# Speed of Sound Investigation

## Aim

To experimentally determine the speed of sound in air.

## Equipment

* Your device, with Audacity ([www.audacityteam.org](http://www.audacityteam.org)) installed
* A long, straight corridor with a flat surface at its end
* A 30 m measuring tape
* Your hands

## Method

Your method should clearly describe the steps you will follow and any calculations you will make.

## Discussion

1. Use your results to calculate the speed of sound in air. Include a screenshot of your results and show all your working.
2. Neither the original pulse of sound or the reflected pulse were as short as the sound of your clap. Why might this have been the case?
3. A different group of students did this experiment early in the morning and got a different result. Would you expect sound to travel faster or slower at this time, and why?
4. Identify one source of error in your experiment. How would you expect this to affect your results?
5. Identify one possible improvement to your experiment. Your improvement must not require equipment that you do not have access to.