



VOICES FROM THE WORLDS BEYOND

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COMING UP

CONCEPT

DEVELOPMENT SO FAR

VISITING AN OBSERVATORY

XRL1 TEST

NEXT STEPS

CONCEPT

The sky will be filled with stars, galaxies and other celestial objects. Selecting (pinching on) them will trigger messages from aliens of other planets or sounds of outer space. Some special objects like black holes, nebula and other cosmic objects will also expand and fill the sky upon being clicked adding in to the sense of wonder.

The experience will be time-bound like a tour which will give audience the freedom to interact and explore as much as they want within the given time-frame.

DEVELOPMENT SO FAR

VR APP

- Hand Tracking Achieved
- Stars are spawning
- Stars are spawning according to the RA and Dec
- Stars give back a sound when clicked
- The skybox goes transparent automatically according to the time
- The ray from hand looks like a laser

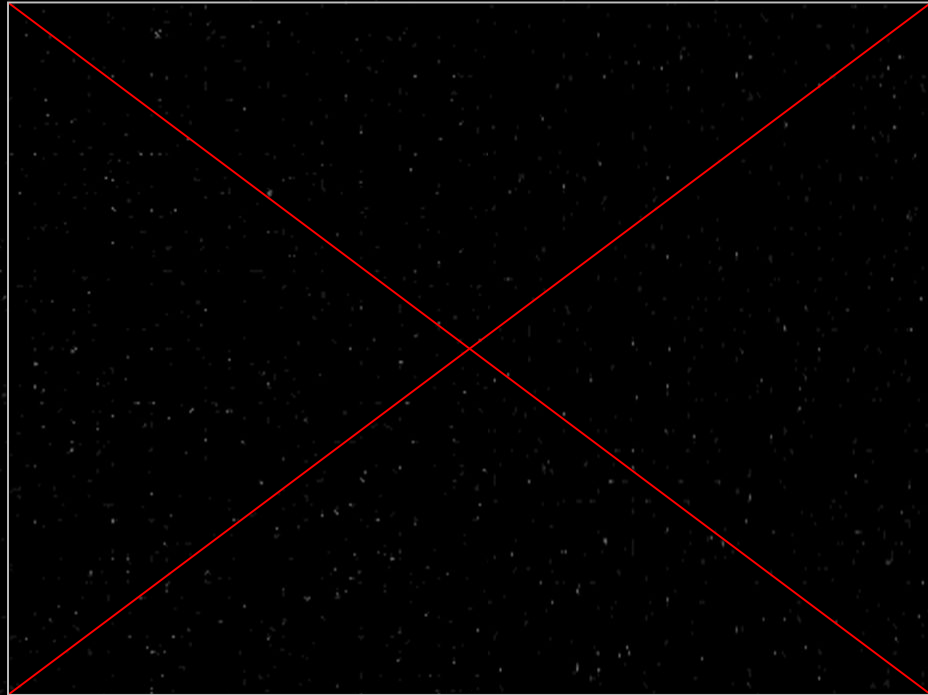
DEVELOPMENT SO FAR

STAR SPAWNING AND SENDING MESSAGES (WITH SKYBOX)



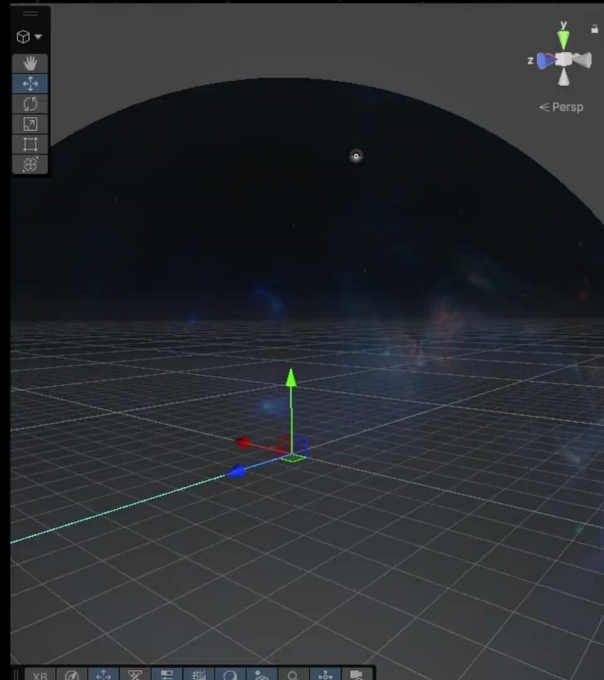
DEVELOPMENT SO FAR

STAR SPAWNING AND SENDING MESSAGES (WITHOUT SKYBOX)



DEVELOPMENT SO FAR

SKYBOX DISAPPEARING AUTOMATICALLY



DEVELOPMENT SO FAR

WEB APP

- ISS is being live tracked
- User's live position is shown
- Closest <500km approach is automatically calculated and shown
- The user's marker color changes once the ISS gets closer in range
- Live ISS feed from NASA embedded in app

DEVELOPMENT SO FAR

WEB APP

Next closest approach <500km: 09:25:40 (498 km)

