

FX Sound Design

What is sound design?

- ▶ Sound design (also known as FX) in the marching arts serves to enhance and expand upon the acoustic palette of the production through electronic means. Think of it as the *seasoning* or *extra spice* added to further immerse the audience into the world you are creating.
- ▶ While the sound design may be produced through electronic means, the sounds themselves may be organic. Summer rain falling on a tin roof, birds chirping in the distance, a steam engine starting up, church bells, or bubbles brewing in a laboratory. These examples would be considered organic sound effects, like what you would imagine hearing in a movie.
- ▶ Other common sound design elements include risers, bass drops, impacts, textures, drones, and voiceovers.
- ▶ With sound design, you are no longer restricted to the sounds made live by the instruments and performers on the field. The possibilities are endless.

How does it work?

- ▶ The process often begins with hiring a professional sound designer with an extensive library of sounds to work with and, more importantly, who knows how to craft and tailor those sounds to your production. Our shows come with pre-created sounds and samples ready to go with the package.
- ▶ The sound effects are split into separate samples and notated in the score like any other part. A performer will *trigger* the samples at the appropriate times, as indicated in the music.

Triggering sounds

Triggering a sample can be done in several ways:

1. Use a sampler pad, like the Yamaha DTX-Multi 12 or Roland SPD-SX, where you can program the samples into various trigger pads, then hit the pad with a hand or percussion implement. You also generally will have volume control over the individual samples. Different samplers have different parameter controls available.
2. Use a tablet, like an iPad, which would work similarly to a sampler pad but perhaps be more readily available and versatile. Sounds can be loaded into a soundboard-type app and triggered with the fingers.
3. MainStage is probably the most popular means of modern sound design implementation in the marching arts. It requires an Apple computer and a MIDI controller but allows the most flexibility and versatility. Most importantly, it can be used for synth patches as well. Many modern show packages come with MainStage files ready to go, but if not, most sound designers can program the file for you.

Amplification

- ▶ Once a sound is triggered, it must be amplified. This can be done through any standard sound system or PA system. Connect the sampler instrument (or Apple computer via a USB audio interface) to the sound system (through a snake or direct to the mixer board or PA speakers depending on your system).
- ▶ It is often important to send a stereo signal to the system, meaning a LEFT and RIGHT signal from the sampler instrument to the speakers, which means it will take up two channels on the mixer or PA system. If capable, you will either stereo-link the two channels or pan the first channel all the way left and the second channel all the way right. This will ensure any side-to-side effects in the sound design are audible if those particular effects are part of the design.

Power

- ▶ With electronics comes the need for power. Many performance venues provide power, but it is always a good idea to have a backup system available.
- ▶ The most typical power sources are gas generators, but if you have a smaller system, marine batteries with power inverters can also work.
- ▶ It is essential to remember that with electricity comes the added hazard of rain! Be sure to have tarps on standby in all outdoor situations, ready to cover all electronic equipment in wet weather!

What if I don't like a particular sound?

- ▶ Most sound design elements are purely enhancements, so you can always leave a sample out of the mix if you don't feel it enhances the production properly.
- ▶ If you would like the sound to be changed or adjusted, you are free to modify it or hire a professional sound designer to replace or adjust the sample.

What if I need voiceovers?

- ▶ Some states require spoken words to be performed live by a performer, but others can be triggered as samples, so check your local rulebooks for more information about any restrictions or requirements.
- ▶ Your show includes pre-recorded voiceovers, but you can always have a student perform these live.

How do I mix sound design with the ensemble sound?

- ▶ Treat the electronics no differently than any other instrument or voice in your ensemble.
- ▶ Electronics should never be overbearing, just like the bass voices should never overtake the rest of the ensemble.
- ▶ Similarly, ensure your system can push enough volume not to be buried under the ensemble. The sound design cannot enhance the production if it cannot be heard.
- ▶ Certain sound design elements may need to be stronger in the mix than others, such as voiceovers. Handle those situations the same way you would a melody line in the ensemble. It may not mean *turning up the sample*. It may mean clearing out the sonic space for the voiceover to be heard. Balance may need adjustment based on the natural frequency of the narrator's particular voice. Higher voices require attention in a different frequency range than lower voices in regard to balance and blend. If the mix sounds muddy, remove the mud, don't turn up the mud!

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7. iPad and Phone Apps for FX



Run Audio FX

<https://apps.apple.com/us/app/run-audio-fx-by-msconcepts-com/id1467896731>



Samplify-DJ Sampler

<https://apps.apple.com/us/app/samplify-dj-sampler/id1095892366>



Go Button

<https://apps.apple.com/us/app/go-button/id454017315>

<https://gobutton.app/>



The Soundboard

<https://apps.apple.com/us/app/soundboard-studio/id1108810082>

<https://soundboardstudio.com/>



Cuezy

<https://apps.apple.com/us/app/cuezy-9-pad-sampler/id534202024>

<https://www.cuezy.net/>

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