JUDGING GUIDELINES FOR SSEF (suggested evaluation criteria for judging)

The guidelines below apply to both ATS and SSEF. However, selected candidates of ATS will undergo additional interviews with a different set of judging criteria.

Scoring

I. Creative Ability (Individual – 30 points, Team - 25 points)

1) Does the project show creative ability and originality in:
   a. the approach to solving the problem?
   b. analysis of the data?
   c. interpretation of the data?
   d. use of equipment, if applicable?
   e. construction or design of new equipment, if applicable?
2) Does the research support an investigation and help answer a question in an original and/or innovative way?
3) Does the project promote an efficient and reliable method for solving a Problem? Distinguish between “gadgeteering” and ingenuity?

II a. Scientific Thought (Individual - 30 points, Team - 25 points)
(For engineering project, please see II (b) Engineering Goals.)

1) Is the problem stated clearly and unambiguously?
2) Is the problem sufficiently limited to allow a plausible study?
3) Is there a procedural plan for obtaining a solution?
4) Are the variables clearly recognized and defined?
5) If controls are necessary, did the Finalist/Team recognize this, and were they applied correctly?
6) Is there adequate data to support the conclusions?
7) Does the Finalist/Team recognize the limitations of the data?
8) Does the Finalist/Team understand the project’s connection to related research?
9) Does the Finalist/Team have an idea of what might be important for further research?
10) Did the Finalist/Team cite scientific literature (vs. only popular literature, e.g., local newspapers, magazines)?

II b. Engineering Goals (Individual - 30, Team - 25)

1) Does the project have a clear objective?
2) Is the objective relevant to the needs of the potential user?

Source: ISEF 2011 Judging guide
3) Is the solution workable, acceptable to the potential user, economically feasible?
4) Could the solution be utilized successfully in design or construction of an end-product?
5) Is the solution a significant improvement over current state-of-the-art or applications?
6) Has the solution been tested for performance under conditions of use?

III. Thoroughness (Individual - 15 points, Team - 12 points)

1) Was the project carried to completion within the original scope?
2) How completely was the problem addressed?
3) Are the conclusions based on a single experiment or replication?
4) How complete are the project notes?
5) Is the Finalist/Team aware of other approaches or theories?
6) How much time did the Finalist/Team spend on the project?
7) Is the Finalist/Team familiar with scientific literature in the relevant field?

IV. Skill (Individual - 15 points, Team - 12 points)

1) Does the Finalist/Team have the required laboratory, computation, observational and design skills to obtain the supporting data?
2) Where was the project performed? (e.g., home, school laboratory, university laboratory)?
3) Did the Finalist/Team receive assistance from parents, teachers, scientists or engineers? Was the project completed under adult supervision, or did the Finalist/Team work largely alone? Where did the equipment come from? Was it built independently by the Finalist/Team? Was it obtained on loan? Was it part of a laboratory where the Finalist/Team worked?
4) If the work was performed in a “mentor-rich” environment, do(es) the Finalist/Team exhibit evidence of his/her/their independent contributions to the work?

V. Clarity (Individual - 10 points, Team - 10 points)

1) How clearly does the Finalist/Team discuss his/her/their project and explain the purpose, procedure, and conclusions? Watch out for memorized speeches that reflect little understanding of scientific principles.
2) Does the written material reflect the Finalist’s/ Team’s understanding of the research?
3) Are the important phases of the project presented in an orderly manner?
4) How clearly is the data presented?
5) How clearly are the results presented?

Source: ISEF 2011 Judging guide
6) How well does the project display explain the project?
7) Was the presentation done in a forthright manner, without tricks or gadgets?
8) Did the student/team perform all the project work, or did someone help?

VI. Teamwork (Team only - 16 points) – applicable to SSEF only

1) Are the tasks and contributions of each team member clearly outlined?
2) Are all the team members fully involved with the project, and are they familiar with every aspect of the project?
3) Does the final work reflect the coordinated efforts of all team members?

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<thead>
<tr>
<th>Criteria</th>
<th>Individual Project</th>
<th>Team Project *</th>
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<tbody>
<tr>
<td>Creative Ability</td>
<td>30 points</td>
<td>25 points</td>
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<tr>
<td>Scientific Thought / Engineering Goals</td>
<td>30 points</td>
<td>25 points</td>
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<tr>
<td>Thoroughness</td>
<td>15 points</td>
<td>12 points</td>
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<td>Clarity</td>
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<tr>
<td>Teamwork</td>
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<td>16 points</td>
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<td><strong>Total Possible Score</strong></td>
<td>100 points</td>
<td>100 points</td>
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* There is no Team Category in ATS.

We strongly encourage students to write their names on every piece of paper submitted. Only complete entries can be judged fairly. Please do not send incomplete entries.