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# RoboCup@Home

Forms & Score Sheets

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# Registration Form



Team name: \_\_\_\_\_

Team leader name: \_\_\_\_\_

## 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.

	Robot 1	Robot 2
Size of the robot		
Emergency button(s)		
Start button		
Collision avoidance		
Voice of the robot		
Robot speaker system		
Use of external devices		
ASR Bypassing method		
Other safety issues		
Custom containers.		

## External Devices:

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:** Poster Session

**Team name:** \_\_\_\_\_

**Referee name:** \_\_\_\_\_

## Instructions:

1. Please watch all posters carefully.
2. There will be a team member for questions about the poster.
3. After viewing the poster and asking your questions you may have, please fill in the evaluation sheet below.
4. Is not allowed to evaluate your own team.
5. You may use the space below "Remarks:" to take notes for yourself.
6. Enter your team's name ("Team name") and your name ("referee name") on top of the sheet.
7. Sign the form using either "Referee" or "Team leader" slots at the bottom.

## Evaluation sheet

Team	Overall score of poster (0-10)
Chief Scientist Office	
EPFL@Home	
eR@sers	
FBOT@Home	
Gentlebots	
Hibikino-Musashi@Home	
KIARO	
LAR@Home	
LASR	
LCASTOR	
LyonTech	
NimbRo@Home	
Pumas	
PUMAS-DSPL	
RoboCanes-VISAGE	
RoboFEI@Home	
RoBorregos rUNSWEEP	
Serious Cybernetics Corporation (SCC)	
Sinfonia Uniandes	
SKUBA	
SOBITS	
SocRob@Home	
SUTURO-VaB	
Team of Bielefeld (ToBi)	
Tech United Eindhoven	
Tidyboy-DSPL	
Tidyboy-OPL	
Tinker	
TRAIL	
UT Austin Villa@Home	

**Remarks:**

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*Date & time*

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*Referee*

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*Team leader*

# Score Sheet



Test: Help Me Carry

Team name: \_\_\_\_\_

Referee name: \_\_\_\_\_

The maximum time for this test is 5 minutes.

Action	Score	1 <sup>st</sup> try	2 <sup>nd</sup> try	3 <sup>rd</sup> try
<b>Main Goal</b>				
Following the person to the car	300	_____	_____	_____
Perceiving the correct beg (visualize on screen or say which one)	15	_____	_____	_____
Picking up the correct bag	100	_____	_____	_____
Avoiding the crowd of people obstructing the path	50	_____	_____	_____
Avoiding the small object on the ground	50	_____	_____	_____
Avoiding the hard-to-see object	50	_____	_____	_____
Avoiding the area blocked with retractable barriers	50	_____	_____	_____
<b>Bonus rewards</b>				
Re-reaching the starting location	200	_____	_____	_____
Joining and staying in the queue on the way to the arena	300	_____	_____	_____
<b>Penalties</b>				
Dropping the bag	-50	_____	_____	_____
<b>Deus Ex Machina Penalties</b>				
Rediscovering the operator by natural interaction	-50	_____	_____	_____
Rediscovering the operator by unnatural interaction	-100	_____	_____	_____
Rediscovering the operator by asking them to come back	-150	_____	_____	_____
Rediscovering the operator by direct contact	-200	_____	_____	_____
<b>Special Penalties &amp; Bonuses</b>				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
Outstanding performance	111	_____	_____	_____
<hr/>				
Score per try	1115	_____	_____	_____
Total Score	1226	_____		

Remarks:

\_\_\_\_\_  
Date & time

\_\_\_\_\_  
Referee

\_\_\_\_\_  
Team leader

# Score Sheet



**Test:** General Purpose Service Robot

**Team name:** \_\_\_\_\_

**Referee name:** \_\_\_\_\_

The maximum time for this test is 5 minutes.

Action	Score	1 <sup>st</sup> try	2 <sup>nd</sup> try	3 <sup>rd</sup> try
<b><i>Main Goal</i></b>				
Executing the task associated with each command	3×400	_____	_____	_____
<b><i>Bonus Rewards</i></b>				
Understanding a command given by a non-expert operator	3×100	_____	_____	_____
<b><i>Deus Ex Machina Penalties</i></b>				
Using a custom operator	3×-50	_____	_____	_____
Bypassing speech recognition	3×-50	_____	_____	_____
Instructing a human to perform parts of the task will apply a percentage penalty according to similar penalties in other Stage I tests.	3×-400	_____	_____	_____
<b><i>Special Penalties &amp; Bonuses</i></b>				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
Outstanding performance	150	_____	_____	_____
<b><i>Score per try</i></b>	1500	_____	_____	_____
<b>Total Score</b>	1650	_____		
<b>Remarks:</b>				

\_\_\_\_\_  
*Date & time*

\_\_\_\_\_  
*Referee*

\_\_\_\_\_  
*Team leader*

# Score Sheet



Test: Receptionist

Team name: \_\_\_\_\_

Referee name: \_\_\_\_\_

The maximum time for this test is 5 minutes.

