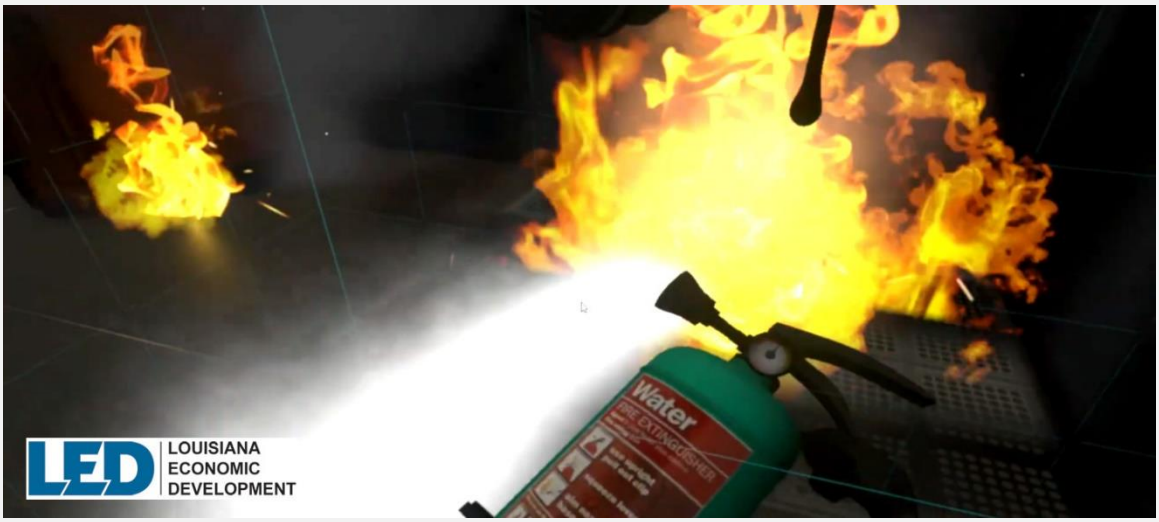
LED FAST START – FIRE SAFETY TRAINING



Comprehensive VR simulation for fire extinguisher training and proper safety protocol using PASS for handling fires. View video: https://youtu.be/K44UmnzgPwQ

ABOUT THE TEAM

This project was in collaboration with 3D Media for Louisiana Economic Development. The project was used to persuade Exxon Mobile to invest in VR for training.

The team consisted of:

- Project Owners: Red Iron Labs
- Project Lead: Mike Oakes, 3D Media
- VR Development: Lloyd Summers & Sean Brown, Red Iron Labs
- Graphic Design: Shane Berezowski, Red Iron Labs

ABOUT THE PROJECT

Red Iron Labs created a simple single-level firefighting VR application, showcasing two different types of fire extinguishers and how to use them to put out the fires in an industrial environment. Users utilized teleportation to move around the environment. This was a stand-alone manually installed VR experience on Windows catered to the HTC Vive.

USER INTERFACE

We utilized two control schemas-- a keyboard interactive control system (for the person running the VR experience) and the HTC Vive control input system (for the users). The controls are context-based, meaning their functionality was determined by the intent of the user. The two interactionable features were two fire extinguishers.

Fires & Fire Extinguisher Progression

- A fire alarm with flashing lights warns the user of a fire.
- The user encounters the trash fire and is walked through the steps to use the water-based fire extinguisher on the fire.
- The user aims at the base of the fire to effectively put it out.
- The extinguishers have a limited amount of power.
- The user encounters leaking oil that starts a new oil fire.
- The nearest fire extinguisher is water-based. If the user picks up the extinguisher, they are notified and encouraged to drop the extinguisher and seek the correct extinguisher.
- If the user runs out of time or uses the wrong extinguisher the scene ends in a failure.

When the experience is complete, the user is provided with a score.

AUDIO

- The audio focused on the areas of importance at the moment of execution to maximize the value of the tutorial.
- Voice overs were included as a tutorial element to help walk the user through interactions.
- Sound effects were used to deliver information, increase the production value, and evoke emotional responses. Sound effects were associated to the fire extinguisher, fire, and the industrial environment (alarm and sprinkler).

OUTCOMES

FireVr was a glowing success for our team, LED FastStart, and Exxon Mobil. This module was a first foray into VR for LED Fast Start and was the centerpiece of their bid to win "#1 Economic Development Organization in the US" for the tenth year in a row. According to the official evaluator, "FireVR was the straw that broke the camel's back. It was so far beyond what anyone else is doing in workforce development."

FireVR was also the module that convinced Exxon Mobil to commit to a $500 Million Dollar Plant expansion in East Baton Rouge, La. (https://www.businessreport.com/newsletters/exxonmobil-led-partner-with-local-it-firms-for-virtual-reality-training-initiative). Combined with other incentives the advanced technological ability on regards to workforce training and development persuaded Exxon to execute the plant expansion in Louisiana. After FireVr Exxon Mobil went on to make significant investments in a fledgling Digital Transformation initiative. Resulting a the first annual TecNext Conference in Baton Rouge, hosted by Exxon Mobil and various other Petrochemical manufacturers.

CONTACT INFORMATION

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