TOUCH LESS TOUCH SCREEN

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Abstract- **Touch screens are change forcreating great future. Facing some problems while working with the touch screen. The result of the normal touching a touch screen display with a finger and the help of a touching device was that there was a measured de-sensitization of the touch screen to input. This could result in a breakdown of the touch screen.**
Being developed for Touchless touch screen control by electrically operatetools is being developed to avoiding this problem a simple user interface. Elliptic Labs modern technology lets usmanage our gadgets like computers,Musicplayer-3 , or smart phone without touching them.

***Keywords*—*Display, Screen, Technology,* Touch**

I. INTRODUCTION

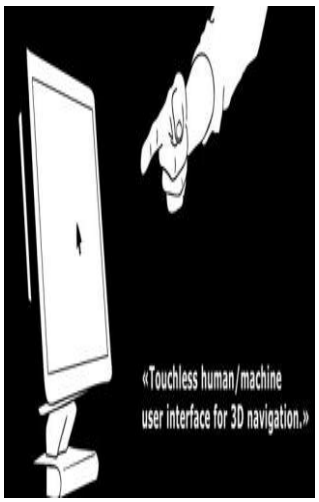
Touchless touch screen basedon hands and fingersmovement, a hand signal in a definite direction. Sensors can be located either on the screen or near the screen. The touch less touch screen is a current technology which is rising the world in a drastatic way. This screen is developed by TouchKo, White Electronics Designs and Group 3D. Touch less touch screen was a great invention by the scientists.This Touch Less Touch phones are very expensively costsaround 18,000. Today ,everybody like a touch screen , when you finda touch screen technology for devices theknowledge is really good[1].

II. PROBLEM FACED TOUCH BY SCREEN:

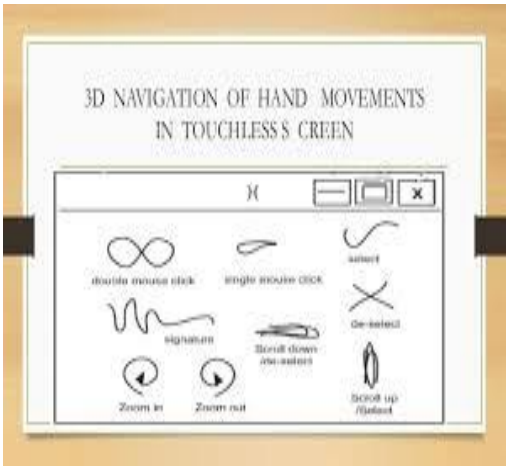
- Large amount of data can't be entered in touch screen.
- Real world applications can't use touch screen technology because designers have not specifically measured how the organization will task[2].
- Another problem faced by touch screen users is that the business does not receive sufficient processing from buttons.
- The cost range of touch screen monitors is two and half the price of a standard computer [3].

III. WORKING:

- This system can detect action in 3-D dimension without constantly having finger motion.
- Sensors can mount on top of the screen, by communicating in the range–of these sensors than the motions are detect and interpret into top screen movement.
- Touchless touch screen devices is based on visual out line identification using a solid conditionvisualmedium sensors to identify hand motion.
- Digital image processor is connected by the this sensors ,which interpret the pattern of motions and output the result as signaltocontrolsthisdevice,applic ationsmachinees,control able by electrical signal[3].
- Navigation of hand motion in touch less screen:

