

HSD 2018 RECENT RULES UPDATES

Aerospace Engineering Competition

Rule Clarifications:

- The runway width is 4 ft
- The 18 in barrier will be at the end of the runway as well as along the sides
- The airplane must take off from the ground
- There cannot be any externally powered takeoff
 - There cannot be any structure left behind on the runway
 - The rubber band to power the aircraft must be used internally
- In the wingtip loading test, if no audible sounds are heard after 20 lbs are applied, the aircraft will be tested for flight and continue to be tested at 20 lb increments
- The maximum wingtip loading capacity will be 60 lbs

Bioengineering Competition

Rule Clarifications:

- Must have some form of kicking ability, participants will be allowed to re-adjust the angle and reload the device for each kick, but it cannot be swung down manually (examples for kicking ability: spring-loaded, swing with a release, etc.)
 - ◆ The device is also not allowed to be move from the original spot

Scoring Rubric:

Design Ingenuity:

- Use of Materials: _____/ 10
- Functionality: _____/ 10

Presentation:

- Visual Aid: _____/ 10
- Presentation Performance: _____/ 10
- Team Understanding: _____/ 10
- Design Process: _____/ 10

Game: _____/ 40

Sum of points earned is total score (out of 100)

Chemical Engineering Competition

1. Chemical chariots will now be given 3 attempts to run instead of only one. Only the best run will be counted toward the final score
2. Competitors must launch the chariot without the addition of any external physical force (i.e. they cannot push the chariot forward)

See next page for Civil Competition rules updates

Civil Engineering Competition

1. No maximum requirement of number of pieces.
2. New dimension requirements, such as bridge width and required overhang from supports, are shown in the attached diagram.
3. Clarification: the color of the K'Nex can vary from the colors listed as long as the size is the same and it is from a standard set (some pieces are purple, for example, but are otherwise exactly the same as the 7.5 inch gray rod. These are acceptable).
4. Clarification: the load will be tied on an easily accessible rod in the middle of the bridge with a rope.
5. Each team has 1 hour to fix/put together their bridge before the presentation. It is encouraged that schools bring replacement pieces in case one breaks during transport.
6. Current pictures of the bridge must be included in the presentation.
7. Teams will need to submit all materials (plan sheet with drawings, pictures, and cost analysis) except the pitch at least 2 days before competition. Submit these materials by emailing them to highschooldesign@ku.edu before Sunday, October 21 at 11:59pm. Be sure to include the team name with the submitted materials.

NO CHANGE to Mechanical Engineering and Computer Science Competitions