Time: 30-45 mins

Level: Form I-IV

# Drop ZONE

## How it Works

Students must build a *parachute* using limited materials to carry a paper clip passenger as close as possible to a target, while maximizing hang time.

## What You Need (per team)

- ☐ Paper clip – 1
- ☐ String – 1 metre
- ☐ Masking tape – 15 cm
- ☐ Plastic bag - 2
- ☐ Plain paper – 2 sheets
- ☐ Scorecard (see example below)

## RULES

- 10-15 minute time limit for construction.
- Parachutes dropped from a height of 3-5 meters.
- Average hang time and distance from target taken over 3 trials for each team.

## Points

Hang Time (Longest): 1st – 50 pts, 2nd – 35 pts, 3rd – 20 pts, 4th – 5 pts, Others – 0 pts

Distance (Shortest): 1st – 50 pts, 2nd – 35 pts, 3rd – 20 pts, 4th – 5 pts, Others – 0 pts

## Extra Materials

Tape measure
Stopwatch
Flipchart target
Ladder / chair

## Notes:

★ Scorecard:

| Team: | Trial 1 | Trial 2 | Trial 3 | Average | Points |
|---|---|---|---|---|---|
| Hang Time (s) | | | | | |
| Distance from Target (cm) | | | | | |

★ Measure distance from paper clip to center of target.

- Students may not be familiar with parachutes. Prepare a simple example to explain the concept and function.
- Ask students questions: Why does the parachute slow the object down? To maximize hang time, do we want a very large or very small parachute?
- Drop parachute side-by-side with a paper clip having no parachute. Which one made it safely?