Medicalholodeck®

Surgical Training and Medical Education.
In Virtual Reality.

Technology Overview
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Introduction

Medicalholodeck is the platform for medical collaboration and teamwork in virtual reality. The software allows you to visualize, edit, discuss and teach medical imaging, human dissections, and 3D human anatomy models in a fully immersive digital environment.

Medicalholodeck’s applications are used worldwide for surgical training, anatomy teaching, and medical education in VR. The platform offers a bundle of apps and datasets, creating unique new possibilities for medical education and professional work.

Grab, edit, and study medical imaging from any angle and perspective. Enlarge patient data to over-life-size, and understand pathologies in detail. Compare medical imaging, anatomy dissections, and 3D models in VR. Interact with medical data in 3D holographic space.

Medicalholodeck's applications offer collaborative teamwork, creating new and exciting opportunities for medical professionals, educators, and students. With Medicalholodeck, medical imaging, patient cases, and human anatomy are better understood, processed, and discussed than ever before.

Prepare the next generation of medical professionals for the challenges of the future. Start working and educating in virtual reality now.

Welcome to Medicalholodeck!
App Overview

Key Features

Imagine the perfect digital environment to work, create, discuss and share medical imaging and patient data. This is Medicalholodeck, your next-generation collaborative platform in VR. Medicalholodeck offers a bundle of apps and datasets for professional and educational use.

**Medical Imaging XR** is the DICOM viewer in virtual reality. Visualize, edit, and discuss medical imaging in collaborative teams in VR. The application is used around the globe for postoperative case reviews, surgical teaching, training, and medical education.

**Dissection Master XR** is the leading human anatomy atlas and dissection lab in virtual reality. Based on dissections of real human bodies, the software visualizes the anatomy of the human body in a superb level of detail in a fully immersive holographic space. Dissection Master XR is used around the globe for anatomy and medical teaching.

**Anatomy Master XR** is the three-dimensional human anatomy atlas in virtual reality. It brings Zygote’s highly detailed male and female 3D anatomy models to VR. The app is used around the world to teach basic anatomy in universities, medical and nurse schools, and K12 education.

**RecordXR** is the recorder for the Metaverse. Record own content, create lessons, store, and share it with users and your students worldwide. All in virtual reality.

**TeamXR** offers collaborative teamwork in virtual reality. Discuss medical imaging in teams, train surgeons in groups, and teach anatomy in virtual classrooms in VR. TeamXR makes virtual collaboration on a global scale possible.

**Cloud Rendering** frees professional medical imaging from being tethered to computers. So far, VR headsets have had to be connected to high-performance computers to generate high-performance medical imaging. These fixed installations and VR labs made it cumbersome to use the technology hospital-wide.
Advantages

Use Medical Imaging in VR

Import your patient’s 3D CT and MRI data and work on medical images in a fully immersive, three-dimensional, holographic space. Get a very detailed and fully three-dimensional insight into your patient’s body. Understanding your patient’s case is easier and more precise in virtual reality than on 2D screens using black and white cross-sectional images. Medicalholodeck makes you faster, more efficient and raises the quality of your work.

Collaborate in VR

Medical teamwork and education in virtual reality offer new opportunities for medical professionals, educators, and students worldwide. Medicalholodeck allows you to study, teach, and work in location-independent teams. Discuss medical cases, train surgery, teach anatomy and improve communication with your team. Present, analyze, and discuss reports in VR, and ensure everybody shares the same level of information.

Teach in Virtual Classrooms

Medicalholodeck is your interactive anatomy atlas in virtual reality, offering the world’s highest resolution and most detailed anatomical dissections in a fully immersive, holographic space. Teach human anatomy in VR, improve your education’s quality, and enhance students learning skills. Location-independent teaching opens new possibilities for university education, international collaboration, and global learning.

Record, Replay and Share in VR

Create your content and lessons in virtual reality with Medicalholodeck. Import any data and use it to demonstrate surgery, teach anatomy, and explain and discuss any medical topic. Import medical patient data to create medical digital twins. Show pathologies, discuss surgical approaches, and examine patients using CT, Echo, and 3D ultrasound files. Record everything in VR, and create your library for teaching or professional work.
Use Cases

Case Reports and Tumor Boards

Use Medicalholodeck for post-operative case reports, assessments, and tumor boards. Import patient data and discuss cases with your team in virtual reality. Record, store, and share the work in VR for later use or educational purposes.

Surgical Training in VR

Import patient data and use real medical cases for surgical teaching and training. Explain pathologies and surgical techniques in virtual classrooms using three-dimensional digital twins. Store the lessons and create your own reusable library of surgery teaching modules.

Patient Information

Present medical imaging to your patients in VR and explain pathology, surgery, and treatment with easy-to-understand 3D images. Using virtual reality, patients will better understand their situation and feel more comfortable with the upcoming treatment.

Medical Education in VR

Use Medicalholodeck's data and applications or import your files to create immersive simulations and learning experiences. Record, store, and share the content in VR, and make it accessible to students and users worldwide.

Anatomy Teaching in VR

Use Medicalholodeck to teach human anatomy in virtual classrooms. Add your data, and create your lessons in virtual reality. Build your library of educational content and simulations, enhance your simulation lab, and share the content with students and users in the metaverse.