

Scratch Programming

Lesson 6: Add Music with Scratch and Audacity®

In this lesson, I will show you how to create a tune using Scratch's Sound Tool Kit. Then I will also show you how to use Audacity to create a Scratch sound clip from a MP3 or WAV file.

Create a Tune using Sound Tool Kit

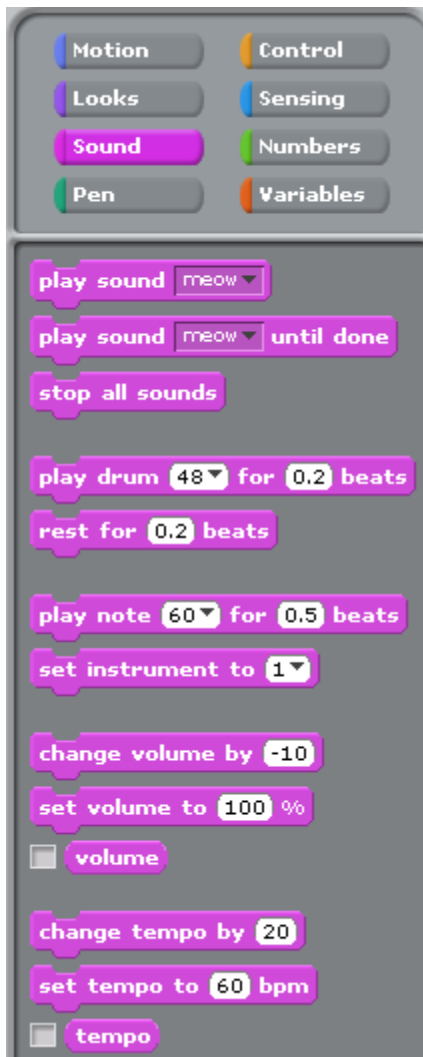
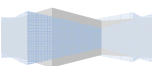
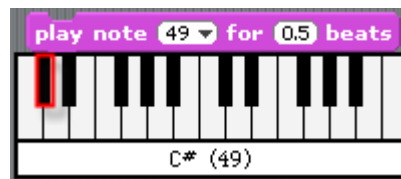
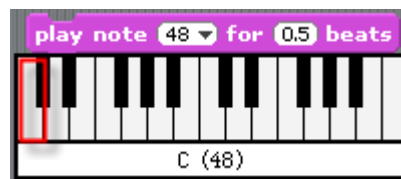


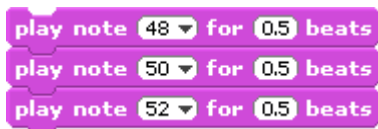
Figure 1: Sound Tool Kit

To add a music script to a sprite, select a sprite and click Sounds Tab.


Drag out a "play note ? for ? beats". Click the down arrow to bring up the keyboard.

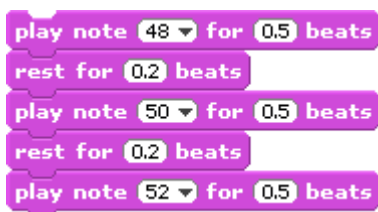


To create a simple tune that goes Do-Re-Mi, make a script combo block like the one below. DOUBLE CLICK this block to test it.



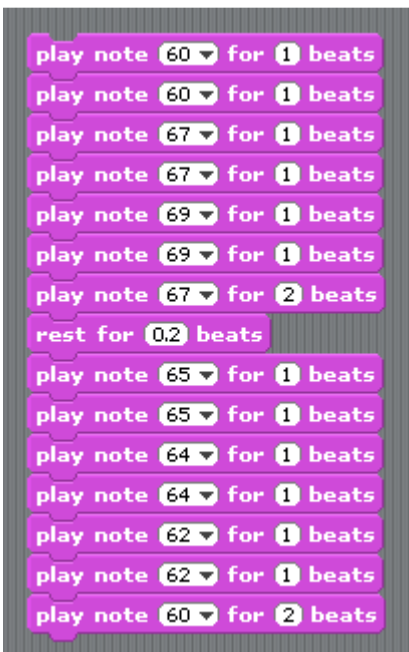
```
play note 48 for 0.5 beats
play note 50 for 0.5 beats
play note 52 for 0.5 beats
```

To add pause between notes, use the  block.



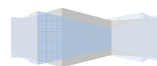
```
play note 48 for 0.5 beats
rest for 0.2 beats
play note 50 for 0.5 beats
rest for 0.2 beats
play note 52 for 0.5 beats
```

This is the script which plays the tune of Twinkle, Twinkle Little Star.



