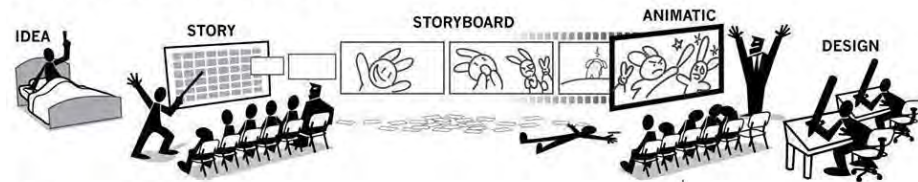


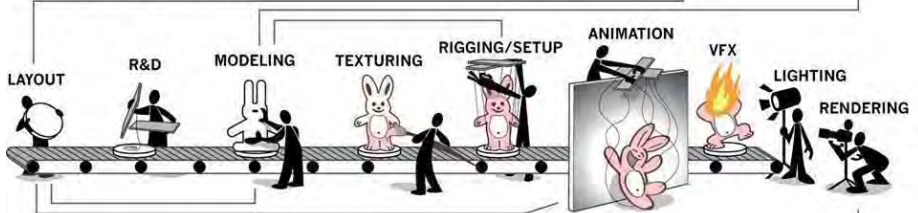
The Pipeline

Pipeline, processes, testing/screening, iterating,
targeting, proving,

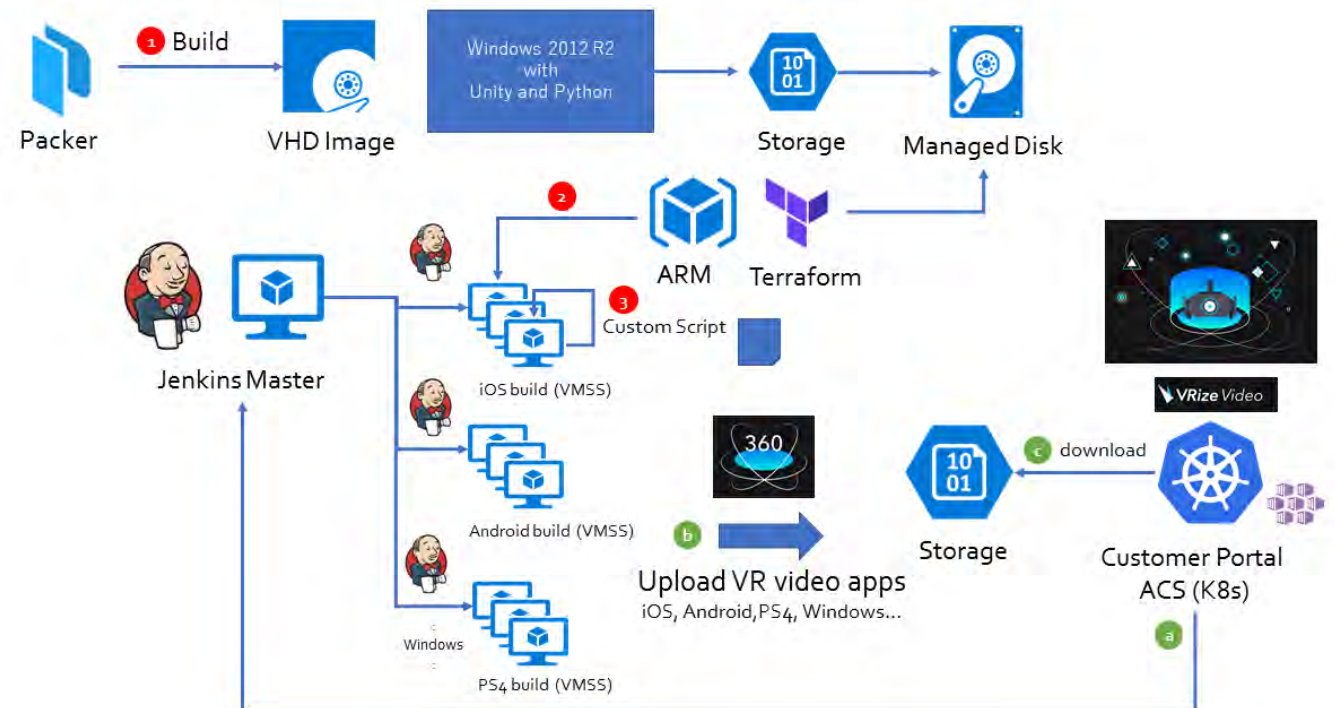
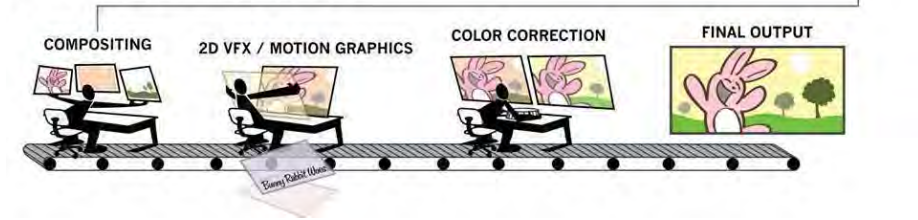
PRE-PRODUCTION



