## Technical Design Report: Scoring Rubric

### 2023 SeaPerch Season

**TEAM:** ______________  
**JUDGE:** ______________  
**TOTAL SCORE:** ______

### Scoring Guidelines:

<table>
<thead>
<tr>
<th>Missing Components (0 points)</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirements missing does not meet minimum requirements.</td>
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<table>
<thead>
<tr>
<th>Good (1-2 points)</th>
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<tr>
<td>Always meets basic requirements. Average. (60-75%)</td>
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<table>
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<th>Mastery (3 points)</th>
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<tbody>
<tr>
<td>Meets all requirements with additional content. (85%) Above Average.</td>
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<th>Exemplary (4 points)</th>
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<th>Points</th>
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</thead>
<tbody>
<tr>
<td>Always exceeds requirements with additional content, material, formatting. Superior (95%)</td>
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### 1. Abstract

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<th>Points</th>
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<tbody>
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<td>Does not summarize main points of the report.</td>
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<tr>
<td>Includes a basic overview of the report.</td>
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<tr>
<td>Includes a thorough overview of the report.</td>
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<table>
<thead>
<tr>
<th>Unique ROV design and/or design process</th>
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<th>2</th>
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<th>Points</th>
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<td>No discussion of ROV design or process.</td>
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<tr>
<td>Overview of design and/or process with some focus on unique traits.</td>
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<tr>
<td>Robust discussion of unique design and process.</td>
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**TOTAL ABSTRACT SCORE (10 POINTS MAX):**

### 2. Task Overview

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<th>Overview of the competition tasks</th>
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<th>Points</th>
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<tr>
<td>Good overview of obstacle or mission course.</td>
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<tr>
<td>Detailed discussion of all tasks for both courses.</td>
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<table>
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<th>4</th>
<th>Points</th>
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<tbody>
<tr>
<td>No discussion of task influence on design.</td>
<td></td>
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<tr>
<td>Basic discussion of how tasks impacted design.</td>
<td></td>
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<tr>
<td>Robust, detailed discussion of design justification.</td>
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**TOTAL TASK OVERVIEW SCORE (10 POINTS MAX):**

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Updated February 2023
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<tr>
<th>3. Design Approach</th>
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<td>Within page limit.</td>
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<tr>
<td>Team’s approach to the engineering design process (EDP)</td>
<td>No overview of team approach to EDP.</td>
<td>Minimal discussion of team’s approach to EDP.</td>
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<td>Robust discussion of team’s strategy to EDP.</td>
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<tr>
<td>Design iterations</td>
<td>No discussion of design iterations.</td>
<td>Basic discussion of design iterations.</td>
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<td>Robust discussion and analysis of design iterations.</td>
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</tr>
<tr>
<td>Conceptual drawings and/or graphics</td>
<td>No drawings or graphics.</td>
<td>Includes graphic(s) with basic context within report.</td>
<td></td>
<td>Includes high-quality graphics with context and labels that enhance the report.</td>
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<tr>
<td>Final design</td>
<td>No discussion of final design.</td>
<td>Basic discussion of final design features.</td>
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<td>Robust discussion of final design features and decisions with supporting reasons.</td>
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<tr>
<td>Novelty of ROV design or approach</td>
<td>No discussion of design or approach novelty.</td>
<td>Basic discussion of design or approach mentions novelty.</td>
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<td>Robust discussion and analysis of novelty of ROV design and approach.</td>
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<tr>
<td>Scientific and engineering terms</td>
<td>No engineering terms.</td>
<td>Includes 2-4 engineering terms.</td>
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<td>Includes 5+ engineering terms embedded in text that include context and enhance the section.</td>
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TOTAL DESIGN APPROACH SCORE (26 POINTS MAX):
### 4. Experimental Results

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<tr>
<td>In-water and/or simulated testing overview</td>
<td>No discussion of testing.</td>
<td>Basic overview and/or discussion of testing conducted.</td>
<td>Robust discussion and analysis of testing models utilized.</td>
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<td>Impact of testing on subsequent designs</td>
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<td>Robust discussion and thorough analysis of testing impact on multiple design iterations.</td>
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<td>Test results</td>
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<td>Basic discussion of test results.</td>
<td>Robust analysis of test results supported by graphs and charts.</td>
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**TOTAL EXPERIMENTAL RESULTS SCORE (14 POINTS MAX):**

### 5. Reflection & Next Steps

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<td>Reflection on the design process</td>
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<td>Thorough and thoughtful reflection and analysis of the design process.</td>
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<td>Basic discussion of next steps for ROV and/or team.</td>
<td>Robust overview of detailed future plans for ROV and team.</td>
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**TOTAL REFLECTION & NEXT STEPS SCORE (10 POINTS MAX):**

### 6. Acknowledgements

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<td>Supporters recognized in report.</td>
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**TOTAL ACKNOWLEDGEMENTS SCORE (2 POINTS MAX):**
### Technical Design Report Scoring Rubric (2023 Season)

**7. References**

<table>
<thead>
<tr>
<th>Points</th>
<th>References follow APA format</th>
<th>Includes references to support report</th>
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<td>Does not follow APA format.</td>
<td>No references or citations.</td>
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<td>Follows APA format.</td>
<td>2 references that are cited in the report text.</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>At least 4 references that are cited in the report text.</td>
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**TOTAL REFERENCES SCORE (6 POINTS MAX):**

**8. Budget**

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**TOTAL BUDGET SCORE (2 POINTS MAX):**

**9. Fact Sheet**

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<tr>
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<td>Submitted in approved format.</td>
</tr>
<tr>
<td>2</td>
<td>Low-res/blurry images and some content included.</td>
</tr>
<tr>
<td>3</td>
<td>Hi-res images and content clearly support report.</td>
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**TOTAL FACT SHEET SCORE (6 POINTS MAX):**

**10. Writing Skills**

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<th>Points</th>
<th>Organization and Readability</th>
<th>Spelling and Grammar</th>
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<td>Report is inconsistent and difficult to follow. Organization severely impacts readability.</td>
<td>Significant spelling or grammatical errors (5+)</td>
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<tr>
<td>1</td>
<td>Report is easy to follow with some graphics. Each section includes organized discussion.</td>
<td>Several spelling or grammatical errors (2-3)</td>
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<tr>
<td>2</td>
<td>Report is concise, cohesive, easy to understand and supported by context and graphics.</td>
<td>No spelling or grammatical errors.</td>
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**TOTAL WRITING SKILLS SCORE (8 POINTS MAX):**
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<td>Follows all formatting guidelines:</td>
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<tr>
<td>- 5 pages max (excluding sections 6-7 and appendices)</td>
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<tr>
<td>- Page size: 8.5”x11”</td>
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<tr>
<td>- Margins ≥ 0.8 in.</td>
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<tr>
<td>- Times New Roman 12pt</td>
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<tr>
<td>- Single Spaced</td>
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<tr>
<td>- Footer with team name and page # on all pages</td>
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<td>Meets all formatting guidelines.</td>
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**TOTAL PAPER FORMAT SCORE (6 POINTS MAX):**