

## Movement

# Improved Movement Quiz

NAME \_\_\_\_\_ DATE \_\_\_\_\_

1. What factor or factors affect the robot's ability to move in a straight line?

- a. Motor manufacturing tolerances
  - b. Robot weight distribution
  - c. Frictional forces in the robot's drive train
  - d. All the above
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2. "Closed-loop" control describes a system:

- a. that monitors its own performance and adjusts its output to achieve a desired outcome.
  - b. whose specifications are kept secret.
  - c. in which a Loop control structure with matching opening and closing punctuation is used.
  - d. which is ring-shaped.
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3. The command `nSyncedTurnRatio=100`; would tell the slave motor to turn:

- a. at the same rate and in the same direction as the master.
  - b. at the same rate and in the opposite direction of the master.
  - c. at 100 degrees per second, in the same direction as the master.
  - d. at full power forward.
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4. The PID algorithm adjusts:

- a. the power level of an individual motor to achieve a target speed.
  - b. two motors' powers to keep them together at all times.
  - c. a motor's gear ratio to achieve a target power.
  - d. the amount of friction in a motor to make it run more smoothly.
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5. Write the piece of code that would establish a Synchronized relationship between motors B and C, with C as the master and B as the slave in the space below.

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2  
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