Virtual STEM learning hub with Virtual reality elements (SP_Grupa)

Description:

The Virtual STEM Learning Hub is an innovative educational platform that revolutionizes the way students engage with science, technology, engineering, and mathematics (STEM) subjects. This platform combines a user-friendly interface with cutting-edge virtual reality technology to provide an immersive and interactive learning environment for students of all ages and proficiency levels.

What does the solution look like?

The Virtual STEM Learning Hub is primarily accessible through a comprehensive web-based application. Upon logging in, students would be greeted with a visually immersive virtual environment, resembling a futuristic laboratory, where they can navigate through various sections representing different STEM disciplines.

What are its features?

Virtual Laboratories: Students would have access to a diverse range of virtual laboratories equipped with advanced scientific instruments, enabling them to conduct experiments and simulations in a safe and controlled virtual setting.
Immersive Field Trips: The platform would offer interactive virtual field trips to renowned scientific landmarks, historical discoveries, and inaccessible environments, allowing students to explore and learn from these locations without leaving their classrooms or homes.
3D Models and Simulations: The platform would host a comprehensive library of 3D models and simulations, enabling students to visualize and manipulate complex scientific structures and phenomena, fostering a deeper understanding of intricate concepts in STEM subjects.
How does it solve a problem?
The Virtual STEM Learning Hub addresses the challenge of limited access to advanced laboratory facilities and real-world scientific experiences, especially for students in remote areas where these options are not accessible. By providing a virtual platform that simulates real-world scientific settings, the solution offers students an opportunity to engage with hands-on experiments, explore diverse environments, and visualize abstract concepts in a more tangible and interactive manner, ultimately enhancing their understanding and passion for STEM subjects.

Prototype:

Utilizing advanced virtual reality technologies, the Virtual STEM Learning Hub prototype demonstrates a user-friendly interface where students can interact with various virtual laboratory equipment, manipulate 3D models, and embark on virtual field trips to explore different scientific environments. The platform's immersive and interactive design aims to foster curiosity, critical thinking, and a deeper appreciation for the wonders of science and technology among students worldwide.

Webpage prototype:
https://www.figma.com/file/chIysfidBi90YvoLWgOFZz/Untitled?type=design&node-id=0%3A1&mode=design&t=z6V8cq8aokogCUsP-1
Video presentation:
https://drive.google.com/file/d/1xu7GJMBDGCtiiTt2UuG6X_LDdxHMlY6N/view?usp=sharing