Getting Started With

SCRATCH
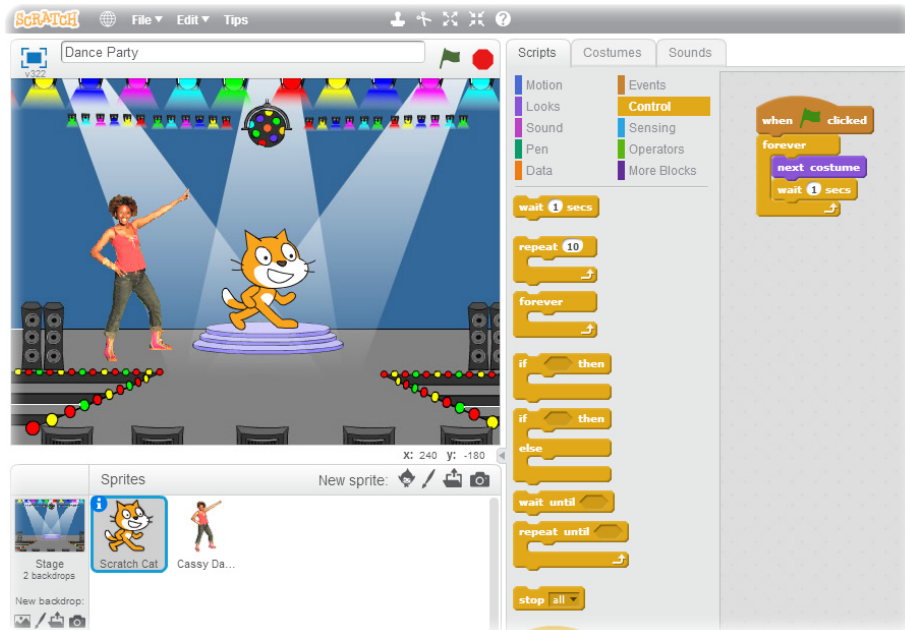
version 2.0

http://scratch.mit.edu

Getting Started

SCRATCH is a programming language that lets you create your own interactive stories, animations, games, music, and art.

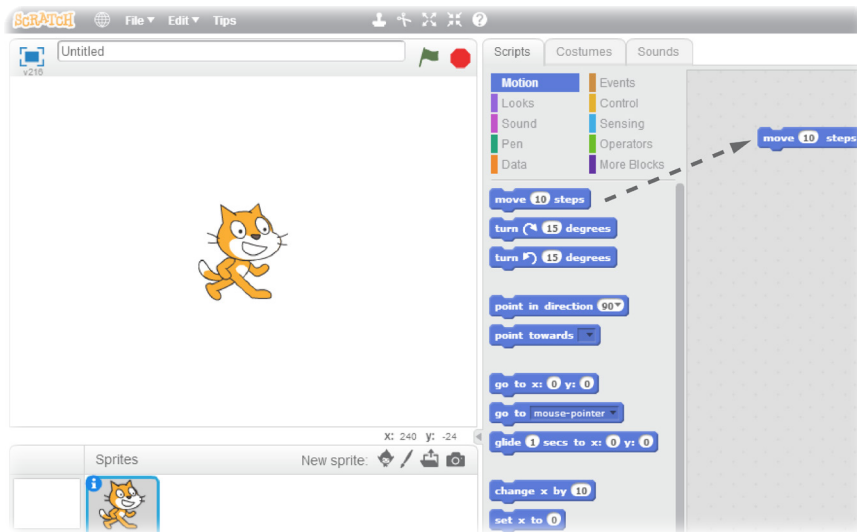
This guide shows you how to make a project in SCRATCH.

To start a new project, go to SCRATCH and click **Create**.

