

PEACE LIBRARY SYSTEM
Programming Resources

Audio Software Basics

When using the audio kit for recording music, creating podcasts, or other programs that involve editing audio - we recommend using a DAW (digital audio workstation). A DAW will allow you to open the audio files you recorded and edit them (effects, clarity, etc.). After editing audio files, you are able to export them in your preferred audio file format (.mp3, .wav., etc.).

Recommended **FREE** Digital Audio Workstation:

- Audacity - Download at www.audacityteam.org (Mac and Windows)

Staff Computers have authorization to download Audacity.

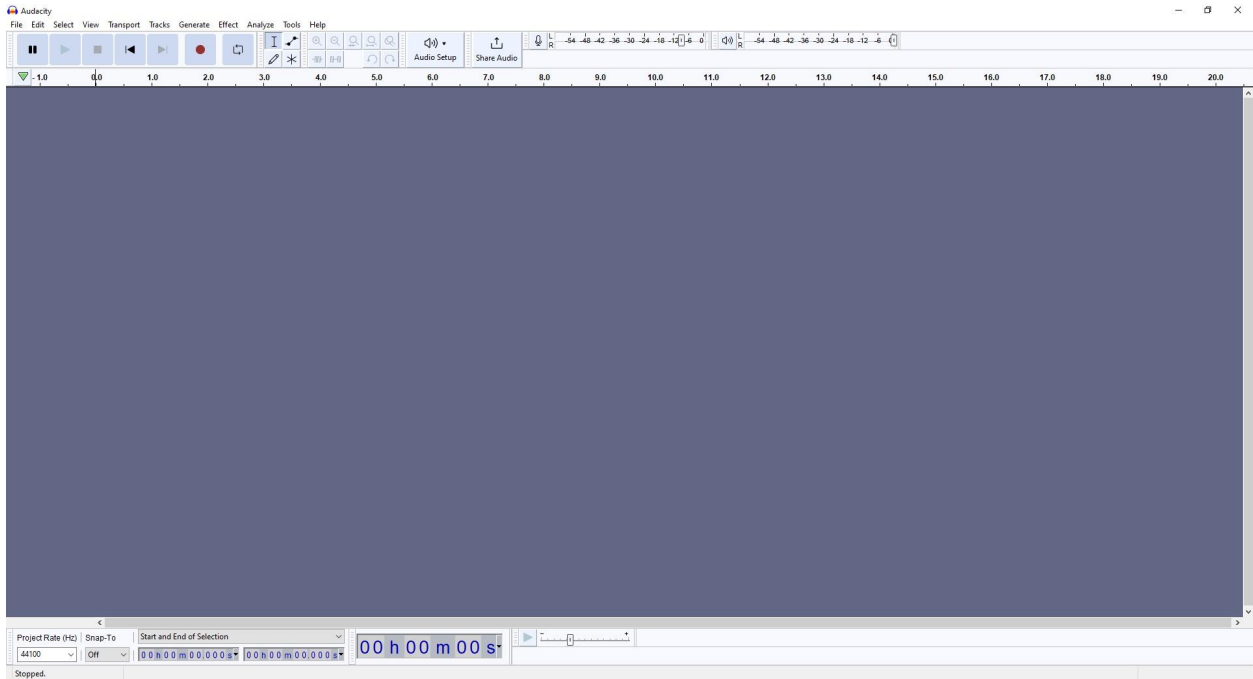
Patron computers do not have authorization. Please contact PLS HQ to set up.

Audacity Instructions - Table of Contents

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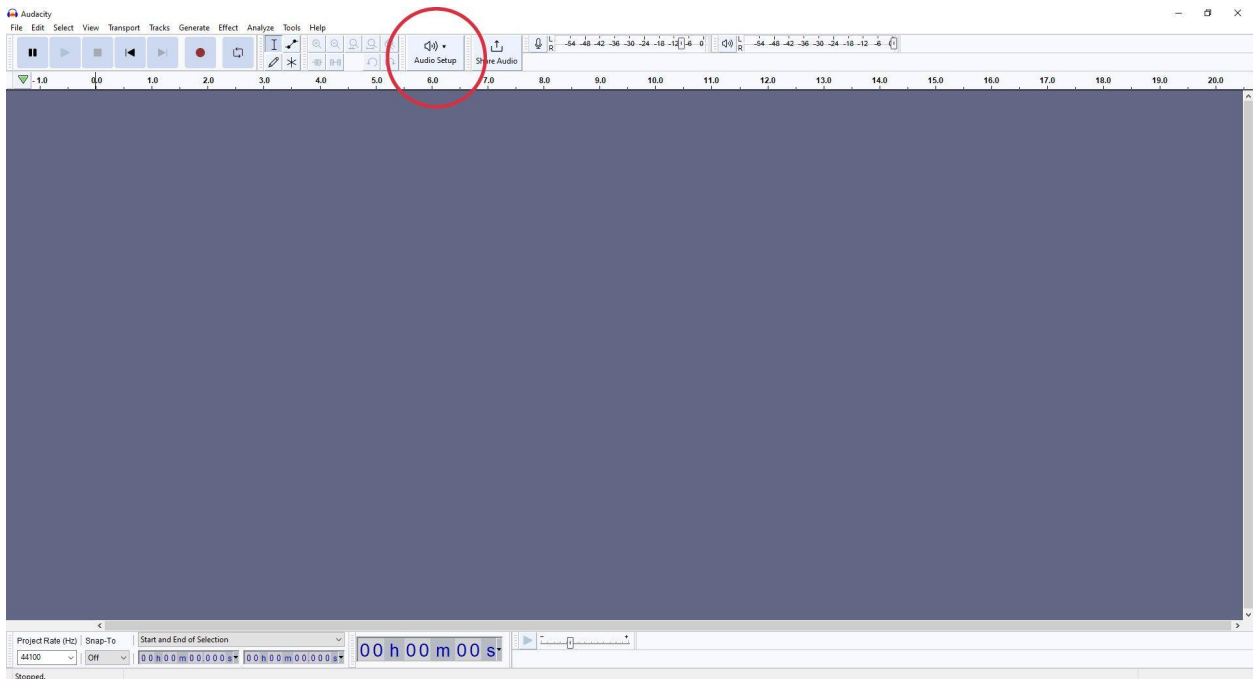
Audacity Instructions

