

# Slow Roller



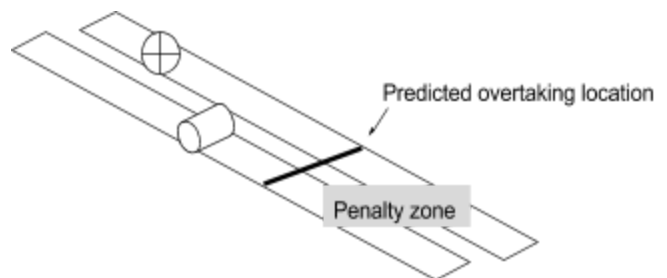
## Objective:

To predict where a faster rolling object will overtake a slower rolling object on an incline.

## Rules:

1. Each team will be stationed at a pair of inclines and given two objects that roll with different accelerations.
2. Teams will be supplied with stopwatches, metersticks, markers, and calculators.
3. After all data is collected, the students will return both objects to the judges and then will be given the starting position for each object.
4. The team must calculate where the faster object will overtake the slower object to the nearest thousandth of a meter and record this value on the score sheet. The score sheet is then returned to the judges.
5. When ready, the team will ask the judges to return the objects and one member from the team will put the slower object at Start line 1 while another member will place the faster object at Start line 2.
6. After a countdown, the objects will be released simultaneously.
7. If the faster object overtakes the slower object before the predicted location, the team's score will be the difference between the predicted overtaking location and the actual overtaking location. However, if the faster object overtakes the slower object farther than the predicted location, the team will be assessed a penalty and the team's score will be twice the difference between the predicted overtaking location and the actual overtaking location.
8. The lowest score wins.

**Tiebreaker:** The shortest time will serve as a tiebreaker. A team's time will be measured from the moment the team is given its equipment until the team submits their score sheet.



**Time limit:** 15 minutes.