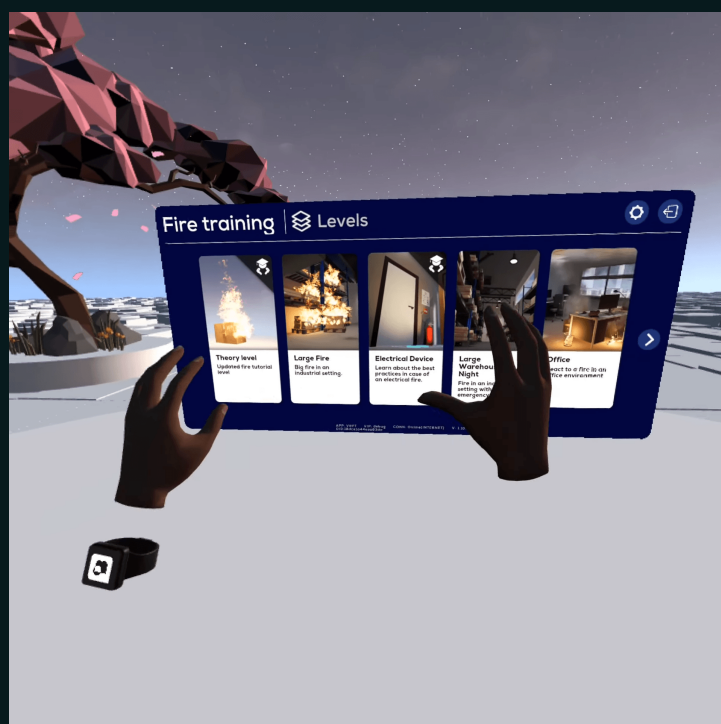


NMBS Nationwide Fire Safety Training

Customized VR fire safety training that equips railway staff with the skills to handle fires and evacuations confidently.

Platform: VR



Project overview

Customized VR fire safety training that equips railway staff with the skills to handle fires and evacuations confidently.

About the project

OneBonsai delivered a customized VR fire safety training program for NMBS, the national railway corporation of Belgium, simulating railway-specific scenarios like hose operations, low-light fires, and evacuations. The immersive, scalable solution improved staff preparedness and built a stronger safety culture across the national railway.

Challenge

Training Railway Staff in Fire Safety and Evacuation

NMBS, Belgium's national railway operator, needed to train thousands of staff members in fire safety and evacuation procedures specific to railway environments. Traditional training methods could not replicate the unique hazards of railway stations and trains, such as confined spaces, equipment-specific fires, and low-visibility environments.

Existing fire training programs were generic and lacked the contextual relevance needed to prepare railway personnel for real-world emergencies. NMBS required a scalable, immersive solution tailored to the specific scenarios their staff would encounter on the job.

"Our railway staff needed fire training tailored to their specific environment, which existing programs couldn't provide."

Solution

Customized VR Fire Safety Training

OneBonsai developed a fully customized VR fire safety training program for NMBS, featuring realistic simulations of railway-specific scenarios. The training covered hose operations, fire extinguisher use, low-light fire navigation, and full evacuation procedures within railway station environments.

The VR system allowed trainees to practice handling emergencies in immersive, high-fidelity environments that replicated the stress and unpredictability of real fires. Each scenario was designed in collaboration with NMBS safety experts to ensure accuracy and alignment with operational protocols.

Approach

Tailored Scenarios with Scalable Deployment

The development process involved close collaboration between OneBonsai and NMBS safety teams to

identify the most critical training scenarios. Each module was designed to address specific competencies, from basic fire response to complex multi-step evacuation procedures.

The VR platform was built for scalable deployment across NMBS facilities nationwide, enabling consistent training quality regardless of location. The system's portability and ease of setup meant that training sessions could be conducted at stations and depots without disrupting daily operations.

"Training in VR is even more realistic than using a staged fire. It allows us to train in a realistic and relevant environment."

Outcome

Immersive and Relevant Safety Preparedness

The customized VR fire safety training program significantly improved NMBS staff preparedness and confidence in handling fire emergencies. Trainees reported that the immersive, railway-specific scenarios felt more relevant and engaging than traditional methods.

The scalable deployment across multiple facilities ensured consistent training standards nationwide, while the reduction in physical training resources lowered costs and environmental impact. The program strengthened NMBS's overall safety culture and set a new standard for fire safety training in the railway industry.

"This customized VR program raises safety standards across our entire workforce."

Discuss a similar project

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