



MESA DAY CONTEST RULES

2009 – 2010

Manila Mechanics: File Folder Structures

- LEVEL:** Grades 9 - 10
- TYPE OF CONTEST:** Team
- COMPOSITION OF TEAMS:** 1 - 2 students per team
- NUMBER OF TEAMS:** 3 TEAMS PER CENTER
(Strength to weight winners only advance)
- SPONSOR:** Larry Lim, USC
- OVERVIEW:** Students will design and construct a model bridge from two manila file folders that will carry a maximum load while using as little materials as possible. Efficient design, neatness and craftsmanship are essential elements of this engineering activity.
- MATERIALS:** Two standard, single-ply, letter-size manila file folders and any type of glue.

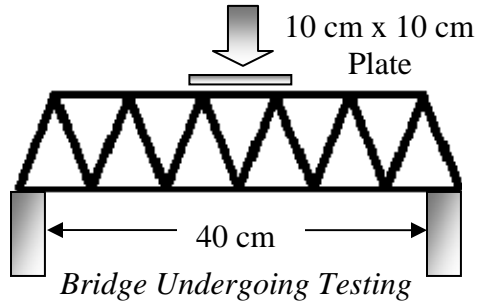
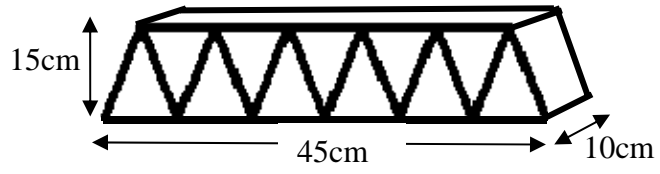
RULES FOR SIZE: Bridge Dimensions

- 1) Maximum length: 45cm
- 2) Minimum length: 42cm
- 3) Maximum Width: 10cm
- 4) Maximum height: 15cm
- 5) Maximum mass: 70 g

RULES FOR CONSTRUCTION

- 1) File Folder structures must be labeled with team members' names, school, and MESA Center. There will be a 10% penalty in the strength to weight score for improper labeling.
- 2) No kits are allowed.
- 3) Colored, two-ply, legal-size, and press board file folders are not permitted. Only standard, non-plastic, letter-size manila file folders are acceptable.
- 4) No part of the bridge shall extend below the support surface. (See diagram)

These materials are for the internal use of MESA staff and teachers only and should not be forwarded or used outside of MESA



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CHECKLIST for Manila Mechanics:

- 2009-2010 rules used**
- bridge is properly labeled**
- Two standard, letter-sized manila file folders**
- No part of bridge extends below the support surface**
- Any type of glue is OK**
- No surface coatings to bridge (e.g. varnish, paint, glue, etc)**
- Glue restricted to bonding surfaces only**
- Mass restricted to 70 grams or less**

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