

Scratch Primary Lesson 8

Good Guy / Bad Guy Game Version 2

Good Guy / Bad Guy Version 2

- We're going to add new features to our game.
- Start up the project for the Good Guy / Bad Guy game you were making last time (in lesson 7). If you don't have yours, use this one:
<http://scratch.mit.edu/projects/13024872/>
- We will continue to develop this game.
- Think about how you would like to improve the game.

Feature Suggestions For Version 2

- End the game when “Lives” becomes equal to 0.
- Create a game over screen.
 - Create a “You Lose 😞” screen.
 - Create a “You Win 😊” Screen.
- Create a way to win the game:
 - Create a “health” sprite that adds one life when the good guy touches it.

Ending The Game

- We want to end the game when the good guy runs out of lives.
 - This happens when $Lives = 0$.
- We need to add a script that checks Lives and ends the game when $Lives = 0$.
- When $Lives = 0$, we need to add a script that displays a “Game Over, You Lose” screen.



Script to End the Game

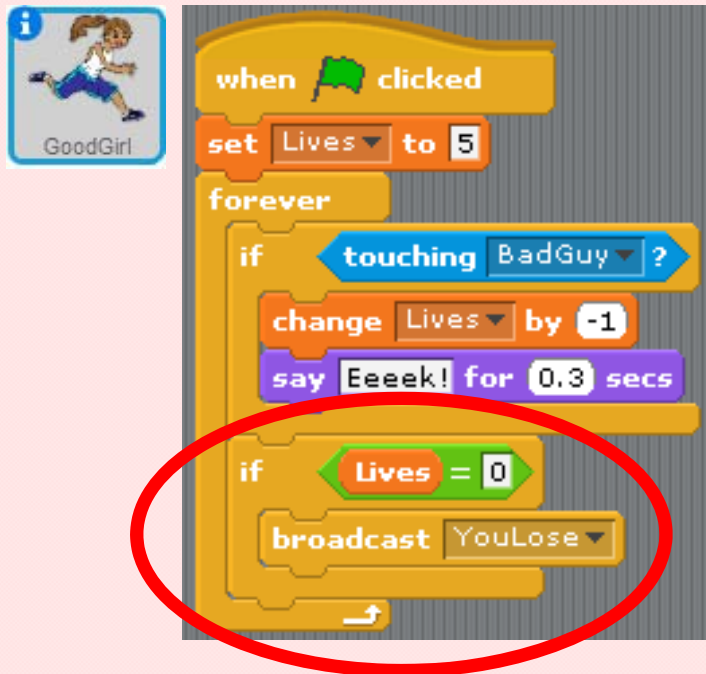
- This script compares the value of “Lives” to 0 and determines whether it is true or false.



- If ‘Lives = 0’ is true, then the “YouLose” message is broadcast.
- If ‘Lives = 0’ is false, then the broadcast block is skipped (not run).

Add the 'End the Game Script' to the Project Scripts

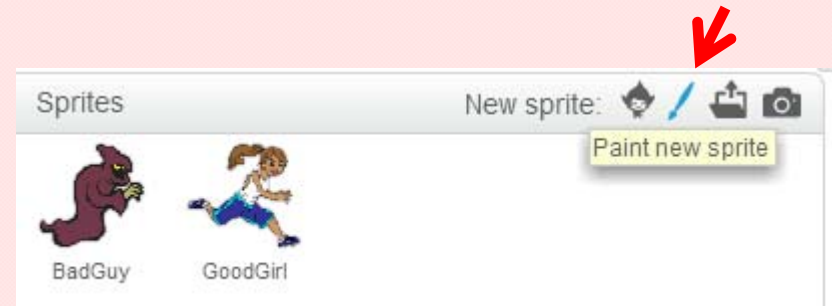
- We need to find the place where the script will work correctly to end the game:



