



Adoption example: Nissan Motor Corporation

Site Issue

At a manufacturing site, a worker checks whether a part has been correctly assembled by mainly listening to a fitting sound emitted from the part. However, a determination error is made due to loud ambient noise, resulting in reworking.

Issue: Impossible to listen to nearby sounds due to noise.

Development Concept

Issue: Impossible to listen to nearby sounds due to noise.



Development of a system capable of detecting only the sound emitted from a specific area.



Assist a worker in making the correct determination in order to reduce reworking.



Operation Visualization

Strongly supports the elimination of operation errors.

- A worker can **confirm sounds by himself/herself** without being disturbed by ambient noise (**no odd feeling with little delay**).
- A light **wearable device that does not get in the way of work**.
- Sound data is collected wirelessly and used for **analysis (e.g., counting operation frequency)**.

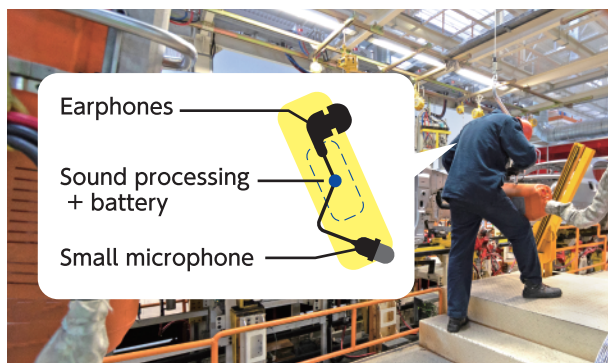
Administrator



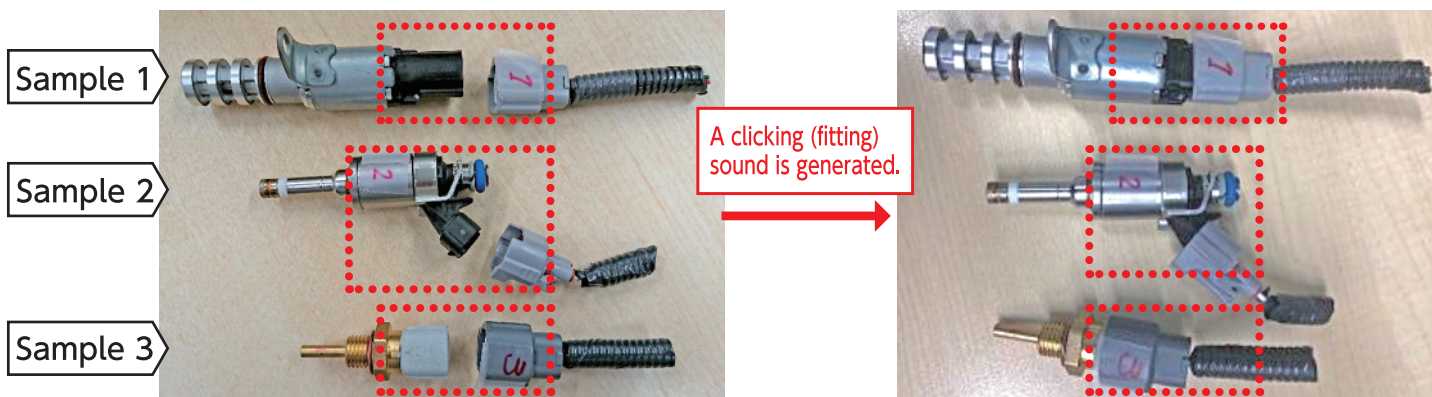
ZERO SHOCK
TABLET



Wireless (BT)

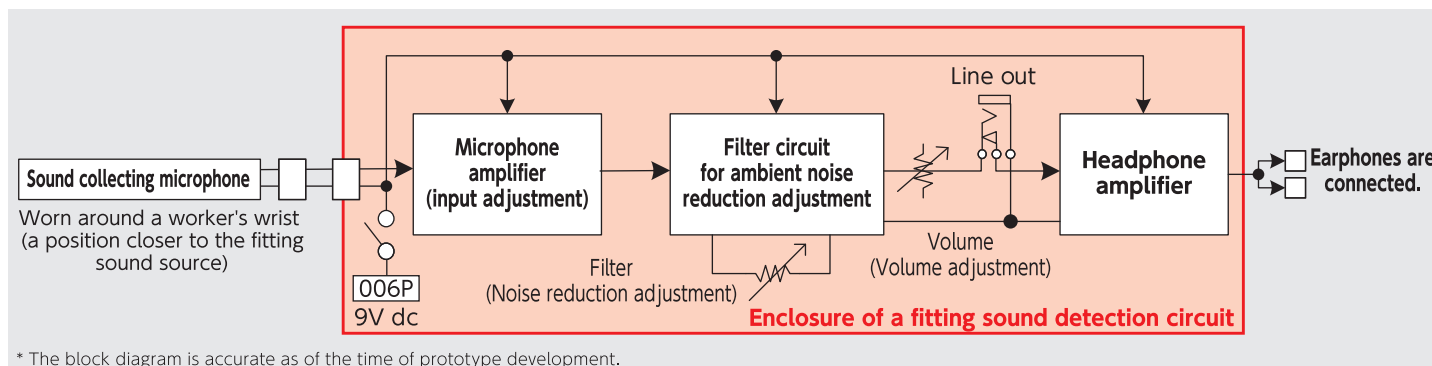


Operation sound example: Harness connector fitting sound



Graphic Image of Commercialization

- A configuration where a worker wears a microphone around his/her wrist so that only sound generated near the wrist is emitted from earphones.
- A fitting sound can be heard even in a noisy environment, thereby assisting a worker in making the correct determination.



* The block diagram is accurate as of the time of prototype development.

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