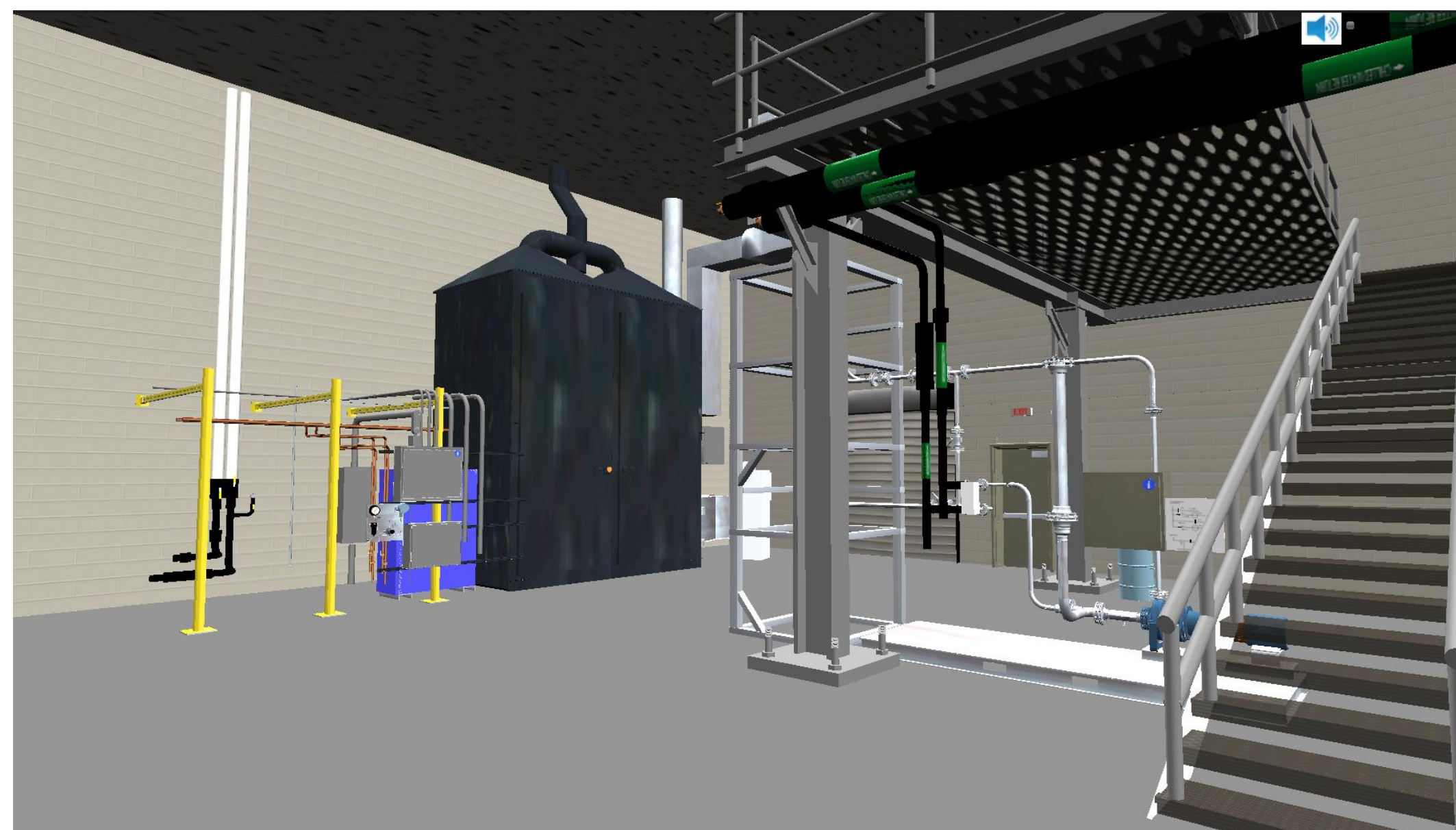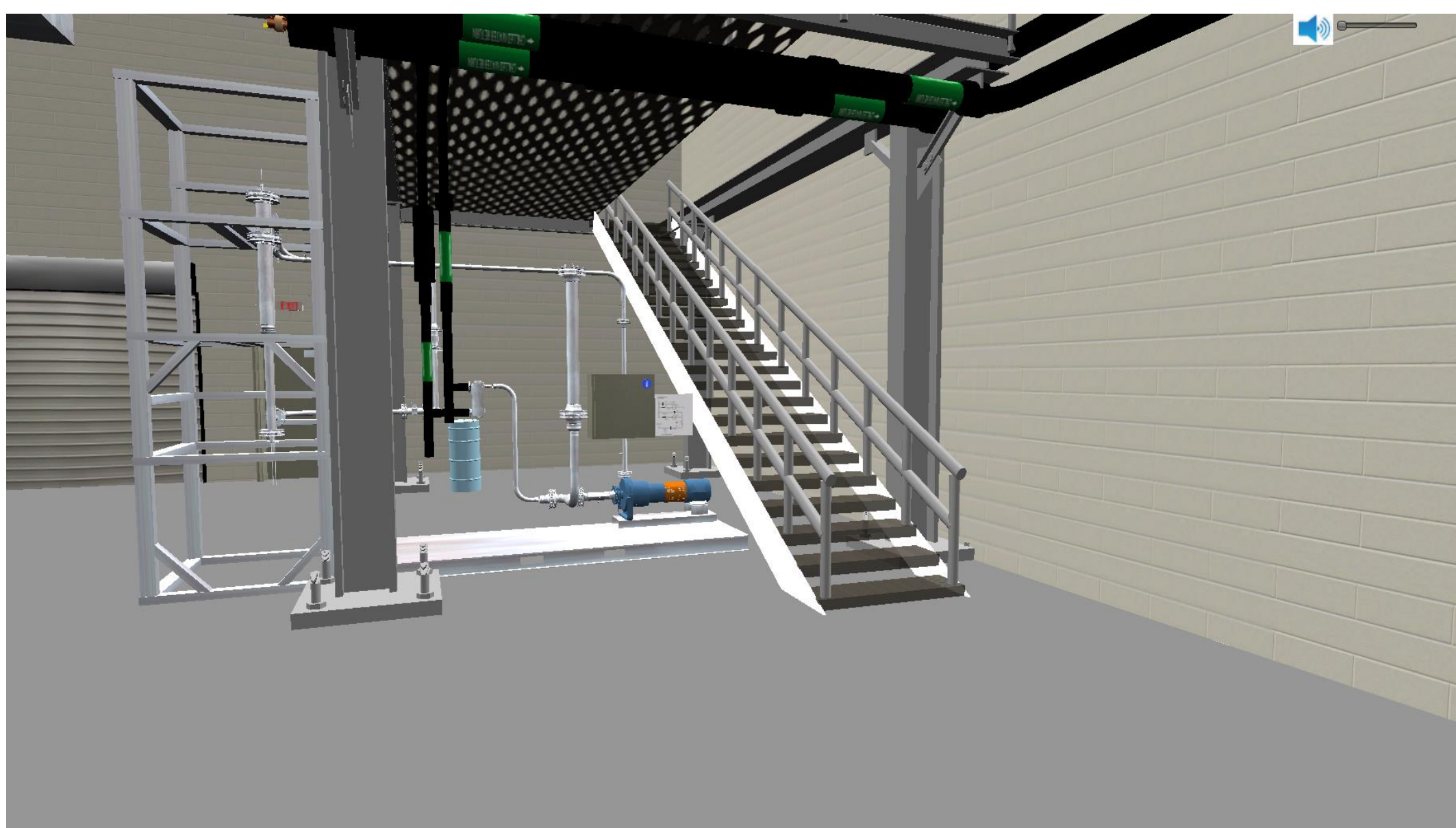# Virtual TH&IE Laboratory

A Multi-Purpose Virtual Reality Model for ORNL's Thermal Hydraulics and Irradiation Engineering Laboratory
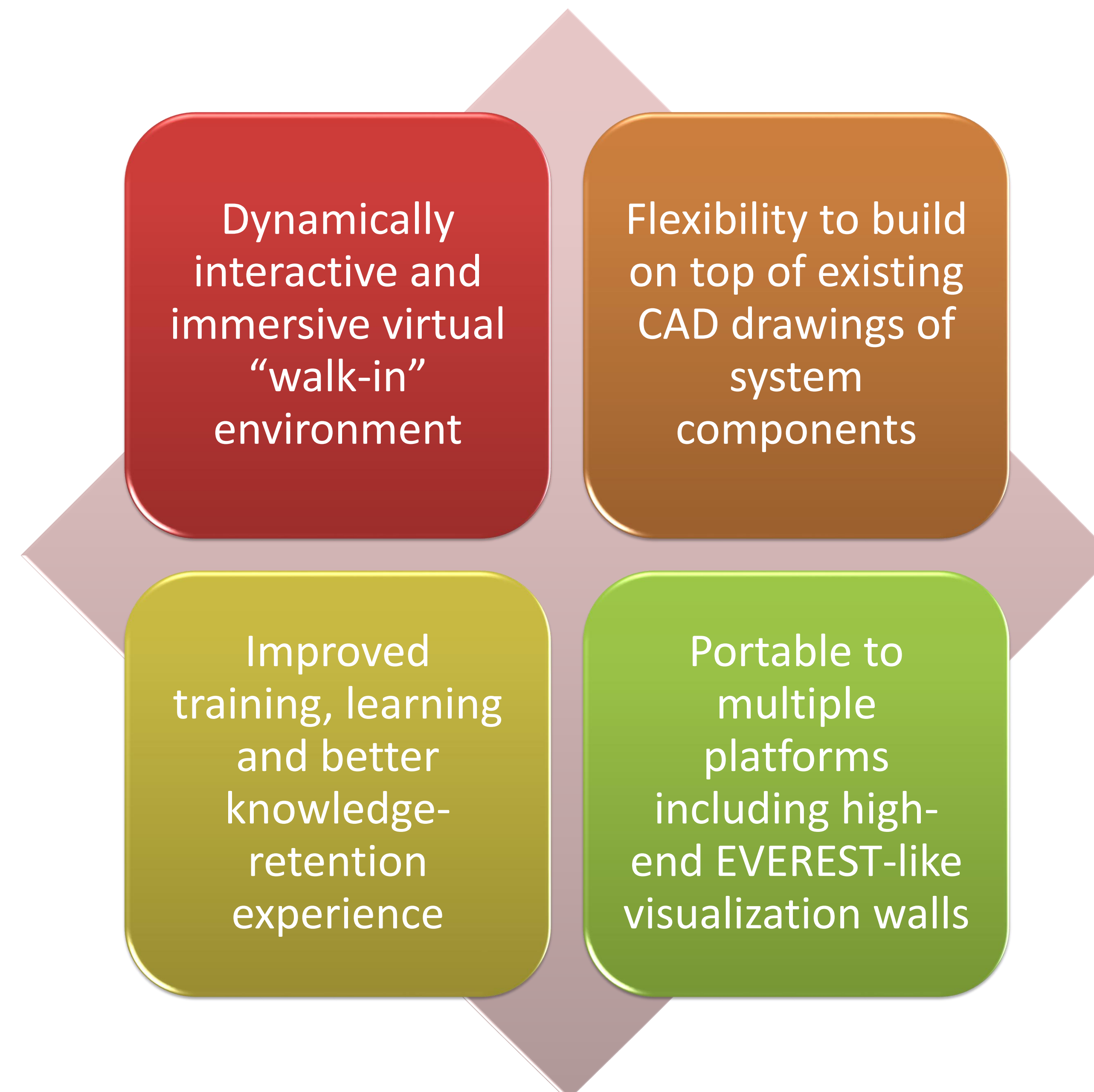

Virtual model of ORNL's Thermal Hydraulics and Irradiation Engineering (TH&IE) laboratory

