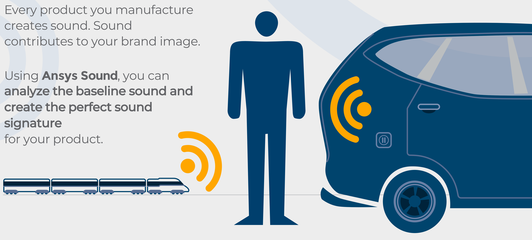
Ansys

Give Your Product a New Sound Dimension with Ansys Sound

Every product you manufacture creates sound. Sound contributes to your brand image.

Using **Ansys Sound**, you can **analyze the baseline sound and create the perfect sound signature** for your product.



Why Does Perceived Sound Matter?

The sound of your product impacts your product's perceived value.

Sound is **a source of information and emotion**. A product's sound triggers a sensoral and emotional response in consumers.

Sound is a **selling point for your product, and key to brand identity.** It is crucial to be able to control its impact.

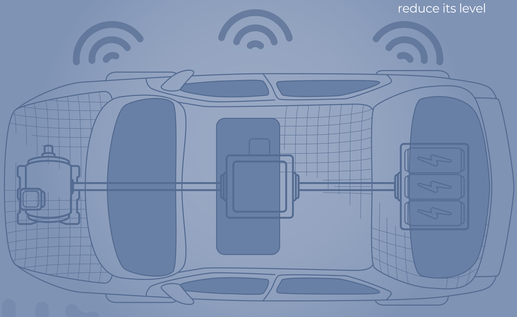
How Does Ansys Sound Work?

Based on recordings or computer-aided engineering (CAE) simulation outputs, you can:

Isolate noise sources to understand their influence on overall sound

Define acceptability ranges based on human perception criteria and psychoacoustics

Reshape the sound of your product, rather than simply trying to reduce its level



This **lets you experience the perceived sound of your product** and explore design virtual changes, without building a physical prototype.

As part of an integrated workflow, you can **use Ansys Sound to listen to simulations created in Ansys Mechanical.**

Ansys Sound in Action

There are many scenarios where Ansys Sound can help manufacturers listen to, analyze, and design sound sources:

Automotive

Challenge: Manufacturers need to understand how an electric vehicle (EV) engine will sound within the finished automobile.

Solution: Ansys Sound can analyze the EV engine to separate electric noise from electromagnetic noise. Automotive manufacturers can quickly test design modifications that will alter the overall engine sound.

Aerospace

Challenge: Companies need to manage the sound levels within their airplanes, as well as outside of them.

Solution: Ansys Sound can perfectly reproduce the sound environment within cockpits and cabins to optimize it for comfort and safety. At the same time, it can isolate and modify sounds that contribute to takeoff and fly-over noise.

Railway

Challenge: Companies need to ensure that the sound of the train as a whole isn't negatively impacted by one of its many components.

Solution: Ansys Sound can calculate psychoacoustic indicators and thresholds for the train and then require suppliers to integrate those thresholds into their standards for parts and components.

Consumer Goods

Challenge: Consumer goods like washing machines, vacuum cleaners, and printers create sounds. These sounds have to be clear and precisely fit the brand image, while avoiding displeasing noise.

Solution: Ansys Sound is used to detect sound sources. Shape each sound based on jury listening tests to get the best customer experience.

Sound quality and simulation are essential parts of product development.

For more information on how Ansys Sound can be used to improve the perceived sound of your product, visit:

ANSYS.COM/SOUND