

Interaction Design & Virtual Reality

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UIST starts from next week
+ Tokyo is interesting city.
= no lecture next week.



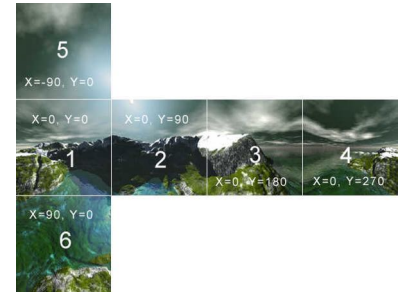
next lecture will be on **10/25 (Tue)**

360 Images from capturing the context to
experience

- Wide-angle image
- Ultra wide-angle image (fisheyes, surveillance)
- Panoramic image or panorama (application ?)
- 360 images (experience)



capturing panorama and 360 images



CYLINDRICAL



SKYDOME



FULL SPHERE



QTVR CUBE



360 camera



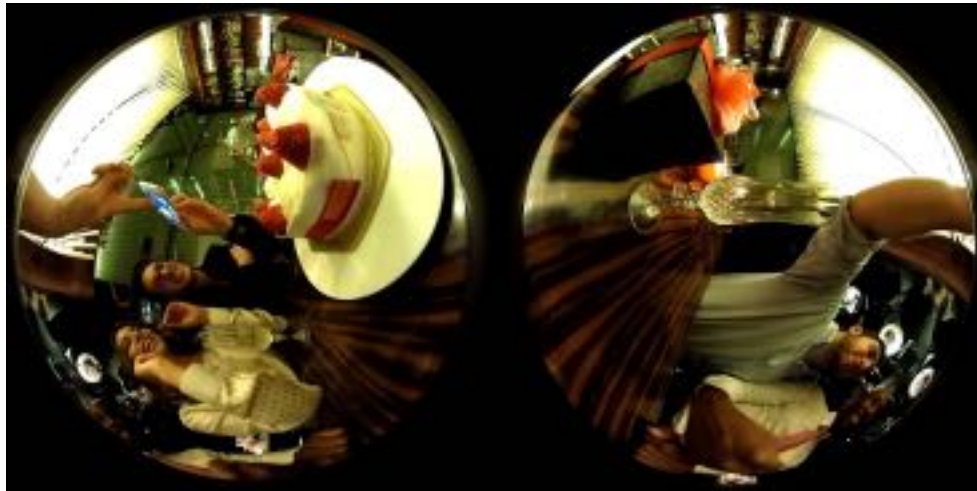
nokia



samsung



ricoh



Dual Fisheye



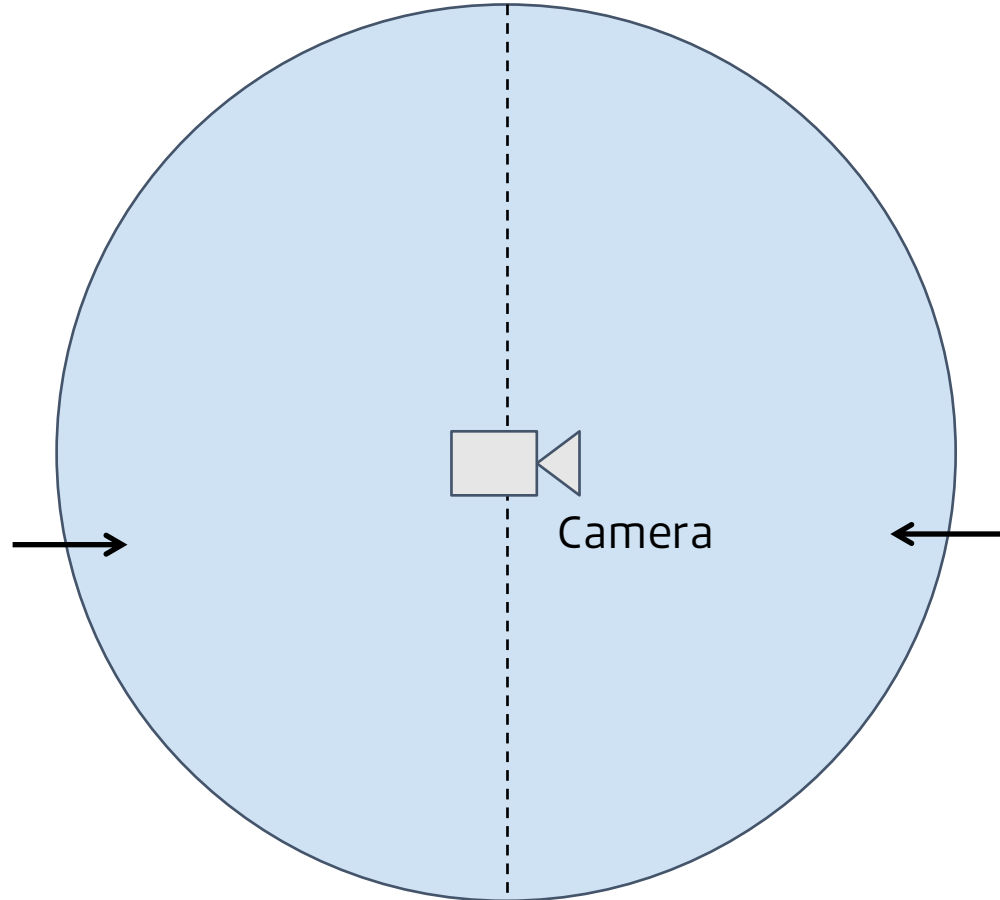
Equirectangular

Basic Idea

Sphere: 360 Video



hemisphere



hemisphere

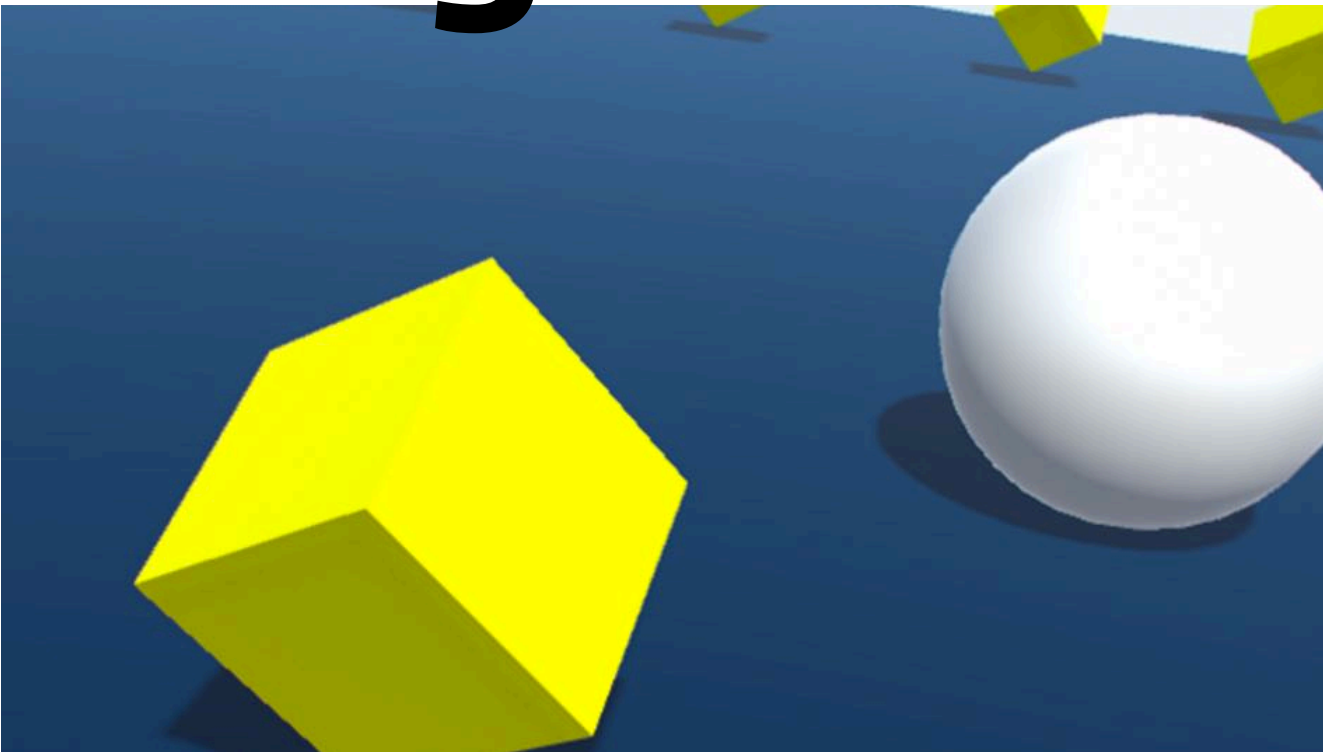


<https://www.youtube.com/watch?v=YulgyKLpt3s>

brainstorming

3 min

assignment

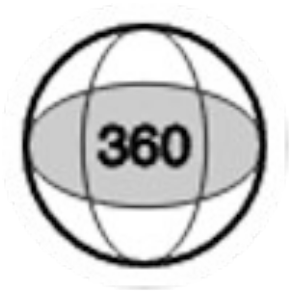


assignment

1. Rolling-A-360-Ball.
