

# Guide: downloading Audacity, recording your voice, viewing the spectrogram and adding annotations.

This guide will help you download and install **Audacity**, an open-source software for digital audio recording and editing, and teach you how to record your voice, view the spectrogram of the recording and add annotations.

## 1. Download and Install Audacity

Install the latest version of Audacity for your operating system from the official website:

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

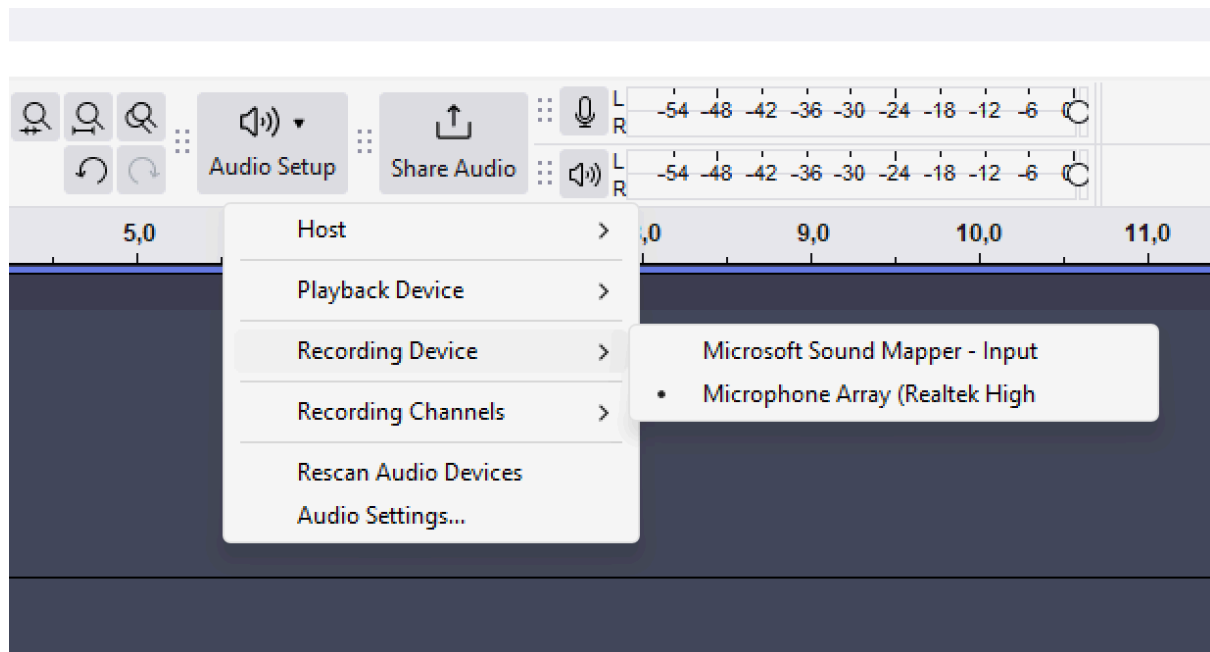
For the purpose of this exercise you won't need Music Hub, so you can choose the 32/64 bit installer (Windows) or the Universal dmg (OSX).

## 2. Record your voice

After installation, open the Audacity software. You should see the main workspace with a large blank area where you will record your audio. From here:

### **Step 1: Check Your Microphone and set audio input**

- Make sure your microphone is connected and working properly.
- In Audacity, go to *Audio Setup* (top center), and *Recording Device*. Here, you can select your microphone from the dropdown menu if it is not already selected.



### Step 2: Start Recording

- Press the red *Record* button (●) at the top left of the screen to start recording your voice.
- Speak clearly into the microphone. You'll see the waveform of your voice appear on the screen as you speak.

### Step 3: Stop Recording

- When you're done recording, press the *Stop* button (■) next to the Record button.
- Your voice recording will now appear as a waveform in the workspace.

## 3. Visualize the spectrogram

### Step 1: Open the Spectrogram View

- Audacity allows you to visualize your audio in different ways, including as a *spectrogram*.
- To view your recording as a spectrogram, locate the track's name (usually on the left side of the waveform).
- Click the dropdown menu (three dots) next to the track name.
- From the list, select *Spectrogram*. Your waveform will now convert into a spectrogram display.

### Step 2: Understand the Spectrogram

- The X-axis (horizontal) represents *time* (s), or how your audio changes over time.
- The Y-axis (vertical) represents *frequency* (Hz), or how high or low the sound is.
- The colors represent the *sound intensity* (dB) at different frequencies, with brighter colors indicating higher intensity.

## 4. Annotating the track

### **Step 1: Adding a label track**

First, you need to add a new label track to the project:

- Go to Tracks > Add New > Label Track
- Or right-click below the audio track and choose 'Add Label Track'

### **Step 2: Adding labels**

- Click on a specific point or highlight a region in the audio track where you want to place a label
- Use *Ctrl+B* (or *Cmd+B* for Mac) to add a label
- You can then type text in the label to add annotations

### **Step 3: Saving the labels**

- Saving the Audacity project will save both your audio and the labels
- To export the labels separately, go to File > Export > Export Labels