Lcd Projector With Usb Connector

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Abstract

The paper describes the idea of bringing the efficiency in work of schools , colleges and even in offices or work places. So the created system is LCD Projector embedded with USB connector.It is having interface with Raspberry-Pi model and use to display the power point presentations as well as PDf files. This paper introduces an idea which focuses on reducing costs and improving service quality in a technology-based teaching environment.The idea which have been introduced through this paper is to interface the raspberry-pi with the DLP2000 projector circuit board.In result of this module it will intend to shown the power point presentation and pdf files as well as large videos etc.
General Terms Cost reduction and effective service.

Keywords—*Raspberry- Pi, LCD Projector*

I. Introduction

This is the paper where the effective idea for solution to bulky LCD projectors have been introduced. This paper has information of Raspberry-pi interfaced with DLP2000 projector circuit. The idea which is discovered in this paper will be cost replacement solution for daily work use. The main moto is to integrate the USB and LCD module to reduce the size and easy to handle, and to provide the fast data transfer and high-quality display of data. The device needs the continuous power so the wired plug in is provided with it so there is no interruption between the power supplies. It has two module USB and LCD so when user just wants to use the USB functionality then user switch OFF the LCD module, but for the use of LCD module the switch must be turned ON.

II. Motivation

In this era, technology equipped literally everything. Each and every single thing made simple because of technology.So why not bulkyLCDs??
So the idea of creating portable LCD projector has been come up, which will actually made the things easier and increase the cost effectiveness.

III. Problem scenario

To better understand the problem, consider the current situation in the departments of the company.

There are five sections in the LF section, namely classrooms and in each classroom the professor uses a projector, which requires a laptop for each class. Now, if all five classes need a laptop at the same time, the total amount invested in the apartment will be around Rs.2,00,000 (40K * 5 = Rs. 2 Lakh).Today, there is at least one university or college has 5 sections. So the cost is up to Rs.10,00,000. Therefore, colleges or universities spend so much money that it does not seem effective compared to the intent behind it. If this quantity is condensed, it can save a big quantity of cash, which can be used by the division for some study or other advantageous effort. This paper is an attempt to address this issue. The system proposed here is called a "Projector using Raspberry Pi". LT uses the Raspberry Pi - a credit card-sized computer that provides a cost-effective and energy-efficient solution to the above problem. Like the Raspberry Pi, the laptop is relatively inexpensive ($ 35-40) and is only one-tenth as energy competent as it consumes fewer power (5V) than the laptop needs.

IV. Literature survey

In [1] the authors use the Raspberry P2 model. The system makes the wireless projector a wireless projector. An Android application is made in this system.
[2] The author has proposed a new architecture for remote control and access on Android mobile devices, which allows the display to be shared between Android mobile phones and computers. This should be done within the Wi-Fi range of the different platforms.
In [3], the authors implemented a new design for remote control of Android mobile devices. They also talked about the work of the VNC protocol and the work of that protocol. [4] The authors used the Raspberry Pi and its projection system. They can build the system using the Raspberry Pi. In this system they can use NETIO applications to control the system. About [3] The authors refer to Android-based isolated desktop customers. lt is a remote-control arrangement that allows you to sight and interrelate anywhere on the computer's intranet, or "processer" (called "server") on another computer or cellular phone (Android). Is. [6] The authors describe the process of retrieving a computer with the help of Android portable phones. This procedure is founded on VNC (Virtual Network Computing) technology. [And] The authors describe the use of remote desktop and terminal services. In this paper, Remote Desktop Protocol (RDP) is used for Remote Desktop Connections.

V. Proposed system

The whole purpose of this development is to habit the Raspberry Pi and its web edge to stock records sent from remote causes and sight these records in a projector. Once the Raspberry Pi is fixed and ready to be castoff like a usual computer, the claim will be allowed to view all moveable document records (pdfs) and power point demonstrations. The Raspberry Pi comprises an HDMI port and an Ethernet space with IEEE 802.11g. It is a boundless place to upload records and presentations from resident and distant sites for Raspberry Pi.

VI. Details about raspberry pi

Raspberry Pi -
The Raspberry Pi maneuver is a credit card-sized computer. Mostly a minor PC that affords all the basic purposes that a desktop PC can afford. For example, it offers purposes such as word processing, playing games, and playing audio and video. lt has become a extensively used tool for education programming since last year.

VII. Specifications

Raspberry Pi 3.370 X 2.125 motherboard by 700 MHz CPU besides 250 MHz GPU. Ethernet LAN port is accessible for internet and distant access. lt also has an HDMI port where it can attach to any exhibition device such as a recorder, projector or monitor.

VIII. Planning of the proposed system

The system planning consists mostly of three blocks:
1. Raspberry Pi: The HDMI port on the Raspberry Pi lets a projector to award to the top of the palm. It also helps remove the essential for LCD curtains, thereby dropping costs. The next part is SD card storage, which stores all records moved from resident / distant locations to the PI.
2. Network Access Layer: The network access layer comprises the usage of a wireless dongle or ethernet to join to the network. The above WiFi can be allowed by following the process below. This layer allows the broadcast of records.
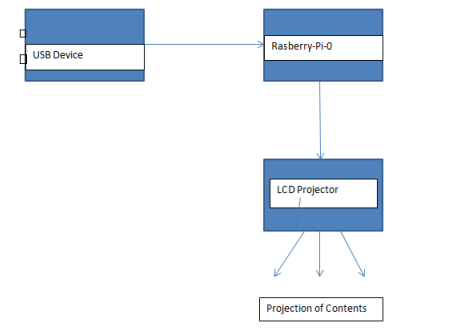
IX. Project overview

The Raspberry Pi is connected to the projector using a 12c to 12c cable with a pin on the projector and a 12c Raspberry Pi cable. Audio jack is also connected to a Pi from the projector using a 3.5 mm cable. Raspbmc OS can also be run using the mouse by connecting to the Raspberry Pi USB. The required component is a pen drive to achieve content / presentation. Videos, audio and photos can be streamed simultaneously with minimal delay or fluency. The projector can work from an android phone in the future, a mouse connected to a projector or make a laptop using an Internet browser. The lP address and port number are included in the lP format type address: port / 'number, we just connected to the network and can access the remote control of the projector wirelessly.

X. Conclusion

The current educational policy is very much dependent on technical assisted learning. That is why most laptops are needed. But one finds that most of these laptops have lost functionality because the only purpose of these laptops is storage and projection sliding. A laptop consumes a lot of energy and is very expensive. Therefore, this paper suggests substituting laptops with little cost and low power consumption storing devices, which can be intended using the Raspberry Pi. The operator interface can be intended for this device for improved projection, thus adding to the expediency of the processor. This device can be used for performances at seminars or for instructive purposes or in schools or colleges. Above all, this device propose all the features that a laptop can offer, but at less than half the value we waged for a laptop.

XI. Future scope

1. Currently, this paper suggests substituting the laptop with a new door-mounting device. It can be extended to many, across all college departments and in many institutions nationwide. This product has the potential to replace a laptop, especially for some storage and installation uses.
2. The other side of the future is to support the Raspberry Pi through a battery. Meanwhile, the Raspberry Pi must be linked to the power supply via a USB power port. But when the power goes out, it immediately turns off the pie. Therefore, it is improved if the Raspberry Pi battery is linked to the power provider.

3. Using Cloud Computing we can eliminate pen drive penetration and access files remotely.

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