

# Rock band

## Introduction

### What will you make

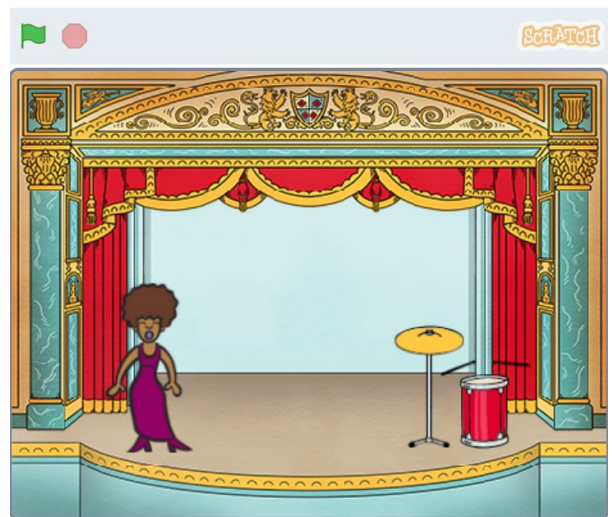
In this project you will create the working musical instruments using different sprites and sounds.

Open the URL ([rpf.io/rockband](https://rpf.io/rockband)) in your browser to experience how the project works.

Click on the singer or the drum to hear what they sound like.

### How will you open the project

- **Online:** Open the <https://scratch.mit.edu/projects/editor/> in Scratch.
- **Offline:** Open a new Scratch project on the Scratch 3.0 offline editor. If you need to, you can download Scratch from the given link <https://scratch.mit.edu/download>.



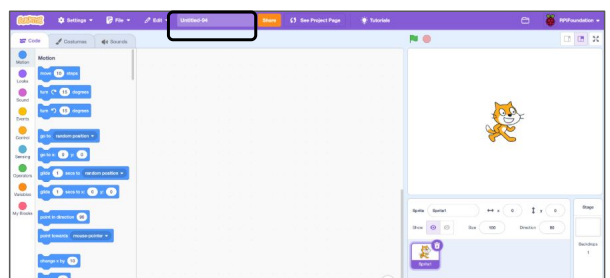
## 1. Sprites

### Step 1:

Open a new [Scratch project](#). It looks like this:

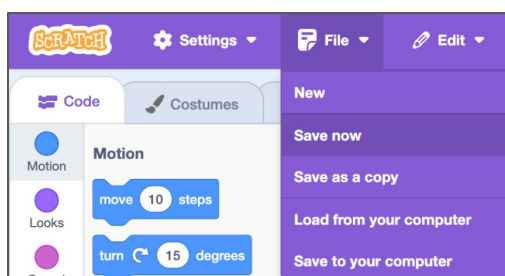
### Step 2:

Once you signed in to your Scratch account, type the title of your project into the project title box here:



### Step 3:

If you are not online or don't have a Scratch account, you can save a copy of your project by clicking on **Save to your computer** instead.



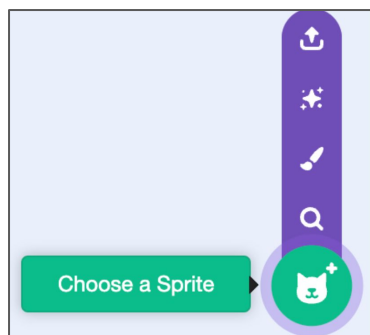
### Step 4:

The cat sprite is not needed in this game, so delete it by clicking on the X in the corner.



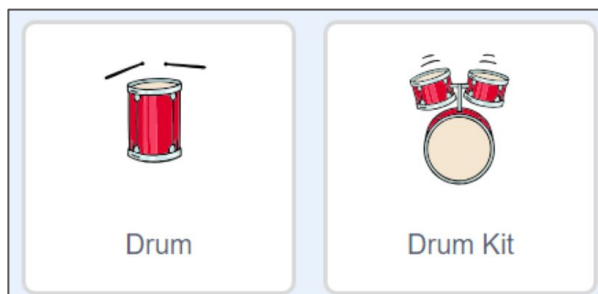
#### Step 4:

Click **Choose a Sprite** to open the library with all Scratch sprites.



#### Step 5:

Scroll down until you see a drum sprite. Click on a drum to add it to your project.

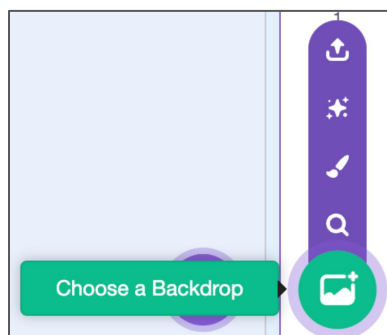


## 2. The Stage

It is the area where your project comes to life. Think of it as a performance area, just like a real stage!