PRODUCTION



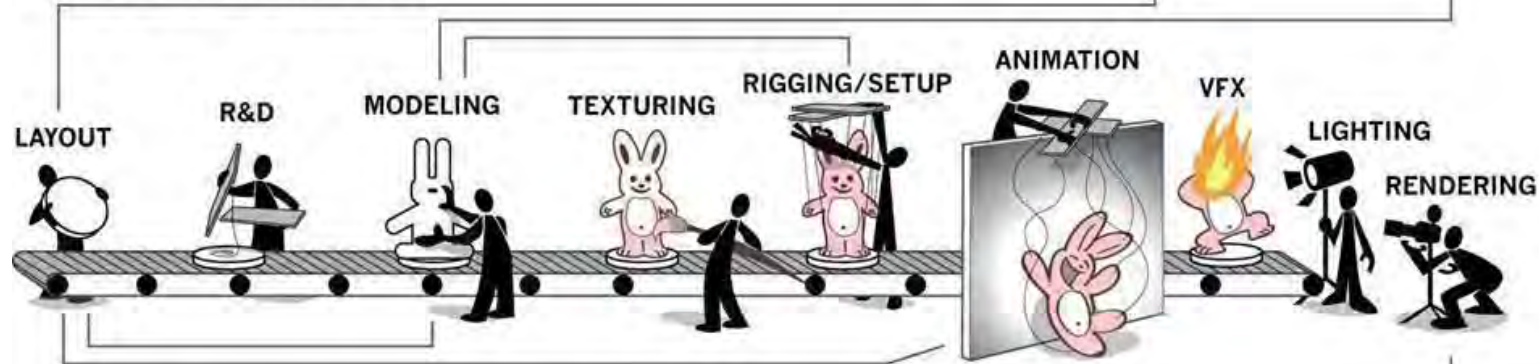
POST-PRODUCTION



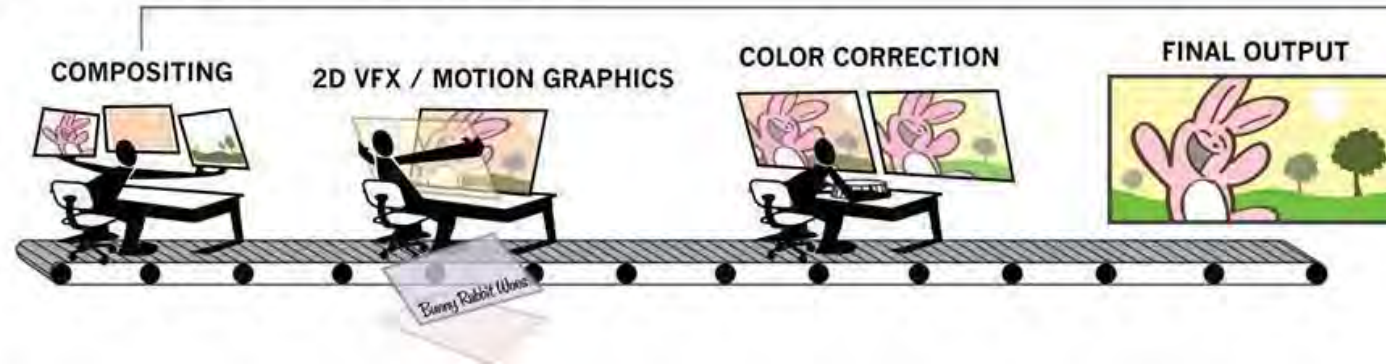
PRE-PRODUCTION



PRODUCTION

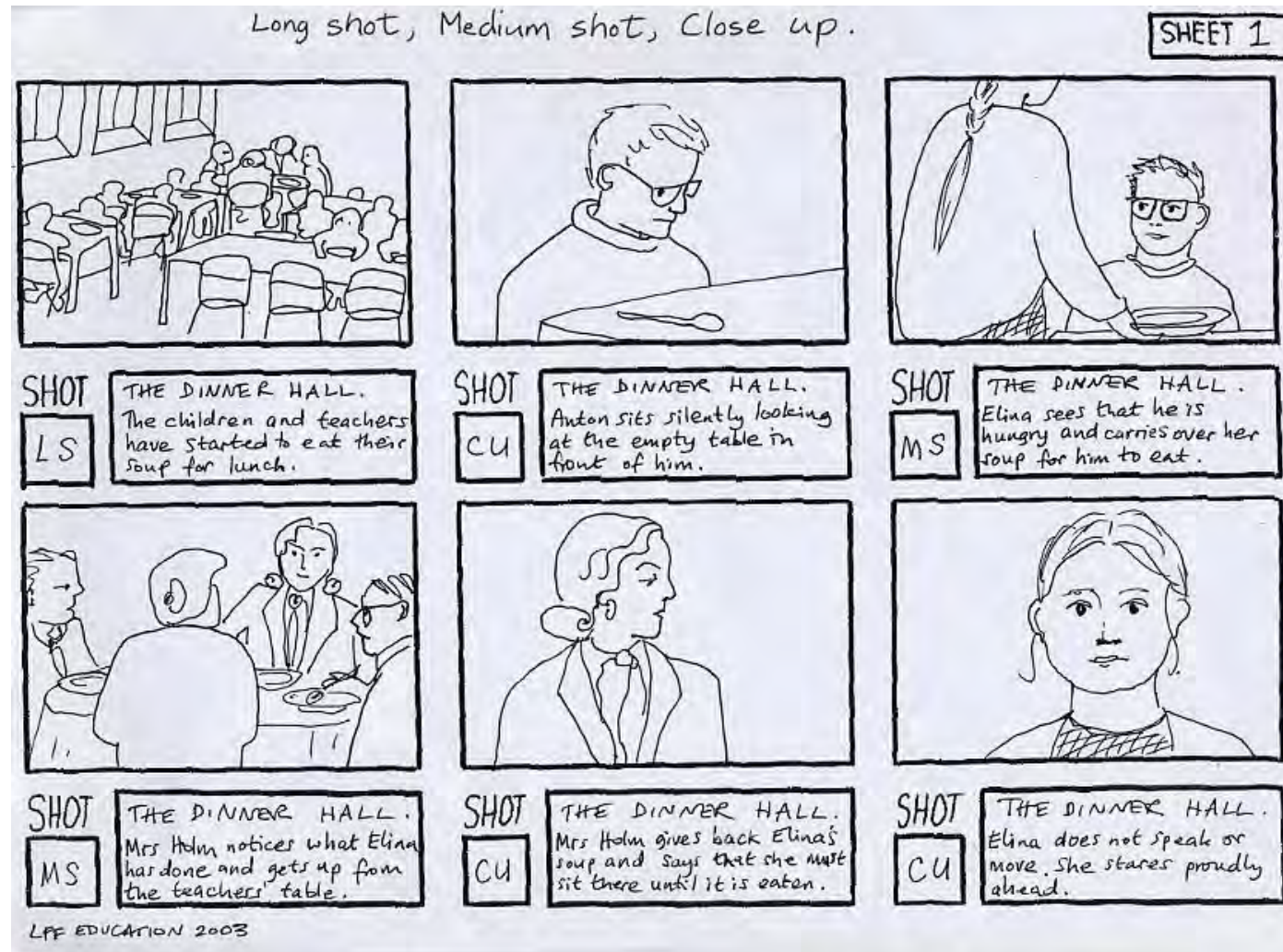


POST-PRODUCTION



Storyboarding/Planning

Storyboard

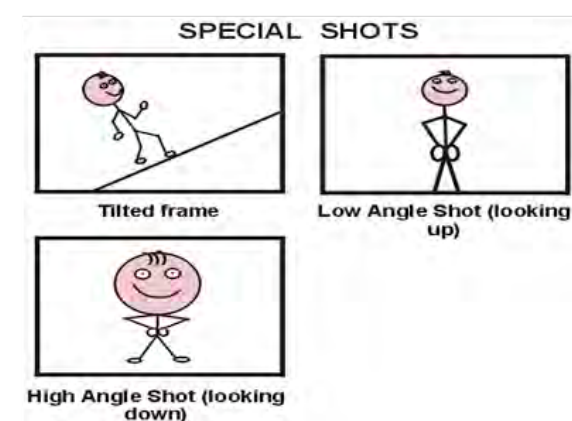
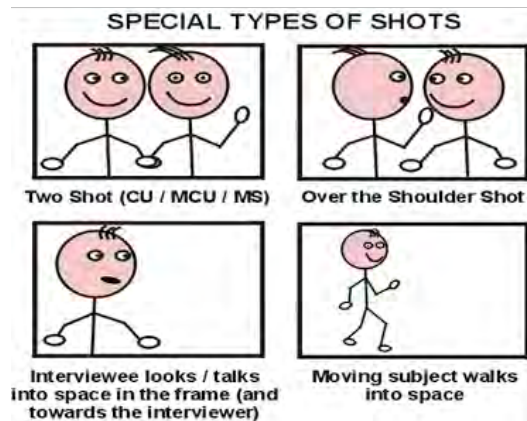
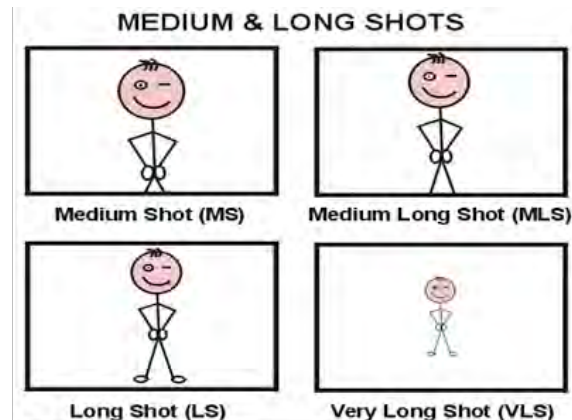
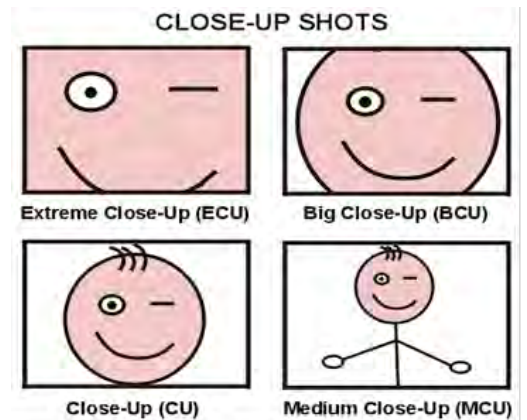


