

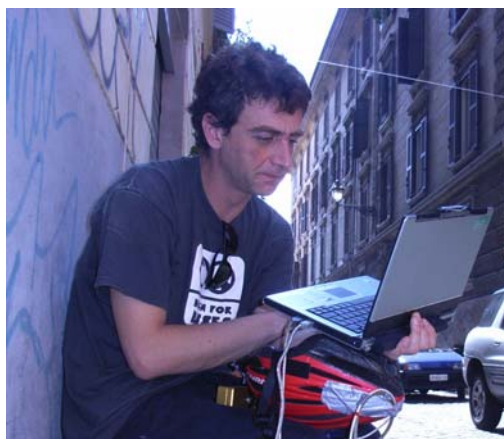
ALCOR Team Information



Picture of vehicle:

Name of vehicle:

To be assigned (It's a brand new robot).



Picture of team leader:

Name of team leader:

Andrea Carbone

Team Name:

ALCOR

Team E-mail:

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Website:

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Location:

Roma (It)

Institution/Company:

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Team Description:

ALCOR was born in 1998 inside the DIS (Dipartimento di Informatica e Sistemistica) of University of Rome “La Sapienza”. The aim of the group is to study cognitive

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architectures of autonomous robotic agents and, in particular, the issues related to the perception of the environments in which the agents work. Another field of interest is the planning of actions and behaviours to complete successfully an assigned task. From an applicative point of view, our interest is about the development of autonomous agents and robotic systems that can operate in environments in which the conditions can not assure the safety of human beings. Furthermore ALCOR wants to develop computer vision systems for the patrolling of public areas (railway/underground stations, airports, etc.) and robots that can help people in complex and unsafe tasks. Since 1998 ALCOR is involved in Italian and European research projects for the developing of model-based control systems which use a cognitive model to reach a higher autonomy, flexibility and reliability of robotic systems.

Our vehicle is a four-wheeled P3-AT mobile robot from MobileRobots (the first from the left on the picture). The sensor payload will consist of actuated stereo cameras, 3D laser scanning devices, and an inertial platform unit. Two sonar rings are embedded in the robot body to provide collision detection and rough proximity sensing. Optionally (and depending on scenario conditions) we will provide the payload with a thermal camera to detect temperature distributions in case heat might help to classify an interesting cue (i.e. a human victim, fire etc..).

Optionally (and depending on the context) we will participate with a six-wheeled outdoor mobile robot. Its name is SECURO. It is a SHRIMP III model by Bluebotics SA (CH). As the payload is restricted, it might be used to join the main robot in the challenge. For example to enter in a narrow entrance or to climb steps. The SHRIMP III has six motorized wheels and a smart passive cinematic system that modify the legs configuration depending on the terrain asperities.

Sponsors:	At the moment we don't have a sponsorship.
Selection of scenario:	urban <input checked="" type="checkbox"/> non-urban <input checked="" type="checkbox"/> UAV&UGV <input type="checkbox"/> exhibition <input type="checkbox"/> autonomous <input checked="" type="checkbox"/>
Proof of citizenship:	Will provide separately.