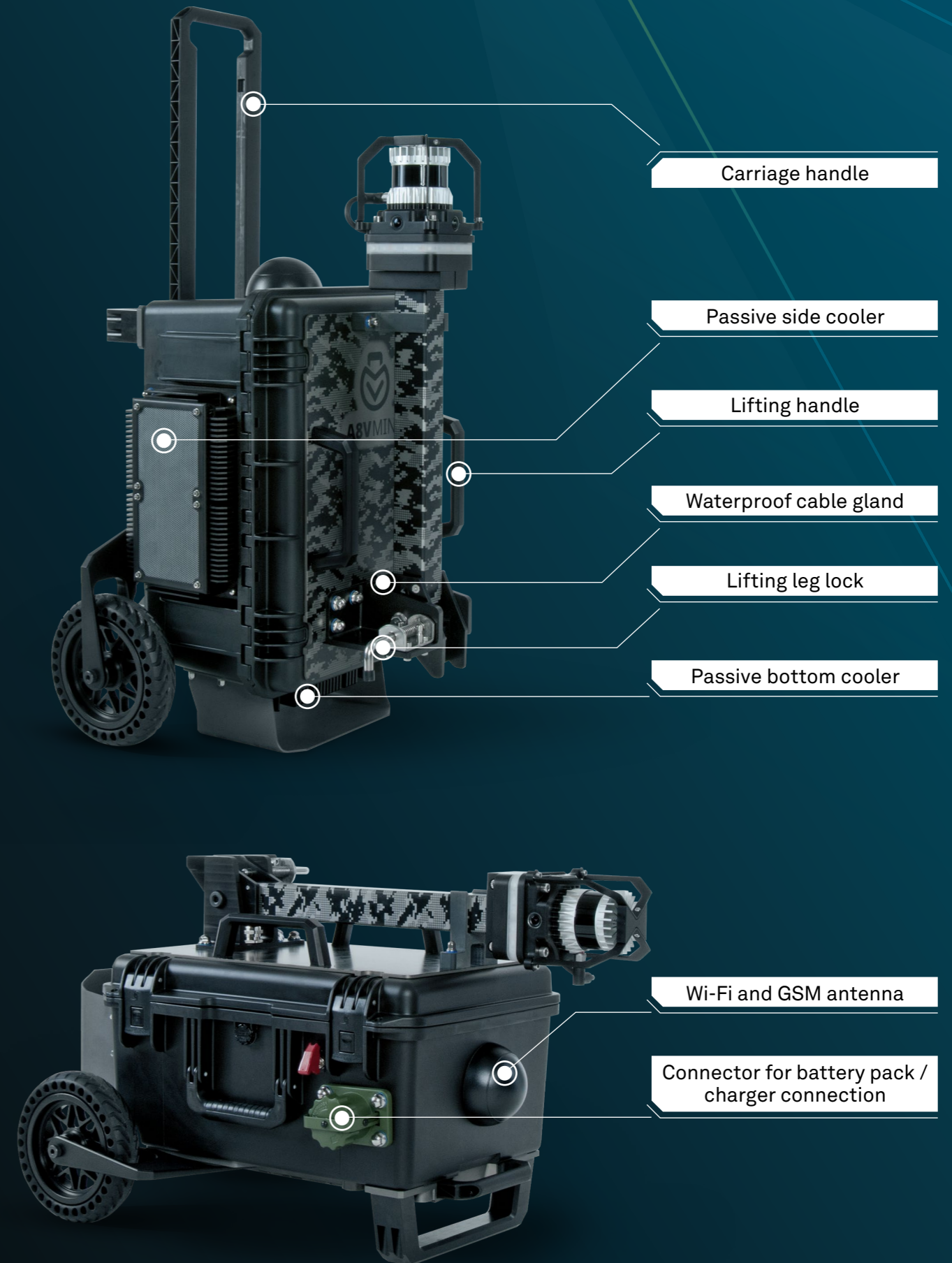
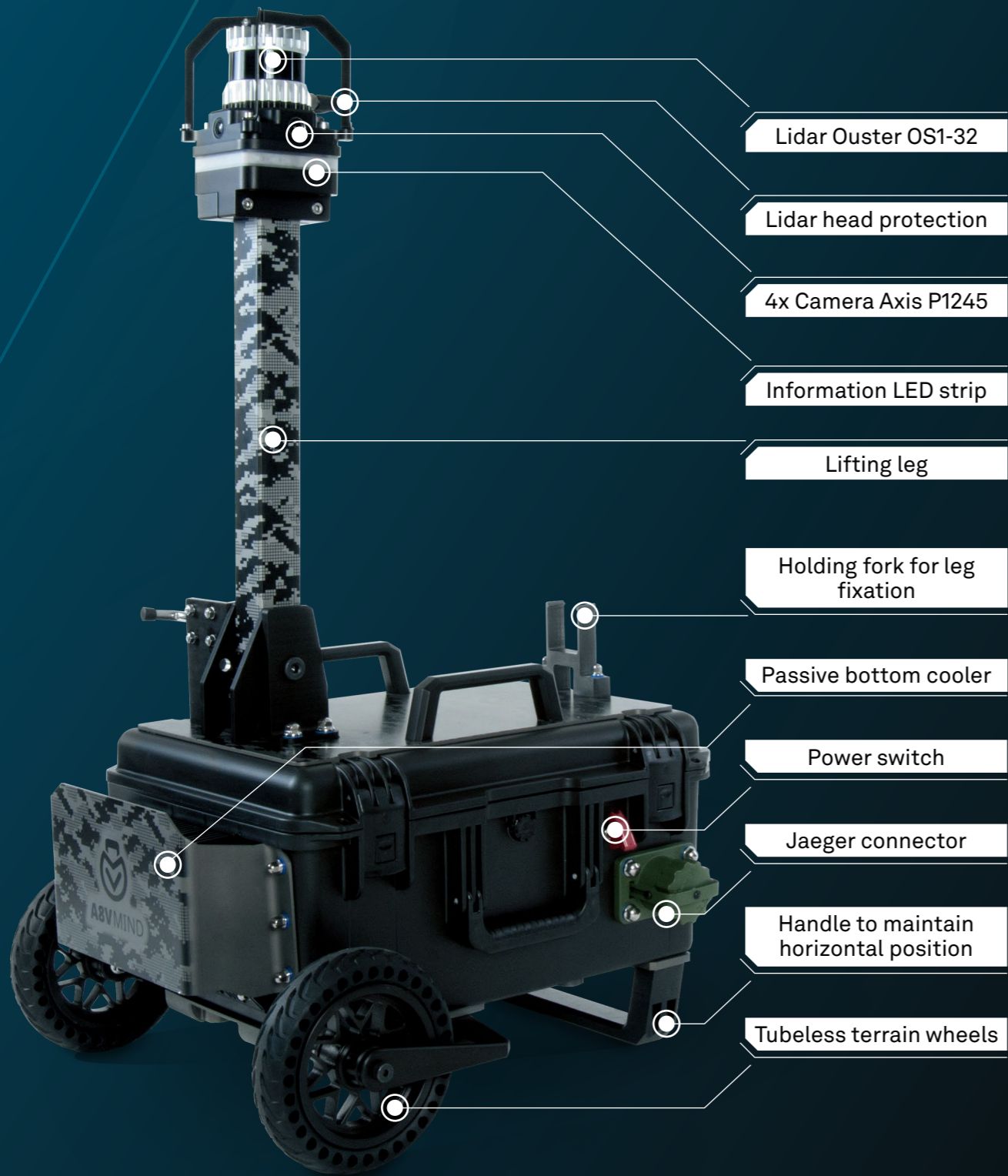
Accur8vision is a full-fledged security system. When an alarm event occurs, it informs the operator of the number of intruders, their exact positions, speeds, and trajectories.

It contains an event archive and can control other connected devices.

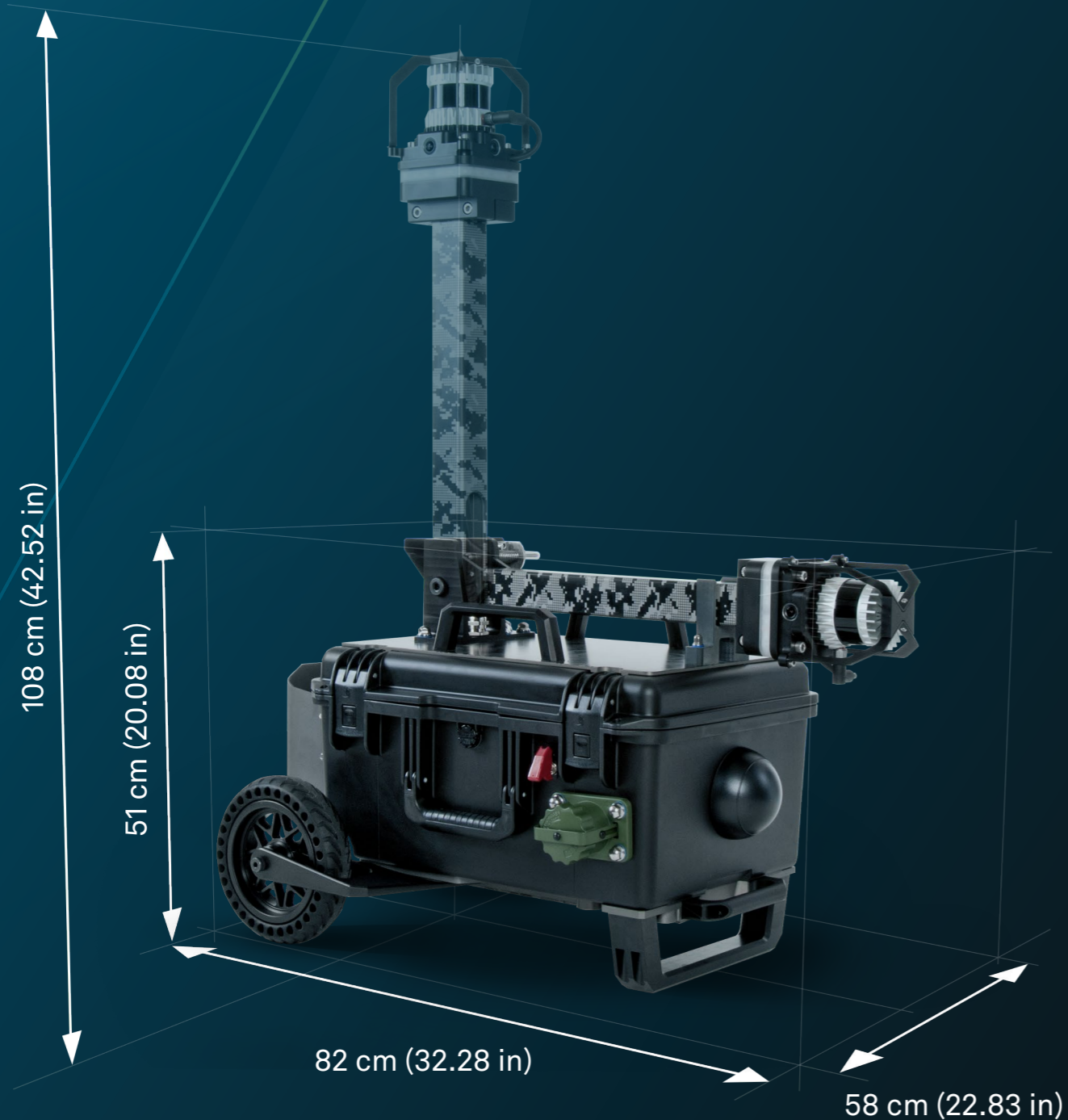


# A8V MIND

A8V MIND is a special portable version of the Accur8vision detection system. It includes Lidar detector, 4 fixed cameras, A8V server, WiFi and GSM router, information LED strip, rugged outdoor design, terrain wheels, internal bridge battery and stackable battery cases for external power supply. A rugged tablet for the Accur8vision client and the system can also be connected to via a web-based thin client.



