Suggestion: 3 to 4 students per team; any more than that and some students won’t be engaged.

Group leaders can frame this either as a challenge (moderately competitive) or a group-based exploration activity. In the latter, students can be encouraged to compare notes between teams during the design process (this expectation should be shared right away). Be prepared for the students to take it as a competition regardless of how it is introduced.

Time Needed
At least 30 minutes for design; 15 minutes for challenge/discussion

Objective
Design & build a car using that will go the furthest on one breath of air.

Materials per team (goal is to use only the materials provided)
- 4 lifesavers
- 1 straw (straight or flexi is fine)
- 1 long piece of tape (equal for each team)
- 2 pieces of paper (one for sketching/brainstorming & one for making the car body)
- Pair of scissors

Rules (will vary depending on goals - team building v. friendly competition -and age)
- Use only the materials provided
- One team member will be chosen to blow the car
- Each team gets one practice run
- Judges’ decisions are final

Concepts to discuss:
- Friction
- Balance
- Aerodynamics
- Power sources (kinds, reliability, etc.)
- Design process
- Teamwork
- Compare and contrast of cars that went furthest/shortest!