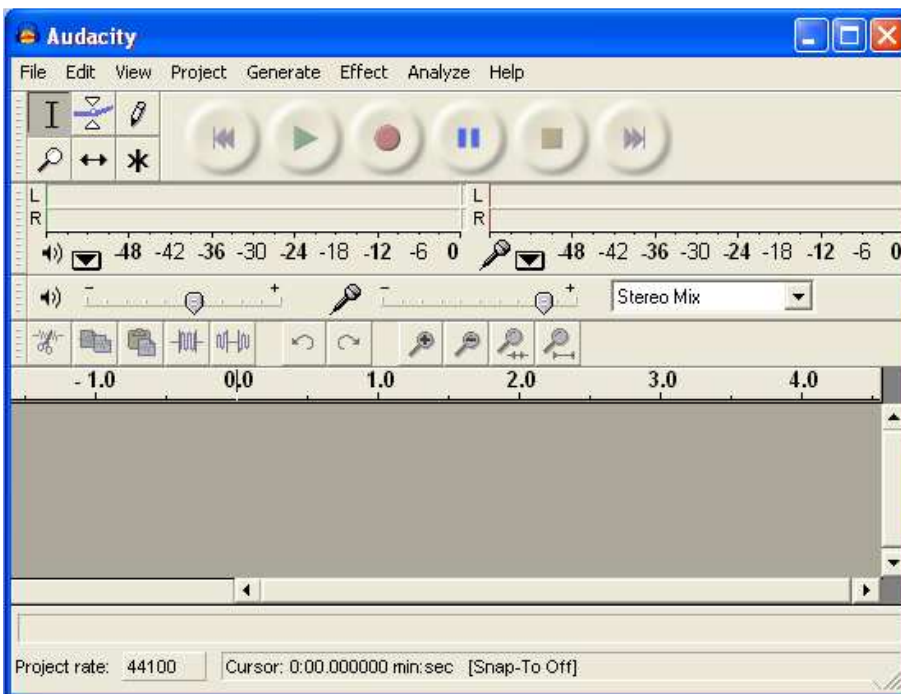
```
play note 60 for 1 beats
play note 60 for 1 beats
play note 67 for 1 beats
play note 67 for 1 beats
play note 69 for 1 beats
play note 69 for 1 beats
play note 67 for 2 beats
rest for 0.2 beats
play note 65 for 1 beats
play note 65 for 1 beats
play note 64 for 1 beats
play note 64 for 1 beats
play note 62 for 1 beats
play note 62 for 1 beats
play note 60 for 2 beats
```

Figure 2: Script block for playing Twinkle, Twinkle Little Star

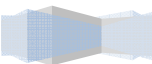


Create a Sound Clip using Audacity

Creating a song using Sound Tool Kit is fine but it takes too much time. Let me clue you in on this wonderful tool called Audacity. [Audacity®](#) is free, open source software for recording and editing sounds. It is available for Mac OS X, Microsoft Windows, GNU/Linux, and other operating systems.



Audacity provides many cool features but I am only going to show you this one trick today. I will show you how to record music played on your computer and turn it to a Scratch sound clip or a wav file (no file converter required!).



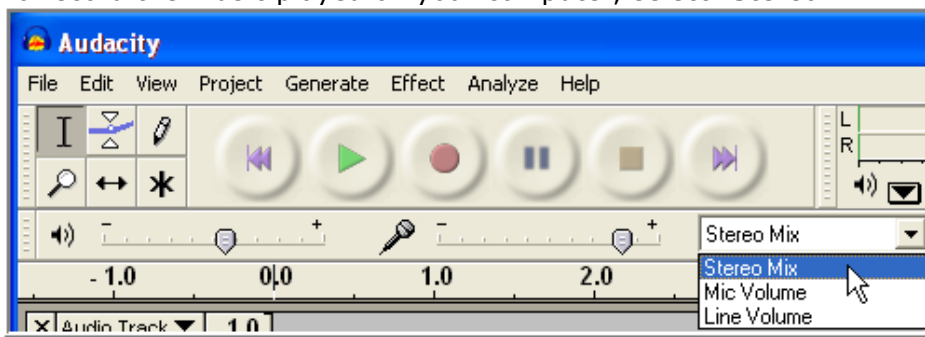
Start by playing your favorite song using your favorite player.



Or play online streaming music.



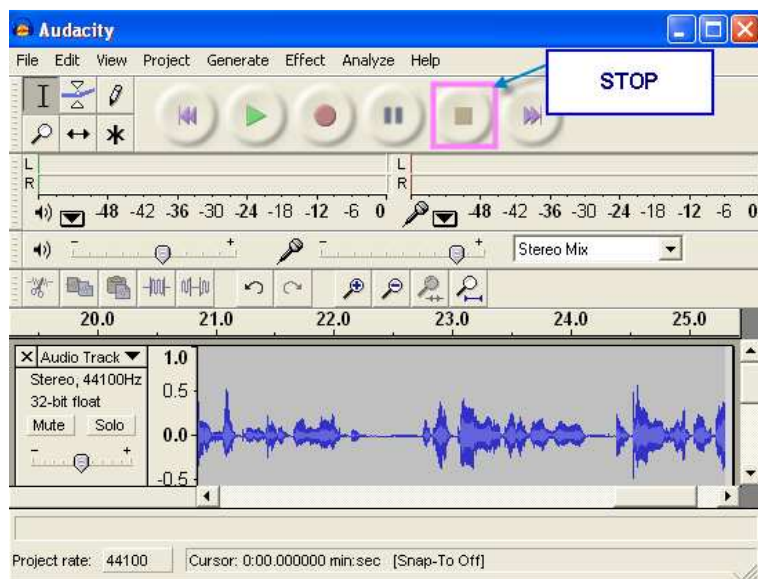
To record the music played on your computer, select "Stereo Mix".



