

Audacity for Audio Editing  
(For projects with click track and possible layering)  
-Dr. McGrath

1. Download Audacity (follow all directions on the site). Make sure to get the correct version for your operating system.
2. Open Audacity from your Application folder once you have dragged it in.
3. Top menu: Select **Generate**, then scroll to **Rhythm Track**
  - a. Set Tempo (80bpm for “Cellular Layers” composition project)
  - b. Beats per bar = 4
  - c. Number of bars = This depends...you will use 1 measure to get the feel of the tempo, one to count outload for easy reference, 1 to be silent before you play, and then you start playing. Better safe than sorry...you can always cut off extra measures of clicking later, so add more than you need!
4. After creating this rhythm track, create your NEW track to record:
  - a. Select **Tracks** from upper menu, then **Add New**, then select **Mono Track**
5. Make sure that you plug in your earphones. You should hear the click track through the earphones. Don't play the volume too loudly or it will bleed into the recording.
6. If you have a microphone to use with your computer, plug that in. Hopefully Audacity will find it...it should read as “External Microphone.” Microphones are better than the internal mics, but internal computer mic should be just fine, especially if you are in a quiet spot. \*\*If you have a new mac/Catalina operating system, there might be issues, more on that below.
7. Use rewind button to get to start of track, and then get ready to play, and click on red button to record. Note that the spacebar can be used to stop recording.

(For the Cellular Layers project, remember to wait for the first 4 clicks, then count 1234 out loud (beat one is on high note), create 4 beats of silence, then play! This is mainly to help with your editing if you decide to later add more layers to your project.)

8. Record for a test run...when you play, or when you play it back, look to the levels on the top of the screen...if mostly green, you are in good shape...but if you are getting to the high yellows or red very easily, that means the sound might distort. If it is too “hot”, you can turn down the gain by going to the scale on that track, just below the “mute/solo” options and go to the “-” a few notches, as needed. If it is too quiet, use ‘+’ to increase gain.

9. When done, to listen back! At first, you should listen to the click track with your track to make sure you are on the beat. Then, you can listen to your track on it's own. To do that, select the top track (your rhythm track) and click on "mute" on the left side. If you don't like your take, you go to that track, then use the 'x' button to the left of the word "Audio Track" to delete it, and then try again!

The above covers ONE recording in one layer (not counting the click track). If you are happy with this, you can save the project in Audacity. If you want to also have an mp3 version of just that one layer without the click track, then you will do the following:

10. How to export and save: When you are happy with your product, you will do the following:

- Mute the click track.
- Go to File at top of screen, then Export arrow.
- Export as mp3.
- Pick File name and location: I suggest you save the file with your last name, and a number for the order created if this is for "Cellular Layers" Composition (ex. McGrath12). For any other project, be smart about your name so that you can find it easily to share or import for another project later, as needed. Create a folder in documents or your desktop for all files related to your project.

You can save this project as an Audacity Project as well if you want to continue to add things to it later...for that reason, it's great to keep the click track and not erase it from the project. Audacity projects are not audio files, you must export as an audio file to be able to listen to it with other apps. If saving as a project, I suggest that you use the same name, just for easy reference later on.

11. How to add other layers of music that you are recording in Audacity:

Follow the same procedure with adding a track. I suggest you listen WITH the other track you recorded. It is great to listen to what you have done before, with the click track in your headphones as you play along...that can really inform your decisions and build better ensemble playing for work on balance, blending or contrasting tone color, etc. Even use the same clapping/counting procedure to make sure everything lines up.

12. How to add other mp3s:

Audacity allows 16 layers. You could potentially record one project with many layers, convert to an mp3, then import as ONE track to Audacity...this would allow you to create many more layers. You could also potentially add sound effects and other samples with this procedure, just remember about giving credit and copyright laws if you will be posting your product publicly. Use Import Audio, select your item, select where to enter, and the program will overlay the item automatically.

## MORE TIPS:

**Selection Tool:** This looks like letter I...use this to select portions to erase.

After you have completed your recording, you could then potentially erase the clapping/counting. Just be advised that you should have some silence before any mp3...I suggest at least 2 seconds. Use the select tool to drag and select the beginning of the track or any extra portions you don't want to keep...it will make the portion white, then you can simply use "delete" from your keyboard to erase that content.

(If recording for Cellular Layers, I don't suggest you delete within a "cell" idea as it is very difficult to line up the metronome!)

**Zoom:** Use magnifying glass to see the wave forms more easily (to zoom in).

**Double ended arrow:** time shift tool, click and hold to drag a track over

**Undo:** Control (or command) key, and z (A glorious feature!)

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\*\*\*DISCLAIMER: I had a lot of thing go wrong/not work on my MacBook Pro with Catalina operating system: 1<sup>st</sup>: I was trying to record but the microphone did not seem to work (flatline). Ends up it's a security control/bug/issue with Catalina not wanting to "play well" with Audacity (freeware). There is a workaround, here is the video...this worked (go into comments and cut and paste the code to enter into terminal): <https://www.youtube.com/watch?v=kk9Ogt5AWoo>

Next issue: I tried plugging in headphones for the click track (otherwise it will record you AND the sound of the track and it won't synch). The sound still kept coming from my computer speakers! This was what I had to do:

Go to your computer's System Preferences  
Select Sound, then Output, then Headphone port  
Return to the Audacity screen  
Select Transport, then Rescan Audio Devices.

After that, look to where the output is listed on the home Audacity screen, and you should be able to now select External Headphones.