

Team Information



Picture of vehicle:

Name of vehicle:

EyeRobot



Picture of team leader:

Name of team leader:

J.C. van den Heuvel

Team Name:

EyeRobot

Team E-mail:

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TNO

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Team Description:

The EyeRobot Team is TNO's entry into the ELROB2008. The team is largely composed of employees from TNO and the Royal Netherlands Army. The EyeRobot was developed by a consortium of corporations in the Netherlands under the projectmanagement of TNO and supported by the Netherlands Ministry of Defence as a research project.

Our vehicle is called the "EyeRobot". It is a battery powered vehicle based on a platform from Robosoft, the RobuROC4. The four wheel platform is a skid steer robot. The two modes of

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operation and the payload are developed by the EyeRobot team. The EyeRobot can be operated by remote control, and in TelePresence mode.

The all electric vehicle has a Li-ion battery pack of Saft and brushless motors. The sensors are mounted on a Sagebrush model20 servo controlled Pan/tilt unit. The sensor suite consists of Stereo camera's, Tele zoom camera, Laser ranger finder, 3D audio and optional multi-spectral and Thermal infrared camera.

The platform is controlled from the navigation PC, and the payload from the Payload PC, the 3D audio has a separate computer. Together with the Robosoft platform PC the total number of PC's is four.

For positioning the platform is equipped with wheel encoders, an Omnistar dGPS, and a Xsens IMU.

The EyeRobot system has two wireless links, a 5.4GHz Smartbridge COFDM link with high bandwidth for video and audio, and a Satel 400Mhz RS232 link with 10 km range capacity for control of the system.

The development of the EyeRobot system started 1st January 2004. The experience of the partners was based on the RoboJeep and the "Generaal" platforms and the Cateyes project. During the project the RobuROC4 platform was specified and the payload integrated on the platform. The Navigation PC controls the platform through TCP/IP connection.

Sponsors:

Netherlands Ministry of Defence

Selection of scenario:

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

Proof of citizenship:

A copy of team leader passport