Action	Score	1 <sup>st</sup> try	2 <sup>nd</sup> try	3 <sup>rd</sup> try
<b>Main Goal</b>				
Guide the guest to the other guests (navigate to the guest group)	2×15	_____	_____	_____
Look in the direction of navigation or at the navigation goal	2×50	_____	_____	_____
Introduce a new guest to every other guest and the host	2×50	_____	_____	_____
Offer a free seat to the new guest	2×100	_____	_____	_____
Look at the person talking	2×25	_____	_____	_____
Look at the person the robot is introducing the guest to	2×50	_____	_____	_____
Qualitative robot social performance	50	_____	_____	_____
<b>Bonus Rewards</b>				
Open the entrance door for a guest	2×100	_____	_____	_____
Describe the first guest to the second guest (per correct attribute)	4×30	_____	_____	_____
Describe the first guest to the second guest (per incorrect attribute)	4×-30	_____	_____	_____
<b>Penalties</b>				
Wrong guest information was memorized (continue with wrong name or drink)	-50	_____	_____	_____
Persistent inappropriate gaze (away from conversational partner)	-50	_____	_____	_____
Persistent gaze not in the direction of the navigation while moving.	-10	_____	_____	_____
<b>Deus Ex Machina</b>				
Alternative HRI	2×-75	_____	_____	_____
Not recognizing people	2×-200	_____	_____	_____
<b>Special Penalties &amp; Bonuses</b>				
Not attending	-500	_____	_____	_____
Outstanding performance	95	_____	_____	_____
<hr/>				
Score per try	950	_____	_____	_____
<hr/>				
Total Score	1045	_____	_____	_____

Remarks:

\_\_\_\_\_  
Date & time

\_\_\_\_\_  
Referee

\_\_\_\_\_  
Team leader

# Score Sheet



Test: Serve the Breakfast

Team name: \_\_\_\_\_

Referee name: \_\_\_\_\_

The maximum time for this test is 5 minutes.

Action	Score	1 <sup>st</sup> try	2 <sup>nd</sup> try	3 <sup>rd</sup> try
<b>Main Goal</b>				
Initial navigation to pick up area	15	_____	_____	_____
Perceiving object and categorizing it correctly (visualize or say)	4×15	_____	_____	_____
Picking up breakfast items for transportation to the table	4×50	_____	_____	_____
Placing breakfast items on the table	4×50	_____	_____	_____
Pouring cereal into the bowl	300	_____	_____	_____
<b>Bonus Rewards</b>				
Pouring milk into the bowl	300	_____	_____	_____
Placing a spoon next to the bowl	100	_____	_____	_____
<b>Penalties</b>				
Throwing or dropping an object on the table	4×-30	_____	_____	_____
Spilling cereal while pouring	-100	_____	_____	_____
Spilling milk while pouring	-100	_____	_____	_____
<b>Deus Ex Machina Penalties</b>				
Pointing at an object	4×-5	_____	_____	_____
Handing an object over to the robot	4×-50	_____	_____	_____
A human placing an object on the table	4×-50	_____	_____	_____
A human pouring cereal in the bowl	-300	_____	_____	_____
<b>Special Penalties &amp; Bonuses</b>				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
Outstanding performance	117	_____	_____	_____
<hr/>				
Score per try	1175	_____	_____	_____
<hr/>				
Total Score	1292	_____	_____	_____

Remarks:

\_\_\_\_\_  
Date & time

\_\_\_\_\_  
Referee

\_\_\_\_\_  
Team leader



# Score Sheet



Test: Storing Groceries

Team name: \_\_\_\_\_

Referee name: \_\_\_\_\_

The maximum time for this test is 5 minutes.

