



SOFTWARE FRAMEWORK ENABLING REAL-TIME 3D HOLOGRAPHIC DISPLAY

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HOLOGRAPHIC DISPLAY
WILL BE EVERYWHERE.

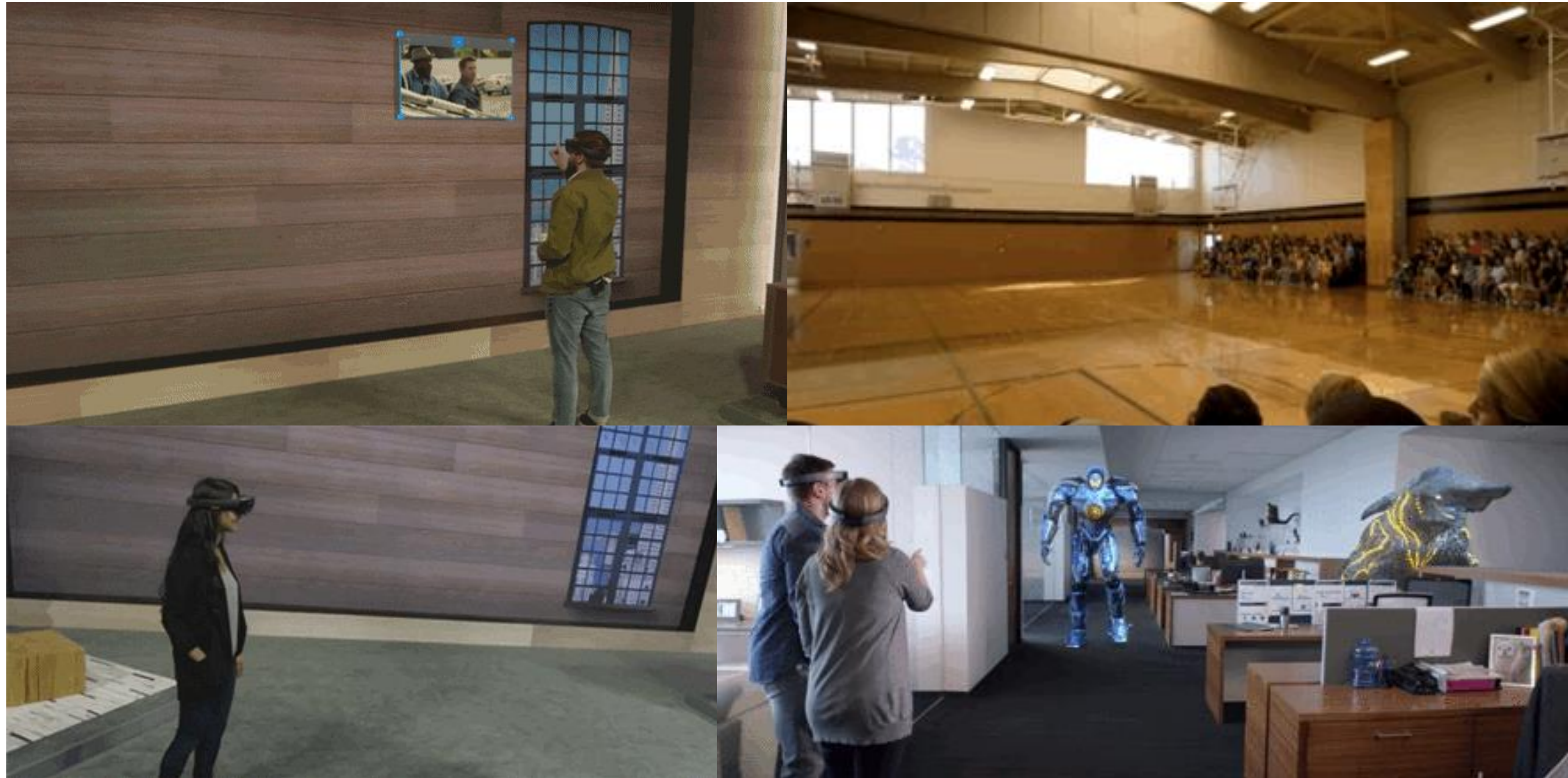
EVERY HOLOGRAPHIC
DISPLAY WILL BE
POWERED BY



VIVIDQ

