



RoboCup@Home

Forms & Score Sheets

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) |
|--------------------------------------|-----------------------------------|
| Austin Villa@Home | |
| Australian Centre for Robotic Vision | |
| CARL@Home | |
| CATIE Robotics | |
| eR@sers | |
| Hibikino-Musashi@Home | |
| homer@UniKoblenz | |
| KameRider OPL | |
| KameRider SSPL | |
| LiU@HomeWreckers | |
| LyonTech | |
| ORIon | |
| Pumas | |
| PUMAS-DSPL | |
| RoboCanes-VISAGE | |
| RoboFEI@Home | |
| RT Lions | |
| SinfonIA Pepper Team | |
| Team Northeastern | |
| Team Tidyboy | |
| Tech United Eindhoven | |
| Tinker | |
| Uchile Pepper | |
| UNSW@Home | |
| UTS Unleashed! | |
| Walking Machine | |

Remarks:

Date & time

Referee

Team leader

Score Sheet



Test: Carry my Luggage

Team name: _____

Referee name: _____

The maximum time for this test is 5 minutes.

| Action | Score | 1 st try | 2 nd try | 3 rd try |
|--|--------|---------------------|---------------------|---------------------|
| Main Goal | | | | |
| Take the bag to the car | 500 | _____ | _____ | _____ |
| Hand-over the bag | -200 | _____ | _____ | _____ |
| Regain operator's track by natural interaction | 5×-100 | _____ | _____ | _____ |
| Regain operator's track by non-natural interaction | 5×-200 | _____ | _____ | _____ |
| Regain operator's track by direct contact | 5×-400 | _____ | _____ | _____ |
| Bonus rewards | | | | |
| Reentering the arena | 100 | _____ | _____ | _____ |
| Avoid the crowd obstructing path | 100 | _____ | _____ | _____ |
| Avoid the small object on the ground | 100 | _____ | _____ | _____ |
| Avoid the hard-to-see 3D object | 100 | _____ | _____ | _____ |
| Avoid the area blocked with retractable barriers | 100 | _____ | _____ | _____ |
| Special penalties & standard bonuses | | | | |
| Not attending | -500 | _____ | _____ | _____ |
| Using start button | -100 | _____ | _____ | _____ |
| Outstanding performance | 100 | _____ | _____ | _____ |
| Score per try | | | | |
| | 1000 | _____ | _____ | _____ |
| Total score | | | | |
| | 1100 | _____ | _____ | _____ |

Remarks:

Date & time

Referee

Team leader

Score Sheet



Test: Clean Up

Team name: _____

Referee name: _____

The maximum time for this test is 5 minutes.

| Action | Score | 1 st try | 2 nd try | 3 rd try |
|---|-------|---------------------|---------------------|---------------------|
| Main Goal | | | | |
| Place an object at the appropriate location | 5×100 | _____ | _____ | _____ |
| Receiving human help (telling where an object can be found) | 5×-30 | _____ | _____ | _____ |
| Receiving human help (pointing out object to be moved) | 5×-40 | _____ | _____ | _____ |
| Receiving human help (Guiding the robot near an object to be moved) | 5×-20 | _____ | _____ | _____ |
| Receiving human help (telling robot which category an object is or where to place it) | 5×-30 | _____ | _____ | _____ |
| Receiving human help (physically interacting with object) | 5×-60 | _____ | _____ | _____ |
| Bonus rewards | | | | |
| Opening entrance door without human help | 200 | _____ | _____ | _____ |
| Moving a <i>tiny</i> object | 150 | _____ | _____ | _____ |
| Moving a <i>heavy</i> object | 150 | _____ | _____ | _____ |
| Special penalties & standard bonuses | | | | |
| Not attending | -500 | _____ | _____ | _____ |
| Using start button | -100 | _____ | _____ | _____ |
| Outstanding performance | 100 | _____ | _____ | _____ |
| <hr/> | | | | |
| Score per try | 1000 | _____ | _____ | _____ |
| Total score | 1100 | _____ | | |

