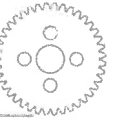


# Activity 3 – Gear Ratio

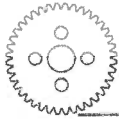


## Gear Ratio Data Sheet

1-6. Fill in the table as you complete the Gear Ratio activities.

Drive	Servo	Wheel
Direct		
Small/Large		
Large/Small		

7. What general conclusion can you come to about the number of rotations of the servo when the drive gear is **smaller than** the driven gear?
8. What general conclusion can you come to about the number of rotations of the servo when the drive gear is **larger than** the driven gear?
9. What general conclusion can you come to about the number of rotations required for the wheel to move two meters?
10. With the robot in a small drive/large driven gear arrangement, how many rotations of the servo would be required for the robot to move five meters?



## Activity 3 – Gear Ratio

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11. What relationship is there between the direction of rotation of the wheel and the direction of rotation of the servo when a gear drive is added?
12. Determine the gear ratio of your robot when configured in a large drive/small driven gear arrangement.
13. In what careers would you need to understand gear ratios?