

Overview of E-Ball Technology

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Abstract— A new concept of pc is coming now that is E-BALL concept pc. The E-BALL concept pc is a sphere shaped computer which is the smallest design among all the laptops and desktops. This computer has all the feature like a traditional computer, elements like keyboard or mouse, DVD recorder, large screen display. E BALL is designed that pc is be placed on two stands , opens by pressing and holding the two buttons located on each side of the E BALL pc , this pc is the latest concept technology. The E BALL is a sphere shaped computer concept which is the smallest design among all the laptops and desktops have ever made. This E BALL technology is highly stylized and is user friendly also. This pc is ideally designed whether you use this for office work or for entertainment. For the moment there is no word on pricing or when it's going to be available, I am sure that everybody would like to see a small spherical pc like this one.

Key words: E Ball Technology, Virtual Keyboard, Paper Sheet Holder, LCD Projector, DLP Projector

I. INTRODUCTION

The E BALL concept pc is a sphere shaped pc which is the smallest design among all the laptops and desktops.

Designer Apostol Tnokovski has replaced the good old pc from the shackles of the monotonous squares and rectangular shape with his newly designed wonder in a spherical shape.

According to Apostol it is the best shape in nature and it draws everybody attention. It is the smallest P pc ever made. This pc will measure 160mm in

Diameter and it was designed for Microsoft windows.



It's not going to be like a PDA, it's going to be a pc with all conventional components like mouse, keyboard, and Normal screen. E BALL concept pc don't have any external display unit.

II. HOW TO WORK E—BALL PC

E BAL is started by pressing and holding the power button for 5sec. the projection will pops up. E-BALL is designed in such that it can be fixed on two stands. E BALL has two

button on each side and the user can simply open this pc by pressing and holding them at a time.

Once you open the stand and turn the E BALL on, then the optical mouse which is attach to E BALL can be detected by pressing the button for detection and now connecting the optical mouse.

After we turn the pc on we can the projection will pop up now we can adjust projection. Focus, size by navigation button.

E BALL concept pc has a laser keyboard that is fully a concept keyboard that is visible when the pc is in working. The keyboard is not physical, it is interpreted by laser that appears after press the respective button. It recognize your fingers with the help of an IR sensor when you are typing at a particular place, while the mouse is a pop out wonder making this an existing piece of technology.

A. Features of E-BALL

- dual core processor
- 2GB RAM
- 350-500 GB HARDDRIVE
- Integrated graphics and sound card
- mouse
- LAN and WLAN card Speakers
- Wireless optical
- LCD projector
- Paper holder
- Virtual keyboard

III. VIRTUAL KEYBOARD

A virtual keyboard is a projection keyboard that is projected and touched on any flat surface.

Virtual keyboard basically uses the principle of sensor technology and artificial intelligence to let users work on any surface.

The main feature are – platform independent multilingual support for keyboard text input, built- in language layouts and settings, copy/paste etc. operation support just as in a regular text editor, already existing system language setting remain intact, easy and user-friendly interface and design and small file size.

The virtual keyboard uses light to project a full-sized computer keyword onto almost any surface, and disappears when not in use. Used with smart phones and PDAs, the VKey (TM) provides way to do email word processing and spreadsheet tasks, allowing the user to leave the laptop computer at home.



This system has three modules:

- 1) The sensor module
- 2) IR light source
- 3) The pattern projector

A. Sensor Module:

- Electronic devices to see the world around them so they can perceive and interact with the sensor module serves as the eyes of the keyboard perception technology.
- The sensor module operates by locating the user's fingers in 3-d space and tracking the intended keystrokes, mouse movements.
- Mouse tracking and keystrokes information is processed and can then be output to the host device via a USB or other interface.
- Electronic perception technology.

B. IR light Source

- The infrared light source emits a beam of infrared light.
- This light beam is designed to overlap the area on which the keyboard pattern projector or printed images resides.
- This is done so as to illuminate the user's fingers by the infra-red light beam.
- This helps in recognizing the hand movements and the pressing of keys.
- The light beam facilitates in scanning the images. Accordingly the information is passed on to the sensor module which decodes the information.

IV. PATTERN PROJECTOR

The pattern projector or optional printed image presents the image of the keyboard or mouse zone of the system.

This image can be projected on any flat surface. The projected image is that of a standard qwerty- keyboard, with all the keys and control functions as in the keyboard.

The projector features a wide- angle lens so that a large pattern can be projected from relatively low elevations.

A printed image, with replaceable templates allows system flexibility, permitting most any kind of keyboard configuration for greater functionality.

"In some types of virtual keyboards, a second infra-red beam is not necessary.

Here the projector itself takes the inputs, providing dual functionality.

Sensors or camera in the projector picks up the finger movements, and passes the information on to the sensor modules."

A. Projectors

- 1) LCD projector
- 2) DLP projector
- 1) LCD projector: This system that display or project information or video onto a surface. LCD stands for liquid crystal display, the technology used to project images. They are the technological descendants of overhead and slide projectors, older systems which serve the same purpose.
- 2) DLP projector: DLP stands for digital light processing. A video projection technology, developed by Texas instruments, that utilizes a chip, referred to as a DMD (digital micro mirror device). Every pixel on a DMD chip is a reflective mirror. The video image is displayed on the DMD chip.

V. SOFTWARE INTERFACE

The software interface of E BALL concept pc is highly stylized with icons that can be remembered easily that support all types of windows operating system. E ball concept pc work very easy while you are making video presentations, listening music, watching large screen movies, and chatting on the net.

VI. CONCLUSION

As the technology develop, the size of computer become smaller and smaller. Although the size becomes smaller and smaller, the feature of computer are increases. The computer becomes more efficient and convenient to the users. E BALL is considered to be the 8th wonder which has the potential to reform the world with its amazing feature. As evolution is done in technology, it's easy to use anyone.

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