Turn Any Display Into a Touch Screen Using Infrared Optical Technique

ABSTRACT

- In this paper, we present a new low-cost touch display method using an optical technique.

- Our approach is suitable for any regular screen without size limitation, and represents a cost-effective solution.

- The proposed system employs a single webcam and an infrared laser line projector, and incorporates image processing and computer vision methods to achieve the desired touch function.

EXISTING SYSTEM

- As screen sizes have become larger for commercial use, the cost performance ratio has been an important issue for both producers and consumers.

- The resistive and capacitive types are widely used in small-size displays such as mobile phones and tablet PCs.

- However, they are rarely used in large-size displays since the cost of buying a brand new touch screen is high.

- Consequently, a regular display is often modified to become a touch sensitive screen due to the budget issue.

PROPOSED SYSTEM

- The infrared optical technique can implement touch interactivity on desktop screens or large projection screens.

- Our approach is suitable for any regular screens without size limitation and turns a regular LCD screen into a touchable display.

- The system has the benefits of low cost and innovation.

- The experimental results of the proposed method provide a novel, real-time, and low cost system to transform a conventional non-touch display into a touch-sensitive screen.

HARDWARE REQUIREMENTS

- Processor   - Intel

- Speed   - 1.1 Ghz

- RAM   - 256 MB(min)

- Hard Disk   - 20 GB

- Monitor   - SVGA

SOFTWARE REQUIREMENTS

- Tool   -   MATLAB R2012

- Operating system   -   Windows Xp, 7

REFERENCE

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