

# Science Olympiad 2020-2021 Season Trajectory Checklist / Data Sheet

Version 1.0

## Event and Construction Requirements

- 1. Competitors construct only 1 device
- 2.b. Items moveable by competitors
- 2.b. Device, projectiles, and log impounded
- 2.c. Competitors wear eye protection during testing
- 2.d. Competitors must be able to answer questions about the device per the Building Policy
- 3.a. Device fits in 60.0 x 60.0 x 60.0cm box
- 3.d. Launch force only due to non-metallic solids
- 3.c. Triggering device doesn't add energy
- 3.c. Triggering device at least 75cm away
- 3.c. Triggering device not dangerous
- 3.d. Projectiles are unmodified
- 3.e. Device won't damage floor
- 3.f. Device has no electrical components
- 4.c. Design log pages affixed together

## Graphs / Tables

- Data spans one variable range (60 pts max) \_\_\_\_\_
- At least 10 data points (60 pts max) \_\_\_\_\_
- Proper labeling (e.g. title, name) (60 pts max) \_\_\_\_\_
- Number of graphs/tables (4 max) \_\_\_\_\_
- Labeled device picture/diagram (50 pts max) \_\_\_\_\_
- 2+ example calculations (50 pts max) \_\_\_\_\_

## Close Target Launch 1

- Impact Distance (mm) \_\_\_\_\_
- Hit marked area / target support      Y      N
- Failed launch                                      Y      N

## Close Target Launch 2

- Impact Distance (mm) \_\_\_\_\_
- Bucket shot                                      Y      N
- Hit bucket at first impact                      Y      N
- Contact with inside bottom                      Y      N
- Hit marked area / target support              Y      N
- Failed launch                                      Y      N

## Team Information

Team #: \_\_\_\_\_

Team Name:

\_\_\_\_\_

Competitor Names:

\_\_\_\_\_

\_\_\_\_\_

## Far Target Launch 1

- Impact Distance (mm) \_\_\_\_\_
- Failed launch                                      Y      N

## Heavy Counterweight Launch 2

- Impact Distance (mm) \_\_\_\_\_
- Bucket shot                                      Y      N
- Hit bucket at first impact                      Y      N
- Contact with inside bottom                      Y      N
- Failed launch                                      Y      N

## Penalties

- Competition violations(s)                      Y      N
- Team didn't bring a device                      Y      N
- DQed for unsafe operation                      Y      N
- Construction violations corrected              Y      N
- Missed impound                                      Y      N

## Team Verification

5.i. I verify the event supervisor has reviewed with me my team's recorded device testing data.

Signature \_\_\_\_\_