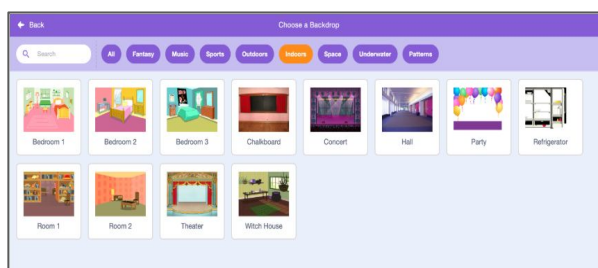
#### Step 1:

At the moment, the stage is white. Add a backdrop to it by clicking on Choose a backdrop.



#### Step 2:

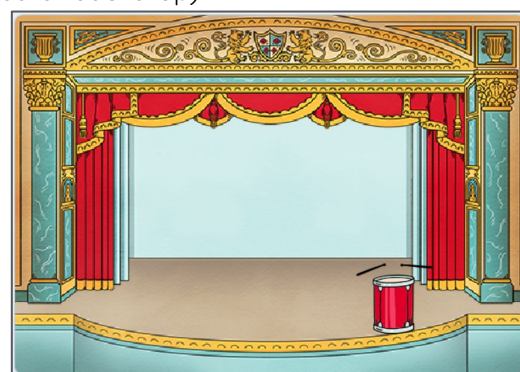
Click on Indoors in the list at the top. Then click on a backdrop you like.



#### Step 3:

Click and drag the drum to the bottom of the Stage.

**Step 4:** Your stage should now look similar to this (we used the Theater backdrop):

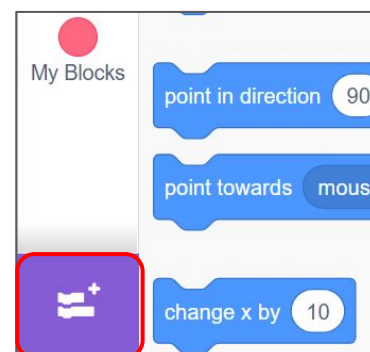


## 3. Make a drum

Now you will add code to your drum so that the drum makes a sound when it's clicked. First add the Music extension so you can play instruments:

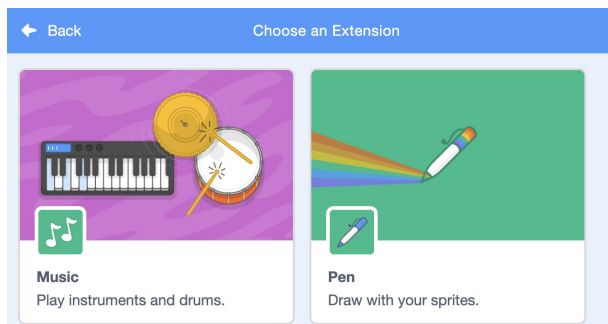
#### Step 1:

Click on the Add extension button in the bottom left-hand corner.



## Step 2:

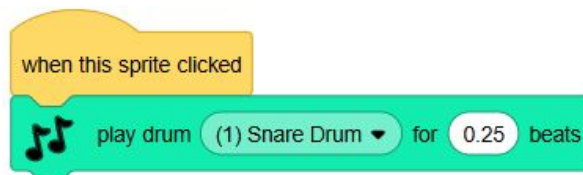
Click on the Music extension to add it.



- Make sure that the blocks are connected together (like LEGO bricks).
- Click on the drum to try out your new instrument!

## Step 3:

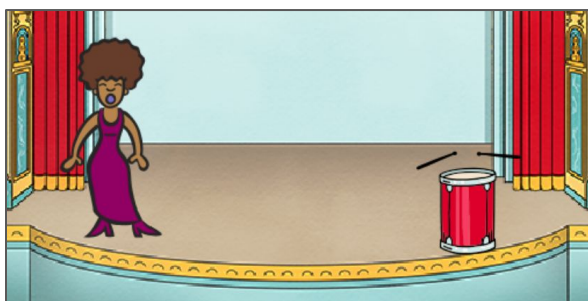
Click on the drum sprite, and then drag these two blocks into the code area on the right:  
Try the drum by clicking on it.



## 4. Make a singer

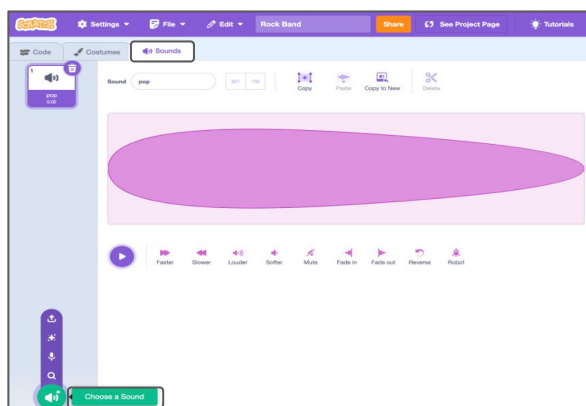
### Step 1:

To add a singer to your band add a singer sprite to your stage.



