

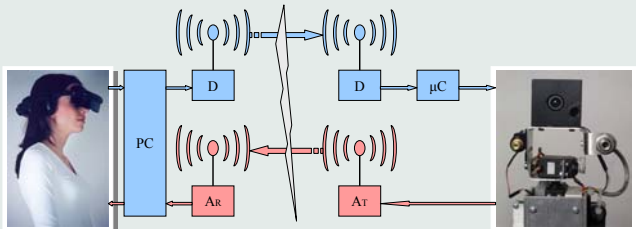
Motivation

- ▶ 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