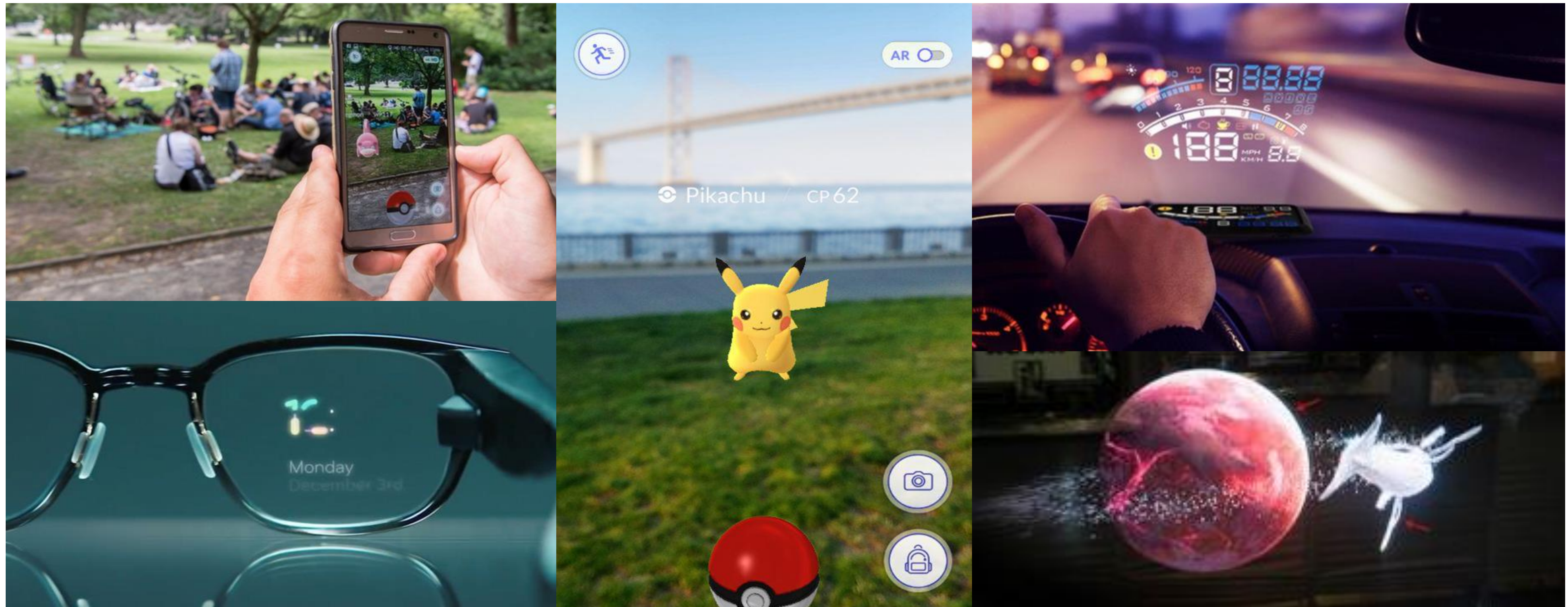


While the immersive (AR/VR/MR/XR) industry promised us a lot...



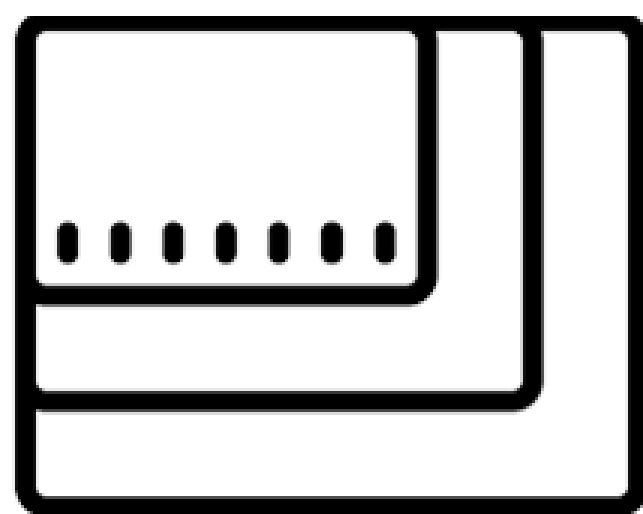
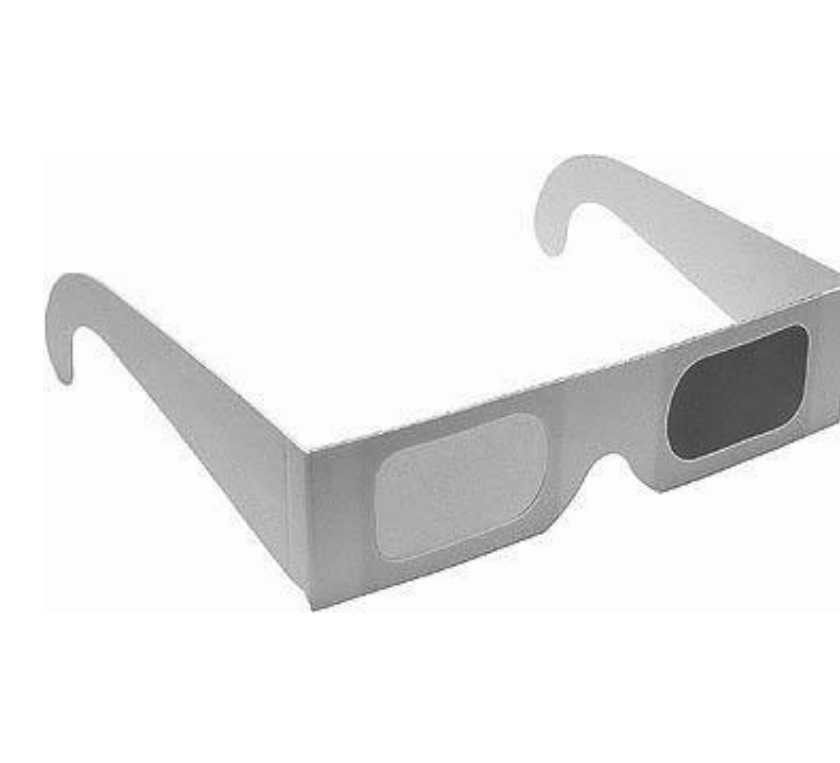
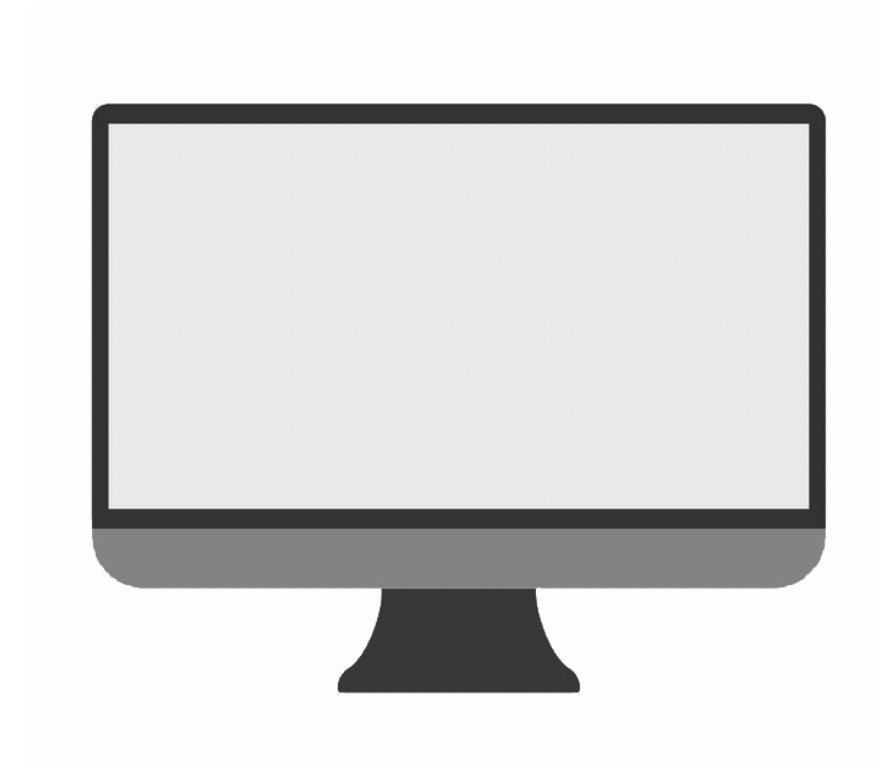
...immersive experiences are only at their **first base** today.

