



RoboCup@Home

Forms & Score Sheets

Registration Form



Team name: _____

Team leader name: _____

Weight & dimensions (robot 1): _____

Weight & dimensions (robot 2): _____

External devices: _____

Possible manipulation heights: _____

Manipulable objects: _____

Safety first!

The speed of the robots should ensure safe operation. This means that the robot is not allowed to go faster than the local speed limits. During operation in an environment with humans it may not exceed a walking pace of humans (6 kph, 3.7 mph).

At any time when operating the robot inside and outside the scenario the owners have to stop the robot immediately if there is a remote possibility of dangerous behavior towards people and/or objects. If a referee, member of the Technical or Organizational committee, an Executive or Trustee of the federation tells the team to stop the robot, there will be no discussion and the robot has to be stopped *immediately*.

If the team does not comply, the team and its members can be excluded from the ongoing competition immediately by a decision of the RoboCup@Home Technical Committee. Furthermore, the team and its members can be banned from future competitions for a period not less than a year by a decision of the RoboCup Federation Trustee Board.

I have read and fully understood the "Safety First" statement and agree to it. Furthermore, I agree to obey the rules in the official RoboCup@Home rulebook.

Date & time

Team leader

Score Sheet



Test: Robot Inspection

Team name: _____

Referee name: _____

The maximum time for this test is *7 minutes* for one robot and *9 minutes* for two robots. If the time limit is exceeded, the total score in this test is limited to 500 points.

A non-functioning robot can be registered by a team member.

For the evaluation of the posters, every team leader gives up to 10 points for each poster presented.

Action	Score	1st try	2nd try
<i>Registration</i>			
Non-autonomous registration	100	_____	_____
Autonomous registration (one robot)	500	_____	_____
Autonomous registration (two robots)	2 × 250	_____	_____
<i>Neat Appearance</i>			
No wires hanging out of the robot, e.g. no functional wire has to be tied to the robot, no duct-tape, internals covered, etc.	200	_____	_____
<i>Poster session</i>			
Arithmetic mean of scoring from evaluation sheets × 30	300	_____	_____
<i>Special penalties & bonuses</i>			
Not attending	-500	_____	_____
Outstanding performance	100	_____	_____
<hr/>			
Total score	1100	_____	_____

Remarks:

Date & time

Referee

Team leader

Score Sheet



Test: Poster Session

Referee name: _____

Team	Score	Result
CAS@Home	10	_____
Uchile HomeBreakers	10	_____
WrightEagle@Home	10	_____
ZJUPanda@Home	10	_____
b-it-bots	10	_____
homer@UniKoblenz	10	_____
NimbRo@Home	10	_____
ToBI	10	_____
MRL@Home	10	_____
Sourena	10	_____
eR@sers	10	_____
Ho-Ryu	10	_____
NANISHA	10	_____
Pumas	10	_____
Radical Dudes	10	_____
MINHO@Home	10	_____
DCR-I	10	_____
Robo-Erectus@Home	10	_____
RH5-Y	10	_____
Airobot@home	10	_____
Crude Scientists	10	_____
TKU	10	_____
Plasma-MK	10	_____
GT@Home	10	_____

Remarks:

Date & time

Referee

Score Sheet



Test: Follow Me

Team name: _____

Referee name: _____

The maximum time of the test is *8 minutes*, including calibrating on the operator.

Action	Score	1st try	2nd try
Checkpoint 1: Temporary occlusion			
Successfully resume following the operator	100	_____	_____
Checkpoint 2: Tracking from the distance			
Understanding the user command	50	_____	_____
Bonus for using a gesture	100	_____	_____
Waiting a minimum of 10 seconds and then <i>finding and following the operator</i>	100	_____	_____
Checkpoint 3: Recognize owner			
Understanding the user command	50	_____	_____
Bonus for using a gesture	100	_____	_____
<i>Recognizing and following the operator</i> after he returns	200	_____	_____
Checkpoint 4: Finish line			
Crossing the finish line	200	_____	_____
No touching			
Reaching all 4 checkpoints and <i>not having touched any object or human</i> in the scenario	100	_____	_____
Special penalties & bonuses			
Not attending	-500	_____	_____
Outstanding performance	100	_____	_____
Total score	1100	_____	_____

Remarks:

Date & time

Referee

Team leader

Score Sheet



Test: Go Get It!

Team name: _____

Referee name: _____

The maximum time for this test is *5 minutes*.

All points can only be given once in this test. If the robot identifies an object wrongly, it cannot receive the points for identifying the correct object.

If one of the robots *enters the room of the other robot* for more than 30 seconds and is not trying to return to its own room or interferes with the other robot, then the test is finished for this robot and it has to be removed from the area.

