



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				
Picking up the correct bag	100	_____	_____	_____
Following the person to the car	300	_____	_____	_____
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	_____	_____	_____
Bonus rewards				
Re-entering the arena	100	_____	_____	_____
Joining and staying in the queue on the way to the arena	300	_____	_____	_____
Regular Penalties				
Dropping the bag	-50	_____	_____	_____
Deus Ex Machina Penalties				
Rediscovering the operator by natural interaction	-50	_____	_____	_____
Rediscovering the operator by unnatural interaction	-100	_____	_____	_____
Rediscovering the operator by direct contact	-200	_____	_____	_____
Special Penalties & Bonuses				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
<hr/>				
Score per try	1000	_____	_____	_____
Total Score	1100	_____		

Remarks:

Date & time

Referee

Team leader

Score Sheet



Test: Clean Up

Team name: _____

Referee name: _____

Maximum time:

5 minutes

Action	Score	1 st try	2 nd try	3 rd try
<i>Regular Rewards</i>				
Place an object at the appropriate location	6×100	_____	_____	_____
<i>Bonus Rewards</i>				
Moving a <i>tiny</i> object	200	_____	_____	_____
Moving a <i>heavy</i> object	200	_____	_____	_____
<i>Regular Penalties</i>				
Place an object at the wrong location	6×-50	_____	_____	_____
<i>Deus ex Machina Penalties</i>				
Physically interacting with object	6×-60	_____	_____	_____
Guiding the robot near an object to be moved	6×-40	_____	_____	_____
Telling where an object can be found	6×-30	_____	_____	_____
Telling robot which category an object is or where to place it	6×-30	_____	_____	_____
Pointing out object to be moved	6×-20	_____	_____	_____
<i>Special Penalties & Bonuses</i>				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
<i>Score per try</i>	1000	_____	_____	_____
Total Score	1100	_____		

Remarks:

Date & time

Referee

Team leader

Score Sheet



Test: Farewell

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				
Each guest successfully guided to thier cab	2× 200	_____	_____	_____
Identifying the medical doctor	200	_____	_____	_____
Bonus rewards				
Delivering the right coat	2× 100	_____	_____	_____
Entertaining guest with conversation while ushering person to the cab	2× 100	_____	_____	_____
Deus Ex Machina				
Tell the robot which guest is leaving	2× -30	_____	_____	_____
Guiding the robot to the cab	2× -120	_____	_____	_____
Guiding the robot back to the house	2× -120	_____	_____	_____
Tell robot which person is a medical doctor	-200	_____	_____	_____
Handover the coat	2× -100	_____	_____	_____
Special Penalties & Bonuses				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
Score per try	1000	_____	_____	_____
Total Score	1100	_____	_____	_____

Remarks:

Date & time

Referee

Team leader

Score Sheet



Test: Find my Mates

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				
Report a guest location	2×100	_____	_____	_____
Provide location unique feature	2×50	_____	_____	_____
Provide description of a guest	2×150	_____	_____	_____
Bonus rewards				
Report the 3rd guest location	150	_____	_____	_____
Provide description of a 3rd guest	250	_____	_____	_____
Deus Ex Machina				
Person has to wave the robot in order to be found	2×-75	_____	_____	_____
Person has to tell the robot where he/she is sitting/standing	2×-75	_____	_____	_____
Person has to approach the robot (e.g. walk and stand in front of it)	2×-150	_____	_____	_____
Special Penalties & Bonuses				
Not attending	-500	_____	_____	_____
Using alternative start signal	-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				
Executing the task associated with each command	3×400	_____	_____	_____
Bonus Rewards				
Understanding a command given by a non-expert operator	3×100	_____	_____	_____
Deus Ex Machina Penalties				
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	_____	_____	_____
Special Penalties & Bonuses				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
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
Main Goal				
Introduce a new guest to every other guest and offer a seat	2× 250	_____	_____	_____
Look at the person talking	50	_____	_____	_____
Look at the person the robot is introducing the guest to	50	_____	_____	_____
Look in the direction of navigation	50	_____	_____	_____
Continue with wrong name or drink	2× -50	_____	_____	_____
Persistent inappropriate gaze - away from conversational partner	2× -50	_____	_____	_____
Persistent gaze not in the direction of the navigation while moving	-50	_____	_____	_____
Bonus Rewards				
Open the entrance door for a guest	2× 100	_____	_____	_____
Describe the first guest to the second guest	150	_____	_____	_____
Deus Ex Machina				
Alternative HRI	2× -75	_____	_____	_____
Not recognizing people	2× -200	_____	_____	_____
Special Penalties & Bonuses				
Not attending	-500	_____	_____	_____

