

Exploration of E-Ball Technology

Ashish Sipani¹, Nirmala Choudhary², Anil Dhankhar³

Department of MCA

¹RIET Jaipur

²Asst. Professor, RIET Jaipur

³Assoc. Professor, RIET Jaipur

Abstract- We all know about the word computer that was huge in size. Now days the size of computer reduces and a new concept is introduced as E-Ball pc. The E-Ball pc is a smallest unit as compare the all laptops & desktops. It is sphere shape system. It has all features & elements like mouse, keyboard, large display screen, DVD recorder etc., all in one an innovative manner. It is designed by Apostol Tnokovski. The size of it like as a ball. We can carry it anywhere. E-Ball is depict to be placed on two stands. It opens when pressing and holding the two buttons simultaneously located on each side. When we opening the stand and ON the PC and pressing the unhitch mouse button will allow you to detach the optical mouse from the PC body. It has features like as laser keyboard that can be activated by pressing the particular button.

Keywords- E-ball, Virtual keyboard, Wireless optical mouse, Projector, Paper Sheet Holder.

I. INTRODUCTION

The E-Ball pc is a smallest unit as compare the all laptops & desktops. It is sphere shape system. It has all features & elements like mouse, keyboard, large display screen, DVD recorder etc., all in one an innovative manner. The size of it like as a ball. We can carry it anywhere. E-Ball is depicting to be placed on two stands. It opens when pressing and holding the two buttons simultaneously located on each side. When we opening the stand and ON the PC and pressing the detaching mouse button will allow you to detach the optical mouse from the PC body. This pc is use the concept of latest technology. It has 160mm in diameter and 120*120mm motherboard. It was use only on Microsoft Windows OS, not others. That time the pricing is not decided or when it's going to be available, however, I am sure that everybody would like to see and purchase a small spherical PC like this one. It is Design by APOSTOL TNOKOVSKI. It's not like be a PDA, its like as a PC with all conventional components like (1) mouse, (2) keyboard, (3) normal screen. As it is spherical in shape, it draws everybody's attention.



Fig. 1:- E-Ball System

II. WORKING OF E-BALL TECHNOLOGY

E Ball is design such a way that it can stand on two stands. It has two buttons on both sides. And the user can easily open this by pressing and holding them simultaneously. When we open the stand and turn the E-ball on, simply by pressing the connecting button we can connect optical mouse from the body of E-Ball. It has a button that allows activating laser keyboard. It doesn't have any external device. E-ball have a button when we press this a projector is open and focus on wall screen. This can be adjusting by navigation key. When we are working on projector less place then we can use paper sheet as a screen. That divides into three pieces like an umbrella just after popping up and it will show desktop on the paper sheet. The E-Ball PC has a paper holder ob the back shape. The paper holder operated by lower part of pc. The paper sheet on the holder act as a screen where we can watch movies or something.

E-Ball has a laser keyboard that is visible only when pc is working. The keyboard is not a physical part it is appear only when we pressing button on it. When we typing then it is recognized our finger with the help of IR sensor, while the mouse is a pop out wonder making this an existing piece of technology.

E-Ball pc is very helpful while we are making video presentation, watching movie, listening music's and chatting on net.

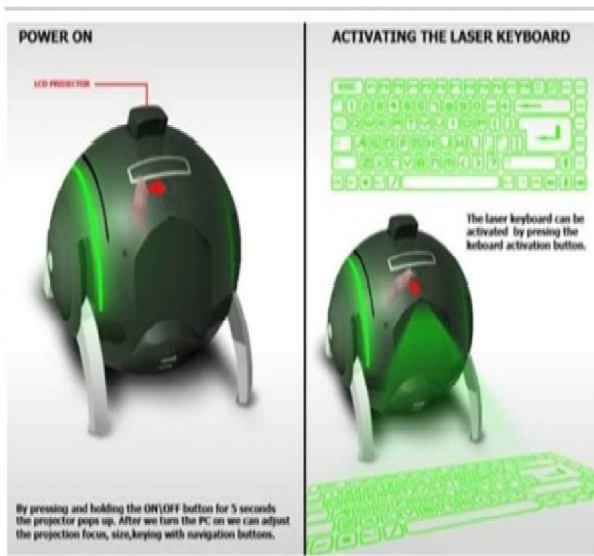


Fig.2:- Working of E-Ball System

III. CONFIGURATION OF E-BALL

1. It has around 350-600GB of Hard Disk Drive.
2. It contains 5GB RAM.
3. It has two 50W speakers. It has LAN and WLAN card holder and a Web cam.
4. Intel Core i7 & i5 processor.

