

RESONANCE TUBE

REDS01-V

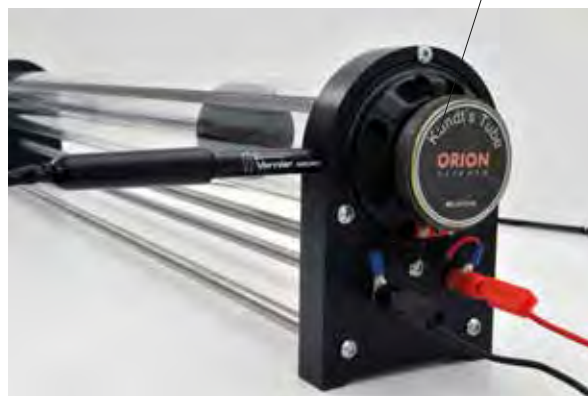
Description

In this experiment, students can investigate standing sound waves in a column of air inside a resonance tube and measure the speed of sound in air by using the standing waves produced at the resonant frequencies.



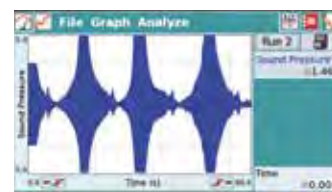
The piston is moved slowly to obtain maximum acoustic amplitude (resonance). The distance between two adjacent anti-nodes is read from the ruler on the resonance tube. Thus, the acoustic wavelength within the tube can be measured and calculated..

Speaker



The signal originated the LabQuest® 2 signal generator is detected with the Vernier Microphone and amplified by the Vernier PAMP. Data is collected and processed in LabQuest® 2.

Required Units



The screenshot of LabQuest® 2 screen in resonance condition

Order Information

Item Code	Item Name
ME-0018-00.....	Resonance Acrylic Tube (with Speaker and Ruler, Piston, Rod, Support Bars).....
MCA-BTA	Vernier Microphone (required, not included).....
PAMP.....	Vernier Power Amplifier (required, not included)
LABQ2	LabQuest® 2 (required, not included).....