

Magic Leap 2: Augmented Reality (AR)

Magic Leap 2 is an augmented reality device that maintains its user's view of their environment while integrating digital content within it. Purpose-built for enterprise use, its open platform and industry-leading technology and features are designed to run transformative enterprise solutions.

Highly immersive. Real time view of physical world is maintained through transparent optics. Digital content is integrated into user's view where and when it is needed.

Unlikely

Users adapt immediately with little training.

Fully-collaborative remote or co-located experience across Magic Leap 2 devices and across platforms

High

Yes. Persistent spatial mapping.

Enterprise. Currently deployed in manufacturing, health-care, public sector/government, architecture, engineering, & construction (AEC), and retail for a variety of use cases

Indoor and outdoor adjacent

All-day extended use. Full mobility.

Unrestricted open platform

Magic Leap 2

Virtual Reality (VR)

Provides users with a world escapist experience by completely removing them from their real surroundings and immersing them in a totally digital world.

Highly immersive. Physical world is completely occluded. User has no view of their physical surroundings.

Motion sickness

Users adapt slowly.

Extremely limited. Digital-only collaborative experiences removed from physical world are unrealistic

None

No. Only simulated or recorded views.

Primarily consumer. Entertainment, edutainment, and limited commercial applications

Designed for indoor use only

Restricted mobility. Limited duration.

Android, Open XR, WebXR, Arbor XR, Unreal engine, Unity

Oculus Quest 2, HTC Vive Cosmos, Oculus Rift S, HTC Vive Pro, Varjo VR-3

Passthrough VR (PVR)

Integrates external-facing cameras into headset to mimic augmented reality. By combining a video feed of its user's world with rendered digital content, passthrough maintains only a limited degree of user's awareness and interaction with the physical world.

Highly immersive. Physical world is digitized via cameras; commonly suffers lag and distortion.

Motion sickness

Users adapt slowly. Latency and visual distortion issues are persistent.

Limited. Fully digital as a result of complete digitization and rendering of users' environments.

Severely limited by distortion and lag

No. Only simulated or recorded views.

Primarily consumer. Entertainment, edutainment, and limited commercial applications

Primarily designed for indoor use. Limited functionality outdoors.

Limited mobility. Limited duration.

Android, Open XR, WebXR, Arbor XR, Unreal engine, Unity

Meta Quest Pro, Varjo

What is...

Immersiveness and visual experience

Detrimental effects: Motion sickness ("cybersickness") and/or feeling of disembodiment

User adaptability

Collaboration

Real-world interactivity

Spatial mapping

Target industries and use cases

Working environment

Ergonomics and mobility

Development and platform support

Available devices