Action	Score	1st try	2nd try
<i>Navigating to the room</i>			
Successfully reaching the correct room	200	_____	_____
<i>Identifying an object</i>			
The robot correctly indicates which of the (known) objects it has identified. The robot has to be facing it and be within a distance of max. 50 cm.	200	_____	_____
<i>Grasping the object</i>			
Grasping the object and successfully lifting it up to at least 5 cm for more than <i>10 seconds</i>	200	_____	_____
<i>Handing to user</i>			
Successfully returning to the operator and handing the object to him/her. The operator has to be in the same place as he/she was when telling the robot where to go.	300	_____	_____
<i>Leaving the arena</i>			
Autonomously leaving the arena within the time limit	100	_____	_____
<i>Special penalties & bonuses</i>			
Not attending	-500	_____	_____
Using start button	-50	_____	_____
Outstanding performance	100	_____	_____
<hr/>			
Total score	1100	_____	_____

Remarks:

Date & time

Referee

Team leader

Score Sheet



Test: Who Is Who

Team name: _____

Referee name: _____

The maximum time for this test is *7 minutes*.

When using an onboard microphone, the distance between the person speaking and the robot has to be at least *50 cm*.

Action	Score	1st try	2nd try
<i>Receive guests</i>			
Understanding name	2×25	_____	_____
Using onboard microphone	2×100	_____	_____
<i>Searching guests</i>			
Correctly identifying a person as a human (<i>1 × per person</i>)	5×50	_____	_____
Correctly identifying a known person by its name	4×75	_____	_____
Correctly indicating that a person is unknown	100	_____	_____
Confounding one of the persons (<i>identifying him/her by the wrong name</i>)	-100	_____	_____
Incorrectly identifying something as a human	-150	_____	_____
<i>Leaving the arena</i>			
Autonomously leaving the arena within the time limit	100	_____	_____
Autonomously opening the door before leaving	250	_____	_____
<i>Special penalties & bonuses</i>			
Not attending	-500	_____	_____
Using start button	-50	_____	_____
Outstanding performance	100	_____	_____
Total score	1350	_____	_____

Remarks:

_____ *Date & time*

_____ *Referee*

_____ *Team leader*

Score Sheet



Test: Enhanced Who Is Who

Team name: _____

Referee name: _____

Test repetition: 1st 2nd

The maximum time for this test is *10 minutes*.

Action	Score	1st try	2nd try
<i>Receive guests</i>			
Understanding name	<i>3 × 25</i>	_____	_____
Using onboard microphone	<i>3 × 100</i>	_____	_____
<i>Taking the order</i>			
Finding the calling person and asking it for its order	<i>250</i>	_____	_____
Asking the wrong person or something that is not a person for its order	<i>-150</i>	_____	_____
<i>Grasping drinks</i>			
<i>Grasping a drink</i> and successfully lifting it up to at least <i>5 cm</i> for more than <i>10 seconds</i>	<i>3 × 200</i>	_____	_____
<i>Delivering drinks</i>			
Delivering the correct drink to the person which ordered the drinks	<i>200</i>	_____	_____
Delivering to the other standing person	<i>225</i>	_____	_____
Delivering to the sitting person	<i>250</i>	_____	_____
<i>Leaving the arena</i>			
Autonomously leaving the arena within the time limit	<i>100</i>	_____	_____
<i>Special penalties & bonuses</i>			
Not attending	<i>-500</i>	_____	_____
Using start button	<i>-50</i>	_____	_____
Outstanding performance	<i>200</i>	_____	_____
<hr/>			
Total score	<i>2200</i>	_____	_____

Remarks:

Date & time

Referee

Team leader

Score Sheet



Test: General Purpose Service Robot

Team name: _____

Referee name: _____

Test repetition: 1st 2nd

The maximum time for this test is *10 minutes*.

Action	Score	1st try	2nd try
Category I			
Asking correct/reasonable questions (to require missing information)	300	_____	_____
Solving half of the task or more (showing that the robot has understood the command and works on the test) <i>and</i>	200	_____	_____
Completely solving the task	300	_____	_____
Category II			
Showing that the robot has understood the command and works on the test	200	_____	_____
Solving the task up the point where the error occurred	200	_____	_____
Indicating that a problem has occurred while executing the task	200	_____	_____
Returning to the user and explaining what went wrong	200	_____	_____
Giving an alternative solution to the problem	200	_____	_____
Total Score			
max (Cat. I) + max (Cat. II) = 1800			
Special penalties & bonuses			
Not attending	-500	_____	_____
Using start button	-50	_____	_____
Outstanding performance	180	_____	_____
Total score	1980	_____	_____

Remarks:

Date & time

Referee

Team leader

Score Sheet



Test: Shopping Mall

Team name: _____

Referee name: _____

The maximum time for this test is *10 minutes*.

Action	Score	1st try	2nd try
Guide Phase			
Reaching a <i>location</i> in the guide phase	4×50	_____	_____
Navigation Phase			
Reaching a <i>location</i> in the navigation/manipulation phase	3×150	_____	_____
Grasping the correct objects			
Successfully grasping a correct object from the shelf	3×200	_____	_____
Successfully grasping from at least 2 different heights	150	_____	_____
Delivering the correct objects			
Successfully delivering (and handing over) the correct object to the user	3×150	_____	_____
No Touching			
Successfully solving the complete test in time without <i>touching</i> anything.	150	_____	_____
Special penalties & bonuses			
Not attending	-500	_____	_____
Outstanding performance	200	_____	_____
<hr/>			
Total score	2200	_____	_____

Remarks:

Date & time

Referee

Team leader