 - Add multiple 360 balls (images or videos) in your Unity scene.
 - Design an interaction to enter and exit 360 Bal with HTC Vive.
 - Rule: don't copy interaction in FB social video
 - [Bonus](#): incorporate live 360 view using Theta S
- **Teamwork.**
- Upload **screen-recording** of the VR experience.
- No source code required.
- Due by **10/27 11:59PM.**



Play 360 Videos in Unity (tutorial on Github)



- including tips to using live 360 views through Theta S



<https://github.com/tanyuan/Play360VideosUnity>

Where to find 360 content

1. Youtube by searching 360 video

- Samsung:

<https://www.youtube.com/playlist?list=PLhpbZcOKxtO3jE23U3g-Hm1dNkT4E2ALa>

Where to find HTC VIVE

1. Refer to **HTC Vive**借用規則

- https://docs.google.com/document/d/1SImYmN21pQ3xC3c-CxmP7ococWWQpZY2B8_HJRSSMg8/edit?usp=sharing

2. Two vive sets, each in **EC324** and **EC636**

3. Book slots on Google Calendar (3hr/slot)

- https://docs.google.com/spreadsheets/d/1RGjE0Fwv_9iLK-Hj7NBsR03GfGvw201G_cn6Q9Jfbr8k/edit#gid=0

4. Contact TA if you have problems



ViVE calibration

1. This process is required every start before using to ensure good position tracking.
2. Refer to links below for the guide and troubleshooting.
3. Contact TA if you have problems

HTC VIVE User Guide: [http://www.htc.com/managed-assets/shared/desktop/vive/Vive PRE User Guide.pdf](http://www.htc.com/managed-assets/shared/desktop/vive/Vive_PRE_User_Guide.pdf)

HTC VIVE Installation Guide: https://support.steampowered.com/kb_article.php?ref=2001-UXCM-4439

SteamVR Troubleshooting: https://support.steampowered.com/kb_article.php?ref=8566-SDZC-9326

How to develop with HTC Vive

1. Install SteamVR Plugin:

<https://www.assetstore.unity3d.com/en/#!/content/32647>

2. SteamVR Unity Tutorial 1:

<https://www.youtube.com/watch?v=LZTctk19sx8>

<https://github.com/b0ard/YoutubeVive> (package)

3. SteamVR Unity Tutorial 2:

http://russellsoftworks.com/blog/steamvr_01/