

## Material:

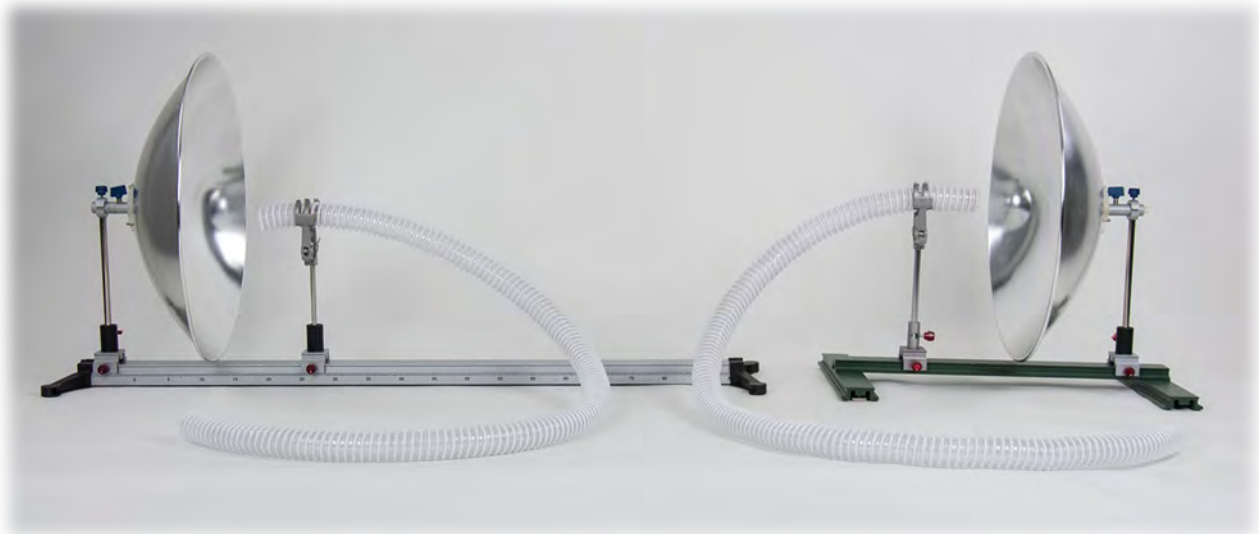
Item Code	Qty	Description
DS101-3B	1	Track and Optical bench, demo, L=1000 mm
DT710-1P	2	Parabolic mirror, D=460 mm
DT710-2H	2	Holder for parabolic mirror, on support
DS093-04	4	Sliding saddle "Sepp", H=40 mm
C7002-1A	2	Universal clamp, 0 - 80 mm
DS101-1G	1	Support base, large, L=500 mm
DM705-1S1	2	Hose for parabolic mirror Demo

**Goal:**

Sound reflection can be used to communicate over further distances.

**Setup:**

A parabolic mirror is fixed to its holder at the end of the support base using a sliding saddle. Make sure that the mirror is not in contact with the support base. In the same way, at the end of the optical bench, the second mirror is fixed with its holder in a sliding saddle. The other two sliding saddles are placed on one rail each. One universal clamp is fixed in each of them. The universal clamps are used to hold the hoses. The openings of the tubes are now pushed into the focal points (about 19 cm from the mirror) with the sliding saddles. Make sure that the mirrors are aligned with each other.

**Experiment:**

Now one person speaks into one tube attachment while another person holds the second tube attachment to their ear.

**Result:**

Despite ambient noise, the spoken word can be heard perfectly at the other end of the hose.

**Note:**

This experiment also works through the whole classroom.  
It is enough to whisper into the hose attachment.

