



# BUNGEE DROP C

Team Checklist – 2026 (NEBRASKA STATE TOURNAMENT ONLY)

Rank: \_\_\_\_\_

Tier: \_\_\_\_\_

Final Score: \_\_\_\_\_

Team Number: \_\_\_\_\_ School & Team Name: \_\_\_\_\_

Student Names: \_\_\_\_\_

## CHECK-IN

1.      T      F

2.a. Team impounds only one elastic cord, all calibration data (if prepared), and any tools used by teams to confirm heights, lengths, or mass during the time given for preparing their two drops. (If false, Tier 3)

## THE COMPETITION

### Construction Parameters:

T F

3.a. Teams provide one elastic cord to be used for both drops that terminates with a circular closed metal ring with an inner and outer diameter of 1.9 +/- 0.8 cm that does not open.

T F

3.c. No physical modifications are made to the elastic cord once it has been impounded, with the exception of marking drop locations on the cord before the drops.

T F

3.d. Elasticity Test: While being suspended vertically, the bottom 0.5 m of the cord, not including the metal ring, stretches to at least 1.0m when a single 500 g mass is attached to the metal ring and returns to approximately its original length after the mass is removed.

T F

3.e. No "self-limiting-brake" mechanisms such as a separate, parallel, non-elastic strand that "brakes" the fall of the mass with little to no rebound are used.

T F

2.d. Team is able to answer questions on design, construction, and operation of the device per the Building Policy found on www.soinc.org.

2.      T      F

**ALL CONSTRUCTION PARAMETERS ARE MET (If F, Tier 2)**

### Competition Parameters:

3.      T      F

6.f. Teams operates the bungee safely and is allowed to launch. If F, team receives participation points.

### DROP 1

### DROP 2

### DROP SCORE (DS)

**Any drops, even if unintended or unannounced, may count as one of the drops allowed to the team. The ES should use their best discretion to allow a team to redo a drop or take the unintended score. If it counts and it's not possible to take a measurement, it counts as incomplete drop..**

4. \_\_\_\_\_

7. \_\_\_\_\_

6.c.i **Drop Distance:** Defined as the distance (in centimeters) between the lowest point of the mass and the landing surface on its initial descent. A drop that strikes the landing surface will have a distance score of 0.5x the drop height and no bonus is added. Any drops not completed within the 7 minute test period should be left blank.

5.      T      F

8.      T      F

6.c.ii Drop does not strike the landing surface. (If F, Drop Score = 0.5x the drop height and no bonus is added)

6.      T      F

9.      T      F

5.d. The cord is not damaged during the drop. If false, the drop earns a Drop Score of 0.5x the total drop height, no bonus is added, and any remaining drops are scored as incomplete.

10.      T      F

5.e. **Heavy Mass Used:** Teams choose to use the heavy mass only on the 2<sup>nd</sup> drop for each drop height. (If T, and 8 is also T, **Heavy Mass Bonus Score (HMBS) = -20 points, Otherwise HMBS = 0.0 points.**)

\_\_\_\_\_ = Lowest Drop Score (DS)

\_\_\_\_\_ = Heavy Mass Bonus Score (HMBS) if Used

## BONUS DROP SCORE (BDS)

11.      T      F

**Eligibility:** If either Drop Score is within 20 cm at state (30 cm at Regionals), competitors get a bonus drop using the Light Mass. If ineligible, leave blank.

**Success Criteria:** The light mass drops such that the bottom of the mass dips within 20 cm at state (30 cm at Regionals) of the bonus target drop distance (BTDD) without passing the BTDD. **If successful BDS = -15 points. Otherwise, BDS= 0.0 points.**

### Tiebreakers

1st: Whether a team succeeded in the bonus drop.

2nd: The team used a heavy mass.

3rd: The team with the lowest individual drop score for any of their drops (not including bonus drop)

4th: Lowest non-scored drop score

$$\frac{\text{DS}}{\text{SCORE}} + \frac{\text{HMBS}}{\text{SCORE}} + \frac{\text{BDS}}{\text{SCORE}} = \frac{\text{FINAL}}{\text{SCORE}}$$

12.      T      F

General Rule: The team is disqualified. (Notify the team and their coach as soon as possible.)

Devices will be placed in tiers as follows:

- Tier 1: Device meets all construction parameters for all drops.
- Tier 2: Device still has construction parameter violation(s) during any drop.
- Tier 3: A team with its device and/or tools not impounded or uses calibration data notes that were not impounded.