

## Design Tool 7.1: Brainstorm!

*Directions:* Brainstorming is a way of getting many ideas for solving your engineering challenge. Try this way of helping your team brainstorm successfully.

### Select someone to write the teams' ideas on chart paper.

Follow these guidelines:

- ◆ Come up with ideas as fast as possible. Be sure the person writing has time to get the idea down.
- ◆ Everyone on the team should contribute ideas.
- ◆ Off-the-wall ideas are welcome.
- ◆ Do not criticize or question ideas while team members are brainstorming.
- ◆ Do not discuss ideas during this time! Just bring up as many ideas as you can.

### After you brainstorm many possible solutions, start narrowing down.

1. Examine the ideas closely. Mark out ideas that you cannot do because they are too expensive, your teacher can't provide the equipment or materials you need, they take too long, or they can't be done in a classroom setting.
2. Mark out ideas that don't meet the criteria and constraints of the challenge.
3. Examine the remaining ideas. Explain your ideas or ask questions about ideas that others suggested. Think about which ideas are most useful for solving the problem.
4. Put a checkmark by those ideas that all team members agree to include as a possible solution for the problem.
5. Decide which solution the team will try. All team members should be able to support this solution, even if they are not totally happy with it. Team members may combine one or more ideas and come up with a new solution to make it more acceptable to all.