

Virtual Reality Laboratory

Centre for Vision Research

Researchers: Professor Michael Jenkin, Professor Laurence Harris

Graduate Students: Ryan Dearing, Adria Hoover, Blake Martin, Lisa Pritchett, Andrew Speers

Postdoctoral Fellows: Richard Dyde, Heather Jenkin

Research Assistants: Jim Zacher

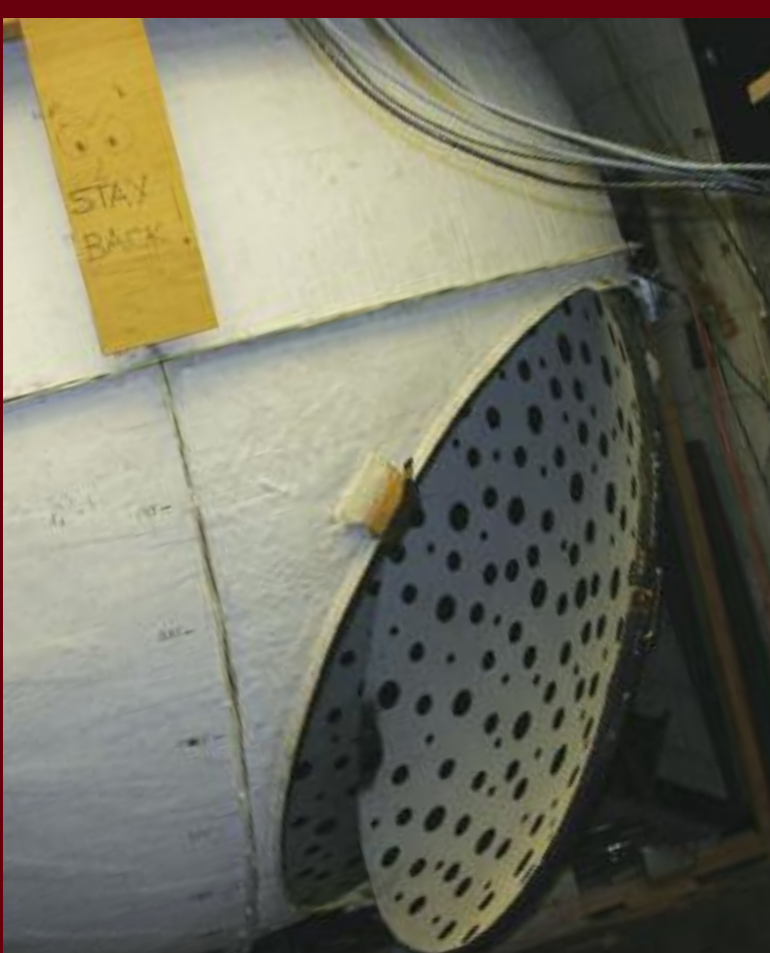


Installations within the Virtual Reality Laboratory enable the generation of complex and realistic visual and physical cues. By arranging these cues in different ways, we can examine fundamental questions in human perception (How do you know which way is up? How do you know that you have moved?) as well as more applied questions related to the development of effective virtual reality technology. IVY, the immersive visual environment at York, is Canada's first six-sided immersive (cave) environment. By projecting stereo visual information on each of the external sides of a cube environment, researchers generate a realistic enveloping visual environment.



The Moog motion base is a Stewart platform that can be used to move a subject (here a robot) in 3D space. When coupled with a head-mounted display and an appropriate head tracker, the Moog can be used to generate different combinations of visual and physical motion cues to an observer.

York University's Tumbled Room is an 8' x 8' x 8' room that has been built pitched backwards. This makes the visual floor a wall and places gravity and visual cues in conflict, and can be used to probe how humans integrate visual and physical cues to perception.



York University's Tumbling room allows observers to be rotated around various axes while the physical room in which they are placed rotates. Built to explore how motion, gravity and visual cues interact, the Tumbling Room has been used by NASA to help train astronauts to deal with disorientation cues while in outer space.

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