

SYNOPSIS OF GAMES

The following six games will be showcased at the **2009 High School Engineering Expo** on Friday, November 13, 2009. Please indicate on the School Registration Form which one (or all) of the games your students will be participating in so that we may adequately prepare. *Game participation is limited to one team, per game, per teacher, per school.* Full details of each game will be included in the **2009 Engineering Expo Workbook**, which will be sent to you upon our receiving your School Registration Form.

Due to time restrictions, games will be limited to the number of teams listed in parentheses. Participating teams will be on a first-come, first-serve basis. Turn in your School Registration Form as soon as possible to ensure game participation.

8:45 – 9:15 a.m. Registration

9:00 – 10:00 a.m. Engineering Exhibition

10:00 a.m. – 12:15 p.m. Game Competitions
ALL GAMES HELD AT SAME TIME

12:15 – 12:30 p.m. Awards

Field Goal Challenge Competition (Limited to: 14 teams, Max: 4 students per team) – sponsored by American Society of Mechanical Engineers

Design a device that will launch an official NFL sized football through field goals placed at different distances.

Coaster Mania! Competition – IMPROMPTU GAME* (Limited to: 18 teams, Max: 4 students per team) – sponsored by American Society of Civil Engineers

Here's your chance to work as a team to design and build your very own roller coaster consisting of loops, turns, hills and jumps. Coasters will be judged on team participation, functionality, design, and originality.

Egg Drop Competition (Limited to: 18 teams, Max: 5 students per team) – sponsored by Society of Women Engineers

Test your ability to design and think creatively to form an engineering solution. Teams will design a damper to prevent a raw egg from breaking. The competition will require teams to design their damper prior to competition and the damper must meet design specifications.

Model Paper Column Competition (Limited to: 18 teams, Max: 4 students per team) – sponsored by Chi Epsilon

Design, build and test a small paper column that will be judged on workmanship and efficiency by the following equation: Efficiency = (Ultimate Load at Failure) X (Column Length in Inches) divided by Column Weight in Grams

Mouse Trap Racer Competition (Limited to: 18 teams, Max: 4 students per team) – sponsored by Pi Tau Sigma

Can you build a mouse trap race car? This competition requires teams to build a small car (approx 12 inches long) powered only by the use of a victor M150 mouse trap and then race it against other teams. The students will compete by drag racing their car against a peer team set up in a double elimination format.

Solar Powered Car Competition – IMPROMPTU GAME* (Limited to: 16 teams; Max: 5 students per team) – sponsored by Eta Kappa Nu/Institute of Electrical and Electronics Engineers

Alternative energy is the future! Build a complete mini solar powered car (materials will be provided), while learning how photovoltaic cells harness the energy of the sun. The final showdown is a race against the other teams to see who truly is the Sultan of the Sun!

***IMPROMPTU GAME is completed entirely during the Expo. No prior project completion is required. All materials and detailed game rules will be provided at the Expo event.**