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Subject: Re: New to forum, building 2Pi towers

Posted by [Wayne Parham](#) on Tue, 24 Jun 2008 17:23:47 GMT

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In many cases, a bass-reflex cabinet can be made of arbitrary shape. The important thing is the volume of the cabinet and the size of the port. However, this really only holds up for boxes that are acoustically small. Larger cabinets can develop pipe behavior and cabinet proportions and

models that simulate both Helmholtz resonance and pipe mode resonance. The dimensions and driver and port placement were adjusted for best response using these mathematical tools, and then the completed loudspeaker was measured to verify its performance. If the speaker were smaller, I would say you could probably change dimensions without worrying too much about sonic impact as long as the volume was the same. But in this case, the dimensions and driver and port placement are more important, because they determine how standing waves align themselves inside the box.

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