



CARRICK AVE PROJECT

Tech @ 25

“Livestreaming for Musicians”

Recommended Gear & Workshop Outline

www.25carrickave.com/education

For questions, contact pete@25carrickave.com

For a 1-on-1 tech consultation, contact carolyn@25carrickave.com

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Recommended Gear

Microphones/DI Boxes

- [Audio-Technica AT2020](#)
 - Great mics for room miking (ideal to have 2 to capture a stereo image)
 - \$99 each
- [Audio-Technica AT2020USB+](#)
 - Same microphone but it also has a USB port to bypass an audio interface
 - Recommended for voice and/or acoustic guitar, or other simple streaming setups
 - \$149
- [Shure SM58](#)
 - Classic vocal microphone used for live shows
 - Robust, tough, can take a lot of abuse
 - \$89
- [Shure SM57](#)
 - Classic microphone used for guitar/bass amps, wind & brass instruments, string bass, drums, etc. Great to have as a multipurpose mic
 - Robust, tough, can take a lot of abuse
 - \$89
- [Hosa Passive Direct Box](#)

- Enables you to turn a ¼” output into an XLR output if needed
- Used every day at live shows for bass, guitar, keyboards, electronics, etc.
- \$26.95

Audio Interfaces

- [Presonus Audiobox](#)
 - 2 channels with combo jacks that accepts both XLR & ¼”
 - Plugs in via USB
 - \$99
- [MOTU M2](#)
 - 2 channels with combo jacks that accepts both XLR & ¼”
 - Has an LED screen to monitor signal & RCA outputs in addition to Audiobox features
 - Plugs in via USB
 - \$169.95
- [Behringer Xenyx Q802USB Mixer with USB](#)
 - Small 10-channel mixer (includes a variety of input types, but only 2 XLR inputs)
 - Bypasses the need for an interface because it is an interface itself
 - Good for small setups such as DJs, acoustic guitar/singers, electronics, etc.
 - \$118.99
- [Soundcraft 12 Channel Mixer with USB](#)
 - Larger 12-channel mixer (variety of input types, including 8 XLR inputs)
 - Bypasses the need for an interface because it is an interface itself
 - Built in FX, EQ, & extra outputs (handy for monitoring yourselves while playing)
 - Good for a band with more than a few inputs
 - This is where an engineer starts to come in - someone needs to mix the band while you are playing
 - \$399
- [iRig](#)
 - Allows you to plug audio gear into your phone for streaming
 - Very commonly used for DJ livestreams

Headphones

- [Sony MD-7506](#)
 - \$130

- [Audio-Technica ATH-M50X](#)
 - \$150
- [Sennheiser HD 280](#)
 - \$100

[Ableton Live 10 90-Day Trial](#)

Workshop Terms/Notes

- **Monitoring** - Listening to audio to check quality of a single source or mix
 - Check to make sure each line is working & avoid distortion in signals (both in recording & live)
 - Headphone output - every mixer has a headphone output to monitor audio
 - Solo switch - switch on each interface/mixer channel that enables you to monitor just that signal alone. Allows you to listen to mic placement, EQ, distortion, etc that you may not hear in the mix otherwise
- **Audio interface**
 - a piece of hardware that expands and improves the sonic capabilities of a computer by allowing you to record & playback audio.
 - Most interfaces work the same way, but it's always a good idea to read the manual for the specific one you have
- **Gain staging** - Act of setting audio levels for every incoming audio source.
 - Turn up gain knob until you're hitting about -10db on your meter
 - Make sure you do not 'clip' your input
- **Types of Mics**
 - **Dynamic** - Does not need phantom or battery power, good at capturing loud sounds & low frequencies, used often for live settings, does not pick up a lot of surrounding noise, most affordable.
 - **Condenser** - Much more sensitive than dynamic, used often in studios or other controlled settings, good for picking up quieter and more complex sounds, requires phantom power (+48v).
- **Phantom power** - DC voltage that is sent through an XLR cable to power condenser microphones. Originally invented so there is no need for a bulky battery to power them. Usually provided by the mixer/console with a +48v button.

- Acoustics - the properties or qualities of a room or building that determine how sound is transmitted in it
- DI box/Direct box - small box that converts unbalanced and/or high impedance instrument signals ($\frac{1}{4}$ ") into a low impedance/balanced signal for connection to a mixing console's mic input.
 - Used for synths/keys, guitars or basses (bypass the amp), etc. in a situation where you don't have a $\frac{1}{4}$ " input (used at almost every live show)
- Mixers - used for combining several inputs & mixing them together.
 - If you play with a full band, this is what you will need. Once all of your inputs are plugged in and gain staged, you can take your stereo output and plug it into your interface to stream the stereo mix.