Multi-track project tutorial

Need general help with Audacity? Check out their manual – seriously, it's great!
https://manual.audacityteam.org/

Here are instructions on how to make a song using:

- Drum loops
- Audio samples
- littleBits Synth Kit

Sampling is the reuse of a portion (or sample) of a sound recording in another recording. Samples may comprise elements such as rhythm, melody, speech, sounds, or entire bars of music, and may be layered, equalized, sped up or slowed down, repitched, looped, or otherwise manipulated.

One popular use of samples is drum loops. A **loop** is a repeating section of sound material. Short sections of material can be repeated to create repeating patterns. Looping is a great way to create a base for your song! You can then add more layers, or **tracks**, to your song.

Step 1: Prep your recording studio

1. CONNECT YOUR SYNTH KIT: Use the USB I/O bit to plug your kit into your computer. Make sure the **Mode** switch is set to **out**.
2. OPEN AUDACITY: This will automatically create a new project.
3. SET YOUR SETTINGS: Make sure that your settings in Audacity are configured correctly. (For more detailed instructions, see RecordingWithAudacity.pdf in the #recording text channel of our Discord server.)
   a. Set your input device to **KORG 2ch Audio Device**
   b. Select **Click to Start Monitoring** (this lets you hear the Synth Kit *prior to* recording)
   c. Select **Transport > Transport Options > Software Playthrough** (this lets you hear the Synth Kit *during* recording)
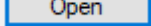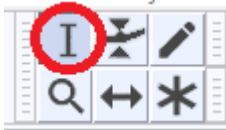
Step 2: Get your files

1. GET YOUR DRUM LOOP: Go to https://samples.landr.com/collections/free-drum-loops-breaks
   a. *Choose a Loop*: Browse the samples and choose one you like. Note the name of the sample (for example, Shroom LANDR Break05_82bpm)
   b. *Download your loop*: All of these samples are available to download from the Discord server. They're listed in alphabetical order. Go to the #drum-loops-files text channel and find your sample. Click the download icon and save the file on your computer/flash drive. Note where you saved the file so that you can find it later!

2. GET YOUR SAMPLE: Go to https://freesound.org/
   a. *Log into our account*:
      i. Username: CPLPNG
      ii. Password: cplPNG1234
   b. *Choose a sample*: Browse or search for a sample. You can even browse by tags: https://freesound.org/browse/tags/

   c. *Download your sample*: Click the **↓ Download** download button on the file's page (for example, https://freesound.org/s/503096/) and save the file on your computer/flash drive. Note where you saved the file so that you can find it later!

Step 3: Add files into your Audacity project

1. ADD YOUR DRUM SAMPLE: Select **File > Import > Audio**

   a. Navigate to the location of your drum loop and select it. Click **Open** open to add it as a new track in your project.
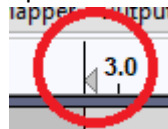
2. LOOP YOUR DRUM SAMPLE: Select the [Selection tool icon] Selection tool.
   a. *Select the drum loop:* Move your cursor to the very beginning of the sample; a yellow vertical line will appear when your cursor is at the right place. Click and drag to the end of the sample; a yellow vertical line will appear again to signify that you're at the very end of the track. The sample should now have a lighter background than it did when it wasn't selected.
   b. *Copy the sample*: Select **Edit > Copy** to copy your sample to the clipboard.
   c. *Paste the sample*:
      i. Unselect the sample by clicking anywhere else on the track. The sample should now have a darker background than it did when it was selected.
      ii. Move your cursor to the very end of the sample (again, a yellow line will appear).
      iii. Click. This sets the cursor position to the end of the sample so that the sample on your clipboard will paste to the right place. You should see a black vertical
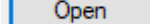
      bar on the timeline.
      iv. Select **Edit > Paste** to paste your copied sample to the end of the original sample.
   d. *Wash, rinse, repeat:* Repeat these steps as many times as you want until the track is as long as you want.
3. ADD YOUR SAMPLE: Select **File > Import > Audio**

   a. Navigate to the location of your sample and select it. Click **Open** open to add it as a new track in your project.

4. REPEAT YOUR SAMPLE: Want your sample to appear elsewhere in the song? Here's how:
   a. *Select the sample:* Move your cursor to the very beginning of the sample; a yellow vertical line will appear when your cursor is at the right place. Click and drag to the end of the sample; a yellow vertical line will appear again to signify that you're at the very end of the track. The sample should now have a lighter background than it did when it wasn't selected.
   b. *Copy the sample*: Select **Edit > Copy** to copy your sample to the clipboard.
   c. *Paste the sample*:
      i. Unselect the sample by clicking anywhere else on the track. The sample should now have a darker background than it did when it was selected.
      ii. Move your cursor to the part of the track where you want the sample to repeat.
      iii. Click. This sets the cursor position so that the sample on your clipboard will paste to the right place. You should see a black vertical bar on the timeline.
      iv. Select **Edit > Paste** to paste your copied sample to the end of the original sample.
   d. *MOVING A SAMPLE:* Want to move your sample to a different position on the track? Here's how:
      i. Select the sample like you did before.

      ii. Select the _____ Time Shift tool.
      iii. Click and drag the selected sample to where you want. A yellow vertical line will appear when it's lined up with the beginning or end of another clip/sample.

