



# RoboCup@Home

Forms & Score Sheets

Version: 2024 1

Last Build Date: April 23, 2024 Time: 571

2024-04-23

# Registration Form



Team name:			
Team leader name:			
Safety first!			
The speed of the robots shot than the local speed limits. pace of humans (6 kph, 3.7	During operation in an ex		_
At any time when operating immediately if there is a remember of the Technical or team to stop the robot, the	note possibility of dangerour Organizational committee	us behavior towards peoplee, an Executive or Trust	le and/or objects. If a refere tee of the federation tells th
If the team does not compimmediately by a decision members can be banned fr RoboCup Federation Truste	of the RoboCup@Home Tom future competitions for	Technical Committee. Fu	erthermore, the team and i
	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 understhe rules in the official Rob	=	atement and agree to it.	Furthermore, I agree to ob
Date & time	$\frac{}{Team\ leader}$		

RoboCup @Home	)

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
Team	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:

ate & time	Referee	$Team\ leader$

 $Date \ \ \mathcal{U} \ time$ 



				Ro	boCup @Home
Test:	Carry my Luggage				
Team name:					
Referee name:					
The maximum tin	ne for this test is 5 minutes.				
Action		Score	$1^{st}$ <b>try</b>	$2^{nd}$ try	$3^{rd}$ try
Main Goal					
=	rect beg (visualize on screen or say which one)	15			
Picking up the cor		100			
Following the pers	on to the car	300			
Avoiding the crow	d of people obstructing the path	50			
Avoiding the smal	l 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 ar	ena	100			
Joining and staying	g in the queue on the way to the arena	300			
Penalties					
Dropping the bag		-50			
Deus Ex Machi	na Penalties				
	operator by natural interaction	-50			
<del>-</del>	operator by unnatural interaction	-100			
_	operator by direct contact	-200			
Special  Penaltie	-				
Not attending	e e Bonacce	-500			
Using alternative :	start signal	-100			
	5,000				
Score per try		1015			
Total Score		1116			
Remarks:					

 $Team\ leader$ 

 $Date \ \& \ time$ 



Test:	Clean Up			Ro	@Home
Team name:	-				
Referee name:					
Maximum tim	e:			5 r	ninutes
Action		Score	$1^{st}$ <b>try</b>	$2^{nd}$ try	$3^{rd}$ try
$\overline{Regular\ Rewards}$					
	the appropriate location	$6 \times 100$			
Bonus Rewards					
Moving a <i>tiny</i> obje		200			
Moving a heavy ob		200			
Regular Penaltie		a <b>F</b> a			
Place an object at	~	$6 \times -50$			
Deus ex Machine		c co			
Physically interacti		6×-60			
_	near an object to be moved	6×-40			
Telling where an ob		6×-30			
_	category an object is or where to place it	6×-30			
Pointing out object		$6 \times -20$			
Special Penalties	Bonuses	500			
Not attending	tant simpal	-500			
Using alternative st	art signar	-100			
Score per try		1000			
Total Score		1100			
Remarks:					

 $Team\ leader$ 

 $Date \ \ \mathcal{U} \ time$ 



					boCup @Home
Test:	Farewell				
Team name:					
Referee name:					
The maximum tin	ne for this test is 5 minutes.				
Action		Score	$1^{st}$ <b>try</b>	$2^{nd}$ try	$3^{rd}$ try
Main Goal					
_	sfully guided to thier cab	2×200			
Identifying the me	edical doctor	200			
Bonus rewards					
Delivering the right		2×100			
	with conversation while ushering pe	erson to the cab $2 \times 100$			
Deus Ex Machi		2 20			
	ch guest is leaving	2×-30			
Guiding the robot		2×-120			
_	back to the house	2×-120			
-	person is a medical doctor	-200			
Handover the coar		$2 \times -100$			
Special Penaltie	$s \ {\it \& Bonuses}$				
Not attending		-500		-	
Using alternative	start signal	-100			
Score per try		1000			
Total Score		1100			
Remarks:					
reciliar is:					

 $Team\ leader$ 

 $Date \ \ \mathcal{U} \ time$ 



				Ro	boCup @Home
Test:	Find my Mates				
Team name:					
Referee name:					
The maximum tin	ne for this test is 5 minutes.				
Action		Score	$1^{st}$ <b>try</b>	$2^{nd}$ try	$3^{rd}$ try
Main~Goal					
Report a guest loc		$2 \times 100$			
Provide location u	_	$2 \times 50$			
Provide description	n of a guest	$2 \times 150$			
Bonus rewards					
Report the 3rd gu		150			
Provide description	_	250			
Deus Ex Machi					
	re the robot in order to be found	2×-75			
	the robot where he/she is sitting/standing	2×-75			
	roach the robot (e.g. walk and stand in front c	of it) $2\times-150$			
$Special\ Penaltie$	$es  \mathcal{E}  Bonuses$	<b>~</b> 00			
Not attending		-500			
Using alternative	start signal	-100			
Score per try		1000			
Total Score		1100			
Remarks:					

