

## Student Activity 3-B: How Far Is It?

Do you know how far Tuff-Bot moves each time it goes forward one time?

How could you figure that out and be accurate?

### Design a Way to Find Out:

What tools would you need to test your idea?

List what you need on this sheet or in your Tuff-Bot Journal.

Write down your plan.

### Test Your Plan in Several Ways:

Now, try your idea. How far did Tuff-Bot go for each step? \_\_\_\_\_

Write what you discovered here or in your Tuff-Bot Journal.

Now have Tuff-Bot go 10 forward steps. How far did Tuff-Bot go? Measure it. \_\_\_\_\_

Did that number make sense based on what you figured out for the distance of 1 forward step?

Measure the distance between where Tuff-Bot is and another object such as a wall or a chair.

How many forward steps do you think Tuff-Bot will need to go to reach that object? \_\_\_\_\_

Try it! Did it work as you expected? \_\_\_\_\_

Does Tuff-Bot go backward the same distance as it goes forward? \_\_\_\_\_

Try it! What did you learn about that question? \_\_\_\_\_

Try Tuff-Bot's Speed button.

#### *Remember:*

- When the Speed light is off, Tuff-Bot pauses between commands.
- When it is lit green, it doesn't pause between steps when it is going straight ahead.
- When it blinks, Tuff-Bot turns faster.

Does Tuff-Bot move the same distance for each step, no matter what the Speed setting is? \_\_\_\_\_