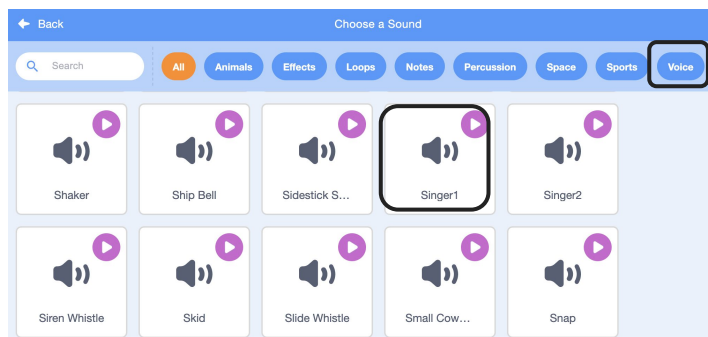
### Step 2:

Make sure that you have selected your singer sprite, then click on the Sounds tab, and click on **Choose a sound**:



### Step 3:

Click on Voice in the list at the top, and then choose a sound to add to your sprite.



### Step 4:

To use the sound, add the following code blocks to your singer sprite:



### Step 5:

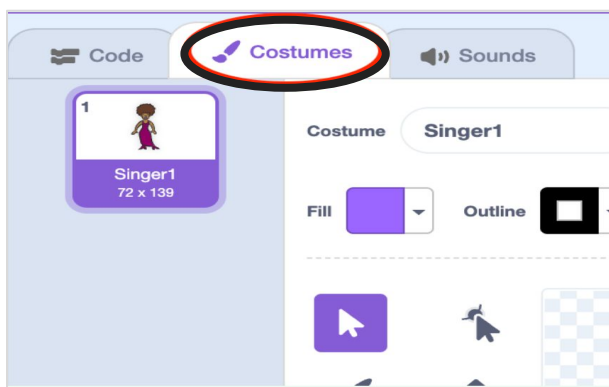
Test your code. Click on your singer on the stage and see what happens. Does she sing?

## 5. Costumes

Now you will make your singer look like she's singing! Change how your singer sprite looks when it's clicked by creating a new costume.

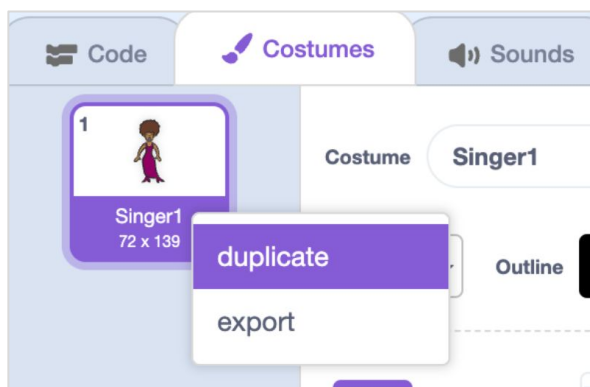
### Step 1:

Click on the Costumes tab, and you'll see the singer costume.



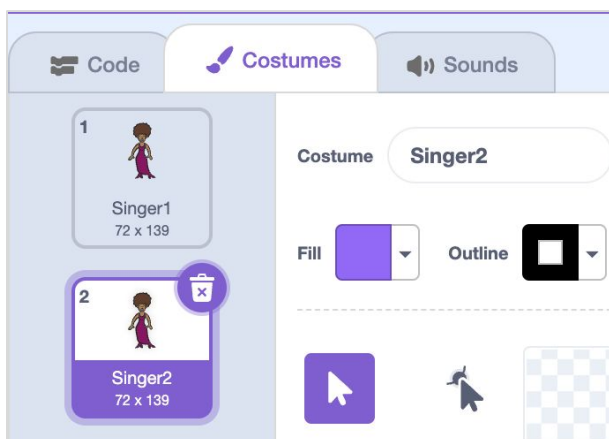
### Step 2:

Right-click on the costume and then click on duplicate to create a copy of it.



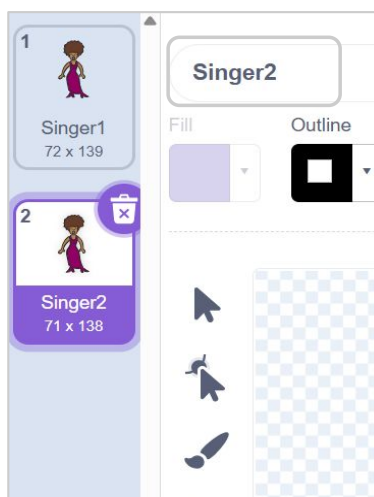
### Step 3:

Click on the new costume (called 'Singer2'), and then select the line tool and draw lines so it looks like your singer is making a sound.



