

Development and validation of haptic interface for deaf-blind horseback riding

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ABSTRACT

We present a haptic interface to help blind and deaf-blind people to practice horse riding as a recreational and therapeutic activity. Horseback riding is a form of animal assisted therapy which can improve self-esteem and sensation of independence. It has been shown to benefit people with various medical conditions including autism. However, in the case of deaf-blind individuals a therapist or an interpreter must stand by at all times to communicate with the rider by touch. We developed a novel and low cost interface which enables blind and deaf-blind people to enjoy horseback riding while the instructor is observing and remotely providing cues to the rider, which improves their independence. Initial tests of the concept with an autistic deaf-blind individual received very positive feedback from the rider, his family and therapist.

Full papers will be published in the Conference Proceedings and will be freely available to delegates at the conference and online on September 20, 2016.