

Tipping Point Instant Challenge

Most see-saws, scales, etc. balance two equal lengths around a tipping point or fulcrum. For this challenge your team will attempt to create a device that balances but has two lengths as unequal as possible. Using the materials provided build a device that can balance on a fulcrum. To be balanced the device must only touch the fulcrum as defined by the appraisers and no other surfaces.

Your team will have 5 minutes to build and test the device, during this time you may ask for an unofficial measurement. At the end of the 5 minutes your team will have one minute to demonstrate that your device can balance for at least 15 seconds, if your device successfully balances it will be measured and points awarded as shown below.

Materials:

10 drinking straws
10 paper clips
5 mailing labels
4 drinking cups
10 washers
6 pieces of aluminum foil
6 pieces of paper
1 pair of scissors

Points:

3 points for every inch one side is longer than the other (maximum of 60 points)
10 points if your device successfully balances during the one minute time period
15 points for creative use of materials
15 points for teamwork

Rules:

- The scissors may only be used as a tool not part of the device
- The device may only rest on the fulcrum, it may not be fastened to the fulcrum in any way