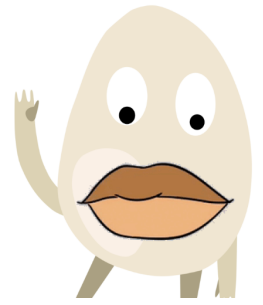


SCRATCH Lip sync



Register/login at <https://scratch.mit.edu>

Make a character's lips move in sync with your voice.

1) Download graphics from:

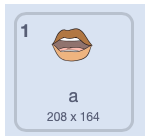
<https://codeclub67.github.io/images/lips.gif>

2) Create a new sprite from lips.gif



*Look at the sprite's **Costumes**. There are 26 (+1 extra) mouth shapes, one for each letter of the alphabet.*

3) Give each costume a new name, starting at "a" through to "z".



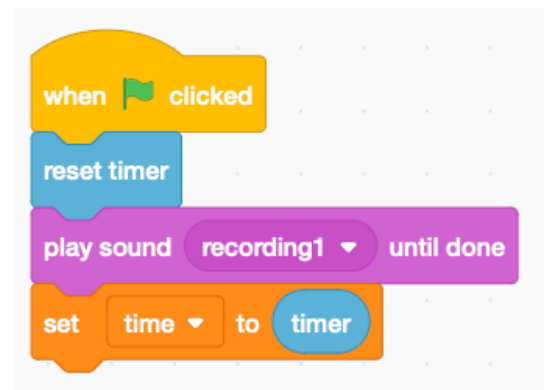
4) There's one extra costume, call this "**rest**" for when it's not speaking.

5) Record a phrase on the **Sounds** tab. I recorded "*The quick brown fox jumps over the lazy dog*" (which uses every letter of the alphabet).

How long is your sound?

6) Create a variable, **time**, for the sound length.

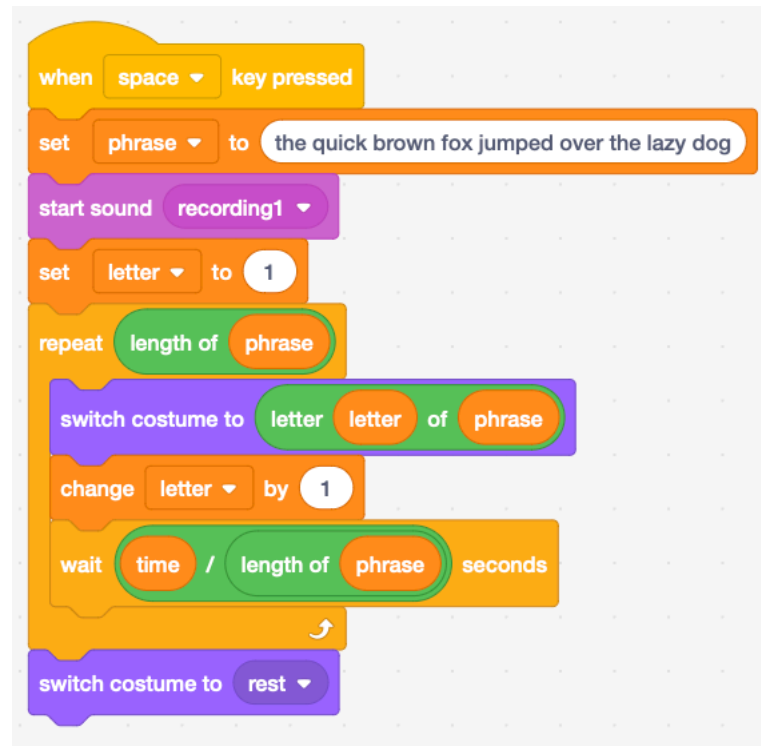
7) Add the code to the right, using a **timer** to time the sound.



To lip-sync, step through the text of the phrase letter by letter, selecting the matching costume for each letter.

8) Create variables for the text **phrase**, and for the **letter** counter.

9) Add the code to the right. Set up your phrase using only small letters (no capitals). **Start the sound** and lip-syncing by **switching costume** in a loop.



“**letter ... of**” pulls out a single letter from the phrase, at the **letter** position. It **waits** between each letter for the total **time** divided by the **length of** the phrase.

10) The sound and lip-sync should stop at the same time, so finish by **switching costume** to **rest**.

Note that spaces in the phrase are just ignored because there's no matching costume.

Use your artistic skills to add a face.

Save your code with a good name. **File > Save now**

The lip graphics remix a work by Jaida Salmon <https://vimeo.com/202873560>