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Subject: Re: Pi Studio One Tower

Posted by [Wayne Parham](#) on Wed, 27 Jan 2021 15:45:51 GMT

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I like the whole concept of the 2.5-way speaker very much. It's the best and most natural way to resolve baffle step, in my opinion. Of course, that means running the lower "helper" woofer up to the baffle step frequency.

This brings me to the flanking sub concept though, which is a modified form of a 2.5-way system. By detaching the helper woofer and offsetting it a couple feet in all three dimensions, it mitigates SBIR and lower-frequency room modes in addition to baffle-step correction.

That's a pretty big deal, because it smoothes the notches created by reflections from nearest boundaries. As you've mentioned, there's a notch created by the reflection from the floor and there's also notches from reflections from other nearby boundaries. The one I've found is actually most objectionable in most cases is the wall behind the speakers. It's responsible for a huge 15dB hole somewhere between 80Hz and 120Hz in a large number of installations.

So if you place the mains on a stand so they are at ear level, and then put the helper woofers on the floor - beside and slightly behind the mains they are flanking - they will provide SBIR mitigation and will reduce higher frequency room modes in addition to baffle step compensation.

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