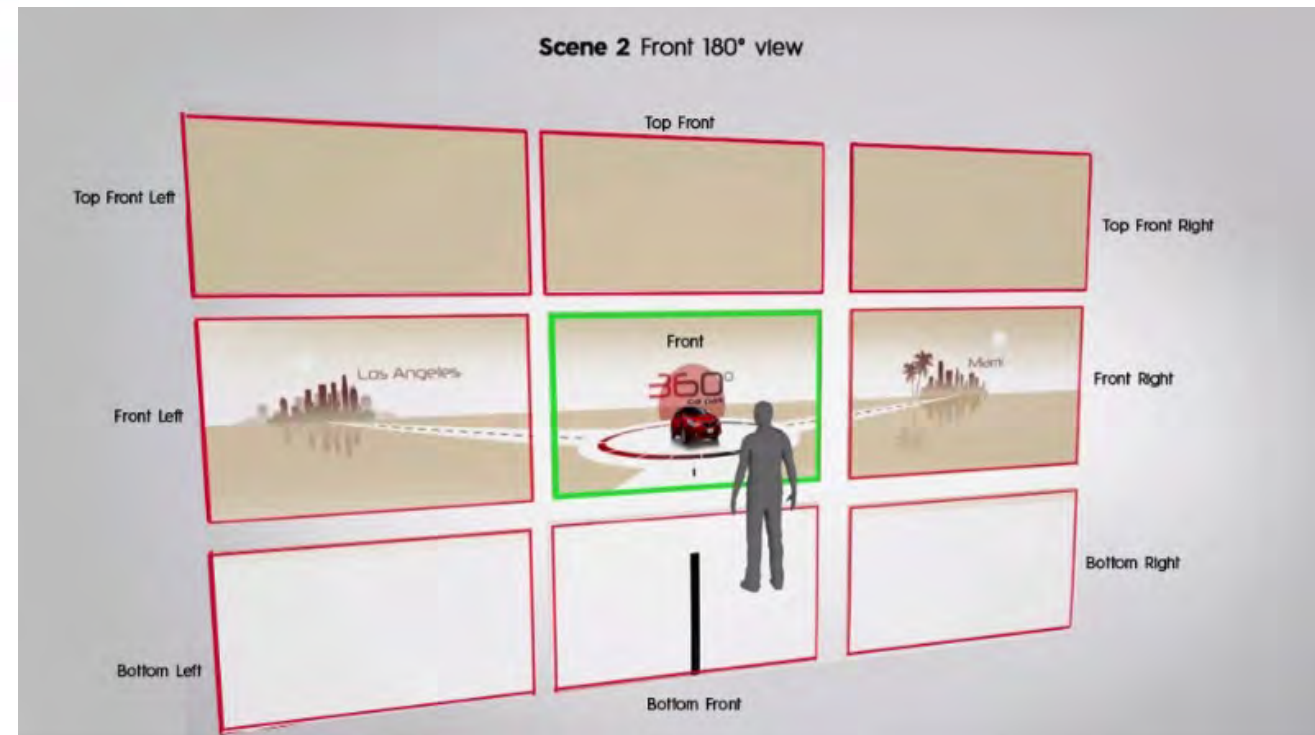
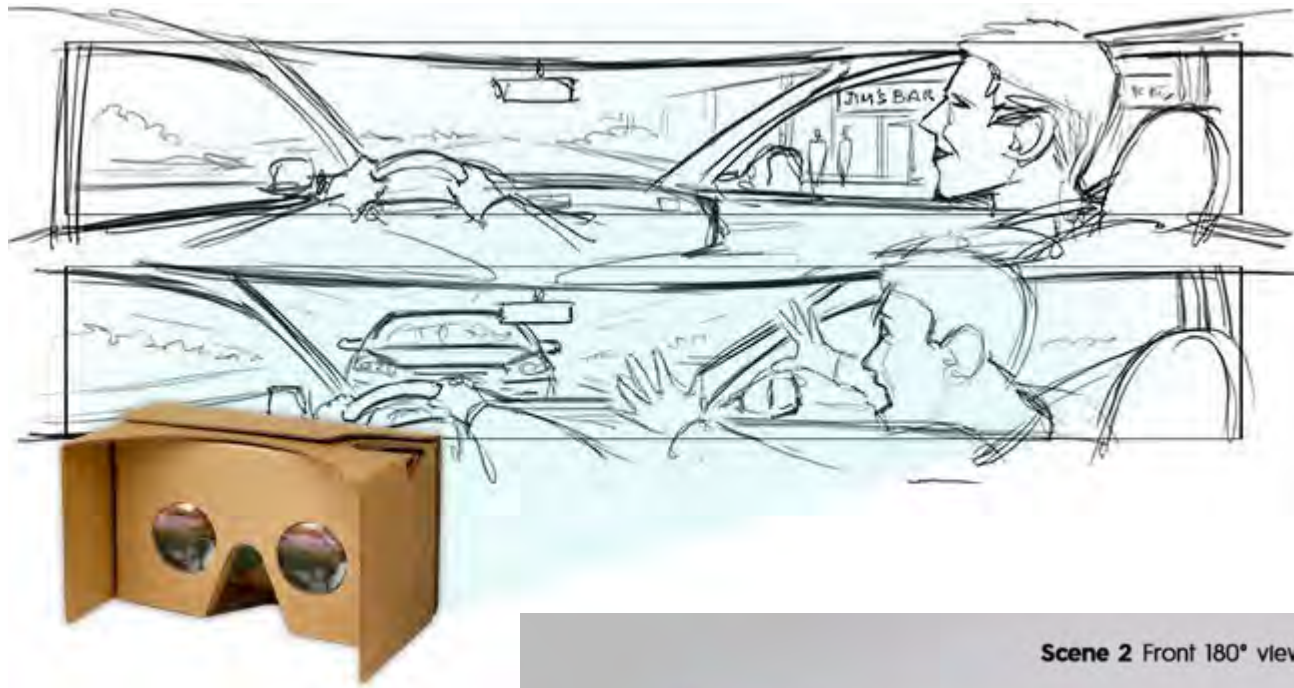
POV