Step 4: Record your Synth Kit

1. ADD A TRACK: Select **Tracks > Add New > Mono**
2. CHECK YOUR SYNTH KIT: Test your kit to make sure it sounds how you want.

3. RECORD YOUR KIT: Click the _____ Record button to start recording!

4. STOP RECORDING: Click the _____ Stop button when you're done laying down your track.

Step 5: Playback your song!

1. FROM THE TOP: Click the _____ Skip to Start button to move your cursor to the beginning of the project.
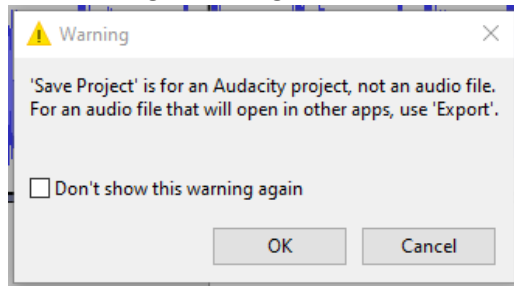

2. PLAY: Click the _____ Play button to listen to your song!

Step 6: Save your project

1. Select **File > Save Project > Save Project**
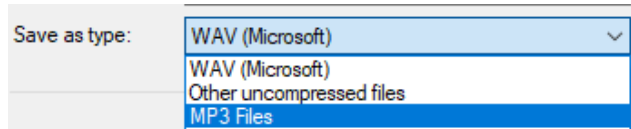   a. You should get a dialog box:

Click OK.

    b. Name your file.
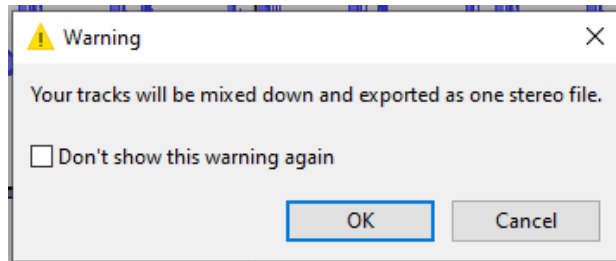   c. Click Save.

Step 7: Export your song!

1. Select **File > Export > Export Audio**
    a. Select MP3 under Save as type (MP3 is the most popular audio file format):

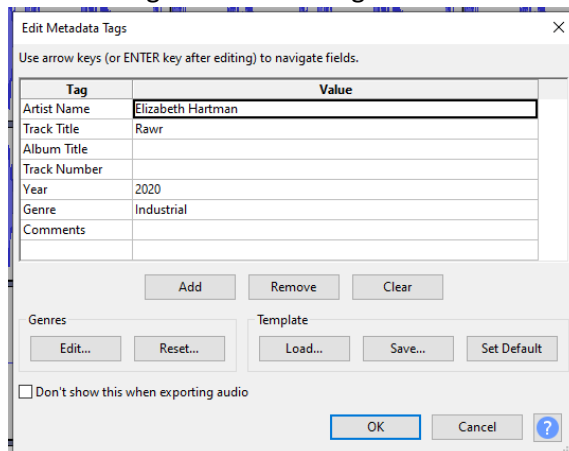

    b. Click Save.
    c. You should get a dialog box:
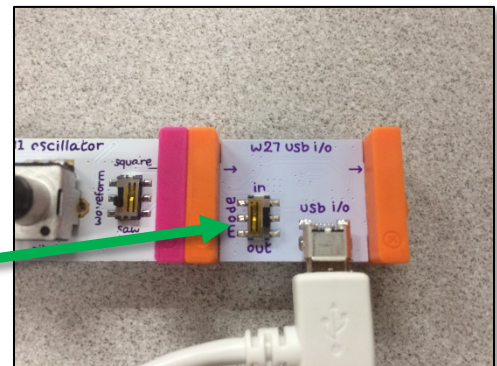

Click OK.

    d. You should get another dialog box:

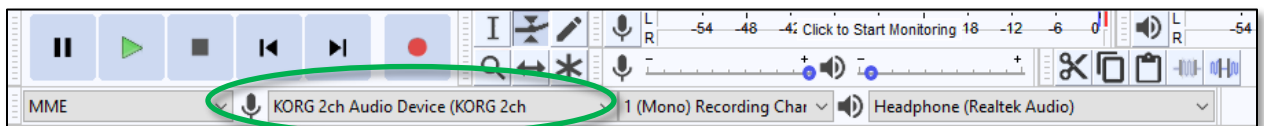Edit Metadata Tags as desired (this data stays in the file itself so that people know what they're listening too).

