

MEASURING SOUND IN ANIMAL CARE FACILITIES

Sound can negatively impact the health and welfare of humans and animals living and working in animal care facilities.

1 Understand the sources and levels of sound in your facility

2 Design and implement sound reduction strategies

3 Ensure an environment that is safe and comfortable for all!

Sound can easily be measured using a free app on your smartphone



- Available for Android and iPhone
- Validated against professional sound meters
- Helps you understand the primary noise sources in an environment and inform noise reduction strategies

MEASURING SOUND USING A SMARTPHONE APP



1. Open the app, and it will automatically begin recording sound levels.

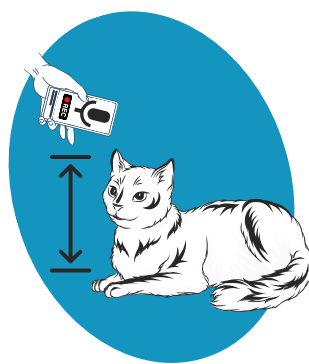
NIOSH Sound Level Meter - [Apple Store](#)
Decibel X Pro Sound Level Meter - [Google Play](#)



- Try out features on the app to find the following measurement types:
 - **Instant measure of sound (aka *Instantaneous Level*)**. This is a “moment-by-moment” measurement of the current sound level, and the number will be continuously changing.
 - **Average sound level (aka *LAeq*)** - This is a measurement of continuous sound pressure representing the “average” level of sound recorded by the app.
 - **Max or Peak** - Both are measures of the loudest level of sound recorded by the app.
- Also, locate the reset button.



2. Try recording different sounds throughout your facility.



- You can record sound in real time by keeping the app open.
- Try holding your smartphone at animal height and compare to readings taken at human height.
- Use the app to determine the loudest levels of sound (i.e. Max or Peak).
- Try out leaving the app running during key periods (e.g., cleaning, feeding time, playtime, etc.) to get a clearer understanding of the noise levels over time.
- If sound is constant, about 1 minute of recording will give an accurate reading.
- If sound is varied, leave the device out for approximately 15 minutes to get an accurate idea of sound levels.



3. Use sound information to create a noise reduction strategy:



- For both humans and dogs, aim to keep sound below 85 dB with peak noise not exceeding 125 dB
- Cats need more quiet, so aim for sound below 70 dB with peak noise not exceeding 85 dB
- Some loud noises in animal facilities are inevitable. Anything you can do to reduce decibel readings and reduce the length of time of loud noises will help to improve both human and animal welfare.



Sound is displayed as a decibel level, a measure of soundwave intensity. Decibels are measured on a logarithmic scale.

10 dB increase in sound level = 2x perceived loudness