### Step 4:

Change the names of the costumes into the text boxes of the costumes to change their names to 'not singing' and 'singing'.



Now that you have two different costumes for your singer, you can choose which costume is displayed! Add these two code blocks to your singer sprite:

### Step 5:

The code block for changing the costume is in the **Looks** section.



### Step 6:

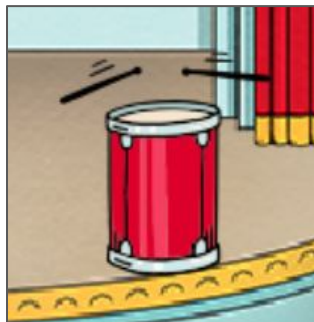
Click on your singer on the stage. Does she look like she is singing?



## 6. Challenge

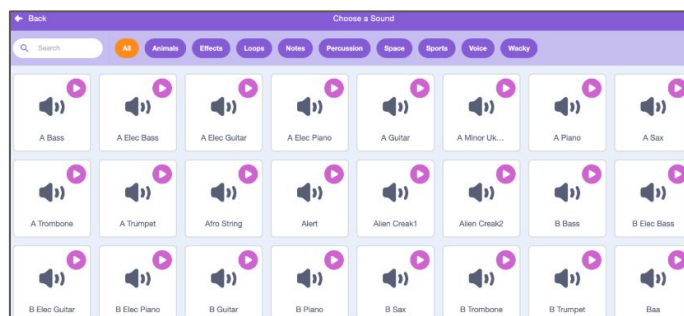
### Step 1:

Now make your drum look like it's being hit!



### Step 2:

Add more instruments to make your own band! You can create any instruments you like — look at the available instrument sprites and sounds to get some ideas.



when this sprite clicked

set instrument to (1) Piano

play note 60 for 0.25 beats

### Step 3:

Your instruments don't have to be realistic though. For example, you could make a piano made out of muffins!



### Step 4:

Can you change the sound that the drum makes when it's clicked?

when this sprite clicked

play drum (1) Snare Drum for 0.25 beats

- ✓ (1) Snare Drum
- (2) Bass Drum
- (3) Side Stick
- (4) Crash Cymbal
- (5) Open Hi-Hat
- (6) Closed Hi-Hat
- (7) Tambourine
- (8) Hand Clap
- (9) Claves

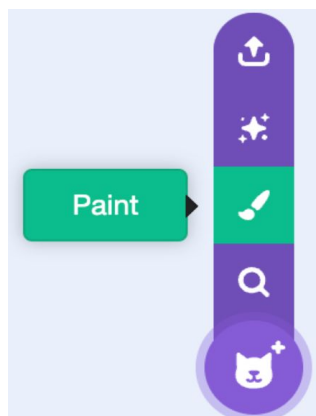
### Step 5:

Can you also get the drum to make a sound when the space bar is pressed? You'll need to use this event block:

when space key pressed

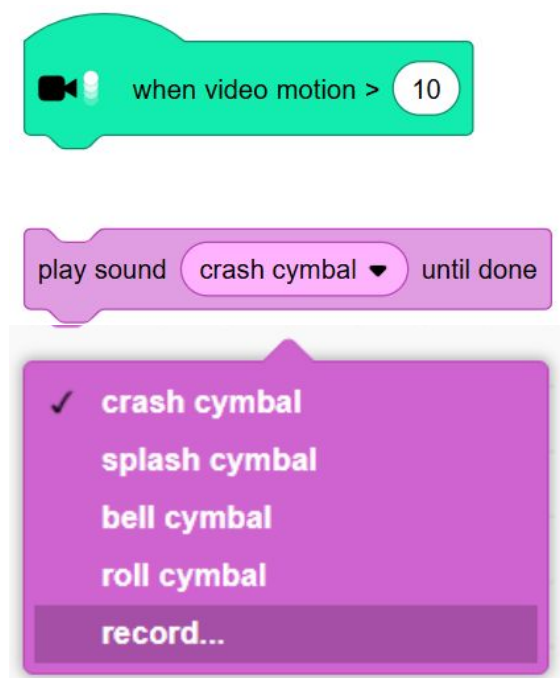
### Step 6:

Paint your own sprites!



### Step 7:

If you have a microphone, record your own sounds, and you can even use a webcam to hit your instruments!



5. Why is my sprite 'jumping' when it changes costume?

When creating your own sprite, you may find that when you click the sprite, it 'jumps' as it changes costume. This is because the two costumes aren't centered in the same place.

To fix this, make sure that the centres of your sprite's costumes are the same.