

Team University of Girona

euRathlon 2014 sea competition - 29 Sept - 4 Oct, La Spezia, Italy

Combined Scenarios						
Scenario Parameters			Vehicle Performance		Notes	
Performance Measures	Parameters for task	Value	Max Score	Parameter	Score	Parameter value
Long Range Navigation	See Relevant Sheet	0/1	4000	1	2622.575	
Area Survey	See Relevant Sheet	0/1	6800	1	300	
Manipulation	See Relevant Sheet	0/1	8500	0	2500	
Semi-Autonomous Bonus. Vehicle is retrieved between missions	Judges monitor team	0/1	9650	0	0	Half for all points added
Full Autonomous Bonus. Vehicle do everything in one go.	Judges monitor team	0/1	15300	1	5422.575	All points are doubled
Time Bonus	[0-110 minutes]	60	1000	45	1000	Max points for under 60 minutes and decreasing linearly
Partial joining of missions						Points are doubled for these missions
Extra Vehicle GPS Fixes		-50		1	-50	
Penalty for vehicle swap / vehicle addition	Number of interventions		-500	1	-500	
Subjective measures	See Table Below		1500		1060	
Total			37100		11295.15	

Subjective measures		
	Max Points	Team Performance
SAP Journal	200	140
SAP Video	100	0
Technical Merit	250	230
Craftmanship	250	230
Safety of design	250	230
Innovation	250	230
Discretionary points	200	0
Total	1500	1060

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Combined - Long Range Navigation						
Scenario Parameters				Vehicle Performance		Notes
Performance Measures	Parameters for task	Value	Max Score	Parameter value	Score	Parameter value
Mission efficiency	Scenario Total Distance (m)	306	2000	316	1760.075	Metric is made of two separate measures. First one is raw speed to achieve the task. The second one is efficiency of the path (time taken to achieve path) taking into account the maximum speed of the vehicle. This means that a slow vehicle achieving a more efficient path than a fast vehicle will score more points in the second measure. The formula used to allocate points is the following: %of mission achieved*(1000*(time/fastest_time)+1000*Most_Direct_Path_Possible/Real_Distance Travelled).
	Max Speed of fastest vehicle (m/s)	0.5		0.5		
	Most Direct path possible (best path possible between waypoints)	306		306		
	Fastest time (m)	10.2		12.88333333		
	%OF WAYPOINTS REACHED	0-100%		100%		
Navigation precision (m)	Waypoint 1	(Lat,Long)	500	9	500	At each waypoint the position of the vehicle is measured. If the vehicle is within two meters of the waypoint (GPS marked), the team gets full points for that waypoint. After that, the points are discounted linearly using the following formula for each waypoint:points = 500-
	Waypoint 2	(Lat, Long)	500	15.5	362.5	
	Min distance to get points	30				
Acoustic or Optical image of the area with evidence of terrain based navigation.	Provision of demonstration by team after mission	0 or 1	500	0	0	Bonus Points for using terrain based navigation.
Evidence of cooperation with USV for navigation	Provision of demonstration by team after mission	0 or 1	500	0	0	Bonus points for using AUV/USV collaboration.
Additional GPS or acoustic fixes required	Counted during mission by judges. Every surfacing counts	Number of surfacing events	-100	0	0	
Penalty for each manual intervention	Physical intervention on vehicle	Number of interventions	-250	0	0	
Exit from safety corridor during mission	Vehicle moves outside of allowed corridor	Number of occurrences	-500	0	0	
Subjective measures	See Table Below		1500		0	
Total			5500		2622.575	

Subjective measures <i>Not used for combined scenarios</i>		
	Max Points	Team Performance
SAP Journal	200	0
SAP Video	100	0
Technical Merit	250	0
Craftmanship	250	0
Safety of design	250	0
Innovation	250	0
Discretionary points	200	0
Total	1500	0