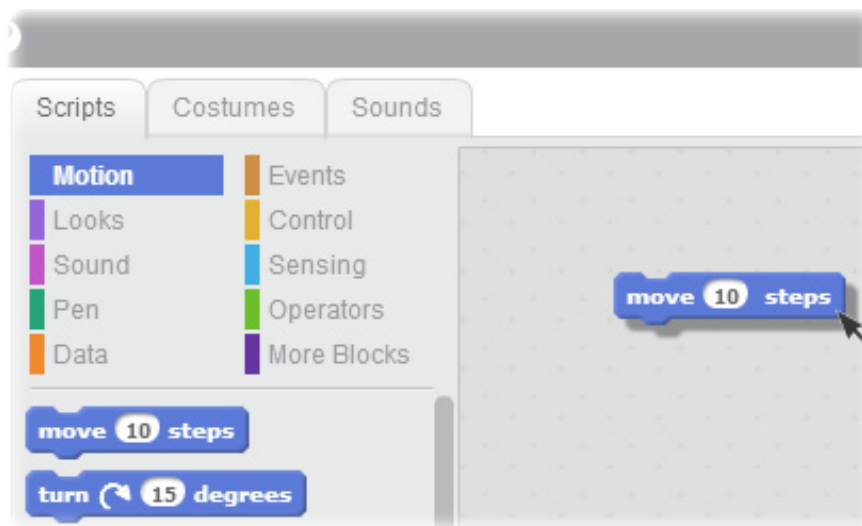

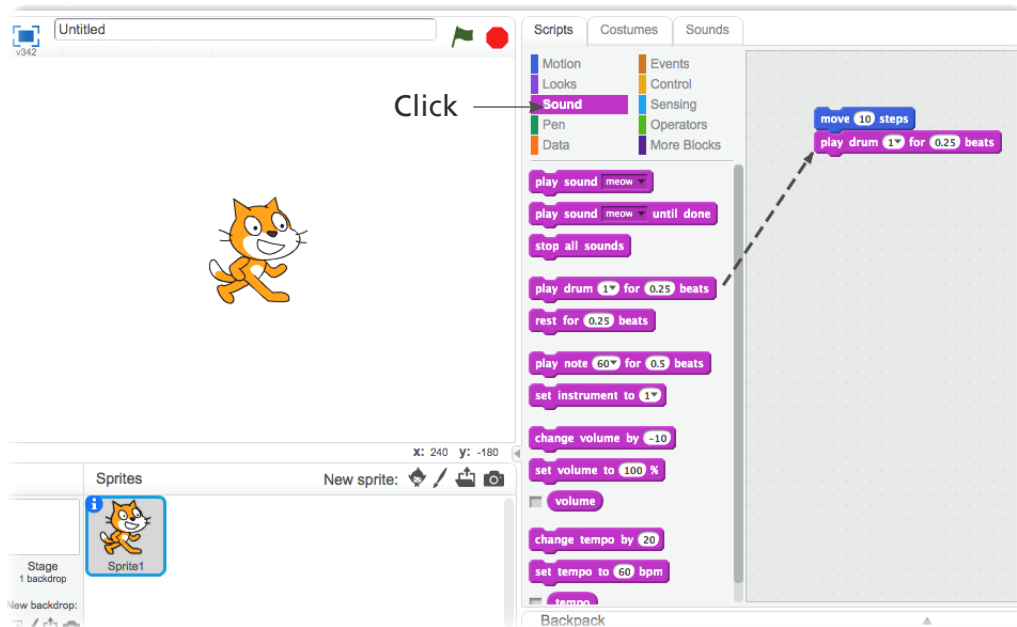If you have a SCRATCH account, sign in so your project saves.

1 Start Moving

Drag a **MOVE** block into the Scripts area.

Click on the block to make the cat move.

SCRATCH

Click

Drag out a **PLAY DRUM** and snap it onto the **MOVE** block.

Click and listen.

If you can't hear it, check that the sound on your computer is on.

(1) Snare Drum
(2) Bass Drum
(3) Side Stick
(4) Crash Cymbal
(5) Open Hi-Hat

You can choose different drums from the pull-down menu.

```
move 10 steps
play drum 1▾ for 0.25 beats
move (-10) steps
```

