TNG Raspberry Pi Project Buyers Guide

Disclaimer: Though every attempt has been made to anticipate the hardware requirements of future Raspberry Pi projects with the recommendations made in this buyers guide, it may still become necessary from time to time to purchase additional hardware components if future project use requires it. (I don't have a crystal ball to anticipate every project use the TNG might come up with for the Raspberry Pi!) You must take responsibility for your own purchases. At the time of this write-up, all information presented herein is deemed to be accurate.

TNG Raspberry Pi Project 1: XBMC – www.xbmc.org

Overview: XBMC is an award-winning **free** and **open source** (GPL) software media player and entertainment hub that can be installed on Linux, OSX, Windows, iOS, and Android, featuring a 10-foot user interface for use with televisions and remote controls. It allows users to play and view most videos, music, podcasts, and other digital media files from local and network storage media and the internet.

(To date, this is the single most popular project for the Raspberry Pi. Current estimates are that 1 in 4 Raspberry Pi purchases have been for the XBMC project alone.)

Hardware Requirements:

- **Raspberry Pi Model B board** - (http://www.raspberrypi.org/faqs) (Everything you wanted to know about the Raspberry Pi but were afraid to ask!)

  Where to purchase??

  Currently $29.99 @ http://www.microcenter.com/product/414588/Raspberry_Pi_Model_B

  or

  $35.00 @ http://www.mcmelectronics.com/product/83-14421

  Each of these sellers also offer bundle deals (Include a memory card, keyboard, mouse, case, etc.) you may wish to consider or take advantage of the savings of one of these bundle deals.

- **SD Memory Card** Though lower speed cards have been shown to work, Class 10 cards are recommended for speed, reliability, etc. **Recommended size** (4 GB Min, recommended 16 GB or larger not to exceed 64 GB.)

  Tested brands can be found here: http://elinux.org/RPi_SD_cards

- **USB charger with Micro USB cable** (5V @ 1A min, 5V @ 2A recommended) or **(Optional power from USB hub)** - The resettable fuses protecting the USB outputs have been removed in Raspberry Pi Model B Rev 2.0 boards. This feature was implemented on some later revision 1.0 PCBs by replacing the fuses with links; revision 2.0 permanently implements this modification. It is now possible to reliably power the RPI from a USB hub that back feeds power, but it is important that the chosen hub cannot supply more than 2.5A under fault conditions.

- **HDMI Video cable** (Audio and CEC are passed through the same HDMI interface. Separate audio cable is not needed and existing TV remote control is used for XBMC menu navigation.) Check to make sure the monitor / TV you are planning on using supports CEC (Consumer Electronics Control)

- **Composite Video cable (optional)** can be used instead of HDMI with older televisions. Will need separate audio cable for sound.

- **3.5mm Audio cable (optional)** if not using HDMI to pass audio thru to video monitor / TV or stereo receiver.

- **Cat 5 Ethernet Cable** (10/100 wired network) or (optional wireless) if using wireless, it is recommended you use a tested USB wireless adapter.

  List of working USB WIFI adapters: http://elinux.org/RPi_USB_Wi-Fi_Adapters

- **USB Keyboard (optional XBMC menu navigation)** May be wired or wireless with proper USB dongle.

- **USB Mouse (optional XBMC menu navigation)** May be wired or wireless with proper USB dongle.

- **Raspberry Pi Case (optional)** Depending on what peripheral options you choose to add to your PI, you may want to wait to purchase a case until you are sure of the final use or desired mounting for your Pi. There are many sizes, shapes, styles and colors available ranging in price from DIY $0 to $50.

Software Requirements:

- **MPEG-2 and VC-1 decode Licensing**

  You may read about obtaining an MPEG-2 license through the Raspberry PI.org website here: http://www.raspberrypi.org/archives/1839