Shows the next approach under 500km



Live Feed of what the ISS is seeing from NASA Youtube



DEVELOPMENT SO FAR

USER MARKER CHANGE





VISITING AN OBSERVATORY

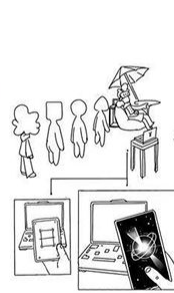
Norman Fisher Observatory

XRL1 TEST

CONCEPT AND EXPERIENCE DESIGN



1 The user waits in a line. They look at people sitting on bean bags wearing VR headsets and looking at the sky



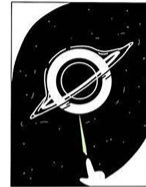
2 They scan a QR code while waiting in the line that takes them to a live tracker of the International Space Station. The background seems to have some signals could be seen



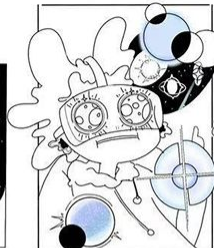
3 The user sits on the bean bag wearing VR headset and they see the sky filled with stars



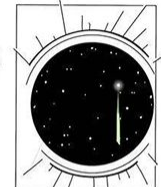
4 Pointing at a star and pinching it gives a message from the stars to the user



5 There are some stars that seem to give special signal waves. Clicking on them expands special celestial objects (black holes, quasars, nebulae) covering the user's entire field of view



6 The users keeps clicking on these stars and objects listening to the messages from the worlds beyond their reach

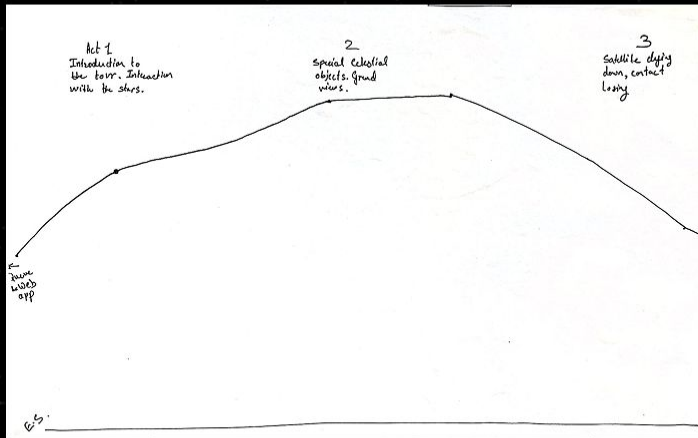


7 The user exits the experience after 5 mins

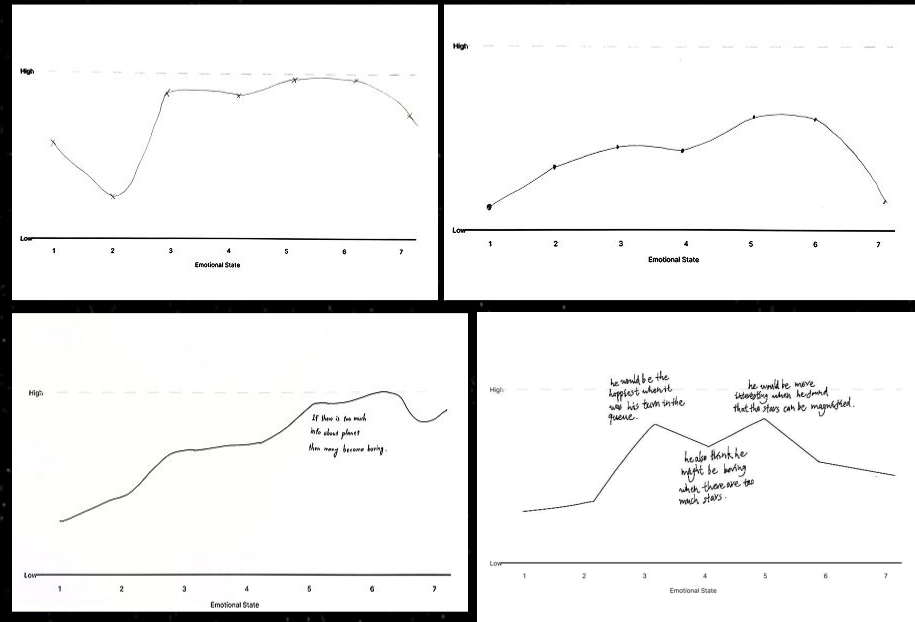
Storyboard of the user flow

XRL1 TEST

EMOTIONAL STATE GRAPH



'Ideal' Emotional Graph (post web app)



Users Plotting the Graph

TESTING THE SEATING



NEXT STEPS

VR APP

- Test with skybox sizes.
- Get accurate star positioning in relation to Earth's rotation.
- Make sounds and messages database.
- Implement special objects expanding (black holes, etc.)
- Scale stars according to their magnitude.

WEB APP

- Add Hubble Tracking.
- Add visual effects in background like waves.
- Think more on how to involve the audience more while they wait.

THANK YOU