First generations of AR headsets, HUDs, and smartphone applications are extremely limited.

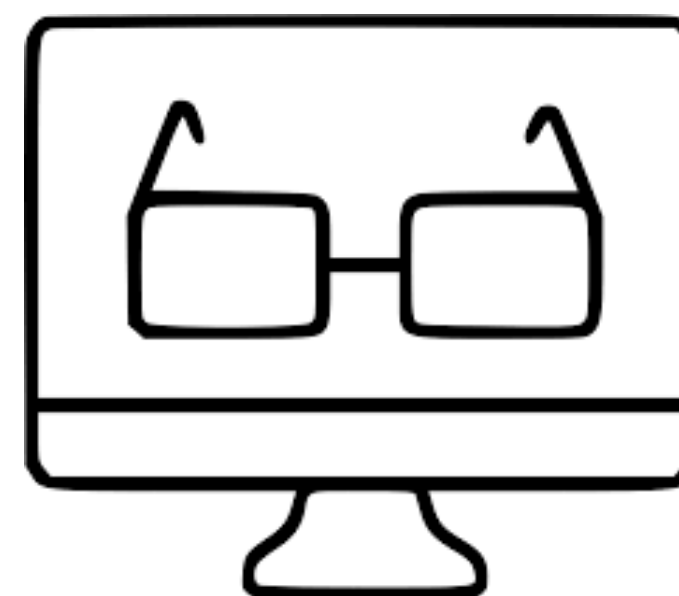


Current crop of **display technologies** takes the blame for that.

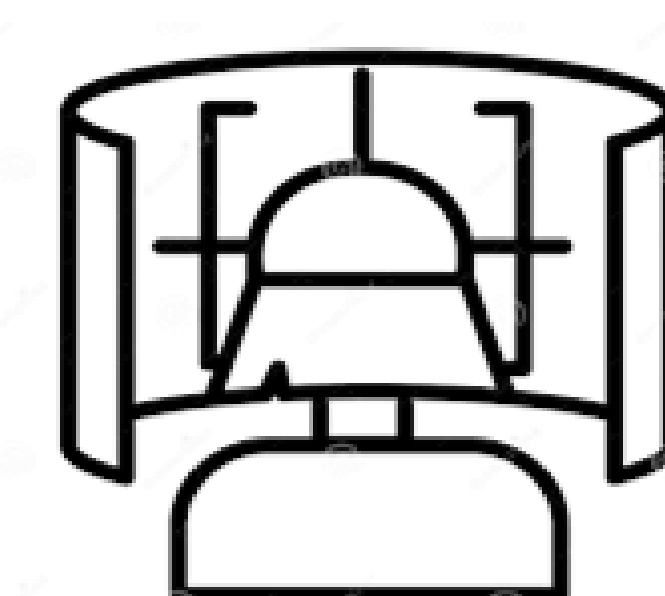
Flat panel displays and
(variations of) stereoscopic displays
used for AR devices and applications...
...suffer from a range of common issues.



Limited
Resolution



Bulky
Form Factors



Limited
Field of View
and Eyebox



Most importantly, current displays **lack realistic depth perception.**



3D today:
one depth plane and
visual mismatch.