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 st try | 2 nd try | 3 rd try |
|---|--------|---------------------|---------------------|---------------------|
| Main Goal | | | | |
| Perform each task | 3× 250 | _____ | _____ | _____ |
| Using custom operator or bypassing ASR | 3× -50 | _____ | _____ | _____ |
| Bonus rewards | | | | |
| Understand command given by naive operator | 3× 100 | _____ | _____ | _____ |
| Provide audio recording and transcript | 3× 100 | _____ | _____ | _____ |
| Autonomously leaving the arena | 150 | _____ | _____ | _____ |
| Special penalties & standard bonuses | | | | |
| Not attending | -500 | _____ | _____ | _____ |
| Using start button | -100 | _____ | _____ | _____ |
| Outstanding performance | 150 | _____ | _____ | _____ |
| <hr/> | | | | |
| Score per try | 1500 | _____ | _____ | _____ |
| Total score | 1650 | _____ | | |

Remarks:

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 st try | 2 nd try | 3 rd try |
|--|--------|---------------------|---------------------|---------------------|
| <i>Main Goal</i> | | | | |
| Introduce the 1st guest to John | 100 | _____ | _____ | _____ |
| Offer an empty seat to the 1st guest | 150 | _____ | _____ | _____ |
| Introduce the 2nd guest to John and 1st guest | 100 | _____ | _____ | _____ |
| Offer an empty seat to the 2nd guest | 150 | _____ | _____ | _____ |
| Misunderstanding the name of a guest | 2× -50 | _____ | _____ | _____ |
| <i>Bonus rewards</i> | | | | |
| Opening the entrance door to a guest | 2× 200 | _____ | _____ | _____ |
| Describing the first guest to the second guest | 100 | _____ | _____ | _____ |
| <i>Special penalties & standard bonuses</i> | | | | |
| Not attending | -500 | _____ | _____ | _____ |
| Using start button | -100 | _____ | _____ | _____ |
| Outstanding performance | 100 | _____ | _____ | _____ |
| <i>Score per try</i> | 1000 | _____ | _____ | _____ |
| Total score | 1100 | _____ | | |

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 st try | 2 nd try | 3 rd try |
|---|--------|---------------------|---------------------|---------------------|
| Main Goal | | | | |
| Move an object next to their peers in the shelf | 5×100 | _____ | _____ | _____ |
| Receiving human help (point at target location) | 5×-30 | _____ | _____ | _____ |
| Receiving human help (move object) | 5×-100 | _____ | _____ | _____ |
| Bonus rewards | | | | |
| Opening the shelf door without human help | 300 | _____ | _____ | _____ |
| Moving a <i>tiny</i> object | 100 | _____ | _____ | _____ |
| Moving a <i>heavy</i> object | 100 | _____ | _____ | _____ |
| Special penalties & standard bonuses | | | | |
| Not attending | -500 | _____ | _____ | _____ |
| Using start button | -100 | _____ | _____ | _____ |
| Outstanding performance | 100 | _____ | _____ | _____ |
| <hr/> | | | | |
| Score per try | 1000 | _____ | _____ | _____ |
| Total score | 1100 | _____ | | |
| 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 st try | 2 nd try | 3 rd try |
|--|--------|---------------------|---------------------|---------------------|
| <i>Main Goal</i> | | | | |
| Place all tableware and cutlery inside the dishwasher | 1000 | _____ | _____ | _____ |
| Pointing at object | 5×-50 | _____ | _____ | _____ |
| Handover an object | 5×-150 | _____ | _____ | _____ |
| Bypassing tableware storage | 3×-200 | _____ | _____ | _____ |
| Bypassing cutlery storage | 2×-250 | _____ | _____ | _____ |
| <i>Bonus rewards</i> | | | | |
| Opening the dishwasher door | 300 | _____ | _____ | _____ |
| Pulling out the dishwasher racks | 300 | _____ | _____ | _____ |
| Placing the Cascade Pod inside the dishwasher | 300 | _____ | _____ | _____ |
| Pointing at the Cascade Pod | -100 | _____ | _____ | _____ |
| Handover the Cascade Pod | -200 | _____ | _____ | _____ |
| Autonomously leaving the arena | 100 | _____ | _____ | _____ |
| <i>Special penalties & standard bonuses</i> | | | | |
| Not attending | -500 | _____ | _____ | _____ |
| Using start button | -100 | _____ | _____ | _____ |
| Outstanding performance | 200 | _____ | _____ | _____ |
| <i>Score per try</i> | 2000 | _____ | _____ | _____ |
| Total score | 2200 | _____ | | |

