

## Skills Check: Frequency Measurement with a Stroboscope

For this check, you'll work alone to measure the frequency of a rotating disc using a stroboscope of your choice. You'll need a calculator, and you may use your notebook for reference. You're expected to obtain a value for frequency that agrees with the instructor's value to 2 significant figures. If you don't succeed, you may try again on another day.

Your Name \_\_\_\_\_

Note about accuracy: In order to improve the accuracy of your measurement, use higher flash rates.

Once you've been directed to the location where you'll make measurements, do the following:

1. Select a stroboscope (circle one): Pasco      Ametek      Griffin      ExTech
1. The instructor will turn on the motor to a predetermined setting. This is the only help that the instructor will provide you. Once the motor is running, find two consecutive stroboscope flash rates for which the disc appears stationary and shows a single line. Record them below with correct units:  
  
Flash rate 1: \_\_\_\_\_  
  
Flash rate 2: \_\_\_\_\_
2. Use all of the data above to calculate the frequency of the disc. Show your work step-by-step and circle your final answer. Include units.

3. Turn in your paper. The instructor will provide an accepted value at this point. \_\_\_\_\_