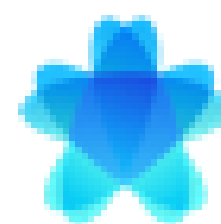
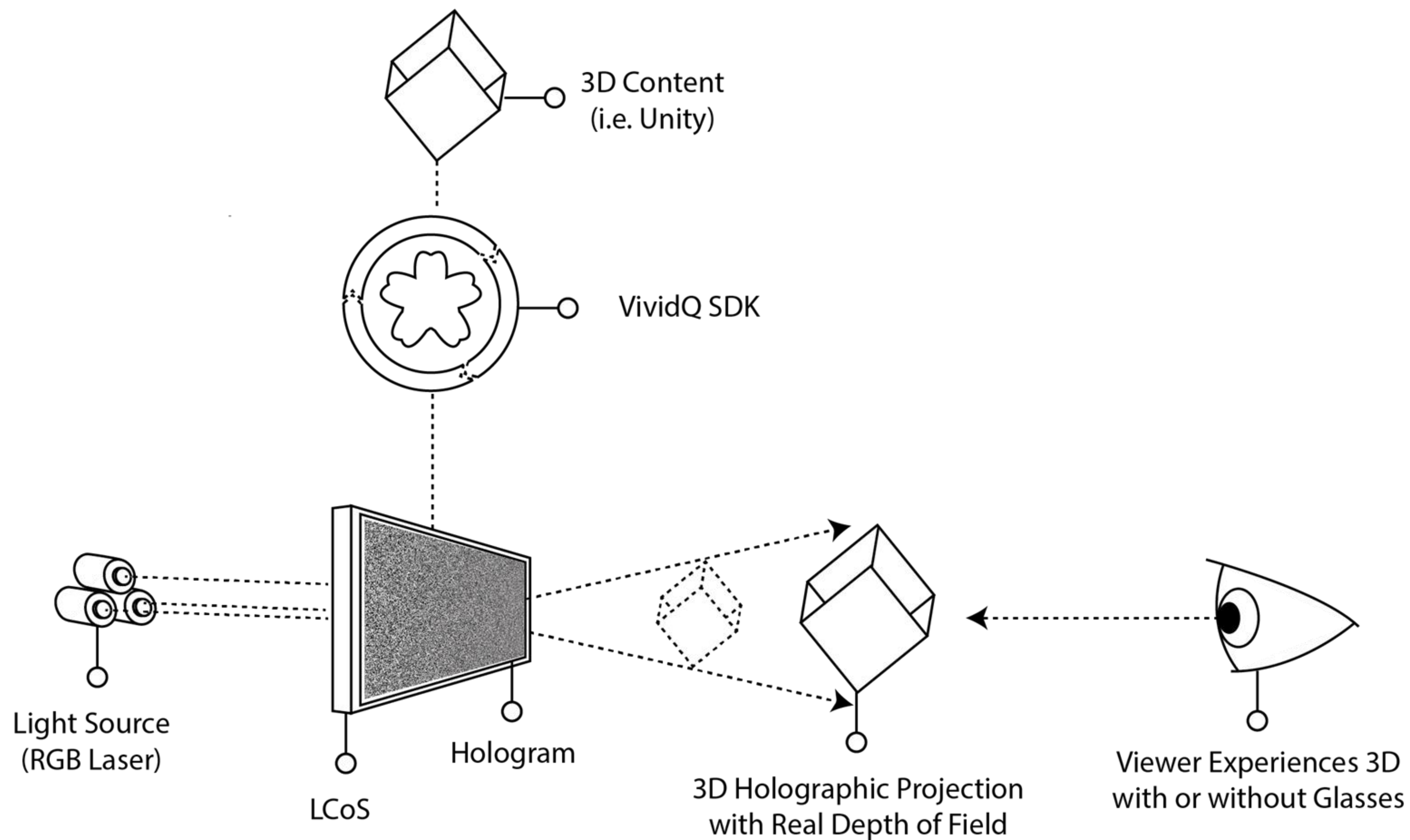
What you want:
continuous depth
perception.



Computer Generated Holography is the solution.



