Using the DecibelX smartphone app

Download the free version from the Apple Store (iPhone) or Google Play (Android)



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TRY 3 DAYS

Keep running in background Ì Unlimited data export Ċ) Access to all camera filters Ð Longer duration for video recording ۲ No watermark for captured videos S. More themes Try 3 days then £4.99/month. No commitment. Cancel anytime. Try it free ☐ Plan Options ♥ Restore Purchases

When you first start the app, you will be prompted to try it for 3 days

You can close this screen by clicking on the X at the top right (sometimes this is difficult to see!)

This screen may also pop up from time to time, but simply close it (unless you want to buy the full version!)





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Acoustics



Enter the name of your measurement (e.g. passing lorry)

If you want the location to be saved, make sure you allow the app to do this





You can save one (iPhone) or two (Android) measurements in the free version.

If you want to save the current measurement, go to the Saved Results and delete the one already there.

Then try again.



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Saving a measurement





Here is the file you saved. You can save up to 30 seconds of data.

Tap 'Clear' to delete

Tap the playback button to hear your recording

Tap '<u>Map</u>' to see the location on a map

(it will start in Vietnam, but you can zoom and drag to find your location on a map)



For IOA Secondary Schools Competition 2022 Saved results





Tap here to export your recording in other formats.

This is useful for embedding audio files into reports or web pages



Viewing and exporting results







Good for making a quick report

Good for embedding – into a webpage







Click on the Camera icon in the bottom tool bar (you will need to give permission to access the camera)

You can now take a photo, and the measured results, location and date/time will be added.





Save the photo to your phone library

Send the photo to someone else using social media, email or messaging



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It is recommended you do not change anything here, and the menu should look like this

> For extra accuracy, the calibration can be adjusted. If you want to do this, click <u>here</u> for details.



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Other displays

You can change what is in the upper display, by swiping it left or right.

A useful display is the 'sonogram', which shows the changing frequency over time.

Try whistling and see what happens.

This is very interesting for birdsong recordings for example.

You can also look at a level versus time display, which shows how the sound level varies with time

You can also rotate the phone to get a bigger display, but remember where the microphone is!







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Accuracy

A professional acoustic engineer will use an accurate (and expensive) sound level meter to take readings.

The DecibelX app is quite accurate (within 5dB or so) but can be improved by using a trimming value, but this does vary between different smartphones

We have found that for an iPhone, the slider should be set to +2.5dB and for Android devices should be set to -4dB.

If in doubt, leave it at OdB

To improve your measurements, remember the microphone is generally at the bottom of the phone, so don't cover it with your hand!







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