

Engineering Judging Sheet 6 - 12

 ROW

 POS

 SeqNr

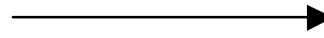
Total Score

 Possible
Points by
Section

PROJECT SECTIONS

 Assigned
Points by
Section

Judges, write the scores for each section in the right column



DISPLAY (10 points)

- | | |
|-----|--|
| 0-1 | Easily Viewed |
| 0-1 | Labels: Sections of study design are labeled |
| 0-1 | Attractive: Uses color for emphasis, good arrangement, graphics |
| 0-2 | Text on Display: Correct spelling and grammar, clear and concise writing. |
| 0-5 | Creative Approach: Evidence of researcher's original input into display design |

LOGBOOK (15 points)

- | | |
|-------------|---|
| 10 | Contains detailed thoughts, feelings, observations, revisions, & actions made during the entire process of project completion |
| <i>plus</i> | |
| 1 | Dated entries |
| 1 | Contains detailed research notes and bibliography |
| 1 | Completed data table contains raw data completed during experiment |
| 1 | Variables - IV and DV present |
| 1 | Trial run conducted and logged |

BACKGROUND INFORMATION (10 points)

- | | |
|---|---|
| 2 | History -Highlights important people or discoveries |
| 2 | Significance -Why this project is worth investigation |
| 2 | Facts -Tells what is know about the topic & explains major terms & definitions |
| 3 | Bibliography -of at least 3 sources |
| 1 | Method -tells how this topic has been studied before (steps, equipment, measurement) |

Choose One

PROBLEM (10 points)

- | | |
|----|---|
| 10 | Problem clearly states the need for an engineered item that will perform or accomplish a specified function |
| 6 | Description of problem does not clearly state the need or specified function |
| 0 | Both need and function of engineered device is vague |

Choose One

HYPOTHESIS (5 points)

- | | |
|---|--|
| 5 | Statement clearly predicts how the engineered device will operate to perform a specific function |
| 3 | Statement is not clear as to how the engineered device will operate to perform a specific function |
| 0 | No clear idea established |

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total up to 25		PROCEDURE (20 points)	
0-5		Construction-Step by step , Includes design of the device all of the materials and quantities needed, and how it is modified.	
0-5		Operation-Step by step , Describes how the device operates to specification and how its operation changes to modifications in construction.	
0-5		Drawings and/or pictures clearly labeled to show all parts in proper proportions, positions and range of motion	
0-5		Only Metric Units of measurement are used (grams, Liters, meters, Celsius, etc.) to design the experiment and record results	
Choose One		TRIALS AND SAMPLES (10 points)	
		Operation	
10		Device operated to successfully perform designed function three or more trials (number of times may reflect a cost of operation or consumption of parts).	
5		Device operated to perform designed function but not sufficient to determine reliability	
1		Item operated once	
0		Item not operated	
total up to 10		RESULTS (10 points)	
		Pictures/Illustrations/Drawings	
0-4		Picture clearly shows final device with all of its parts labeled and described in the procedures, measurements are shown and clearly marked.	
0-4		Explanation of how device operated or did not work reliably is clearly described	
0-2		Statement -Paragraph gives a detailed explanation of why the item worked or why it did not work.	
total up to 5		CONCLUSION (5 points)	
0-2		Statement describing how the device performed to successfully complete the designed task compared to the hypothesis and design specifications.	
0-3		Findings related to background information in at least two ways and describes what was learned.	
REFLECTION QUESTIONS (15 points)			
5		What potential impact might this topic have on society or the environment?	
5		What have you learned from your experience on this project?	
5		If you could start over, what changes would you have made to this experiment?	

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