

Visualizing Types of Lightning using Visual Reality

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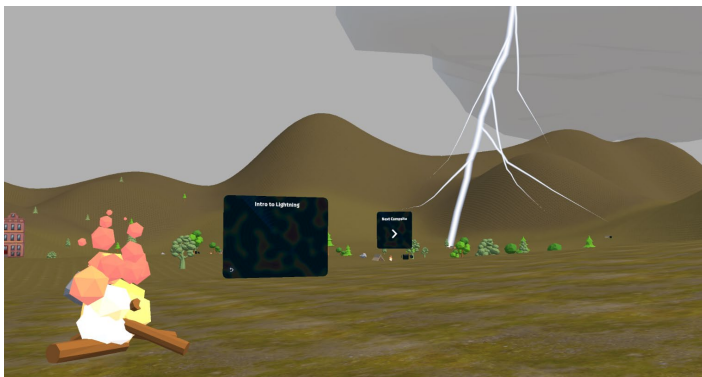
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Objective

Build an interactive VR experience to educate the public about types of lightning.

Methodology

Meta Quest visual reality headsets, Unity.



Results

- Visualizes -CG and +CG.
- VR app that can be used to educate groups.
- Reinforces knowledge with quizzes.

Interface of the VR app

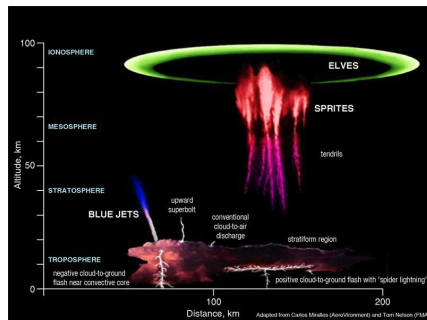


Video Demo:

<https://drive.google.com/drive/folders/1arU-QSed8IFiAbAbB0aciHgd8Tc8vAH?usp=sharing>

Future Work

- Add intracloud lightning and TLEs.
- Physically accurate lightning rendering.
- Illustrate charge distribution.
- Publish app on Meta Quest store.



<https://skybrary.aero/articles/transient-luminous-events-tles>

Typical Lightning	Transient Luminous Events (TLEs)
-CG (+/-) -IC -CC	-Sprites -Blue Jets -Gigantic Jets -Elves