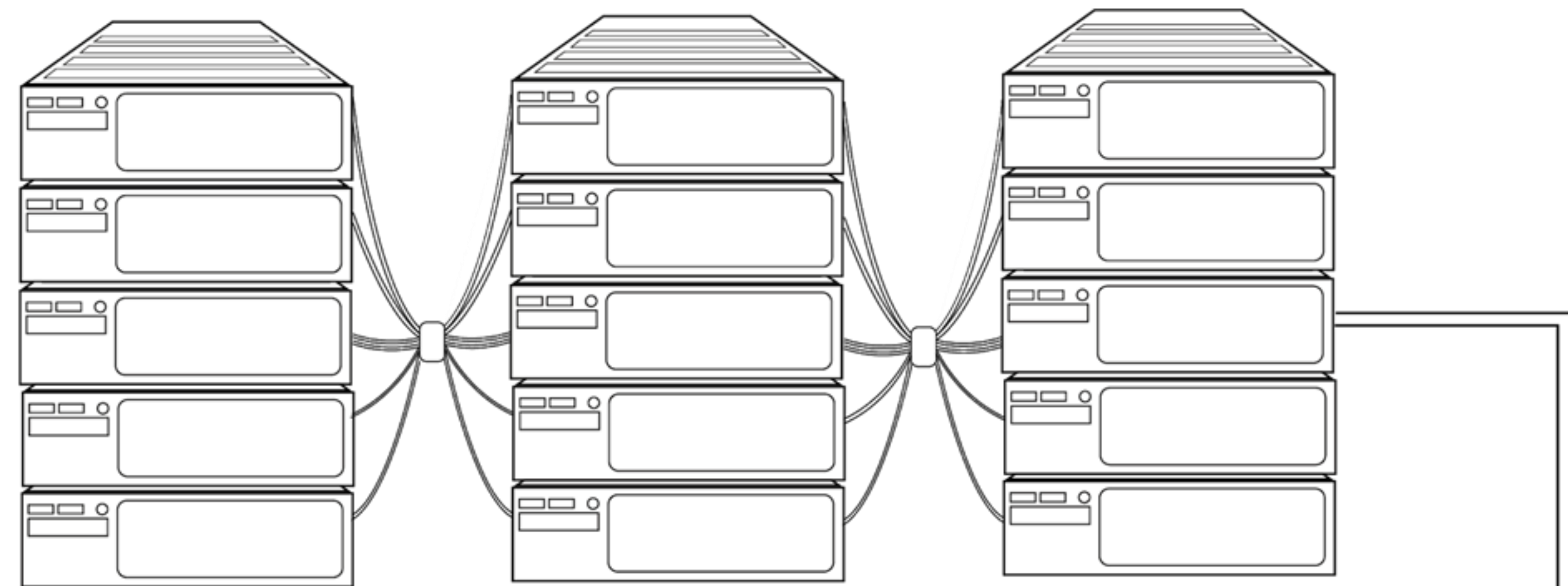
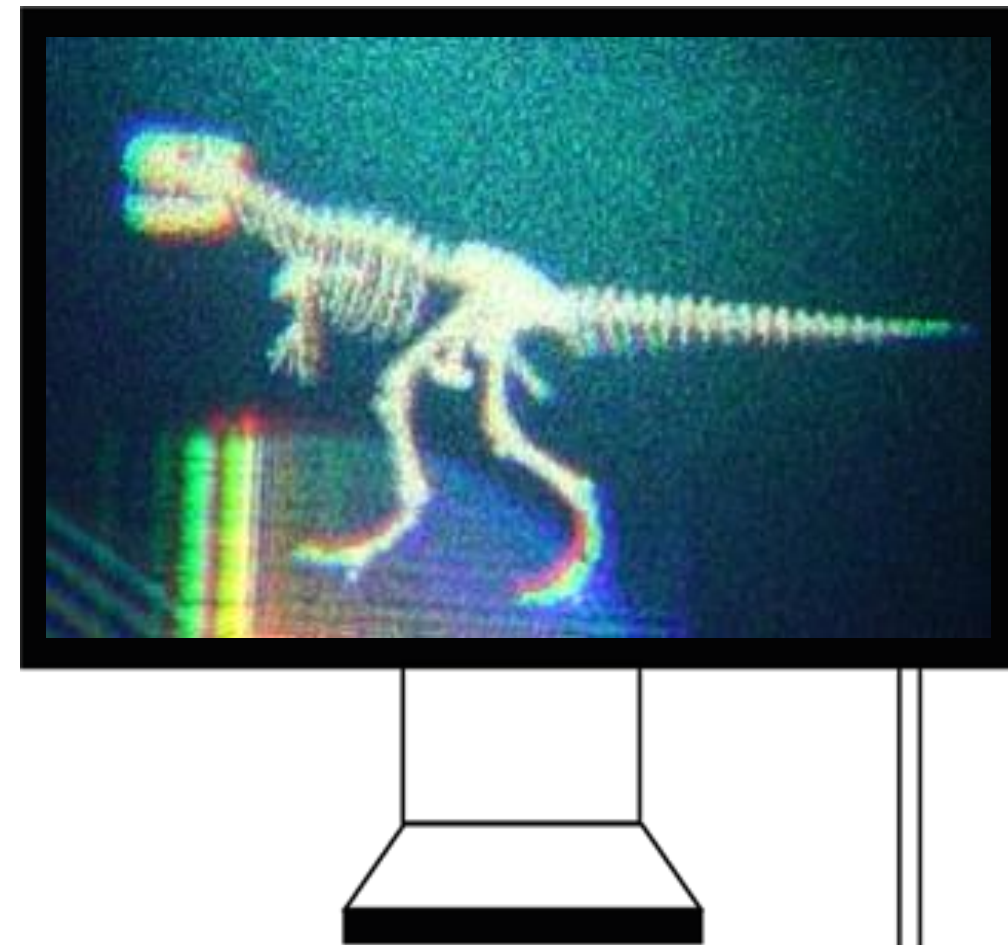
Holography is the **engineering of light** to produce full-depth 3D projections.



Holography suffered from **extreme computational requirements** - until now.

Holographic display resolution
and comparable image quality:

