Define:

Speed:

Torque:

Gear Teeth:

**Name the 3 gears illustrated below in Figure 1:**

**Discuss your observations from Procedure Step 3:**

Power Level 50

Power Level 75

Power Level 100

Does the robot move faster as you increase the power level? Explain why or why not.
Figure 1: Various gears

Figure 2: Gear mounted on an axle

Figure 3: Pieces for robot redesign

Figure 4: Large gear output

Figure 5: Small gear output

Figure 6: Robot with bumper
Robot Race:

Which gear did you use as your output? What is your hypothesis on the effect this will have on the speed of your robot? Run program and write down your observation. Which robot won the race?

Robot Strength:

Run program and write down your observation. How fast did your robot go this time as compared to before? Was your robot able to push the books?

List 2 ways to make the robot go faster:

1) 
2) 

List 2 ways to make the robot go slower:

1) 
2) 

What order of gears would you select to design a racecar robot? A bulldozer robot? Explain your answers.