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****Northern Virginia’s Regional SeaPerch Challenge: Innovative Design Challenge****

**Team:** Please Place Label Here **Judge: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Total Score\_\_\_\_\_\_\_\_\_\_\_\_**

**Meets Size Requirements \_\_\_\_\_\_\_\_\_YES (continue judging) \_\_\_\_\_\_\_\_ NO (disqualify score is a 0)**

| **Design Element** **Rubric Points** | **Design and Robot Structure***(Worth 20 Points)* | **Propulsion***(Worth 10 points)* | **Ballast***(Worth 10 Points)* | **Game Strategy***(Worth 20 Points)* | **Design Explanation***(Worth 10 Points)* | **Organization of Team Answers***(Worth 10 Points)* | **Presentation TriFold***(Worth 20 Points)* |
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| **Excellent 10/10****Or****20/20** | * Exceptional creative design.
* Unique use of provided materials and creative incorporation of additional components.
 | -Propulsion system mounted in an exceptional unexpected manner. | -Ballast is changed to play each game. | **-** Exceptional, creative and different strategy used to complete each mission (game). | - Students completely understand their design and demonstrate both their design and understanding to the judges in a clear, concise presentation. -Each student shared in the innovative design explanation to the judges. | - The presentation was well organized, and each member of the team understood each participant’s role in the presentation. -The presentation flowed smooth and clearly from one topic point to another. | -Clear, creative and professional looking TriFold. -Pictures of the ROV demonstrate at least 5 of the concepts discussed in this rubric. -The **innovative design** process is clearly presented. |
| **Good****8/10****or****15/20** | * Creative design.

-Unique use of provided materials and/or structural components. | -Propulsion system mounted in a creative unexpected manner. | -Ballast is changed to play each game, but the changes do not have a positive impact on play. | **-** Creative and different strategy used to complete each mission (game). | -Students understand their design but may not have a solid understanding of the design   implications; therefore, their presentation is not entirely clear.-Each student shared in the innovative design explanation to the judges. | - The presentation was somewhat organized, and each member of the team somewhat understood each participant’s role in the presentation. There was one time when two people spoke, but the team worked it out.-The presentation flowed smooth and clearly from one topic point to another. | -Clear, creative and professional looking TriFold. -Pictures of the ROV demonstrate at least 3 of the concepts discussed in this rubric. -The **innovative design** process is clearly presented. |
| **Fair****6/10****or****10/20** | **-** Robot structure had a creative but slight variation from the design instructions | -Propulsion system has a slight variation from the design instructions | -The ballast is changed for one of the games. | **-** The same strategy is used on 2 games and the third game has a unique strategy. | -Students somewhat understand their design and demonstrate both their design and understanding to the judges in a clear, concise presentation.-Presentation done by a couple of team members rather than the entire team. | - The presentation was NOT well organized, but the information was delivered.-Individuals did not always have a concise answer, or more than one person spoke. | -TriFold created, contains good material, but hard to follow.-Pictures of the ROV demonstrate at least 2 of the concepts discussed in this rubric. -The **innovative design** process is attempted to be presented. |
| **Needs Improvement 4/10****Or** **5/20** | -Robot structure is identical to design instructions. | -Propulsion system is identical to design instructions. | -The same ballast is used in the same position to play every game. | **-** No strategy for completing missions (games) | -Students either do NOT completely understand their design or do NOT demonstrate both their design well to the judges. | -The presentation was NOT well organized.-There were times when two people would speak or no one would speak. | -TriFold created weakly or not at all.-Pictures of the ROV demonstrate at least 1 of the concepts discussed in this rubric. -The **innovative design** process is not clearly presented. |
| **Score** |  |  |  |  |  |  |  |