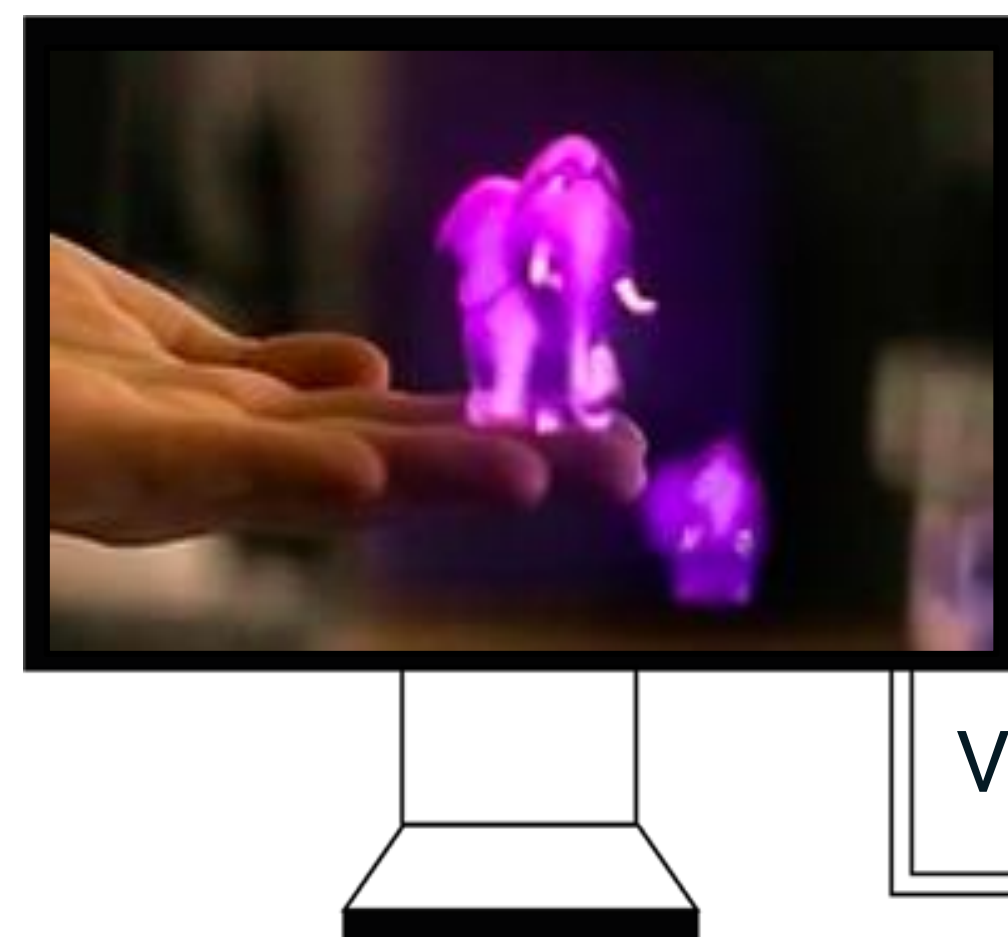
Traditional
holographic
display



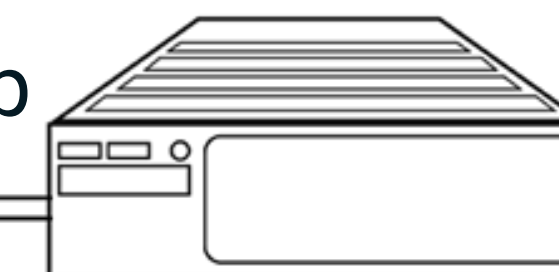
With traditional algorithms, computation scales horribly with display resolution