LIBRARIES
University of Wisconsin-Madison

Recording the littleBits Synth Kit in Audacity

If you don't have Audacity installed on your laptop, download it for free at
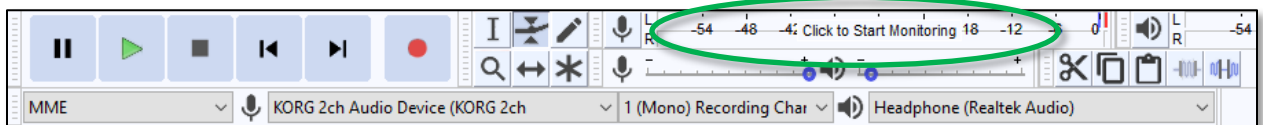https://www.audacityteam.org/.

1. Attach the USB I/O bit after all Input modules in your circuit (Oscillator, Filter, Delay, etc.). It can be placed before or after the Synth Speaker bit or used *instead* of the Synth Speaker bit to monitor sound through Audacity using your laptop's speakers or headphones (ideal if you plan on recording multiple tracks).

2. Set the **Mode** switch on the USB I/O bit to **out**.

3. Using the cord included with the kit, attach the USB I/O bit to a USB port on your laptop.

4. Open **Audacity** on your laptop. *If you already have Audacity open, you may need to close it and reopen so that the USB I/O bit is recognized as a recording device option.*

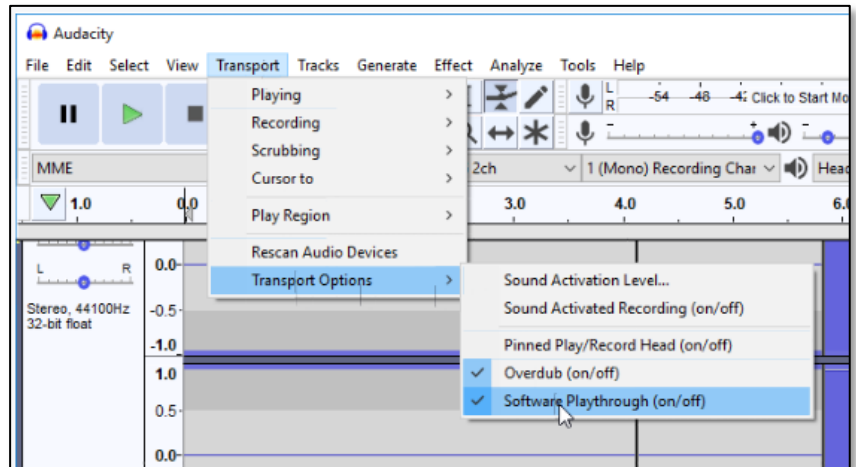5. In the Recording Device window in Audacity, select **Korg 2ch Audio Device**.

6. Select **Click to Start Monitoring**. (This lets you listen to audio from the synth kit through Audacity *prior to* recording.)
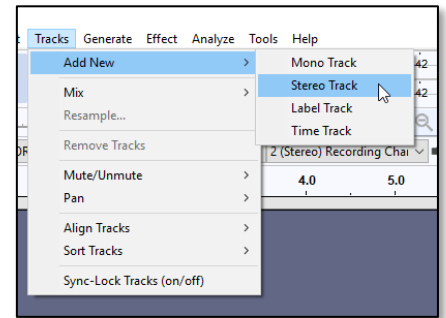
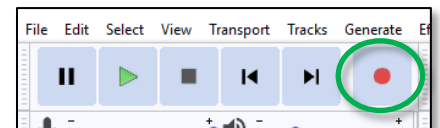# Recording the littleBits Synth Kit in Audacity, Cont.

7. Select **Transport/Transport Options/Software Playthrough**. (This lets you listen to audio from the synth kit through Audacity *during* recording.)

8. Select **Tracks/Add New/Stereo Track**.

9. To begin recording, select the track by clicking on it (it will be highlighted in yellow) and select the recording icon.
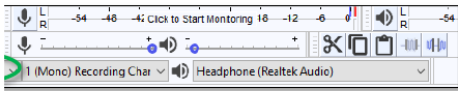

10. Repeat steps 8-9 to record additional tracks.

11. When you've finished recording, save your Audacity project by selecting **File/Save Project/Save Project As**. To create an audio file usable in other applications, select **File/Export** and the desired format (MP3, WAV, etc.).

For tips, tricks, and troubleshooting in Audacity, consult Audacity's Help menu.

Addendum to the
Recording with Audacity PDF:

The Recording with Audacity PDF shows
Headphone as the output device:

Instead, select **Microsoft Sound Mapper**
as the output device:

Addendum to the Recording with Audacity PDF:

The images in the RecordingWithAudacity.pdf instructions show the output as 🔊 Headphone (Realtek Audio).

However, that output won't work for everyone's set up.

Try setting the output as 🔊 Microsoft Sound Mapper - Output. Selecting that output is similar to selecting "Default," as it should auto-detect what output you're currently using.