1st and 2nd Year Design Challenge Rules

Objective

The purpose of this competition is to provide first- and second-year engineering students with an opportunity to develop and practice teamwork, creativity, and problem-solving skills in a controlled environment. Teams will receive a design prompt and a set of materials to use in developing and constructing a solution.
No prior knowledge of CAD or advanced engineering principles is required. Instead, the competition emphasizes creative thinking, collaboration, and practical problem-solving. Teams will have one hour to develop, construct, and refine their designs based on the provided prompt.
Teams will be evaluated on the performance of their designs during product testing, their effective use of materials, and their ability to explain and justify their design decisions. Judges may ask questions throughout the competition and will observe each team's design process during the allotted time.

Competition Rules

- Each school may enter a maximum of two teams. Each team must consist of a minimum of three students and a maximum of five students.
- All participants must be in their first or second year of engineering study.
- Team members may not seek assistance from individuals who are not participating in the competition. Supporting chapters may cheer for their teams, but they may not provide design advice or other assistance that could influence the team's solution.
- Competition materials and design prompts will be distributed simultaneously, and the competition will begin promptly at the designated start time. Teams arriving late will not receive additional time unless prior arrangements have been made to accommodate scheduling conflicts.
- All materials required for the competition will be provided. Teams may not bring or use their own supplies.
- Personal protective equipment is not required, and there is no specific dress code.
- The use of technology is prohibited during the competition. This includes artificial intelligence (AI) tools, internet browsers, and CAD or other modeling software.

Scoring

A panel of judges with relevant design experience will evaluate each team's performance and determine the final rankings. Judging will focus on the performance of the completed design during testing, the efficient and effective use of materials, and the team's ability to explain and defend its design decisions.
A detailed scoring rubric will be distributed alongside the design prompt at the start of the competition. Judges may use questions and observations throughout the design process to assess each team's problem-solving approach, collaboration, and understanding of its final design.

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