

Frameless

Volume 2
Issue 1 *Volume 2, Issue 1*

Article 19

2020

VR Cinema

Simarjot Khanna
Rochester Institute of Technology

Follow this and additional works at: <https://scholarworks.rit.edu/frameless>



Part of the [Education Commons](#)

Recommended Citation

Khanna, Simarjot (2020) "VR Cinema," *Frameless*: Vol. 2 : Iss. 1 , Article 19.
Available at: <https://scholarworks.rit.edu/frameless/vol2/iss1/19>

This Demos is brought to you for free and open access by RIT Scholar Works. It has been accepted for inclusion in *Frameless* by an authorized editor of RIT Scholar Works. For more information, please contact ritscholarworks@rit.edu.

VR Cinema

Simarjot Khanna
Rochester Institute of Technology

Keywords — VR Cinema, Head Tracking, Eye-Gaze Trigger, Google VR, Cardboard, Daydream, VR for the masses

A VR - Cinema hall in which you can sit wherever you want, play whatever you want. It's your personal movie hall. All you need is a VR headset and you're set!

- Perfect real-time head tracking. Plays all kinds of images and videos formats from your mobile phone device.
- Immersive user-interface.
- Both gaze and external trigger enabled. Compatible with both magnetic clipper and Bluetooth remote control. So, the lack of a magnetometer is no issue, but gyroscope is imperative.
- Beautiful Hovering menus that can be triggered using eye-gaze, magnetic triggers or using Bluetooth controllers.

You can even see the projector dust!

Note: The main unique feature is that this VR Cinema can run on a variety of smart-phones and with low-cost VR headsets based on the Google VR platform, such as Google Cardboard and Daydream View.

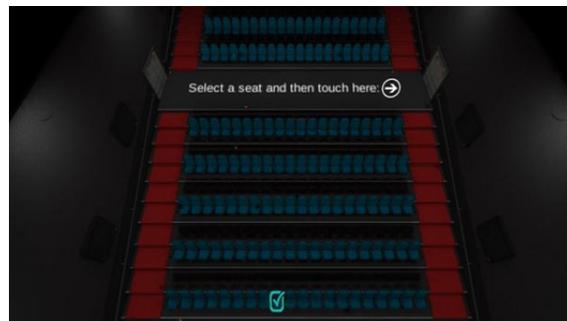


Figure 1. Shows the UI with which the User can interact both in and outside of VR to select the seat where they would like to be seated during their personal premiere.

BASIC FUNCTIONALITY OVERVIEW

Every hovering menu or interactable object inside the VR mode can be interacted with using:

- Eye-Gaze
- Magnetic clippers or buttons
- A Bluetooth controller or remote controller

When the User takes his gaze away from the movie screen, the movie is paused for their convenience and a pause menu is displayed (See Fig. 2). As soon as the User starts focusing on the movie screen, the pause menu goes away. The User can also interact with this to open the Remote Control. this to open the Remote Control.



Fig. 2. When the user the stops viewing the screen, the movie is paused and as soon as he is watching it again , the movie is resumed and the pause hovering card goes away. This card can also be used to open the “remote control menu”



Fig. 3. The Remote Control Menu card is the key to the various functionalities of your VR Cinema

Using the Remote Control (Fig. 3), the User can:

- Return to the home screen of the app
- Change their seat
- Forward or rewind the movie using

the Seek bar

- Quit the application

CONCLUSION

With this Application, I have tried to demonstrate the possibilities and comfort related to personal viewing of cinema that are possible using VR and how, with the evolution of tech, such an experience is available to the masses.

Future work could develop the following:

- Allow multiplayer, basically allowing multiple family members and friends have a shared viewing experience inside VR Cinema hall.

Reduce the app size and make distribution easy. The APK is available here: https://drive.google.com/file/d/1Ki2pNOg7Dqy3wC6d7YwkYyov2_0QMi3B/view

Note: I wrote the majority of the code in 2016, Some design and UI/UX elements have to be updated to the latest design and accessibility standards.

LINK: [SEE ABOVE]