



Engineering Day 2021

Da Vinci Wood Bridge

Goal:

Design and build a bridge constructed from wood according to the contest rules which supports the maximum weight.

Rules/Judging:

1. Construct bridge using 2"x4" pieces and dowel rods. Materials will be provided. No other materials may be used.
2. No nails, glue or any type of binding material may be used.
3. The bridge must be a free-standing bridge.
4. The 2"x4" pieces will be notched for the dowel rods.
5. The bridge must allow for weight to be applied to the top of its arch for calculating total weight that may be loaded on the bridge.
6. Weight will be applied to the middle section of the bridge using a rope and carabiner. Weights will be added incrementally to determine the load that the bridge can carry.
7. This contest is open to teams of one or two. Scoring for bridges is independent of number of builders.
8. Materials will be provided at the time of the contest. Students will be limited to 15 minutes for construction of bridge.
9. It is suggested that teams watch videos about Da Vinci bridges in advance of the contest date.

Score:

Supported weight will be recorded at breaking point OR when bridge height is decreased by 1".

Score will be maximum load supported. Highest supported load will win.