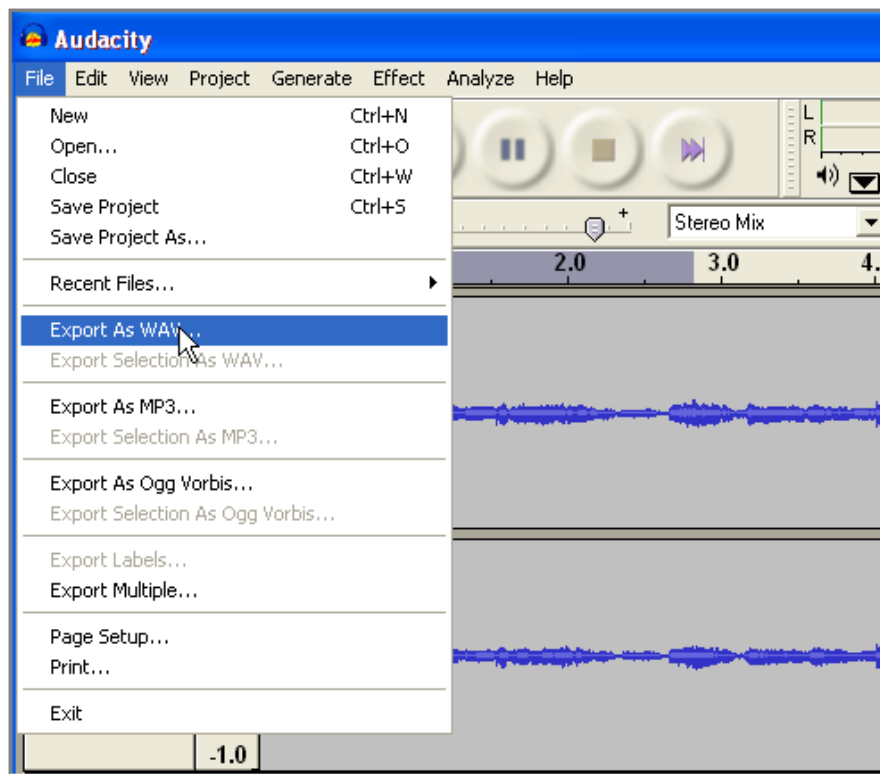
Then hit the "Record" button. Sound waves will start to appear.



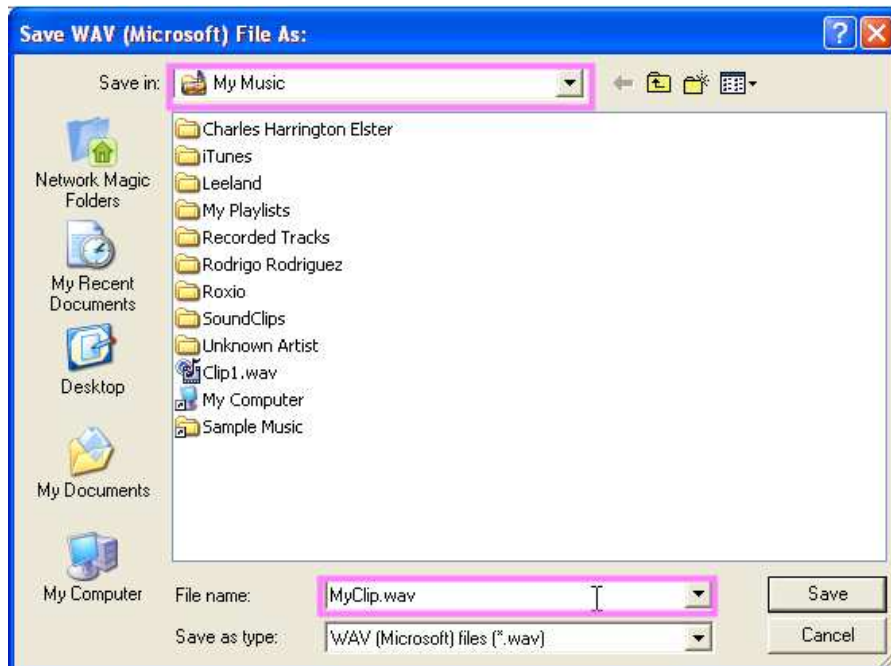
Once you've record enough music, click STOP to stop recording.



To export the recording as WAV file to be used in a Scratch project. Select "File"->"Export As WAV".



Save the recording in "My Music" as "MyClip.wav".



To import to a sprite, select the Sounds Tab and click "Import".



Click "Music" button to go to "My Music" folder and select the clip we've just recorded.



THIS CONCLUDES LESSON 6 ^_^

