

What is your Max Omega!

*This lab experience asks students to sit on the Spin-o-tron, rotating seating system. And from a series of carefully timed measurements of time, will determine the student's Max Omega and Alpha*

One person needs to play the role of the Tasmanian Devil (and actually sit on the stool and be willing to be 'spun up'.

Three people need to hold 'stop watches' up ready to record the length of time for the three, separate parts of the experiment.

Step 1: The person sits on the stool, holding two, heavy books close to their chest. Then, with the help of one of teammates, the gently accelerate up their personal Max Omega.. (rotational Velocity). Once achieved, TIMER #1 records the time for five (5) complete rotations..

**Recorded time for Timer #1** \_\_\_\_\_

From this measurement, the team will determine  $\omega_0 =$  \_\_\_\_\_

Step 2: The second timer readies themselves for the next measurement.. which is Started and Stopped by the Devil. The spinning Devil shouts "Start" as they Start to extend their arms out and shouts STOP when they have reached full extension. (note: the Devil is encouraged to move their arms out SLOWLY).

**Recorded time for Timer #2** \_\_\_\_\_

From this measurement, the team will determine  $\alpha =$  \_\_\_\_\_  
(note: This calculation first requires the answer to part III, below)

Step 3: The Third Timer is ready to go and once the Devil has shouted Stop to the previous experiment readies themselves to record three (3) complete rotations..

**Recorded time for Timer #3** \_\_\_\_\_

From this measurement, the team will determine  $\omega_0 =$  \_\_\_\_\_