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 st try | 2 nd try | 3 rd try |
|---|--------|---------------------|---------------------|---------------------|
| Main Goal | | | | |
| Perform each task | 3×500 | _____ | _____ | _____ |
| Using custom operator or bypassing ASR | 3×-150 | _____ | _____ | _____ |
| Bonus rewards | | | | |
| Understand command given by naive operator | 3×150 | _____ | _____ | _____ |
| Provide audio recording and transcript | 3×100 | _____ | _____ | _____ |
| Find the operator when called | 150 | _____ | _____ | _____ |
| Autonomously leaving the arena | 100 | _____ | _____ | _____ |
| Special penalties & standard bonuses | | | | |
| Not attending | -500 | _____ | _____ | _____ |
| Using start button | -100 | _____ | _____ | _____ |
| Outstanding performance | 250 | _____ | _____ | _____ |
| <hr/> | | | | |
| Score per try | 2500 | _____ | _____ | _____ |
| Total score | 2750 | _____ | | |
| Remarks: | | | | |

Date & time

Referee

Team leader

Score Sheet



Test: Hand me That

Team name: _____

Referee name: _____

The maximum time for this test is 10 minutes.

| Action | Score | 1 st try | 2 nd try | 3 rd try |
|---|---------|---------------------|---------------------|---------------------|
| Group 1 | | | | |
| Name/touch the object being pointed | 500 | _____ | _____ | _____ |
| Asking clarifying question | 3× -150 | _____ | _____ | _____ |
| Incorrect guess | 2× -200 | _____ | _____ | _____ |
| Group 2 | | | | |
| Name/touch the object being pointed | 500 | _____ | _____ | _____ |
| Asking clarifying question | 3× -150 | _____ | _____ | _____ |
| Incorrect guess | 2× -200 | _____ | _____ | _____ |
| Group 3 | | | | |
| Name/touch the object being pointed | 500 | _____ | _____ | _____ |
| Asking clarifying question | 3× -150 | _____ | _____ | _____ |
| Incorrect guess | 2× -200 | _____ | _____ | _____ |
| Group 4 | | | | |
| Name/touch the object being pointed | 500 | _____ | _____ | _____ |
| Asking clarifying question | 3× -150 | _____ | _____ | _____ |
| Incorrect guess | 2× -200 | _____ | _____ | _____ |
| Group 5 | | | | |
| Name/touch the object being pointed | 500 | _____ | _____ | _____ |
| Asking clarifying question | 3× -150 | _____ | _____ | _____ |
| Incorrect guess | 2× -200 | _____ | _____ | _____ |
| Special penalties & standard bonuses | | | | |
| Not attending | -500 | _____ | _____ | _____ |
| Using start button | -100 | _____ | _____ | _____ |
| Outstanding performance | 250 | _____ | _____ | _____ |
| Score per try | 2500 | _____ | _____ | _____ |
| Total score | 2750 | _____ | _____ | _____ |

Remarks:

Date & time

Referee

Team leader

Score Sheet



Test: Restaurant

Team name: _____

Referee name: _____

The maximum time for this test is 15 minutes.

| Action | Score | 1 st try | 2 nd try | 3 rd try |
|---|--------|---------------------|---------------------|---------------------|
| Main Goal | | | | |
| Take and serve an order | 500 | _____ | _____ | _____ |
| Being guided to the <i>Kitchen-bar</i> or to a customer's table | 2×-200 | _____ | _____ | _____ |
| Not making eye-contact when taking an order | -100 | _____ | _____ | _____ |
| Bypassing object manipulation (handover) | 4×-50 | _____ | _____ | _____ |
| Bypassing object manipulation | 5×-100 | _____ | _____ | _____ |
| Second order (bonus reward) | | | | |
| Take and serve an additional order | 500 | _____ | _____ | _____ |
| Being guided to the <i>Kitchen-bar</i> or to a customer's table | 2×-200 | _____ | _____ | _____ |
| Not making eye-contact when taking an order | -100 | _____ | _____ | _____ |
| Bypassing object manipulation (handover) | 4×-50 | _____ | _____ | _____ |
| Bypassing object manipulation | 5×-100 | _____ | _____ | _____ |
| Additional bonus rewards | | | | |
| Detect calling or waving customer | 2×100 | _____ | _____ | _____ |
| Reach a customer's table without prior guidance/training | 2×100 | _____ | _____ | _____ |
| Use an unattached tray to transport an order | 2×300 | _____ | _____ | _____ |
| Special penalties & standard bonuses | | | | |
| Not attending | -500 | _____ | _____ | _____ |
| Using start button | -100 | _____ | _____ | _____ |
| Outstanding performance | 200 | _____ | _____ | _____ |
| 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