

Tips for recording a radio show from home

(Adapted from #SCHOOLED PODCAST CLASS by Sofia Vavaroutsos)

If you wish to record your radio show outside of Met Radio, please read through the following recording and editing tips to ensure the best possible quality.

A. Required equipment:

1. Microphone

If you have your own mic or access to one, you will still need to connect it to a computer, which may require an **audio interface**. If you have that too, then you're ready to make some decent radio from home.

If you do not have an audio interface nor a proper microphone, you can use:

- a. Your cellphone's microphone - Standard built-in phone mics are of very decent quality these days. However, some built-in voice recording apps do not allow you to adjust recording levels, nor view them as they record. One recommended app that allows for both of those functions is called **Voice Record Pro**, available in both the Apple App Store and Google Play.
- b. Your computer's microphone - Many laptops and computer microphones are pretty good, but you may notice a strange tone to the recordings depending on the quality of that mic. If using a laptop mic, you'll need to speak relatively close to it for a clear sound. You may also need to use a noise reduction effect if your computer has a loud fan.

It's recommended NOT to use microphones that are attached to headphones, as they are regularly designed for phone conversations (which use a limited frequency range, and make them sound like how telephones sound!).

Be sure to record things in an appropriate audio quality. Many phones in particular will record things as smaller audio files to save space, but this may negatively affect the sound quality. Depending on the phone or the audio recording app you're using, the recording filetype may also be labelled as a few different things, so be sure to check the settings of your phone and/or the audio recording app you use to ensure recordings are any one of the following:

- uncompressed (rather than compressed)
- wav
- mp3 (high quality, 320 kbps)
- m4a (high quality)

Test your different options and choose the one that sounds the cleanest and the best. Please also review the recording tips below.

2. Audio editing software

There are many different audio editing programs, and you can feel free to use any preferred software. At Met Radio, we use the free software, **Audacity**. You can get a free copy from:

<https://www.audacityteam.org/download/>

And, here are some Met Radio-made guides for using Audacity:

https://docs.google.com/document/d/1dLFJ6z20invPoy5abRSnZKtT_atMgfCfPUoH5iFYLYg/edit?usp=sharing

<https://www.youtube.com/playlist?list=PL0t7bx4aRZ26pBftaGZ0CS4wwQazlFjHu>

Additional resources for using Audacity can be found here:

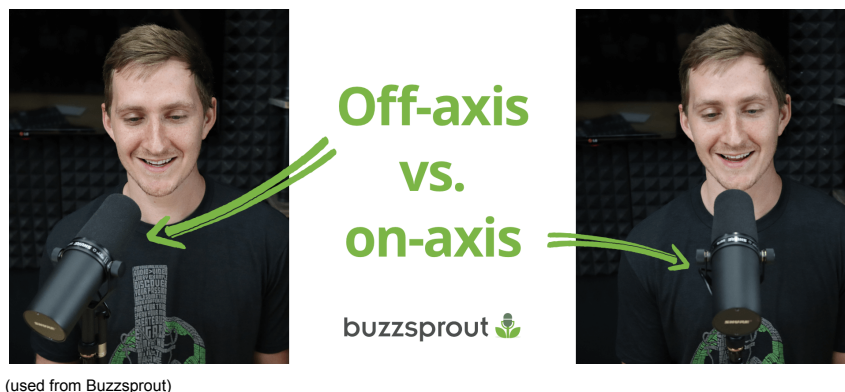
<https://www.audacityteam.org/help/documentation/>

B. Tips for recording:

1. Space

One of the more important things to consider when recording is your surroundings.

- a. You want to find as quiet a place to record as possible.
- b. You want to record in a room that does not resonate. Sound reflects off of hard flat surfaces, and when bouncing around a room, can create resonance (a specific room's sound) or reverberation (reverb for short or small echoes of sound you make). Reverb sounds good on music, but not so good on spoken word for radio. Met Radio's studios have big red/blue curtains, which absorb the sound and prevent room resonance and your voice from bouncing off walls back to the mic. To quote Sofia, "I used to record in my closet." No joke! The clothes in your closet minimise room resonance and reverb perfectly. To quote Karen, "I've even recorded under a thick blanket before." Just make sure the blanket itself isn't touching your mic creating rubbing sounds.
- c. Try to record with your mouth close to your mic so your voice will be as clear and louder than the room resonance and reverb, but avoid breathing into it and the plosive sounds caused by speech (B's and P's). Using an off-axis mic setup can be useful for this.



2. Recording

- a. When recording in general:
 - i. Check that the mic levels are not too loud to cause audio distortion
 - ii. Check that the mic levels are not too quiet that your voice can't be heard well enough.
 - iii. Do your best to maintain a consistent delivery volume and recording level.
 - iv. Hold the mic firmly or put it on a table/use a stand. If you're tapping on it or the table, adjusting it in your hands, or moving around, noise will be audible in the recording!
 - v. Listen back to it to doublecheck!
- b. If recording inside:
 - i. Use a consistent voice volume.
 - ii. Re-record it if there are audio problems.
 - iii. If there is a loud background room sound through the whole recording, it can be minimized using an effect in Audacity. For more information look at [this guide about reducing noise](#). Additional info can be found about this in the Met Radio Audacity guide linked above.
- c. If recording outside:
 - i. Avoid wind! Wind will create distortion that cannot be removed from recordings. Use a foam or wind filter if available. Putting a (clean) sock on the mic might also help with this.
 - ii. Place the mic as close to the person speaking as possible. Use a foam or wind filter if available to minimize plosive speech pops (B's and P's). At the same time, be careful about their levels and adjust depending on how loudly they speak.
 - iii. Still find as quiet a location as possible!
- d. Recording an interview by phone will likely change depending on the computer, mics, operating system, app, and/or the phone you are using. If you have any questions or want to test this out with your system, please get in touch with programming@metradio.ca.
- e. When you need to record different parts at different times, try to ensure the environment is as similar as possible each time, or there may be different background noises, levels, audio qualities, room resonance, etc, which can be disorienting for listeners if there are noticeable differences.

3. *Mixing*

MAKE A BACKUP OF THE ORIGINAL RECORDING! In general, this is always a good practice, and will allow you to go back to original recordings for reference, for alternate takes, or if things go badly enough, to start again from the original recording. If you've recorded on your phone, you will need to get the recordings to your audio editing software, either by connecting your phone to the device, emailing it to yourself.

- a. Listen to it, cut what you don't need, and carefully relisten to make sure nothing was overlooked.

- b. Be careful about removing breathing pauses (as it will sound unnatural), but feel free to remove “umms” and “ahhs”, other pause words, and repeated phrases.
- c. If you notice there is a loud background noise, you can try to reduce it in Audacity using [the guide at this link](#).
- d. When mixing, you should be able to see the levels of the recorded audio in your mixing program. Try to make sure the levels of the songs are similar peak levels to the recordings of your voice. Aim to have peak volumes between -2dB to -5dB and make sure all volumes as consistently close to that volume as well.
- e. You might sometimes use music in the background of your voice. If you do, be sure that the music is very quiet in the background, as it can easily interfere with your voice, making it difficult to understand what you’re saying.
- f. Generally, avoid hard cuts in the audio (if the music used doesn’t have that intentionally), and try to fade it out music and recordings when possible.
- g. Relisten to your recording when you are finished.
- h. When you are satisfied that it is complete and there are no technical issues, export your finished episode to an mp3 file (please export it as a 192kbps bitrate). I also recommend doublechecking the exported audio file to make sure volumes are level, things sound good, and that nothing was accidentally muted, creating a silence where audio should have been.