




Individual Task 0: Scratch



 This task is a remix of one written by David J. Malan of Harvard University (<http://cdn.cs50.net/2011/fall/psets/0/pset0.pdf>)

Objectives:

- introduce some fundamental programming constructs
- empower you to design your own animation, game, or interactive art
- impress your friends

Academic Honesty:

You are to do this task entirely on your own. Please read the section on academic integrity in the course syllabus.

Prerequisite:

You need to get an account on the MIT Scratch website. Go to <http://scratch.mit.edu/> and click *signup* atop the page.

If you have not done so already, you need to install Scratch on your computer.

Your mission

Now it's time to choose your own adventure! Your mission is, quite simply, to have fun with Scratch and implement a project of your choice (be it an animation, a game, interactive art, or anything else), subject only to the following requirements.

- I. Your project's filename must be `firstnameLastname.sb`, for example, mine would be `ronZacharski.sb`.
- II. Your project must have at least two sprites, at least one of which must resemble something other than a cat.
- III. Your project must have at least three scripts total (i.e., not necessarily three per sprite).
- IV. Your project must use at least one condition, one loop, and one variable.
- V. Your project must use at least one sound.
- VI. Your project should be more complex than most of those demonstrated in lecture (many of

VII. which, though instructive, were quite short) but it can be less complex than, say, Scratch Scratch Revolution. As such, your project should probably use a few dozen puzzle pieces overall.

Feel free to peruse additional projects online or those that come with Scratch for inspiration, but your own project should not be terribly similar to any of them. Try to think of an idea on your own, and then set out to implement it. But don't try to implement the entirety of your project all at once: pluck off one piece at a time. Ann, for instance, who wrote Scratch, Scratch, Revolution, probably implemented just one arrow first, before she moved on to her game's other three. If, along the way, you find it too difficult to implement some feature, try not to fret; alter your design or work around the problem. If you set out to implement an idea that you find fun, you should not find it hard to satisfy this problem set's requirements. If you suspect your program might fall short of my expectations, feel free to ask me for an opinion prior to submitting.

Alright, off you go. Make me proud! If you have questions or want a hand making your project even better, do take advantage of office hours.

Finishing up

Once finished with your project, upload it to your account on MIT's server by clicking **Share** → **Share This Project Online...** toward the top of Scratch's window. Provide "Your Scratch website login name" (i.e., username) and password that you chose earlier, some project notes (e.g., some instructions or a description), and zero or more tags; ensure that your "Project name" is your firstnameLastname. Best to leave Compress sounds and images checked. Then click the OK button. Assuming you're informed that "Your project is now online at scratch.mit.edu," head on over to the URL below.

<http://scratch.mit.edu/login>

If informed that your project is too large to be uploaded, try to decrease its size by clicking Edit → Compress Sounds... and/or Edit → !Compress Images... atop Scratch's window. You may need to experiment with different levels of compression. Also take care to remove from each of your sprites any sounds that you imported but ended up not using. If, despite many attempts, you are still unable to upload your project to MIT's website because of its size, best to ask me for advice.

Log in (if you aren't already logged in) with your username and password. Once logged in, click **my stuff** toward the page's top right corner. You should see the project you just uploaded among **My Projects**. Go ahead and click its name or icon. Your project should be embedded (and may start running) in the window that appears. Take note of the URL in your browser's address bar. That's your project's URL on MIT's website, and you'll need to know it later. Note! that some projects,! particularly those with

sound, do not function properly when embedded in MIT's website. Not to worry! I'll be sure to download your .sb file and open it in the non-browser version of Scratch.

When done admiring your work, head on over to

<http://rosemary.umw.edu/~raz/cs110-wiki>

click on the Scratch project link. Next, click on the login button on the lower right. The username is cs110, the password is the lowercase 3 letter acronym of our university. Once you log in, click on the "edit this page" button. You are going to add an entry to the list of projects. Just mirror the example given on that page. When done click the save button.

That's it!