

ROBOT-SUPPORTED MAPPING

nexTER
ROBOTICS

**FOR DEFENSE, SECURITY
AND CRISIS MANAGEMENT**

- ◆ Semi-autonomous exploration and mapping
- ◆ Real time 2D cartography
- ◆ Creation of enhanced maps (temperature, contamination level ...)



ROBOT-SUPPORTED MAPPING

EXPLORATION AND MAPPING KIT FOR ROBOTS OF NERVA FAMILY

This additional kit provides NERVA-LG and NERVA-HD robotic systems with an automatic exploration and mapping capability: When operating in a fully unknown area, the platform moves by itself wherever it can go and simultaneously builds a 2D-map of its local environment. The map is displayed in real time and recorded on the control station. Beyond any immediate use, the map can be further utilised to navigate and locate the robot in the various areas of interest or, more generally, to support the on-going mission. The operator can also direct exploration towards any priority areas. As it moves, the robot automatically detects and avoids obstacles (including all mobile ones).

When the robot is equipped with additional detectors (CRN sensor, CO ...), the map can be enhanced with the associated output measurements (for example using dedicated colours to indicate a contamination level); this capability also makes it possible to detect victims (CO level) or to monitor an industrial plant (heat measurement, leak of toxic gas ...).

MAIN FEATURES

Indoor / Outdoor use	
Type of map	2D
Technology used	Scanning laser
Instantaneous range	20 m
Angular resolution	0,25°
Height of scanning plane	0,3 m (NERVA)
Speed of operation	5 km/h
Completeness of map construction	> 90% in closed and structured area
Compatible additional sensors (for map enhancement)	Heat, CO, chemical detectors...
Compatibility (NERVA family)	NERVA-LG, NERVA-HD
Plug and Play	Yes (NERVA)
Command and Control Station	Rugged PC / joystick (on request: Tablet, Smartphone)
Control modes	Teleoperation Guided exploration Autonomous exploration
Supplied in a rugged transport case	