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Combined - Area Survey						
Scenario Parameters			Vehicle Performance		Notes	
Performance Measures	Parameters for task	Value	Max Score	Parameter	Score	Parameter value
Wall inspection	Wall Survey coverage	0-100%	500	30%	150	Variable points for Wall inspection depending on coverage. Penalty for each exit of survey corridor
	Penalty /Number of exit from safety corridor	-50		0		
	Target Detection	0/1	200	0	0	
	Target inspection	0/1	300	0	0	
Area Survey	Number of OPIs to detect	5	500	0	0	To get a successful detection awarded, the location of the OPI in the map provided needs to be less than 2 meters radius from the real position. The OPI position should be reported relative to the top left corner of the pool.
	OPI-1 position error(m)	2		4		With respect to real OPI position. Error calculated based on either map provided with detection position or absolute position of OPI wrt a known reference point.
	OPI-2 position error(m)			4		
	OPI-3 position error(m)			4		
	OPI-4 position error(m)			4		
	OPI-5 position error(m)			4		
	Number of False Positives			4		
	Quality of OPIs Mapping	Calculated based on positions reported by team	2500		0	The total distance error is calculated by summing the errors for each object detected. These errors are calculated by calculating the distance of each object detected to the nearest OPI in the map. Detected objects will only be valid if a visual or sonar Id is provided. The origin to report the position of the objects will have to be specified by the team.
Quality of Overall Map	0-100%	500	30%	150		
Penalty for each manual intervention	Physical intervention on vehicle	Number of interventions	-250	0	0	
AUV/USV Collaboration	Bonus	0/1	500	0	0	
Subjective Measures	See Table Below		1500		0	
Total			6300		300	

Benchmarking						
Completeness	1.00					

Subjective measures <i>Not used for combined scenarios</i>		
	Max Points	Team Performance
SAP Journal	200	0
SAP Video	100	0
Technical Merit	250	0
Craftmanship	250	0
Safety of design	250	0
Innovation	250	0
Discretionary points	200	0
Total	1500	0

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Combined - Manipulation						
Scenario Parameters				Vehicle Performance		Notes
Performance Measures	Parameters for task	Value	Max Score	Parameter	Score	Parameter value
Pole Manipulation	Visual Confirmation	0/1	2000	1	2000	Boolean Value
Semi-Autonomous Bonus	Judges monitor team	0/1	2000	0.00	0	All points are doubled
Full Autonomous Bonus	Judges monitor team	0/1	6000		0	All points are quadrupled (cannot be added to semi-autonomous bonus)
Time Bonus		0-30 minutes if teleoperated - 0-55 if semi-autonomous - 0-70 minutes if autonomous.	500	8	500	Max points for under half the time allocated minutes and decreasing linearly after that
Completion time	Report Best time overall for benchmarking	60			90	Report time achieved by team
Subjective Measures	See Table Below		1500		0	
Total			10000		2500	

Subjective measures <i>Not used for combined scenarios</i>		
	Max Points	Team Performance
SAP Journal	200	0
SAP Video	100	0
Technical Merit	250	0
Craftmanship	250	0
Safety of design	250	0
Innovation	250	0
Discretionary points	200	0
Total	1500	0

Team SAUC'ISSE

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Combined Scenarios						
Scenario Parameters				Vehicle Performance		Notes
Performance Measures	Parameters for task	Value	Max Score	Parameter	Score	Parameter value
Long Range Navigation	See Relevant Sheet	0/1	4000	1	1714.391382	
Area Survey	See Relevant Sheet	0/1	4800	1	3000	
Manipulation	See Relevant Sheet	0/1	-500	0	0	
Semi-Autonomous Bonus. Vehicle is retrieved between missions	Judges monitor team	0/1	4150	0	0	Half for all points added
Full Autonomous Bonus. Vehicle do everything in one go.	Judges monitor team	0/1	8300	1	4714.391382	All points are doubled
Time Bonus	[0-110 minutes]	70	1000	70	0	Max points for under 50 minutes and decreasing linearly
Extra GPS fixes during sub-tasks		-50		0	0	
Partial joining of missions						Points are doubled for these missions
Penalty for vehicle swap / vehicle addition	Number of interventions		-500	0	0	
Subjective measures	See Table Below		1500		760	
Total			19100		10188.78276	

