

Proposal project 2007

By Peter van Lith – 27 Nov 2007

Overview

RoboCup Junior Samples. Een in eerdere jaren gemaakte simulator voor het ‘Body Hopper’ project moet worden uitgebreid met faciliteiten om in Java geprogrammeerde robotjes in de simulator weer te geven. In deze omgeving moeten tevens een aantal demonstratie programma’s worden opgenomen onder andere voor voetbal toepassingen met zowel de omnidirectionele joBot en de tweewielige joBot..

For additional questions and available documentation, please Peter van Lith, peter@lithp.nl. For some backgrounds look at www.multimotions.com

RoboCup Junior Demonstrator. A simulator which has been built in previous years for the ‘Body Hopper’ project now will be used to develop a number of small demo programs to play soccer and possibly the rescue application..

Because we would like 9 year olds to participate in these games, we need a very simple programming language that translates commands into Java code. The existing RoboSoccer system will form the basis for this. This Java code is then executed by the simulator, allowing the virtual robot to be tested. Subsequently the Java program is loaded into the ‘real’ robot. For this project we are using a small omnidirectional robot and a simple two wheeled robot.

Requested features

- Using information from ground map to read values of sensors
- Setup of first version of higher level software like RoboSoccer including:
 - Search for the ball
 - Dribble with the ball
 - Go to the black or the white goal
 - Avoid obstacles
 - Go around the ball
- Development and testing of soccer playing robot
- Possibly development and testing of rescue robot

Available information

Information about games on www.robocupjunior.nl

Information on www.muvium.com

joBot documentation

UVMDemo documentation

Software

Hardware for testing