

Intermediate and Junior Engineering Project Scoring Guide

Greater Kansas City Science and Engineering Fair

|-----Gold-----| |-----Silver-----| |-----Bronze-----|

	Full Accomplishment	Substantial Accomplishment	Partial Accomplishment	Little or no Accomplishment
Problem				
Is a Notebook present that shows the developmental process of the project?	Yes , it is detailed, complete and clear. (comments & graphs)	Yes, but there are portions missing or not clear.	No, but there was an attempt to keep notes.	No , there is no notebook.
Is there a clear issue or practical problem identified ?	Yes , the problem/issue is clearly identified.	Yes, but there are some areas of the problem that are poorly described.	No, but there is a vague or incomplete description of the problem.	No , there is no description or practical need for the problem to be solved.
Is there a clear statement of a proposed engineering solution to the problem?	Yes , the description of the solution is clear, concise, and understandable.	Yes, but . Has an incomplete description, or as written not understandable.	No , the student shows that some attempt at a solution was thought about.	No , there is no statement of the proposed solution, just random thoughts.
Is the engineering solution reasonable for the problem under consideration?	Yes , the advantages of this solution are obvious.	Yes, but there are flaws in the logic of the solution causing it to be an inadequate solution.	No, but a solution is offered but will not solve the problem.	No , the solution has no real bearing on the problem.
Does the product or represent a new capability or significant improvement over existing products?	Yes , the product or approach represents a significant capability or improvement over existing products.	Yes , the product or approach represents a capability that is important but exists in another form.	No , the product or approach only barely represents a significant improvement.	No , the product or approach does not represent a significant improvement over existing products.
Is there a review of literature exploring solutions for this issue/problem?	Yes , at least 3 sources were identified with possible solutions for this issue/problem.	Yes , at least 2 sources were identified with possible solutions for this issue/problem.	Only 1 source was identified with possible solutions for this issue/problem.	No , there is no evidence that any effort was made to see if the problem has ever been addressed.
Prototype				
Are there final drawings and/or schematics of the proposed solution?	Yes , they are clear, accurate, detailed and parts are well labeled.	Yes, but they are not clear or labeled well.	No, but rough sketches are included.	No , there are no drawings or schematics.
Does the prototype demonstrate the intended design?	Yes , it is constructed as it is illustrated or described in the report.	Yes, but there were a few minor changes.	No, but there was some resemblance to the schematic.	No , the final model did not resemble the original design.
Is there evidence that the solution was tested multiple times for performance under the conditions of use ?	Yes , in testing the prototype(s), at least 10 tests and their results are included.	Yes , in testing the prototype(s), at least 5 tests and their results are included.	No , in testing the prototype(s), only 3 or 4 tests and their results are included.	No , in testing the prototype(s), less than 3 tests and their results are included.
Was the prototype modified, or potential improvements noted?	Yes , the prototype was redesigned, and potential improvements were noted.	Yes , the prototype was redesigned OR potential improvements were noted.	No , the prototype was minimally redesigned, or potential improvements were vaguely noted.	No, the prototype was not redesigned AND potential improvements were not noted.
Was the cost effectiveness of the prototype outlined?	Yes, all possible costs of the prototype were addressed.	Yes , possible prototype costs were addressed.	No , few prototype costs were addressed.	No , the costs of the prototype were not addressed.
Were the benefits of the engineering solution clearly addressed?	Yes , the benefits of the engineering solution were clearly addressed.	Yes , the benefits of the engineering solution were addressed.	No, the benefits of the engineering solution were vaguely addressed.	No , the benefits of the engineering solution were not addressed.
Does the prototype demonstrate engineering skill and completeness?	Yes , the model was constructed well enough to function as desired.	Yes, but the operator needed to be careful to make it work right.	No, but one could make it function with effort.	No , it was not functional.
Display				
Does the display provide a complete representation of the design process and documentation?	Yes , it is clear and easy to read. The display provides a clear narrative and the solution to the problem is stated.	Yes , but there are elements that are unclear, or the display provides a narrative that could be clearer.	No, additional information is presented but the display does not provide an explanation of their process.	No , the display does NOT include evidence of the design process.
Is the display neat and well organized ?	Yes, there was a logical progression of the entire project with clear graphics and legends.	Yes, but there were some parts that were confusing or messy.	No , but there was some information that could be gleaned from the display.	No , there was no continuity to how it was organized.