Subjective measures		
	Max Points	Team Performance
SAP Journal	200	190
SAP Video	100	0
Technical Merit	250	100
Craftmanship	250	120
Safety of design	250	150
Innovation	250	200
Discretionary points	200	
Total	1500	760

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Combined - Long Range Navigation						
Scenario Parameters				Vehicle Performance		Notes
Performance Measures	Parameters for task	Value	Max Score	Parameter value	Score	Parameter value
Mission efficiency	Scenario Total Distance (m)	300	2000	340	1289.391382	Metric is made of two separate measures. First one is raw speed to achieve the task. The second one is efficiency of the path (time taken to achieve path) taking into account the maximum speed of the vehicle. This means that a slow vehicle achieving a more efficient path than a fast vehicle will score more points in the second measure. The formula used to allocate points is the following: %of mission achieved*(1000*(time/fastest_time)+1000*Most_Direct_Path_Possible/Real_Distance Travelled).
	Max Speed of fastest vehicle (m/s)	0.5		0.3		
	Most Direct path possible (best path possible between waypoints)	300		300		
	Fastest time (m)	12.53		30.78333333		
	%OF WAYPOINTS REACHED	0-100%		100%		
Navigation precision (m)	Waypoint 1	(Lat,Long)	500	29	25	At each waypoint the position of the vehicle is measured. If the vehicle is within two meters of the waypoint (GPS marked), the team gets full points for that waypoint. After that, the points are discounted linearly using the following formula for each waypoint:points = 500-
	Waypoint 2	(Lat, Long)	500	9	500	
	Min distance to get points	30				
Acoustic or Optical image of the area with evidence of terrain based navigation.	Provision of demonstration by team after mission	0 or 1	500	0	0	Bonus Points for using terrain based navigation.
Evidence of cooperation with USV for navigation	Provision of demonstration by team after mission	0 or 1	500	1	500	Bonus points for using AUV/USV collaboration.
Additional GPS or acoustic fixes required	Counted during mission by judges. Every surfacing counts	Number of surfacing events	-100	1	-100	
Penalty for each manual intervention	Physical intervention on vehicle	Number of interventions	-250	2	-500	
Exit from safety corridor during mission	Vehicle moves outside of allowed corridor	Number of occurrences	-500	0	0	
Subjective measures	See Table Below		1500		0	
Total			5500		1714.391382	

Subjective measures <i>Not used for combined scenarios</i>		
	Max Points	Team Performance
SAP Journal	200	0
SAP Video	100	0
Technical Merit	250	0
Craftmanship	250	0
Safety of design	250	0
Innovation	250	0
Discretionary points	200	0
Total	1500	0

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Combined - Area Survey						
Scenario Parameters			Vehicle Performance		Notes	
Performance Measures	Parameters for task	Value	Max Score	Parameter	Score	Parameter value
Wall inspection	Wall Survey coverage	0-100%	500	80%	400	Variable points for Wall inspection depending on coverage. Penalty for each exit of survey corridor
	Penalty /Number of exit from safety corridor	-50		0		
	Target Detection	0/1	200	0	0	
	Target inspection	0/1	300	0	0	
Area Survey	Number of OPIs to detect	5	500	3	300	To get a successful detection awarded, the location of the OPI in the map provided needs to be less than 2 meters radius from the real position. The OPI position should be reported relative to the top left corner of the pool.
	OPI-1 position error(m)	2		0		With respect to real OPI position. Error calculated based on either map provided with detection position or absolute position of OPI wrt a known reference point.
	OPI-2 position error(m)			0		
	OPI-3 position error(m)			0		
	OPI-4 position error(m)			4		
	OPI-5 position error(m)			4		
	Number of False Positives			0		
	Quality of OPIs Mapping	Calculated based on positions reported by team	2500		1500	The total distance error is calculated by summing the errors for each object detected. These errors are calculated by calculating the distance of each object detected to the nearest OPI in the map. Detected objects will only be valid if a visual or sonar Id is provided. The origin to report the position of the objects will have to be specified by the team.
Quality of Overall Map	0-100%	500	60%	300		
Penalty for each manual intervention	Physical intervention on vehicle	Number of interventions	-250	0	0	
AUV/USV Collaboration	Bonus	0/1	500	1	500	
Subjective Measures	See Table Below		1500		0	
Total			6300		3000	

Benchmarking						
Completeness		4.00				

Subjective measures <i>Not used for combined scenarios</i>		
	Max Points	Team Performance
SAP Journal	200	0
SAP Video	100	0
Technical Merit	250	0
Craftmanship	250	0
Safety of design	250	0
Innovation	250	0
Discretionary points	200	0
Total	1500	0

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Manipulation						
Scenario Parameters				Vehicle Performance		Notes
Performance Measures	Parameters for task	Value	Max Score	Parameter	Score	Parameter value
Pole Manipulation	Visual Confirmation	0/1	2000	1	0	Boolean Value
Semi-Autonomous Bonus	Judges monitor team	0/1	2000	0	0	All points are doubled
Full Autonomous Bonus	Judges monitor team	0/1	6000		0	All points are quadrupled (cannot be added to semi-autonomous bonus)
Completion time	Report Best time overall for benchmarking	60			0	Report time achieved by team
Subjective Measures	See Table Below		1500		0	
Total			1000	0	0	

Subjective measures <i>Not used for combined scenarios</i>		
	Max Points	Team Performance
SAP Journal	200	0
SAP Video	100	0
Technical Merit	250	0
Craftmanship	250	0
Safety of design	250	0
Innovation	250	0
Discretionary points	200	0
Total	1500	0

0

Team Avalon

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Combined Scenarios						
Scenario Parameters				Vehicle Performance		Notes
Performance Measures	Parameters for task	Value	Max Score	Parameter	Score	Parameter value
Long Range Navigation	See Relevant Sheet	0/1	4000	1	0	
Area Survey	See Relevant Sheet	0/1	5300	1	2000	
Manipulation	See Relevant Sheet	0/1	8500	0	1000	
Semi-Autonomous Bonus. Vehicle is retrieved between missions	Judges monitor team	0/1	8900	1	1500	Half for all points added
Full Autonomous Bonus. Vehicle do everything in one go.	Judges monitor team	0/1	17800	0	0	All points are doubled
Time Bonus	[0-110 minutes]	70	1000	66	78.5	Max points for under 60 minutes and decreasing linearly
Extra GPS fixes during sub-tasks		-50		0	0	
Partial joining of missions						Points are doubled for these missions
Penalty for vehicle swap / vehicle addition	Number of interventions		-500	0	0	
Subjective measures	See Table Below		1500		1090	
Total			38100		5668.5	

Subjective measures		
	Max Points	Team Performance
SAP Journal	200	150
SAP Video	100	
Technical Merit	250	230
Craftmanship	250	230
Safety of design	250	230
Innovation	250	250
Discretionary points	200	0
Total	1500	1090

