BRIDGES: Nebraska Trial Event 2020 B/C

DESCRIPTION: Prior to the competition, teams will design and build a Bridge meeting requirement specified in these rules to achieve the highest structural efficiency.

A TEAM OF UP TO: 2 **IMPOUND**: NO **EYE PROTECTION**: B

EVENT PARAMETERS:

a. Each team is allowed to enter up to two bridges as time permits, built prior to the competition. One bridge must be designated as the official bridge for scoring prior to the testing.
b. All participants must properly wear eye protection at all times. Participants without proper eye protection must be immediately informed and given a chance to obtain eye protection if time allows. Participants without eye protection will not be allowed to compete.
c. The Event Supervisor will provide the Test Apparatus.

CONSTRUCTION PARAMETERS:

a. The Bridge must be a single structure with no separate or detachable pieces.
b. The Bridge must be constructed of wood and bonded by adhesive. The definition of "wood" is the same in the rules for Towers. The definition of "adhesive" is the same in the rules for Towers.
c. The Bridge for both Division B and Division C must span an opening of 35cm on a test base. The Bridge may be any height and design but must sit on blocks 35cm apart. These blocks are 8cm long and 2cm high and 2cm wide.
d. The Bridge must be designed in such a way that it can hold the loading block, which is 5cm x 5cm x 2cm. Only the loading block may support the chain and bucket.
e. The Bridge must not be braced against any edge of the test base.
f. No portion of the Bridge may extend below the test surface.
g. Students must be able to answer questions about their Bridge.

COMPETITION:

a. The Bridge will be tested on the same device as the Boomilevers.
b. Once participants enter the check-in area, they may no longer make any changes to their Bridge and may not receive any outside help. The Bridge will be massed by the team and they will place the Bridge on the testing device and set up the block and chain.
c. Loading of the Bridge stops immediately when a failure occurs.

SCORING:

a. Score = (Load Scored (g) / Mass of Bridge (g): High score wins. Bridges that hold the entire load (15,000 g) will receive a 500g bonus.
   Example: Bridge held 12,000g and massed at 24g= score 500 efficiency.
   Example: Bridge held 15,000g (full load) + 500 bonus and massed at 24g= score 833.33 efficiency.
b. The Load Score is the measured load supported, including the Loading Block Assembly, bucket, and sand/material, but may not exceed 15,000 g.
c. Bridges not meeting construction parameters will be tested if possible, however they will score below those Bridges that meet the construction parameters.