Add another **MOVE** block. Click inside the block and type in a minus sign.

```
move 10 steps
play drum 1▾ for 0.25 beats
move -10 steps
```
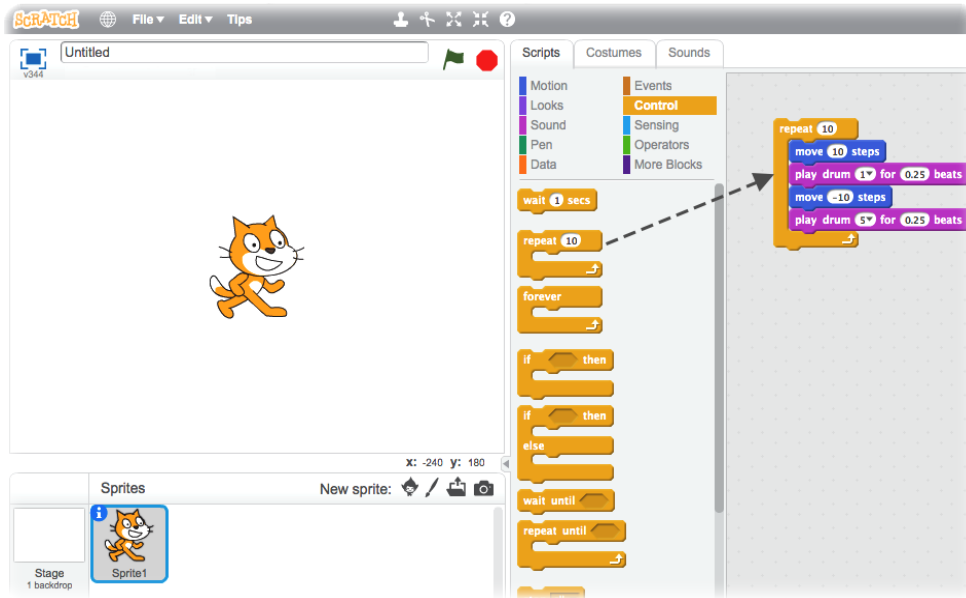
Click on any of the blocks to run the stack.

```
move 10 steps
play drum 1▾ for 0.25 beats
move -10 steps
play drum 5▾ for 0.25 beats
```

Add another **PLAY DRUM** block, then choose a drum from the menu. Click to run.

SCRATCH

Drag out a **REPEAT** block and drop it on top of the stack.
You want the mouth of the **REPEAT** to wrap around the other blocks.

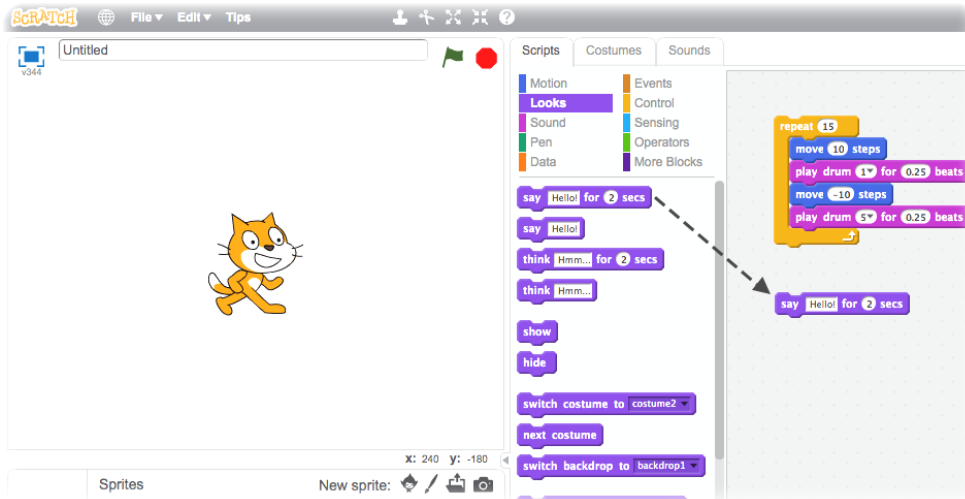*To drag a stack, pick it up from the top block.*

You can change how many times it repeats.

Click to run.

   You can click on any block to run a stack.

