

NordicNeuroLab Selects USound as A MEMS Speaker Supplier for Its New MRI-Compatible Headphones

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USound's Achelous UT-P2016 MEMS speaker is ideal for manufacturing MRI-headphones due to the absence of ferromagnetic parts in its design. Achelous is now a key component of NordicNeuroLab's patient-soothing MRI-compatible over-ear headphones that will be available on the market in H1 2024.

GRAZ, Austria--(BUSINESS WIRE)-- **USound**, a fast-growing company providing advanced audio solutions, has been selected by **NordicNeuroLab**, the leading global producer of medical equipment for functional magnetic resonance imaging (MRI) studies, as a MEMS microspeaker supplier for the production of its new MRI-compatible headphones. The medical headphones will significantly reduce MRI noise and provide patient comfort as well as improving patient - operator communication during MRI examinations. The product is aimed at both clinical and research use and will be launched first half of 2024.

USound speaker from the Ganymede series. (Photo: Business Wire)

"At NordicNeuroLab we are very pleased to have selected

USound as our supplier for MEMS loudspeakers to our new MRI compatible nordicAudioSystem. We have worked with USound for two years during the development stage and are truly impressed with their innovative technology, outstanding support and strong competence. The technology USound provides allow NordicNeuroLab to bring a state of the art audio system to patients undergoing MRI scans."

-Thomas Lie Omdahl, CEO of NordicNeuroLab

"We are delighted to announce another important milestone for USound. Our patient-safe MEMS speaker from the Ganymede series, Achelous UT-P2016, has been selected for the production of NordicNeuroLab's state-of-the-art

headphones for MRI screenings. This collaboration is an important development not only for our companies but also for the medical sector. We are eager to see many more innovations become a reality thanks to our advanced MEMS technology.”

-Ferruccio Bottoni, USound’s CEO

Patient-safe Speakers for MRI Screenings

A determining factor for this collaboration was the development of Achelous UT-P2016 as part of USound’s Ganymede series. This MEMS microspeaker has no metallic components and can be safely used in MRI machines. Metals may interfere with the magnetic field used to create an MRI image and can cause a safety hazard. At the same time, MRI screenings produce a lot of noise which can frighten the patients, making the use of headphones necessary.

Up until now, MRI headphones were of the pneumatic type. The speaker would be placed outside of the machine, with long plastic tubes connecting the transducer to the ear of the patient. The new MEMS-powered over-ear headphones by NordicNeuroLabs offer better user experience, audio performance and noise cancelling capabilities, making the screening process a less stressful and more enjoyable experience.

The Importance of Quality Headphones During MRI Screenings

MRI screenings are often dreaded by patients, especially by those suffering from claustrophobia, panic attacks, and generalized anxiety disorder. **Recent reports** have shown that up to 13% of patients who receive such screenings experience having a panic attack inside the MRI machine. According to a recent scientific article published at the **National Library of Medicine** in the United States, severe anxiety during MRI scanning can lead to patients moving, resulting in “reduced imaging and diagnostic test quality”. Moreover, premature terminations or avoidance of life-saving MRI screenings are also observed. The new MEMS-powered MRI headphones, along with other changes in the design of MRI machines, can help alleviate symptoms of anxiety in patients, eliminating the risks that are associated with it during screening.

About NordicNeuroLab

NordicNeuroLab is the leading global producer of MRI-compatible medical equipment for functional MRI studies. These techniques provide unique information that can assist in the diagnosis and monitoring of various neurological disorders such as stroke and brain-tumors. In addition, it is also used in pre-operative planning procedures, and provide researchers with valuable information relating to brain connectivity. The company is committed to developing and commercializing solutions for functional imaging for improved patient care and

clinical efficiency. Learn more by visiting www.nordicneurolab.com

About USound

USound is a fast-growing MEMS speaker company that enables its customers to bring new revolutionary audio products to the market. USound's unique selling proposition is based on radical miniaturization, power reduction and increased production efficiency. USound's audio products are safeguarded by over 300 patents. Learn more by visiting www.usound.com

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