

## Module 0: Creating a Snap! Animated Biography

If you have not already read the preceding lab, *Obtaining a Snap!* account, review this information first. Then sign into Snap!

In this introduction, you will use Snap! to create a short, animated biography. The example used to illustrate the process of creating an animated biography was developed by Rachel, one of the instructors for the course. In her brief introduction, Rachel describes her background as an orchestral percussionist and her interest in the game *Magic, the Gathering*.



A video describing the way in which this animated biography was created can be accessed here:

Part 1: <https://www.youtube.com/watch?v=dG7z0Iocn9s>

Part 2: <https://www.youtube.com/watch?v=2gYqLI13Lzw>

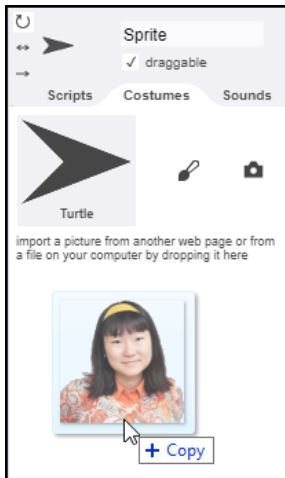
Once you have watched the video overview, open the Snap! biography program that is available here:

[https://snap.berkeley.edu/snap/snap.html#present:Username=maketolearn&ProjectName=Biography%20-%20Rachel%20\(Ver%201.1\)](https://snap.berkeley.edu/snap/snap.html#present:Username=maketolearn&ProjectName=Biography%20-%20Rachel%20(Ver%201.1))

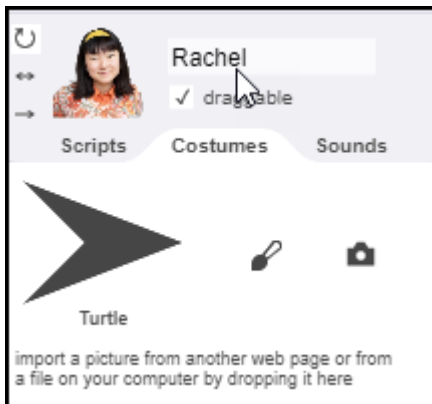
The Snap! file will enable you to inspect the code blocks in Rachel's program to see how the blocks were used to create her animated biography. Once you understand how everything works, create a similar animated biography for yourself.

The remainder of this document describes the process in greater detail. This will enable you to refer to a specific action or method if you need more information about the way in which a result was obtained.

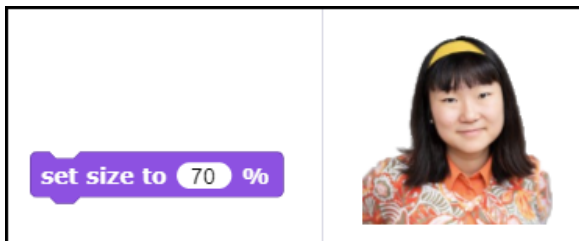
Begin by dragging a picture of yourself from the desktop into the *Costumes* tab.



The costume of the sprite will change from its default, a black triangle, to a thumbnail image with your picture. Change the name in the text box beside the thumbnail image from the default name of “sprite” to your name.



The image of the sprite will also appear on the stage. Attributes such as size can be adjusted using commands in the *Looks* palette.



The default size of the stage is 480 steps wide by 360 steps wide, with the coordinate of [0 0] representing the center of the stage. The **Go To** block can be used to send the sprite to any part of the stage. The coordinates of [ - 100 - 60], for example, would send the sprite to the lower left-hand corner of the stage.



Blocks such as **Right of Stage** and **Top of Stage** (found in the *Sensing* palette) can be used to send the sprite to a specific corner of the stage.



For example, this command would send the sprite to the top, right corner of the stage.



The command below would send the sprite beyond the boundaries of the stage.



