National Engineers' Week Student Competitions

UAA Campus, Anchorage, AK

Saturday February 17, 2018; 10:00 am - 2:30 pm

Lego Longo Competition

Location: UAA ECB

Objective: Your task is to build a structure with legos (all 2x4x1 blocks) that can cantilever off a flat support structure. The winning structure will be the one that cantilevers (hangs) the farthest off, without breaking.

Rules:

1. Construction of the structure may only be done by one competitor, however teams of students may be formed for advising. Teams of students in grades 1-3 are allowed two builders at once.
2. You will have 90 seconds to construct your structure with blocks that will be provided at the competition.
3. There are no dimensional requirements for how the structure can look and may take any shape excepting:
    a. The structure may not touch any support other than the top level surface.
4. No weights, glues or other adhesive are allowed, just the legos and counterweight provided at the competition.

Testing & Scoring:

1. The structure will be brought to the testing area by the student or their designated person.
    a. If the structure is damaged in transport it may be repaired, but no additional structural elements may be added.
2. The structure will be weighed (either before or after testing)
3. The student will place the structure in the designated testing area.
4. The student will then place an 8 oz. counterweight (which is supplied) onto the structure at a place of their choosing.
5. A judge will measure the length that the structure extends beyond the testing platform.
6. A judge will then hang an 8 oz. weight from the block furthest from the testing edge.
7. If any portion of the structure touches another surface other than the testing areas top level surface then the structure is disqualified.
8. Upon completion of the testing the students will disassemble all the legos from their structure and provide them to a judge.

The student with the longest measurement wins. In the case of a tie; the winning structure will be the lightest.