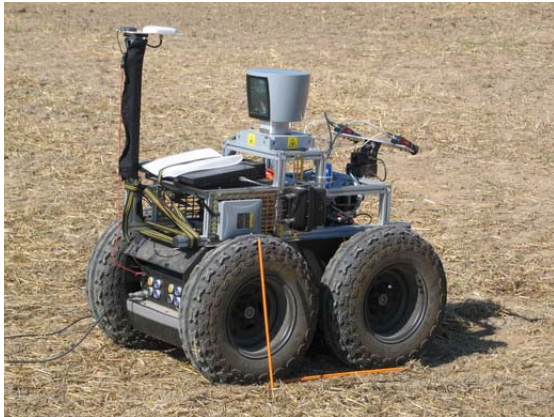


Team Information

Picture of vehicles



Name of vehicles: Mana (the rover) and Mentor (the drone)



Picture of team leader:

Name of team leader:

Simon Lacroix

Team Name:

Marble

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Team Description:

Autonomous mobile robotics has been a research topic studied at LAAS/CNRS since the late 70's. We have always favored a constructive and integrative way of thinking robotics, aiming at defining robotics as a wholesome scientific discipline. A wide variety of problems are studied: environment perception and modeling, path planning, task planning, task execution control, motion control, decisional architecture, heterogeneous multi-robots systems, learning, human robot interaction... In field robotics, our focus is currently on aero-terrestrial multi-robot systems.

Team Information

Our main vehicle is the rover Mana, a SegWay RMP400 that has been equipped at LAAS with a stereovision bench, a Velodyne Lidar, a solid-state inertial measurement unit and a fiber-optic gyro. To perform autonomous navigation, Mana is assisted by the drone Mentor, that embeds a Hokuyo laser scanner and a camera. Mentor can assist Mana by providing him global information on the terrain ahead, and also to localize him. The main robotics functionalities we aim at demonstrating cover the wide range of classical functions related to autonomous navigation, here distributed on two different vehicles: robot localization, terrain mapping, motion generation, and naturally cooperation strategies.

Sponsors:

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Selection of scenario:

1. Autonomous Navigation
2. Mule
3. Approach