

To measure the speed of sound with the help of sound wave resonance in air column inside the tube with one end closed. INTRODUCTION A sine wave generator drives an open speaker to create a standing sound wave in a resonance tube. As the length of the active part of the tube is increased, the sound becomes loud at each successive node and quiet at the antinodes. If the tube is resonating at a particular fixed frequency, the tube will resonate low, where the curved lines represent the velocity profile of the air in the tube. The driving frequency and the length of the tube are varied to study their relationship to wavelength and the speed of the sound wave. The concepts of nodes, anti-nodes, and harmonics are investigated for both closed and open tubes. The number of nodes is related the wavelength and the harmonic.