5   Say Something

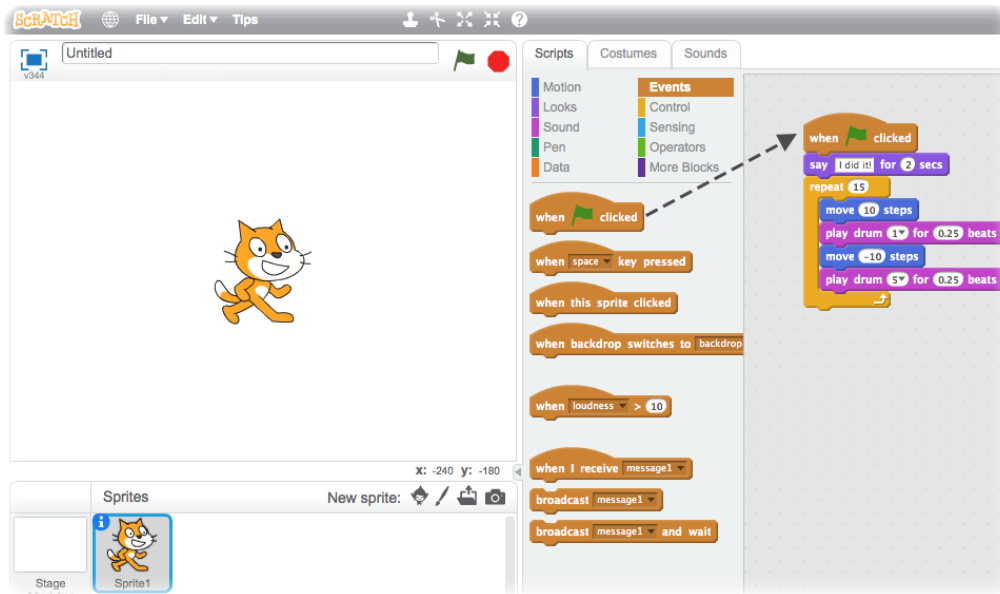Click the **LOOKS** category and drag out a **SAY** block.

Click inside the **SAY** block and type to change the words. Click to try it.
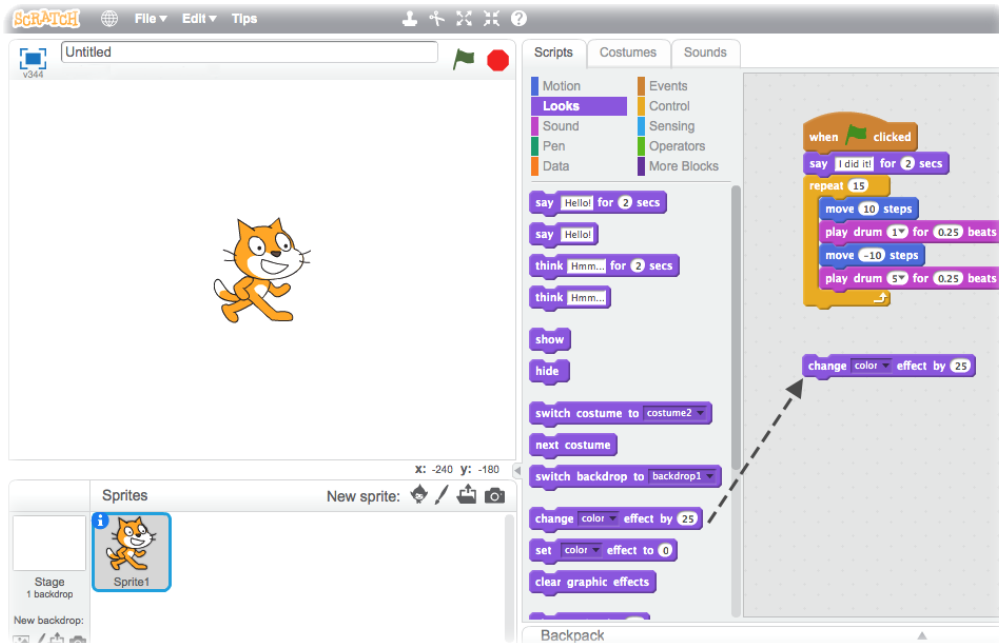

Then snap the **SAY** block on the top.

SCRATCH

Drag out a `when 🏳 clicked` block and snap it on top.

