

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.

**Check here if the company presented you with a JSA (Jobsite Safety Analysis)**

Organizational and Operational Effectiveness (up to 10 points)	Points	
<b>Up to 4 points - Teamwork/Collaboration &amp; Communication</b>		
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
<b>Up to 2 points - Project Management</b>		
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
<b>Up to 2 points - Problem Solving &amp; Ability to Deal with Obstacles</b>		
Awareness of time	0	1
Adjusting timeline to adapt to situations	0	1
<b>Up to 2 points - System Design &amp; Control/Electrical</b>		
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
<b>Total Organizational and Operational Effectiveness (out of 10)</b>		<b>Total</b>

**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.

<b>Task # 1: OOI: Coastal Pioneer Array (up to 50 points)</b>	Points	
<b>1.1 up to 50 points – Release the multi-function node</b>		
<b>10 points</b> – "trigger" the release of the multi-function node	0	10
<b>5 points</b> – visually determine that the recovery has failed	0	5
<b>10 points</b> – pull a pin to release the failed recovery float to the surface	0	10
<b>5 points</b> – return the failed recovery float to the surface, side of the pool	0	5
<b>20 points</b> – connect a recovery line to the bale on the multi-function node for manual recovery	0	20
<b>Total Task # 1 (out of 50)</b>		<b>Total</b>

<b>Task # 2: SMART Cables for Ocean Observing (up to 45 points)</b>	Points	
<b>2.1 up to 45 points – Deploy a SMART Cable</b>		
<b>5 points each, 10 points total</b> – deploy SMART cable through two waypoints	0	5 10
<b>10 points</b> – place the SMART repeater in the designated location	0	10
<b>5 points</b> – return the ends of the cable to the surface, side of the pool	0	5
<b>up to 20 points</b> – connect the AUV docking station to the SMART cable repeater		
<b>10 points</b> – retrieve the power connector from the AUV docking station	0	10
<b>10 points</b> – install the power connector	0	10
<b>Total Task # 2 (out of 45)</b>		<b>Total</b>

<b>Task # 3: From the Red Sea to Tennessee (up to 110 points)</b>	Points	
<b>3.1 up to 25 points – Probiotics 2</b>		
<b>10 points</b> – place a probiotic irrigation system in the designated area	0	10
<b>10 points</b> – deploy the probiotic sprinkler on the coral head	0	10
<b>5 points</b> – activate the irrigation system	0	5
<b>3.2 up to 10 points – Coral Restoration</b>		
<b>10 points</b> – transplant brain coral	0	10
<b>3.3 up to 30 points – 3D Coral modelling</b>		
<b>up to 30 points</b> – manually (CAD) create a scaled 3D model of the coral restoration area		
<b>10 points</b> – measure the length of the coral restoration area (within 5 cm)	0	10
<b>10 points</b> – measure the height of the coral restoration area (within 5 cm)	0	10
<b>10 points</b> – create a scaled 3D model of the coral restoration area displaying the length and height measurements	0	10
or		
<b>up to 20 points</b> – manually (paper) create a 3-view technical drawing of the coral restoration area		
<b>5 points</b> – measure the length of the coral restoration area (within 5 cm)	0	5
<b>5 points</b> – measure the height of the coral restoration area (within 5 cm)	0	5
<b>10 points</b> – create a technical drawing on paper of the coral restoration area, including the measured length and height measurements with at least 3 views (top, front, and side)	0	10
Task #3 continued on next page		

Task #3 continued from previous page		
<b>3.4 up to 45 points – Determine the location of sturgeon spawning grounds</b>		
<b>10 points</b> – recover an acoustic receiver	0	10
<b>up to 15 points</b> – determine the location of a potential spawning site		
<b>10 points</b> – create a graph of sturgeon locations from the acoustic receiver data	0	10
<b>5 points</b> – determine the potential spawning site	0	5
<b>up to 20 points</b> – characterize the habitat at potential spawning site		
<b>10 points</b> – place an ADCP	0	10
<b>10 points</b> – recover a sediment sample	0	10
<b>Total Task # 3 (out of 110)</b>		<b>Total</b>

Task # 4: <i>MATE Floats! 2024</i> (up to 60 points)	Points		
<b>4.1 up to 60 points – MATE Floats!</b>			
<b>up to 10 points</b> – prior to the competition, building an operational vertical profiling float			
<b>5 points</b> – vertical profiling float	0		5
<b>5 points</b> – includes a temperature sensor	0		5
<b>5 points</b> – deploy the float into the designated area	0		5
<b>15 points</b> – float completes a vertical profile	0		15
<b>up to 20 points</b> – float collects temperature from four points			
<b>5 points</b> – temperature in air within 4 degrees C	0		5
<b>5 points</b> – surface temperature within 4 degrees C	0		5
<b>5 points</b> – mid-water temperature within 4 degrees C	0		5
<b>5 points</b> – bottom temperature within 4 degrees C	0		5
<b>up to 10 points</b> – graph temperature versus depth			
<b>10 points</b> – graph is plotted using a computer program	0	5	10
<b>5 points</b> – graph is plotted on paper			
<b>NOTE:</b> 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.			
<b>up to 10 points</b> – graph temperature versus depth	0	5	10
<b>10 points</b> – graph is plotted using a computer program			
<b>5 points</b> – graph is plotted on paper			
<b>Total Task # 4 (out of 60)</b>			<b>Total</b>

Penalty Points (deduct 5 points for each infraction)	No. of Infractions		
<b>Safety:</b> 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. <b>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.</b>			
<b>Tether Pulling:</b> 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		
<b>Illegal communication:</b> 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		
<b>Debris:</b> 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		
<b>Diver Assistance:</b> 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		
<b>Total Penalty Points</b>	(total a + b + c + d ) plus safety violations	<b>Total</b>	
	<input type="text"/> X 5 =		

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

<b>TOTAL PRODUCT DEMONSTRATION SCORE</b>	<b>Grand Total</b>
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Official's initials: \_\_\_\_\_

Company CEO's initials: \_\_\_\_\_