**Vehicle Investigation Sheet**

Using the data table below, record your results from the rotational inertia vehicle test. Create a line graph using your data, and look for any patterns.

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|  | **Trial #1** | **Trial #2** | **Trial #3** | **Trial #4** | **Trial #5** | **Trial #6** | **Trial #7** | **Trial #8** |
| **Distance to center (mm)** |  |  |  |  |  |  |  |  |
| **Time down ramp (s)** |  |  |  |  |  |  |  |  |

**Distance of Mass Vs. Time**

**Distance to center (millimeters)**

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**Time down the ramp (seconds)**

**Analysis Questions**

What did you notice when you graphed the data? Is there a pattern? If so, why do you think that is?

How can you further modify the vehicle to make it faster?

What do you think would happen if the marbles weren’t evenly spaced around the center?