Sound visualizer

Sound is a vibration that propagates as an audible pressure wave through different media. The vibrations of a thin membrane caused by sound waves traveling in air is visualized in this demonstration. We use a container which has a stretched balloon at one end to serve as the vibrating membrane and the other open end is used to input sound. The different amplitudes and frequencies of sounds input into the open end of the container cause the membrane to vibrate at the other end. The various modes of vibration of the stretched balloon are picked up by a small light mirror attached to it. A laser beam reflected from the mirror displays interesting patterns and configurations on a screen.