

www.orpheus-project.cz

Digital Video-Sensoric System of a Reconnaissance Robot

Motivation

- Robotic system Orpheus-X2
 - Mobile telepresence operated robotic system for reconnaissance in dangerous areas
 - Hard terrain break through, indoor operation ability (stairs, doors)
- Proof of the concept
 - > Effective control, easy to train operators
 - Winner of the Robocup Rescue League in Padova, Italy 2003

Project Goals

- Adding features to the telepresence user interface program ARGOS
- Improvement of the video-sensoric system of the robotic platform Orpheus-X2



Results (first 9 months)

- Prototype of the wireless communication system for development purposes
- Analysis of standards for wireless communication suitable for this purpose
- Communication channel modeling



- Modifications of the microcontroller system of the robot
- ARGOS software updates for effective co-development
- Automatic 3D map creation method
- Intuitive remote control
- Patent in robot sensoric systems



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Project duration: 1.7.2004 - 31.12.2007 This work was supported by the Academy of Sciences of the Czech Republic under project no. 1ET100750408 . © 2005 UTIA/CAS.

