STEAM FAIR JUDGING CRITERIA - COMPETITIVE

SAN JOAQUIN COUNTY OFFICE OF EDUCATION

PROJECT ID# _____ **JUDGE INITIALS** _____

PROJECT TITLE _____

Judging Criteria	Points	Points
Scientific Thought / Engineering Goal / Mathematics / Computer Science	10	
Creativity	10	
Thoroughness	10	
Skill	10	
Clarity	10	
Maximum Total Points	50	

Scientific Thought (10 points)	**Engineering Goal (10 points)**	**Mathematics/Computer Science (10 points)**
● Was the problem scientifically significant and the hypothesis clearly stated? ● Did the student(s) look at different aspects of the problem, and chose a sufficiently limited project – was it well planned? ● Did the student use appropriate control of variables? ● Was the conclusion justified and properly drawn from experimental data? ● Was sufficient literature research performed and applied? ● Does the student understand what further research is warranted?	● Was the purpose and engineering design criteria/specifications significant and clearly stated? ● Was the software or hardware prototype to be invented/ engineered relevant, workable and feasible? ● Could the solution be used in design or construction of some end product or program? ● Was there evidence of redesign and retest under conditions of use? ● Did the student consider inventions, products, software, and applications by others? ● Does the student understand next steps or possible future improvements?	● Entire software development life cycle is clearly evident including plans that match the requirements and results from testing and computing. ● Testing is done and the above is noted, in addition, a “test plan” is a well written, key part of the process. ● Retesting, redesigning, debugging, optimizing are done until the design criteria has been reached and the design goal has been clearly fulfilled. ● Computer program readouts are clearly explained. ● Exemplary quality, requirements are stated, design is clear, development and testing is accurate and retesting is done to ensure accurate solution.

Creativity/Originality (10 points)

- Is the project topic unique or the approach original?
- Has the student used a novel approach for checking the hypothesis or testing an engineering design or software? Projects from the internet or other sources are acceptable if clearly acknowledged but should be scored lower.
- Evidence of student's contributions: What level of assistance was received for the idea and execution?

Thoroughness/Organized/Completed (10 points)

- Are there appropriate replications or repeated testing?
- Are there adequate data, drawings, flowcharts, schematics presented to explain findings?
- Was the project notebook kept during the project? Has all the work been completed in the past 12 months?
- Is the interpretation or performance claims supported with data?
- Are procedures, materials and research thoroughly documented?
- Were photos of hardware prototypes or a software demo provided?
- Record of daily work is evident in notebook.
- Notebook supports evidence of work completed.

Skill/Comprehension (10 points)

- Does the student understand the subject?
- Has the student used good laboratory, technical or programming skills?
- Did the student build equipment, design experiments, or program software?
- How much mentoring or other help did the student receive to carry out experiments or testing?

Clarity (10 points)

- Are the abstract, board, and oral communication accurate and understandable?
- Are the data and test results communicated sufficiently so others can see a mathematical relationship or lack of a relationship.
- Are phases of the project presented in an orderly manner?

Comments or Questions:

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