Opening Audacity for the first time will look like this:

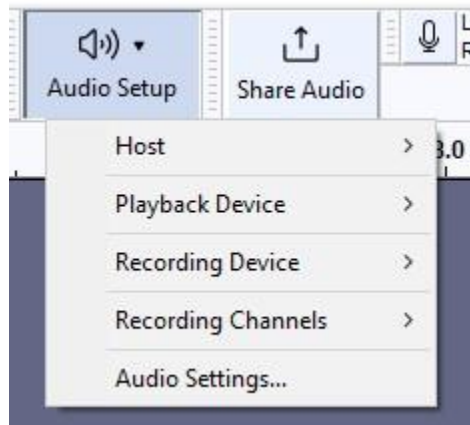


To set up Yeti USB mic in Audacity:

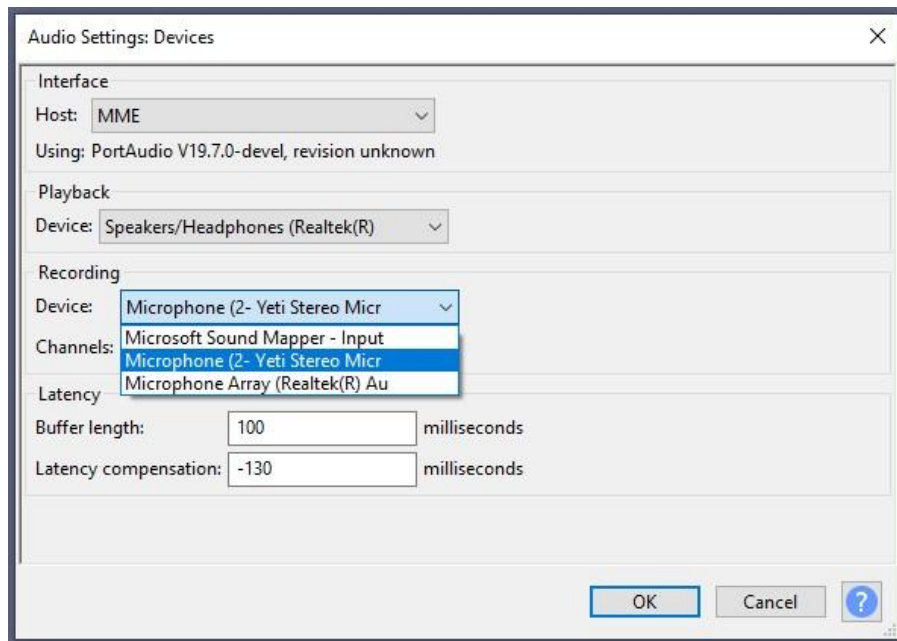
1. Click **Audio Setup** on the top navigation bar



2. Select **Audio Settings**

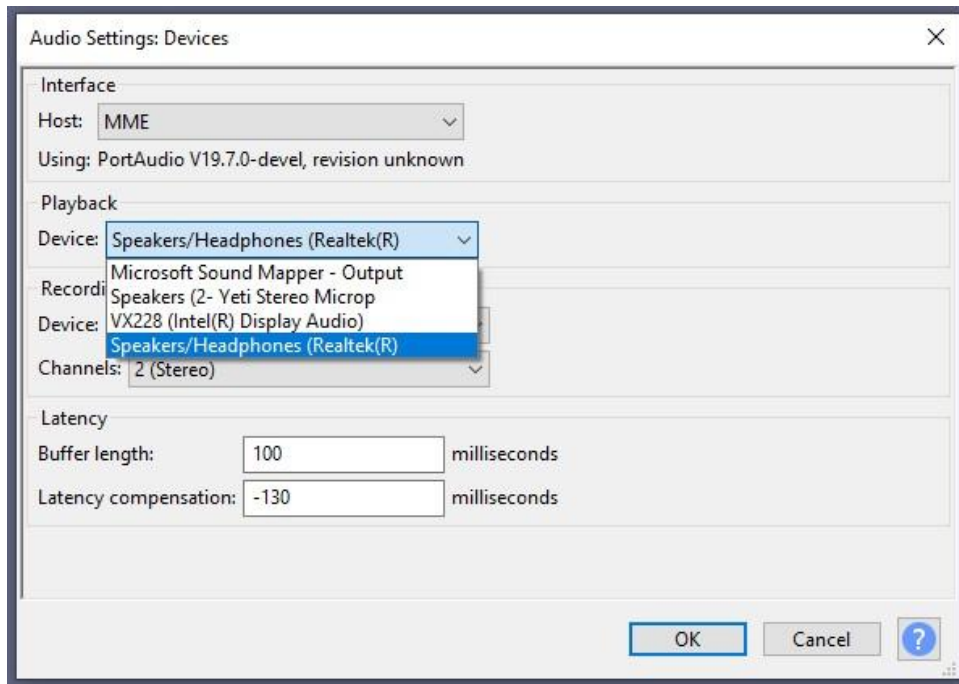


3. Select **Device** (under Recording) and choose **Microphone (2- Yeti Stereo Micr)**. This will ensure that the sound being recorded is coming from the Yeti USB Mic. If you want to record sound using a different microphone or from your computer mic, select a different device option.



4. Select **Device** (under Playback) and choose where you would like to hear the sound you record.
 - a. If you choose **Speakers/Headphones**, the sound will be played through your computer speakers or plugged in headphones.