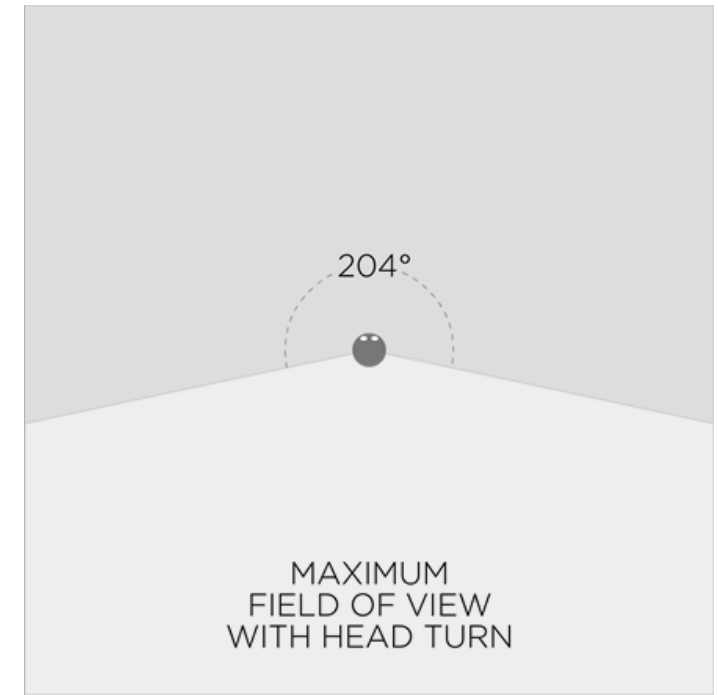
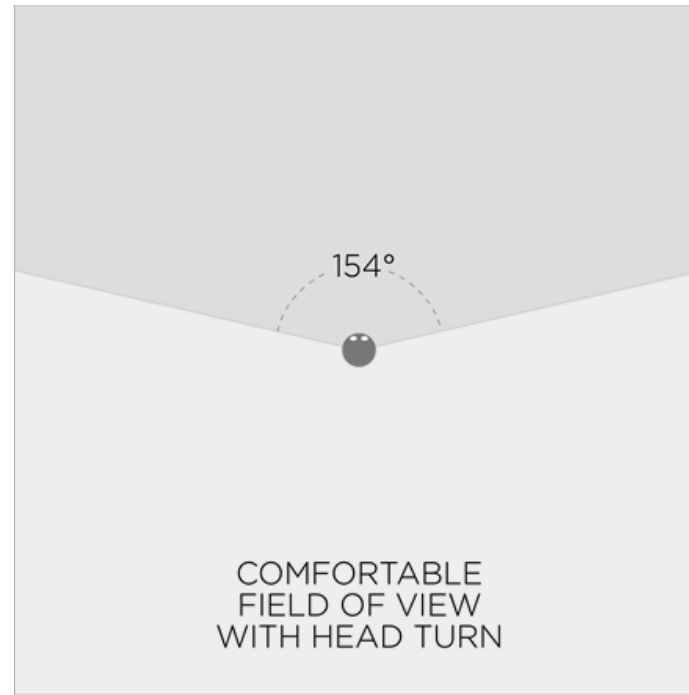
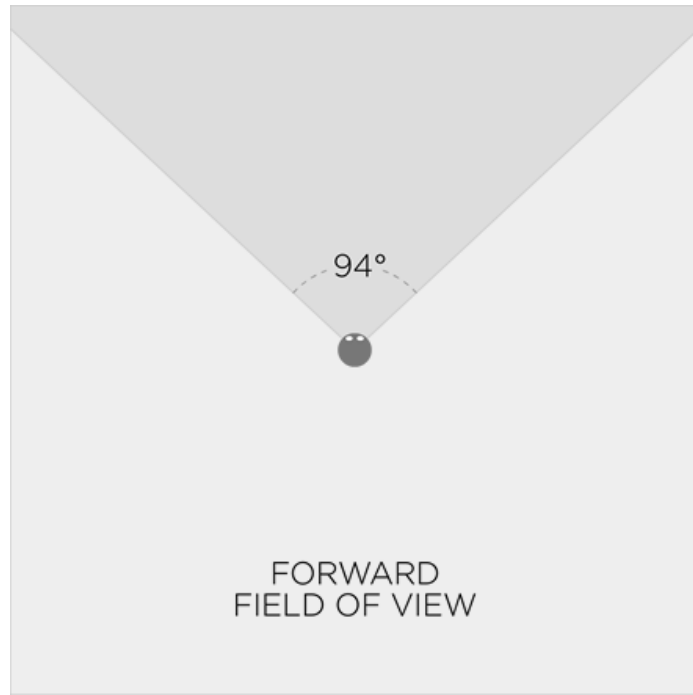
Establishing shot

Include notes and
arrows that describe
the action, dialogue, or
camera movements

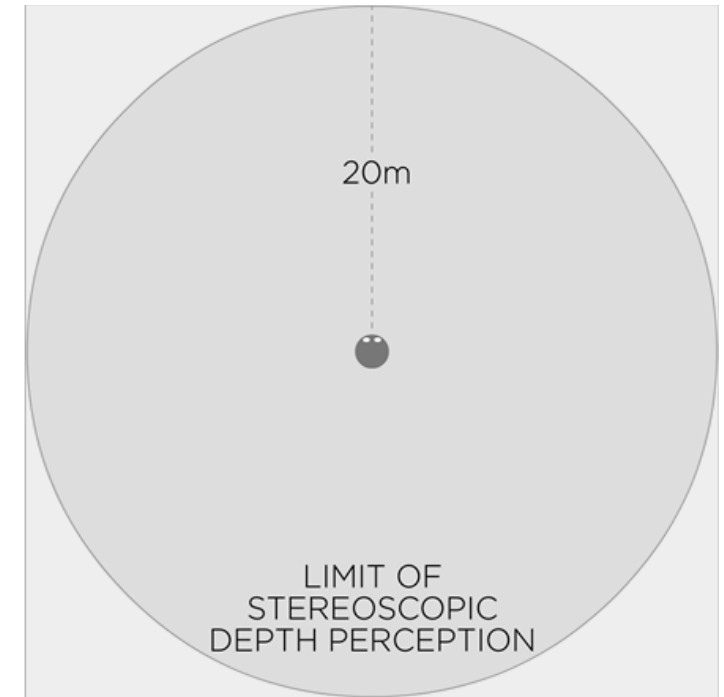
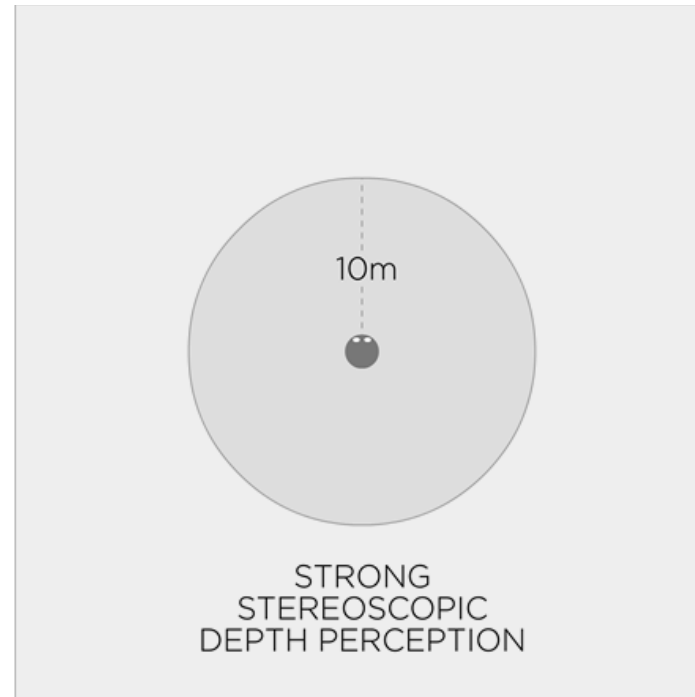
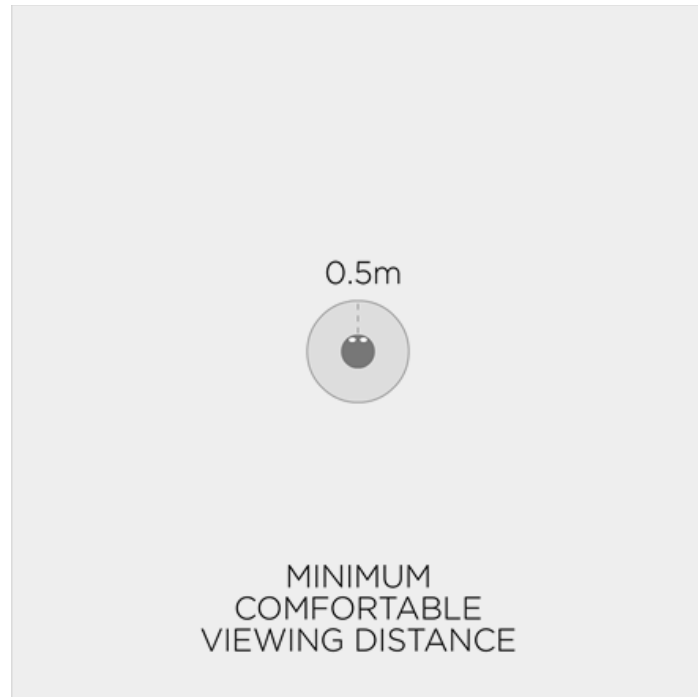
Write your script out
(as much as possible)
and write down the
applicable text below
each box



