**Title: AirDrive (Adapter That Makes Any USB Storage Device Wireless and Portable)**

**Abstract:**

AirDrive is a multifunctional device which works as a wireless portable storage device and adapter, which provides wireless accessibility to USB storage devices. AirDrive can be used for wireless data transmission, modification, storage and sharing. AirDrive provides internal storage which can be expanded by connecting external storage USB device. When NFC enabled device (such as mobile, tablet ,etc) is brought near AirDrive then the file system of AirDrive gets popped on the screen of NFC enabled device.

**Introduction/Motivation:**

An AirDrive is a multifunctional device which works as a wireless portable storage device and adapter, which provides wireless accessibility to USB storage devices.

The objective is to introduce a system which simplifies data transmission among the devices.

**Literature Survey/Prior Artwork:**

There are lots of traditional method of data transmission and sharing. Sandisk Wireless Stick is a device which is used to do wireless data transmission. But the major difference between the AirDrive and Wireless Stick is that AirDrive makes any USB Storage Device Wireless But Wireless Stick is Device which has its own internal storage and it don’t make any storage USB device Wireless unlike AirDrive.

**Methodology:**

There are same device in the market but they do not have external storage option in it so we cannot increase the storage capacity of that but in Airdrive has solution of that which can works with any usb storage device and does not have storage limit.

**Problem Statement:**

We have many devices at our home or work place. If I wish to transfer data/files to USB storage, which are on my laptop, mobile and pc I need to plug-in and plug-out USB Device several time. Using AirDrive Data transmission can be done wirelessly. Thus it provides simplified way to transmit data.

**Implementation details:**

**Hardware requirements:**   
1) Developer Board (raspberry pi,banna pi)

2) Li –ion Battery 3) Female header pin

**Software requirements:**   
1) File sharing Software (Samba)

2) KERNEL with NAT(Network Address Translation) support

**Result**

AirDrive can be accessed in two ways-

1) It creates its own hotspot and other devices through which we wish to access data can be connected.

2) The sharing can be made possible between AirDrive and devices (i.e. computer, laptop, Mobile Phone, tablets etc.) By connecting both to common Wi-Fi network.





**Feasibility:**

The Idea has a practical application it simplifies the data transmission.

The AirDrive Can be used is home, industry, office etc. for data transmission, storage, sharing.

It is portable and can be used as mobile (on the go) device.

**Conclusion:**

Through airdrive we can acesss any usb storage device on any system (PC or Mac:Windows®10, Windows®8, Windows7, WindowsVista®,Mac OS 10.1,Android Phone,Windows Phone,IOS phone)

**References:**

<https://git-scm.com/>

<http://linuxwireless.org/en/developers/p2p/p2p-interface-notes/>

<https://en.wikipedia.org/wiki/Ifconfig>

Note:

Red indicates the commands