**2.2 - Kickball Challenge Directions**

**Materials:**

- Ball
- Ramp
- Laptop
- Motion Sensor with cables
- Interface Box
- Textbooks

1. Step 1: Connect your sensor and interface to the laptop.
2. Step 2: With your group, build a ramp using textbooks.
3. Step 3: Place your ball on the ramp.
4. Step 4: One group member will clear the sensor and hit start.
5. Step 5: Roll the ball down the ramp (Once you get a good run, go to the next step.)
Step 6: Add a column to the left side of the table for you to enter the **Velocity** using slope from your **Position vs. Time** graph.

Step 7: Make a **Position vs. Time** graph.

(HINT: If you need to make room to see your graph, click the (-) sign in the header bar of the Sensor Interactive.)

Step 8: Choose the ruler option, click on moveable line.

Adjust your moveable line to find your **slope** in the yellow box.
Step 9: In your table, type your slope into your velocity column.

Step 10: Write your group’s Velocity (slope) value on the class white board.