Team Avalon

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Combined Scenario - Long Range Navigation						
Scenario Parameters				Vehicle Performance		Notes
Performance Measures	Parameters for task	Value	Max Score	Parameter value	Score	Parameter value
Mission efficiency	Scenario Total Distance (m)	300	2000	0	0	Metric is made of two separate measures. First one is raw speed to achieve the task. The second one is efficiency of the path (time taken to achieve path) taking into account the maximum speed of the vehicle. This means that a slow vehicle achieving a more efficient path than a fast vehicle will score more points in the second measure. The formula used to allocate points is the following: %of mission achieved*(1000*(time/fastest_time)+1000*Most_Direct_Path_Possible/Real_Distance Travelled).
	Max Speed of fastest vehicle (m/s)	4		0		
	Most Direct path possible (best path possible between waypoints)	300		0		
	Fastest time (s)	75		0		
	%OF WAYPOINTS REACHED	0-100%		0%		
Navigation precision (m)	Waypoint 1	(Lat,Long)	500	40	0	At each waypoint the position of the vehicle is measured. If the vehicle is within two meters of the waypoint (GPS marked), the team gets full points for that waypoint. After that, the points are discounted linearly using the following formula for each waypoint:points = 500-
	Waypoint 2	(Lat, Long)	500	40	0	
	Min distance to get points	30				
Acoustic or Optical image of the area with evidence of terrain based navigation.	Provision of demonstration by team after mission	0 or 1	500	0	0	Bonus Points for using terrain based navigation.
Evidence of cooperation with USV for navigation	Provision of demonstration by team after mission	0 or 1	500	0	0	Bonus points for using AUV/USV collaboration.
Additional GPS or acoustic fixes required	Counted during mission by judges. Every surfacing counts	Number of surfacing events	-100	0	0	
Penalty for each manual intervention	Physical intervention on vehicle	Number of interventions	-250	0	0	
Exit from safety corridor during mission	Vehicle moves outside of allowed corridor	Number of occurrences	-500	0	0	
Subjective measures	See Table Below		1500		0	
Total			5500		0	

Subjective measures <i>Not used for combined scenarios</i>		
	Max Points	Team Performance
SAP Journal	200	0
SAP Video	100	0
Technical Merit	250	0
Craftmanship	250	0
Safety of design	250	0
Innovation	250	0
Discretionary points	200	0
Total	1500	0

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Combined Scenario - Area Survey						
Scenario Parameters			Vehicle Performance		Notes	
Performance Measures	Parameters for task	Value	Max Score	Parameter	Score	Parameter value
Wall inspection	Wall Survey coverage	0-100%	500	100%	500	Variable points for Wall inspection depending on coverage. Penalty for each exit of survey corridor
	Penalty /Number of exit from safety corridor	-50		0		
	Target Detection	0/1	200	0	0	
	Target inspection	0/1	300	0	0	
Area Survey	Number of OPIs to detect	5	500	2	200	To get a successful detection awarded, the location of the OPI in the map provided needs to be less than 2 meters radius from the real position. The OPI position should be reported relative to the top left corner of the pool.
	OPI-1 position error(m)	2		0		With respect to real OPI position. Error calculated based on either map provided with detection position or absolute position of OPI wrt a known reference point.
	OPI-2 position error(m)			0		
	OPI-3 position error(m)			4		
	OPI-4 position error(m)			4		
	OPI-5 position error(m)			4		
	Number of False Positives			0		
	Quality of OPIs Mapping	Calculated based on positions reported by team	2500		1000	The total distance error is calculated by summing the errors for each object detected. These errors are calculated by calculating the distance of each object detected to the nearest OPI in the map. Detected objects will only be valid if a visual or sonar Id is provided. The origin to report the position of the objects will have to be specified by the team.
Quality of Overall Map	0-100%	500	60%	300		
Penalty for each manual intervention	Physical intervention on vehicle	Number of interventions	-250	0	0	
AUV/USV Collaboration	Bonus	0/1	500	0	0	
Time Bonus	Best overall time (minutes)	40	500	60	0	The full mission time bonus is given for missions completed before 40 minutes and then decreases linearly to reach zero at 60 minutes.
Subjective Measures	See Table Below		1500		0	
Total			6800		2000	

Benchmarking						
Completeness		4.00				

Subjective measures <i>Not used for combined scenarios</i>		
	Max Points	Team Performance
SAP Journal	200	0
SAP Video	100	0
Technical Merit	250	0
Craftmanship	250	0
Safety of design	250	0
Innovation	250	0
Discretionary points	200	0
Total	1500	0

