

Abstract: IPFM: Intelligent Pressure Foot-Mouse

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Abstract

In this paper, we propose the mouse to control a computer with a shoe called IPFM: intelligent pressure foot-mouse. It is mainly composed of five parts including pressure sensor (FSR) embedded in a shoe, 3-axis acceleration sensor in front of shoe to measure a foot motion, computing module (FPGA), wireless communication module and visualization module (LABVIEW). From construction of the five parts, we developed a new input device called IPFM, which can be used by people who have difficult in using their hands to operate computers or devices easily. The Experimental results demonstrate the feasibility of our proposal.

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