VIVIDQ
- powered
holographic
display



VividQ enables holographic computation on a single GPU/Chip



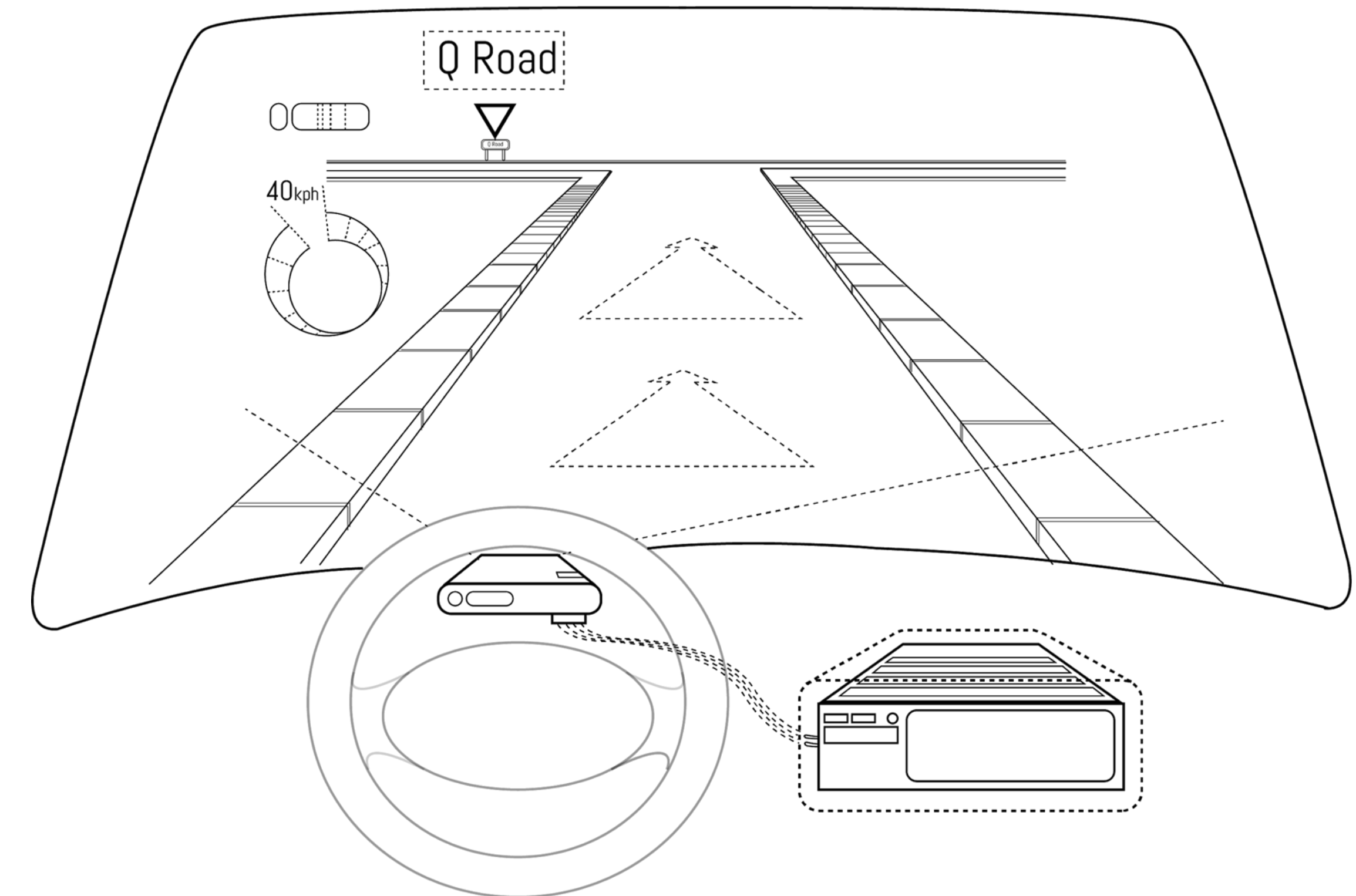
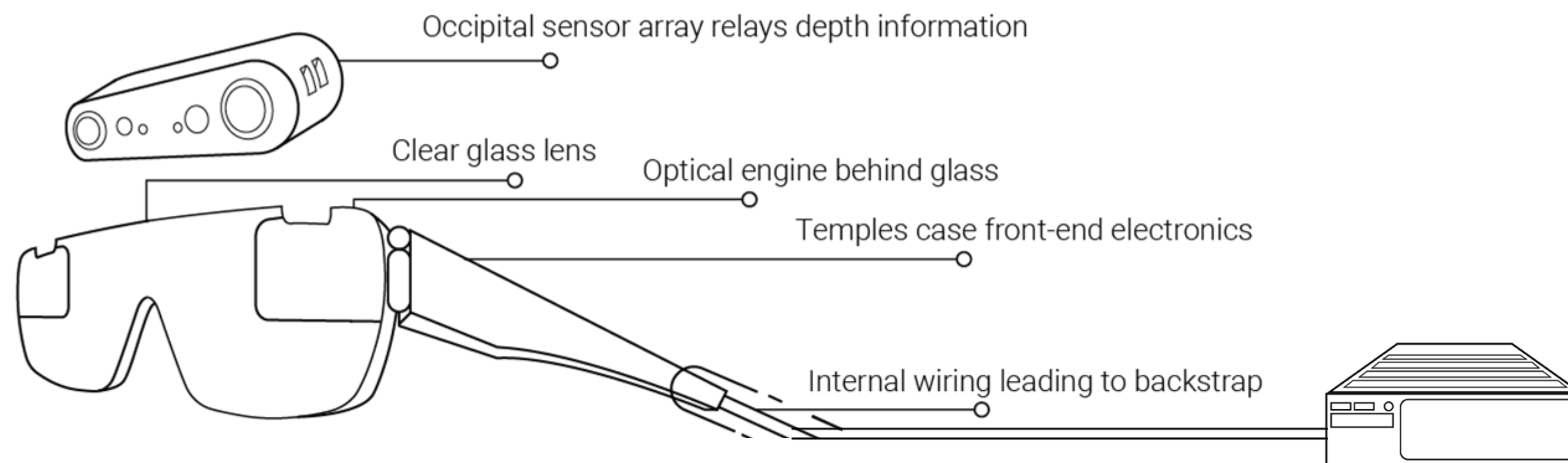


NEAR TERM APPLICATIONS FOR VIVIDQ'S 3D HOLOGRAPHIC DISPLAY



We develop **system reference designs** to drive productisation of holographic devices.

In Q1 2020, VividQ will present a prototype of a fully holographic HMD, with miniaturised optics and electronics, using a local nVidia GPU.



VividQ collaborate with major automotive companies to bring fully holographic HUDs into the market by 2021.