- b. If you choose **Speakers (2- Yeti Stereo Microp)**, the sound will be played through the Yeti USB mic. In this case, plug in your headphones to the bottom of the Yeti USB mic to hear the recording.



5. You are now set up to capture sound and hear back what you record.
6. To double check if your mic is connected, click on the microphone icon on the top navigation bar, and select **Start Monitoring**. If successful, you will see movement from the microphone decibel levels.



Recording in Audacity

To record, we first need to add a track. Tracks give us a space to record audio, and make edits that are specific to that piece of audio. There are two types of tracks: Mono and Stereo. Both tracks record into left and right channels, which can be thought of as the sound that your left and right ear will hear.

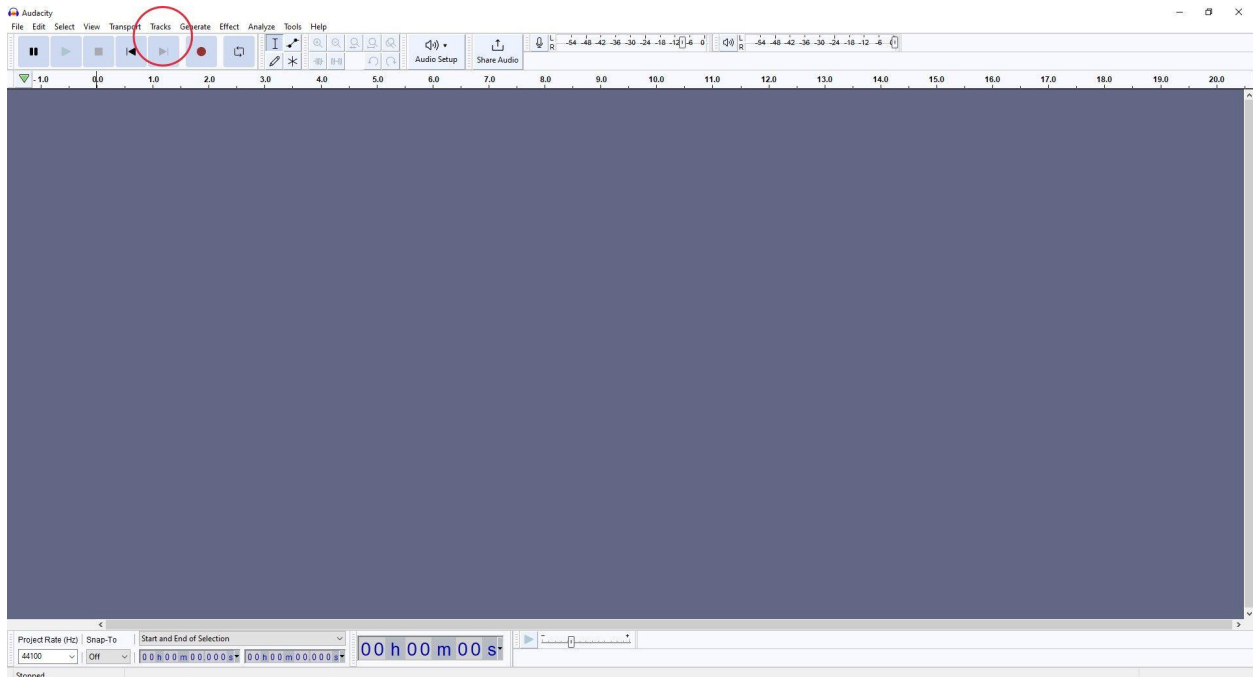
Mono tracks will record sound equally into both left and right channels. Meaning if you listen to your recording with only one earphone in, you will hear the same sound whether it's the left or right earphone.

Stereo tracks record different sounds into the left and right channels. If you listen to one channel (one earphone) you will hear differences in sound. Example: A sound effect that starts in one ear and ends in the other.

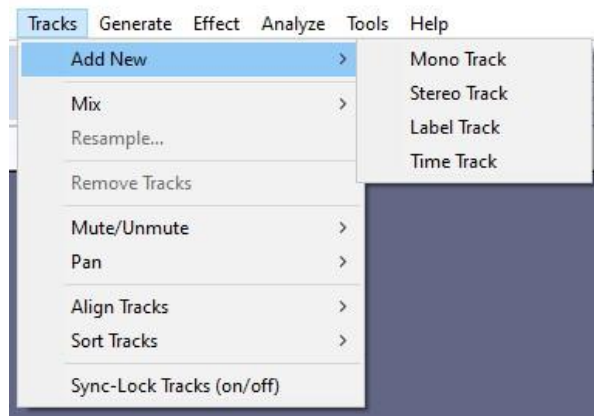
We recommend using Mono recording for 1-2 person podcasting, interviews, and vocal production. And Stereo recording for live events, group podcasting, and environmental sound.

To add a track in Audacity:

1. Click on **Tracks** at the top of Audacity.

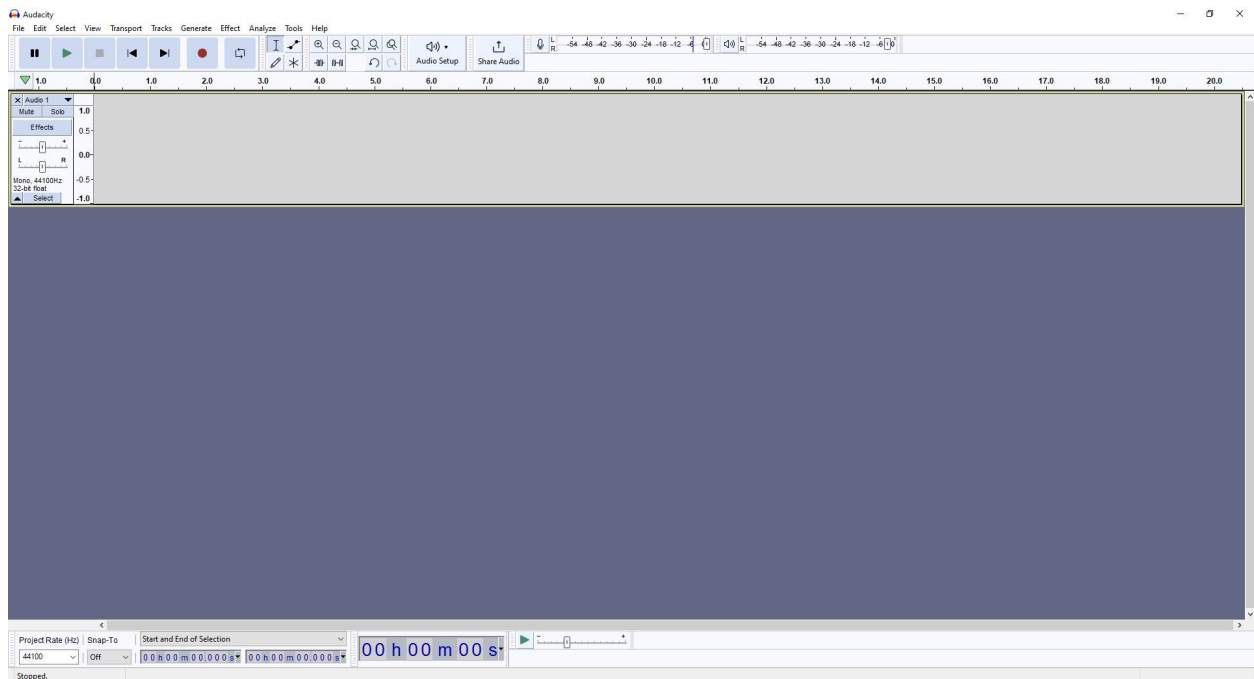


2. Select **Add New** and choose **Mono Track** or **Stereo Track**

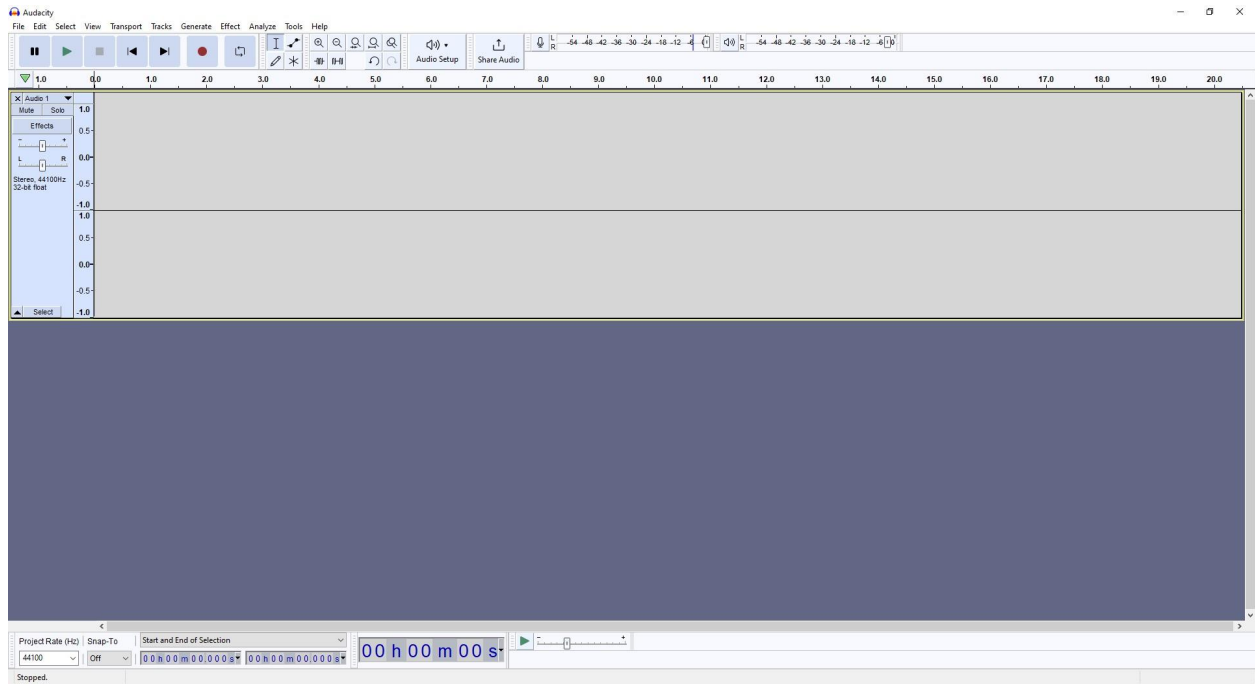


3. You will notice that Mono tracks have 1 channel (for both the left and right channels) and Stereo tracks have 2 channels (one each for left and right channels).

Mono Track (1 channel):

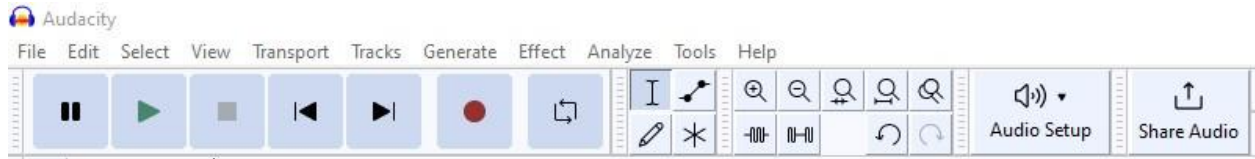


Stereo Track (2 channels):

