



Balsa Crash Test (TE)

Rank: _____
Tier: _____
Final Score: _____

2027 Nebraska State Tournament

School Name _____ (circle) Division B C

Student Names: _____

CONSTRUCTION PARAMETERS

The structure was constructed entirely of balsa wood and adhesive glue. No materials other than balsa wood and adhesive may be used.	T F
Enter the weight of the structure in grams to the nearest 0.01 (This does not include the golf ball.)	_____ g
The completed structure must have a maximum mass of 15.00 g	T F
The completed structure fits within a 20 cm × 20 cm × 20 cm cube .	T F
The structure is designed in a way that it can easily hold and protect a competition golf ball immediately before each test drop with ~5 sec.	T F
NO CONSTRUCTION VIOLATIONS (If False, move to tier 2)	T F

SCORING

Survival Score for Drop 1 (1.0 meter) = 10 points	_____
Survival Score for Drop 2 (1.5 meters) = 20 points	_____
Survival Score for Drop 3 (2.0 meters) = 30 points	_____
Survival Score for Drop 4 (2.5 meters) = 40 points	_____
Survival Score for Drop 5 (3.0 meters) = 50 points	_____
Efficiency Bonus: 100 / _____ (weight in grams) =	_____
FINAL SCORE	_____

* **TIEBREAKERS in this order:**

1. Highest successful drop height
2. Lowest structure mass

Is a Tiebreak Needed? * Y N
If Yes, Tiebreak Winner Y N

COMPETITION RULES

- a. The Event Supervisor will provide a designated drop area and landing surface.
- b. Each team will receive **one competition golf ball** for testing.
- d. The Event Supervisor will release the structure without intentionally imparting additional horizontal or downward force.
- e. After each successful drop, the Event Supervisor will inspect the structure and golf ball before proceeding to the next height.
- f. A drop is considered successful when the golf ball remains secured by the structure, and the golf ball is not visibly damaged.**
- g. If the golf ball separates from the structure or is visibly damaged, the team receives no points for that drop and will not continue to the next height.
- h. A structure that is damaged but continues to securely contain the golf ball may continue to the next drop.
- i. The Event Supervisor may repeat a drop if the structure makes significant contact with something other than the designated landing surface or if the drop was not conducted according to the event procedure.

SAFETY

Event Supervisor

- Safety glasses (optional but recommended)
- ONLY THE event supervisor can drop the structure

Competitors

- Hands off the apparatus once testing begins.
- Stand at least one arm's length away.
- No reaching toward the apparatus while loading.

Spectators

- Stay behind the testing area.