



Accelerate!

Objective:

To have a person move at a nearly constant acceleration of 0.5 m/s^2 .

Rules:

1. The team will select a team member to be the "accelerator". The accelerator is to move with a constant acceleration of 0.5 m/s^2 as they complete a 10-25 meter straight line course. The accelerator is not permitted to use any timing device.
2. Three team members will be given stopwatches and will be placed at specific distances along the course. One judge will be at the finish line also with a stopwatch. One team member will be the starter.
3. When given the go ahead, the accelerator will begin moving and all other members and the judge will begin their stopwatches. For the duration of the trial, there will be no communication between the accelerator and the other team members. Any communication will disqualify this trial from the event.
4. Each team member will stop their stopwatch at the moment the accelerator reaches their position. The judge will stop the stopwatch when the accelerator reaches the end of the course.
5. The time from each stopwatch will be recorded to the nearest hundredth of a second.
6. Each team is allowed up to 3 trials with any team member as the accelerator.
7. The team will select which trial is to be analyzed.
8. The absolute value of the difference between the expected and measured times will be added to determine the final score. Low score wins.

Tiebreaker: The absolute value for the last point will be the tiebreaker.

Time limit: 15 minutes.