



RoboCup@Home 2010

June 21-24, 2010
Singapore

www.robocupathome.org



What is RoboCup@Home?

The RoboCup@Home league aims at developing autonomous service and assistive robot technology with high relevance for future personal domestic applications. It is the biggest service and home robotic competition worldwide and is part of the international RoboCup initiative. A set of benchmark tests is used to evaluate the robots' abilities and performance in a realistic non-standardized home environment.

Focus of the @Home league

- Human-robot cooperation through natural interaction
- Navigation and mapping in dynamic environments
- Computer vision and object recognition in natural light
- Object manipulation
- Speech and gesture recognition
- Person detection and tracking
- Ambient intelligence
- Standardization and system integration

Features of @Home

- Open, extendable framework for benchmarking
- Lean set of rules
- Realistic domestic environment and useful tasks
- Low entry level and attractiveness

Some @Home Tests of 2009

Introduce: The robot introduces itself and the team.

Fast Follow: Follow a human guide through a dynamic environment.

Fetch & Carry: Find and bring an object to the user.

Who's Who: Find and remember unknown persons.

Partybot: Find persons, receive orders and serve a drink.

Supermarket: An unknown user has to make the robot retrieve certain objects from a shelf.

Walk&Talk: Teach in locations in an unknown environment by showing the robot around.

Cleaning up: Recognize and arrange unknown objects on the floor.

