



Louisville Regional Science & Engineering Fair

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Judging Criteria For all Category Projects

I. Research Question (for Science) or Research Problem (for Engineering): 10 points

Science <ul style="list-style-type: none"> • Clear and focused purpose • Identifies contribution to field of study • Testable using scientific methods 	Engineering <ul style="list-style-type: none"> • Description of a practical need or problem to be solved • Definition of criteria for proposed solution • Explanation of constraints
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II. Design and Methodology: 15 points

Science <ul style="list-style-type: none"> • Well-designed plan and data collection methods • Variables and controls defined, appropriate and complete 	Engineering <ul style="list-style-type: none"> • Exploration of alternatives to answer need or problem • Identification of a solution • Development of a prototype/model
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III. Execution: 20 points

Science <ul style="list-style-type: none"> • Systematic data collection and analysis • Reproducibility of results • Appropriate application of mathematical and statistical methods • Sufficient data collected to support interpretation and conclusions 	Engineering <ul style="list-style-type: none"> • Prototype demonstrates intended design • Prototype has been tested in multiple conditions/trials • Prototype demonstrates engineering skill and completeness
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IV. Creativity: 20 points

- Project demonstrates significant creativity in one or more of the above criteria

V. Presentation: 35 points

- Presentation Materials (10 points) (material uploaded in advance and /or shown during interview)
 - Logical organization of material
 - Clarity of graphics and photographs
 - Credits and documentation is notated on materials
- Interview (25 points)
 - Clear, concise, through 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

This judging criteria was adopted 2/10/2014, revised 1/9/2021 for online judging.