Name: _____ Date: _____

# The Robot That Rolled Sideways

Circle group

The robotics club had one week left before the regional contest. Their robot, Biscuit, had a big problem. When it was told to roll straight, it drifted left. It was as if something invisible was pushing it. By Tuesday it had hit the same wall four times.

Devon was the club captain. He stared at the code on his laptop. He said he had read every line and found no mistake. Priya usually kept quiet at meetings. She said maybe the code was fine and the robot was the problem. She crouched by Biscuit and spun each wheel with her finger. The right wheel turned well. The left wheel made a faint scratching sound and stopped sooner.

"Something is rubbing," she said.

Devon frowned. He had been so sure it was a coding problem. He had never looked at the robot itself. He felt a little embarrassed. But he gave Priya the screwdriver.

She took off the wheel. A long strand of hair was wrapped around the axle. It was wound so tight that it dragged on every turn. She cut it free in less than one minute.

They set Biscuit at the starting line and pressed the button. The robot rolled forward in a straight line. It stopped an inch from the wall.

Devon laughed. He said he had spent three days fixing the wrong thing. Priya said his code was why the robot moved so well once the wheel was fixed. The team had needed both. On Saturday, they rode to the contest together. Biscuit rode in a box on Priya's lap.

## Questions

**1. What was the problem with the robot, Biscuit?**

_____

_____

**2. What did Priya notice when she spun the wheels?**

_____

_____

**3. What was wrapped around the axle?**

_____

_____

**4. Why had Devon not found the problem sooner?**

_____

_____

**5. Why did the robot drift to the left?**

_____

_____

**6. What does Priya mean by "the team had needed both"?**

_____

_____

## Words to know

regional: having to do with one large area
contest: a competition in which people try to win
drifted: moved slowly in a direction without being steered
axle: the rod that a wheel turns around
embarrassed: feeling awkward or ashamed in front of others

## Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

# The Robot That Rolled Sideways

Triangle group

The robotics club had only one week left before the regional contest, and their robot, Biscuit, had a serious problem. Every time it was instructed to roll straight forward, it drifted toward the left, as if some invisible force were nudging it along. By Tuesday afternoon, it had bumped into the same wall four separate times.

Devon, the club captain, stared at the code on his laptop and insisted that he had read every line without finding a single mistake. Priya, who usually stayed quiet during meetings, suggested that perhaps the code was fine and the robot itself was the trouble. She crouched beside Biscuit and spun each wheel with her finger. The right wheel turned smoothly, but the left wheel made a faint scratching sound and stopped much sooner.

"Something is rubbing," she said.

Devon frowned. He had been so certain that the problem was his programming that he had never examined the machine itself, and he felt a little embarrassed. Even so, he handed Priya the screwdriver.

She removed the wheel and discovered a long strand of hair wrapped around the axle, wound so tightly that it dragged against every turn. It took her less than one minute to cut it free.

They placed Biscuit at the starting line and pressed the button. The robot rolled forward in a perfectly straight line and stopped an inch from the wall.

Devon laughed and admitted that he had spent three whole days repairing the wrong thing. Priya reminded him that his code was the reason the robot moved so precisely once the wheel was fixed, because the team had needed both. On Saturday, they traveled to the contest together, with Biscuit riding carefully in a box on Priya's lap.

## Questions

**1. What was the problem with the robot, Biscuit?**

_____

_____

**2. What did Priya notice when she spun the wheels?**

_____

_____

**3. What did Priya find wrapped around the axle?**

_____

_____

**4. Why had Devon not found the problem sooner?**

_____

_____

**5. Why did the robot drift to the left?**

_____

_____

**6. What does Priya mean when she says, "We needed both"?**

_____

_____

## Words to know

regional: having to do with one large area
contest: a competition in which people try to win
drifted: moved slowly in a direction without being steered
axle: the rod that a wheel turns around
embarrassed: feeling awkward or ashamed in front of others

## Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

# The Robot That Rolled Sideways

Square group

The robotics club had merely one week remaining before the regional contest, and their robot, Biscuit, suffered from a perplexing defect. Whenever it was commanded to travel straight ahead, it veered toward the left, as though some invisible force were steadily nudging it off course. By Tuesday afternoon, it had collided with the same wall on four separate occasions.

Devon, the club captain, stared at the code on his laptop and insisted that he had examined every line without discovering a single error. Priya, who generally remained silent during meetings, suggested that perhaps the code was perfectly sound and the robot itself was to blame. She crouched beside Biscuit and spun each wheel with her fingertip. The right wheel rotated smoothly, but the left wheel produced a faint scratching noise and halted much sooner.

"Something is rubbing," she announced.

Devon frowned. He had been so convinced that the fault lay in his programming that he had never inspected the machine itself, and he felt a twinge of embarrassment. Nevertheless, he handed Priya the screwdriver.

She removed the wheel and uncovered a long strand of hair wrapped around the axle, wound so tightly that it dragged against every rotation. It took her less than a minute to cut it free.

They positioned Biscuit at the starting line and pressed the button. The robot rolled forward in a perfectly straight line and came to rest an inch from the wall.

Devon laughed and acknowledged that he had wasted three entire days repairing the wrong component. Priya countered that his code was precisely why the robot moved so accurately once the wheel was repaired, since the team had required both. On Saturday, they traveled to the contest together, with Biscuit riding carefully in a box on Priya's lap.

## Questions

**1. What defect did the robot, Biscuit, have?**

_____

_____

**2. What did Priya observe when she spun the wheels?**

_____

_____

**3. What did Priya uncover wrapped around the axle?**

_____

_____

**4. Why had Devon failed to discover the problem sooner?**

_____

_____

**5. Why did the robot veer to the left?**

_____

_____

**6. What does Priya mean when she says the team had required both?**

_____

_____

## Words to know

regional: having to do with one large area
contest: a competition in which people try to win
axle: the rod that a wheel turns around

## Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

# For the teacher: The Robot That Rolled Sideways

Each student sheet carries a shape, not a level. The same topic and facts, written three ways.

### Circle: The Robot That Rolled Sideways

Easier · 264 words · Flesch-Kincaid grade 2.5

1. It drifted left instead of rolling straight.
2. The left wheel scratched and stopped sooner than the right one.
3. A long strand of hair.
4. He was sure it was a coding problem and never looked at the robot itself.
5. The hair made the left wheel drag, so that side turned more slowly.
6. The team needed the good code and the fixed wheel for the robot to work.

### Triangle: The Robot That Rolled Sideways

This passage · 289 words · Flesch-Kincaid grade 7.4

1. It drifted to the left instead of rolling straight.
2. The left wheel scratched and stopped sooner than the right one.
3. A long strand of hair.
4. He was sure it was a programming problem and never looked at the robot itself.
5. The hair made the left wheel drag, so that side turned more slowly.
6. The team needed the good code and the repaired wheel for the robot to work.

### Square: The Robot That Rolled Sideways

Harder · 295 words · Flesch-Kincaid grade 8.7

1. It veered to the left instead of traveling straight.
2. The left wheel scratched and halted sooner than the right wheel.
3. A long strand of hair.
4. He was convinced it was a programming fault and never inspected the machine itself.
5. The hair made the left wheel drag, so that side rotated more slowly.
6. The robot needed both the sound code and the repaired wheel in order to work.