Embedded Touchpad for Desktop Users

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Abstract

Few industries have changed so much in such a short time as the computer industry, and the pace of change shows no sign of slowing. The computer now has a role in almost every aspect of modern life, and it has radically affected the way people organize their lives. Desktop users have to push a mouse around their desktop while laptop users can just point a finger on touchpad. Touchpad is a type of computer input device which uses a touch sensitive surface to allow users to control the movement of a cursor, thus replacing a mouse, pointing stick or trackball. Instead of requiring a user to grasp a mouse and pivot at the wrist to click and track on the desktop, touchpads require less motion and allow users to situate their hands and arms in a variety of positions which results in less stress on wrists. Another major advantage of touchpads is that they take up less space than a traditional mouse so it is ideal where space is at premium. Therefore, many users and computer makers see touchpads as a viable, long-term alternative to other pointing devices. Therefore to benefit desktop users, the low cost embedded touchpad is proposed. It uses 4 wires resistive touchscreen to sense the position of a finger. The other hardware includes touchscreen controller circuit, AT89S52 microcontroller, MCP3208 ADC and
MAX232 voltage converter. The software is written in Microsoft Visual Basic to operate cursor on the screen.

References


Index Terms

Computer Science Embedded Systems

Keywords

desktop users, embedded touchpad, pointing devices, 4 wires resistive touchscreen