

CIS 54.1: Project 1

Recreate a classic arcade (or Atari 2600) Game (20 points)

Proposal Document Due: September 13th, 2010.

Program Due: October 6th, 2010.

Description: You will recreate a version (a port) of a classic 2D arcade (or Atari 2600) game in Scratch. You have three weeks to create a **working** game, so design and engineer carefully to make sure you are done on time. Your game should be relatively complex (NO PONG!).

Submission: (Your grade on Project 1 will be based several parts):

1. Your proposal document (5 points).

This is described in a separate handout.

2. Is the game (relatively) historically accurate? (3 points)

It should be clear, to a casual viewer that the core dynamics of the game are the same, even if the aesthetics and mechanics are different.

3. Is the game nontrivial? (3 points)

You are allowed to ADD to the game, and if the game you have chosen is very simple, you will need to make it more complex! How many objects are in the game? How do they interact? How good/realistic are any physics and/or collision detection? Sound? Artwork? Add terrain, a playing area that scrolls, some objects that behave independent of the player (AI!), etc...

4. Is the game well designed and fun to play? This is the most important factor! (5 points)

Regardless of the limitations of the original game, YOUR GAME should not be too easy or too hard, and must have different levels of difficulty, either through starting menu selection, multiple levels with increasing difficulty, or dynamic adjustment of difficulty during game play. When developing your game, remember that the final product must be enjoyable with good game play! The longer the game is fun to play, the better. Have your friends play test your game.

5. Is the game fully functional? (4 points)

You need to turn in a working game. It should include scoring (almost always appropriate), multiple lives for the player, and the ability to play multiple games. If the game is almost but not quite finished or still contains bugs, your grade will suffer much more than if it is a working game with fewer features. Do incremental development – get something running and then add more features. Thus part of your grade is how much work you put into it (that we can see when we play it). You should be proud of the game you turn in.

NOTE: In order to make it easier to grade, it would be helpful if it is possible to play through the game (and see all the great stuff you did) without becoming an expert at the game.

Tools:

This assignment will require you to use of the [SCRATCH](#) programming environment. It might also be helpful for you to use a paint program that you are already comfortable with.

Submit: *A single zip file would be best. Please name the .zip file with your last name.*

1. Your game.
2. A manual for your game if the instructions for running the game are not embedded in the game.

We will then begin the grueling task of playing all your games, in class.