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Subject: Sound for small gym

Posted by [ggnarley](#) on Sat, 29 Sep 2018 18:20:03 GMT

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I am providing the sound system for a fall festival/dance we are having in our school gym. The gym is fairly small and there is only about 5 feet of space beyond basketball court to the block walls. Will be setting up in the narrower side under the basket.

I will be using upgraded 4pi's as speakers placed on table against wall, toed in, about 15' to 20' apart.

Are room modes any different for a larger venue, or is everything just scaled up from your living room?

Thanks  
Paul

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Subject: Re: Sound for small gym

Posted by [Wayne Parham](#) on Mon, 01 Oct 2018 02:42:42 GMT

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Room modes are less a problem in large rooms. The bigger problem in gymnasiums is the hard, reflective surfaces on all sides. It makes a midrange reflection problem, and a lot of echo. The directivity of the speakers will help, and that's sometimes as much as you can do. But you might also pad the walls, if possible. Gymnasiums often have padding for safety reasons, and it serves double-duty as sound damping material. It isn't much, but it helps.

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Subject: Re: Sound for small gym

Posted by [ggnarley](#) on Mon, 01 Oct 2018 08:58:46 GMT

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Wayne,

Thanks for the info. The software I am using for playback has an equalizer so I can try decreasing

the midrange a bit to see if it helps.

Paul

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Subject: Re: Sound for small gym  
Posted by [ggnarley](#) on Sun, 21 Oct 2018 15:08:39 GMT  
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Festival went really well. Ran with 35 watt Tube amp and sound was more than enough to fill the gym. During setup we turned up one of the current pop/dance tunes to see how it sounded, and I think the paint started peeling. Everybody in the gym stopped setting up and their eyes got real big. Still crystal clear but dance club loud. The soft dinner music at start was really sweet (Frank Sinatra, Nat King Cole, etc.)

The venue made a definite difference in sound. Bass was pronounced with mids and highs much softer than in living room. I was thinking going in that there would be a lot of midrange reflection due to block building. Didn't really have time to mess with moving speakers to different positions to see how that would change things. Just goes to show how much I have yet to learn about sound in general and it will be interesting trying different things out in the future.

Thanks again to Wayne for designing such a versatile speaker that can squeeze out every detail at home and also rip the roof off a gym, yet sound just as at ease in either case.

Thanks  
Paul

#### File Attachments

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- 1) [VTA.jpg](#), downloaded 489 times
  - 2) [pi\\_gym.jpg](#), downloaded 568 times
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Subject: Re: Sound for small gym  
Posted by [Wayne Parham](#) on Sun, 21 Oct 2018 15:59:37 GMT  
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Thanks for the feedback and for the photos! Glad the festival went well!

People absorb a lot of sound, so a venue will act very differently when people are present. You probably would find a lot of midrange and echo with the room empty, but when people are there,

they damp a lot of that. So for example, if the only people there are a couple dozen sports players, you hear that characteristic "gymnasium sound." But if the gymnasium is filled with a couple hundred people, they damp the room very well and it sounds much different.

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