

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: Shipwrecks, Spotter Buoys and Flying Fish (up to 105 points)		Points				
1.1 up to 35 points – Shipwrecks						
up to 35 points – use visual clues to determine the identity of an unknown shipwreck						
5 points – determine the type of ship		0		5		
up to 10 points – determine the length of the ship						
10 points – within 5 cm of true length		0	5	10		
5 points – between 5.01 and 10 cm						
0 points – not within 10 cm						
up to 10 points – determine the cargo that the ship carried						
5 points – remove the cover and determine the type of cargo		0		5		
5 points – Replace the cover		0		5		
10 points – identify the shipwreck		0		10		
-5 points each, up to 25 penalty points – coming in contact with the shipwreck (not including the cargo container)		-5	-10	-15	-20	-25
1.2 up to 40 points – Smart Buoys						
up to 30 points – replace a damaged thermistor on the subsurface Smart buoy						
5 points – release the top end connection point		0		5		
5 points – release the bottom end connection point		0		5		
10 points – attach the top end connection point		0		10		
10 points – attach the bottom end connection point		0		10		
10 points – Install a pCO2 sensor to the subsurface Smart buoy		0		10		
1.3 up to 30 points – Lake Acidification and Invasive Carp						
10 points – collect a water sample		0		10		
5 points – determine the pH of the water sample		0		5		
5 points – measure the dissolved CO2 levels of the water sample		0		5		
10 points – determine if the unknown sequences include invasive carp		0		10		
Total Task # 1 (out of 105)						Total

Task # 2: Marine Renewable Energy (up to 100 points)		Points		
2.1 up to 50 points – Produce Power				
5 points – retrieve the power connector		0	5	
up to 15 points – install the power connector into the hub				
5 points – remove the cover from the connection port		0	5	
10 points – install the connector		0	10	
up to 15 points – replace a sacrificial anode				
5 points – disconnect the old sacrificial anode		0	5	
10 points – connect the new sacrificial anode		0	10	
up to 15 points – mitigate corrosion				
5 points – conduct a visual inspection of the base structure		0	5	
10 points – apply an underwater epoxy patch to the corroded area		0	10	
2.2 up to 50 points – Monitor Environmental Impact				
up to 10 points – collect polyp stage jellies attached to the solar panel array				
10 points – collect 4 or more polyps		0	5	10
5 points – collect 1 to 3 polyps				
15 points – collect the medusa jelly		0	15	
up to 10 points – collect fish species aggregated underneath the solar panel array				
10 points – collect 4 or more fish species		0	5	10
5 points – collect 1 to 3 fish species				
10 points – place the hydrophone in the designated area		0	10	
5 points – pull the pin to release the hydrophone from its base		0	5	
Total Task # 2 (out of 100)				Total
Task # 3: MATE Floats! 2025 (up to 60 points)		Points		
3.1 up to 60 points – Design and construct an operational vertical profiling float				
5 points – prior to the competition, building an operational vertical profiling float with a temperature sensor		0	5	
up to 30 points – float completes a vertical profile				
30 points – autonomously		0	10	30
10 points – manually				
up to 20 points – float collects temperature from four points				
5 points – temperature in air within 4 degrees C		0	5	
5 points – surface temperature within 4 degrees C		0	5	
5 points – mid-water temperature within 4 degrees C		0	5	
5 points – bottom temperature within 4 degrees C		0	5	
5 points – graph temperature versus depth		0	5	
NOTE: If a company does not design and construct a float or the float does not contain a functioning temperature sensor, companies may graph MATE-provided data. The following replaces all temperature measurements and graphing points above.				
10 points – MATE-provided data is used to graph depth over time		0	10	
Total Task # 3 (out of 60)				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. Mission props deployed into the pool ARE NOT considered debris. Unless otherwise noted, mission items to be recovered or replaced ARE considered debris.	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	
Note: Do not include penalty points for touching the shipwreck. Those penalty points should be included into the point total for Task #1.		
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

Official's initials: _____

Company CEO's initials: _____