

A decorative graphic on the right side of the slide. It features a large, semi-transparent blue circle. Inside this circle is a smaller, semi-transparent green circle. Within the green circle is a pink circle containing a white stylized 'G' logo. The background of the pink circle is filled with white binary code (0s and 1s).

# Virtual Reality and Augmented Reality

Code Girls 2021-22

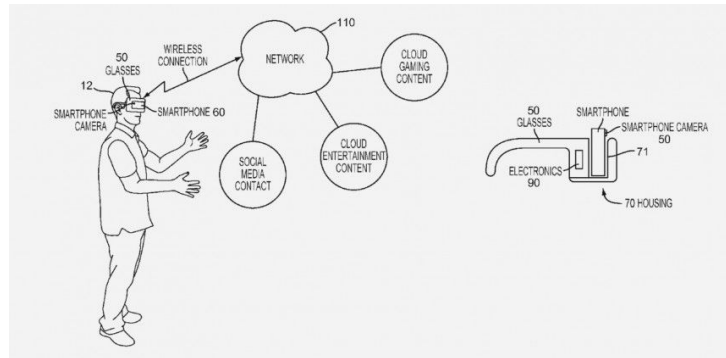
# Virtual Reality (VR)

- Simulated environment created using computer technology
- Users are able to interact with 3D worlds through a Virtual Reality headset

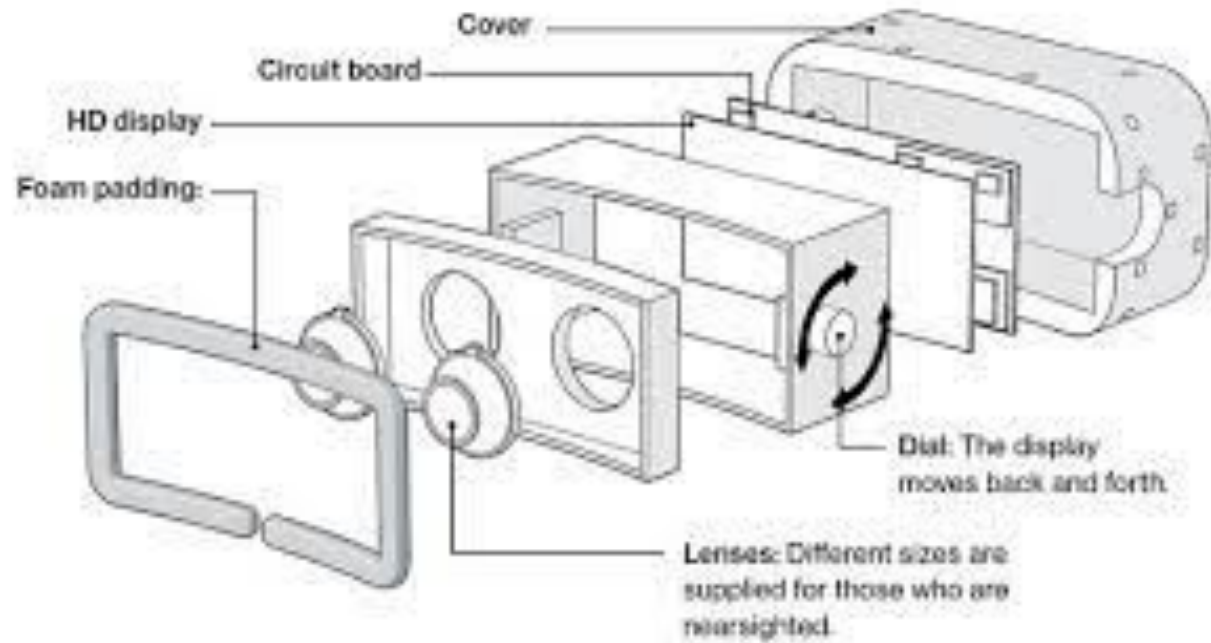


# How VR Works

- LCD or OLED panels inside the headsets are refracted by the lenses to fill field of vision
- Interactions with virtual space are tracked using gyroscopic sensors, accelerators, and magnetometers



