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CREATING *Digital* *Animations*

Animate
Stories
with
Scratch™!

Derek Breen
Second Degree Black Belt
in Scratch Ninjitsu



CREATING
*Digital
Animations*
by Derek Breen



WILEY



CREATING DIGITAL ANIMATIONS

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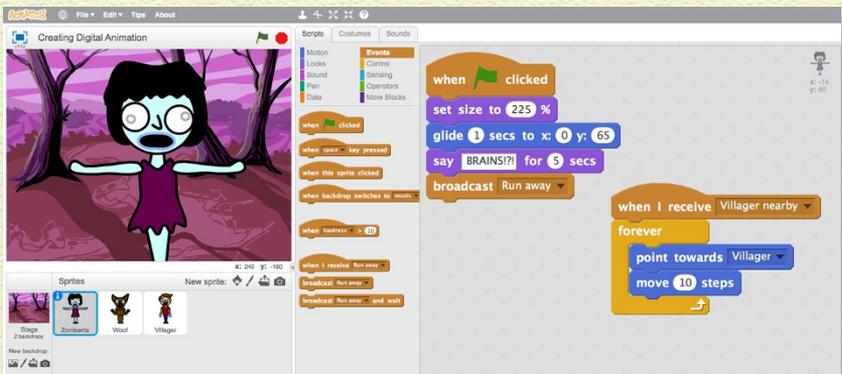
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INTRODUCTION

FOR AS LONG AS I CAN REMEMBER, I HAVE WANTED TO TELL MY OWN STORIES WITH ANIMATION. My first project was an animated birthday card for my grandfather. A boat sailed across the screen and then displayed “Happy Birthday.” He was blown away, perhaps because this happened over 30 years ago, before computer animation appeared on television or in films.

Today, digital animation is everywhere, but most people think that animating on their own is too hard. Think again! Scratch makes it easy for anybody to get started with animation.



ABOUT SCRATCH

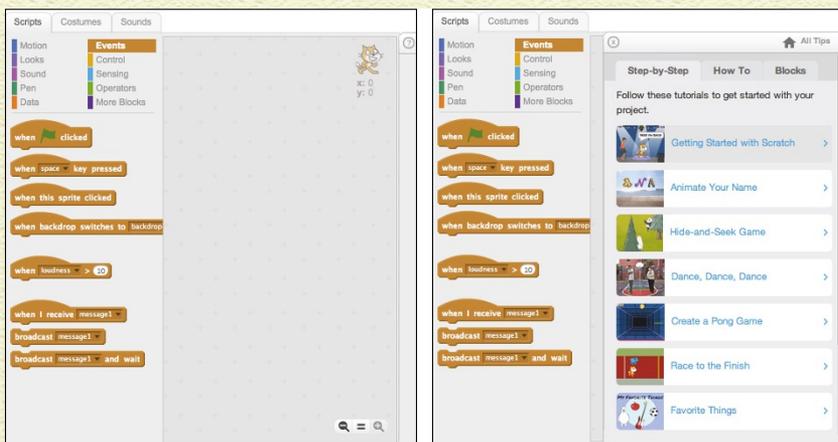
Scratch was created for you. The designers at the MIT Media Lab had several goals:

- » Give you powerful software for free
- » Make it easy for you to learn
- » Allow many different ways for you to use the software

- » Enable you to browse, play, and remix other projects
- » Enable you to share your projects
- » Create an online community where you can learn from one another

Now review that list of six goals. Where does it say, “Force parents or teachers or coaches or kids to buy a big, fat Scratch book”? Nowhere! So why are you still reading? Don’t you know you can go to scratch.mit.edu right now and start Scratching?!

If you are completely new to Scratch, it might be a good idea to start with one of the built-in tutorials. To see them, click the question mark in the top-right corner.



ABOUT THIS BOOK

In this book, you can start with any project. If you have not done much animating inside Scratch, you may find it useful to start with Project 1, which leads you through creating a basic

stick figure animation. If you want to design your own cartoon characters, check out Project 2, where I share all kinds of tricks (and you discover that you don't have to be an awesome artist to create great-looking characters).

ICONS USED IN THIS BOOK



The Tip icon marks tips and shortcuts that you can use to make coding easier.



The Warning icon tells you to watch out! It marks important information that may save you from scratching your head a ton.

