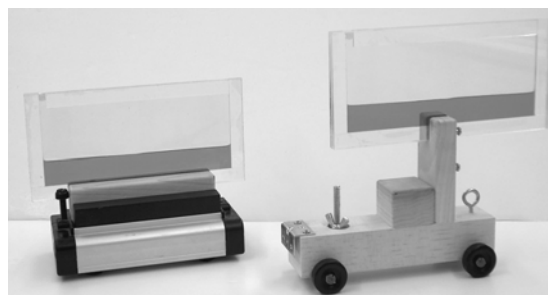




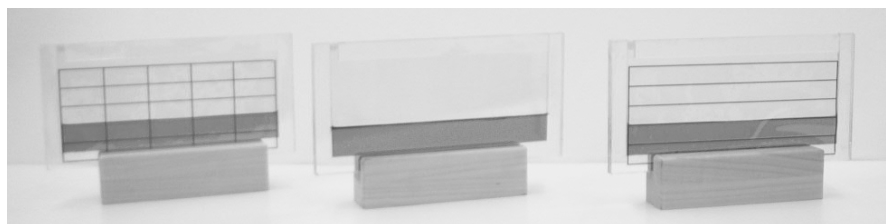
M-03 Liquid Accelerometer Tips and Instructions

Your liquid accelerometer is a versatile instrument that can be used as indicator for change in motion. When the accelerometer is at rest or moving with a constant velocity, the liquid inside the accelerometer will remain level. When the accelerometer is moving with a changing velocity, the liquid will not be level and the magnitude and direction of the acceleration can be illustrated by the degree to which the liquid is shifted.

The accelerometer may be held in your hand, hung as a pendulum or attached to a Pasco low-friction cart using our M-03-H Accelerometer Holder (screw included) or placed in the seatback of our M-22 PTB Mechanics car. A small piece of paper or tape may be inserted to secure the accelerometer if needed.



Viewing Tip: It is sometimes difficult for students to see that the liquid is not level when the accelerometer is moving with a low acceleration. It may be helpful to draw a reference line (using an overhead or whiteboard marker) across the liquid level when the accelerometer is at rest. A rubber band stretched across the accelerometer also works well. Grids or lines can also be created using decal paper on a regular printer.



Manufacturing Note: Most accelerometers will have evidence of air bubbles or air pockets around the perimeter or solvent marks along the inside edges of the accelerometer cavity. These effects are normal when fusing acrylic and will not affect the function of the accelerometer. Made in the U.S.A.

Instructions for Filling Your Liquid Accelerometer

Materials:

Food coloring
Water (approx. 15 ml for each accelerometer)
Disinfectant (i.e. a few drops of Lysol)
Clear Tape

Instructions:

Tint the water to desired color with food coloring. Add a drop of disinfectant to keep bacteria from growing in the water if the accelerometer will remain filled long term. Slowly pour or inject (a syringe works very well) tinted water into hole in the top of the accelerometer until the water reaches desired level. Cover hole with tape for a temporary seal so that the accelerometer may be drained (**recommended**) after use.