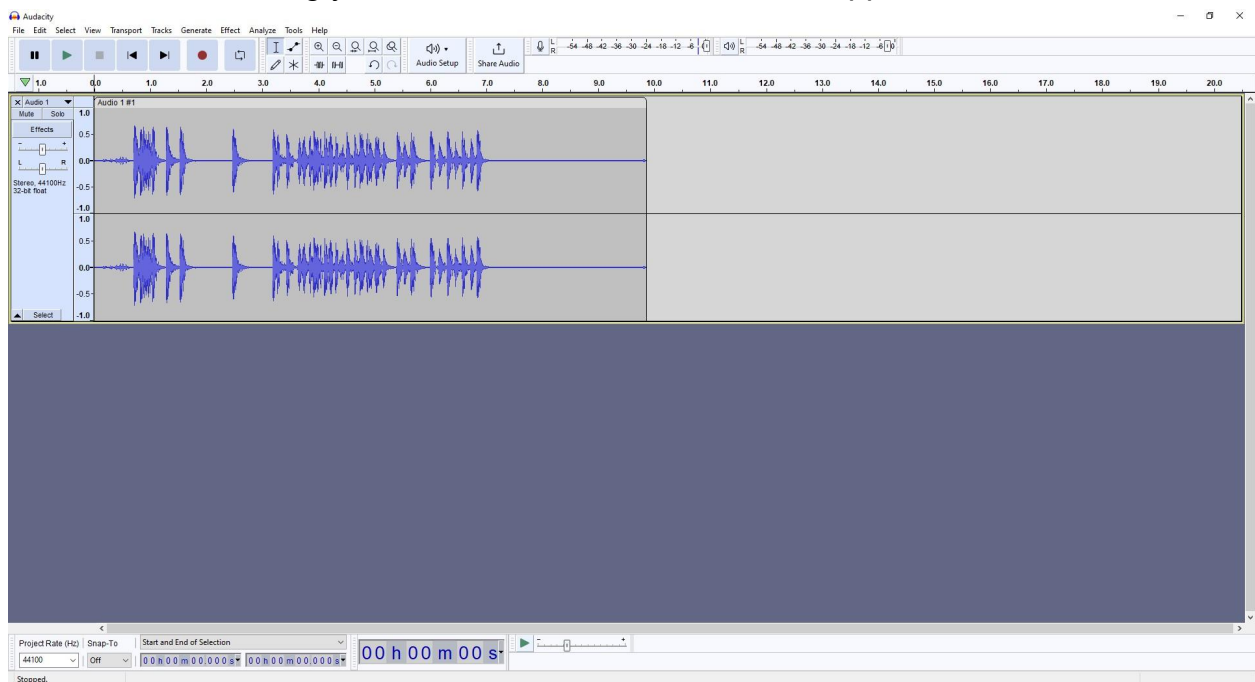


To record on a track:

1. Click on the track you wish to record on
2. Once ready, hit the red record button on the top navigation bar



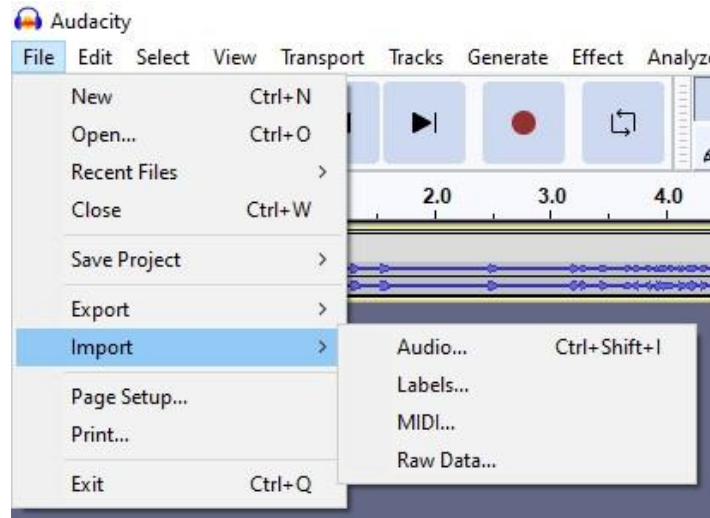
3. While recording your track, the audio waveform will appear.



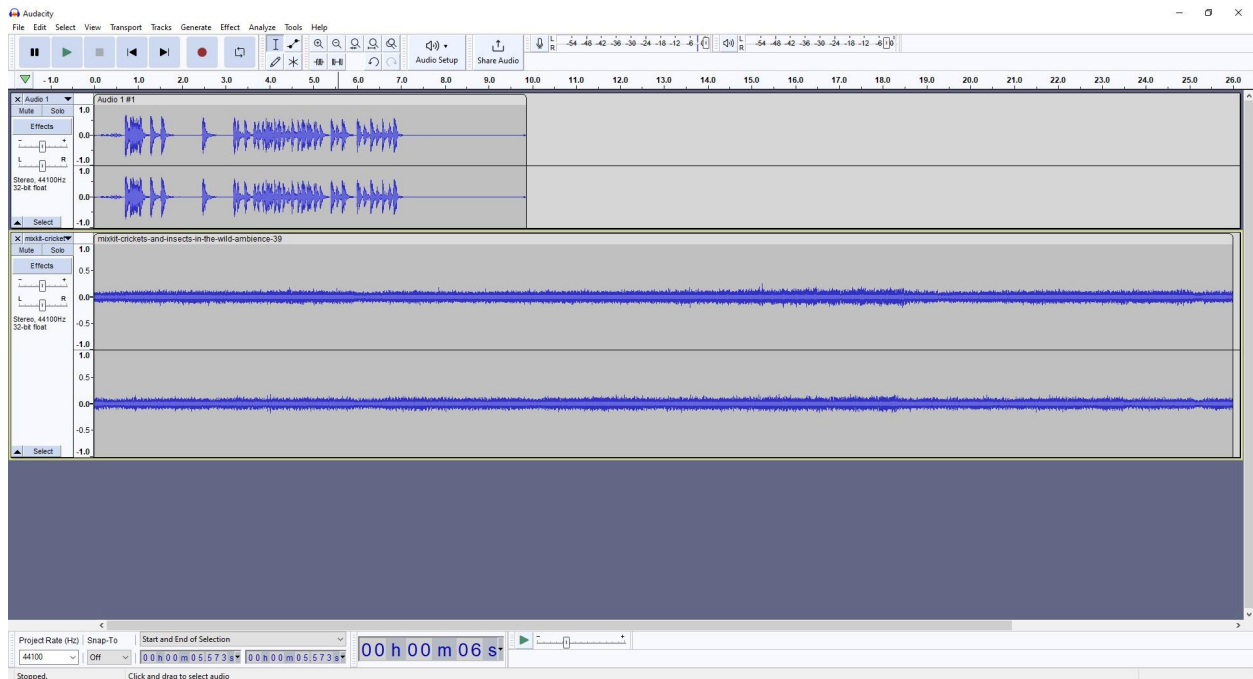
4. When you are done recording, hit the red record button again to stop.

