



The Multisensory Integration Laboratory

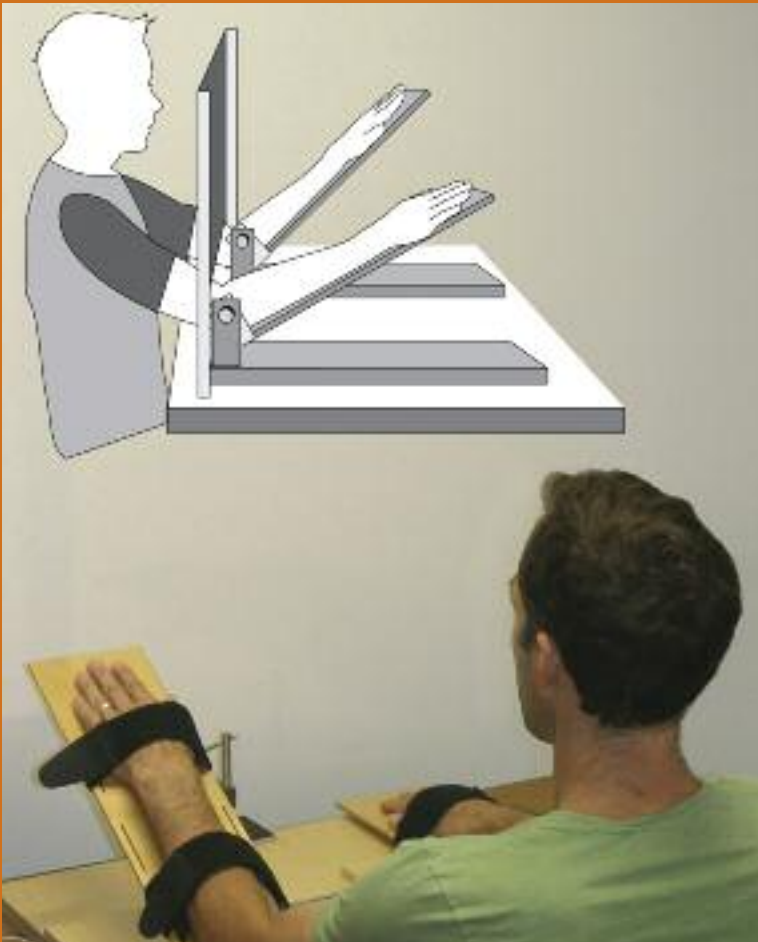
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The Multisensory Integration Laboratory examines how the brain localizes events in space and time and combines sensory information to locate objects and navigate environments. The laboratory's equipment provides controlled visual, auditory, tactile, vestibular and joint information about where and when something happens. By manipulating each source separately, we can assess the perceptual consequences of each and uncover the rules that the brain uses to interpret the senses.

The Bodies in the Space Environment (www.bise.yorku.ca) experiment is being carried out on the International Space Station with a parallel control study in the Multisensory Integration Laboratory. Sponsored by the Canadian Space Agency, the project measures how the body and vision tell humans about their orientation when gravity cues are absent. This research will help create safer work environments in space and may help pilots and others who work under unusual gravity conditions. Most significantly, it will help us understand gravity's critical role in everyday perception.

Our research is relevant to the effective design of multisensory environments such as cars and cockpits. It also helps us understand the consequences of temporary and permanent sensory loss, such as blindness or the loss of balance with age.