

Virtual Reality

Shunzaburo Kida - Biomed - URI

Ever played video games and wondered how the game would completely be different if you were able to control every movement by just thinking of it? If you answered no, then go play more games. But if you answered yes then you were thinking of virtual reality that uses a brain computer interface (BCI).



Left- or right-hand gloves are made of flexible/stretchable material that supplies a comfortable, lightweight fit for a wide range of hand sizes.

CyberGlove II Wireless Glove with VirtualHand for MotionBuilder

Virtual reality in the realm of biomedical engineering is relatively new. The current basic components of a VR system are: some sort of display, stereoscopic or a normal computer display, some sort of controller device, whether it be a wired glove, boom arm, BCI, etc., and of course a computer with the proper programs to run a virtual world.

The brain computer interface is presently the topic of high interest lately. BCI's use electrodes that measure electrical impulses

from the brain to determine the correct function the computer should computer. The non-invasive electrodes are preferred in today's market but don't allow the quality of reading that invasive electrodes give.

In the biomedical field, virtual reality can be employed to view three-dimensional models of body parts. Virtual reality can also be utilized in a fashion that help patients that suffer from phobias and posttraumatic stress disorder and help the disabled learn how to use prosthetics.

Some of the negatives of virtual reality are that it is a field that is still in development so costs and reliability are not stable, technology isn't advanced enough to handle a super intensive VR system, and there's always that off chance that someone will lose track of what is actual reality and what is virtual reality.

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