

BRIDGE BUILDERS

Participants have to design a Bridge using Popsicle sticks (ice cream sticks) satisfying the given constraints. There will be only one round in which bridges will be tested. Participants have to come with their bridges.

Material Used:

1. Popsicle sticks with dimensions (11cm X 1.2cm X 0.2cm).
2. Only Fevicol can be used as adhesive, use of other adhesives may lead to disqualifications.
3. Use of thread is not allowed.

Dimensions of Bridge:

1. Length: 56-60 cm
2. Width: 10-11 cm
3. Height: 11-15 cm
4. Clearance: A minimum clearance of 8 cm high and 5 cm wide should be provided for the passage of a small toy car.
5. Weight: Not More than 450gm

Rules:

1. All sticks must be visible to inspection and may not be painted or stained in any way.
2. No other reinforcement material (like steel wires, wire mesh) will be allowed.
3. Bridges not meeting the requirements listed in these rules will be subject to disqualification
4. Each bridge must be able to hold the weight of the testing equipment which is about 4 kg. Loading will be done at the center of Bridge.

Judging criteria:

Each bridge will be scored in accordance with an Efficiency Rating (ER) which will be calculated by the following equation:

$$ER = (\text{Load carried by bridge at failure}) / (\text{Weight of Bridge})$$