

# The most powerful robot on the market

The aunav.NEXT robot has been designed and developed in collaboration with EOD units and represents the next step in the evolution of EOD, IED and CBRN robots.

It effectively combines strength and dexterity in its two arms movements. Its powerful control unit also provides operator assistance functions and gives the robot semi-autonomous capabilities. It can be adapted for multiple scenarios, and dramatically minimizes the time and risk associated with operations.

## CAPABLE OF LIFTING 250 KG, WITH TWO SYNCHRONIZED ARMS AND TESTED IN ACTUAL OPERATIONS



- **Powerful and easy to use:** the operator can move and handle objects of up to 250 kg with great simplicity and dexterity.
- **Autonomous navigation system:** it can follow objects, avoid obstacles and, in case of broken link, retrace its own steps.
- **Two arms that can rotate 360°:** they allow accurate movements beyond what other robots on the market may do.
- **Manipulator:** its powerful manipulator allows access to the interior of a vehicle by deforming the metal bodywork or breaking windows, without using special tools or shotguns.
- **Multipurpose:** possibility of combining multiple accessories, sensors and the automatic deployment of tools, providing operational versatility.
- **Dual traction system of wheels and tracks:** allows operation on slopes of more than 90%.

### MAIN FEATURES

Stowed length	1,640 mm (64.5")
	With sec. arm: 1,697 mm (66.8")
Stowed width	746 mm (29.3")
Stowed height	1,212 mm (47.7")
Traction system	Dual, 6 high grip wheels and tracks 6 Quad wheels (optional)
Maximum speed	4 km/h (2.5 mph)
Slopes	Over 40°
Anti-overturn system	Yes
Obstacle collision avoidance system	Yes
Directional two-way audio system	Yes
Materials	Structure of aeronautical aluminium alloy and high resistance steel alloy Plastic and UV technical composites
Typical operating time	Aprox. 5 h (depending on task)

### ARM FEATURES

Type of arm	Hydraulic main arm Electric secondary arm (aunav.NEO arm, demountable within seconds)
Degrees of Freedom (DoF)	Main arm: 8° Sec. arm: 7°
Base turret rotation	360°
Gripper rotation	360° endless
Maximum vertical reach (from ground level)	Main arm: 3,100 mm (122") Sec. arm: 2,586 mm (101.8")
Maximum horizontal reach (from platform front side)	Main arm: 2,070 mm (81.5") Sec. arm: 1,684 mm (66.2")
Maximum reach below ground level	Main arm: -1,000 mm (39.4") Sec. arm: -743 mm (29.2")
Maximum lift capacity	Main arm: 250 kg Sec. arm: 75 kg
Anti-collision system between arms	Yes
Arm to platform and ground collision avoidance system	Yes
Gripper based "snake" movement	Yes
Turret based "snake" movement	Yes
Self-calibration	Yes (speed)
Pre-set positions (factory & user-defined)	Yes / Yes

### VISION AND LIGHTING SYSTEM

Standard	2 driving cameras (front) 1 driving camera (rear) 2 PTZ IR cameras (mast) 1 driving camera (main arm) 1 camera (main arm) 1 camera with daylight leds (main arm gripper)
Options	1 camera with daylight leds (secondary arm gripper) 1 driving camera IR (rear) See Defusing equipment to defusing tool cameras
Lighting system	9 LED (4 x front, 2 x side, 2 x base turret, 1 x rear)

### DEFUSING EQUIPMENT

Disruptors	2 disruptors with telemeter, camera and laser pointer 1 disruptor as automatic tool with telemeter and laser pointer
Firing cable reel	Yes
Shotgun	1 with IR camera and laser

### DETECTION SYSTEMS

X-Ray system	Yes
CBRN	Any under demand Radiological safe container

### MANIPULATORS

Parallel gripper with pressure sensor	Yes
Angular gripper with pressure sensor	Yes
Handling kit for delicate objects (soft-gripper)	Yes
Barrel gripper	Yes
Gripper fitted tools (BATS)	Yes
Elevation shovel	Yes
Forklift	Variant aunav.NEXT HD

### AUTOMATIC TOOLS

Number of simultaneous tools	Three
Disruptor	Yes
Drill tool	Yes
Angular grinder	Yes
MN-MIMO Relay radio	Yes

### NAVIGATION

Out of range	When the robot loses comms link with the OCU, it automatically returns to the point where it recovers it
Go back 15 m	The robot autonomously goes in reverse for 15 m to get out of a narrow space
Follow-me	The robot follows an object or person in front of it
Reverse mode	Robot in reverse with the controls as if it were in forward driving
Indoor / Outdoor navigation	No / Yes
GPS / Galileo / Glonass / Beidou	Yes

### OPERATOR CONTROL UNIT (OCU)

Operation	Integrated joysticks and switches Gamepad
Typical operating time	Aprox. 5 h (depending on task)
Videofeeds	Up to 8 video feed simultaneously
Videorecording	Yes
Screenshots	Yes
Blackout mode	Yes
3D Avatar	Yes
Power system	Rechargeable lithium-ion batteries
Communications system	MN-MIMO COFDM radio, WiFi, Fibre Optic, Ethernet
Communications modes	Wired / Wireless / EMCON

### OTHERS

Mast	Yes (automatic)
Towing bolt	Yes (rear)

The technical characteristics and equipment depend on the configuration and version of the robot. Equipment includes options. All the data is accurate, with the exception of possible typographical errors. All photos are the propriety of everis ADS or their use has been authorised by their respective owners.