

Immersive motion ball a potential VR training tool

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HIT Lab New Zealand Director Professor Rob Lindeman inside the NOVA motion simulator device which he says has potential as a VR training tool.
Credit: University of Canterbury

Professor Rob Lindeman, Director of the University's Human Interface

Technology Lab (HIT Lab NZ), says the NOVA, purchased at the end of last year, has huge potential for training as well as educational purposes. The device is currently the only one of its kind in the South Island.

Designed and built by Wellington company Eight360, the NOVA is a 1.8 meter diameter hollow ball. The user, wearing a [virtual reality](#) (VR) headset, steps inside the NOVA ball and is strapped in for the ride.

"It allows users to experience immersive content with full rotation movement in all directions, and the hand-held controls give a fast response," Professor Lindeman says. "It's a really compelling experience when you have visuals and audio as well as the physical sensations of movement to match—it's pretty incredible to feel those forces."

Professor Lindeman says the NOVA, which is relatively portable, has many potential training applications as it can realistically simulate the experience of flying an aircraft, driving [ground vehicles](#) and piloting a ship.

He believes it could be used by the New Zealand Defense Force, Fire and Emergency New Zealand, the aerospace industry or for undersea exploration.

"We're very interested in working with other organizations to see how we can use the NOVA to help solve real-world problems. We want to make the simulations as real as possible, and we're really excited to see what we can do with it."

HIT Lab NZ Game Developer Ryan McKee has already worked with HIT Lab NZ Intern Jason Ui on several prototype applications for the device, Professor Lindeman says, and the software integration was "quite straightforward."

University of Canterbury Mechanical Engineering and Aeronautical Engineering departments are also interested in using the NOVA equipment as a teaching tool for their students.

Provided by University of Canterbury

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