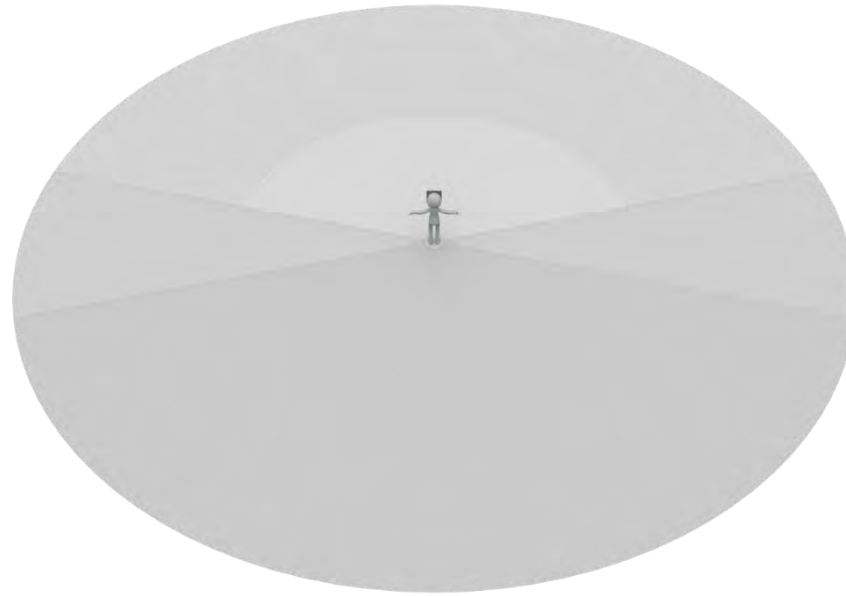




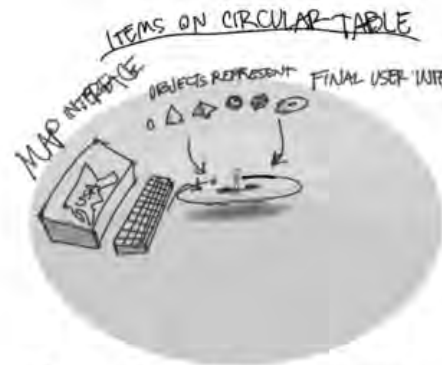
Field of view based on comfortable head rotation ranges.



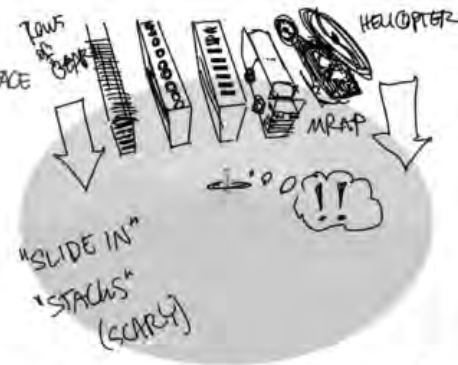
Viewing distance based on comfort and strength of stereoscopic depth perception.



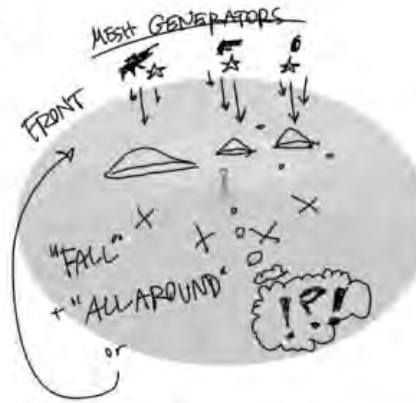
A storyboard layout for virtual reality...



PROTOTYPE USER INTERFACE:
PRIMITIVE SOLIDS, MAP, KEY
ENTRY for VR



"SLIDE IN"
"STACKS"
(SCARY)
TACTICAL GEAR "ZOOMS IN"



"PILES" of MILITARY GEAR
FALL FROM THE SKY

...with content.



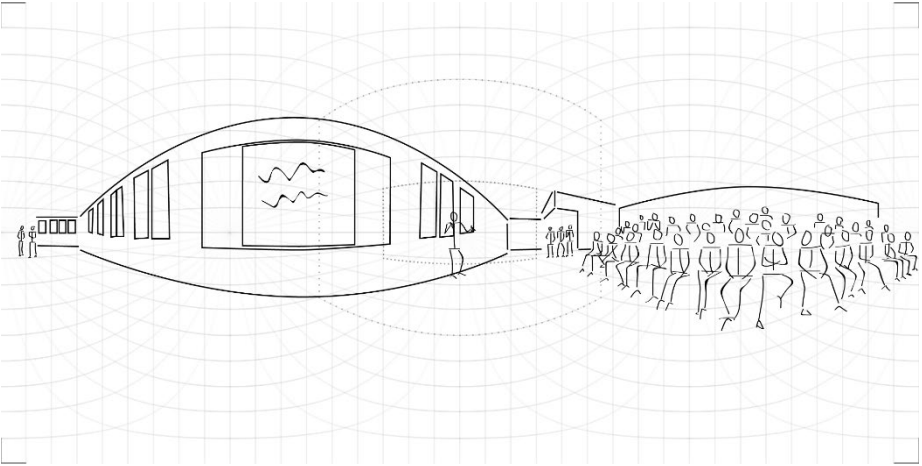
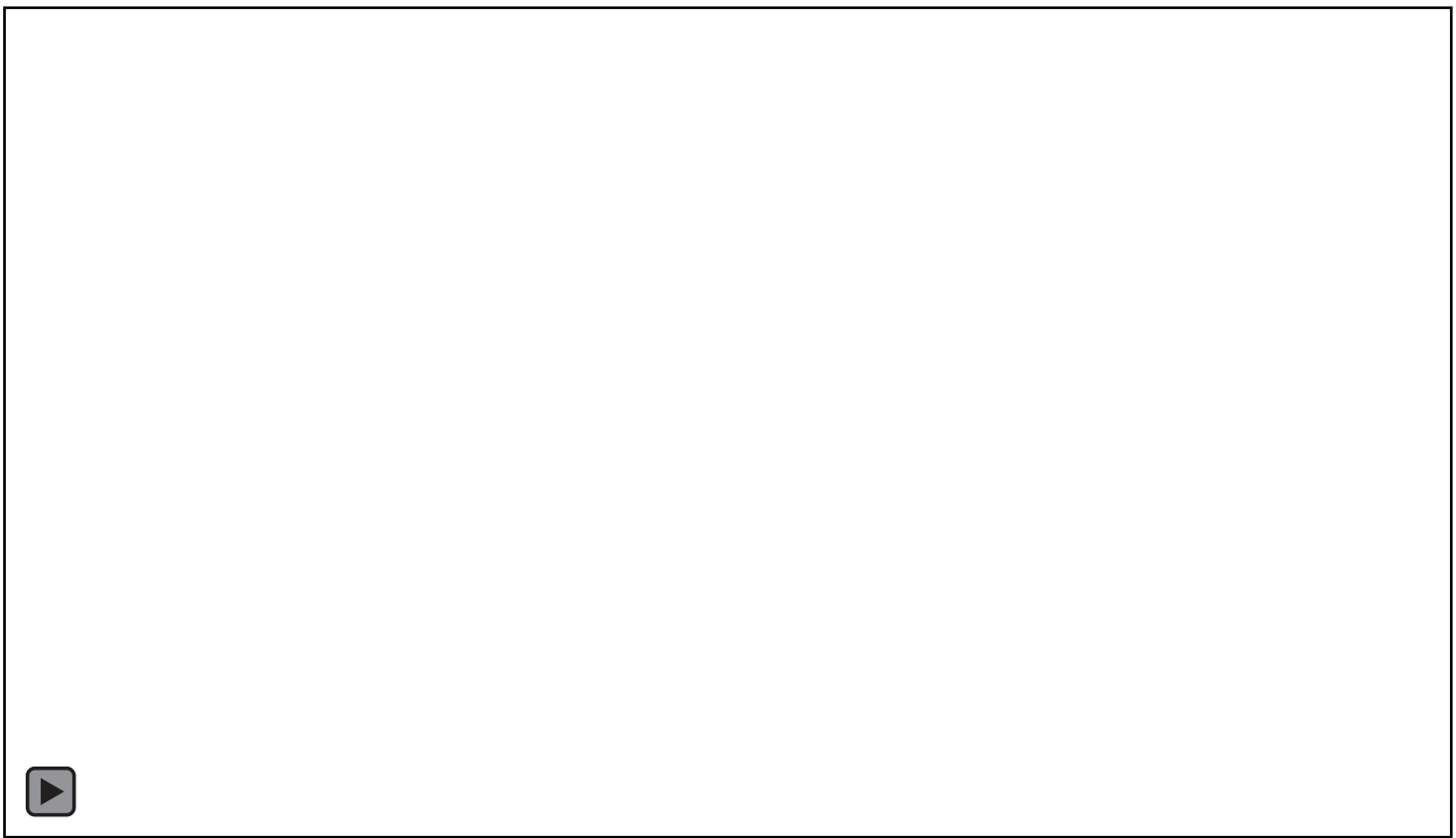






