



2009 South's BEST Awards and Judging Guidelines

I. Awards

Each South's BEST team receives a plaque recognizing its achievement in advancing to the Championship.

All Teams Eligible (1st – 3rd Place plaques)

Game Division Award

Trophies will be awarded to the top scoring teams in the tournament bracket. In addition, the fourth place team will also receive an award recognizing the significant accomplishment of making it to the final Championship Round of play.

New Award - the highest placing middle school team in the game division will receive a trophy recognizing their accomplishment.

Founders Award for Creative Design

Awarded to the team that makes best use of the engineering process in consideration of offensive and defensive capabilities in machine design; awarded in recognition of BEST founders Steve Marum and Ted Mahler.

Most Robust

Awarded to the team whose machine requires the least maintenance during and between matches and is generally the sturdiest machine in the competition.

Most Elegant

Awarded to the team whose machine demonstrates the best design and execution of the game...the machine that makes you say "Wow!"

Most Photogenic

Awarded to the team whose machine is the most eye-pleasing.

igus TOP GUN Award

Awarded to the first team who creates an iso-octane during the competition.

T-shirt Award

Awarded for the most original game-specific team t-shirt design. **T-shirts should be submitted to the Registration/Information Desk before 4:00pm on Friday, December 11th to be considered for judging.** In addition, teams should submit a brief explanation of their design (no longer than one page) with their t-shirt.

Web Page Award

Awarded for the best team web site; based on page functionality, creative use of the game theme, information about team members and community efforts. The web address should be included on the **Team Information Form** submitted after local hub competitions), or email to Mary Lou Ewald at ewaldml@auburn.edu **no later than December 1. Please make sure web pages are completed and active by December 1, when judging will begin.**

SolidWorks CAD Design Award

Awarded to the team that shows the highest mastery and most creative use of CAD software. Criteria used to assess the designs include best use of CAD software, quality of designs, and degree of difficulty and mastery. Note that drawings can be constructed from any CAD software, not just SolidWorks. Each team can submit a maximum of 10 pages of CAD drawings, and should include one additional description page (no more than one page typed) of how the team implemented CAD in their design process and what type of software was used to develop the drawings. Place all of these documents in an envelope or a binder labeled with the school name and team # on the outside. **Submit the drawings to the Registration counter by 4:00pm on Friday, December 11th for judging.**

BEST Award Teams Eligible Only (1st – 3rd Place trophies and plaques)

BEST Award

- Awarded to the team that best embodies the concept of ***Boosting Engineering, Science and Technology***. Winning the BEST Award is considered the highest achievement any team in the competition can accomplish. Trophies recognizing the top 3 overall BEST Award teams will be awarded. In addition, plaques recognizing 1st – 3rd place in each BEST Award category will be awarded. The BEST Award categories are:
 - Project Engineering Notebook
 - Oral Presentation
 - Table Display/Interview
 - Team Spirit and Sportsmanship

- Ties will be allowed only after detailed review by the judges.

Table Display Design and Construction Award

Awarded to the teams with the most creative and innovative Table Display design.

Best Mascot Award (1st Place Award only)

Awarded to the team whose mascot inspires the most enthusiasm from the audience.

II. Project Engineering Notebook

- ALL participating teams will be required to submit a Project Engineering Notebook at South's BEST following the guidelines in Category I of the BEST Award Guidelines below. All notebooks will be graded on a 30-point scale, as defined in the BEST Award Guidelines. It is not necessary to submit the Team Demographics form in the notebook.
- During the Championship, the notebook scores of all teams will be used to determine which two teams earn a chance for two "wildcard" slots. The wildcard teams will be two of sixteen total teams that advance to the semi-final rounds.

III. BEST Award Guidelines

- The BEST Award is presented to the team that best embodies the concept of *Boosting Engineering, Science, and Technology*. This concept recognizes that inclusiveness, diversity of participation, exposure to and use of the engineering process, sportsmanship, teamwork, creativity, positive attitude and enthusiasm, and school and community involvement play significant roles in a team's competitive experience and contribute to student success in the competition beyond winning an award.
- In accordance with the BEST philosophy, **materials submitted by teams must be the work of students**. The involvement of student peers in auxiliary roles to support a school's official BEST team with the documentation – i.e., journalists, photographers, artists, musicians – is encouraged.
- **Any team that competed for the BEST Award at their local contest is eligible to compete for the South's BEST Award. However, the team must indicate their intent to do so on the "Team Information Form."**
- All teams competing for the South's BEST Award must agree to compete in all four judged BEST Award categories at the Championship (Project Engineering

Notebook, Oral Presentation, Table Display and Interview, Spirit and Sportsmanship).