Whenever you click the green flag, your script will start.
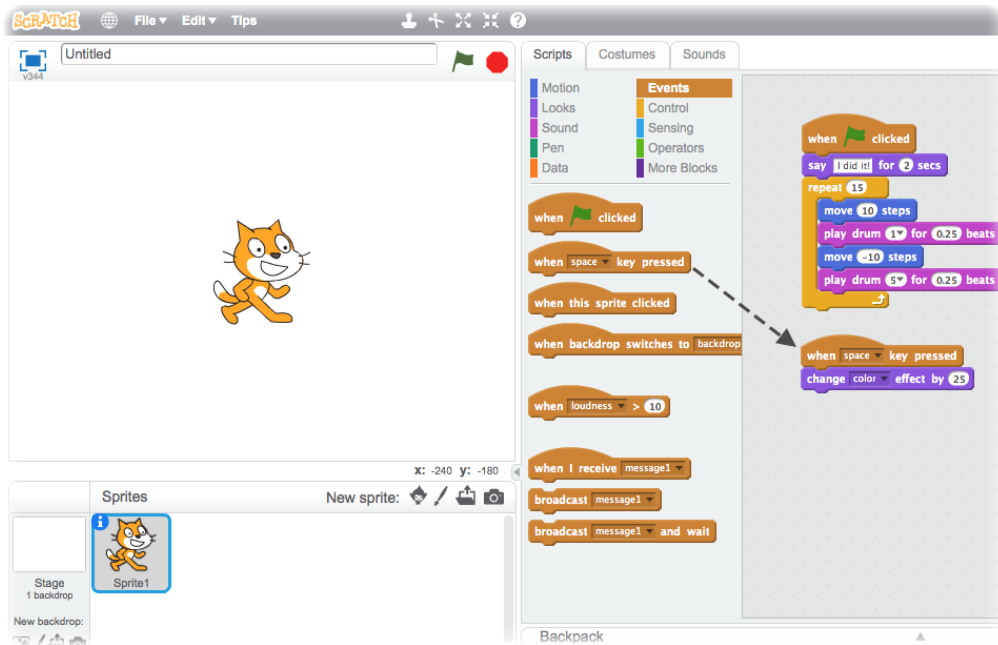
To stop, click the stop button.

Now try something different...

Drag out a **CHANGE EFFECT** block.

Click to see what it does.

Snap on a `when space key pressed`

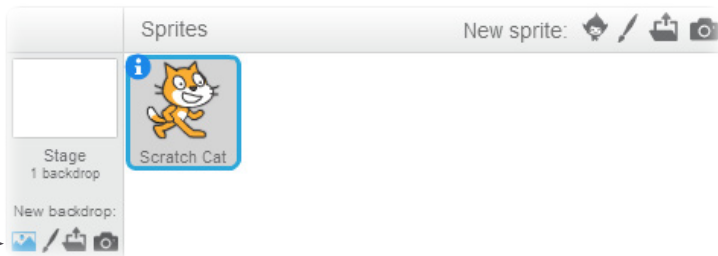Now press the space bar on your keyboard.

You can choose a different key from the pull-down menu.

when space key pressed
- up arrow
- down arrow
- right arrow
- left arrow
- space
- a
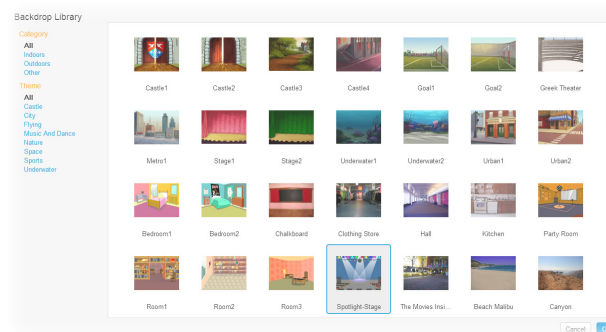- b
- c

9 Add a Backdrop

You can add a backdrop to the Stage.
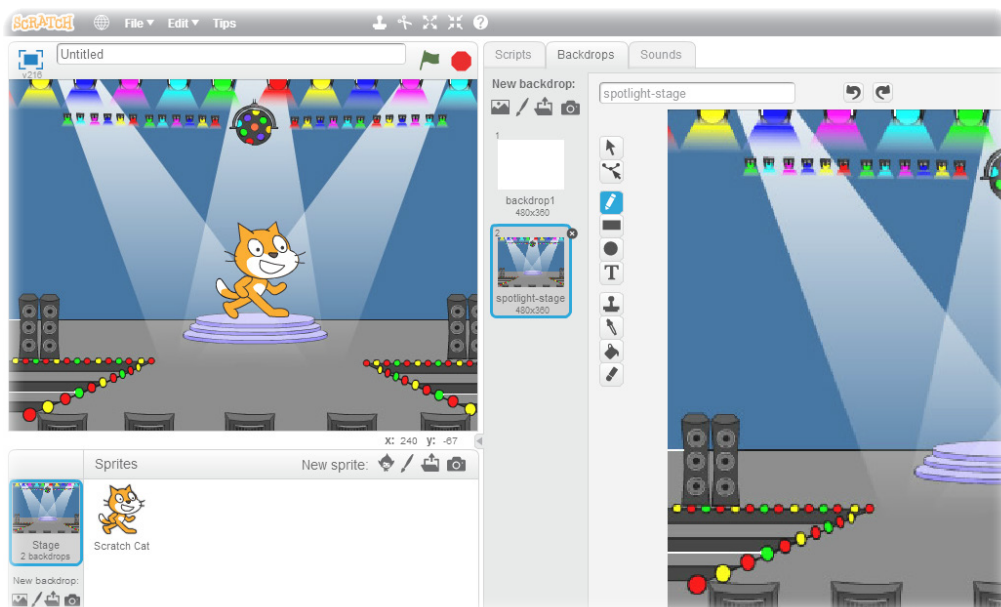
Click 🖼 to choose a new backdrop.