To import a sound file into Audacity:

1. Select **File** at the top of Audacity
2. Select **Import**
3. Select **Audio**



4. Choose Audio file you want to import (.MP3, .WAV, .AIFF, etc.)
5. Select **Open**
6. The audio file will appear in a new track in Audacity



Editing Audio

Now that we have audio in our digital audio workstation, it's time to edit. There are many different ways to edit audio clips, the following will review some of the most common.

To move a piece of audio:

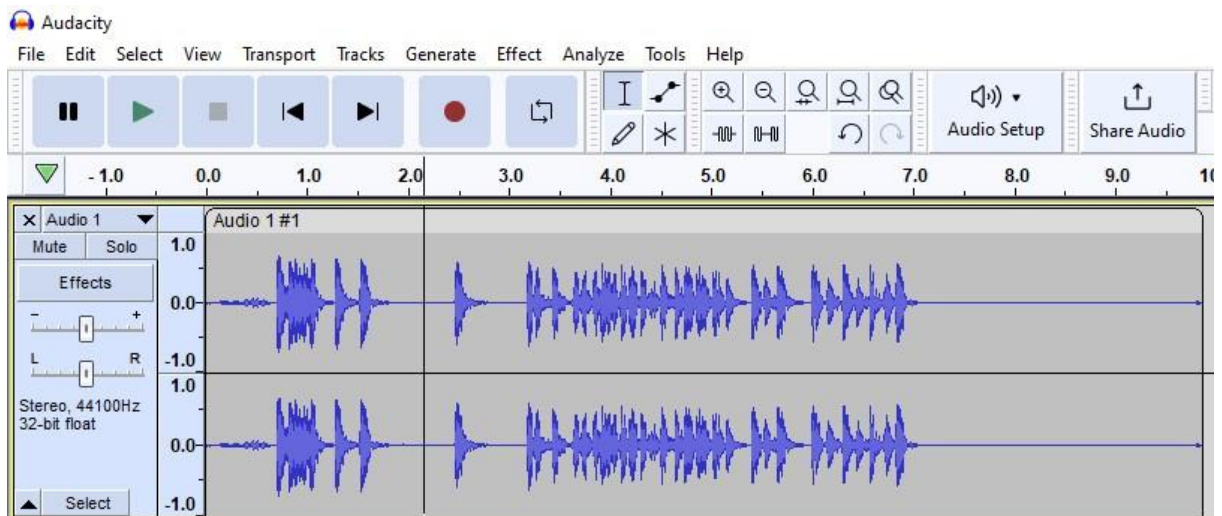
1. Click the top of the audio clip you would like to move. The clip will be highlighted.



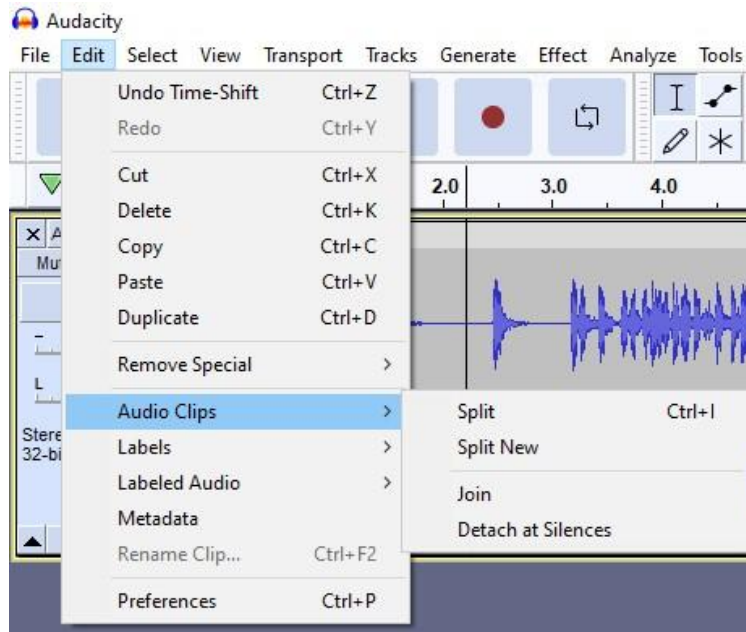
2. Drag the clip across its original track or to a different track.
Note: If you move from track to track, ensure that the audio clip and the track are both stereo or both mono.