ORNL's Liquid Fluoride Salt Test Loop in virtual environment showing information overlay capabilities

Thermosyphon LDRD loop and storage deck in the virtual reality (VR) environment

- Dynamically interactive and immersive virtual "walk-in" environment
- Flexibility to build on top of existing CAD drawings of system components
- Improved training, learning and better knowledge-retention experience
- Portable to multiple platforms including high-end EVEREST-like visualization walls


Reality check feature embedded in the VR environment (e.g., a side-by-side view of ORNL's Liquid Fluoride Salt Test Loop in the lab –right, and its virtual counterpart –left)
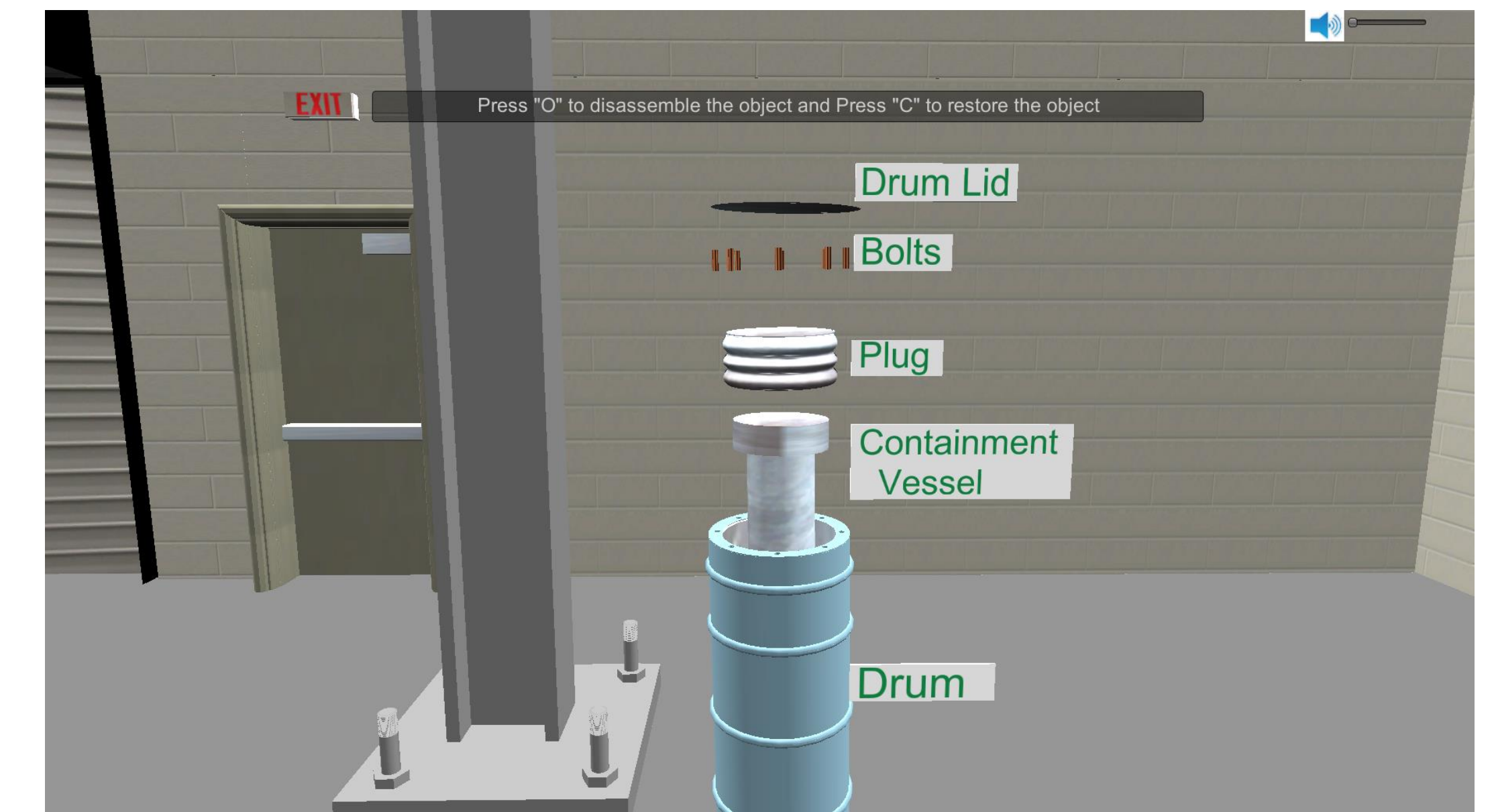
Object exploration capability by developing preset animation of complex system components (e.g., disassembled view of a type-B fissile material-shipping container with information overlay)

Training videos, lectures, text-based information and