

Design an Active Virtual/Mixed Reality Capture and Broadcast System

Digital Media



FUNDER:

Ontario Centres of Excellence

INDUSTRY PARTNER:
3D Agency Ltd.

TIMELINE:

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RESEARCH TEAM:

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KEY STATS:

In 2018, the virtual reality software market is estimated to reach a value of 1.3 billion USD - Statista 2018

Context: Use of social media and extended reality continues to increase. Mixed Reality (MR) allows you to place a physical character inside of the 3D world and watch yourself in a Virtual Reality (VR) environment with the support of green screen technology.

Industry Challenge: Providers of VR technology do not have a portable solution for VR/MR capture and broadcast for live events. Advances in these technologies can be applied to develop new gaming, entertainment, education, and training applications and make current offerings more engaging.

Solution: This project built a video capture system with the capability to broadcast activity using portable devices. With the use of cameras and tracking systems, the project provided for real imagery to be embedded into gaming experiences.

Impact of the project: The industry partner has featured the resulting prototype, a green VR cube, at community events and tradeshow, allowing them to expand their client base and hire new staff. This project has strengthened the company's vision of future development, as next steps include refining the cube for commercialization, maintaining a low-cost nature as a solution for home entertainment use, event promotion, and training.

Mohawk's role: Mohawk students and faculty have worked with 360/VR technologies to develop the portable prototype, enabling them to utilize streaming applications with current in-house technology. The Broadcast Media department supplied an array of media equipment to support the broadcast component along with a VR room equipped with the appropriate computer technology.