



MedMeet

AR & VR Medical Team Meeting Platform

"We believe the future of healthcare isn't in a waiting room — it's in virtual reality."

Final Year Project · Kinneret Academic College · 2025–2026



MedMeet

'Best Team' Company

About MedMeet

MedMeet reimagines what a remote medical consultation can be. Instead of a flat video call, doctors and patients meet in a fully immersive VR environment — personal, professional, and present.

Over 3 sprints we built a complete platform with AI transcription, sign language translation, interactive 3D anatomy, surgical simulations, laser annotation, document sharing, session recording, people analytics, and an AI smart assistant.

This isn't just a tool — it's a new standard for how medicine meets technology.

Built by students. Designed for the future of healthcare.



Immersive VR/AR



AI Transcription



Surgery Simulation



3D Anatomy



Sign Language



Doc Sharing



Recording



Social Impact

Meet the Team

The people behind MedMeet



Lidor Ben Simon

Product Owner in the MedMeet project

Lidor Ben Simon

Product Owner

Defined the vision and priorities of MedMeet, ensuring every feature delivers real value to doctors and patients.



David Ran Cohen

Scrum Master in the MedMeet project

David Ran Cohen

Scrum Master

Kept the team aligned across 3 full sprints, turning every milestone into a step toward a better product.



Libar Vizman

Architect in the MedMeet project

Libar Weitzman

Architect

Designed the VR/AR technical backbone, making complex medical interactions feel seamless and intuitive.



Rotem Swisa

Quality Owner in the MedMeet project

Rotem Swisa

Quality Owner

Ensured every feature met the highest standards so doctors and patients can trust every virtual session.



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Sprint 1 — Foundation

Oct–Dec 2025 · ~270 hours · MVP: Basic VR Medical Meeting

 **Goal:** Present a basic VR medical meeting with avatars, voice communication, a shared 3D medical model and automatic session logging by Dec 10, 2025.



VR Meeting Room

Full immersive virtual meeting room for up to 5 simultaneous participants on Meta Quest.



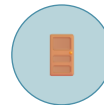
Avatar System

Every participant visually represented as a 3D avatar (male/female) visible to all others in the room.



Real-Time VoIP

Voice communication via Vivox/Photon — mute/unmute button, visual highlight of active speaker.



Session Management

Join/leave meeting with username, live participant list, join/leave notifications in real time.



Shared 3D Model

One medical model (heart/brain/lungs) loaded at room center — synchronized and visible to all participants.



Attendance Logging

Automatic logging of every join/leave event with timestamps, duration per participant, exported to CSV.



Integration & QA

End-to-end testing: 4 concurrent users, stable VoIP for 10 min, avatar rendering, log export verified.



Technical Documentation

Architecture diagrams, user guide, demo script, and sprint retrospective prepared for presentation.



Sprint 2 — Advanced Features (Part 1 of 2)

Dec 2025–Jan 2026 · ~280 hours · MVP: AI + 3D Interaction + Collaboration

 Goal: Present a fully interactive VR system with multi-room navigation, advanced 3D model tools, real-time collaboration, medical image sharing and AI transcription by Jan 21, 2026.



Multi-Room System

Room selection at login screen with real-time status (available/full).
Interactive doors between 3+ rooms with smooth transitions.



360° Model Interaction

Rotate, zoom (pinch/thumbstick) and switch between 4+ medical models (heart, lungs, brain + more). Gallery selection panel synchronized across all users.



Laser Pointer & Annotations

Laser pointer for each user (unique color). Persistent paint markings on models. Shared text annotations with author name. Screenshot tool.



Medical Image Display

Upload PNG/JPG/X-Ray from PC or preloaded in VR. Shared gallery view with zoom/drag. Gallery mode to switch between images. All users see the same image.



Sprint 2 — Advanced Features (Part 2 of 2)

Dec 2025–Jan 2026 · Continued from previous slide



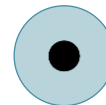
AI Transcription

Session auto-transcribed using Whisper/Google/Azure API. Speaker diarization, real-time display, export to TXT/PDF. UI for managing transcription.



People Analytics

Voice detection to measure talk-time per participant. Participation percentage calculated and exported to extended CSV. Dashboard visualization.



3D Session Recording

Record all avatar movements, positions and audio in sync. Save as replay file, play back in Unity. Formats: position/rotation/actions.



Avatar Improvements

Male/female avatar selection at login. Fixed avatar floating — now anchored to floor. Basic hand tracking (IK). Walk/stand animations. Lip-sync stretch goal.



AR Mode (Stretch Goal)

Quest 3 Passthrough mode — overlay medical models on the real world. Switch AR↔VR with a button. Model anchor placement in real space.



Synchronization

All model interactions, annotations, images and avatar movements synchronized across all participants using Normcore in real time.



Sprint 3 — Innovation & Polish (Part 1 of 3)

Mar–Jun 2026 · ~280 hours · MVP: Accessibility + Medical Training + Simulations

 **Goal:** Transform MedMeet into a comprehensive medical platform — training, accessibility, simulations, AI assistant, voice control, movement sync and full system polish by Jun 3, 2026.



