

## Earthquake Day: ShakeDown Design Competition

### Objectives

Design, construct, and test an efficient and innovative structure to resist earthquakes.

### Specifications

- Construct only with provided materials within 3-hour time limit.
- Use 6 inch by 6 inch maximum foundation footprint.
- Support 3 lb. weight at 2 feet minimum height.
- Resist ground motion from real earthquakes.

### Construction Materials and Tools

	Items	Unit Cost	Units
<b>Materials</b>	½" plywood base support	-----	1
	Cardboard with Velcro for weight attachment	-----	1
	¼" x ¼" x 3' balsa wood	\$1.20	4
	¼" x ⅛" x 3' balsa wood	\$0.80	15
	Corrugated cardboard	\$5.00	1
	1.9 ml super glue	\$1.50	3
	Dental floss	\$2.00	1
<b>Tools</b>	Scissor	-----	1
	Ruler	-----	1
	Surgery glove	-----	5



All supplies and unused materials must be returned at submission of the structure. Total material cost is calculated per unit of materials used. When a unit of material is only partially used, the full unit cost will be added toward the total material cost.

### Judging Criteria

- Earthquake performance vs. construction cost
- Innovation