**Ladybug Revolution**

**Directions:** In this activity, you must include values that you measure **and** show sample calculations to support your answers to the questions. Include examples that use both bugs in different locations.

1. Write a story about the bugs rotating on the turntable. In your story, include how to find the distance the bug travels, the arc length and angular displacement.
2. Consider the statement: “All points on a rigid object have the same angular acceleration and angular speed.”
   * How could you use the bugs in *Ladybug Revolution* to test this idea?
   * Is the angular displacement also the same or does it differ? Explain your reasoning.
3. How is tangential speed represented in *Ladybug Revolution?*
4. Consider both tangential and angular acceleration. Describe how the simulation can be used to find both for the bugs in *Ladybug Revolution.*