

PRESS RELEASE

PRESS RELEASENovember 6, 2017 | Page 1

Medica 2017: Fraunhofer HHI and ARRI Medical present digital 3D surgical microscope

Fraunhofer Heinrich Hertz Institute HHI and ARRI Medical present new processes for digital 3D measuring technology at Medica in Düsseldorf, Germany, at Fraunhofer booth G05 in hall 10.

Digital 3D Surgical Microscope

The ARRISCOPE is a digital stereo surgical microscope. As part of the Federal Ministry for Economic Affairs and Energy (BMWi) research project 3DInMed, Fraunhofer HHI has developed a method for intraoperative measurements with high precision. As a result, it is now possible for the first time to accurately estimate the required prosthesis size or to specify tumor dimensions. In addition, a procedure has been developed that significantly simplifies the cutting of cartilage for closing the eardrum: at the situs, viewed with a microscope, the relevant contour is marked virtually by an instrument. The full-scale contour is then shown via Augmented Reality (AR) inside the digital binocular to facilitate the cutting of the autologous tissue.

3DInMed – Digital 3D endoscopy for inspection and metrology

Fraunhofer HHI and ARRI Medical present results of the BMWi-funded project 3DInMed. Digital 3D endoscopes used for industrial applications open up completely new possibilities for extracting and visualizing additional information by using advanced stereo algorithms for depth estimation. In particular, the survey of cavities that are difficult to access and the inspection of wearing parts by such methods, allow a more precise statement about the surveyed items condition.

Innovations for the digital society of the future are the focus of research and development work at the **Fraunhofer Heinrich Hertz Institute HHI**. In this area, Fraunhofer HHI is a world leader in the development for mobile and optical communication networks and systems as well as processing and coding of video signals. Together with international partners from research and industry, Fraunhofer HHI works in the whole spectrum of digital infrastructure – from fundamental research to the development of prototypes and solutions. www.hhi.fraunhofer.de

FRAUNHOFER HEINRICH HERTZ INSTITUTE

As a global leader in motion picture technology, with 100 years of innovative product development experience, **ARRI** is uniquely qualified to also play a pioneering role in medical digital image acquisition.

Used for many Oscar®-winning movies and awarded from the Academy of Motion Picture Arts and Sciences with the technical Oscar®, the ARRI ALEXA digital camera system is the core engine of the ARRISCOPE, delivering high-contrast, sharp and brilliant high-definition images of the surgical field.

PRESS RELEASE

November 6, 2017 | Page 2
