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Subject: Are 7 Pi's for me?

Posted by [GarlandB](#) on Thu, 05 May 2011 17:11:10 GMT

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Hi Wayne and fellow Pi-ites,

I'm in the finishing stages of building a new family room and was wondering if its dimensions and layout would be suitable for running 7 Pis or if I would be better off sticking with my 4 Pis. The room is 19.5 ft by 16 ft with one opening at the end of one 19.5 ft wall. on the opposite 16 ft wall are two windows set in from the long walls 2.25 ft on each side. On the long wall opposite the wall with the opening and adjacent to the forementioned shorter wall is another window also 2.5 ft away from the corner. I,m guessing my wife will put some kind of drapery in the windows. The ceiling is a bit over 8ft high. The floors, wall and ceiling are wood framed with basement below. I'm thinking the 7 Pi's might just work in the corners of the short wall opposite the opening.

Would the windows effect the performance of the corner horns, and are the acoustic properties of the room such that I risk poor performance per total outlay for more expensive speakers? I'll try out the 4 Pi's first but I'm sure the corner horns are an entirely different beast.

Thanks for any advice or comments!

Garland

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Subject: Re: Are 7 Pi's for me?

Posted by [Wayne Parham](#) on Thu, 05 May 2011 19:42:00 GMT

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If I understand you right, I think you're saying you can put the cornerhorns at each end of a short wall that has two windows, each a couple feet from the corners. One of the adjacent walls also has a window but there are no entryways near the corners you'll be putting the speakers in.

If that's an accurate description, then it sounds like you have the perfect room for constant directivity cornerhorns. Windows don't hurt anything as long as they don't rattle or buzz. And of course, they can't be open for best performance. Open one, and you'll see what I mean - the tonal characteristics change and imaging is off. But as long as they're closed and not buzzing, they're fine.

Honestly, if you have a room layout that will support cornerhorns, don't give it a second thought. Do it, take advantage of the setup. There is no downside, provided you have the right room. The only reason I even make another loudspeaker configuration is there are so many rooms that cannot support a constant directivity cornerhorn because of entryways or other features like that.

There are two main reasons to go with constant directivity cornerhorns:

1. Constant directivity. It really does this, through the entire audio band, all the way down to the

Schroeder frequency. No other configuration does this. The impact is substantial, in that the tonal balance is uniform throughout the room. It is just a very balanced sounding speaker.

2. Lack of boundary reflection anomalies. You don't get a bounce notch from the side walls, back walls and floor because the speaker is tucked back into the corner. This is also significant, and again, no other configuration does this. With other speakers, you can use flanking woofers and other techniques to smooth the notches that are formed by self-interference from boundaries. But with this configuration, there are no notches to smooth because they just don't exist.

Since you won't need flanking subs, you can move them further away, perhaps in the opposite corners (a la Welti) or in other convenient locations. That will allow you to smooth the lower frequency mode(s) better, without needing to add more subs.

High-Fidelity Uniform-Directivity Loudspeakers

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Subject: Re: Are 7 Pi's for me?

Posted by [GarlandB](#) on Thu, 05 May 2011 20:37:56 GMT

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Hi Wayne,

Thanks for the quick reply, but then you always reply immediately! So I guess I'm good to go on the 7Pis. Could you please send me the plans so I can evaluate if my skills are up to the task. I can hear the wife now:"....What! More speakers?...and how tall are they?" Oh well, she at least likes the sound of the 4pis and should like the 7s even more!

BTW, I tried to change my personal info in the forum directory but could not. It said my password was incorrect even though I had just successfully logged on to send these postings. So, if you could send the plans to me at [garland03@gmail.com](mailto:garland03@gmail.com).

Thanks again!

Garland

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Subject: Re: Are 7 Pi's for me?

Posted by [Wayne Parham](#) on Thu, 05 May 2011 20:57:55 GMT

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I'll send plans this evening.

That's weird about the control panel. When you're logged in, you should be able to access your control panel and do whatever you need to do. Maybe logout, clear the cache and log back in?

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