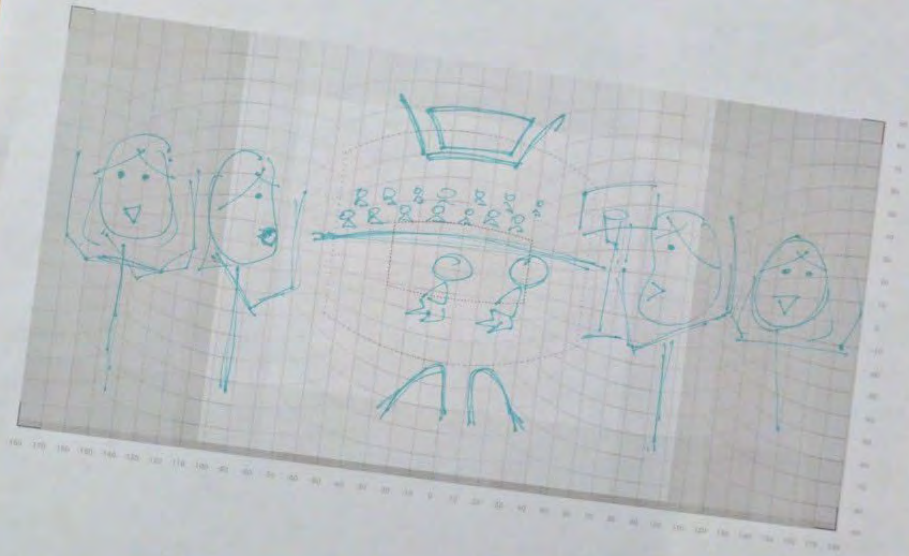
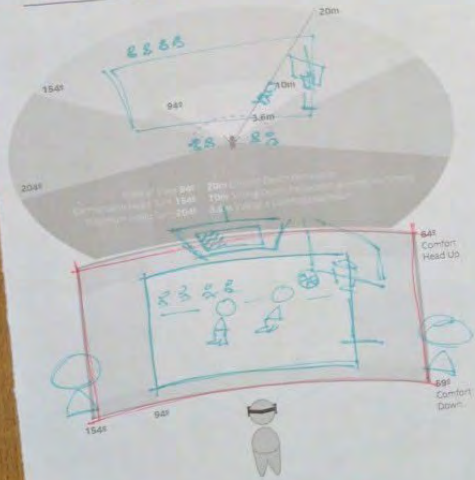








CONCEPT NAME:







