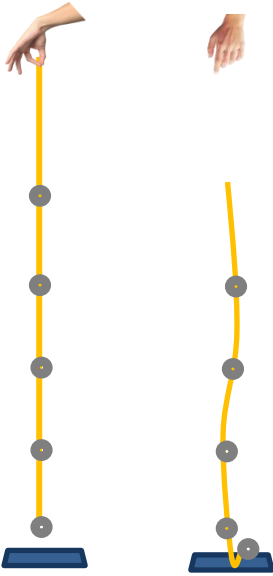


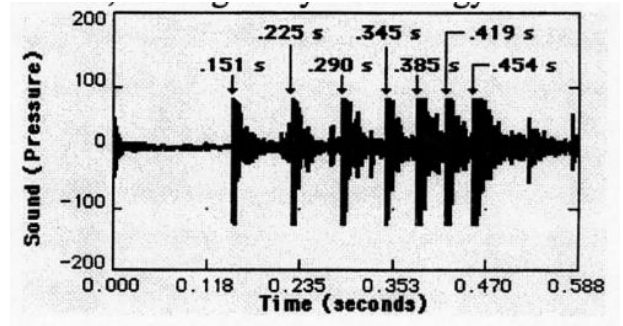
Washer Lab



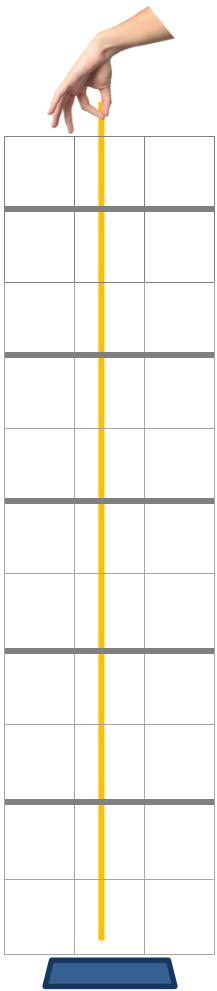
To perform this lab, you will be attaching 5 washers to a string and dropping them from the upper level of the atrium onto a detector.

An example of this is shown at left. When the washers are spaced equally, the washers will produce a graph similar to the graph at right, where the time between each washer becomes smaller and smaller.

This is expected, since the washers at the top will reach larger speeds before striking the bottom, they will require less time to cover the same distance.



Your job in this lab is to tie the 5 washers in a different way. You want to create a pattern of washers on the string so that there will be equal time intervals between each washer. This means that your graph WILL NOT look like the graph above, instead, all of the spikes will be equally spaced across the horizontal axis.



In the space below, show your work for calculating the 5 washer positions. Draw your final position on the diagram at left.

washer	Δx	Calc. time	Actual time	% error
1				
2				
3				
4				
5				

$$\%error = \frac{\text{Actual} - \text{Calculated}}{\text{Calculated}}$$

