Touch Less Touch Screen

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Abstract— Touch screens were responsible for creating great future. We had to face many problems while working with the touch screen and end scratching up. The result of the frequent touching a touch screen display with the help of a touching device was that there was a gradual de-sensitization of the touch screen to input. This could result in a failure of the touch screen.

To avoid this problem a simple user interface is being developed for Touchless control of electrically operated equipment is being developed. Elliptic Labs innovative technology lets you control your gadgets like computers, Mp3 players or mobile phones without touching them.

Keywords— Display, Screen, Technology, Touch

I. INTRODUCTION

The touch less touch screen sounds like it would be nice and easy, however after closer examination it looks like it could be quite a workout. This screen is made by Touchko, White Electronics Designs, and Group 3D. It works by detecting your hand movements in front of it. This is a pretty unique and interesting invention, until you break out in a sweat.

II. WHAT IS TOUCH LESS TOUCH SCREEN

The screen resembles the Nintendo Wii without the Wii controller with the touch less touch screen your hand. You probably wont see this screen kin stores any time soon. Everybody loves a touch screen the experience is really exhilarating. When the I-phone was introduced, everyone felt the same. But gradually, the exhilaration started fading. While using the phone with the finger tip or with the stylus the screen started getting lots of finger prints and scratches.

III. ANALYSIS

It obviously requires a sensor but the sensor is neither hand mounted nor present on the screen. The sensor cam be placed either on the table or near the screen. And the hardware setup is so compact that it can be fitted into a tiny device like a MP3 player of an object from as 5 feet.

IV. WORKING

The system is capable of detecting movements in 3-dimensions without ever having to put your fingers on the screen. Their patented touch less interface does not require that you wear any special sensors on your hand either.
V. APPLICATIONS

A. Touch less monitor

Everybody is doing touch screen interface these days, but this is the first time I have seen a monitor that can respond to gestures without actually having to touch the screen. The monitor based on technology from TouchKo was recently demonstrated by White Electronic Designs and Tactyl Services at the CeBit show.

B. Touch-less Gives Glimpse of GBUI

We have seen the futuristic user interfaces of movies like Minority Report and the Matrix Revolutions where people wave their hands in 3 dimensions and the computer understands what the user wants and shifts and sorts data with precision. The GBUI as seen in the Matrix. The GBUI as seen in minority report Microsofts visions on the UI in their Redmond headquarters and it involves lots of gestures which allow you to take applications and forward them on to others with simple hand movements.

C. Touch-less UI

The basic idea described in the patent is that there would be sensors arrayed around the perimeter of the device capable of sensing finger movements in 3-D space. The user could use her fingers similarly to a touch phone, but actually without having to touch the screen.

D. Touch-less SDK

The touch less SDK is an open source SDK for .NET application. It enables developers to create multi-touch based applications using a webcam for the input. Colour based markers defined by the user are tracked and their information is published through events to clients of the SDK.

VI. WHAT IS NEXT??

Many personal computers will likely have similar screens in the near future. But touch interface are nothing new—witness ATM
machines. How about getting completely out of touch? A start up called LM3 labs says it’s working with major computer markers in Japan, Taiwan and the US to incorporate touch less navigation into their laptops, called Airstrike;

VII. TOUCH WALL

Touch wall refers to the screen hardware setup itself; the corresponding software to run touch wall, which is built on a standard version, is called plex.

Touch wall consists of the three infrared lasers that scan a surface.

Fig. 4 Touch Wall

VIII. ACKNOWLEDGEMENT

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Conclusion

Today’s thoughts are again around user interface. Efforts are being put to better the technology day-in and day-out. The touch less touch screen user interface can be used effectively in computers, cell phones, webcams and laptops. May be few years down the line, our body can be transformed into a virtual mouse, virtual keyboard and what not??, our body may be turned in to an input device.

Reference
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