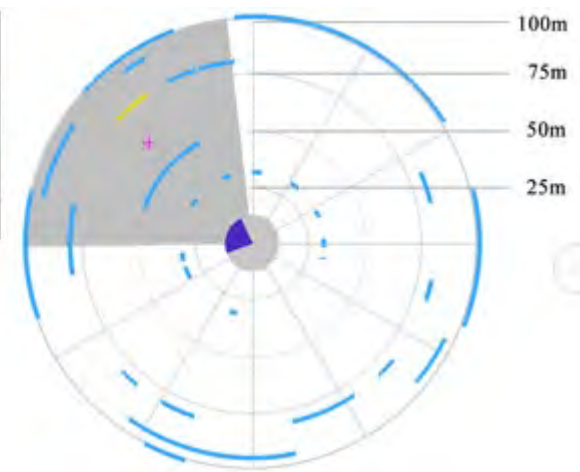
SLEEPY HOLLOW RIFT ZONE

STORYBOARD FOR SLEEPY HOLLOW RIFT ZONE
RECONSTRUCTION, AND SLEEPY HOLLOW RIFT



360 STORYBOARD - SLEEPY HOLLOW
June 15th 2014

SECRET
LOCATION FOX



First impression environment





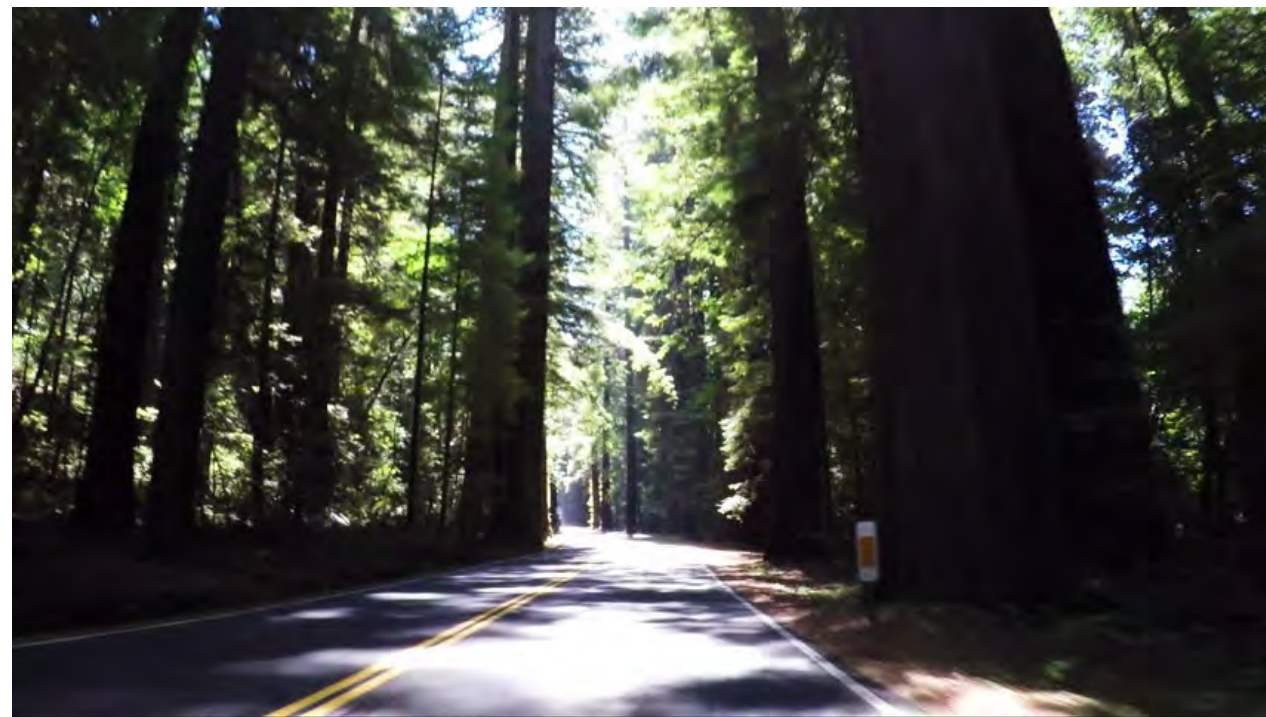


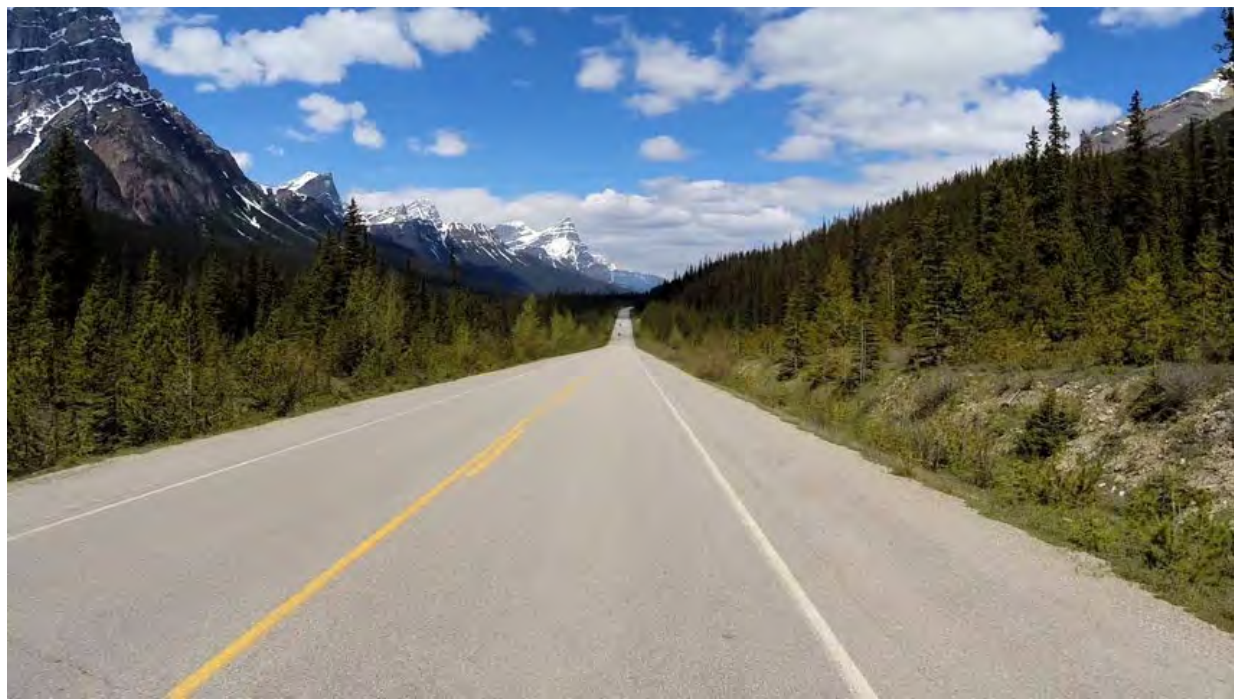
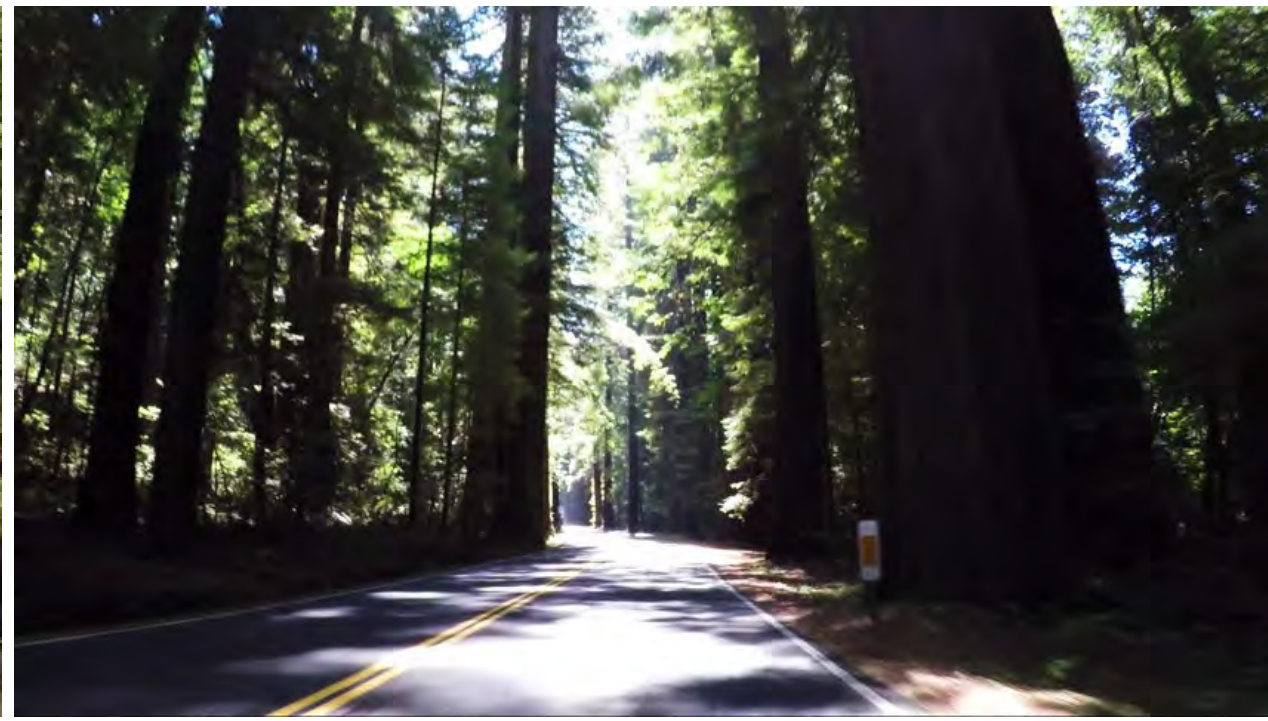


