PRODYOGIKI‘19

Bascule Bridge

“Your imagination is a weapon of mass construction. Use it”

Exercise your engineering skills and unleash the builder in you! Give your constructing abilities wings to fly high with ISTE as we take you to a different level of engineering this year with BASCULE BRIDGE! Design your own hydraulic bridge and give it a physical shape just like a bascule bridge.

PROBLEM STATEMENT:
You have to design a one-fold Hydraulic bridge by using the provided material. The span length should be appropriate so as to carry load and should lift it up to some height.

RULES:
1. No. of participants in a team must not exceed 4 members.
2. The span of hydraulic bridge must be of Popsicle sticks only and MDF sticks be can used at base, abutment & hinge point.
3. Width of the span should be appropriate so as to provide a proper loading platform
4. The specifications of the bridge should be as follows:
    13 cm – clearance width
    33 cm – clearance height

Span (excluding tower width) – 46 cm
Height of bridge when closed 23 ± 2cm

PRODYOGIKI‘19

MATERIALS PROVIDED:

- Popsicle sticks & MDF sticks
- Glue Gun & Glue sticks
- Lead Pencil
- Four syringes with fitted pipe system
- Measuring Scale

JUDGING CRITERIA:

- Gradual weights will be applied onto the platform and lifted to check the weight handling capacity of the bridge.
- Points = 2[Vertical Lift] + 0.5[Weight Lifted]
- Team having maximum points will be declared winner.