IV. COMPONENT OF E-BALL

- i) **Optical mouse:** It is wireless device that uses the light produce diode for purpose of tracking movement of optical mouse. It completes the demand of E-ball computer properly. It can be easily to carry.
- ii) **Paper Sheet Holder:** There is no wall for projection on screen. So use paper sheet as screen for the projection. This paper sheet is kept in paper holder which is place at rear of E-ball computer. It is opened by pressing its lower part.
- iii) **Projector:**

I. **Liquid Crystal Display:** It is base on liquid crystal display that is use to display envisions data like as videos, image, computer data and some other result or output. It does not produce any type light itself. It uses light of other resource. It takes help of meta-halide lamp to send light through prism or a series of pleochroism that divide the light into three color panels. I.e. red, blue and green for video signal. It is very cheap as compare to other. It mainly use for business and meeting purpose.

II. **Digital Light Processing:** It is a projector which uses digital micro-mirror device. It is based on micro-electro-mechanical technology. The image is created by small mirror. This mirror can be that much small Digital Micro Mirror pixel pitch may be 5.4 micrometer or less.

iv) **Virtual Keyboard:** It is software which allow user to enter value. It is not a physical device. It is a projected keyboard that is projected & appears on flat surface (which is considered good for virtual keyboard). It is use laser technology and artificial intelligence to user works any surface. It is started by pressing particular button and use laser ray technique for its implementation. This device catches the movement of fingers when they are pressed on. The movement of fingers is detected and the device accurately measures the pressed keystrokes and translates into text at a same time. When user of E-ball computer touches the virtual key, the optical device detect stroke and send it to E-ball computer. There are many advantages of using virtual keyboard. 1. Input entry is fast. 2. No external devices required 3. It is more secure compare to other sources.

Components of virtual keyboard are:-

I. **IR-Light Source:** The main purpose of is to release infrared rays .It is part of EMI that we us in daily life. Naked eyes cannot see such rays but it fell by heat.

II. **Sensor Module:** It is act as eyes of the keyboard perception technology. It is used to detect which key that is stroke by user figure in 3D space.

III. **Pattern projector:** It is use in virtual keyboard for projection of image on any surface. Projection image is a group of all function of standard keyboard. It is produce three color-red, green and blue.

V. ADVANTAGES OF E-BALL

- It is small in size so easy to carry any place.
- E-Ball has huge memory.
- Useful for making video presentations.

- These have very high speed.
- Supports user-defined keyboard layouts.
- It is systematic.
- It is very easy to use.
- It is more secure than other computer.

VI .DISADVANTAGES OF E-BALL

- Normal OS does not support in these computers.
- E-Ball is very expensive.
- It is inconvenient to understand if any problems occur in hardware components.

VII. CONCLUSION

E-ball computer is very efficient and easy to learn, use and handle. It has internal complexity which can be resolve in Future. In coming year it can be widely use. It will take some time to reach in market and use for general purpose but truly, it is very use full in future of new computer's world.

REFERENCES

- [1] Deepa.B, Sri Bharathi. N and Tamilarasi.R, <http://www.ijtrd.com/papers/IJTRD6588.pdf>
- [2] N. Ravi Bharti, J. Arul Jothi,"E-Ball-A Complete Computer In A Ball", Dept. of Master of Computer Applications Sri Manakula Vinayagar Engineering College
- [3] <http://www.google.co.in/#sclient=psyab&hl=en&site=&source=hp&q=EBALL>
- [4] <http://www.electronics.howstuffworks.com> .
- [5] <http://dukedk666.wordpress.com/2013/04/12/e-ballconcept/>
- [6] <http://www.electronics.howstuffworks.com>