# VR Headset



# Applications of VR

- Entertainment
  - Video games
- Education
  - Military training
  - Medical training
- Mental Health
  - Treating post-traumatic stress





# Augmented Reality (AR)

- Enhances the user's experience by overlaying sensory information onto the world



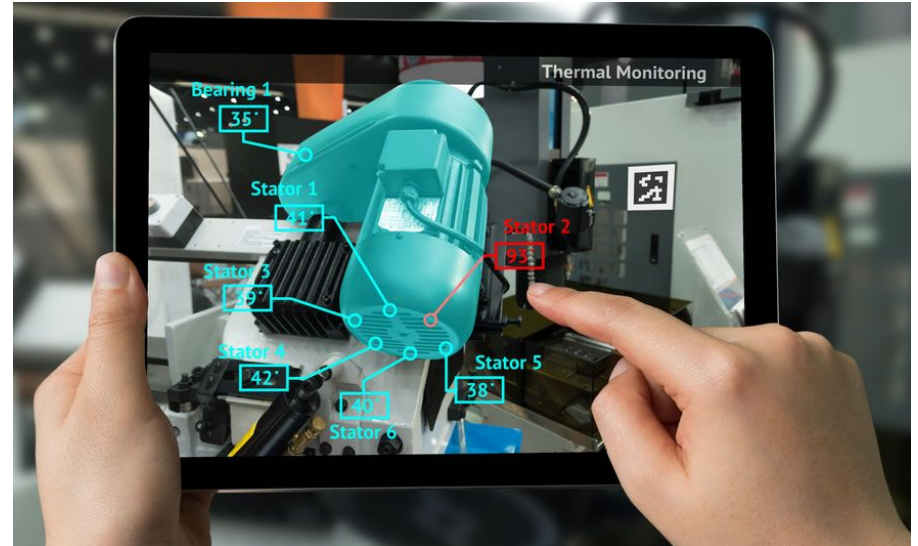
# How AR Works

- Uses depth-sensing cameras, registration tools, computer vision, and output device to overlay digital information on top of the natural environment



# Applications of AR

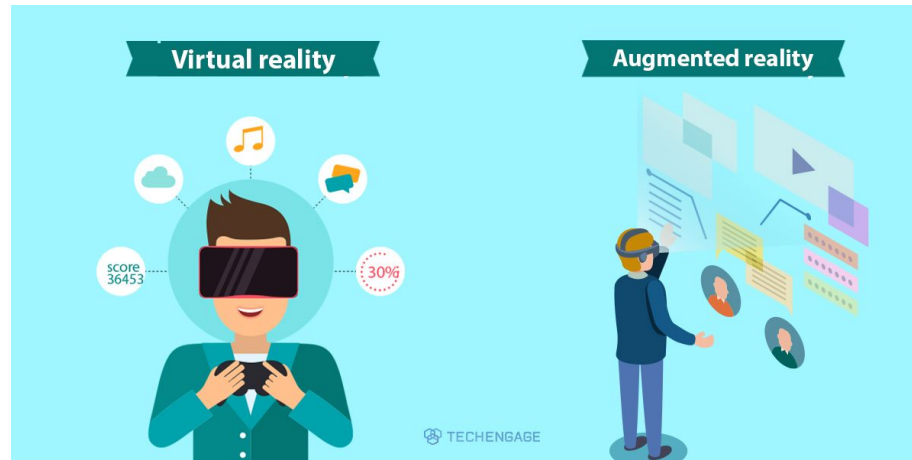
- Entertainment
  - Video games
- Education
  - Classroom Education
  - Medical Training
- Retail
- Repair and Maintenance





# Virtual Reality vs. Augmented Reality

- Virtual Reality creates an artificial environment while Augmented Reality simulates artificial objects in the real world





# Acknowledgments

Thanks to:

- Ms. B for sponsoring our club and guidance