

Company CEO: \_\_\_\_\_

Company Name
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Product demonstration station officials: \_\_\_\_\_

<b>Safety Check and Set-Up (up to 10 points)</b>	Points	
Company presents signed safety inspection sheet.	0	5
Vehicle and control system present no safety hazards.	0	5
Examples: <ul style="list-style-type: none"> <li>o All power cords, power bars, pressurized cylinders, etc. are secured.</li> <li>o No hazardous materials are leaking onto the pool deck.</li> <li>o Vehicle is hand-launched by team members in a safe manner.</li> </ul>		
Company is cleared for demonstration: _____ (official's initials)		
<b>Total Safety Check and Set-Up (out of 10)</b>		<b>Total</b>
<i>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.</i>		

<b>Organizational and Operational Effectiveness (up to 10 points)</b>	Points	
<b>Up to 2 points – Organization</b>		
Chain of command evident	0	1
Roles clear and executed well	0	1
<b>Up to 2 points – Task Plan</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 –Time Management</b>		
Awareness of time	0	1
Adjusting timeline to adapt to situations	0	1
<b>Up to 2 points – Team Cooperation</b>		
Composure under pressure	0	1
Supportive of each other and communicate well with each other	0	1
<b>Up to 2 points – ROV Deployment and Control</b>		
ROV deployed	0	1
ROV deployed and under control to perform tasks	0	1
<b>Total Organizational and Operational Effectiveness (out of 10)</b>		<b>Total</b>

<b>Bonus points for size</b>	Points	
<b>Size bonus (up to 10 points)</b>	0	5
ROV is less than 44 cm – 10 bonus points		10
ROV is within 44.1 cm and 54 cm – 5 bonus points		
ROV is greater than 54.1 cm – 0 bonus points		
Judge initials: _____		
CEO initials: _____		
		<b>Total</b>

**Fuses:** If a vehicle blows the MATE power supply in-line fuse, the company is allowed one spare. If the vehicle blows the second MATE fuse, the product demonstration performance period is over. The company will receive points for the product demonstration tasks that they have completed up to that point but will not receive a time bonus score.

<b>Task # 1: Commerce: Hyperloop Construction (up to 60 points)</b>	Points			
<b>Judges' Notes:</b> Companies must complete the steps of this task in order and cannot skip any steps.				
<b>1.1 10 points</b> – inserting one rebar rod into position in the steel baseplate	0		10	
<b>1.2 20 points</b> – installing the frame onto the baseplate	0		20	
<b>1.3 5 points</b> – removing a pin to release the chains holding the frame	0		5	
<b>1.4 10 points</b> – transporting and positioning the hose for pouring concrete into the frame	0		10	
<b>1.5 up to 15 points (5 points each)</b> – retrieving the three positioning beacons and returning them to the surface	0	5	10	15
<b>Total Task # 1 (out of 60)</b>				
				<b>Total</b>

<b>Task # 2: Entertainment: Light and Water Show Maintenance (up to 50 points)</b>	Points			
<b>Judges' Notes:</b> Disconnecting power and stopping the flow of water tasks must be done before removing /installing the fountain. Reconnecting the power and restoring the flow of water must be done after installing the new fountain. The old fountain can be returned to the surface at any time after removing it from the platform.				
<b>2.1 5 points</b> – disconnecting the power cable from the platform	0		5	
<b>2.2 10 points</b> – turning the valve to stop the flow of water to the platform	0		10	
<b>2.3 5 points</b> – removing the old fountain	0		5	
<b>2.4 5 points</b> – installing the new fountain	0		5	
<b>2.5 10 points</b> – turning the valve to restore the flow of water to the platform	0		10	
<b>2.6 10 points</b> – reconnecting the power cable to the platform	0		10	
<b>2.7 5 points</b> – returning the old fountain to the surface, side of the pool	0		5	
<b>Total Task # 2 (out of 50)</b>				
				<b>Total</b>

<b>Task # 3: Health: Environmental Cleanup (up to 40 points)</b>	Points			
<b>Judges' Notes:</b> Companies must collect samples before placing the cap over the contaminated area, although they can return samples to the surface after capping.				
<b>3.1 5 points</b> – removing a sediment sample from the bottom	0		5	
<b>3.2 5 points</b> – returning a sediment sample to the surface, side of the pool	0		5	
<b>3.3 up to 10 points (5 points each)</b> – removing two clams from the bottom	0	5	10	
<b>3.4 up to 10 points (5 points each)</b> – returning two clams to the surface, side of the pool	0	5	10	
<b>3.5 10 points</b> – placing a cap over the contaminated area	0		10	
<b>Total Task # 3 (out of 40)</b>				
				<b>Total</b>

<b>Task # 4: Safety: Risk Mitigation (up to 50 points)</b>	Points				
<b>Judges' Notes:</b> Companies may complete the steps of Task #4 in any order.					
<b>4.1 5 points</b> – locating the two cargo containers	0		5		
<b>4.2 up to 20 points (10 points each)</b> – inserting the sensor into the port to activate the RFID	0	5	10	15	20
<b>4.3 up to 10 points (5 points each)</b> – using the RFID data to determine the container's identification number, contents, and if the contents are high risk	0	5	10		
<b>4.4 15 points</b> – attaching a buoy marker to the highest risk cargo container	0		10		
<b>Total Task # 4 (out of 50)</b>					
					<b>Total</b>

**Penalty Points:**

**Tether Pulling:** Teams cannot pull on the tether to assist in moving or turning the vehicle. Issue a warning for the first infraction. Begin deducting points AFTER the first infraction.

**Illegal Communication:** Company members at the side of the pool may not communicate visual evidence of the ROV status such as location, need to turn, etc.

**Debris:** Companies that leave debris (e.g. parts of their ROV, including weights and flotation) in the pool such that a diver must retrieve the debris 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 when product demonstration time ends.

**Diver assistance:** Diver assistance will be available at the international competition, contact your regional coordinator about diver availability at your regional competition. Any diver assistance must be requested by the company. Diver assistance will result in a 5 point penalty per assist.

<b>Penalty Points (deduct 5 points for each infraction)</b>	No. of Infractions	
<b>Illegal Tether pulling:</b> Issue a warning for the first infraction. 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 (location, need to turn, 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 also receive penalty points. Product demonstration props are NOT considered debris. A company constructed collection basket is considered debris.	c	
<b>Diver Assistance:</b> Diver assistance may or may not be available during regional product demonstration time. Any diver assistance will result in a 5 point penalty.	d	
	(total a + b + c + d)	<b>Total</b>
<b>Total Penalty Points</b>	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>

Official's initials: \_\_\_\_\_

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