

Product Name :
Propagation Of Sound In Air

Product Code :
ELABBATE05



Description :

Propagation Of Sound In Air

Technical Specification :

Propagation Of Sound In Air Principle This experiment demonstrates, particularly clearly, the propagation of sound waves in air and, thereby, the working principle of the eardrum that is caused to oscillate by pressure waves. The movement of the membrane is transferred to the neighbouring air molecules, which in turn transfer it to their respective neighbouring molecules. All of the molecules oscillate around their position of rest, since - just like springs - they are joined by cohesive forces. This leads to pressure variations that propagate through space in the form of a sound wave (pressure wave). If a second drum is held precisely in parallel to the first one, the wave can cause the membrane of the drum to oscillate. **Tasks** The sound is generated by striking a frame drum or the bottom of a tray vigorously with a striking hammer. The "sound receiver" is a (second) frame drum. Its movement is visualised with the aid of a styrofoam sphere pendulum. Try this method of detection out and try to optimise it.