

## Acconeer, Imagimob and OSM Group shows gesture-controlled in-ear headphones

As [previously announced](#), Acconeer, Imagimob and OSM Group have been working together on gesture-controlled in-ear headphones. A working prototype is now ready, providing a platform which enables customers to bring gesture-controlled in-ear headphones to the market in a short time.

Gesture control is a perfect fit for in-ear headphones, since the earbud is small and not visible to the user, which makes physical buttons difficult to use. The *AOI Touchless In-Ear Headphones*, a platform for control of music and calls with simple gestures is now ready for customers to start commercialization projects. The project combines Imagimob AI SaaS solution and its world-leading expertise in Edge AI with Acconeer's high-accuracy, low-power radar sensor in a hardware designed and manufactured by OSM Group. Based on this, a prototype with a gesture hit rate of more than 96% and latency less than 500 ms has been developed.

The in-ear headphones has the Acconeer A1 radar sensor and an AI model by Imagimob with memory footprint of 17 kB RAM & 113 kB flash running on an ARM Cortex® M4 MCU from STMicroelectronics, all built into hardware and mechanics by OSM Group with a weight of only 0.17oz per earbud.

Gesture control and touchless user interfaces has become a hot topic as the pandemic has swept over the world, and the software and hardware platform developed in this project can also be used in a wide range of other electronic devices to implement gesture control. The touchless gesture control market is primarily driven by factors such as rising hygiene consciousness and low maintenance cost. Touchless interfaces in addition to gesture controls are becoming widely popular as they provide the abilities to interact with devices without physically touching them.

The project is part of the strategic innovation program Smarter Electronic Systems – a joint investment by Vinnova, Formas and Swedish Energy Agency.

Additional resources:

- [Video](#)
- [Product brief](#)

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### **About Acconeer AB**

Acconeer is a leading radar sensor company based in Lund, south Sweden, in Ideon, the country's hottest region for wireless technologies. Acconeer is developing a truly leading ultra-low power, high precision 3D sensor which will revolutionize the way that mobile devices interpret their surroundings. Acconeers ultra-low power and millimeter precision sensor will be a robust and cost-effective solution for applications ranging from virtual reality and gaming to security and robot control. Information from the sensor can also be used to identify different materials, these are just some examples of the wide range of possibilities of application areas for the sensor. Acconeer is listed on Nasdaq First North Growth Market with the ticker code ACCON, Redeye is the company's Certified Advisor (CA) and can be reached via telephone +46 (0)8 121 576 90 or via mail [certifiedadviser@redeye.se](mailto:certifiedadviser@redeye.se). For more information: [www.acconeer.com](http://www.acconeer.com).

### **About Imagimob**

Imagimob is a fast growing startup driving innovation at the forefront of Edge AI and tinyML—and enabling the intelligent products of the future. Based in Stockholm, Sweden, the company has been serving global customers within the automotive, manufacturing, healthcare, and lifestyle industries since 2013. In 2020, Imagimob launched their SaaS Imagimob AI for the swift and easy end-to-end development of Edge AI applications for devices with constrained resources. Imagimob AI guides and empowers users throughout the entire development journey, resulting in game-changing productivity and faster time-to-market. Tirelessly dedicated to staying on top of the latest research, the experienced team behind Imagimob is always thinking new, and thinking big.

### **About OSM Group**

OSM is a leading developer and manufacturer of technically advanced electronics products and soft goods. Established more than 20 years ago in Sweden, our Scandinavian heritage influences our sense of purpose to deliver inspired design, robust manufacturing and ethical conduct that is beyond reproach. We operate our own factories in Asia for total control of the manufacturing process and have developed an exceptional global supply chain that delivers value and choice.