

## Straw Bridge II

### Judge: Preparation:

Have a 6' folding ruler

And two chairs with spindle or ladder backs

Provide the following materials on a table for the team members.

- 50 Golf Balls (or other weights)
- Scissors
- 4 36" Pieces of Study String
- 1 Plastic bucket with metal handle suitable for hanging
- 2 1" squares of clay
- 10 Spaghetti
- 25 Straws

Provide a copy of the problem instructions on the table for the team members.

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### Judge Instructions:

*(Judge: When team members enter the room, tell them)*

This is a hands-on problem. You have 1 minute to select the five team members who will compete. The others must sit in these seats and watch or be escorted from the room. They may not assist in solving the problem and may not talk.

*(Judge: After 5 Team Members Chosen and seated, Read all the instructions, repeat, then Start the Time)*

Your challenge is to construct as long a bridge between the two chairs that hold a maximum weight

- The structure must span a space between the two chairs
- The string must not be tied directly to the chairs – nor can string loop around a part of the chair
- The bucket must be suspended by the bridge between the chairs approximately in the middle, above the floor, not touching anything but the structure

Construction (6 minutes)

- You will have 6 minutes to construct the Structure, and if you wish, test the structure
- You will be given warnings when 2 minutes, and 1 minute remain.
- You may stop early and inform the Judges that you are done

At the end of Construction, the Judges will measure the distance of the structure spans between the chairs

Testing (2 minutes)

- Two team members may each sit on one of the chairs to provide stability, while not holding any part of the structure
- Team members will drop golf balls, one at a time into the structure, until the bucket touches the floor

Scoring:

- 1-20 points for teamwork
- 1 point per golf ball held, times the inches spanned, divided by 12

You may ask questions at any time, time continues

*(Judge: Repeat all the instructions, then Start the Time)*

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Team Copy

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