

Upper Limb Prosthetic Compatible Mouse



VA Pittsburgh Healthcare System

Why this research is important:

Veterans who have had an arm or hand amputated have difficulty operating a mouse or track ball to use their computer. This project was initiated at the request of the Disabled American Veterans.

Summary:

Veterans who use a hook-type end effector with their upper extremity prosthetic device have a difficult time moving a mouse or track ball, or activating the buttons. This device is a simple modification of an existing mouse: We designed a 3D-printed cover that makes it easy for the user to grasp with a hook, and to operate the switches by simply tilting the shell.

How the research will improve Veterans' lives:

This technology will offer a low-cost alternative for computer access. As such, it could potentially have a major impact on quality of life, as computers are ubiquitous for work, leisure, and communication. Importantly, it could enable Veterans to use computers for employment— for example, as computer programmers or engineers.



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Office of Research & Development