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A Beam Technology on the Pen

Pradeep M

Computer Science and Engineering
Visvesvaraya Technological University
pradeep.appi01@gmail.com

B C Arjun

Computer Science and Engineering
Visvesvaraya Technological University
bc.arjun@gmail.com

Abstract- Today we see projector everywhere which run on the different techniques. This has made life of the user to costlier. So, we present a work on beam or a halo technique on the pen. This technology gives projecting information on the walls. The main implementation behind is applying a beam or a halo technology to the pen, and then we can use that pen to projecting an information on the walls. The projector used is LCD projector.

Keywords- Pen, Beam, Memory, Cable, Switch, LCD Projector, Port, Shell.

I. INTRODUCTION

Projectors make any surface in your classroom interactive, allowing an immersive experience that helps teachers teach and students learn. Project onto existing projector screens or whiteboards or directly onto the wall. These projectors allow you to interact with your projected lesson plan from practically anywhere in the classroom.

By using a special interactive pen, you can project a data on the screen. This flexibility also allows teachers to interact with the entire screen no matter how large because the pen interacts from a distance.

Summary of contributions:

In section II we introduce some basic fundamentals about LCD projector. In section III we introduce our proposed system with explanation. In section IV we give future scope for our system and conclude in section V.

II. PRELIMINARIES

A. USB Ports

USB[1] (Universal Serial Bus) was designed to standardize the connection of computer peripherals (including keyboards,



Fig.1 Ports

Pointing devices, digital cameras, printers, portable media players, disk drives and network adapters) to personal computers, both to communicate and to supply electric power. It has become commonplace on other devices, such as smart phones,

B. Battery

An electric battery is a device consisting of one or more electrochemical cells that convert stored chemical energy into electrical energy. Each cell contains a positive terminal, or cathode, and a negative terminal, or anode.



Fig.2 battery

Electrolytes allow ions to move between the electrodes and terminals, which allows current to flow out of the battery to perform work.

C. Beam Projection



Fig.3 Beam light

A beam projector [4][5] is a lens less stage lighting instrument with very little beam spread. It uses two reflectors. The primary reflector is a parabolic reflector and the secondary reflector is a spherical reflector. The parabolic reflector organizes the light into nearly parallel beams, and the spherical reflector is placed in front of the lamp to reflect light from the lamp back to the parabolic reflector, which reduces spill. The result is an intense shaft of light that cannot be easily controlled or modified. Beam projectors are often used to create a god-spot effect.

D. Switch



Fig.4 switch

A Switch is an electrical component that can break an electrical circuit, interrupting the current or diverting it from one conductor to another.

E .Memory



Fig.4 SD card to insert on pen

Memory is the process in which information is encoded, stored, and retrieved. Encoding allows information that is from the outside world to reach our senses in the forms of chemical and physical stimuli. In this first stage we must change the information so that we may put the memory into the encoding process. Storage is the second memory stage or process. This entails that we maintain information over periods of time. Finally the third process is the retrieval of information that we have stored, present works contains the memory of 1gb with memory card with memory slot.

F. LCD Projector

LCD [2][3] stands for Liquid Crystal Display. The way this places an image on a screen is fascinating and not nearly as complex as you might imagine. A bulb is set up to shine a fairly powerful light through a prism.



Fig.5 LCD projector

The prism splits the light into its component colors and these are sent through small LCD screens. The screens themselves are sent signals to allow just so much of the light through at specific pixel locations. The light is then beamed through a lens onto a screen where the images can be seen by the human eye.

III. PROPOSED SYSTEM

In this part we propose the actual content, architecture with appropriate explanations.

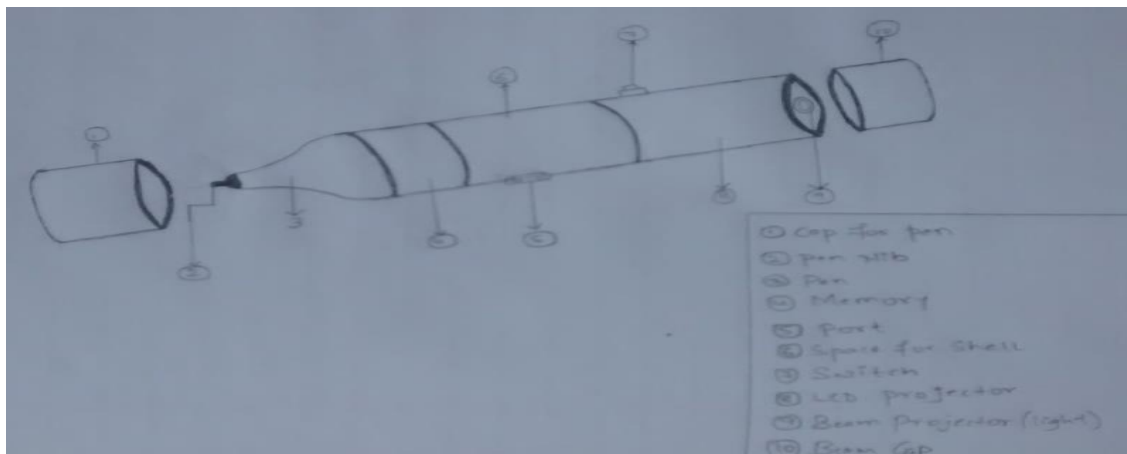


Fig.6 Beam Pen

In our technology, as illustrated in Fig.6 we explain the Beam-Pen as below,

1. Beam-pen is also called as Room-projector, because displays an information/data from LCD projector on the rooms, seminar halls and etc. and shown in fig [6].
2. Beam-pen can be divided into following parts: ports, pen, beam-projector, memory, shell, switch, USB ports [1].
3. This instrument is used to display information stored in memory and display an information on the walls such as class rooms, seminar halls and etc.
4. LCD Projector [2][3] is used to display an information from the beam, fig[5] shows the lcd projector.
5. Beam-Projector [4][5] will display an information or data with the help of lcd projector, memory, shell.
6. Memory is used to store an information/data which we want to display and this instrument contain 1GB of memory.
7. Shell is used to work the beam-pen up to battery that is shell dies.
8. Switch is used to ON/OFF for projector.
9. Port is used to charge the shell/battery as well as to store a data/information to memory.
10. Beam-Pen will handled by the user who going to give presentation on topics, he can use beam-pen has pen for writing purpose on boards, walls and switch it ON to display a information by beam light projector with the help of LCD Projector.
11. Before using this device we should charge that using USB cable and connect to USB port.
12. To close the pen and beam point, we used two closing caps for pen and beam that is shown in the fig [6].

The above depicts the flow of beam-pen technology.

IV. FUTURE SCOPE

Currently the user is using beam-pen in the hand, he need to keep on handling everywhere. How much time he will use in hand to project, so in future we will use a dock to place a beam-pen on that, then we can keep that in a specific place in order to project an information on the walls.

V. CONCLUSION

To conclude this paper, beam-pen can get very quickly and user friendly, can access this anywhere on the walls. Mainly it helps in the classroom to display information on the walls, also we can call this as room projector. Beam-pen uses LCD projectors pass light through a small transparent LCD chip.

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