

4. Clamp the recording timer to the ring stand to hold the timer in place. Choose a location that will allow you to pull a long section of paper tape through the timer in a straight line without hitting any obstacles. **Do not plug in the timer until your teacher approves your setup.**
5. Insert a strip of paper tape about 2.0 m long into the timer so that the paper can move freely and will be marked as it moves. Lay the tape flat behind the timer. As shown in **Figure 1**, one student should hold the end of the tape in front of the timer.
6. When your teacher approves your setup, plug the timer into the wall socket.
7. One student should start the timer and the stopwatch at the same time that the other student holding the free end of the tape begins pulling the tape through the timer at a steady pace by walking away from the timer.
 - a. After exactly 3.0 s, the first student should turn off the timer and stop the watch, just as the second student with the tape stops walking. Mark the first and last dots on the tape. Tear or cut the dotted strip of tape from the roll and label it with the trial number and the time interval as measured by the stopwatch.
 - b. Repeat this procedure three more times. Label all tapes.
8. Count the number of dots for each trial, starting with the second dot. Record this number in your Calibration data table.
 - a. Compute the period of the timer for each trial by dividing the 3.0 s time interval by the number of dots recorded in the table.
 - b. Find the average value for the period of the recording timer. Use this value for all your calculations.

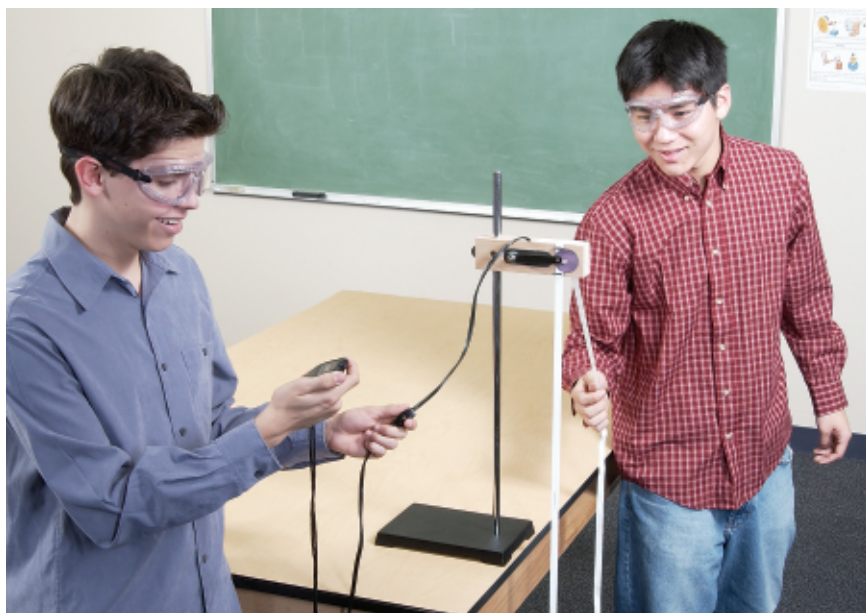


Figure 1

Step 4: Put the ring stand at the edge of the table so the tape can be pulled through parallel to the floor for the calibration step. If your timer will not mount on a ring stand as shown, clamp it to the table instead.

Step 5: Thread the tape through the timer and make sure the paper tape is *under* the carbon disk.