STRAW–SCRAPERS

Aim: To construct "The strongest and lightest tower" using straws and cello tape.

Description: This event is based upon the idea to use bamboo as a construction material that has been used from ages and still used in many parts of the world. Bamboo has been the backbone of Civil Engineers from ages. Even today, in this modern world, bamboo can be utilized as a building material for Scaffolding, Bridges and Houses. It is a natural composite material with a high Strength-to-Weight ratio useful for structures and has a higher compressive strength than wood, brick or concrete and higher tensile strength than rival Steel. In the event, straws will be provided (analogous to bamboo sticks) and with the help of straws a building is to be constructed. It will test the engineering mind of the participants who will build a strong structure out of this fragile material.

Procedure: The team has to construct a strong and light tower using cello tape and straws in 1.5 hours. No other materials will be allowed for constructions of tower. Tower should stand on its base on the level platform.

Judgement:

Criteria	Indicator	Outcome
C1. Only the supplied straws and tapes are utilized in the tower	yes or no	Yes: Move on to C2 No: Tower is disqualified
C2. The tower is free-standing, only touching the surface it is placed upon.	yes or no	Yes: Move on to C3 No: Tower is disqualified
C3. Tape has not been used as a "rope" to reinforce straws outside of straw-straw joints	yes or no	No tape ropes: Calculate the weight to-strength ratio Has tape ropes: Tower is disqualified

Calculation of weight-to-strength ratio:
Weight-to-Strength Ratio = (total weight supported by the tower) / (tower weight)

Specifications: Height of tower should not be less than 75 cm. No joint should exceed 6 members.

Eligibility: Open to all

Team Specification: The team can have at least 2 and at most 3 members.