

Team University of Girona

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

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)	900	2000	863	1958.888889	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		0.410952381		
	Most Direct path possible (best path possible between waypoints)	900		900		
	Fastest time (m)	35		35		
	%OF WAYPOINTS REACHED	0-100%		100%		
Navigation precision (m)	Waypoint 1	(Lat,Long)	500	26.8	80	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 = 500-500/20*(distance-10). It is rounded to zero if the distance exceeds 30
	Waypoint 2	(Lat, Long)	500	12.24	444	
	Waypoint 3	(Lat, Long)	500	14.74	381.5	
	Waypoint 4	(Lat, Long)	500	17.39	315.25	
	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		1047.5	
Total			6500		4227.138889	

Subjective measures	Max Points	Team Performance
SAP Journal	200	200
SAP Video	100	0
Technical Merit	250	220
Craftmanship	250	220
Safety of design	250	220
Innovation	250	187.5
Discretionary points	200	
Total	1500	1047.5

Team SAUC'ISSE

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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)	900	2000	632	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_DistanceTravelled).
	Max Speed of fastest vehicle (m/s)	0.5		0.188095238		
	Most Direct path possible (best path possible between waypoints)	900		900		
	Fastest time (s)	35		56		
	%OF WAYPOINTS REACHED	0-100%		0%		
Navigation precision (m)	Waypoint 1	(Lat,Long)	500	91	0	At each waypoint the position of the vehicle is measured. If the vehicle is within 10 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 = 500-500/20*(distance-10). It is rounded to zero if the distance exceeds 30
	Waypoint 2	(Lat, Long)	500	80	0	
	Waypoint 3	(Lat, Long)	500	100	0	
	Waypoint 4	(Lat, Long)	500	100	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	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	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		712.5	
Total			6500		1212.5	

Subjective measures	Max Points	Team Performance
SAP Journal	200	180
SAP Video	100	0
Technical Merit	250	130
Craftmanship	250	120
Safety of design	250	120
Innovation	250	162.5
Discretionary points	200	
Total	1500	712.5

Team Avalon

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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)	910	2000	1	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_DistanceTravelled).
	Max Speed of fastest vehicle (m/s)	0.5		0.1		
	Most Direct path possible (best path possible between waypoints)	910		910		
	Fastest time (s)	35		70		
	%OF WAYPOINTS REACHED	0-100%		0%		
Navigation precision (m)	Waypoint 1	(Lat,Long)	500	45	0	At each waypoint the position of the vehicle is measured. If the vehicle is within 10 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 = 500-500/20*(distance-10). It is rounded to zero if the distance exceeds 30
	Waypoint 2	(Lat, Long)	500	45	0	
	Waypoint 3	(Lat, Long)	500	45	0	
	Waypoint 4	(Lat, Long)	500	45	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		1080	
Total			6500		1080	

Subjective measures	Max Points	Team Performance
SAP Journal	200	180
SAP Video	100	0
Technical Merit	250	200
Craftmanship	250	250
Safety of design	250	250
Innovation	250	200
Discretionary points	200	
Total	1500	1080

Team CISSAU

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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)	910	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_DistanceTravelled).
	Max Speed of fastest vehicle (m/s)	4		0		
	Most Direct path possible (best path possible between waypoints)	910		0		
	Fastest time (s)	227.5		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 10 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 = 500-500/20*(distance-10). It is rounded to zero if the distance exceeds 30
	Waypoint 2	(Lat, Long)	500	40	0	
	Waypoint 3	(Lat, Long)	500	40	0	
	Waypoint 4	(Lat, Long)	500	40	0	
	Min distance to get points	30		40		
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		570	
Total			6500		570	

Subjective measures	Max Points	Team Performance
SAP Journal	200	150
SAP Video	100	0
Technical Merit	250	100
Craftmanship	250	100
Safety of design	250	120
Innovation	250	100
Discretionary points	200	0
Total	1500	570