2017 National SeaPerch Challenge

Engineering Notebook Challenge Scoring Rubric

Division _____ Team Name _____ Team Number _____ Total Score _____

School Name _____

Cover/Title Page		Points awarded
Project title	Award 1 point each if page element is included.	
Team name		
Picture of ROV		
Date of notebook completion		
Creativity bonus	Subjective Bonus (1 points)	

Section Score
5 Possible Points

Team Information Page	Points	Points awarded
Team Number/School or Club Name	Award 1 point each if page element is included.	
City, State		
Main contact name and email address		
Team members' names and grades		
Team members' role(s)		

Section Score
5 Possible Points

Table of Contents Page	4 to 5 points	2 to 3 points	1 point	0 points	**Section Score**
A. Page title or description and page numbers B. Reference citation (citations listed are traceable to the reference)	• Professionally-laid-out • 100% accurate (page title/description and page number match correct page in notebook) • Ample content • 100% of references are traceable	• Professionally-laid-out • 1 to 2 Inaccuracies (page title/description or page number does not match correct page in notebook) • 90% of references are traceable	• Not Professionally-laid-out • More than 2 Inaccuracies • 50% of references are traceable	Table of Contents Page not included	5 Possible Points

Engineering Design Process Section	Excellent	Good	Fair	Needs Improvement	**Element Score**
Content is related to the Engineering Design Process (EDP). (Specific EDP steps do not have to be listed, but the content should show the use of the process.)	31 to 40 points ● Content as a whole clearly demonstrates that the EDP was followed. ● Shows design iterations. ● Clearly describes at least 4 Principles of Engineering embedded in the process. ● Describes design deficiencies of initial designs. ● Describes why final design was chosen. ● Test results are clear and validate design decisions.	21 to 30 points ● Majority of content clearly demonstrates that the EDP was followed. ● Shows design iterations. ● Clearly describes at least 3 Principles of Engineering embedded in the process. ● ● Does not describe design deficiencies of initial designs. ● Describes why final design was chosen. ● Test results are clear and validate design decisions.	11 to 20 points ● While the content demonstrates the use of the EDP, it was not completely followed. ● Clearly describes at least 2 Principles of Engineering embedded in the process. ● Design iterations not completely shown. ● Does not fully describe why final design was chosen. ● Test results are unclear or do not fully validate design decisions.	5 to 10 points ● It is not clear that the EDP was used. ● Design iterations are either not shown or are not completely described. ● Specific Principles of Engineering are not described. ● Test results are either not shown or do not validate design decisions.	40 points max
Use of graphics (illustrations, sketches, CAD drawings, photos, diagrams, charts, and graphs)	11 to 15 points ● 100% of design iterations are described using graphics. ● Multiple types of graphics are included. ● Test results include the use of graphics.	6 to 10 points ● 90% design iterations are described using graphics. ● At least 2 different types of graphics are included. ● Test results include the use of graphics.	1 to 5 points ● 50% design iterations are described using graphics. ● Test results do not include the use of graphics.	0 points ● 25% or less graphics were used.	15 points max each element
Explanation of graphics	● 100% of graphics are described. ● Descriptions are clear and lead to a complete understanding of the graphics.	● 90% of graphics are described. ● Most descriptions are clear and lead to a complete understanding of the graphics.	● 50% of graphic are described. ● Most descriptions are unclear or lead to an incomplete understanding of the graphics.	● No explanation of graphics.	
Use of engineering and scientific terms	● At least 7 engineering and scientific terms are used throughout the notebook.	● Between 4 and 6 engineering and scientific terms are used throughout the notebook.	● Only 1 or 3 engineering and scientific terms are used throughout the notebook.	● No engineering or scientific terms used.	
Professional appearance	● Professional and neat appearance throughout the notebook.	● Professional and neat appearance in the majority of the notebook.	● Clear and neat appearance in only a few pages of the notebook.	● Very sloppy throughout the notebook.	
				Section Score 85 Possible Points	