



HOLODECK 4.0 TRAVEL THROUGH TIME AND SPACE

ADVANTAGES

- Unrestricted, wireless movement
- Coverage of large areas
- Reliable, fail-safe tracking
- Precise tracking in virtual reality
- Real-time simulation of real-world scenarios
- Interaction between users and the digital world
- Infinite application possibilities

SERVICES

Fraunhofer IIS
Your reliable partner for renting the L.I.N.K. center and for developing and adapting customized technology for your VR application

Holodeck VR GmbH
Purchase, rental, and customization of Holodeck systems

RESEARCH AND DEVELOPMENT WITH FRAUNHOFER IIS



<https://www.iis.fraunhofer.de/holodeck40>

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HOLODECK 4.0 STEP INTO VIRTUAL REALITY

Innovative technology for VR





IMMERSE YOURSELF AND EXPLORE

Welcome to the future! For us, Star Trek is more than just fiction – experience our Holodeck 4.0 firsthand. At the L.I.N.K. Test and Application Center in Nuremberg, you can move around freely in an area of 1,400 m² and discover a variety of worlds in virtual reality – spectacular perspectives await you.

From production and city planning to architecture and gaming, your specific needs can be transformed into customized solutions. You can also test your own 3D models in the L.I.N.K. center. Immerse yourself in the boundless worlds and possibilities of virtual reality and experience the future with Holodeck 4.0.

MERKMALE

- Wireless, unrestricted movement in 3D models with virtual reality glasses
- Usable area includes up to 40,000 m² of indoor and outdoor space
- Interactive: multiplayer experience - up to 100 users simultaneously
- Our virtual reality technology and tracking can be adapted for your own virtual reality application
- Head and hand movement detection

TECHNICAL DESCRIPTION



A precise tracking system is used for reliable positioning in 3D space. The location of the people visiting Holodeck 4.0 is transmitted in real time via tags on the VR glasses.



Each small head movement and its direction is determined by the head-tracking technology developed by Fraunhofer IIS and the respective content is displayed and moves accordingly.



Individual head-mounted transmitters classify movement data and, based on head movement, an algorithm can predict which body movements will occur. This prevents tracking errors.



A key feature here is that the hands can also be detected and displayed virtually in the content in real time. Sound effects can make the experience even more realistic.

A WIDE VARIETY OF APPLICATION AREAS

Production and logistics

- Live optimization of production processes
- Shorter product development times
- Reproduction of new production lines
- Cost reduction due to timely error detection

Training and safety

- Better preparation of employees and rescue teams with VR training
- Risk prevention during training by using virtual situations

Museums and architecture

- Interactive inspections of planned structures
- Construction and city planning
- High level of planning quality with digital, early-stage design validation
- High level of entertainment in amusement parks

Multimedia and gaming

- Revolutionary first-person gaming
- Innovative gesture control
- Multiplayer experience
- Serious games