 $Team\ leader$ 

 $Date \ \ \mathcal{U} \ time$ 



Test:	General Purpose Service Robot			RC	@Home
Team name:					
Referee name:					
The maximum t	ime for this test is 5 minutes.				
Action		Score	$1^{st}$ try	$2^{nd}$ try	$3^{rd}$ try
Main Goal					
Executing the ta	sk associated with each command	3×400			
Bonus Reward	ls				
Understanding a	command given by a non-expert operator	$3 \times 100$			
Deus Ex Mach	nina Penalties				
Using a custom		$3 \times -50$			
Bypassing speed	_	$3 \times -50$			
centage penalty	man to perform parts of the task will apply a according to similar penalties in other Stage I t				
_	$ies  {\it \& Bonuses}$	~00			
Not attending	1	-500			
Using alternative	e start signal	-100			
Score per try		1500			
Total Score Remarks:		1650			

 $Team\ leader$ 



Test:	Receptionist			RC	@Home
Team name	:				
Referee nan	ne:				
The maximur	m time for this test is 5 minutes.				
Action		Score	$1^{st}$ try	$2^{nd}$ try	$3^{rd}$ try
$\overline{Main~Goal}$					
Navigate to t	he door, when the door bell rings	2×15			
Guide the gue	est to the other guests (navigate to the guest group)	$2 \times 100$			
Look in the d	lirection of navigation or at the navigation goal	$2 \times 50$			
Introduce a n	ew guest to every other guest	$2 \times 50$			
Offer a free se	eat to the new guest	$2 \times 100$			
Look at the p	person talking	$2 \times 25$			
Look at the p	person the robot is introducing the guest to	$2 \times 50$			
Qualitative re	bbot social performance	50			
Bonus Rewe	ards				
Open the entr	rance door for a guest	$2 \times 100$			
Describe the	first guest to the second guest	150			
Penalties					
Wrong guest : or drink)	information was memorized (continue with wrong nam	e –50			
Persistent ina	appropriate gaze (away from conversational partner)	-50			
Persistent gaz	ze not in the direction of the navigation while moving.	-10			
Deus Ex M	achina				
Alternative H	IRI	$2\times-75$			
Not recognizi	ng people	$2 \times -200$			
Special Pen	alties & Bonuses				
Not attending		-500			
Score per tr	ry	1180			
Total Score		1298			
Remarks:					
reciliar no.					
Date & time	$\overline{Referee}$		Team le	eader	



Test:	Serving Drinks			RC	@Home
Team names					
Referee nan					
The maximum	n time for this test is 5 minutes.				
Action		Score	$1^{st}$ try	$2^{nd}$ try	$3^{rd}$ try
$\overline{Main~Goal}$		20010	1 013		
	guest without a drink and take order	$3 \times 50$			
Picking up co	rrect drink from the bar	$3 \times 80$			
Delivering a d	lrink to the right person	$3 \times 70$			
Bonus rewa	rds				
Informing a g	uest of drink unavailability upon request	200			
Correcting the	e bartender	$2 \times 100$			
Regular Per	nalties				
	guest with a drink and take order (per wrong guest)	-50			
Approaching	the host to take an order	-50			
	achina Penalties				
	to the robot to place order	$3\times-30$			
	ches the robot to place order	$3\times-50$			
	over to the robot (bypass picking)	3×-30			
	y a guest (bypass drink handover)	3×-30			
_	$alties \ {\it @Bonuses}$	<b>500</b>			
Not attending		-500			
Using alternate	tive start signal	-100			
Score per tr	y	1000			
Total Score		1100			
Remarks:					
Date & time	$\overline{Referee}$		Team le	eader	



