

# Greater Kansas City Science and Engineering Fair Junior & Senior Engineering Project Scoring Guide

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

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