

# Engineering Process Rubric



For the evaluation of Engineering Notebooks & Videos

Team: \_\_\_\_\_

Organization: \_\_\_\_\_

Team Name: \_\_\_\_\_

Judge: \_\_\_\_\_

<b>General Information</b>		<b>Score</b>
<p>Includes all of the following elements on the cover page or in the introductory segment of the video:</p> <ul style="list-style-type: none"> <li>• School or club name</li> <li>• City and State</li> <li>• Team name</li> <li>• Project title</li> <li>• Image of ROV</li> </ul>	<p>All or nothing:</p> <ul style="list-style-type: none"> <li>• Required elements <i>0 or 5 points</i></li> </ul>	<p><i>5 points max.</i></p>
<b>Mentor &amp; Team Information</b>		<b>Score</b>
<p>Includes all elements:</p> <ul style="list-style-type: none"> <li>• Teacher, coach, mentor, or advisor name and email address</li> <li>• Team members' names, grade levels, and project roles</li> </ul>	<p>All or nothing:</p> <ul style="list-style-type: none"> <li>• Required elements <i>0 or 5 points</i></li> </ul>	<p><i>5 points max.</i></p>
<b>Table of Contents (Notebook) or Presentation Outline (Video)</b>		<b>Score</b>
<p><i>For notebook:</i> Includes Page/Section Descriptions and page numbers <i>For video:</i> Includes a presentation outline and section descriptions</p>	<p>All or nothing:</p> <ul style="list-style-type: none"> <li>• Required elements <i>0 or 5 points</i></li> </ul>	<p><i>5 points max.</i></p>
<b>Reference Page</b>		<b>Score</b>
<p>Follows the American Psychological Association (APA) style guide.</p> <p>*Videos must also include a reference page within the video.</p>	<p>Points added:</p> <ul style="list-style-type: none"> <li>• Includes reference page <i>2 points</i></li> <li>• Citations <i>1 point per citation</i></li> </ul>	<p><i>5 points max.</i></p>
		<p><b>Page 1 Total</b> _____ <i>(max. 20 points)</i></p>

## Total Scores

Page 1 Total: \_\_\_\_\_

Page 2 Total: \_\_\_\_\_

Total Score  
*(max. 100 points)*

Notes:

<b>Engineering Design Process Section</b>	<b><u>Excellent</u> 36 to 40 points</b>	<b><u>Good</u> 21 to 35 points</b>	<b><u>Fair</u> 11 to 20 points</b>	<b><u>Needs Improvement</u> 5 to 10 points</b>	<b>Element Score</b>
Content is related to the Engineering Design Process (EDP).  (Specific EDP steps do not have to be listed or specifically described, but the content should show the use of the process.)	<ul style="list-style-type: none"> <li>All content clearly demonstrates that the EDP was followed.</li> <li>Shows/describes design iterations.</li> <li>Describes design deficiencies of initial designs.</li> <li>Describes why final design was chosen.</li> <li>Test results are clear and validate design decisions.</li> </ul>	<ul style="list-style-type: none"> <li>Majority of content clearly demonstrates that the EDP was followed.</li> <li>Shows/describes design iterations.</li> <li>Does not describe design deficiencies of initial designs.</li> <li>Describes why final design was chosen.</li> <li>Test results are clear and validate design decisions.</li> </ul>	<ul style="list-style-type: none"> <li>While the content demonstrates the use of the EDP, it was not completely followed.</li> <li>Design iterations not completely shown/described.</li> <li>Does not fully describe why final design was chosen.</li> <li>Test results are unclear or do not fully validate design decisions.</li> </ul>	<ul style="list-style-type: none"> <li>It is not clear that the EDP was used.</li> <li>Design iterations are either not shown or are not completely described.</li> <li>Test results are either not shown or do not validate design decisions.</li> </ul>	<i>40 points max.</i>
<b>Graphics, Sci./Eng. Terms, Appearance</b>	<b><u>Excellent</u> 8 to 10 points</b>	<b><u>Good</u> 5 to 7 points</b>	<b><u>Fair</u> 2 to 4 points</b>	<b><u>Needs Improvement</u> 0 to 1 point</b>	<b>Element Score</b>
Graphics  (Sketches, CAD drawings, photos, diagrams, charts, and graphs)	<ul style="list-style-type: none"> <li>100% of design iterations are described using graphics.</li> <li>3 or more types of graphics are included.</li> <li>Test results include the use of graphics.</li> </ul>	<ul style="list-style-type: none"> <li>90% design iterations are described using graphics.</li> <li>At least 2 different types of graphics are included.</li> <li>Test results include the use of graphics.</li> </ul>	<ul style="list-style-type: none"> <li>50% design iterations are described using graphics.</li> <li>Test results do not include the use of graphics.</li> </ul>	<ul style="list-style-type: none"> <li>25% or less of design iterations are described using graphics.</li> </ul>	<i>10 points max.</i>
Explanation of Graphics	<ul style="list-style-type: none"> <li>100% of graphics are described.</li> <li>Descriptions are clear and lead to a complete understanding of the graphics.</li> </ul>	<ul style="list-style-type: none"> <li>90% of graphics are described.</li> <li>Most descriptions are clear and lead to a complete understanding of the graphics.</li> </ul>	<ul style="list-style-type: none"> <li>50% of graphic are described.</li> <li>Most descriptions are unclear or lead to an incomplete understanding of the graphics.</li> </ul>	<ul style="list-style-type: none"> <li>No explanation of graphics.</li> </ul>	<i>10 points max.</i>
Scientific and Engineering Terms	<ul style="list-style-type: none"> <li>At least 7 engineering and scientific terms are used throughout the notebook/video.</li> </ul>	<ul style="list-style-type: none"> <li>Between 4 and 6 engineering and scientific terms are used throughout the notebook/video.</li> </ul>	<ul style="list-style-type: none"> <li>Only 1 to 3 engineering and scientific terms are used throughout the notebook/video.</li> </ul>	<ul style="list-style-type: none"> <li>No engineering or scientific terms used.</li> </ul>	<i>10 points max.</i>
Appearance	<ul style="list-style-type: none"> <li>Professional and neat appearance throughout the notebook/video.</li> </ul>	<ul style="list-style-type: none"> <li>Professional and neat appearance in the majority of the notebook/video.</li> </ul>	<ul style="list-style-type: none"> <li>Professional and neat appearance in less than half of the notebook/video.</li> </ul>	<ul style="list-style-type: none"> <li>Very sloppy throughout the notebook/video.</li> </ul>	<i>10 points max.</i>

**Page 2 Total**  
(max. 80 points) \_\_\_\_\_