ACCESS SCRATCH

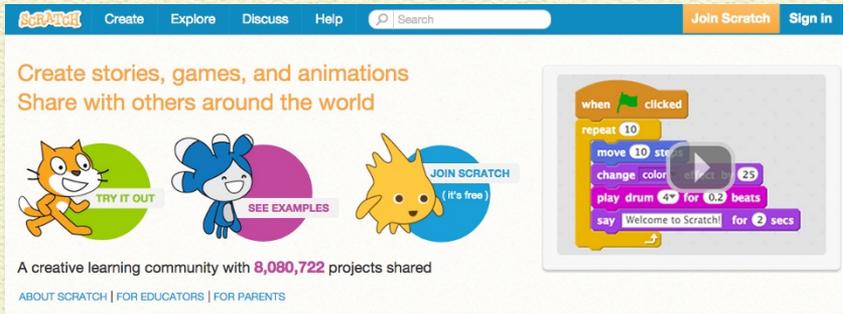
To use Scratch online visit www.scratch.mit.edu, create an online account, and start Scratching. To use Scratch without creating an account, you will have to download and install the offline version of Scratch (see the upcoming “Use Scratch offline” section).

Technically, you can use the Scratch website without an account, but you will have to save projects to your computer and then upload them each time you visit the Scratch website to continue working on them. With an account, you can save files online and share projects with other Scratch users.

CREATE ONLINE ACCOUNT

Go ahead and start Scratch! Turn on your computer, open a web browser, and visit scratch.mit.edu. If you already have a Scratch account, click the Sign In button in the top-right corner of the

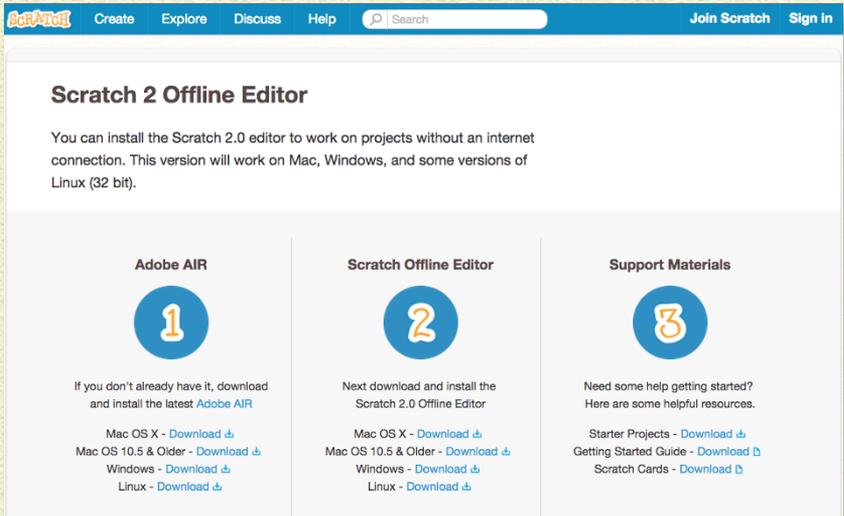
page. If you do not have an account, click the Join Scratch button and fill in the brief online form. If you are under 13 or do not have an email account, please ask an adult to help you create an account (or skip ahead to the upcoming “Use Scratch offline” section).



To run Scratch online, you need a relatively recent web browser (Chrome 35 or later, Firefox 31 or later, or Internet Explorer 8 or later) with Adobe Flash Player version 10.2 or later installed. Scratch 2 is designed to support screen sizes 1024 x 768 or larger.

USE SCRATCH OFFLINE

You can install the Scratch 2 Offline Editor to work on projects without a Scratch user account. After Scratch 2 is installed, you will not need an Internet connection to work on projects. This version will work on Mac, Windows, and some versions of Linux (32 bit). Visit www.scratch.mit.edu/scratch2download to download and install Adobe Air (required to run Scratch offline) and the Scratch 2 Offline Editor.



Scratch 2 Offline Editor

You can install the Scratch 2.0 editor to work on projects without an internet connection. This version will work on Mac, Windows, and some versions of Linux (32 bit).

