Boomilever B/C
2027

Division	Team Number	Team Name	Time Slot

Student Names (up to 2): _____, _____

2.a. Did you and/or a team member build the Structure being tested? _____ Yes _____ No

4.b.iii.3 Load Supported Estimate (loading block assembly, bucket, sand) May not exceed 15,000 g **_ _, _ _ _. g**

STUDENTS – DO NOT WRITE BELOW THIS LINE			
Competition Check-In			
2.b	**Eye Protection B**, Protective eyewear must be worn, required ANSI marking: Z87+ **(F = Tier 3)**	T/F	
3.a	**Single Structure**, no separate, lose or separate parts,	T/F	
3.b	**Construction:** constructed of wood, bonded by adhesive	T/F	
2.c	**Design Knowledge:** Answer questions on construction & operation	T/F	
4.b.iv	**Structure Mass**	0.01 g	
Competition Testing (6 Minutes)			
3.c., 4.c.i	**Teams set up** structure on wall by setting on Mounting Bolt	T/F	
3.d	**Loading Block** supported by structure	T/F	
3.e.i	**Chain centerline** 40 to 45 cm from test wall	T/F	
3.e.ii	**Chain centerline** within 2.5 cm of the perpendicular centerline of the test wall	T/F	
3.f	Boomilever only **touches Test Wall INSIDE (Div B) OUTSIDE (Div C)** the Vertical Contact Lines.	T/F	
3.g	Prior to loading, the bottom of the Loading Block must be supported ABOVE the horizontal plane extending from the centerline of the Mounting Bolt.	T/F	
3.h.i., 3.i.i	During test, **structure only touched the Test Wall** a. BETWEEN the 15 to 20 cm (Div B) 10 to 15 cm (Div C) Horizontal Contact Depth Line (mark T = Tier 1) b. Below the 20 cm (Div B) 15 cm (Div C) Horizontal Contact Line (mark F = Tier 2) c. Above the 15 cm (Div B) 10 cm (Div C) Horizontal Contact Line (mark B = Tier 1, Bonus eligible)	T/F/B	
4.c.vii	**Minimum load supported** is the mass of the Loading Assembly (6.c) **(F = Unable to be loaded: Tier 3)**	T/F	
4.c.iii	Structure is **not adjusted** once loading of sand has begun	T/F	
4.c.iv	**Participants load sand**. Direct contact of bucket is only by **stabilizing sticks**	T/F	
4.b.ii.	**No alterations, substitutions, or repairs** made to structure after check-in process has started	T/F	
4.b.i.	**Team did not leave** event area after check-in or gain outside assistance, materials, or communication	T/F	
4.c.i.	**Test completed** in 6 minutes or less.	T/F	
4.c.vi., 4.c.viii	**Load Supported** (to nearest gram) value may not exceed 15,000 g.	grams	
Scoring			
5.b.	**Load Scored Bonus:** Only apply BONUS if: 3.i.i is marked" B" **and** Load Supported (4.c.vi) is 15,000 grams. May only be added for Tier 1 and 2 structures. **Div B = 5,000g; Div C = 7,500 g**	grams	
5.c.	**Load Scored** (Load Supported + Load Scored Bonus)	grams	
5.a.	**Score** [Load Scored)/ Tower Mass] (high score wins)	unitless	
5.d.	**Tier 1**, **meeting requirement**, Check-in and Testing responses all "T" or "B" **Tier 2**, **NOT meeting requirements**, any Check-in and/or Testing responses = "F" **Tier 3**, **Unable to be loaded:** if 4.c.vii - Unable to be loaded and/or 2.b - no eye protection = "F"	1, 2, or 3	

- 4.c.v: Failure is defined as the inability of the structure to carry additional load; any part of the load is supported by anything other than the structure
- 5.e. Ties broken as follows: lowest structure mass, estimated Load Supported that is the closest to actual load supported
- 2.d. Test Apparatus supplied by the ES, Participants may not measure or adjust Test Apparatus or bring any equipment.

soChecklist.com, an electronic build event checklist, is available for the Boomilever event: https://sochecklist.com/