Evaluation and Judging Procedures

Criteria

- Evaluation of competitors will be based on the criteria outlined in these guidelines. An evaluation score of a total possible 100 points will be composed of the following:

Categories of Competition

- The team must commit to active participation in five categories of BEST Award competition:
 1. Project Engineering Notebook submitted in advance of South's BEST (30 points)
 2. Oral Presentation on Friday of South's BEST (25 points)
 3. Table Displays and Interviews on Friday and Saturday of South's BEST (25 points)
 4. Spirit and Sportsmanship review on Saturday of South's BEST (15 points)
 5. Robot Performance on Saturday of South's BEST (5 points)
- ***Any team that fails to participate in all categories will be disqualified and recommended to the hub for ineligibility to advance as a South's BEST Award team the following year.***

Judging Procedure

- A distinguished team of judges from private and public sectors with technical and non-technical expertise will evaluate teams. Judges will serve on a rotation schedule.
- Category scores will be the average of individual scores of the judges reviewing each category.
- Teams should know in advance that scores among many teams frequently differ by only fractions of a point.
- Throughout the judging process, the judges may take into consideration the resources available to teams to conduct their BEST programs (number of team members, financial or technology resources, for example).

Category I: Project Engineering Notebook (30 Points)

Notebook Guidelines

- The purpose of the notebook is to document the process the team used to design, build, and test their robot.
- Deadline:

Local competition weekend

Weekend of October 10

Weekend of October 17

Weekend of October 24

Weekend of October 31

Weekend of November 7

Notebooks due to South's BEST

5:00 p.m., Wednesday, November 4

5:00 p.m., Wednesday, November 11

5:00 p.m., Wednesday, November 18

5:00 p.m., Wednesday, November 25

5:00 p.m., Wednesday, December 2

- **Note: Notebooks must be received by due date and time (Central Standard Time) in order for the team to be eligible to compete at the Championship.**

- **Mail notebook to:**

Mary Lou Ewald
South's BEST
131 Sciences Center Classrooms Bldg
Auburn University, AL 36849
(334) 844-5745 (o)

- Notebooks received after the deadline will not be judged. South's BEST cannot be responsible for failure on delivery of material due to incomplete or incorrect address information. The notebook will be returned to the team following its presentation session on Friday. For those teams not competing in the BEST Award, the notebooks will be available for pick -up at the Registration Desk on Saturday.
- The notebook must meet the following specifications:
 - Submitted in a *standard* 3-ring binder with a maximum 2" ring size
 - 30 typed **single-sided** pages or less
 - Research paper: Within the 30 pages, include a description of how the current year's game theme is related to current technological practices or scientific research (minimum of 2 pages, maximum of 5 pages out of the 30 allotted)

- Binder cover must identify the school name, teacher contact, and team number
- Provide description of the process the team used to design and complete its robot
- Standard, 8 ½” x 11” paper, double-spaced, 1” margins, and Times New Roman (preferred) or similar business-style font no smaller than 12 pt. Single-spacing is acceptable in tables and outlines.
- In supplemental appendices of up to 20 pages in length (20 pages front and back will be accepted), teams may provide additional material as support documentation, such as drawings, photos, organization charts, minutes of team meetings, test results, etc. **This material should directly support the process described in the primary document and NOT reflect activities related to community or promotional efforts, spirit development, or team-building.**

Notebook Evaluation

- The notebook will be judged on the documentation of the team’s:
 - ***Implementation of the Engineering Design Process***
 - Evidence that the engineering process was effectively used.
 - ***Research Paper***
 - Correlation between game and current and future use of similar technology; Any related information of game theme, such as history, famous inventor(s), or major milestones; Creativity in linking game theme to appropriately related science/technology content; Proper use of grammar and composition throughout paper, staying within 2-5 page limit
 - ***Brainstorming Approaches***
 - How well organized and productive was the brainstorming approach used and documented?
 - ***Analytical Evaluation of Design Alternatives***
 - Use of analytical and mathematical skills in deciding upon and implementing design alternatives
 - ***Offensive and Defensive Evaluation***
 - Analysis of gaming strategies and design elements to achieve goals.
 - ***Design Creativity***