## Dimensions and weight



Length:	82 cm (32.28 in)
Width:	58 cm (22.83 in)
Height:	51 cm (20.08 in) in transport mode, 108 cm (42.52 in)
Weight :	48,2kg (106.25 lb)

## Internal components

### A8V Server

CPU:	Intel® Core™ i7-1185G7E
Chipset:	Intel SoC
System Memory:	DDR4 16GB RAM
Storage Device:	SSD Samsung 870 EVO 500GB
OS:	Linux Ubuntu
Anti-Vibration:	3 Grms/ 5 ~ 500Hz/ operation (with SSD)
Anti-Shock:	50G, IEC 68-2-27, half sine, 11 ms duration (with SSD)
Operating Temperature:	-20 °C to +60 °C (-4 °F to +140 °F)

### Ethernet

LAN:	10 x LAN ports, 10/100/1000 Mbps, compliance with IEEE 802.3, IEEE 802.3u, 802.3az standards, supports auto MDI/MDIX crossover
PoE ports:	4
PoE standards:	802.3af and 802.3at
PoE Max Power per Port:	30W
Operating temperature:	-40 °C to +75 °C (-40 °F to +167 °F)

### Mobile

Mobile module:	4G (LTE) – Cat 12 up to 600 Mbps, 3G – up to 42 Mbps
SIM/mobile module switch:	2 SIM cards

### Internal batteries

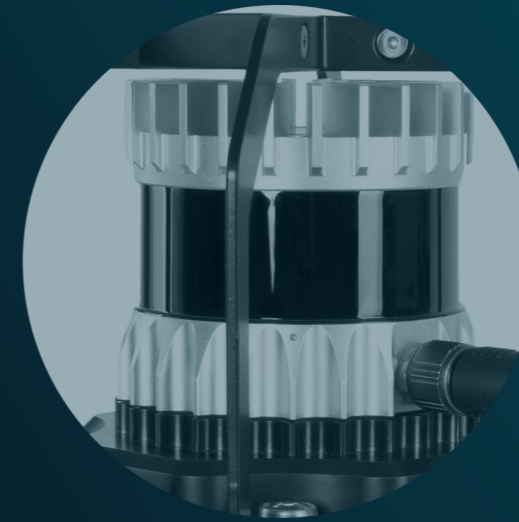
Type:	Lithium-titanium-oxide (LTO)
Nominal Voltage:	12V
Capacity:	30Ah
Watt-Hour (Wh):	345Wh
Power consumption of A8V MIND:	60W (when active cooling is started, the power consumption is 100W)
Battery runtime:	5 hours 45 minutes (under ideal conditions and without active cooling)
Life:	25,000 Cycles
Temperature range:	-50°C – 65°C (-58 °F to +149 °F)

## Wireless

Wireless mode:	802.11b/g/n/ac Wave 2 (WiFi 5) with data transmission rates up to 867 Mbps (Dual Band, MU-MIMO), 802.11r fast transition, Access Point (AP), Station (STA)
Operating temperature:	-40 °C to +75 °C (-40 °F to +167 °F)

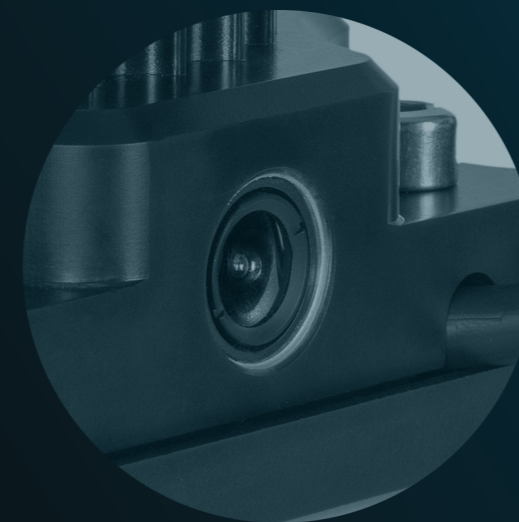


## Lidar



Horizontal Field of view:	360°
Vertical Field of view:	45°
Range at 10% reflexivity:	55m
Maximum Range:	120m
Channels of resolution:	32
Maximum deviation:	2.5cm
Standard deviation:	0.5cm
Ingress protection:	IP68
Laser class:	Class 1 eye-safe
Wavelength:	850 nm
Operating temperature:	-40 °C to +70 °C (-40 °F to +158 °F)