- Adobe AIR**

If you don't already have it, download and install the latest [Adobe AIR](#)

 - Mac OS X - [Download](#)
 - Mac OS 10.5 & Older - [Download](#)
 - Windows - [Download](#)
 - Linux - [Download](#)
- Scratch Offline Editor**

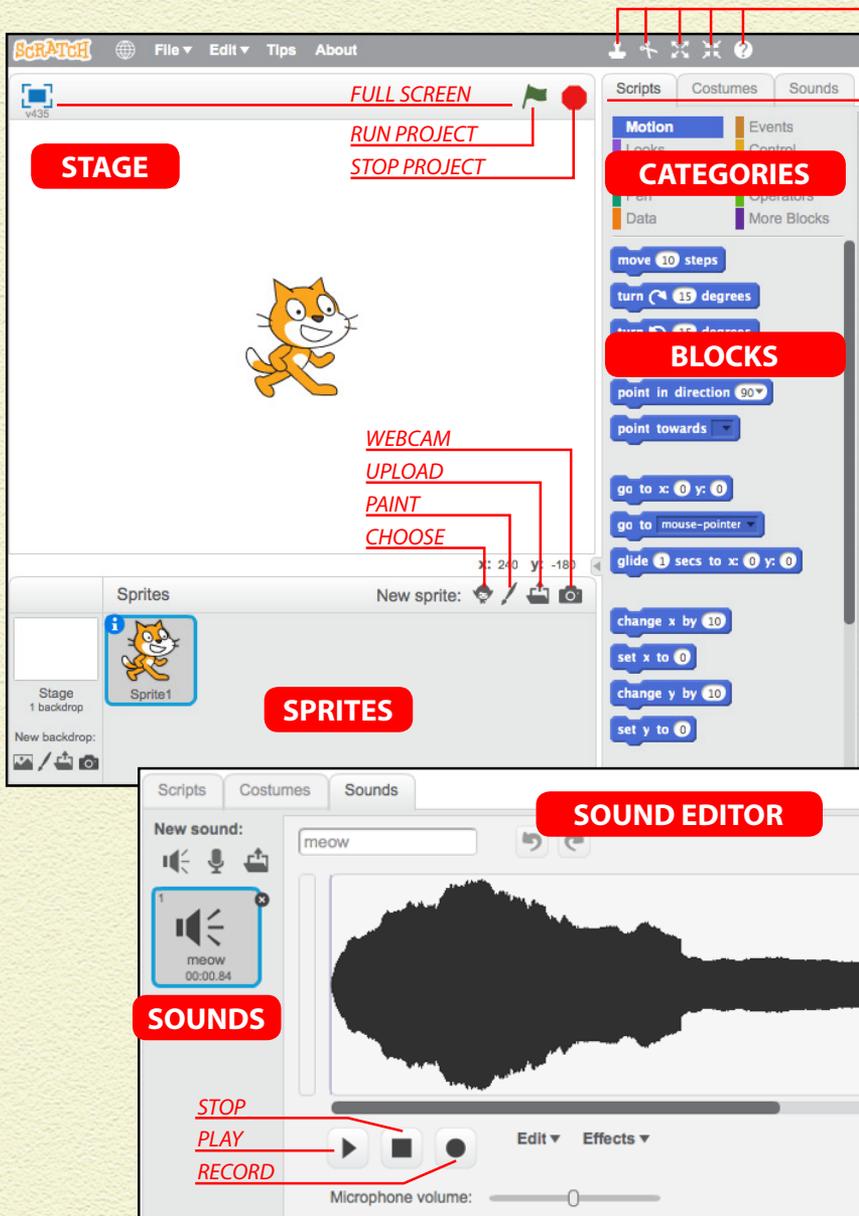
Next download and install the Scratch 2.0 Offline Editor

 - Mac OS X - [Download](#)
 - Mac OS 10.5 & Older - [Download](#)
 - Windows - [Download](#)
 - Linux - [Download](#)
- Support Materials**

Need some help getting started? Here are some helpful resources.

 - Starter Projects - [Download](#)
 - Getting Started Guide - [Download](#)
 - Scratch Cards - [Download](#)

Okay ladies and gentlemen, let's get Scratching!



THE SCRATCH INTERFACE CAN BE A BIT INTIMIDATING AT FIRST. BUT IT SHOULD BE PRETTY FAMILIAR BY THE TIME YOU FINISH YOUR FIRST PROJECT.