

Team Information

Picture of vehicle:



Name of vehicle:

DIEES-CINGO



Picture of Team Leader:

Name of Team Leader:

Prof. Giovanni Muscato

Team Name:

DIEES-UNICT

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Website:

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Location:

Catania - Italy

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Team Description:

The DIEES-UNICT team is composed by 4 researchers, 3 PhD students, and several students of the Engineering Faculty of the Università degli Studi di Catania, Dipartimento di Ingegneria Elettrica Elettronica e dei Sistemi (DIEES). The Team is led by Professor Giovanni Muscato that is the head of the DIEES Service Robotic Group. The DIEES-CINGO robot is a battery powered tracked vehicle. It use two 600W permanent magnet DC motors with unidirectional gearboxes and rubber tracks. The

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robot chassis is a very simple and robust one. This kind of structure normally is used in agriculture environment. The robot has been equipped with the power control subsystem, a dual core Pentium PC, a stereo camera, a laser scanner and a WiFi connection. Moreover the robot has a ruggedized radiomodem for teleoperation and is also equipped with a 6DOF inertial measurement unit and a DGPS receiver. Algorithms for autonomous navigation are under testing. The software is developed in Microsoft Robotic Studio Environment. Till now, different tests with teleoperation and autonomous navigations in a very harsh volcanic environment have been done. Among the others, the robot has been used for materials and equipment transportation (about 200 kg) on the top of the main crater of the Etna Volcano (3330 m osl) starting from the highest point reachable by cars (about 2 km of very rough terrain).

Sponsors:

DIEES-UNICT.

Selection of scenario:

1. Reconnaissance and surveillance _X (Approach)___
2. Camp security ____
3. Transport ____
4. Mule _X_
5. EOD ____

Proof of citizenship:

A copy of team leader passport will do (will not be published)!