Action	Score	1 <sup>st</sup> try	2 <sup>nd</sup> try	3 <sup>rd</sup> try
<b>Main Goal</b>				
Navigating to the table	15	_____	_____	_____
Perceiving object and categorizing it correctly	5×15	_____	_____	_____
Picking up an object for transportation to the cabinet	5×50	_____	_____	_____
Perceiving objects in shelf and saying on which layer the currently handled object should be placed	5×15	_____	_____	_____
Placing an object in the cabinet	5×15	_____	_____	_____
Placing an object next to similar objects on the cabinet	5×50	_____	_____	_____
<b>Bonus Rewards</b>				
Opening the cabinet door without human help	200	_____	_____	_____
Picking up a tiny object	70	_____	_____	_____
Placing a tiny object	30	_____	_____	_____
Picking up a heavy object	70	_____	_____	_____
Placing a heavy object	30	_____	_____	_____
<b>Deus Ex Machina Penalties</b>				
A human handing an object over to the robot	5×-50	_____	_____	_____
A human placing an object in the cabinet	5×-15	_____	_____	_____
A human placing an object in the cabinet next to similar objects	5×-50	_____	_____	_____
A human pointing at a target location	5×-25	_____	_____	_____
<b>Special Penalties &amp; Bonuses</b>				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
Outstanding performance	114	_____	_____	_____
<hr/>				
Score per try	1140	_____	_____	_____
Total Score	1254	_____		

Remarks:

\_\_\_\_\_  
Date & time

\_\_\_\_\_  
Referee

\_\_\_\_\_  
Team leader

# Score Sheet



Test: Clean the Table

Team name: \_\_\_\_\_

Referee name: \_\_\_\_\_

The maximum time for this test is 10 minutes.

Action	Score	1 <sup>st</sup> try	2 <sup>nd</sup> try	3 <sup>rd</sup> try
<b>Main Goal</b>				
Navigate to the table to pick up items	15	_____	_____	_____
Picking tableware (cup, bowl) for transportation to the dishwasher	2×40	_____	_____	_____
Picking up a plate for transportation to the dishwasher	50	_____	_____	_____
Picking up cutlery (spoon, fork) for transportation to the dishwasher	2×80	_____	_____	_____
Placing the tableware and cutlery inside the dishwasher	5×50	_____	_____	_____
Placing an item correctly (cleanable, convenient like a human would) in the dishwasher	5×50	_____	_____	_____
<b>Bonus Rewards</b>				
Pulling out the dishwasher rack	100	_____	_____	_____
Pushing in the dishwasher rack	100	_____	_____	_____
Opening the dishwasher door	200	_____	_____	_____
Closing the dishwasher door	200	_____	_____	_____
Picking up the dishwasher tab for transportation to the dishwasher	100	_____	_____	_____
Placing the dishwasher tab inside the dishwasher's hatch intended for the tab	200	_____	_____	_____
<b>Deus Ex Machina Penalties</b>				
Handing tableware over to the robot	2×-40	_____	_____	_____
Handing plate over to the robot	-50	_____	_____	_____
Handing cutlery over to the robot	2×-80	_____	_____	_____
Having a human place an object in the dishwasher	5×-50	_____	_____	_____
<b>Special Penalties &amp; Bonuses</b>				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
Outstanding performance	170	_____	_____	_____
<hr/>				
Score per try	1705	_____	_____	_____
Total Score	1875	_____		
Remarks:				

\_\_\_\_\_  
Date & time

\_\_\_\_\_  
Referee

\_\_\_\_\_  
Team leader

# Score Sheet



**Test:** Enhanced General Purpose Service Robot

**Team name:** \_\_\_\_\_

**Referee name:** \_\_\_\_\_

The maximum time for this test is 10 minutes.

Action	Score	1 <sup>st</sup> try	2 <sup>nd</sup> try	3 <sup>rd</sup> try
<b><i>Main Goal</i></b>				
Find and clearly state an encountered problem	3×150	_____	_____	_____
Solve a problem	3×650	_____	_____	_____
<b><i>Deus Ex Machina Penalties</i></b>				
Asking for location of a problem	3×-150	_____	_____	_____
Instructing a human to perform parts of the task will apply a percentage penalty according to similar penalties in other Stage II tests.	3×-650	_____	_____	_____
<b><i>Special Penalties &amp; Bonuses</i></b>				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
Outstanding performance	240	_____	_____	_____
<b><i>Score per try</i></b>	2400	_____	_____	_____
<b>Total Score</b>	2640	_____		