## Cameras



Number of cameras:	4
Image sensor:	CMOS
Min illum./light sensitivity:	0.22 lux
Max video resolution:	1920x1080
Max frames per second:	25/30
PoE Class:	2
Lens Focal length:	2.8mm
Horizontal field of view:	111°
Vertical field of view:	61°
Operating temperature:	-20 °C to +50 °C (-4 °F to +122 °F)

## External Battery Packs

Battery packs are based on LTO technology. A lithium-titanate battery is a modified lithium-ion battery that uses lithium-titanate nanocrystals on the surface of its anode instead of carbon. This gives the anode a surface area of about 100 square meters per gram, compared with 3 square meters per gram for carbon, allowing electrons to enter and leave the anode quickly. This makes fast recharging possible and provides high currents when needed.

External battery packs are stackable. They can be connected in parallel to give the A8V MIND more battery life. Everything is connected by a very durable cable with NATO connectors. The charger is IP-protected and uses the same cable that is used to connect the battery packs.



Type:	Lithium-titanium-oxide (LTO)
Nominal Voltage:	24V
Capacity:	40Ah
Watt-Hour (Wh):	1035Wh
Power consumption of A8V MIND:	60W (when active cooling is started, the power consumption is 100W)
Battery runtime:	17 hours 15 minutes (under ideal conditions and without active cooling)
Life:	over 25,000 Cycles
Temperature range:	-50°C~65°C (-58 °F to +149 °F)
Length:	40,6 cm (15.98 in)
Width:	17,4 cm (6.85 in)
Height:	33 cm (12.99 in)
Weight:	22,2 kg (48.94 lb)

## Charger



Capacity:	2x600W (1,2 kW) Charger
Charge Time:	1hour
Input voltage:	90 – 264 VAC

## Full 3D Client

The system can be connected via Wi-Fi and a touchscreen tablet that can run the full Accur8vision system. This allows the system to be configured. An unlimited number of detection zones can be created. Arm and disarm the system, view the event log, etc.

Rugged Tablet, L10ax XSlate, 10.1", WUXGA 1920 x 1200 (16:10), Active 1000 Nit Display, Win11, i7 vPro 11th Gen, 16GB, 512GB PCIe SSD, WLAN/WWAN w/ GPS, FPR, F&R Cameras, NFC, IP65, Stylus.



