

The Contribution List of NeverMost 3D Soccer Simulation Team 2012

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1 Robot soccer world cup 2011

Our team passed the qualification of the 3D simulation competition, Turkey.

2 Robocup China Open 2011

Our team won the third class award of the 3D simulation competition.

3 Agent locating using field lines information

Before the rcserver3D adds lines to vision perceptor, locating agent itself uses the flag around the field to perform. Lines are added to vision perceptor in new version of rcserver3D. With many fixed lines in the soccer field, agent can see a series of points including the endpoints of lines and the intersection points caused by visual limit. We introduce an algorithm to make use of the vision information of the field lines to enhance the accuracy of self-localization.

4 Solve the interdependent problem in World Model Data Processors

World Model Data Processor is a mechanism designed for processing the primitive data from the World Model. But in the practical use one WMDP may need the result of another WMDP. We solve this problem by adding properties in WMD-P that mark those needed WMDPs, and use the topological sort algorithm to determine the processing order of all the WMDPs.

5 Implement the behavior system

Behavior works as a communication mechanism that transfers information between Cerebrum and Cerebellum, which describes the result of action planning. We made some revolutionary changes have been made in the implement of the behaviors: 1. Make the coordinate system of the walk behavior relative 2. Implement the multiple behavior handle system.