

Team Information

Picture of vehicles:



Name of vehicles:

MX4 (UGV)

MX3 (mini-UGV)



Picture of team leader:

Name of team leader:

Damien BARILLOT

Team Name:

University of Versailles

Team E-mail:

isty.rescue@gmail.com

Website:

<http://www.isty.uvsq.fr/spip/>

Location:

Mantes-la-Ville (near Paris)

Institution/Company:

ISTY (Yvelines Science and Technology Institute)

Address:

28, blvd Roger Salengro

78711 Mantes-la-Ville

FRANCE

Telephone:

+33-1 34 78 88 90

Fax:

+33-1 34 78 88 91

Team Description:

Team Information

The **University of Versailles** team is composed of nine students preparing a degree of mechatronic engineering at the Yvelines Science and Technology Institute (ISTY).

The ISTD depends on the University of Versailles, located near Paris. We are under the leadership of Pierre BLAZEVIC, who is the director as well as a teacher of the ISTD. In this school, students and professors work together on different projects which include electronic, mechanic and computing sciences. We have only one sponsor at the moment. The school provides us materials and components, and sometimes different companies provide us material for free.

We will participate to the trial with our two vehicles, called MX3 (Mantes eXplorer 3) and MX4 (Mantes eXplorer 4).

MX3 is a mini-UGV present to C-Elrob 2009, however, the mechanical structure have been completely remade. MX4 is a UGV with slightly the same electronic and software architecture of MX3, but we used a commercial electro kid quad for the mechanical structure. Our robots are entirely developed by students at school. The main goal of our robots is to help humans to do some tasks, like searching and rescuing people after natural disasters such as earthquakes. That is why we also participate to the worldwide Robocup Rescue. Our robots are powered by batteries packs and are remotely controlled by WIFI, in a maximum range of 500 meters. Vehicles incorporate measurements from accelerometers, gyros and wheels speeds for pose estimation.

While moving, the environment is perceived through a laser range finder, sonars, infrared thermal sensors and webcams.

The control station is a laptop and all data are retrieved from the robots in real time.

MX3 and MX4 can be controlled together at a same time or separately using a switch, with a single joystick. They also can be autonomous, where appropriate.

MX3 is in development since September 2007 and MX4 since September 2009.

Today, vehicles are always prototypes which are constantly evolving.

Sponsors: S2M (<http://www.s2m.fr/>)

Selection of scenario:

1. Reconnaissance and surveillance
2. Camp security
3. Transport
4. Mule
5. EOD