Score per try	1000	_____	_____	_____
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Total Score	1100	_____
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Remarks:

Date & time

Referee

Team leader

Score Sheet



Test: Serving Drinks

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				
Approaching guest without a drink and take order	3×50	_____	_____	_____
Picking up correct drink from the bar	3×80	_____	_____	_____
Delivering a drink to the right person	3×70	_____	_____	_____
Bonus rewards				
Informing a guest of drink unavailability upon request	200	_____	_____	_____
Correcting the bartender	2×100	_____	_____	_____
Regular Penalties				
Approaching guest with a drink and take order (per wrong guest)	-50	_____	_____	_____
Approaching the host to take an order	-50	_____	_____	_____
Deus Ex Machina Penalties				
Guest waves to the robot to place order	3×-30	_____	_____	_____
Guest approaches the robot to place order	3×-50	_____	_____	_____
Drink handed over to the robot (bypass picking)	3×-30	_____	_____	_____
Drink taken by a guest (bypass drink handover)	3×-30	_____	_____	_____
Special Penalties & Bonuses				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
Score per try	1000	_____	_____	_____
Total Score	1100	_____	_____	_____

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 st try	2 nd try	3 rd try
Main Goal				
Picking up breakfast items for transportation to the table	4×15	_____	_____	_____
Placing breakfast items on the table	4×60	_____	_____	_____
Pouring cereal into the bowl	300	_____	_____	_____
Bonus Rewards				
Pouring milk into the bowl	300	_____	_____	_____
Placing a spoon next to the bowl	100	_____	_____	_____
Regular Penalties				
Throwing or dropping an object on the table	4×-30	_____	_____	_____
Spilling cereal while pouring	-100	_____	_____	_____
Spilling milk while pouring	-150	_____	_____	_____
Deus Ex Machina Penalties				
Pointing at an object	4×-5	_____	_____	_____
Handing an object over to the robot	4×-15	_____	_____	_____
A human placing an object on the table	4×-60	_____	_____	_____
A human pouring cereal in the bowl	-300	_____	_____	_____
Special Penalties & Bonuses				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
<hr/>				
Score per try	1000	_____	_____	_____
<hr/>				
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				
Picking up an object for transportation to the cabinet	5×30	_____	_____	_____
Moving an object next to similar objects on the cabinet	5×90	_____	_____	_____
Bonus Rewards				
Opening the cabinet door without human help	200	_____	_____	_____
Picking and placing a tiny object	100	_____	_____	_____
Picking and placing a heavy object	100	_____	_____	_____
Regular Penalties				
Storing an object without categorizing it correctly	5×-60	_____	_____	_____
Deus Ex Machina Penalties				
A human handing an object over to the robot	5×-30	_____	_____	_____
A human placing an object in the cabinet	5×-90	_____	_____	_____
A human placing an object in the cabinet at a location clearly indicated by the robot	5×-30	_____	_____	_____
A human pointing at a target location	5×-45	_____	_____	_____
Special Penalties & Bonuses				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
Score per try	1000	_____	_____	_____
Total Score	1100	_____	_____	_____

Remarks:

Date & time

Referee

Team leader

Score Sheet



Test: Take out Garbage

Team name: _____

Referee name: _____

Maximum time: 5 minutes

Action	Score	1 st try	2 nd try	3 rd try
Regular Rewards				
Move a bag inside the designated zone	2× 300	_____	_____	_____
Bonus Rewards				
Opening the bin lid	2× 100	_____	_____	_____
Carry both bags at once	200	_____	_____	_____
Regular Penalties				
Placing bag outside collection zone	2× -100	_____	_____	_____
Tipping a bin / tearing a bag	2× -50	_____	_____	_____
Deus ex Machina Penalties				
Receiving the bag via handover	2× -250	_____	_____	_____
Special Penalties & Bonuses				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
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
Main Goal				
Picking tableware and cutlery for transportation to the dishwasher	5×60	_____	_____	_____
Placing the tableware and cutlery inside the dishwasher	5×180	_____	_____	_____
Bonus Rewards				
Opening the dishwasher door	200	_____	_____	_____
Pulling out the dishwasher rack	100	_____	_____	_____
Placing an item correctly in the dishwasher	5×40	_____	_____	_____
Placing the dishwasher tab inside the dishwasher's hatch intended for the tab	300	_____	_____	_____
Deus Ex Machina Penalties				
Pointing at an object or telling the robot where an object is	5×-20	_____	_____	_____
Handing an object over to the robot	5×-60	_____	_____	_____
Placing an object	5×-180	_____	_____	_____
Special Penalties & Bonuses				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
<hr/>				
Score per try	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
<i>Main Goal</i>				
Executing the task associated with each command	3× 800	_____	_____	_____
<i>Bonus rewards</i>				
Understanding a command given by a non-expert operator	3× 200	_____	_____	_____
<i>Deus Ex Machina Penalties</i>				
Using a custom operator	3× -100	_____	_____	_____
Bypassing speech recognition	3× -100	_____	_____	_____
Instructing a human to perform parts of the task will apply a percentage penalty according to similar penalties in other Stage II tests.	3× -800	_____	_____	_____
<i>Special Penalties & Bonuses</i>				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
<i>Score per try</i>	3000	_____	_____	_____
Total Score	3300	_____		
Remarks:				

Date & time

Referee

Team leader

Score Sheet



Test: Find my Disk

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>				
Provide an accurate description of the desired disk	600	_____	_____	_____
Desired disk is found	600	_____	_____	_____
<i>Bonus rewards</i>				
Help operator to find a second disk	800	_____	_____	_____
<i>Special Penalties & Bonuses</i>				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
<i>Score per try</i>	2000	_____	_____	_____
Total Score	2200	_____		
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
<i>Main Goal</i>				
Correctly determine each item	5×400	_____	_____	_____
Correctly determine an item on the second attempt	5×-150	_____	_____	_____
Correctly determine an item on the third or fourth attempt	5×-300	_____	_____	_____
Correctly determine an item on a subsequent attempt	5×-400	_____	_____	_____
Asking 1 clarifying question	5×-100	_____	_____	_____
Asking 2 clarifying questions	5×-200	_____	_____	_____
Asking 3 or more clarifying questions	5×-350	_____	_____	_____
<i>Deus ex Machina Penalties</i>				
Being told the name of the object	5×-400	_____	_____	_____
<i>Special Penalties & Bonuses</i>				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
<i>Score per try</i>	2000	_____	_____	_____
Total Score	2200	_____		
Remarks:				

Date & time

Referee

Team leader

Score Sheet



Test: Set 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
Main Goal				
Open the drawer or cupboard door	100	_____	_____	_____
Pick up plate and cup	2× 50	_____	_____	_____
Pick up knife, spoon, and fork	3× 150	_____	_____	_____
Pick up napkin	50	_____	_____	_____
Correctly place each item	5× 100	_____	_____	_____
Pointing at object	5× -25	_____	_____	_____
Pointing at destination	5× -50	_____	_____	_____
Bonus rewards				
Layplace mat before objects	500	_____	_____	_____
Placing all objects correctly	250	_____	_____	_____
Closing the door or drawer	50	_____	_____	_____
Special Penalties & Bonuses				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
Score per try	2000	_____	_____	_____
Total Score	2200	_____	_____	_____