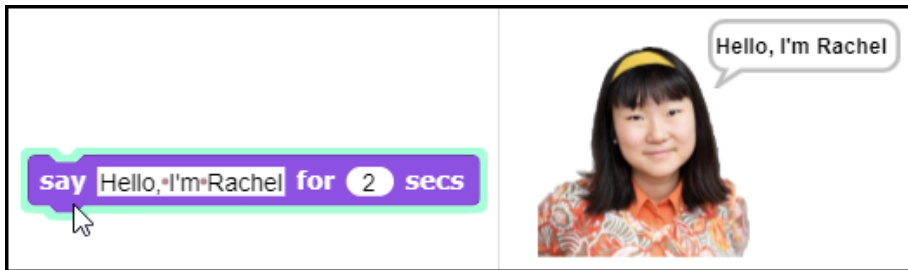
Since several different sprites will be asked to go offstage, this block will be used frequently. For that reason, creation of a custom block named **Go Offstage** will document the reason that these coordinates are used.



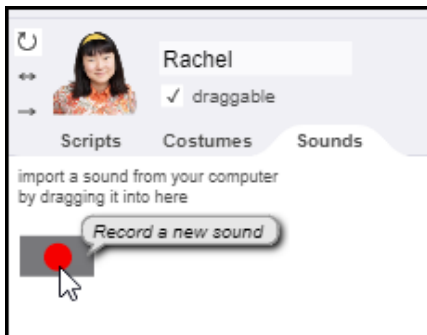
Once the **Go Offstage** block is created, the following sequence would ask the sprite to start off stage and then glide to the lower left-hand corner of the stage.



The method described provides the foundation of a method for creating objects in Snap! and animating them to tell a story. The **Say** command (found under the *Looks* palette) causes a speech bubble to appear beside the object.



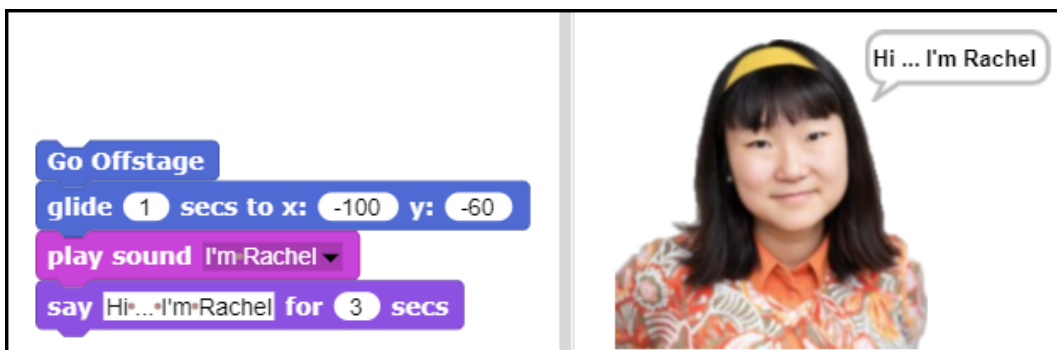
The *Sounds* tab above the script area can be used to record speech using the microphone of the computer. (Note: the *Record* function does not work in the Safari web browser.)



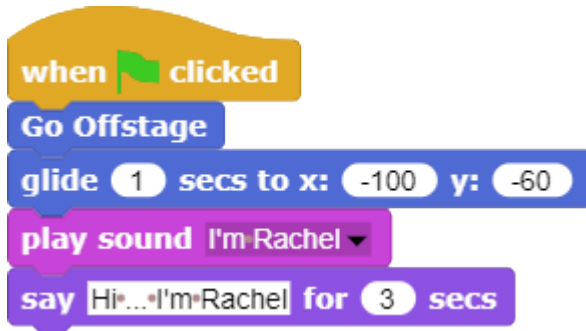
Once speech has been recorded, the caption of the sound can be changes in the text box below the sound.



Putting it all together, the following sequence of blocks would cause the sprite to go offstage, glide to the lower left-hand corner, play the recording, "I'm Rachel" and place the same phrase in a speech bubble.



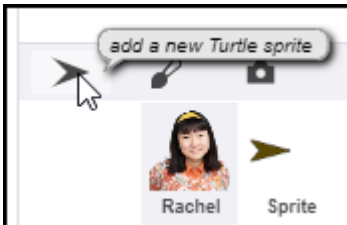
In this manner, a character can be created using a costume of a sprite and used to develop an animated biography. A *Green Hat* block (founded in the *Control* palette) can be added to the sequence.



When the Green Hat block is added, clicking the green flag in the upper right-hand corner of the Snap! window will initiate the sequence of commands found under this block.