Test:	Serve the Breakfast			RC	@Home
Team name	:				
Referee nan	me:				
The maximum	m time for this test is 5 minutes.				
Action		Score	$1^{st}$ try	$2^{nd}$ try	$3^{rd}$ try
$\overline{Main~Goal}$					
Initial naviga	tion to pick up area	15			
Perceiving ob	ject and categorizing it correctly (visualize or say)	4×15			
Picking up br	reakfast items for transportation to the table	$4 \times 50$			
Placing break	fast items on the table	4×50			
Pouring cerea	d into the bowl	300			
Bonus Rew	ards				
Pouring milk	into the bowl	300			
Placing a spo	on next to the bowl	100			
Penalties					
Throwing or	dropping an object on the table	4×-30			
Spilling cerea	l while pouring	-100			
Spilling milk	while pouring	-100			
Deus Ex M	achina Penalties				
Pointing at a	n object	$4 \times -5$			
Handing an o	bject over to the robot	$4\times-20$			
A human plac	cing an object on the table	4×-60			
A human pou	uring cereal in the bowl	-100			
Special Pen	$alties  {\it \& Bonuses}$				
Not attending	r S	-500			
Using alterna	tive start signal	-100			
Score per tr	ry	1175			
Total Score		1292			
Remarks:					
Date & time	$\overline{Referee}$		Team le	eader	

 $Date \ \ \mathcal{U} \ time$ 



$\Gamma\!\mathrm{est}$ :	Storing Groceries			Ro	@Home
Team name:					
Referee name:					
The maximum ti	me for this test is 5 minutes.				
Action		$\mathbf{Score}$	$1^{st}$ try	$2^{nd}$ try	$3^{rd}$ try
Main Goal				-	-
Navigating to the	e table	15			
Perceiving object	and categorizing it correctly (visualize or say)	$5 \times 15$			
Picking up an ob	ject for transportation to the cabinet	$5 \times 50$			
	ts in shelf and saying on which layer the currenould be placed (visualize or say)	ently $5 \times 15$			
Placing an object	in the cabinet	$5 \times 15$			
Placing an object	next to similar objects on the cabinet	$5 \times 50$			
Bonus Rewards	s				
Opening the cabi	net door without human help	200			
Picking and placi	ing a tiny object	100			
Picking and placi	ing a heavy object	100			
Penalties					
Storing an object	without categorizing it correctly	$5 \times -60$			
Deus Ex Mach	ina Penalties				
A human handin indicated by the	ng an object over to the robot (the object is clerobot)	early $5 \times -15$			
A human handing	g an object over to the robot	$5 \times -30$			
A human placing by the robot	an object in the cabinet at a location clearly indic	cated $5 \times -45$			
A human placing	an object in the cabinet	$5 \times -90$			
A human placing by the robot	an object in the cabinet at a location clearly indic	cated $5 \times -30$			
A human pointin	g at a target location	$5 \times -45$			
$Special\ Penalti$	$es~ {\it \& Bonuses}$				
Not attending		-500			
Using alternative	start signal	-100			
Score per try		1140			
Total Score		1254			
Remarks:					

 $Team\ leader$ 

 $Date \ \& \ time$ 



Test:	Take out Garbage			AC	@Home
Team name:					
Referee name	<b>:</b>				
Maximum ti	me:			5 n	ninutes
Action		Score	$1^{st}$ $\mathbf{try}$	$2^{nd}$ try	$3^{rd}$ try
Regular Rewar	ds		<u> </u>	· · ·	· · ·
Move a bag insid	e the designated zone	$2 \times 300$			
Bonus Reward	s				
Opening the bin	lid	2×100			
Carry both bags	at once	200			
Regular Penalt					
	ide collection zone	$2 \times -100$			
Tipping a bin / t	tearing a bag	$2 \times -50$			
Deus ex Mach	ina Penalties				
Receiving the ba	g via handover	$2 \times -250$			
Special Penalti	${\it les}   {\it \& Bonuses}$				
Not attending		-500			
Using alternative	start signal	-100			
Score per try		1000			
Total Score		1100			
Remarks:					

 $Team\ leader$ 



Test:	Clean the Table				@Home
Team name:					
Referee name:					
The maximum ti	me for this test is 10 minutes.				
Action		Score	$1^{st}$ try	$2^{nd}$ try	$3^{rd}$ try
$\overline{Main~Goal}$					
	able to pick up items	15			
0	e (cup, bowl) for transportation to the dishwasher	2×40			
_	the for transportation to the dishwasher	50			
	y (spoon, fork) for transportation to the dishwasher	2×80			
	ware and cutlery inside the dishwasher	$5\times50$			
=	correctly (cleanable, convenient like a human would)	$5\times50$			
in the dishwasher	·	<i>3×30</i>			
Bonus Reward	8				
Pulling out the d	ishwasher rack	100			
Pushing in the di	shwasher rack	100			
Opening the dish	washer door	200			
Closing the dishv		200			
_	shwasher tab for transportation to the dishwasher	100			
	vasher tab inside the dishwasher's hatch intended for	200			
the tab		~00			
Deus Ex Mach	ina Penalties				
Pointing at an ob	eject or telling the robot where an object is	$5 \times -20$			
Handing an object	ct over to the robot	$5 \times -70$			
Placing an object		$5 \times -180$			
Special Penalti	es & Bonuses				
Not attending		-500			
Using alternative	start signal	-100			
	Sour o Digital	100			
Score per try		1705			
Total Score		1875			
Remarks:					
Date & time	$\overline{Referee}$		Team le	eader	



