



**2025 MATE ROV Competition**  
***UN Decade of the Ocean, MATE Year of the Great Lakes***  
**Onsite Safety Inspection Score Sheet**  
**NAVIGATOR**

**Company Number:**

**Class: NAVIGATOR**

**Company Name:**

**Judge Name:**

Companies must bring this check list, the ROV, tether, surface controls, and any other item used in the deployment and operation of the ROV; they will all be inspected as part of the safety check. In addition, the SID, must be made available to the Safety Inspectors during the inspection process.

**1.0 Initial Safety Inspection**

<input type="checkbox"/>	Fluid power approved? Fluid power used? If yes to both, see Section 4.0 Pneumatics / Hydraulics
<input type="checkbox"/>	Laser approved? Laser used? If yes to both, see attached laser safety inspection sheet.

**2.0 ROV Physical**

<input type="checkbox"/>	All items attached to ROV are secure.
<input type="checkbox"/>	Hazardous items are identified and protection provided.
<input type="checkbox"/>	<b>ALL propellers are completely shrouded to IP-20 standards. Mesh size is less than 12.5 mm.</b>
<input type="checkbox"/>	No sharp edges or elements of the ROV design that could cause injury to personnel or damage the pool surface.

**3.0 ROV Electrical**

<input type="checkbox"/>	Tether is properly secured at the ROV.
<input type="checkbox"/>	No exposed motors. Brushless motors are considered exposed unless electrically sealed after purchase. Companies should provide proof of sealing procedure.
<input type="checkbox"/>	No exposed copper or bare wire.
<input type="checkbox"/>	All wiring securely fastened and properly sealed.*
<input type="checkbox"/>	Any splices in tether are properly sealed.*

**3.1 Surface Controls Electrical & Physical**

<input type="checkbox"/>	Single attachment point to the power source.
<input type="checkbox"/>	Anderson powerpole attachment to power source.
<input type="checkbox"/>	15 amp (or less) single inline <b>ATO</b> or <b>MINI</b> fuse within 30 cm of power supply attachment point.
<input type="checkbox"/>	The surface control station is built in a neat and workmanship like manner. No loose components or unsecured wires. All electrical components are covered inside an enclosure.
<input type="checkbox"/>	No exposed copper or bare wire.
<input type="checkbox"/>	If used, 120VAC wiring is separated from the DC wiring.
<input type="checkbox"/>	If used, 120VAC wiring must be clearly identified from the DC and control voltages with signage and/or wire color schemes. If the color scheme is used, a key must be provided for identification.
<input type="checkbox"/>	All wires entering and leaving the surface control station must have adequate strain relief and wire abrasion protection as the wires pass through the enclosure.
<input type="checkbox"/>	Cameras operate off the MATE 12VDC power supply through the single attachment point to the power source.

\* Properly sealed means that the wires cannot be exposed to water. Tape only sealing will allow the conduction of electricity through water.

\* At minimum, joints must be soldered, sealed with a proper waterproof sealant, and covered in tape or shrink wrap. For in water taping, silicone self-vulcanizing tape is preferred over thermoplastic tape. Cables with exposed male connections on both ends are not allowed.

**4.0. Pneumatic / Hydraulic (if applicable)**

<input type="checkbox"/>	Passed fluid power quiz.
<input type="checkbox"/>	Pneumatic or hydraulic diagram (SID) present.
<input type="checkbox"/>	Hydraulics utilize water. Pneumatics utilize compressed air or inert gas.
<input type="checkbox"/>	All pressure lines have a minimum pressure rating of 100 PSI (pneumatic) or 300 PSI (hydraulic) stamped on the line or verified with specifications.
<input type="checkbox"/>	Valves meet the minimum pressure rating of 100 PSI (pneumatic) or 300 PSI (hydraulic)
<input type="checkbox"/>	Attachment to the pressure source is secure.
<input type="checkbox"/>	Pressure is regulated to: 40 PSI max for pneumatics 150 PSI max for hydraulics
<input type="checkbox"/>	Company fabricated pressure accumulator test results are provided (if used).
<input type="checkbox"/>	No hydraulic fluids are leaking.

**SAFETY INSPECTION #1**

**PASSED: 10 POINTS**

Failed: Items to correct noted on rear of this sheet.

**SAFETY INSPECTION #2**

**PASSED: 10 POINTS**

Failed: Items to correct noted on rear of this sheet.

**SAFETY INSPECTION #3**

**PASSED: 10 POINTS**

Failed: Reason / details are noted on rear of this sheet.

**Total Safety Points:**

**On Site Inspection**

0 or 10 points

**Inspection #1: Items to address** **Judge:**

**Judge:**

[illegible]

**Inspection #2: Items to address** **Judge:**

**Judge:**

[illegible]

**Inspection #3: Reason** **Judge:**

**Judge:**

[illegible]