



# aunav.NEO



**Be safe. Be with us.**

Remote control robots for explosive, CBRN and hazards disposal that help save lives.

## Information

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aunav.NEO

# The only robot with variable geometry

aunav.NEO is the only EOD, IED and CBRN robot with a variable geometry system in existence. It can automatically increase or decrease its width in mere seconds.

The combination of its variable geometry and self-stabilization system, allows the robot to adapt to any operating scenario imaginable. From narrow aeroplane aisles, buses or subways and underground tunnels to wading through debris or traversing wide-open spaces, it has no limits.



## ONE ROBOT FITS ALL

- **Variable geometry system<sup>1</sup>:** the robot automatically increases or decreases its width to optimize its mobility and stability depending on whether it's in narrow or wide spaces.
- **Platform self-stabilization:** the self-stabilization system always keeps the robot platform in a horizontal position on stairs, ramps, slopes or uneven debris-filled terrain.
- **Plug & play payload technology:** self-detection and real-time configuration of any accessory, without the need for operator intervention.
- **Removable:** its main arm, flippers and batteries can easily be uncoupled from the robot without using tools, making it easy to transport in any vehicle.
- **Strength and power:** allows the operator to manipulate and move objects of up to 75 kg easily and skillfully.
- **Autonomous capacities:** autonomous indoor and outdoor navigation systems that generate 3D maps of the environment.

<sup>1</sup>Patented.

## MAIN FEATURES

Stowed length	815 mm (32")
Stowed width	564 mm (22.2")
Stowed height	848 mm (33.4")
Traction system	4 flippers with independent or coordinated movement
Maximum speed	5 km/h (3.1 mph)
Slopes	45° (depending on surface)
Horizontal platform & stable centre of gravity	Automatically keeps the platform as horizontal as possible or maintains the centre of gravity within the area of the base of the platform
Variable geometry	The robot can dynamically change its width from 400 mm (15.7") to 680 mm (26.8") to adapt to the required situation
Platform roll and pitch "doggy" movement	Yes
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. 3D printed caps
Typical operating time	Aprox. 5 h (depending on task)
Power system	Military / Standard rechargeable lithium-ion batteries (BB-2590/U)

## ARM FEATURES

Type of arm	Electric arm
Degrees of Freedom (DoF)	7°
Base turret rotation	360°
Gripper rotation	360° endless
Maximum vertical reach (from ground level)	NEO: 2,700 mm (106.3") NEO HD: 2,800 mm (110.2")
Maximum horizontal reach (from platform front side)	1,800 mm (70.9")
Maximum reach below ground level	- 1,300 mm (51.2")
Maximum lift capacity	75 kg
Load weighing sensor	Yes
Arm to platform and ground collision avoidance system	Yes
Gripper based	Yes
"snake" movement	
Turret based	Yes
"snake" movement	
Self-calibration	Yes
Pre-set positions (factory & user-defined)	Yes / Yes

## VISION AND LIGHTING SYSTEM

Standard	1 driving camera (front) 1 driving camera (rear) 1 camera (arm gripper)
Options	Maximum 20 cameras (incl. standard configuration): Daylight cameras Daylight / IR cameras Thermal cameras PTZ cameras 360° cameras UV cameras High-speed cameras See Defusing equipment to defusing tool cameras
Lighting system	4 LED (2 x front, 2 x rear) Optional up to 20 LED / IR lights

## DEFUSING EQUIPMENT

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

## DETECTION SYSTEMS

X-Ray system	Yes
CBRN	Any under demand

## MANIPULATORS

Parallel gripper with pressure sensor	Yes
Gripper fitted tools (BATS)	Yes
Elevation shovel	Yes

## AUTOMATIC TOOLS

Number of simultaneous tools	Two
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	Yes / 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, 3 DoF)
Handles	Yes (arm and flippers can be dismantled)
Towing bolt	Yes (1 front and 1 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.