AUGMENTED REALITY HEAD-MOUNTED DISPLAY



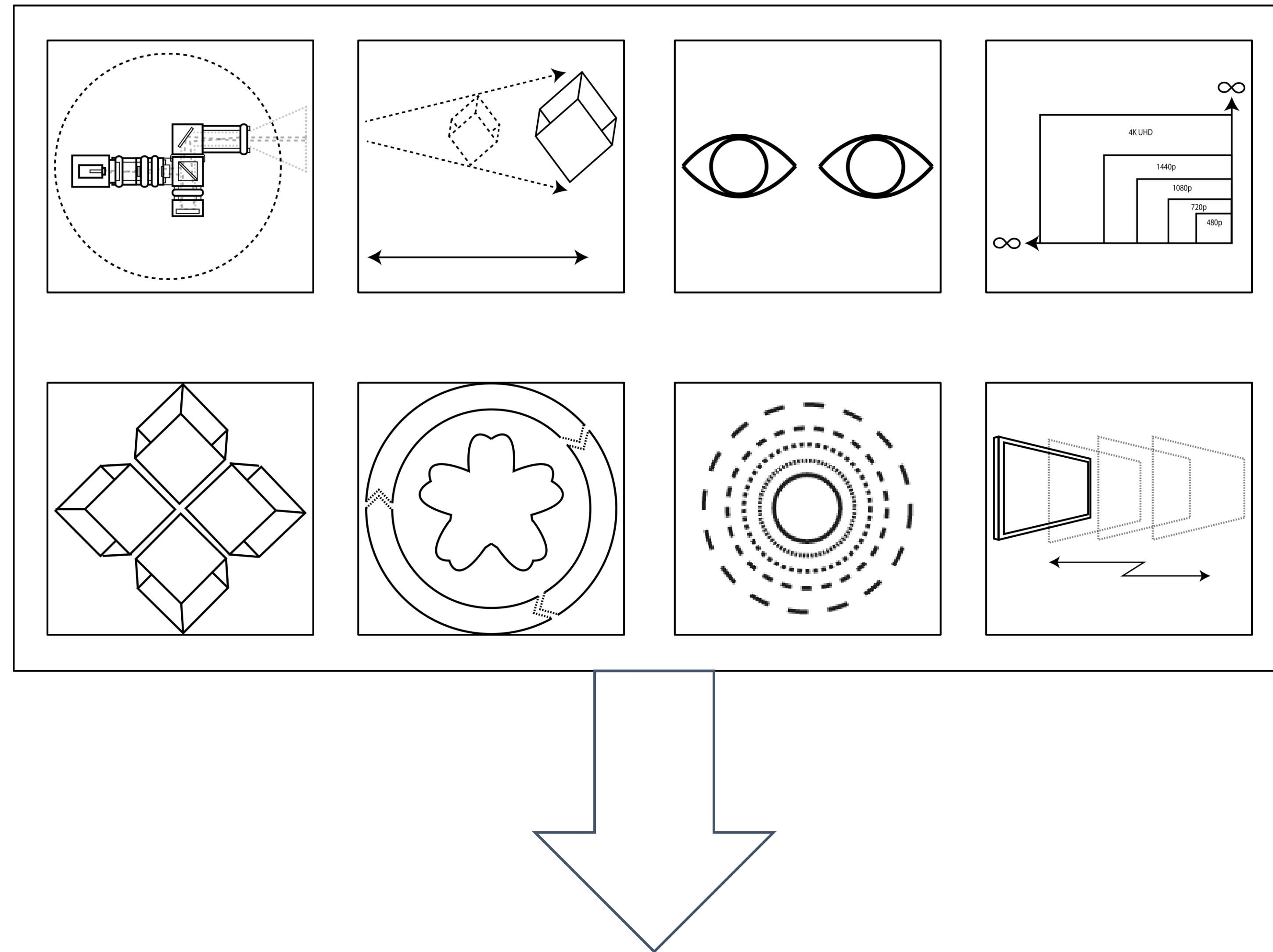
Current HMDs present **basic information** overlays to users at a **single depth**.



These devices are unable to provide **contextually relevant information** at **correct depth**. As such they are inherently limited in their capacity to create seamless experiences in augmented and mixed reality.

Holographic Display offers a comprehensive solution to these challenges - towards the ultimate visual experience for mixed reality.





3D Holographic Display by VividQ enables **super-lightweight**, **visually superior** Mixed Reality headsets with **real depth** of field, **intrinsic focus** and **reduced costs** of manufacture at scale due to significant software-level display controls.

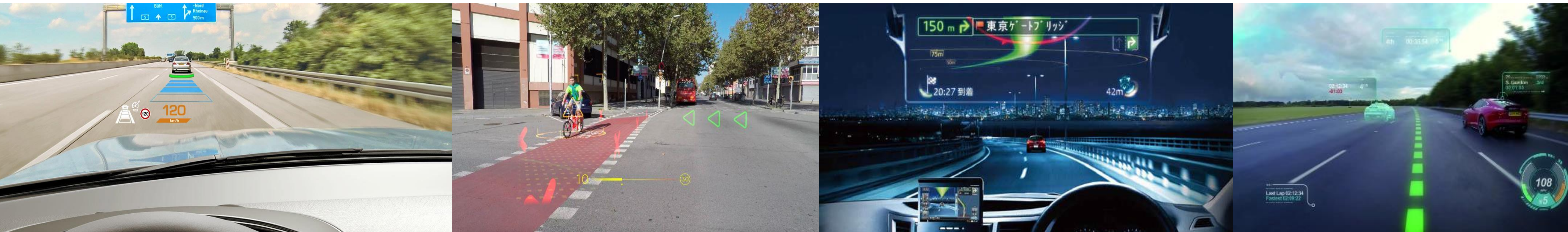
Paving the way for mass adoption.



AUTOMOTIVE HEAD-UP DISPLAY



Current HUDs present **basic information** overlays to drivers at a **single depth**.



These devices are unable to provide **contextually relevant** at real depth, thereby causing issues like driver distraction and eye strain.

Holographic Display offers a solution to these challenges.



By preserving depth information, holographic display allows our eyes to **shift focus naturally**, reducing eye-strain & distractions.



Natural Focus
Allowing the eye to naturally adjust for different information at different depths, reducing driver distraction & eye-strains



Real Depth
Content sits seamlessly in a driver's environment, providing useful contextual information



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Tom Durrant
Head of
Development
University of Cambridge
University of Oxford

Advisory Board:
Prof Tim Wilkinson
Head of Photonic Engineering, University of Cambridge



Our experienced **management team** focuses on accelerating the mass adoption of holographic display.



CEO: **Darran Milne**

Extensive experience leading high tech product teams towards commercialisation, PhD in Quantum Information Theory.
www.linkedin.com/in/darran-milne-1378a098/



COO: **Aleksandra Pedraszewska**

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