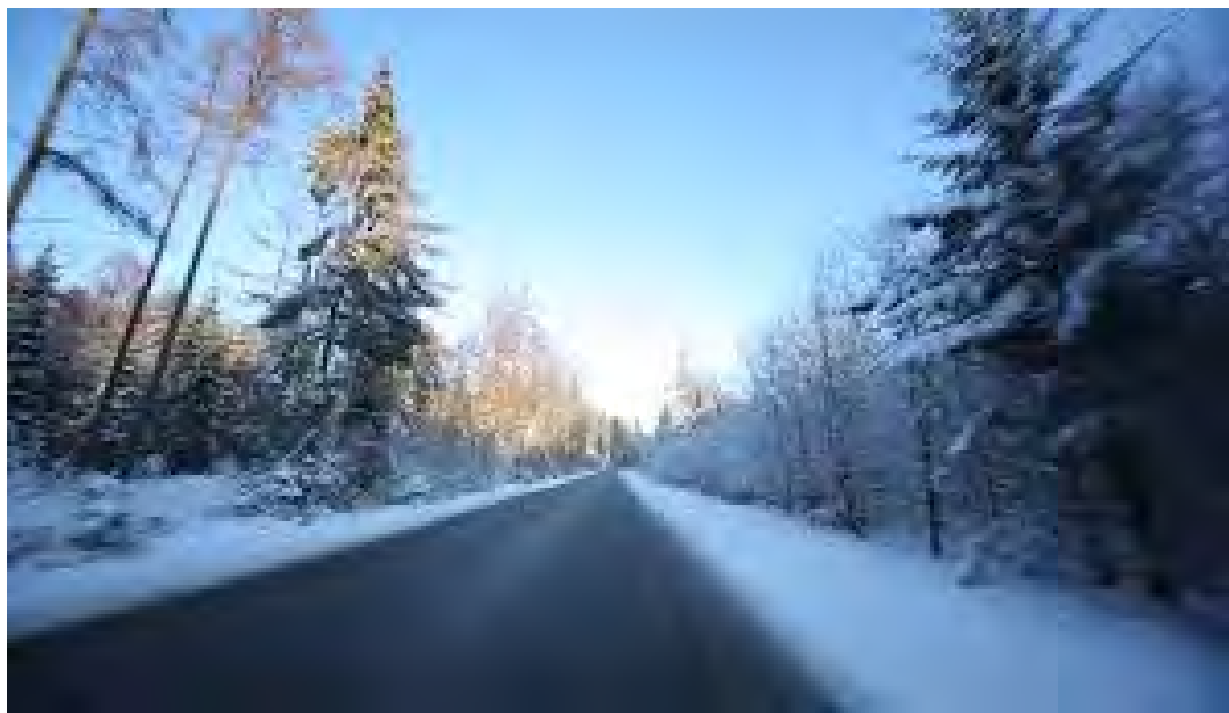


















Why VR?



Team Assign 3: VR 360 Story

Due Dates:

Rough Cut/Storyboards: Thursday, Nov 1 - 11:59:59 PM

Final Cut: Tuesday, Nov 13 - 11:59:59 PM

Submission Details: Submit on \\randon > dfs > classes > [year]_semester_3 > visualstory > Assignments > Team Assignment 3 > Team Name

REQUIREMENTS:

1. Produce a 2 - 3 minute VR experience that tells at least one complete story arc... i.e., a beginning, middle and end.
2. You may use visual cues to help guide your viewers but it must not break the story immersion.
3. Sound effects OK, narration OK, but no dialogue
4. The rough cut/storyboards will need to be able to communicate your goals clearly. This will give faculty a chance to give feedback, which you will need to implement. If feedback is not implemented to a 'reasonable' degree one letter grade will be deducted from final product.

Team Assign 3: VR 360 Story

You need to deliver a complete story to your viewers using The Pixar Story Structure:

[Once] there was ____.

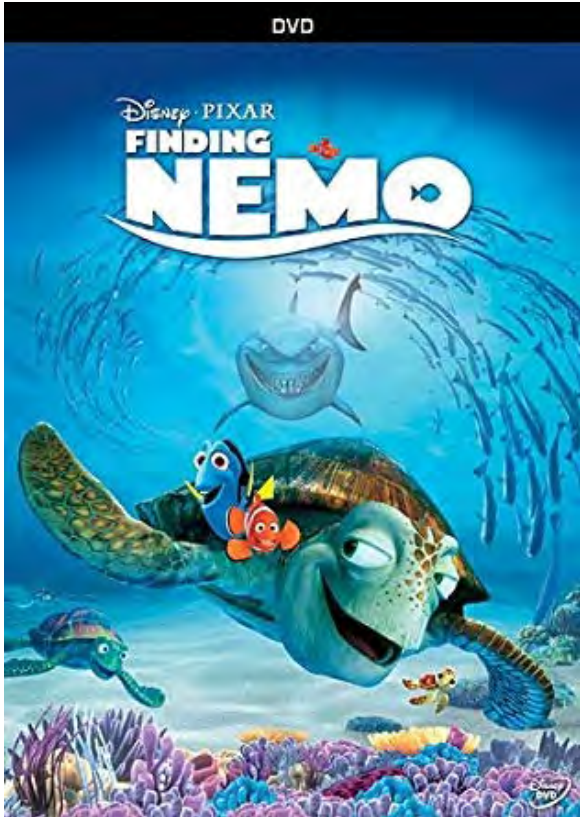
Every day, ____.

One day ____.

Because of that, ____.

Because of that, ____.

Until finally ____.



- Once upon a time there was ... a widowed fish, named Marlin, who was extremely protective of his only son, Nemo.
- Every day ... Marlin warned Nemo of the ocean's dangers and implored him not to swim far away.
- One day ... in an act of defiance, Nemo ignores his father's warnings and swims into the open water.
- Because of that ... he is captured by a diver and ends up in the fish tank of a dentist in Sydney.
- Because of that ... Marlin sets off on a journey to recover Nemo, enlisting the help of other sea creatures along the way.
- Until finally ... Marlin and Nemo find each other, reunite and learn that love depends on trust

Team Assign 3: VR 360 Story

You need to deliver a complete story to your viewers using The Pixar Story Structure:

[Once] there was ____.

Every day, ____.

One day ____.

Because of that, ____.

Because of that, ____.

Until finally ____.

Tips on using the cameras [Ricoh Theta S]/mics [H2next Zoom]:

1. Download the **RICOH THETA S app** -

<https://play.google.com/store/apps/details?id=com.theta360&hl=en>

2. **Connect to the camera via wifi** (on your phone, just look for the wifi network named Ricoh or similar. Only one phone can connect at a time). That way you **can see what the camera sees** and start the recording after you are already hiding from the camera.

Tips on extracting the materials and uploading them:

1. Connect the camera to the computer and download the materials.

2. Download the **RICOH THETA converter** (the link also includes other useful downloads).

<https://theta360.com/en/support/download/>

3. Drag and drop the files to the converter. It will convert it from a lovely sphere to a panorama like frame. Save it.

4. Editing - use **Premiere** [or other software] like you would for any other editing project. Some plugins might be required to do WYSIWYG editing or in-VR editing.

5. **Export using Premiere:** File>Export>Media

Scroll all the way down and check the box that says **VR Video** and export.

6. Upload to **youtube**. Youtube might suggest that you need to download an additional software (including instructions). I noticed that it might not be a necessary step so try it out but also try to just upload your movie.

Theta Ricoh camera shoots 1920x960, square pixels, 29.97fps, 44.1khz audio.

VIDEO

Video needs to be re-encoded into a spherical video using [their special software](<https://theta360.com/en/support/download/>).

Adobe Premiere is good for cutting due to flexibility in sequence settings and such. Export using the same source settings as the Ricoh camera's footage.

The resulting video will need metadata injected, use [this](<https://github.com/google/spatial-media/releases>).

AUDIO

Reaper is a good DAW for serious sound editing. [Here](https://support.google.com/jump/answer/6399746?hl=en&ref_topic=6399824) is Google's documentation on spatial audio.

Spatial audio in youtube works for Chrome on desktops and Android. iOS just gets stereo.

In premiere export the Quicktime as per [these audio specs](<https://support.google.com/jump/answer/6400185?hl=en>).

To use spatial audio, Youtube will want audio encoded in the Ambix format, which is different from the Furse-Malham B-format many ambisonic plug-ins generate. [Here](<http://www.matthiaskronlachner.com/?p=2015>) is a nice ambisonics plug-in toolkit that can convert to Ambix and offers many other features.

Some links/tutorials to get you started

Spatial Audio Explained: Top 5 VR Spatial Audio Platforms and Software

<https://veer.tv/blog/spatial-audio-explained-vr-spatial-audio-editing-and-software/>

Ambisonic Audio with 360 Video in Premiere Pro CC 2017

<https://youtu.be/MqBDQLV7xZI>

Ambisonic Audio for Youtube 360 Videos in Premier Pro - Advanced Tutorial [H2next ZOOM mic specific]

<https://youtu.be/aJkQHYDae5U>

Facebook Workstation

<https://facebook360.fb.com/spatial-workstation/>

<https://facebookincubator.github.io/facebook-360-spatial-workstation/>

ProTools

<http://www.avidblogs.com/facebook-360-spatial-workstation-and-pro-tools-hd-12-8-2/>