**Earthquake Model Investigations Worksheet #2**          Name:

**Part 2 Experiment**

1. You will need **at least** 30 data points for a good graph.
2. Move the meter stick with every trial. You do not want the cumulative distance, but the distance moved each time.
3. When you begin, your first data point should be ignored, since your placement of the brick does not represent the movement since the last earthquake.
4.  When the brick becomes too close to the winch, unwind the winch and start again, and ignore your first data point.

**Data Table**

| clicks | Distance (cm) | clicks | Distance (cm) | clicks | Distance (cm) |
|--------|---------------|--------|---------------|--------|---------------|
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**Graph your data**

**Conclusion Questions:**
- Did you data support your hypothesis?
- Which of the graphs in the pre-lab is most similar to your graph?
- How did your graph differ from the most similar graph in the pre-lab?
-  What is the relationship between stress and amount of movement?
- What do the results of this experiment imply about our ability to predict the timing of an earthquake?
- What do the result of this experiment imply about our ability to predict the magnitude of an earthquake?
- Scientists cannot predict earthquakes with any accuracy.  For example, the USGS (United States Geological Survey) predicted that there was a 63% chance of a magnitude 6.7 or greater earthquake in the next 30 years in the San Francisco Bay area.  They cannot predict the exact year or the exact magnitude, but they do know that an earthquake is likely.  Does your data with the model match the kind of predictions given by the USGS?