

CS39N Final BYOB Project Spec

Important Dates

- Project Released: Wednesday 11/04/2009
- Project Design: Wednesday 11/04/2009
- Project Spec Due: Friday 11/13/2009
- Project Check Point: Wednesday 11/18/2009
- Project Due: Wednesday 12/02/2009
- Individual Write-up Due: Wednesday 12/02/2009

About This Project

We want you to show off everything you've learned this semester in a final project of your choice and design. We hope that you will not only really enjoy this project, but learn a lot too! Like the last one, you can design and code whatever you want, regardless of whether it's a movie, game, or something else entirely.

We recommend that you find different groups to work with, despite how well your group may have worked together. As a freshmen/sophomore seminar, we want you to be getting to know as many people as possible. Secondly, we want you to have the opportunity to learn to work with different people with a myriad of unique work styles. Last and more importantly, we want to challenge you to develop new interesting projects! While this is not a requirement and you are welcome to continue work on a current project, but you must add a substantial amount of code. We don't want you to just add levels or enemies. We want you to be ultimately spending time writing code as opposed to developing sprite graphics.

We encourage you to not only push your own skills further, part of the assignment involves every individual turning in a write-up regarding what they learned in the course of the project. It is an expectation that this project involves learning things that you didn't know how to do on the first project!

There are many features and capabilities of Scratch that we have not talked about in class. We encourage you to explore these on your own, although we are certainly available to give you guidance. See the section Extra Features for a list of ideas.

The most important question isn't what we're asking you to do, but what you want to do yourself. What do you want to get out of this class? What kind of project that is both challenging and fun would you like to be doing?

Project Design Session

Wednesday 11/04/2009

During the project design session during class you should discuss a rough sketch of your project with a member of course staff. From the survey, it appears that many groups struggled with sprite interactions. Hopefully, you have gained sufficient experience that many of these bugs can be anticipated and ironed out, but we also want to help you as much as possible. It is important to be as specific as possible regarding your project and design to be able to anticipate these bugs.

Project Spec

Due: Friday 11/13/2009

We encourage you to turn in the spec early so that you can maximize the amount of feedback you get.

The Project Spec should include:

- The names of the project team members
- A paragraph overview of the planned project
- A description of what you have already completed
- A list of tasks with time estimates for each (Approximately 10-15 tasks)
 - Each task should have a brief description
- A paragraph about how you plan to design the project. What sprites? What new blocks?
- A description of which tasks will be accomplished by the checkpoint
 - Your checkpoint should be as concrete as possible
 - Keep in mind you will have only a little over a week to finish the project afterward, so you should be ~75% done.

Check Point

Due: Wednesday 11/18/2009

The requirements for your team's checkpoint are based upon your Project Spec document. Basically, you create your own points that you are going to be graded on for the checkpoint, and include it in your Project Spec. Keep in mind that 75% of your project should be completed by the checkpoint, so make this checkpoint as reasonable as possible.

Individual Write-up

Due: Wednesday 11/30/2009

As part of the project every individual (not teams) must submit a document on BSpace answering the following questions.

- What part of the project did you take the most responsibility for?
- What did you learn to do by working on this project?
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Project Requirements

The big idea for the project is to practice some of the techniques you learned in lab. To that end we have made general guidelines about the content and complexity of your project.

Technical Requirements:

Your project must include :

- A clear way to start the action/game/project
- At least 4 Broadcast/Receive pair
- At least 1 way to start the action
- At least 1 variable
- At least 1 if or if/else statement
- At least 1 sound
- At least one of the green operator pieces
- At least 1 sensing piece
- A block of your own creation

Your project must include at least one of the following (pick at least one):

- The ask block
- A list

There are many other features of Scratch that we have not explored, that you are welcome to explore yourself.

Grading

60 Points Total

20 points - for completing a reasonable scope of the project

10 points - for meeting the Technical Requirements

10 points - Project Spec

10 points - Project Check Point

5 points - Individual writeup

5 points - for the style used in your project

Links to Sample Projects from the MIT Scratch website

Simple:

<http://scratch.mit.edu/projects/hippiegirl/497628> (but probably good to look at for basic ideas on making a game)

<http://scratch.mit.edu/projects/taco/329214>

<http://scratch.mit.edu/projects/herey/594058>

<http://scratch.mit.edu/projects/filo5/561786>

<http://scratch.mit.edu/projects/Comcastc99/88431>

<http://scratch.mit.edu/projects/kgordon/544638>

Ambitious:

<http://scratch.mit.edu/projects/Comcastc99/366076>

<http://scratch.mit.edu/projects/DrSuper/599528>

<http://scratch.mit.edu/projects/wwjd3/411036>

Extra Features

The following are just a few things that you can do. Please talk to us if you are interested in exploring some of these things.

This pdf has some ideas on BYOB: <http://chirp.scratchr.org/dl/BYOB%202.0.pdf>

Mesh Networking

- Allows broadcast to different computers on a mesh network.
- Allows sharing of sprites across different computers

Nested Sprites

- When one sprite moves or turns, its nested sprites move with it
- Kind of like the robots from power rangers

Hardware

- We have picoboards, which are ways for your computer to interface with the real world!
- http://www.picocricket.com/pdfs/Getting_Started_With_PicoBoards.pdf has some good ideas

FAQ

Q: Can we use code found on the Scratch website?

A: We want all of the code used in your project to be code that you have written. Please do not use any code downloaded from the Scratch website. However, if you wrote code during your lab or homework that you would like to use (even if you wrote it with a different partner) you are welcome to use it.