



Bridge Destroyer 3000

The Bridge Destroyer 3000 was designed to experimentally determine the maximum vertical load that a cardboard bridge can withstand.

Scoring = Max Load Carried / Weight of Bridge * Difficulty Factor

Difficulty Factor = 1 if hot glue is used
Difficulty Factor = 1.5 if only cardboard is used

Constraints:

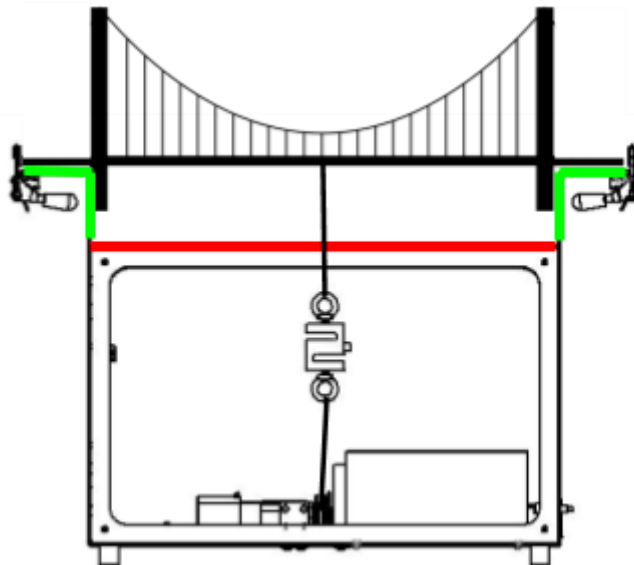
1. All components can only be made from single flute/single ply, .125" thick nominal cardboard
2. All components combined must fit onto a sheet of cardboard 24" x 20"
3. No component can be longer than 24"
4. No part of the bridge assembly can be over 5" from the mount surface

Requirements:

1. Must span the 25" gap on the Bridge Destroyer
2. Bridge is deemed to have failed once it touches lava, which is the surface 4 inches below the mount surface
3. Must fit onto the Bridge Destroyer that is 9" wide and 32" long.

Example Setup:

The areas in green are places where the bridge is allowed to make contact with the bridge destroyer. The areas in red are places where the bridge is not allowed to make contact, and as soon as it does the test is considered to be complete. Load will be applied to bridges through a piece of 5 mm paracord attached to the center of the bridge.

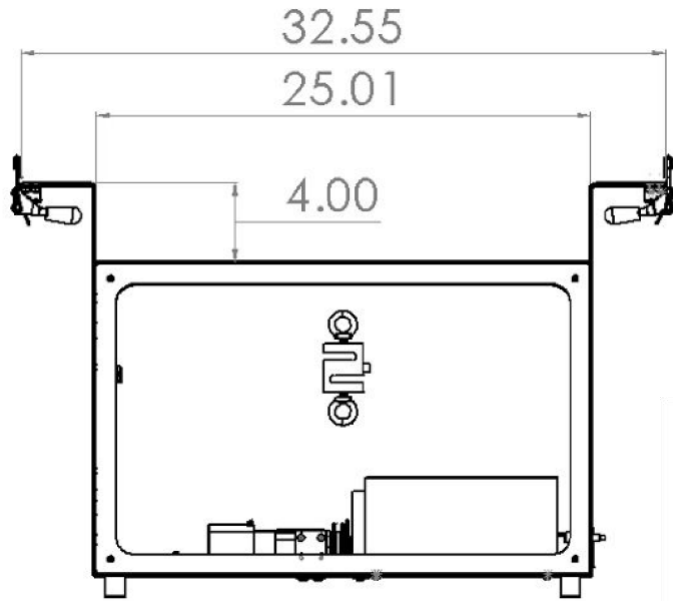




Design Competition

Dimensions and critical information:

Cardboard bridges will have to span a distance of 25.01 in, and can only go 4 in below the highest allowed point of contact. The maximum load that the bridge destroyer can safely apply to a bridge is 200 lbs.



Top view:

