



OTO MELARA

A Finmeccanica Company

Unmanned Vehicles

UGV

TRP7 - HS



OTO - TRP7 - HS

OTO TRP 7-HS Homeland Security is a semi autonomous electric-powered tracked vehicle. Its configuration is tailored to allow off-road and in-road in order to accomplish multiple missions in support of the Homeland Security forces (E,G. Demining, Patrolling, Surveillance, etc.) Payload and specific devices, according to a modular approach, are placed in a protect, easily interchangeable and dismountable box, placed between the two tracks.

The platform is guided and controlled by means of a suite of proprioceptive and eteroceptive sensors and a specifically developed computer system.

The on-board Control Unit provides the following functions:

- To manage communications with the Control Station through a wireless modem, and to generate commands and sequences of commands directly to the vehicle actuators, permitting an autonomous way-point navigation capability both outdoor (GPS controlled) and indoor (implementing an innovative “real time location” algorithm);
- To avoid automatically every kind of obstacles

guaranteeing the safety of the platform and of people that could face the robot;

- To manage information and data provided by the platform sensors;
- To implement low-level navigation in tele-operated mode and automatic stabilization;
- To record and stored acquired information.

OTO TRP 7 Homeland Security version is equipped with a special turret with the following sensors:

- A Laser Ranger Finder, 270° FoV, for obstacles avoidance and indoor localization purposes;
- A RTK GPS, 3 cm precision;
- A High Definition Video Camera for patrolling missions.

OTO TRP 7-HS was designed and developed following an Open Architecture and Modular System concept: the vehicle can be integrated and can cooperate in coordination with other manned and unmanned platforms in a flexible way in order to accomplish to different operational needs.