

Industry Design Review with Virtual Reality Integration Engineering Technology



FUNDER:

Ontario Centres of
Excellence

INDUSTRY PARTNER:

Toms + McNally Design

TIMELINE:

April to November 2018

RESEARCH TEAM:

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Context: Architectural firms use traditional methods of flat screen or paper modelling for client recruitment. However, clients have difficulty visualizing 3D structure from 2D drawings; the industry partner wanted to speak to their clients in an easily understood format, since technology and tools are rapidly advancing.

Industry Challenge: The Industry Partner wanted to start using virtual reality (VR) to model designs for clients to review and approve. They need assistance in determining the possibilities of using VR software and equipment, when it is appropriate/profitable to use and when/how to integrate VR modelling into their workflow.

Solution: Mohawk demonstrated the applications using VR software in the design review process. In addition, Mohawk's team delivered an outline of a developed process of fusing industry modeling software with VR equipment and software for design review. The discussion between the Industry Partner and their clients was visibly enriched.

Impact of the project: This project has better allowed the industry partner to ensure appropriate communication for building design. The clients are more able to fully visualize, even experience, the final product. This has reduced design revisions, as-built modifications, and on-site design verification. The Industry Partner is equipped with the knowledge and processes that will enable them to take their VR solution bring it into the spaces of their clients.

Mohawk's role: Mohawk's team has demonstrated how to create the models and what equipment was needed in order to create those models. Mohawk is experienced in what type of technology works best in certain situations and in identifying the process to achieve the best setup and financial viability of the technology.

KEY STATS:

In 2011, there were
15,255 architects in
Canada - *Globe and Mail*,
2014