



3D Touch: Wearable Finger Input Device for 3D Applications

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Patent Status:

No Patent

Description of Technology

3DTouch is a self-contained, mobile, and universal thimble-like device worn on a user's fingertip to perform touch interaction seamlessly with 3D applications and virtual reality devices across a variety of 3D computer software platforms. The device uses an optical sensor that is capable of drawing or translating an object on a 2D plane. The plane's orientation is not fixed, but is determined by the orientation of the finger.

Currently, other 3D input devices are not mobile and are designed only for stationary desktop settings or require a base reference point near the monitor. 3DTouch however, is self-contained and mobile and can be used in a traditional desktop setting or in a spatial environment without cumbersome base reference configurations. 3DTouch also minimizes user fatigue compared to other devices that require mid-air gestures in order for users to connect with the 3D platform. 3DTouch also allows users to hold another input device during operation. This introduces new 3D interaction techniques that combine different types of input devices with 3DTouch.

Applications

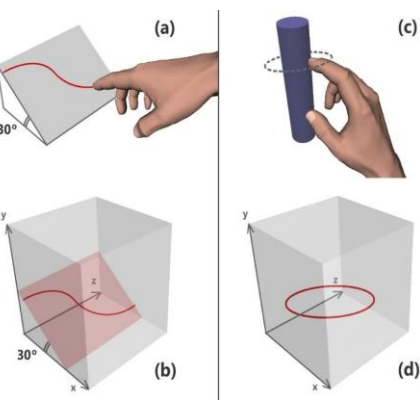
This device could allow users to interact with 3D applications such as those on desktop computers, mobile touch devices, or virtual reality environments. The device works much like a computer mouse, but is small enough to be worn on a user's finger and allows a user to perform touch interactions on any surface, such as a mouse pad, a user's jeans, a desk, or a piece of paper.

Features & Benefits

- Capable of being used across a variety of 3D platforms
- Self-contained device requiring no base references
- Very mobile
- Minimizes fatigue
- Low cost

Market Opportunity

This device is capable of replacing current 2D computer devices such as the computer mouse. 3DTouch is the first 3D input device that enables users to interact with 3D application across different 3D platforms. The current prototype is also cost effective to manufacture compared to other modern 3D input devices.



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