Choose a backdrop from the library (such as "Spotlight-Stage").

Click OK.

The new backdrop now appears on the Stage.

10 Add a Sprite

Each object in Scratch is called a sprite.

To add a new sprite, click one of these buttons.
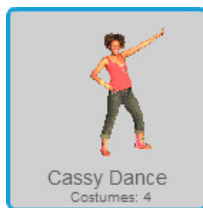
NEW SPRITE BUTTONS:

Choose from the library

Paint your own sprite

Upload your own image or sprite

Take a picture (from a webcam)
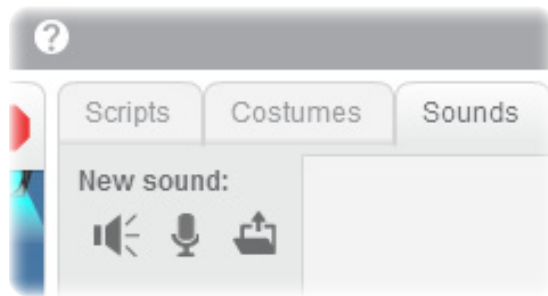
Cassy Dance
Costumes: 4

To add this sprite, click then click **People** and select "Cassy Dance."

You can drag the characters to where you want them.

11 Explore!

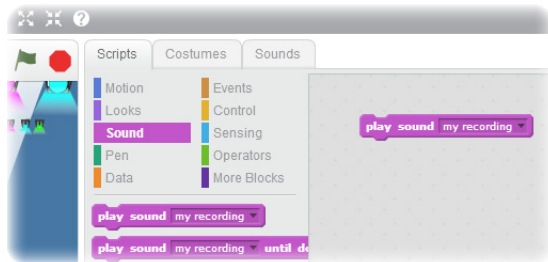Now you can tell the sprite what to do. Try the following, or explore on your own.

ADD SOUND
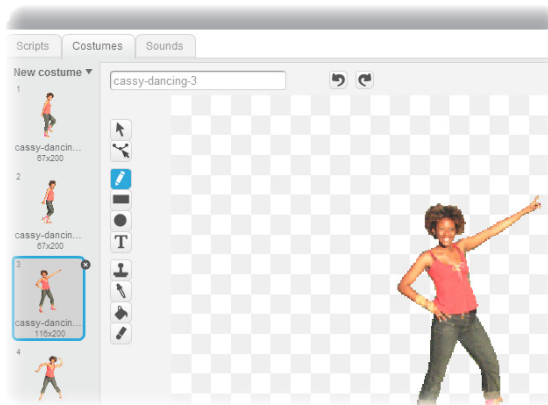
Click the **SOUNDS** tab.

You can **Choose** 🔊 a sound

Record 🎤 your own sound

Or **Import** 📤 a sound file.
(MP3, AIF, or WAV format)

Then, click the **SCRIPTS** tab, and drag in a **PLAY SOUND** block.
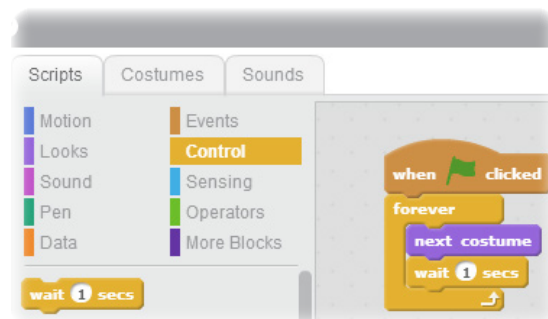
Choose your sound from the pull-down menu.

