Hoosier Science and Engineering Fair JUDGES WORKSHEET

PROJECT \#
USE THIS SIDE FOR SCIENCE PROJECTS
The scales given for each section are a suggestion, but you may use your own ranking system out of 100 points.
I. Research Question ( 10 pts )

| 5 | 4 | 3 | 2 | 1 |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  | clear and focused purpose that is testable using scientific methods |
|  |  |  |  |  | identifies contribution to field of study |

II. Design and Methodology ( 15 pts )

| 5 | 4 | 3 | 2 | 1 |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  | well designed plan and data collection methods |
|  |  |  |  |  | variables and controls defined, appropriate and complete |
|  |  |  |  | familiarity with scientific literature in the studied field, and awareness of other <br> approaches or theories |  |

III. Execution: Data Collection, Analysis and Interpretation ( 20 pts)

|  | 5 | 4 | 3 | 2 | 1 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  | systematic data collection and analysis |
|  |  |  |  |  | reproducibility of results |  |
|  |  |  |  |  | appropriate application of mathematical and statistical methods |  |
|  |  |  |  |  |  | sufficient data collected to support interpretation and conclusions |

## IV. Creativity ( 20 pts )

|  | Please rank on a <br> $1-20$ scale | project demonstrates significant creativity in: subject studied and/or methodology |
| :--- | :---: | :--- |

## V. Presentation ( $\mathbf{3 5} \mathbf{p t s}$ )

a. Poster ( 10 pts )

|  | 5 | 4 | 3 | 2 | 1 |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :--- |
|  |  |  |  |  |  | logical organization of material |
|  |  |  |  |  |  | clarity of graphics and legends; supporting documentation displayed |

b. Interview ( 25 pts )

| 5 | 4 | 3 | 2 | 1 | For team projects include in your scoring the participation or lack of <br> participation of all team members in the interview. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  | clear, concise, thoughtful responses to questions |
|  |  |  |  |  | understanding of basic science relevant to project |
|  |  |  |  |  | understanding interpretation and limitations of results and conclusions |
|  |  |  |  |  | recognition of potential impact in science, society and/or economics |
|  |  |  |  |  | quality of ideas for further research |


|  | Total Score |
| :--- | :--- |

## NOTES

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$\qquad$
$\qquad$

Once you have arrived at a total score, please complete the score scan card for this project. Bubble in the score and write the score and the project number at the bottom of the scan card (three digit code) on the score card.

## Hoosier Science and Engineering Fair

## JUDGES WORKSHEET

PROJECT \#
USE THIS SIDE FOR ENGINEERING PROJECTS
The scales given for each section are a suggestion, but you may use your own ranking system out of 100 points.
I. Research Problem ( 10 pts )

| 5 | 4 | 3 | 2 | 1 |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  | description of a practical need or problem to be solved along with explanation of <br> problem constraints |
|  |  |  |  |  | definition of criteria for proposed solution |

## II. Design and Methodology ( 15 pts )

|  | 5 | 4 | 3 | 2 | 1 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  | exploration of alternatives to answer need filled and/or problem solved by project |  |
|  |  |  |  |  | identification of a solution |  |
|  |  |  |  |  |  | development of a prototype/model |

## III. Execution: Construction and Testing ( $\mathbf{2 0} \mathbf{~ p t s}$ )

|  | 10 | 8 | 6 | 4 | 2 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  | prototype demonstrates intended design |
|  |  |  |  |  | prototype has been tested in multiple conditions/trials prototype demonstrates <br> engineering skill and completeness |  |

IV. Creativity ( 20 pts )

|  | Please rank on a |  |
| :--- | :---: | :--- |
|  | $1-20$ scale | project demonstrates significant creativity in: subject studied and/or methodology |

## V. Presentation ( $\mathbf{3 5} \mathbf{p t s}$ )

a. Poster (10 pts)

|  | 5 | 4 | 3 | 2 | 1 |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
| logical organization of material |  |  |  |  |  |
|  |  |  |  |  | clarity of graphics and legends |


| b. Interview ( 25 pts ) |
| :--- |
| 5 4 3 2 1 For team projects include in your scoring the participation or lack of <br> participation of all team members in the interview.  <br>       clear, concise, thoughtful responses to questions |


|  | Total Score |
| :--- | :--- |

Once you have arrived at a total score, please complete the score scan card for this project. Bubble in the score and write the score and the project number at the bottom of the scan card (three digit code) on the score card.

