

Immersive Systems I – Slido

Developing Immersive Applications

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Which API interfaces provide standardized access to VR/AR controllers and hand tracking?

- WebGLRenderingContext
- AudioContext
- XRSession / XRInputSource
- GPUDevice

In a WebXR app using Babylon.js, what handles stereo rendering automatically?

- The developer must code it manually
- WebXR session (via
`scene.createDefaultXRExperienceAsync()`)
- The Physics engine
- The Input Handler

EDIS is a 360° VR experience with gaze-based navigation and ambient sounds. Which software component would likely NOT be needed?

- Rendering System
- Input Handler
- Audio Processor
- Physics System



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In ECS architecture, what are “Components”?

- Logic processors that handle behavior
- Unique identifiers for game objects
- Data containers that store properties like position and mesh
- The main game loop handlers

What is the key advantage of ECS (Entity Component System) over traditional OOP?

- Easier to learn for beginners
- Requires less code
- Composition over inheritance — easily mix and match behaviors
- Better support for 2D games

In A-Frame's ECS implementation, HTML attributes like `position="1 2 3"` and `material="color: red"` map to which ECS concept?

- Entities
- Components
- Systems
- Behaviors

Which statement best describes the architectural difference between A-Frame and Babylon.js?

- A-Frame is faster than Babylon.js for complex applications
- A-Frame enforces ECS architecture while Babylon.js lets developers design their own
- Babylon.js uses HTML elements while A-Frame uses JavaScript
- A-Frame has a larger community than Babylon.js

In a WebXR application running at 90 FPS, approximately how many milliseconds does each frame have to complete all updates and rendering?

- 33ms
- 16ms
- 11ms
- 5ms

Which lens technology does the Meta Quest 3 use that makes it thinner and clearer than its predecessor?

- Fresnel lenses
- Pancake lenses
- Aspherical lenses
- Waveguide lenses

Which component is the KEY difference between a smartphone and an HMD that enables VR?

- Display screen
- CPU/GPU
- Motion sensors (IMUs)
- Magnifying lenses
- Battery

Which AR form factor is typically described as socially acceptable?

- AR Headsets
- AR Glasses
- Mobile AR
- HMDs

What type of AR display technology does the Microsoft HoloLens 2 use?

- Video passthrough
- Optical see-through
- Virtual display
- Projection mapping

What type of AR display technology does the Apple Vision Pro use?

- Video passthrough
- Optical see-through
- Virtual display
- Projection mapping