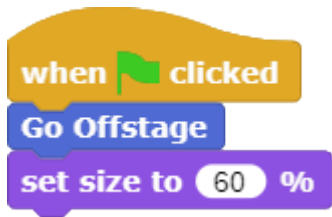
Additional sprites can be created to add other objects to illustrate the story. An additional sprite can be added by clicking the black triangle in the sprite corral (found just below the stage).



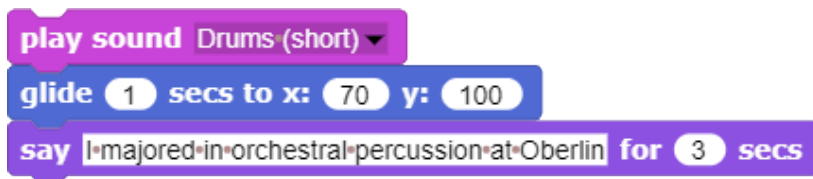
A new costume can be added to the second sprite by dragging an image from the desktop into the costume tab of the second sprite. In this instance, an image of percussion instruments has been added to the stage.



The following script in the script area of the second sprite (which has been named “Percussion” the reflect the image of percussion instruments) positions the sprite and adjusts its size when the green flag is clicked.



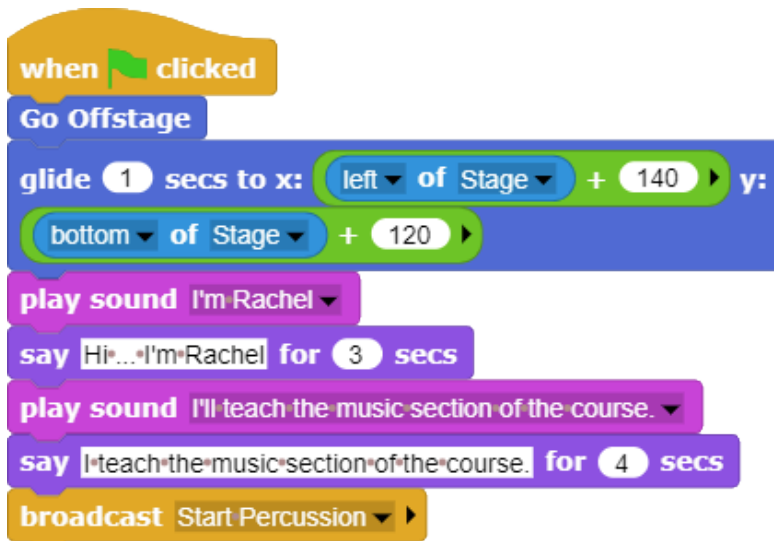
One of advantage of using the *Green Flag* to begin a program is that the scripts of several sprites can be initiated simultaneously, taking place in parallel. The script for the *Percussion* sprite employs a format similar to that used for the first sprite. It plays the sound of drums as the sprite glides to a point in the upper right-hand corner of the stage. A speech bubble then appears that says, “I majored in orchestral percussion at Oberlin.”



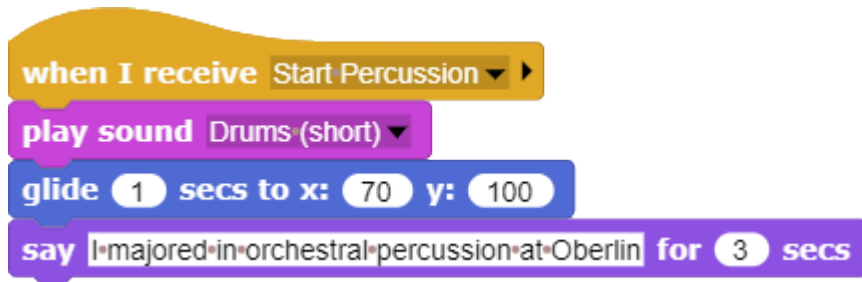
The **Broadcast** block (found in the Control palette) enables the first sprite to send a message to the second sprite.



This enables the first sprite to broadcast the message “Start Percussion” to initiate the percussion sequence.



The **When I Receive [message]** block (found under the *Control* palette) can then be used to enable the second sprite to begin its sequence of commands when it receives the message “Start Percussion.”



In this manner, sprites can send messages to one another to coordinate the order in which events occur.