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Combine Scenario - Manipulation						
Scenario Parameters				Vehicle Performance		Notes
Performance Measures	Parameters for task	Value	Max Score	Parameter	Score	Parameter value
Pole Manipulation	Visual Confirmation	0/1	2000	50%	1000	Boolean Value
Semi-Autonomous Bonus	Judges monitor team	0/1	2000	0	0	All points are doubled
Full Autonomous Bonus	Judges monitor team	0/1	6000		0	All points are quadrupled (cannot be added to semi-autonomous bonus)
Time Bonus		0-30 minutes if teleoperated - 0-55 if semi-autonomous - 0-70 minutes if autonomous.	500	30	0	Max points for under half the time allocated minutes and decreasing linearly after that
Completion time	Report Best time overall for benchmarking	60			90	Report time achieved by team
Subjective Measures	See Table Below		1500		0	
Total			10000		1000	

Subjective measures <i>Not used for combined scenarios</i>		
	Max Points	Team Performance
SAP Journal	200	0
SAP Video	100	0
Technical Merit	250	0
Craftmanship	250	0
Safety of design	250	0
Innovation	250	0
Discretionary points	200	0
Total	1500	0

Team CISSAU

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Combined Scenarios						
Scenario Parameters				Vehicle Performance		Notes
Performance Measures	Parameters for task	Value	Max Score	Parameter	Score	Parameter value
Long Range Navigation	See Relevant Sheet	0/1	4000	1	0	
Area Survey	See Relevant Sheet	0/1	4800	1	500	
Manipulation	See Relevant Sheet	0/1	8000	0	1000	
Semi-Autonomous Bonus. Vehicle is retrieved between missions	Judges monitor team	0/1	8400	0	0	Half for all points added
Full Autonomous Bonus. Vehicle do everything in one go.	Judges monitor team	0/1	16800	0	0	All points are doubled
Time Bonus	[0-110 minutes]	70	1000	70	0	Max points for under 50 minutes and decreasing linearly
Extra GPS fixes during sub-tasks		-50		0	0	
Partial joining of missions						Points are doubled for these missions
Penalty for vehicle swap / vehicle addition	Number of interventions		-500	0	0	
Subjective measures	See Table Below		1500		760	
Total			36100		2260	

Subjective measures		
	Max Points	Team Performance
SAP Journal	200	190
SAP Video	100	0
Technical Merit	250	100
Craftmanship	250	120
Safety of design	250	150
Innovation	250	200
Discretionary points	200	
Total	1500	760

Team CISSAU

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Combined - Long Range Navigation						
Scenario Parameters				Vehicle Performance		Notes
Performance Measures	Parameters for task	Value	Max Score	Parameter value	Score	Parameter value
Mission efficiency	Scenario Total Distance (m)	300	2000	0	0	Metric is made of two separate measures. First one is raw speed to achieve the task. The second one is efficiency of the path (time taken to achieve path) taking into account the maximum speed of the vehicle. This means that a slow vehicle achieving a more efficient path than a fast vehicle will score more points in the second measure. The formula used to allocate points is the following: %of mission achieved*(1000*(time/fastest_time)+1000*Most_Direct_Path_Possible/Real_Distance Travelled).
	Max Speed of fastest vehicle (m/s)	4		0		
	Most Direct path possible (best path possible between waypoints)	300		0		
	Fastest time (s)	75		0		
	%OF WAYPOINTS REACHED	0-100%		0%		
Navigation precision (m)	Waypoint 1	(Lat,Long)	500	10	0	At each waypoint the position of the vehicle is measured. If the vehicle is within two meters of the waypoint (GPS marked), the team gets full points for that waypoint. After that, the points are discounted linearly using the following formula for each waypoint:points = 500-
	Waypoint 2	(Lat, Long)	500	11	0	
	Min distance to get points	30				
Acoustic or Optical image of the area with evidence of terrain based navigation.	Provision of demonstration by team after mission	0 or 1	500	0	0	Bonus Points for using terrain based navigation.
Evidence of cooperation with USV for navigation	Provision of demonstration by team after mission	0 or 1	500	0	0	Bonus points for using AUV/USV collaboration.
Additional GPS or acoustic fixes required	Counted during mission by judges. Every surfacing counts	Number of surfacing events	-100	3	0	
Penalty for each manual intervention	Physical intervention on vehicle	Number of interventions	-250	2	0	
Exit from safety corridor during mission	Vehicle moves outside of allowed corridor	Number of occurrences	-500	0	0	
Subjective measures	See Table Below		1500		0	
Total			5500		0	