- Overall use of design creativity to solve the problem presented in the game.
- **Support Documentation**
 - CAD /other drawings, photos, organization, team minutes, test results, etc. that support the main document.
- **Overall Quality and Completeness of Notebook**
 - Organization, appearance, adherence to specifications, quality of content and submission of required Team Demographics Form

Category II: Oral Presentation (25 Points)

- The sign-up form for Oral Presentation time slots will be available at the South's BEST web site (www.southsbest.org) from **Monday, November 9 through Friday, November 20**. Teams that have not requested a time slot by that time will be assigned a time slot. Information about Oral Presentation time slots and room locations can be found in each team's Registration Packet (pick up at the Registration/Information Desk inside the front entrance of the Coliseum upon arrival). Presentations will take place on Friday, December 11th from approximately 1:00pm to 5:00pm in the new Student Center building (2 blocks from the Coliseum). Maps will be included in the Registration Packets.
- For the oral presentation, the team should view themselves as employees of a "company" that is marketing their "product" (robot) to a potential buyer (judges). This marketing team is an integral part of the engineering team that has designed a specialized robot. The marketing presentation should provide information about their company, the engineering team involved in the design and construction of the product, and why their product is the best one on the market that can complete the assigned task. The potential buyer will be assessing the following:
 - The company's design and manufacturing process (engineering process of "design to market", including a discussion on the advantages of your company's robot design)
 - Discuss the technological resources your company used to design and construct the robot
 - Marketing strategies to promote product (e.g., school and community involvement, promotional efforts, etc)
 - The company's demographics and operations (e.g., diversity of team members involved, team building experiences, displays of sportsmanship, etc)

Oral Presentation Guidelines

- A minimum of 4 students must actively participate in the presentation. A maximum of 8 representatives for the team may be in the presentation room, including the presenters.
- Adults are ONLY allowed in the room if they are needed to assist a physically disabled student. Please contact the judging coordinator, Mary Lou Ewald (ewaldml@auburn.edu), prior to arriving at South's BEST to report the need for an adult assistant.
- Representation by student presenters from more than one grade level is encouraged and will be considered in the evaluation as part of the team's recruitment efforts.
- Videotaping/photographing by team representatives will be allowed during the presentation, however, the person(s) handling videotaping will be counted in the 8 maximum number allowed.
- The presentation format is the prerogative of the team.
- **The following equipment is available to all teams: computer and LCD projector with screen.**

Oral Presentation Time Breakdown

- **There will be a check-in station at room 2326 in the Student Center.**
- Teams should check in 20 minutes prior to their time slot.
- The order and breakdown for the 25-minute presentation time period is as follows:
 - *5 minutes* Set-up
 - *12 minutes* Presentation
 - *5 minutes* Q&A with judges
 - *3 minutes* Break-down and clear room

Note: Teams not requiring set-up or break-down time may utilize that time for their presentation (for a total presentation time of up to 20 minutes).

- **Please bring a copy of team's presentation on a CD or jump drive.**
- **Teams are allowed to use their own equipment, however, they should account for the extra time needed to set up their equipment.**

Oral Presentation Evaluation

- Presentations will be evaluated with consideration of:
 - ***Company Information***
 - Well-defined roles as company employees/owners/managers; organization of company departments for product development
 - ***Design and Manufacturing Process (Engineering Design Process)***
 - Brainstorming approaches; analytical evaluation of design alternatives; offensive and defensive strategy evaluation; effective implementation of the process
 - ***Use of Available Technology***
 - CAD or other drawings; Web page development and computer simulations
 - ***Marketing Strategies***
 - Publicity efforts to inform school and community of their product (e.g. school newsletters, presentations to community and/or school groups, fliers/brochures, posters, press releases, commercials, etc)
 - ***Team Demographics and Operations***
 - Company team-building (team-building activities, representation and percentage of team involved in robot development, methods of team decision-making, etc.); Company team demographics (evidence of team diversity – male, female, variety of grades represented, minority involvement)
 - ***Quality of Presentation***
 - Well organized and prepared; met required specifications; communication skills and professionalism; creativity of format; quality of question and answer session with judges

Category III: Table Displays and Interviews (25 Points)

- Table Displays will be located on the outer concourse of Beard-Eaves Memorial Coliseum. Team locations for displays will be randomly assigned by the South's BEST office. Teams will be directed to their assigned table upon registration at the Coliseum on Friday.
- Table Display set-up can begin at 9:00am on Friday, after team check-in at the Registration desk in the Coliseum. Displays should be completely set up by 3:00pm on Friday and students should be prepared for judges to begin visiting their tables

starting at 3:00. Friday judging of Tables will occur from 3:00pm to 5:30pm and again from 7:00pm to 8:30pm. On Saturday, judging of Tables will occur from 9:15am to approximately 2:30pm, but will not be judged during the lunch break (11:45am to 1:00pm).