CHANGE COSTUMES

Each sprite can have more than one costume.

To change the current costume, click the **COSTUMES** tab.

Then click on a different costume for the sprite.

ANIMATE

You can animate a sprite by switching between costumes.

Click the **SCRIPTS** tab.

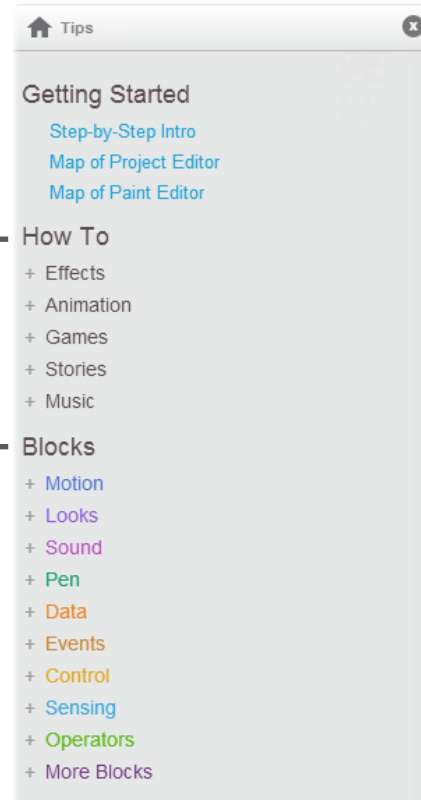Create a script that switches between costumes.

Type a title for your project.

For more ideas, click **Tips**:

Tips

Getting Started
Step-by-Step Intro
Map of Project Editor
Map of Paint Editor

The **Tips Window** shows example scripts you can use in your project.

How To
+ Effects
+ Animation
+ Games
+ Stories
+ Music

It also explains what each of the blocks in **SCRATCH** does.

Blocks
+ Motion
+ Looks
+ Sound
+ Pen
+ Data
+ Events
+ Control
+ Sensing
+ Operators
+ More Blocks

Save and Share
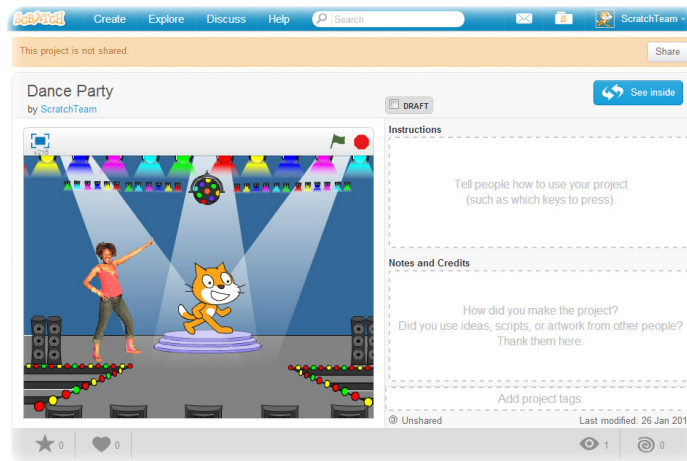
To save your project online, make sure to sign in.

`Sign in ▼`

(If you want to save the file to your computer drive, click the **File** menu and choose "Download to your computer.")

When you are ready, click `↩ See project page`

Project Page

Click `▣` for full screen viewing.

Click `Share` for others to see and play with your project.

Type in notes about your project.

When you share, others can visit and interact with your project.

Now what? You can `Create` a new project or `Explore` for ideas.

To find out more, click `Help` or go to http://scratch.mit.edu/help

SCRATCH

Scratch is a programming language that makes it easy to create your own interactive stories, games, and animations – and share your creations with others on the web.

Scratch is developed by the Lifelong Kindergarten research group at the MIT Media Lab (http://llk.media.mit.edu). Our group develops new technologies that, in the spirit of the blocks and fingerpaint of kindergarten, expand the range of what people can design, create, and learn.

The Scratch project has been supported with funding from the National Science Foundation, Intel Foundation, Microsoft, MacArthur Foundation, LEGO Foundation, Google, Dell, Inversoft, and the MIT Media Lab research consortia.