Subjective measures <i>Not used for combined scenarios</i>		
	Max Points	Team Performance
SAP Journal	200	0
SAP Video	100	0
Technical Merit	250	0
Craftmanship	250	0
Safety of design	250	0
Innovation	250	0
Discretionary points	200	0
Total	1500	0

Team CISSAU

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Combined - Area Survey						
Scenario Parameters			Vehicle Performance		Notes	
Performance Measures	Parameters for task	Value	Max Score	Parameter	Score	Parameter value
Wall inspection	Wall Survey coverage	0-100%	500	100%	500	Variable points for Wall inspection depending on coverage. Penalty for each exit of survey corridor
	Penalty /Number of exit from safety corridor	-50		0		
	Target Detection	0/1	200	0	0	
	Target inspection	0/1	300	0	0	
Area Survey	Number of OPIs to detect	5	500	0	0	To get a successful detection awarded, the location of the OPI in the map provided needs to be less than 2 meters radius from the real position. The OPI position should be reported relative to the top left corner of the pool.
	OPI-1 position error(m)	2		4		With respect to real OPI position. Error calculated based on either map provided with detection position or absolute position of OPI wrt a known reference point.
	OPI-2 position error(m)			4		
	OPI-3 position error(m)			4		
	OPI-4 position error(m)			4		
	OPI-5 position error(m)			4		
	Number of False Positives			4		
	Quality of OPIs Mapping	Calculated based on positions reported by team	2500		0	The total distance error is calculated by summing the errors for each object detected. These errors are calculated by calculating the distance of each object detected to the nearest OPI in the map. Detected objects will only be valid if a visual or sonar Id is provided. The origin to report the position of the objects will have to be specified by the team.
Quality of Overall Map	0-100%	500	60%	0		
Penalty for each manual intervention	Physical intervention on vehicle	Number of interventions	-250	0	0	
AUV/USV Collaboration	Bonus	0/1	500	1	0	
Subjective Measures	See Table Below		1500		0	
Total			6300		500	

Benchmarking						
Completeness		3.00				

Subjective measures <i>Not used for combined scenarios</i>		
	Max Points	Team Performance
SAP Journal	200	0
SAP Video	100	0
Technical Merit	250	0
Craftmanship	250	0
Safety of design	250	0
Innovation	250	0
Discretionary points	200	0
Total	1500	0

Team CISSAU

euRathlon 2014 sea competition - 29 Sept - 4 Oct, La Spezia, Italy

Combined - Manipulation						
Scenario Parameters				Vehicle Performance		Notes
Performance Measures	Parameters for task	Value	Max Score	Parameter	Score	Parameter value
Pole Manipulation	Visual Confirmation	0/1	2000	0.5	1000	Boolean Value
Semi-Autonomous Bonus	Judges monitor team	0/1	2000	0	0	All points are doubled
Full Autonomous Bonus	Judges monitor team	0/1	6000		0	All points are quadrupled (cannot be added to semi-autonomous bonus)
Time Bonus		0-30 minutes if teleoperated - 0-55 if semi-autonomous - 0-70 minutes if autonomous.	500	NA	0	Max points for under half the time allocated minutes and decreasing linearly after that
Completion time	Report Best time overall for benchmarking	60			0	Report time achieved by team
Subjective Measures	See Table Below		1500		0	
Total			9500		1000	

Subjective measures <i>Not used for combined scenarios</i>		
	Max Points	Team Performance
SAP Journal	200	0
SAP Video	100	0
Technical Merit	250	0
Craftmanship	250	0
Safety of design	250	0
Innovation	250	0
Discretionary points	200	0
Total	1500	0