Space Apps Challenge

Endurance

“Create an Orrery Web App that Displays Near - Earth Objects”

Earth is humanity’s cradle,

but we can’t always stay

in a cradle.

- Sergio Eduardo Zepeda Velez
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Summary

Who are we?

We are Endurance, a passionate team with a brand named **SkyRiders.** Our main goal is to inspire curiosity and love for space exploration through accessible technology and information.

About the challenge

Since a mechanical model of the solar system was presented to Charles Boyle, 4th Earl of Orrery, in 1713, such models have been referred to as orreries. The first orreries were physical models, but today we can use numerous tools to create virtual orreries that have many more features than their ancient mechanical counterparts. Your challenge is to create an interactive orrery web app that is embedded in a webpage and displays celestial bodies such as planets, Near-Earth Asteroids, Near-Earth Comets, and Potentially Hazardous Asteroids.

What are the problems?

A key challenge in disseminating space knowledge is the accessibility of information. Not everyone has access to intelligent devices or a reliable internet connection. We sought to address this by designing an application that not only displays complex space data but also does so in a simple, engaging way that can be shared across platforms.

We understand that space data can often feel distant or irrelevant to the general public, so we focused on making it more relatable and visually appealing, especially for younger audiences.

What have we developed?

Our team developed a responsive Web Page using **Three.js** and 3D textures to create an interactive orrery. This app allows users to view planets, asteoriods and moons in their orbits, alongside important information about celestial bodies.

Features:

- **Visual Interaction:** The orrery displays detialed celestiall models with dynamic orbits
- **Informaiton Accessibility:** The app provides easy - to - understand information about space exploration and celestial bodies
- **Interactive Content:** Users can explore how humans migth iteract wit these objects, simulating experiences like landing on asteroids.

- **Social Media Integration:** The web app links to social media platforms where interesting space fact and educational content are regularly shared.

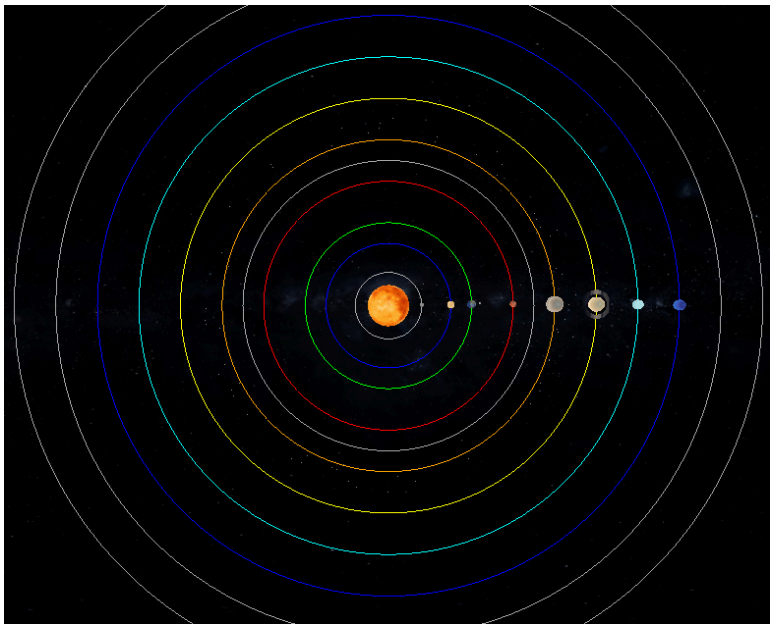
Why?

Our mission is to make space knowledge accessible to everyone, regardless of their background. We believe that space exploration is a topic that can ignite curiosity and foster a love for science . With our app, we hope to make space exploration more relatable and exciting for all kinds of users, from space enthusiasts to those just beginning to explore this field.

Where?

Our orrery web app is available online:

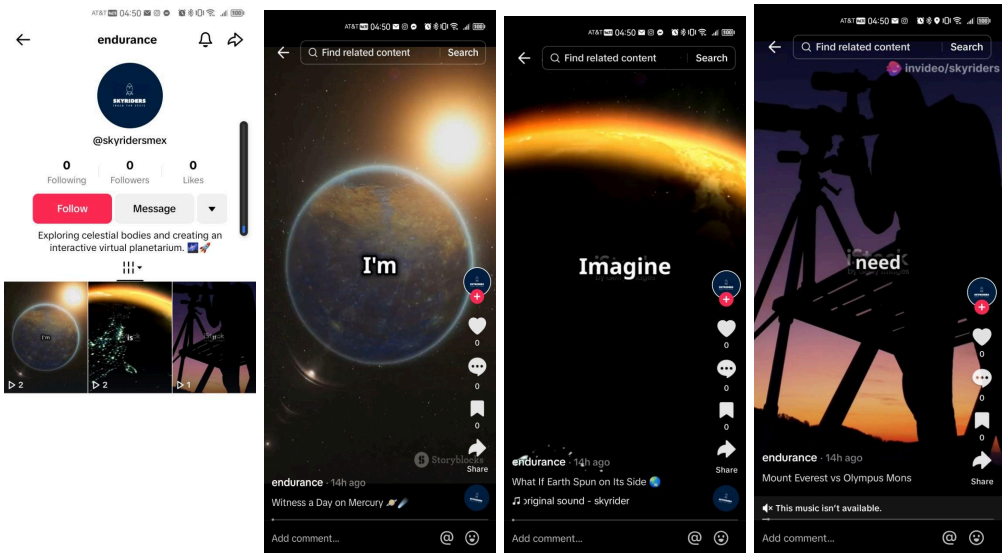
https://skyriders2.netlify.app/



Social media

To expand our reach and spread space exploration knowledge, we have created social media on TikTok and X. Our goal is to engage a wilder audience, specially younger generations , by posting educational content and fun facts about space. We currently have three videos on TikTok and plan to continue growing our content

- TikTok: https://www.tiktok.com/@skyridersmex



- X: https://x.com/Skyridersmex

Conclusion

Our participation in the *Space Apps Challenge 2024* has been a rewarding experience. Not only did we successfully build an interactive orrery, but we also deepened our knowledge of space exploration and web development. We are excited to continue refining this project and hope to inspire others to learn more about the cosmos.

We look forward to sharing our passion for space with the world and expanding our reach through social media and educational initiatives.