Raspberry Pi 2

# What we need

* Raspberry Pi 2
* Formatted 8gb micro SD card
* Micro USB power cable with an AC adapter.
* HDMI cable
* Usb keyboard
* USB mouse
* Network cable or wifi adapter

# Install OS

* In order to install a basic Raspbian operating system, you can download the zip file from <https://www.raspberrypi.org/downloads/noobs/>. For the sake of convenience, we have downloaded NOOBS and unzipped it to the micro SD labeled NOOBS.
* Attach the micro SD to the Raspberry Pi and power up.
* Make sure you use a power cable with an AC adapter, this prevents the Raspberry from being confused! – Think about why.
* Use one of the four USB ports on the Raspberry Pi to attach a keyboard and mouse.
* Connect the Raspberry to a Monitor or TV with the HDMI cable.
* Once you see Raspbian as your first choice… connect to a network.
* If you are connected to the network you should see Raspbian, Kodi, OSMC and other operating systems to pick from.
* Take a moment to go through the various operating systems and their descriptions.
* Initially we are going to install Raspbian to build a simple webserver. When prompted, pick Raspbian and install it.

# Install Wifi Adapter

* Each table should have an Edimax Wifi USB adapter. Connect the adapter to one of the USB ports on the Raspberry Pi
* On the upper right corner, you should see a network sign that shows you as disconnected. Click on that sign
* Join Pillar Guest with Password “agileLIVE!”
* Open the Epiphany Web Browser and navigate to your favorite coding site.
* Make sure you use a power cable with an AC adapter, this prevents the Raspberry from being confused! – Think about why.
* Use one of the four USB ports on the Raspberry Pi to attach a keyboard and mouse.

# Install Apache Webserver

* First install the apache 2 package with the following command on the Terminal.

sudo apt-get install apache2 –y

* By default, Apache puts a test HTML file in the web folder. This default web page is served when you browse to http://localhost/ on the Pi itself, or http://192.168.1.10 (whatever the Pi's IP address is) from another computer on the network. To find the Pi's IP address, type hostname -I on the command line.
* Create something interesting to share with the team.
* Find the other table’s IP address and take a look at their Web Page.

# Shut down Raspbian

* To shut down, go to the Raspbian Menu and select shut down.
* When prompted, click on OK
* You can keep the Raspberry Pi powered up for the next exercise.

# What is XBMC ?

XBMC (formerly "Xbox Media Center") is a free, open source multimedia player that runs on the first-generation Microsoft Xbox (Not the never XBOX One or 360), as well as on computers running **Linux, Mac OS X, and Windows**.

XBMC can be used to play/view the most popular video, audio, and picture formats, and many more lesser-known formats, including:

# Install an XBMC Media Player

OpenELEC is short for Open Embeedded Linux Entertainment Center. This is part of the Linux distribution designed to provide a home theater and built on top of KODI, formarly known as XBMC. OpenELEC applies the “Just Enough Operating System” principal. It’s designed to consume fewer resources and boot quickly.

* For the sake of convenience, we have downloaded and installed OpenELEC to a micro SD. Each table should have one.
* Insert the MicroSD marked OpenELEC into the Raspberry Pi
* You will be prompted to choose to boot Raspbian or OpenELEC. Select OpenELEC
* Go through the setup steps to configure OpenELEC.

# Install Wifi Adapter

* Under the OpenELEC Settings.Connections, select Pillar Guest and enter the password.

# Exploration and Team Exercise

* Take the time to explore OpenELEC
* Figure out a way to stream content from web on OpenELEC.