NAWROZ UNIVERSITY
KNOWLEDGE BUILDS
A BRIGHTER TOMORROW

COLLEGE OF ENGINEERING
CIVIL ENGINEERING
3RD STAGE

POPSICLE STICK BRIDGE COMPETITION

DESIGN | BUILD | TEST | EXCEL

Small sticks. Big ideas. A stronger tomorrow.

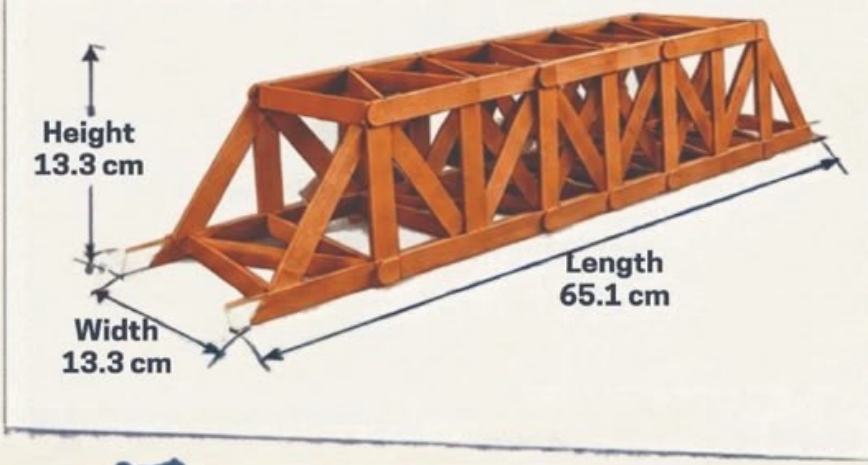
CIVIL ENGINEERING CHALLENGES REAL-WORLD SOLUTIONS



ABOUT THE BRIDGET

A double-intersection Warren truss with vertical members uses diagonal members that cross two panels and vertical members connecting the top and bottom chords. This design helps distribute loads efficiently throughout the structure, improving strength and stability. Under loading, forces are transferred through the chords, diagonals, and vertical members to the supports, with some members carrying tension and others compression. For a popsicle-stick bridge, precise construction and strong joints are essential for achieving good performance and preventing premature failure.

BRIDGE DIMENSIONS



COMPETITION CONDITIONS

- Clear span: 55 cm
- Minimum bridge length: 60 cm
- Maximum height: 25 cm
- Deck width: 12 – 15 cm
- Maximum weight: 450 g
- Materials: Popsicle sticks and multipurpose white craft glue only
- A Matchbox-type car must roll across the bridge

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