- Teams should be sure that their display is clearly marked with school name and team number. Teams will receive a team identifier sheet in their registration packets that can be used for this purpose.
- We anticipate that teams will be able to dismantle Table Displays starting at 3:00pm on Saturday.
- Teams should not leave valuable equipment at the display overnight.
- The purpose of the table display and interviews category is to:
 - Communicate through a display, and through discussion with judges, information about the team's efforts **to promote BEST in the community and schools**
 - Foster BEST spirit, camaraderie, and participation
 - Give evidence of sportsmanship

Display and Interview Guidelines

- Each team will have the opportunity to request a standard 6-foot long table (approximately 29 inches wide) on the ***Team Information Form***.
- Skirting for the table will not be provided.
- Each team should bring one extension cord and one power strip IF the display requires electricity.
- Other display items may be used but must not exceed a 10' X 10' X 10' space allocation.
- Teams are encouraged to avoid using expensive store-bought display boards and structures and opt for more creative and hand-made display props.
- Any audio-visual equipment needs and extra extension cords will be the responsibility of the team.
- Although reasonable effort will be made by South's BEST staff to monitor the lobby area, each team is responsible for security of its own material.

- Each team is also responsible for breakdown of its team materials and clean-up of its display area starting at 3:00 p.m. on Saturday.
- All material should be clearly marked with the appropriate identification and contact information.
- Candy and other food or drink items are not permitted at table exhibits as complimentary handouts.
- Teams should expect to be visited by three to four different judges over the entire judging period.
- Judges may also interview team members in the pit area and in the seating area on Saturday.

Display and Interview Evaluation

- **Displays** (17 points) will be evaluated on:
 - Recruitment of new schools
 - Sharing information and/or technology resources, and mentoring other schools, including other BEST teams
 - Presentations and robot demonstrations to other schools and community groups
 - Publicity (materials, media/press) in school and community efforts to other schools and community groups
 - Fund raising and/or sponsorship efforts (strategies used to recruit sponsors, team fund raisers, description of how funds were allocated to support team, team budget information available for review)
 - Use of technology, display models or boards, or multi-media at display in promotion of BEST
 - Creativity in design and presentation of this exhibit
 - Compliance with specifications (did not exceed space allocation)
- **Interviews** (8 points) will be evaluated on:
 - Enthusiasm and learning experience from BEST
 - Team recruiting (cross section of student population and multi-grade levels)

- Level of student participation (students were the primary designers and builders of the team's robot)

Category IV: Spirit and Sportsmanship (15 Points)

Spirit and Sportsmanship Guidelines

- Judges will evaluate this category on Saturday.
- They will observe the spirit promoted by the team during the competition rounds as well as the team's conduct throughout the day in the seating area, table display area, game floor, and pit area. Judges may also consider the teams' conduct at the entire competition (Friday, Friday evening, hotels, etc.)

Spirit and Sportsmanship Evaluation

- Spirit includes the vigor and enthusiasm displayed by team representatives
- Teams can use posters, props, t-shirts, cheerleaders, musicians, mascots, costumes, and **lower-frequency, lower-intensity** noise-makers to increase the level of spirit
- Banned noise-makers: airhorns, whistles (and similar high frequency items), bass drums (and similar low frequency items), amplified sound or amplified instruments
- The Head Judge has the right to ban any noise-makers that are deemed to potentially cause hearing damage by those in attendance at South's BEST
- Judges take into account the variety and geographic distances of teams attending South's BEST, and the differing capacities to bring large numbers of supporters to cheer them in the stands
- Sportsmanship includes outward displays of sportsmanship, grace in winning and losing, and conduct and attitude considered befitting participation in sports
- Overall team sportsmanship is also demonstrated by students (not mentors) making the majority of robot adjustments and repairs during the competition
- **Spirit Stick:** To facilitate judging on Saturday, each candidate team is asked to bring a "spirit stick" for identification in the seating area. Specifications include:
 - school name and/or team number prominently displayed and visible by judges from a distance

