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Subject: New Pi 4 + Pi 3 Sub buildout

Posted by [jshupe](#) on Thu, 09 Jan 2014 15:28:51 GMT

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My wife and I are closing on our first house next Wednesday, and since my HTIB receiver has started having issues, I decided it is a great time to refresh my home theater/ home audio solution.

I grew up listening to music on my dad's Weber LBK-400s and my uncle's Aural-15s. Nothing I've ever heard comes close to replicating the sound those speakers made, and I've been searching high and low over the last couple of weeks for a off the shelf solution that competes, but have come up empty handed. I eventually found Pi, and think they're the ticket I'm looking for. I'm going to build two Pi 4 mains and two Pi 3 subwoofers and run a 2.2 configuration.

I'm putting together my build list and would like any thoughts/ advice anyone has. I inherited two Phase Linear PL 4000 preamps and two Phase Linear D-500 Series II amplifiers that I plan to refresh and drive everything with. These two specific amplifiers were modified by Bob Carver in the early 80's to significantly increase their output. I don't have any details of what those modifications were, but will probably be able to find out more once I pick them up in a couple weeks. I plan to replace all the caps in the preamp I decide to use (best of the two) and the two amplifiers before using them.

Since these are going to be part of my home theater solution, I need volume control and digital input from my SmartTV. I plan to facilitate this by using an Emotiva XDA-2 DAC to convert optical from the TV to RCA, and provide line level volume control. To control power on/ power off, I plan to use an Insteon RF controlled AC outlet for the Phase Linear equipment.

I see the configuration as this:

TV > Emotiva XDA2 > PL 4000 Preamp > D-500 | Harrison FMOD 200hz > D-500

The first D-500 will drive the mains, and the second will drive the subs after being filtered through a Harrison FMOD 200hz low pass filter.

I'll use other inputs on the PL 4000 for better quality sources - direct CD, phono, etc and control the volume manually.

For the cabinets, I'm currently planning on using baltic birch with amber shellac, but am worried that I won't be happy with the finish. Another user on this forum uploaded some photos of his speakers finished with amber shellac and they were beautiful, but I'm not sure what wood was underneath them. I'm currently investigating the MDF + veneer route. I will be recessing everything.

My build list (and budget) as follows:

Part	Price	Qty	Total
Pi 4 Kit	\$400.00	2	\$800.00
B&C DE250	\$75.00	2	\$150.00

JBL 2226 \$250.00 2 \$500.00  
15 guage \$30.00 2 \$60.00  
Pi 3 Sub Kit \$135.00 2 \$270.00  
Shipping \$78.52 1 \$78.52  
Emotiva XDA-2 \$269.00 1 \$269.00  
Insteon 2411R \$69.99 1 \$69.99  
Insteon 2473SWH \$45.99 1 \$45.99  
Jasper 200J \$45.88 1 \$45.88  
Dewalt DW618PKR \$156.98 1 \$156.98  
CMT 191.008.11 \$17.93 1 \$17.93  
MCLS 6077 \$41.91 1 \$41.91  
Baltic birch \$50.00 4 \$200.00  
R13 Insulation \$15.00 1 \$15.00  
Misc. bar clamps \$100.00 1 \$100.00  
Misc. finishing \$50.00 1 \$50.00  
Zinsser 00301 \$43.98 1 \$43.98  
Zinsser 00701 \$43.98 1 \$43.98  
Titebond II \$12.99 1 \$12.99  
Table saw have \$0.00  
Parts for amp \$200.00 1 \$200.00  
StreetWires ZN1210 \$3.40 3 \$10.20  
Toslink 3ft Optical \$1.80 1 \$1.80  
SKRL-12-50 \$24.20 1 \$24.20  
Harrison FMOD 200hz LP \$25.90 1 \$25.90  
#10-32 Mounting Kit \$3.59 6 \$21.54  
Total \$3,301.67

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