To split a piece of audio:

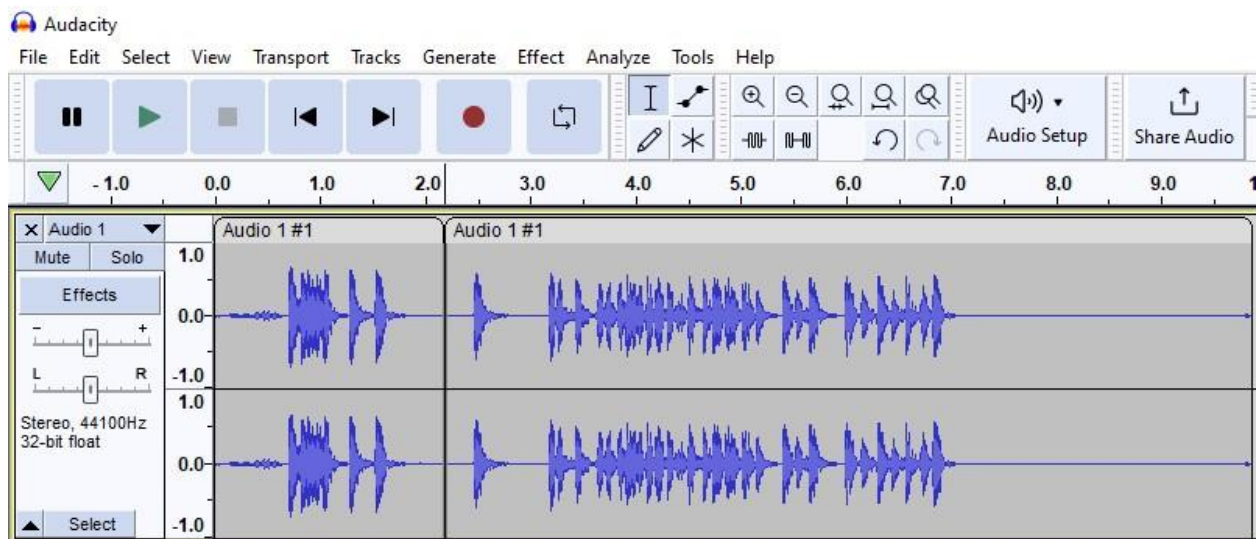
1. Click where you would like to split your audio clip. A thin black line will appear.



2. Select **Edit**
3. Select **Audio Clips**
4. Select **Split**

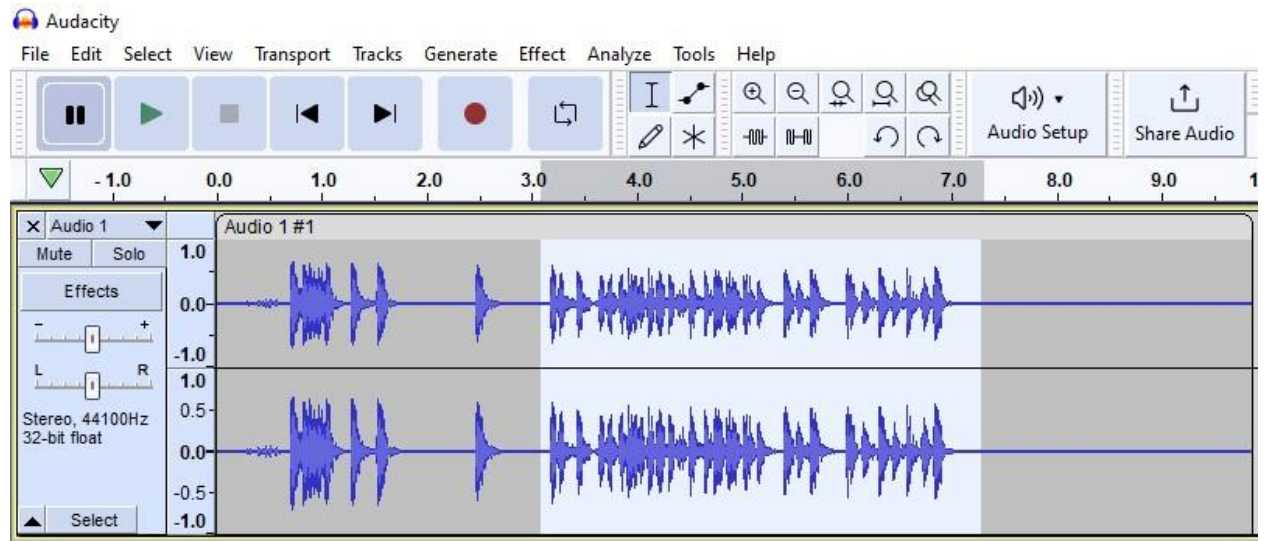


5. Your clip has now been split into two separate audio clips

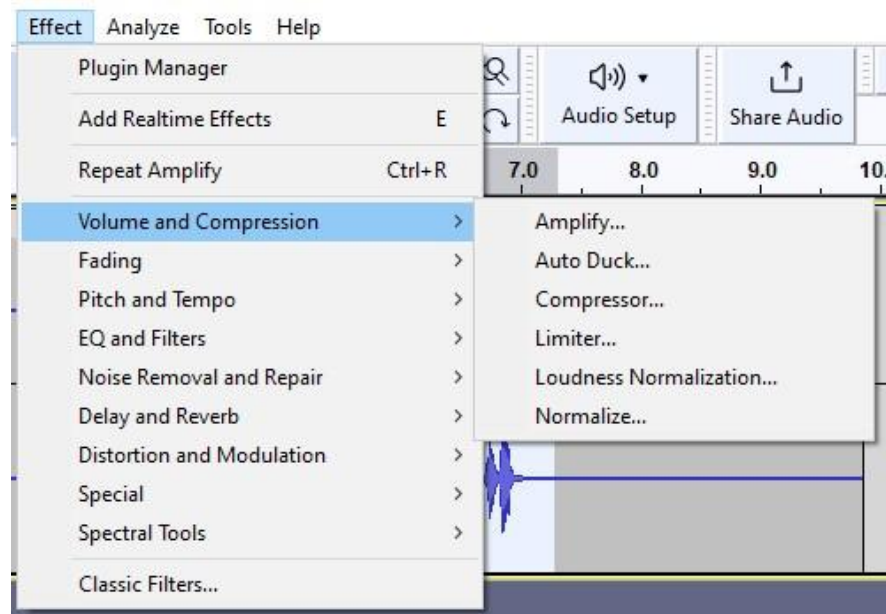


To add an effect to a piece of audio:

1. Use your cursor to highlight the part of the audio you want to edit



2. Select **Effect** from the top of Audacity
3. Select the type of effect you are looking for from the drop down
4. Select desired effect
5. Make adjustments and you're done!



