

Company CEO: _____

Company Name

Product demonstration station officials: _____

Safety

Check here if the company has their PASSED safety inspection card

Companies without their safety inspection PASSED card cannot participate in the product demonstration.

Organizational and Operational Effectiveness (up to 10 points)	Points	
Up to 4 points - Teamwork/Collaboration & Communication		
Chain of command evident	0	1
Roles clear and executed well	0	1
Composure under pressure	0	1
Supportive of each other and communicate well with each other	0	1
Up to 2 points - Project Management		
Task plan is well thought out to maximize score	0	1
Alternate plans available and all team members are aware of the plan	0	1
Up to 2 points - Problem Solving & Ability to Deal with Obstacles		
Awareness of time	0	1
Adjusting timeline to adapt to situations	0	1
Up to 2 points - System Design & Control/Electrical		
ROV deployed by the end of the 5-minute set-up period	0	1
ROV is under control of pilot and prepared to perform tasks	0	1
Total Organizational and Operational Effectiveness (out of 10)		Total

Fuses: ROV systems are allowed one replacement fuse during the product demonstration. In the event that the ROV system blows the second fuse during the demonstration, time will stop, the demonstration run will be over, and no additional points will be earned. Companies should have adequate replacement fuses on hand, MATE will not provide replacements.

Task # 1: Marine Renewable Energy (up to 50 points)	Points			
Judges' Notes: Companies must complete the steps of task 1.1 "Install a floating solar panel array" in order. Companies must complete task 1.3 "Pilot into resident ROV docking station" as the final task.				
1.1 up to 40 points – Install a floating solar panel array				
10 points – position a solar panel array amongst floating wind turbines	0		10	
10 points – moor the panel array to an anchor point	0		10	
5 points – remove the power port cover	0		5	
10 points – install the power line connector into the power port	0		10	
1.2 up to 15 points - Remove biofouling from the foundation and mooring lines of floating wind turbines				
5 points – remove 1 to 2 biofouling from turbines				
10 points – remove 3 to 5 biofouling from turbines	0	5	10	15
15 points – remove 6 biofouling from turbines				
Total Task # 1 (out of 50)				Total

Task # 2: Heathy Environments From the Mountains to the Sea (up to 120 points)	Points		
2.1 up to 20 points – Identify reef organisms using eDNA 5 points – collect a water sample from above the coral head 5 points – return the water sample to the surface, side of the pool 5 points each, 10 points total – use the eDNA data to identify coral reef fish species	0	5	10
2.2 up to 20 points – Administer Rx to diseased corals 5 points – irradiate the diseased area of coral with simulated UV light 10 points – place a tent over the diseased area of coral 5 points – insert a syringe filled with "probiotic" fluid into the port	0	5	10
2.3 up to 15 points - Monitor and protect seagrass habitat 5 points – compare images to determine recovery of a seagrass bed 5 points – install an Eco-Mooring system to protect habitat 5 points – secure the Eco-Mooring by rotating it 360 degrees	0	5	5
2.4 up to 20 points - Reintroduce endangered native Northern Redbelly Dace fry 5 points – transport the fry to the release area 5 points – allow the fry to acclimate to local conditions 5 points each, 10 points total – release the fry	0	5	10
2.5 up to 25 points - Ensure the health and safety of Dillon Reservoir 10 points – inspect the buoy ropes for damage 5 points – attach a lift bag to the container 5 points – inflate the lift bag to lift the container 5 points – return the container to the surface, side of the pool	0	5	10
2.6 up to 20 points - Monitor endangered Lake Titicaca giant frogs 10 points – fly a transect 5 points – count the number of frogs 5 points – install a long term camera into a designated area	0	5	5
Total Task # 2 (out of 120)			Total

Task # 3: MATE Floats! 2023 (up to 30 points)	Points		
3.1 up to 60 points – MATE Floats! 10 points – Pull a pin to simulate the float ascending to the surface 5 points – recover the float to the surface, side of the pool up to 15 points – graph water temperature versus data 15 points – create the graph on a computer/device 10 points – create the graph on paper	0	10	15
Total Task # 3 (out of 30)			Total

Penalty Points (deduct 5 points for each infraction)	No. of Infractions		
Safety: Product demonstration officials may deduct points for safety violations. Minor violations are a 5 point penalty. Major violations may be 10 or more points. Product demonstration officials may also disqualify a company for extreme safety violations. Note: An official's decision to disqualify a company due to safety concerns is final. If there is a safety concern, please contact the lead safety inspector or competition coordinator.			
Tether Pulling: Company members cannot pull on the tether to assist in moving or turning the vehicle. Judges should issue a warning for the first infraction and begin deducting points AFTER the first infraction.	a		
Illegal communication: Company members at the side of the pool may not communicate visual evidence of the ROV status such as location of vehicle, need to turn, that the vehicle is stuck, etc.	b		
Debris: Companies that leave debris (e.g. parts of their ROV, including weights and flotation) in the pool at the end of the product demonstration time, or leave debris that a diver must retrieve will receive penalty points. Product demonstration props are NOT considered debris. A company constructed collection basket is considered debris if it is still in the water, not under control of the ROV, when product demonstration time ends.	c		
Diver Assistance: Any diver assistance (if available) must be requested by the company and will result in a 5 point penalty. The clock does not stop during diver assistance.	d		
Total Penalty Points	(total a + b + c + d) plus safety violations	Total	
	X 5 =		

TIME BONUS (1 point for every minute and 0.01 point for every second under 15 minutes)			
Duration of Product Demonstration: _____			
Minutes under 15 remaining: _____ X 1 point = _____			
Seconds remaining: _____ X 0.01 point = _____			
Time bonus			Total

TOTAL PRODUCT DEMONSTRATION SCORE	Grand Total
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Official's initials: _____

Company CEO's initials: _____