Test:	Enhanced General Purpose Service	ee Robot			@Home
Team name:					
Referee name:					
The maximum tir	me for this test is 10 minutes.				
Action		Score	$1^{st}$ try	$2^{nd}$ try	$3^{rd}$ try
Main Goal					
	state an encountered problem	3×150			
Solve a problem		$3 \times 650$			
Deus Ex Machi		2, 000			
Asking for locatio	on or a problem nan to perform parts of the task v	$3 \times -200$	-		
_	ccording to similar penalties in oth				
Special Penaltie		15 131/61 151/11			
Not attending		-500			
Using alternative	start signal	-100			
Score per try		2400			
Total Score		2640			
Remarks:					
Date & time	$\overline{Referee}$		$\overline{Team}$ le	eader	



Test: Find my Disk			Ro	@Hom
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				
Provide an accurate description of the desired disk	600			
Desired disk is found	600			
Bonus rewards				
Help operator to find a second disk	800			
Special Penalties & Bonuses				
Not attending	-500			
Using alternative start signal	-100			
Score per try	2000			
Total Score	2200			
Remarks:				

 $Date \ \ \mathcal{U} \ time$ Referee $Team\ leader$ 



Test:	Hand me That	@Home
Team name:		
Referee name:		

The maximum time for this test is 10 minutes.

Action	$\mathbf{Score}$	$1^{st}$ try	$2^{nd}$ try	$3^{rd}$ try
Main Goal				
Correctly determine each item	5×400			
Correctly determine an item on the second attempt	$5 \times -150$			
Correctly determine an item on the third or fourth attempt	$5 \times -300$			
Correctly determine an item on a subsequent attempt	$5 \times -400$			
Asking 1 clarifying question	$5 \times -100$			
Asking 2 clarifying questions	$5 \times -200$			
Asking 3 or more clarifying questions	$5 \times -350$			
Deus ex Machina Penalties				
Being told the name of the object	$5 \times -400$			
$Special\ Penalties\ {\it \&Bonuses}$				
Not attending	-500			
Using alternative start signal	-100			
Score per try	2000			
Total Score	2200			

Remarks:

Date & time	$\overline{Referee}$	Team leader

 $Date \ \ \mathcal{U} \ time$ 



Test:	Set the Table			Ro	<b>boCup</b> @Home
Team name:					
Referee name:					
The maximum tin	me 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	l cup	$2 \times 50$			
Pick up knife, spo	oon, and fork	$3 \times 150$			
Pick up napkin		50			
Correctly place ea	ach item	$5 \times 100$			
Pointing at objec	t	$5 \times -25$			
Pointing at destir	nation	$5 \times -50$			
Bonus rewards					
Layplace mat bef	ore objects	500			
Placing all object		250			
Closing the door	-	50			
$Special\ Penalti$					
Not attending	2000000	-500			
Using alternative	start signal	-100			
Score per try		2000			
Total Score		2200			
Remarks:					
itemarks.					

 $Team\ leader$ 

 $Date \ \& \ time$ 



Test: Re Team name:					boCu
Team name:	staurant				@Hom
Referee name:					
Maximum time:				15	minutes
Action		Score	$1^{st} \; \mathbf{try}$	$2^{nd}$ try	$3^{rd}$ try
$\overline{Regular\ Rewards}$		50010	1 013	2 013	0 013
Detect calling or waving	customer	$2 \times 100$			
Reach a customer's tabl	e without prior guidance/training	$2 \times 100$			
Take an order.		$2 \times 300$			
Serve an order.		$2 \times 300$			
Qualitative robot social <b>Bonus Rewards</b>	performance	50			
Use an unattached tray	to transport	$2 \times 200$			
Regular Penalties					
Not making eye-contact	when taking an order	$2 \times -100$			
Deus ex Machina Pe	enalties				
Being guided to a table		$2 \times -200$			
_	andover object to the robot	$4 \times -100$			
	he object from a tray or the robot's hand	$4 \times -100$			
	re is a table/Kitchen-bar	$2 \times -100$			
Special Penalties &	Bonuses				
Not attending		-500			
Using alternative start s	signal	-100			
Score per try		2050			
Total Score		2255			
Remarks:					
temarks:					