**Remarks:**

\_\_\_\_\_  
*Date & time*

\_\_\_\_\_  
*Referee*

\_\_\_\_\_  
*Team leader*

# Score Sheet



Test: Restaurant

Team name: \_\_\_\_\_

Referee name: \_\_\_\_\_

Maximum time: 15 minutes

Action	Score	1 <sup>st</sup> try	2 <sup>nd</sup> try	3 <sup>rd</sup> try
<b>Regular Rewards</b>				
Detect calling or waving customer	2×100	_____	_____	_____
Reach a customer's table without prior guidance/training	2×100	_____	_____	_____
Take an order.	2×300	_____	_____	_____
Serve an order.	2×300	_____	_____	_____
Qualitative robot social performance	50	_____	_____	_____
<b>Bonus Rewards</b>				
Use an unattached tray to transport	2×200	_____	_____	_____
<b>Regular Penalties</b>				
Not making eye-contact when taking an order	2×-80	_____	_____	_____
Not reaching the bar (barman has to move from behind the bar to interact with the robot)	2×-80	_____	_____	_____
<b>Deus ex Machina Penalties</b>				
Being guided to a table	2×-200	_____	_____	_____
Asking the Barman to handover object to the robot	4×-50	_____	_____	_____
Guest needing to take the object from a tray or the robot's hand	4×-50	_____	_____	_____
Being told/pointed where is a table/Kitchen-bar	2×-100	_____	_____	_____
<b>Special Penalties &amp; Bonuses</b>				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
Outstanding performance	205	_____	_____	_____
<hr/>				
Score per try	2050	_____	_____	_____
Total Score	2255	_____		

Remarks:

\_\_\_\_\_  
Date & time

\_\_\_\_\_  
Referee

\_\_\_\_\_  
Team leader

# Score Sheet



Test: Stickler for Rules

Team name: \_\_\_\_\_

Referee name: \_\_\_\_\_

Maximum time: 10 minutes

Action	Score	1 <sup>st</sup> try	2 <sup>nd</sup> try	3 <sup>rd</sup> try
<b>Regular Rewards</b>				
Identify a guest breaking a house rule (indicating the rule by voice).	4 × 100	_____	_____	_____
Making eye-contact, politely clarify to the guest what action he should take.	4 × 100	_____	_____	_____
Confirm that the guest is following the rule.	4 × 200	_____	_____	_____
<b>Bonus Rewards</b>				
Making eye-contact, politely clarify to the guest what rule is being broken.	4 × 100	_____	_____	_____
<b>Regular Penalties</b>				
Talking to a guest about a rule they are not breaking	4 × -100	_____	_____	_____
<b>Deus ex Machina Penalties</b>				
A human directs the robot towards a guest who is breaking a rule	4 × -50	_____	_____	_____
A human tells the robot which rule is being broken	4 × -100	_____	_____	_____
<b>Special Penalties &amp; Bonuses</b>				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
Outstanding performance	200	_____	_____	_____
<hr/>				
Score per try	2000	_____	_____	_____
Total Score	2200	_____		

Remarks:

\_\_\_\_\_  
Date & time

\_\_\_\_\_  
Referee

\_\_\_\_\_  
Team leader

# Score Sheet



**Test:** Final Demonstration — Jury Evaluation

**Team name:** \_\_\_\_\_

**Referee name:** \_\_\_\_\_

## Instructions:

1. Please watch all demonstrations carefully.
2. At the end of the demonstration you may ask questions.
3. After demonstration and questions, please fill in the evaluation sheet below.
4. You may use the space below “Remarks:” to take notes for yourself.
5. Enter your your name (“referee name”) on top of the sheet.
6. Sign the form using the “Referee” slot at the bottom.

## Evaluation sheet

Team	Originality and presentation* (0-10)	Relevance/usefulness to everyday life (0-10)	Elegance of overall demonstration (0-10)	Success of overall demonstration (0-10)
Fifth				
Fourth				
Third				
Second				
First				

\* Story telling is to be rewarded

## Remarks:

\_\_\_\_\_  
*Date & time*

\_\_\_\_\_  
*Referee*

\_\_\_\_\_  
*Team leader*

# Score Sheet



**Test:** Final Demonstration — Executive Committee

**Team name:** \_\_\_\_\_

**Referee name:** \_\_\_\_\_

## Instructions:

1. Please watch all demonstrations carefully.
2. At the end of the demonstration you may ask questions.
3. After demonstration and questions, please fill in the evaluation sheet below.
4. You may use the space below “Remarks:” to take notes for yourself.
5. Enter your your name (“referee name”) on top of the sheet.
6. Sign the form using the “Referee” slot at the bottom.

## Criteria:

- Scientific contribution
- Contribution to @Home
- Relevance for @Home / Novelty of approaches
- Presentation and performance in the finals

## Evaluation sheet

Team	Efficacy of solution to main objective (0-10)	Elegance of solution to main objective (0-10)	Innovation/contribution of additional tasks (0-10)	Difficulty/Success of overall demonstration (0-10)
Fifth				
Fourth				
Third				
Second				
First				

## Remarks:

\_\_\_\_\_  
*Date & time*

\_\_\_\_\_  
*Referee*

\_\_\_\_\_  
*Team leader*