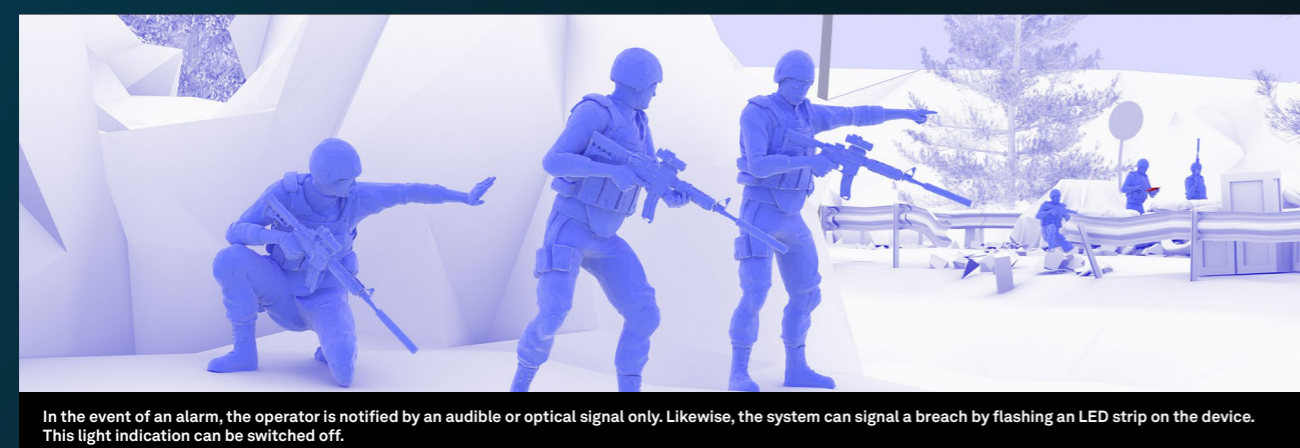
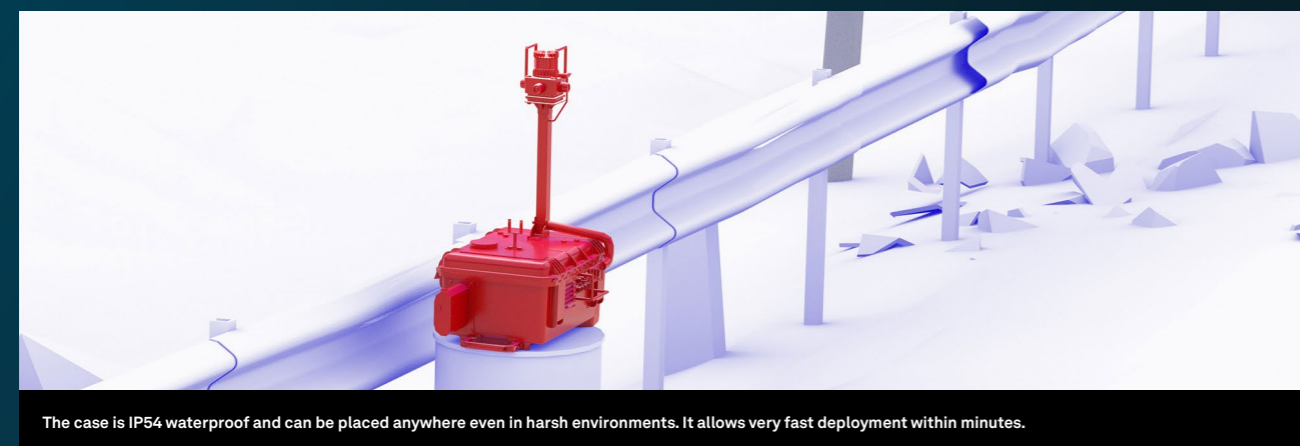
OS :	Windows 11
SW :	Accur8vision Advanced

