National Science Olympiad 2010 - Trajectory B

This is to be used with the excel spreadsheet found at www.soinc.org

Team Number: B__ Team Name: _____

Student Names: _____ Final Score: _____

Do not write below this line.

Construction Parameters

1. Launching force is supplied by non-metallic elastic solids	Y	N
2. Device (including weights for stabilizing device) fits within the 70 cm cube	Y	N
3. Triggering device extends out of the launch area	Y	N
4. No radio controlled triggering devices are used	Y	N
5. Students are outside the launch area and do not touch the device while triggering it	Y	N
6. Team uses unmodified tennis ball, racquetball, ping-pong ball, or plastic practice golf ball	Y	N

Others

7. Participation Points only (ie. Apparatus is operated in an unsafe manner)	Y	N
8. Disqualified (notify the team and their coach as soon as possible)	Y	N

Graph Score Deduction – Score only 1 selected graph

9. Completed data table (20 pts max) _____

10. Graphs (20 pts max) _____

11. Graph matches data table and both are on the same page (20 pts max) _____

12. Graph properly labeled (title, team name, x y axis variables, increments with units) (40 pts max) _____

13. Number of graphs provided

Penalties – Total number of time during the entire 10 minutes

14. Participant does not wear the safety spectacle/goggles correctly _____

15. Participant is in the launch area or in front of the line that marks the front edge of the launch area when a launch occurs _____

16. Participant does not give a warning prior to a launch or unintended launch _____

17. Any part of a team's device is outside the 1m x 1.5m launch area prior to or after a launch _____

Launches

Close Target:

Launch 1:

18. Distance, in mm, from center of the initial projectile impact location to the center of the target area _____
Note: If device fails to launch or projectile misses the target area, score is 800

Launch 2: (fill in only one of the following)

19. Regular Shot: distance, in mm, from center of the initial projectile impact location to the center of the target area _____
Note: If device fails to launch or projectile misses the target area, score is 800

Or

20. Bucket shot: 50 points if the projectile impacts the bucket and does not stay in at first impact. 100 points if the projectile lands and stays in the bucket. _____

Far Target:

Launch 1:

21. Distance, in mm, from center of the initial projectile impact location to the center of the far target area even if projectile misses the target area _____
Note: If device failed to launch, leave this blank

Launch 2: (fill in only one of the following)

22. Regular Shot: distance, in mm, from center of the initial projectile impact location to the center of the far target area even if projectile misses the target area _____
Note: If device failed to launch, leave this blank

Or

23. Bucket shot: 50 points if the projectile impacts the bucket and does not stay in at first impact. 100 points if the projectile lands and stays in the bucket. _____

24. Distance from the front of the launch area to the center of far target in meters _____