Remarks:

Date & time

Referee

Team leader

Score Sheet



Test: Restaurant

Team name: _____

Referee name: _____

Maximum time: 15 minutes

Action	Score	1 st try	2 nd try	3 rd try
Regular Rewards				
Detect calling or waving customer	2×100	_____	_____	_____
Reach a customer's table without prior guidance/training	2×100	_____	_____	_____
Take and serve an order.	2×600	_____	_____	_____
Bonus Rewards				
Use an unattached tray to transport	2×200	_____	_____	_____
Regular Penalties				
Not making eye-contact when taking an order	2×-100	_____	_____	_____
Deus ex Machina Penalties				
Being guided to a table	2×-200	_____	_____	_____
Asking the Barman to handover object to the robot	4×-100	_____	_____	_____
Guest needing to take the object from a tray or the robot's hand	4×-100	_____	_____	_____
Being told/pointed where is a table/ <i>Kitchen-bar</i>	2×-100	_____	_____	_____
Special Penalties & Bonuses				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
<hr/>				
Score per try	2000	_____	_____	_____
Total Score	2200	_____		

Remarks:

Date & time

Referee

Team leader

Score Sheet



Test: Smoothie Chef

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				
Placing all three fruits in the blender	3× 200	_____	_____	_____
Pouring a teaspoon of sugar in the blender	300	_____	_____	_____
Pouring milk in the blender	300	_____	_____	_____
Bonus Rewards				
Pouring sugar in the blender without spilling	400	_____	_____	_____
Pouring milk in the blender without spilling	400	_____	_____	_____
Regular Penalties				
Placing an incorrect fruit into the blender	3× -200	_____	_____	_____
Deus Ex Machina Penalties				
Starting the test in front of the kitchen counter	-150	_____	_____	_____
Handing an object over to the robot	-200	_____	_____	_____
Telling the robot which ingredient comes next	-250	_____	_____	_____
Using a custom operator	-250	_____	_____	_____
Special Penalties & Bonuses				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
<hr/>				
Score per try	2000	_____	_____	_____
Total Score	2200	_____		

Remarks:

Date & time

Referee

Team leader

Score Sheet



Test: Stickler for Rules

Team name: _____

Referee name: _____

Maximum time: 10 minutes

Action	Score	1 st try	2 nd try	3 rd try
Regular Rewards				
Identify a guest breaking a house rule (indicating the rule by voice or log).	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	_____	_____	_____
Bonus Rewards				
Making eye-contact, politely clarify to the guest what rule is being broken.	4×100	_____	_____	_____
Regular Penalties				
Talking to a guest about a rule they are not breaking	4×-100	_____	_____	_____
Deus ex Machina Penalties				
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	_____	_____	_____
Special Penalties & Bonuses				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
<hr/>				
Score per try	2000	_____	_____	_____
Total Score	2200	_____		

Remarks:

Date & time

Referee

Team leader

Score Sheet



Test: Where is this

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				
Describing and show the requested location accurately	3×100	_____	_____	_____
Monitoring operator's navigation, intervening when necessary	3×200	_____	_____	_____
Describing the areas of the <i>Arena</i> traversed during navigation	3×100	_____	_____	_____
Bonus rewards				
Leading non-expert operator	3×100	_____	_____	_____
Giving instructions to returning operator based on previous instructions	300	_____	_____	_____
Natural interaction while guiding	200	_____	_____	_____
Deus Ex Machina Penalties				
Bypassing speech recognition	3×-50	_____	_____	_____
Helping the robot find the operator	3×-150	_____	_____	_____
Special Penalties & Bonuses				
Not attending	-500	_____	_____	_____
Using alternative start signal	-100	_____	_____	_____
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