# Lite Client

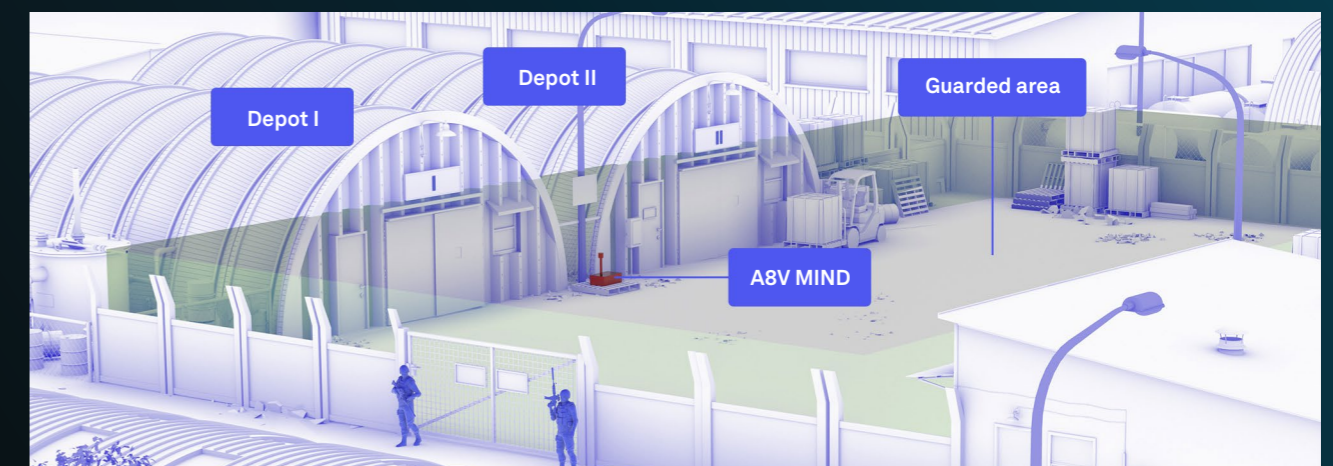
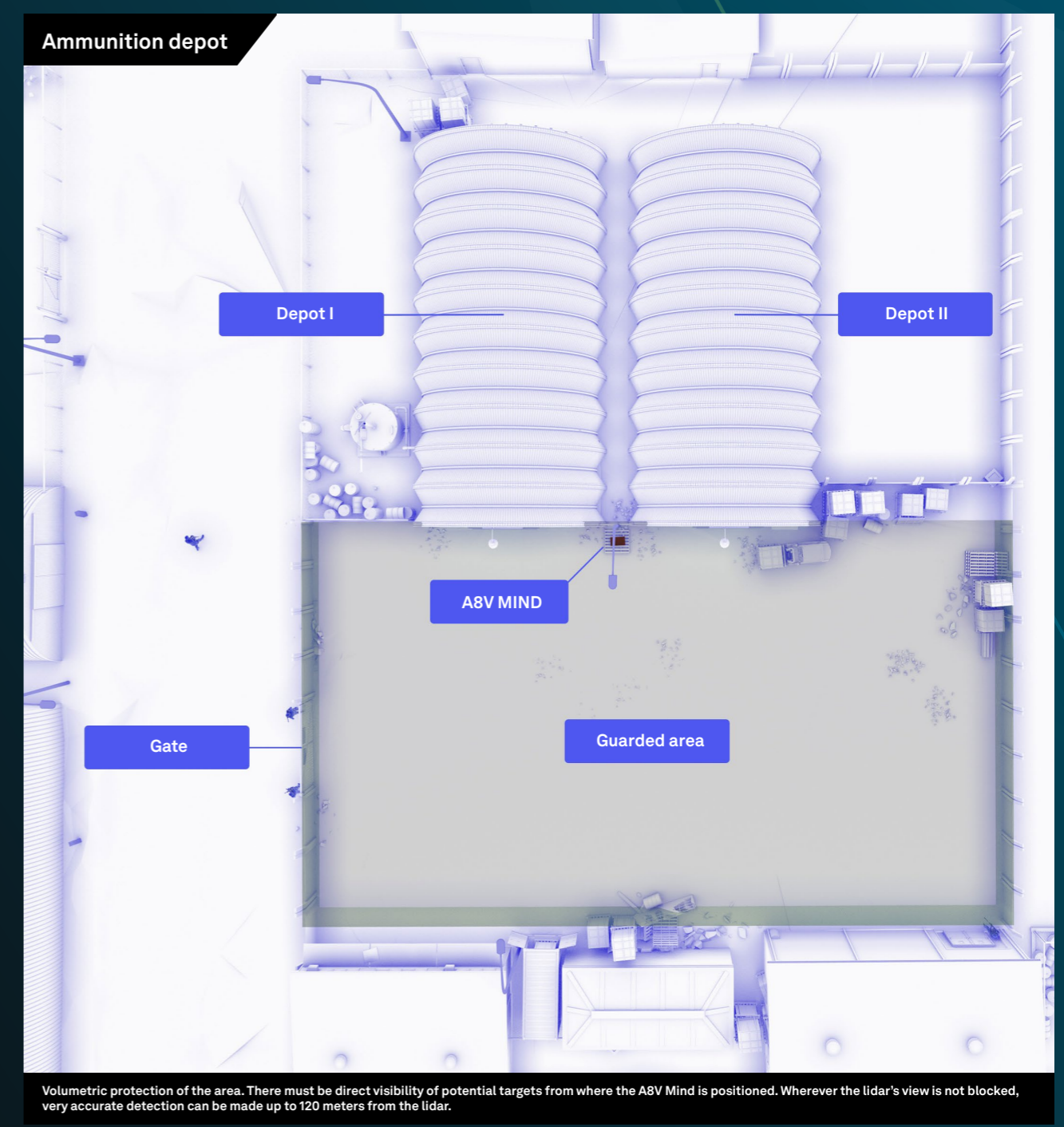
The system can be accessed using a thin client. Accur8vision Thin Client is a native app for Android and iPhone phones. It displays detection zones and moving intruders in real time on a 2D map (which is automatically generated from a 3D map) or on a grid. The app runs in the background and notifies the user when an alarm event occurs. The user can then monitor what is happening in the application online or work with the event archive.



## Military Checkpoint Use Case



## Ammunition Depot Use Case







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