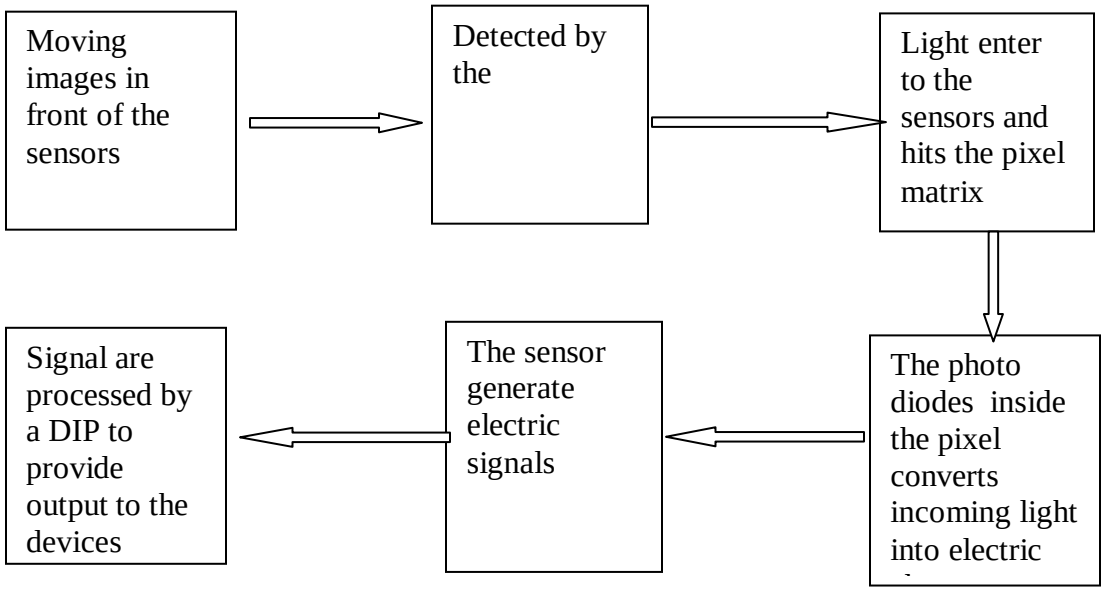


[Fig:1 3-D navigation]



[Fig:3 3-Dnavigation of hand]

Work flow by flow chart:



[Fig:2 Work flow] [4]

I. Applications of touch less touch screen:

1. *A.Touch less monitor*:-Everyone is using touch less screen interface now a days, but whem I have seen first time a monitor that is reactin the direction of without really having to touch on the screen[6].

Fig: 4 Touchless monitor..]

B.*Touch less SDK*:-this screen is an open source SDK mainly used for VB.net application.Using a webcam for input that enables developers to produce multi-touch base application.User defined color based markers aretrack and that informations areavailableduringactions to customers the SDK. Without touching that enables to touch SDK screen, Microsoft office Labs havenow Touch less has a webcam motivated multi-touch interface SDK that enables touching without touch and provide output [7].

C.*Tobii Rex*:- this is an eye-tracking machine which work with any type of computers run on window. Paired infrared sensors built intobiirex device that follow the customer eyes. Tobii Rex are placed on the base part of the screen and it will confine eye action, engage in fix your eyes oncommunication.Mostly our eyes are using as like the mouse cursor. Whenever looking at the cursor will come into view in the exactdot of screen[8].

[Fig:5 Tobii Rex]

D.*Elliptic Labs*:-It allow to work your PC without touch on the screen that are using in Windows 8 Gesture Suite. Ultrasound that works with audio tools not camera.in an ideal world, you need8 microphoneand 6 speaker but the dedicatedspeaker' on PC and a normal microphones can works too[8].

[Fig:6 Elliptic labs]

- ***E.****Air writing*:- Airwriting is a mechanism that allow to write text note or compose email by writing the air. A glove which recognize the way your fingers movements and hand motions come in the form of air writing

as you writes. The glove contain sensor that can records hand action[11].

Advantages:

- Easier and satisfactory experience.
- Touch less screen display.
- Control objects.
- Cursor positioning and gesturing.
- No need any type of drivers
- Works like a touch less touch screen no objective contact is required.
- Integrates into OEM Applications easily and do no need any change.
- It zoom and control objects.
- It supports gesturing
- Controls the absolute cursor positioning.
- It does not need any individual driver.

- It has elective optical sensors for left and right click[9] .

[Fig: 7 Air writing..]

- CONCLUSION

Touch screens are change for creating great future. Facing some problems while working with the touch screen . The result of the normal touching a touch screen display with a finger and the help of a touching device was that there was a measured de-sensitization of the touch screen to input. This could result in a breakdown of the touch screen.Efforts are being put to better the knowledge day-in and day-out. The touch less touch screen effectively used in computers,laptops cell phone, webcam and tablets. May be a less number of years losing the line, our finger may be transformed into a essential mouse, virtual keyboards and what not? our finger may be react as an input device.

- *References*

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