Most digital audio workstations will have a number of different effects to choose from. Many of these affect the decibel level (db) which is how sound is measured. The higher the decibel level, the higher the sound.

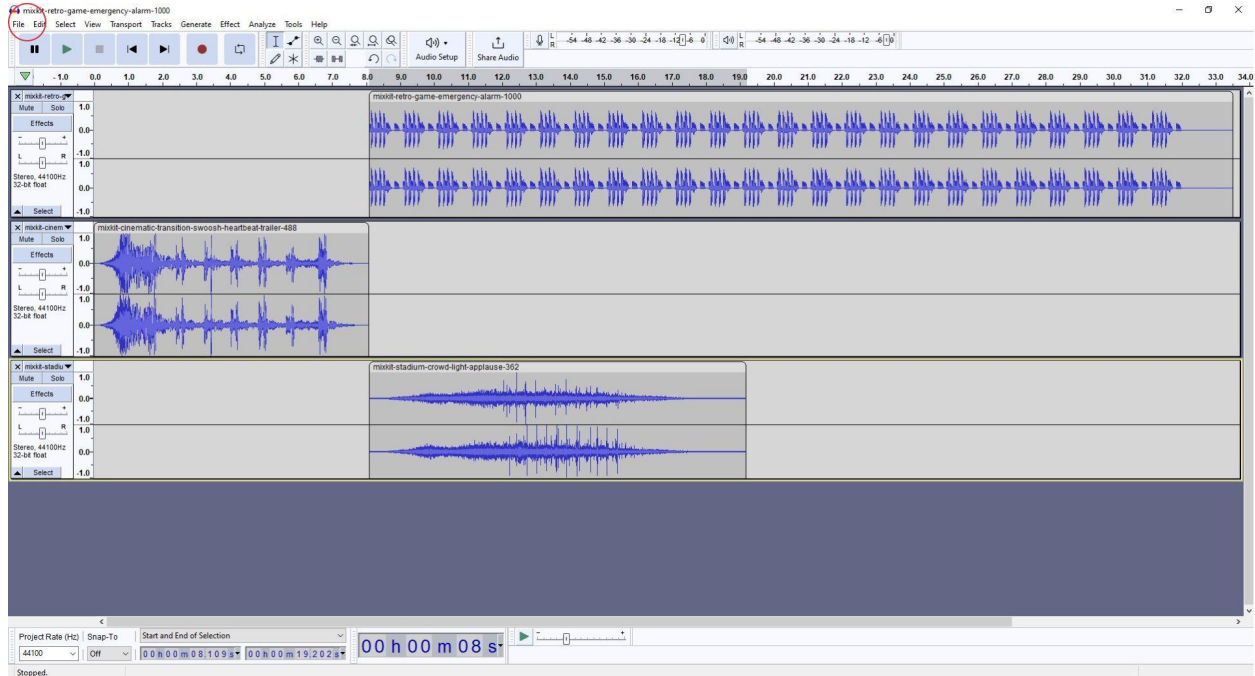
Some of the most commonly used effects include:

- **Amplify** - changes the volume (decibel level) of the selected audio track
- **Bass and Treble** - increase/decrease the lower or higher frequencies of your audio
- **Change Pitch** - increase/decrease the pitch of a selection without changing the speed/tempo
- **Change Speed** - increase/decrease the speed of a selection. This will affect the pitch and frequency.
- **Crossfade Clips** - applies a smooth transition to selected pair of clips in a single audio track
- **Crossfade Tracks** - applies a smooth transition across two tracks
- **Distortion** - makes the audio sound crunchy by distorting the waveform
- **Limitter** - increases the sound without going over a set decibel level
- **Noise Reduction** - reduce background noise (hums, whistle, buzzing, etc.)
- **Normalize** - sets the peak amplitude and equalizes the balance of left and right channels for stereo tracks
- **Reverb** - add 'space' to your sound. Can adjust desired room size and length of reverberance
- **Vocoder** - produces a robot-like voice

Note: each effect will have its own settings and adjustments. It's recommended to play around with effects after you finish recording. This way you will not record an unwanted sound from incorrectly setting up audio effects.

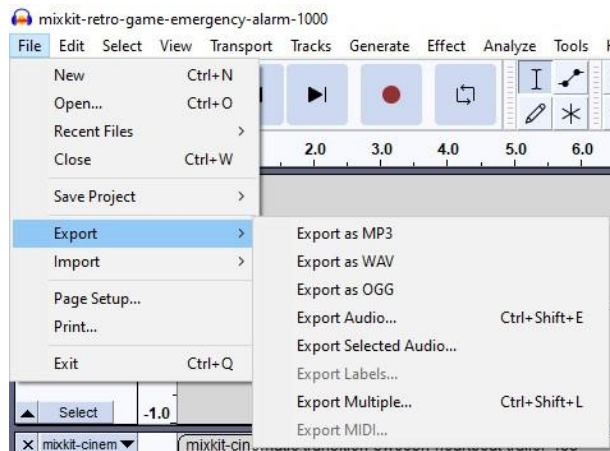
To export your audio:

1. Click on **File** located at the top of Audacity



2. Select **Export**

- a. **Export as .MP3** (all audio tracks will be exported to an .mp3 file)
- b. **Export Selected Audio** (all selected audio tracks will be exported with the option to choose what type of audio file)



3. Choose where on your computer to save your file