

Judging Criteria for Engineering Projects

As an aid to scoring, the judge can circle the points earned by a project in each subcategory on the right hand side. Total score is a sum of circled points.

| | <u>Possible Points</u> |
|---|------------------------|
| <u>Research Question/Problem: (10 pts)</u> | |
| • Description of a practical need or problem to be solved | 1 2 3 4 |
| • Definition of criteria for proposed solution | 1 2 3 |
| • Explanation of constraints | 1 2 3 |
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| <u>Design and Methodology: (15 pts)</u> | |
| • Exploration of alternatives to answer need or problem | 1 2 3 4 5 |
| • Identification of a solution | 1 2 3 4 5 |
| • Development of a prototype/model | 1 2 3 4 5 |
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| <u>Execution: Construction and Testing: (20 pts)</u> | |
| • Prototype demonstrates intended design | 1 2 3 4 5 |
| • Prototype has been tested in multiple conditions/trials | 1 2 3 4 5 |
| • Prototype demonstrates engineering skill | 1 2 3 4 5 |
| • Prototype demonstrates completeness | 1 2 3 4 5 |
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| <u>Creativity: (20 pts)</u> | |
| • The questions asked are student-initiated and original | 1 2 3 4 5 |
| • The approach to solving the problem is creative | 1 2 3 4 5 |
| • Equipment is creatively used or had to be made/modified | 1 2 3 4 5 |
| • Interpretation of the data shows creative and original thinking by student | 1 2 3 4 5 |
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| <u>Presentation - Poster: (10 pts)</u> | |
| • Logical organization of material | 1 2 3 4 |
| • Clarity of graphics and legend | 1 2 3 |
| • Supporting documentation displayed | 1 2 3 |
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| <u>Presentation - Interview: (25 pts)</u> | |
| • Clear, concise, thoughtful responses to questions | 1 2 3 4 5 |
| • Understanding of basic science relevant to project | 1 2 3 4 5 |
| • Degree of independence in conducting project (Note: if team project, contributions to and understanding of project by all members) | 1 2 3 4 5 |
| • Recognition of potential impact in science and/or society | 1 2 3 4 5 |
| • Quality of ideas for further research | 1 2 3 4 5 |
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Total (Possible 100): _____