 $Team\ leader$ 



Test:	Smoothie Chef			Ro	@Home
Team name	o:				
Referee nai	me:				
The maximu	m time for this test is 10 minutes.				
Action		Score	$1^{st} \; \mathbf{trv}$	$2^{nd}$ try	$3^{rd}$ try
Main Goal					
Placing all th	aree fruits in the blender	$3 \times 200$			
Pouring a tea	aspoon of sugar in the blender	300			
Pouring milk	in the blender	300			
Bonus Rew	vards				
Pouring suga	r in the blender without spilling	400			
Pouring milk	in the blender without spilling	400			
$Regular\ Pe$	nalties				
Placing an in	acorrect fruit into the blender	$3 \times -200$			
	Tachina Penalties				
	test in front of the kitchen counter	-150			
_	object over to the robot	-200			
_	bbot which ingredient comes next	-250			
Using a custo	_	-250			
_	$alties~ {\it \&}~ Bonuses$	<b>F</b> 0.0			
Not attendin		-500			
Using afterna	ative start signal	-100			
Score per t	ry	2000			
Total Score		2200			
Remarks:					
Date & time	Referee		Team le	eader	



Test:	Stickler for Rules				@Home
Team name:					
Referee name:					
Maximum tim	ne:			10	minutes
Action		Score	$1^{st}$ try	$2^{nd}$ try	$3^{rd}$ try
Regular Reward Identify a guest b log).	ds or eaking a house rule (indicating the rule by voice	e or 4×100			
*	ct, politely clarify to the guest what action he sho	ould 4×100			
Confirm that the	guest is following the rule.	$4 \times 200$			
Bonus Rewards Making eye-conta broken.	s act, politely clarify to the guest what rule is be	eing 4×100			
Regular Penalt Talking to a gues	ies t about a rule they are not breaking	4×-100			
Deus ex Machi					
	the robot towards a guest who is breaking a rul				
	e robot which rule is being broken	4×-100			
Special Penalti Not attending	$es  {\cal E}  Bonuses$	-500			
Using alternative	start signal	-300 -100			
	50020 555100				
Score per try		2000			
Total Score		2200			
Remarks:					
${Date~\&~time}$	$\overline{Referee}$	_	$rac{}{Team\ le}$	eader	



Test:	Where is this	<b>WHOME</b>
Team name:		
Referee name:		

The maximum time for this test is 10 minutes.

Action	Score	$1^{st}$ <b>try</b>	$2^{nd}$ try	$3^{rd}$ try
Main Goal				
Describing and show the requested location accurately	$3 \times 100$			
Monitoring operator's navigation, intervening when necessary	$3 \times 200$			
Describing the areas of the Arena traversed during navigation	$3 \times 100$			
Bonus rewards				
Leading non-expert operator	$3 \times 100$			
Giving instructions to returning operator based on previous instruc-	300			
tions				
Natural interaction while guiding	200			
Deus Ex Machina Penalties				
Bypassing speech recognition	$3 \times -50$			
Helping the robot find the operator	$3 \times -150$			- <u></u> -
Special Penalties & Bonuses				
Not attending	-500			
Using alternative start signal	-100			
Score per try	2000			
Total Score	2200			

Remarks:

$Date \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	Referee	Team leader



Test:	Final Demonstration — Jury Evaluation	@Home
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**

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

<sup>\*</sup> Story telling is to be rewarded

#### Remarks:

	_	
$Date \ \ \ time$	Referee	$Team\ leader$
RoboCun@l	Home Forms & Score Sheets / Final version for Rob	oCup 2024 (Revision 2024-04-23 1)

 $Date \ \ \mathcal{U} \ time$ 



Test:		Final Demonstration	on — Executive Committee		@Home
Team na	ıme:				
Referee	name:				
Instructi		11 1	C 11		
<ol> <li>At t</li> <li>Afte</li> <li>You</li> <li>Ente</li> </ol>	the end over demon may use er your y	stration and question the space below "Four name ("referee	carefully.  you may ask questions.  ons, please fill in the evaluation Remarks: to take notes for y name) on top of the sheet.  e" slot at the bottom.		
Criteria:					
<ul><li>Con</li><li>Rele</li></ul>	tribution evance fo	ntribution n to @Home r @Home / Novelty n and performance in			
Evaluati	on shee	t			
Team	solution	Efficacy of n 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	S:				

 $Team\ leader$