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Subject: Will they get smaller?

Posted by [Caitlan](#) on Thu, 27 Jul 2017 20:55:18 GMT

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Speakers come in so many different sizes these days. Big, small, tall, short. But do you think that they'll ever be as small as a USB and play music extremely loud? Is it possible?

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Subject: Re: Will they get smaller?

Posted by [johnnycamp5](#) on Thu, 27 Jul 2017 23:18:47 GMT

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I don't think that's possible right now, but maybe someday.

They are devices that move air, after all.

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Subject: Re: Will they get smaller?

Posted by [Wayne Parham](#) on Fri, 28 Jul 2017 14:44:41 GMT

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You're right, John. It's physics, and has been mathematically quantified in Hoffman's Iron Law and Thiele/Small analysis.

The physics of an electro-mechanico-acoustic device dictate that it can be made small only if efficiency and/or bass extension are sacrificed.

So you can make a small loudspeaker, but you can't make a small loudspeaker that is loud and covers the whole audio band. You can optimize any two of those attributes, but not all three simultaneously.

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Subject: Re: Will they get smaller?

Posted by [moss24](#) on Sun, 27 Aug 2017 06:20:15 GMT

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In other words, are we bound to remain with the large speakers for quite a while? I wish physics would have a solution to this, sooner than later. I think a smaller size comes with portability.

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