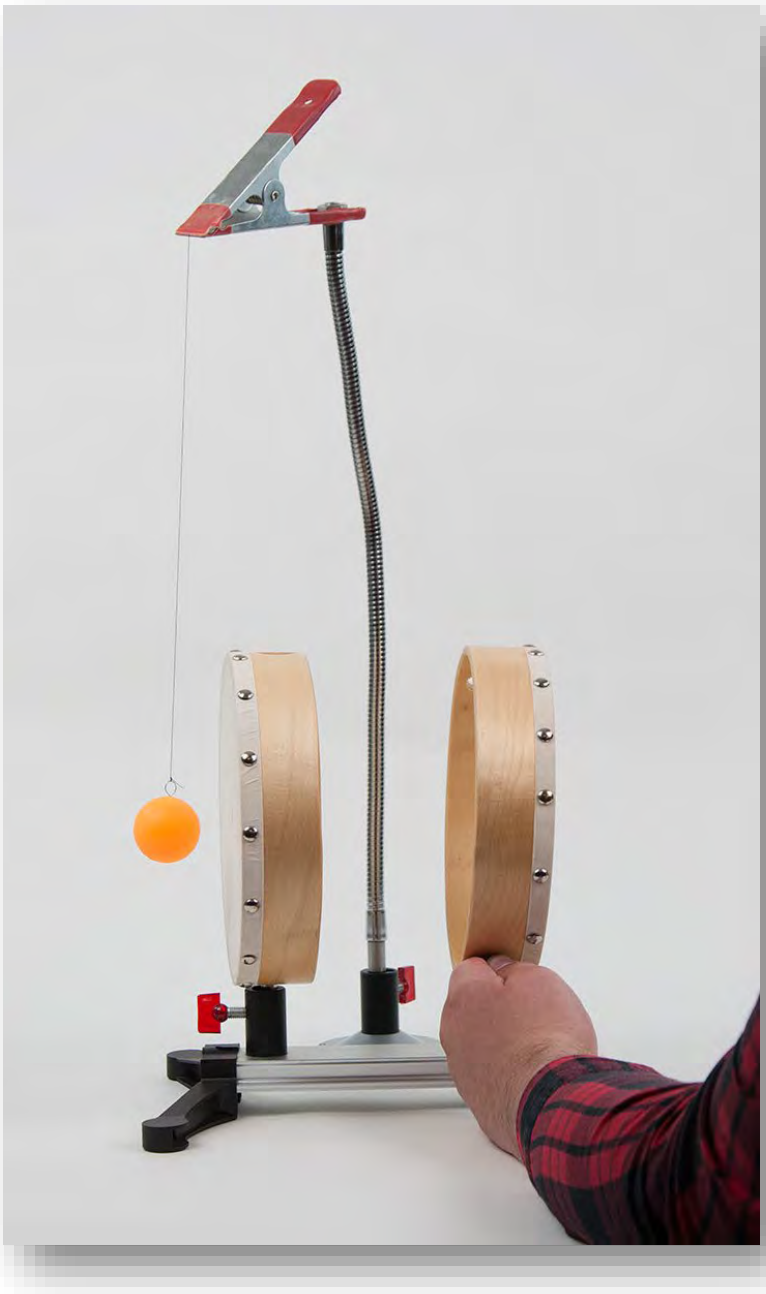
SOUND PROPAGATION IN AIR

AKD 02.02



Material:

Item Code	Qty	Description
DS090-3K	1	Claw base "Sepp", 260 x 220 mm
DW150-1T	1	Drums, pair
DW151-1T	1	drumstick with rubber ball (1 piece)
DS085-1R	1	Round base with stand tube, uni
C7007-1F	1	Flexible neck with metal clamp
DW152-1P	1	Pendulum ball, hard plastics, D=40 mm
		Cord

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Goal:
Sound compresses air. This affects the membrane of the drums. The pendulum ball makes this visible. Air compression is followed by air dilution.

Setup:

One of the drums is fixed in the claw base. The flexible neck is inserted into the round base and fixed. The cord of the pendulum ball is clamped in the clamp.
Now the pendulum ball is aligned so that it is approximately in the center of the drum.

The drum in the claw base is now carefully pushed against the pendulum ball so that the membrane and the ball are just touching.

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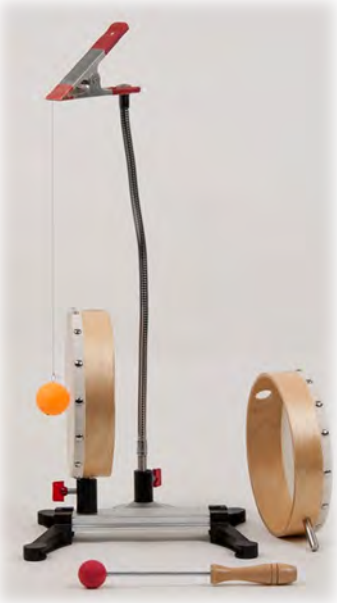
Experiment:
The second drum is taken to hand, brought near the back of the first and then struck with the drumstick.



Result:
The pendulum ball is pushed away. The impact of the drumstick creates air compression behind one diaphragm, which propagates to the second diaphragm and bulges it. This causes the second diaphragm to vibrate - the pendulum ball is pushed away.

Note:
To observe a larger reaction you can hold the drums closer together, but without them coming into contact.