Sign Language System

Real-time sign language avatar (corner of screen, like a TV interpreter).
Speech recognition maps spoken words to medical sign language animations. Supports Hebrew + English.



Training Room Navigation

Lobby/menu screen with 3 training room options (Heart / Lungs / Brain).
Teleportation to selected room. Back button to main menu. Smooth scene-switching animations.



Heart Surgery Room

3D heart model with step-by-step surgery animation tutorial.
Forward/backward playback controls. Step-by-step UI guide panel.
Optimized for VR rendering.



Lung & Brain Surgery Rooms

Dedicated rooms for lung and brain surgeries — each with 3D model, surgery step animations and tutorial UI. Step-by-step learning experience for medical students.



Sprint 3 — Innovation & Polish (Part 2 of 3)

Anatomy Explorer + Surgery Simulation + AI + Voice



Interactive Human Body

Full human body model in VR. Click on any organ to highlight and display a 3D information panel with name, function and medical details. Grab and physically remove the organ from the body, examine it up close, then return it to its exact position.



Surgery Simulation — Chest

Use a virtual scalpel to cut open a human chest step-by-step. Watch the chest open to reveal internal organs (heart, lungs, ribs). Interactive and realistic — designed for medical student training in a safe virtual environment.



AI Smart Assistant

AI assistant panel in the meeting room. Ask medical questions by voice or text (Whisper + GPT/Grok API). Answers displayed on a scrollable screen with text-to-speech playback. Available to all participants during the session.



Voice Commands

Hands-free control of the system using voice. Open/close menus, navigate to rooms (Main, Patients, Training) by saying commands. Supports Hebrew & English. Fallback message for unrecognized commands.



Sprint 3 — Innovation & Polish (Part 3 of 3)

Learning Center + Movement Sync + Social Impact + System Polish



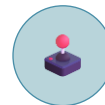
Medical Learning Center

Dedicated learning room with multiple interactive knowledge panels. Browse medical articles, presentations and images in VR. Flip/scroll content with hand gestures. Links to medical sources and references.



Basic Medical Simulations

Blood draw simulation: syringe, vein, step-by-step insertion logic. Throat exam simulation: tongue depressor, open mouth, step-by-step check. Visual feedback for correct/incorrect steps. Scoring system.



Avatar Movement Sync

Full hand and gesture movement synchronized across all users (Normcore + IK). Head direction and walking movement synced in real time. IK rig for natural arm movement. Mirror in room to see your own avatar.



Social Impact Showcase

Dedicated room displaying the platform's social contribution: CO₂ and travel savings, multilingual support (Hebrew/Arabic/English), sign language accessibility data, infographic dashboard and MedMeet vision wall.



System Polish & Stability

Comprehensive bug fixing across all epics. Full integration testing. Performance optimization for all 3D models. Code review before every merge. All features stable and demo-ready for final presentation Jun 3, 2026.



MedMeet · Complete Feature Overview

Everything we built across 3 sprints



VR/AR Meeting Rooms

Multi-room immersive consultations with avatars & spatial VoIP.



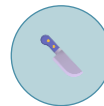
Sign Language

Real-time sign language avatar for deaf & hard-of-hearing users.



Interactive Anatomy

Click, remove & examine any organ on a full human body model.



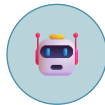
Surgery Simulation

Scalpel chest incision — explore internal organs in 3D VR.



Surgery Training Rooms

Step-by-step heart, lung & brain surgery tutorial rooms.



AI Transcription

Auto-transcribe sessions with speaker diarization & PDF export.



AI Smart Assistant

Voice/text Q&A with GPT/Grok — instant medical answers in-session.



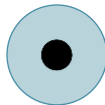
Laser & Annotations

Laser pointer + paint markings on 3D models — shared in real time.



Medical Image Sharing

Upload & display X-rays, scans & images — synchronized gallery.



3D Session Recording

Record avatars & audio; replay the full session in Unity.



People Analytics

Talk-time tracking, participation % & CSV export per session.



Social Impact

CO₂ savings, accessibility metrics & sustainability showcase room.



Sprint Journey

1

Sprint 1

Foundation

~270 hrs · Oct–Dec 2025

2

Sprint 2

Advanced Features

~280 hrs · Dec 2025–Jan 2026

3

Sprint 3

Innovation & Polish

~280 hrs · Mar–Jun 2026

VR meeting room · Avatars · VoIP voice
· Session management · Shared 3D
models · Attendance logging ·
Integration testing · Technical
documentation

Multi-room system · 360° model
interaction · Laser & annotations ·
Medical image sharing · AI
transcription · People analytics · 3D
recording · Avatar improvements · AR
Mode

Sign language AI · Interactive human
body · Chest surgery simulation ·
Surgery training rooms · Medical
learning center · Procedure
simulations · AI assistant · Voice
commands · Movement sync · Social
impact showcase · Full system polish



Thank You

Try MedMeet — Experience the Future of Healthcare

"Built by students — designed for the future of healthcare."

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