Judge # Poster ID #

## 2024 RCSEF Science Project Judging Rubric

The following is a set of criteria to assist in interviewing and in evaluating the student's projects. Please circle a number; you must choose a whole number.

Guidelines	Notes							
I. Research Question (10 pts)  clear and focused purpose identifies contribution to field of study testable using scientific methods	Lowest 1 2	3	4	5	6	7	8	Highest 9 10
II. Design and Methodology (15 pts)  — well designed plan and data collection methods — variables and controls defined, appropriate and complete	Lowest 1 2	3	4	5	6	7	8	Highest 9 10
III. Execution: Data Collection, Analysis and Interpretation(20 pts)  systematic data collection and analysis reproducibility of results appropriate application of mathematical and statistical methods sufficient data collected to support interpretation and conclusions	Lowest 1 2	3	4	5	6	7	8	Highest 9 10
IV. Creativity (20 pts)  project demonstrates significant creativity in one or more of the above criteria	Lowest 1 2	3	4	5	6	7	8	Highest 9 10
v. Presentation (35 pts)  a. Poster (10 pts)  logical organization of material clarity of graphics and legends supporting documentation displayed b. Interview (25 pts) clear, concise, thoughtful responses to questions understanding of basic science relevant to project understanding interpretation and limitations of results and conclusions degree of independence in conducting project recognition of potential impact in science, society and/or economics quality of ideas for further research for team projects, contributions to and understanding of project by all members	Lowest 1 2	3	4	5	6	7	8	Highest 9 10

Judge # Poster ID #

## 2024 RCSEF Engineering Project Judging Rubric

The following is a set of criteria to assist you in interviewing and in evaluating the student's projects. Please circle a number; you must choose a whole number.

Guidelines	Notes							
I. Research Problem (10 pts)  description of a practical need or problem to be solved definition of criteria for proposed solution explanation of constraints	Lowest 1 2	3	4	5	6	7	8	Highest 9 10
II. Design and Methodology (15 pts)  — exploration of alternatives to answer need or problem — identification of a solution — development of a prototype/model	Lowest 1 2	3	4	5	6	7	8	Highest 9 10
III. Execution: Data Collection, Analysis and Interpretation(20 pts) prototype demonstrates intended designprorotype has been tested in multiple conditions/trialsprototype demonstrates engineering skill and completeness	Lowest 1 2	3	4	5	6	7	8	Highest 9 10
IV. Creativity (20 pts)  project demonstrates significant creativity in one or more of the above criteria	Lowest 1 2	3	4	5	6	7	8	Highest 9 10
v. Presentation (35 pts)  a. Poster (10 pts)  logical organization of material clarity of graphics and legends supporting documentation displayed b. Interview (25 pts) clear, concise, thoughtful responses to questions understanding of basic science relevant to project understanding interpretation and limitations of results and conclusions degree of independence in conducting project recognition of potential impact in science, society and/or economics quality of ideas for further research for team projects: contributions to and understanding of project by all members	Lowest 1 2	3	4	5	6	7	8	Highest 9 10

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2024 RCSEF Robotics/Mathematics/Computer Science Project Judging Rubric The following is a set of criteria to assist you in interviewing and in evaluating the student's projects. Please circle a number; you must choose a whole number.

Guidelines	Notes								
I. Research Question (10 pts)  clear and focused purpose identifies contribution to field of study	Lowe:	st 2	3	4	5	6	7	8	Highest 9 10
II. Design and Methodology (15 pts)  for projects in theoretical computer science: the project involved creating/writing a new mathematical algorithm to solve a problem in programming for projects in applied computer science: the student/s created a simulation of a model, using computer science to explain or demonstrate or make understandable existing scientific understanding for projects in theoretical mathematics: the student/s understood the project's potential applications for projects in applied mathematics: the student/s understood the underlying mathematical theory	Lowe:	st 2	3	4	5	6	7	8	Highest 9 10
III. Execution: Data Collection, Analysis and Interpretation (20 pts)  software or hardware prototype is relevant, workable and feasible explanation of method of debugging the program the mathematical approach (proofs, graphs, formulas, etc) is clearly explained	Lowe:	st 2	3	4	5	6	7	8	Highest 9 10
IV. Creativity (20 pts)  project demonstrates significant creativity in one or more of the above criteria	Lowe:	st 2	3	4	5	6	7	8	Highest 9 10
v. Presentation (35 pts)  a. Poster (10 pts)  logical organization of material clarity of graphics and legends supporting documentation displayed b. Interview (25 pts) clear, concise, thoughtful responses to questions understanding of basic science relevant to project	Lowe:	st 2	3	4	5	6	7	8	Highest 9 10

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of results a degree of i project recognition society and quality of ic	ding interpretation and limitations and conclusions and ependence in conducting a of potential impact in science, d/or economics deas for further research rojects, contributions to and ding of project by all members		