

Team Information

Unmanned Vehicle Centre of the Belgian Royal Military Academy



Picture of vehicle:

Name of vehicle:

RobuDem



Picture of team leader:

Name of team leader:

Geert De Cubber

Team Name:

RMA - Unmanned Vehicle Centre

Team E-mail:

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Location:

Brussels, Belgium

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Royal Military Academy of Belgium

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Team Information

Team Description:

The Unmanned Vehicle Centre of the Belgian Royal Military Academy is a research laboratory specialized in the design, development and control of mobile robotic systems. The lab conducts research in varied domains, ranging from very fundamental aspects to the development of prototype products. Our research is focalized on the design of unmanned robotic systems and the perception and control of these systems. Some of our research topics are:

- Visual Perception & Reasoning
- Localization and Mapping
- Robot Navigation and Control
- Multi-Robot Coordination

Our vehicle, the Robudem is our main outdoor research platform. It is a heavy (350 kg) robot, based upon the RoboSoft RobuCar platform. It is able to carry heavy loads and is equipped with numerous sensors: Differential GPS system, BumbleBee Stereo Vision Camera, Ultrasound Sensors, Orientation Sensor. Depending on the application, also a chemical sensor and metal detector are installed. The sensor data is processed on-board by 2 separate PC's: a Linux PC for low-level robot control and a Windows PC for high-level robot artificial intelligence, using the CoRoBa software architecture. The robotic platform has 4 independently steered all-terrain wheels, extending its mobility on rough terrain. The Robudem has served in multiple application areas, ranging from Humanitarian Demining to Crisis Management.

Sponsors:

Belgian Royal Military Academy

Selection of scenario:

2. Camp Security

Proof of citizenship:

A copy of team leader passport will do (will not be published)!