other media formats can easily be embedded and are available for "on-demand" access by clicking corresponding information icons
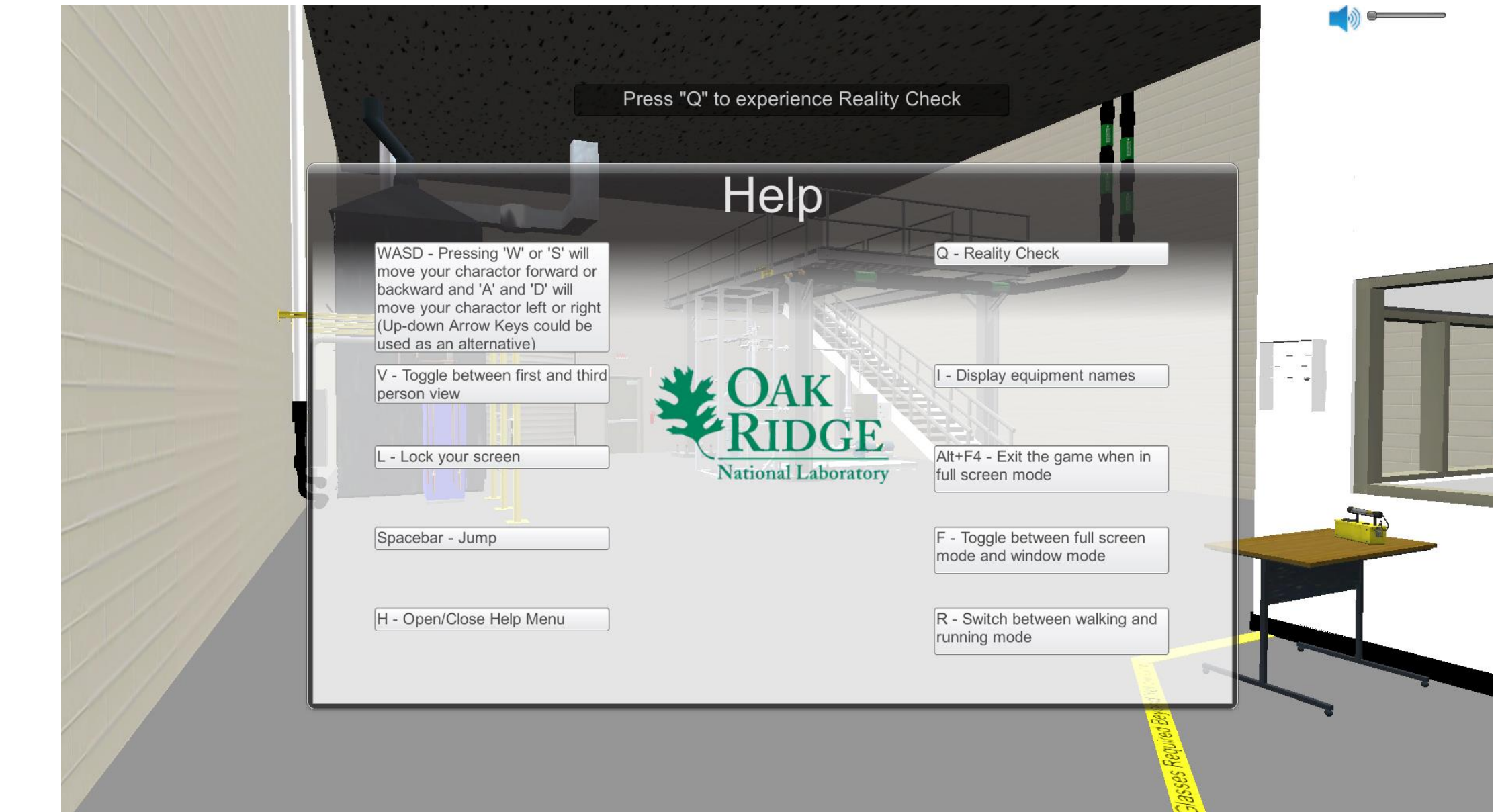
A help menu is available to provide information on accessing different VR features and capabilities

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