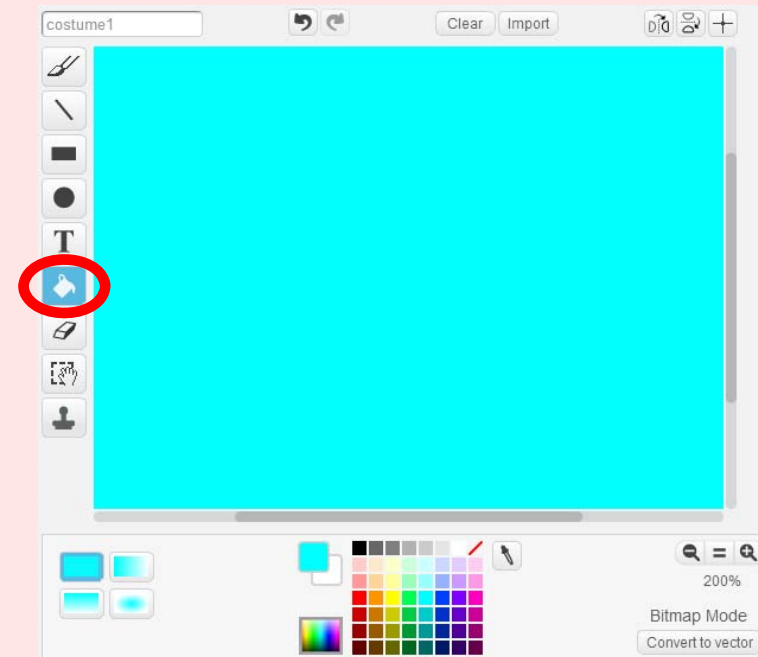
- We'll put the script in the same loop where the "Lives" variable is being changed. This is a good place to check the value.
- Are there other ways to check the value of "Lives"?

Create a Game Over Screen

- Paint a new sprite:



- Choose a color and paint the whole background by using the bucket tool:



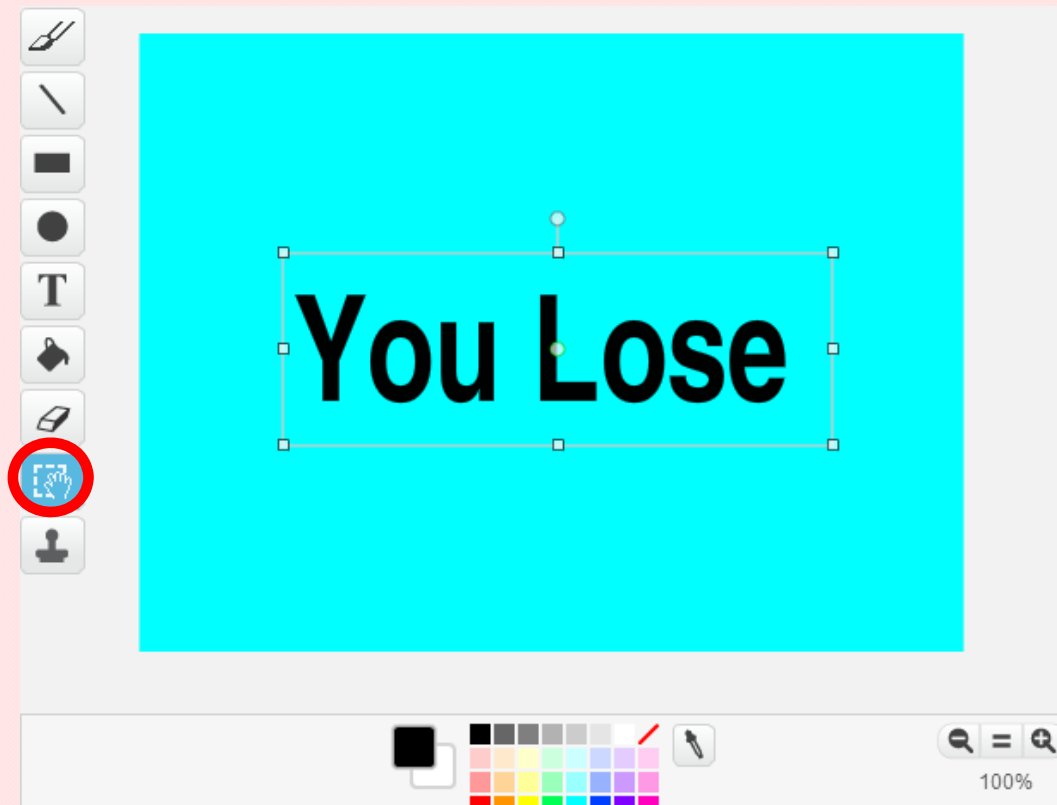
Create a Game Over Screen

- Zoom out to 100% to see the whole sprite.
- Select the “T” text tool and write your text:



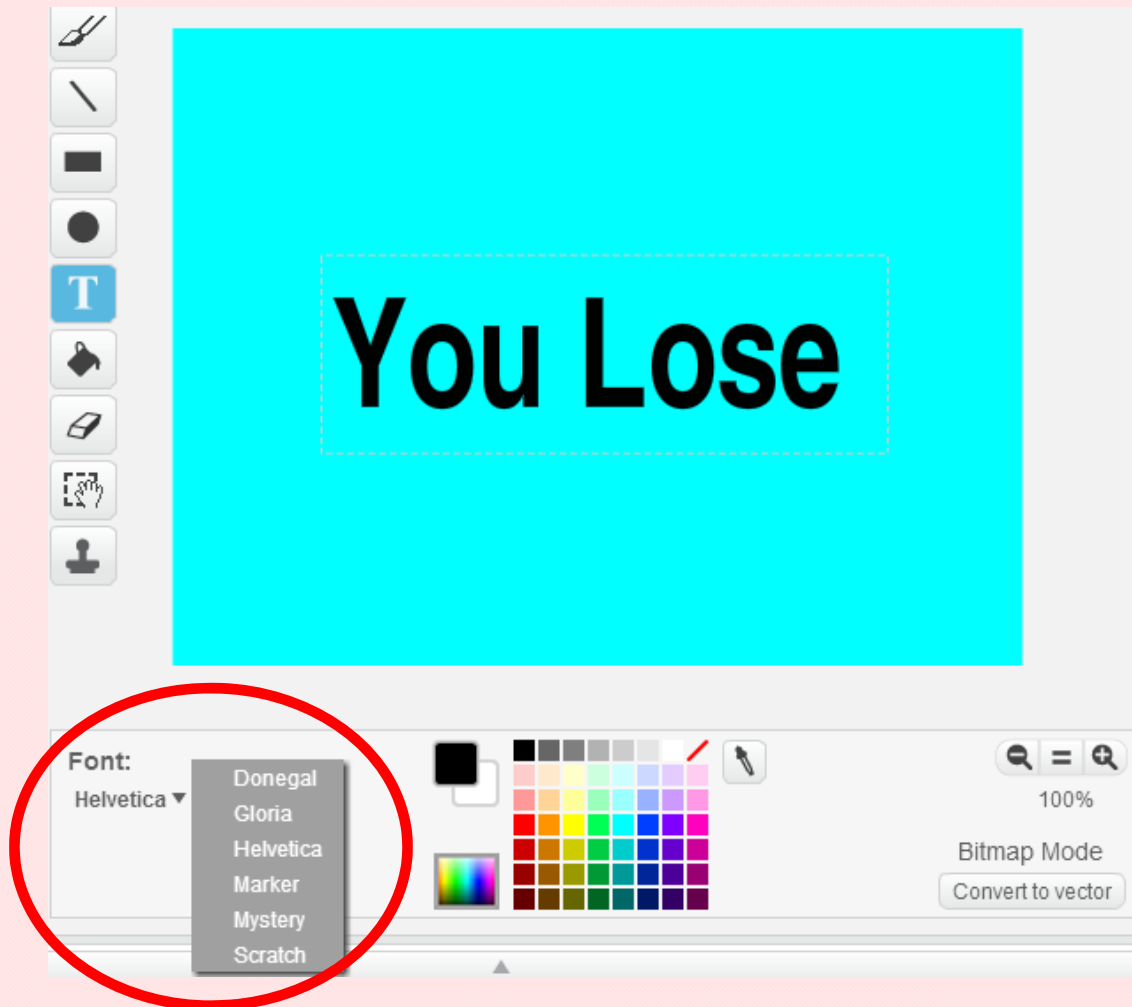
Create a Game Over Screen

- Use the selection tool to stretch the text to make it the size you want. Also, you can drag and place the text anywhere on the sprite:



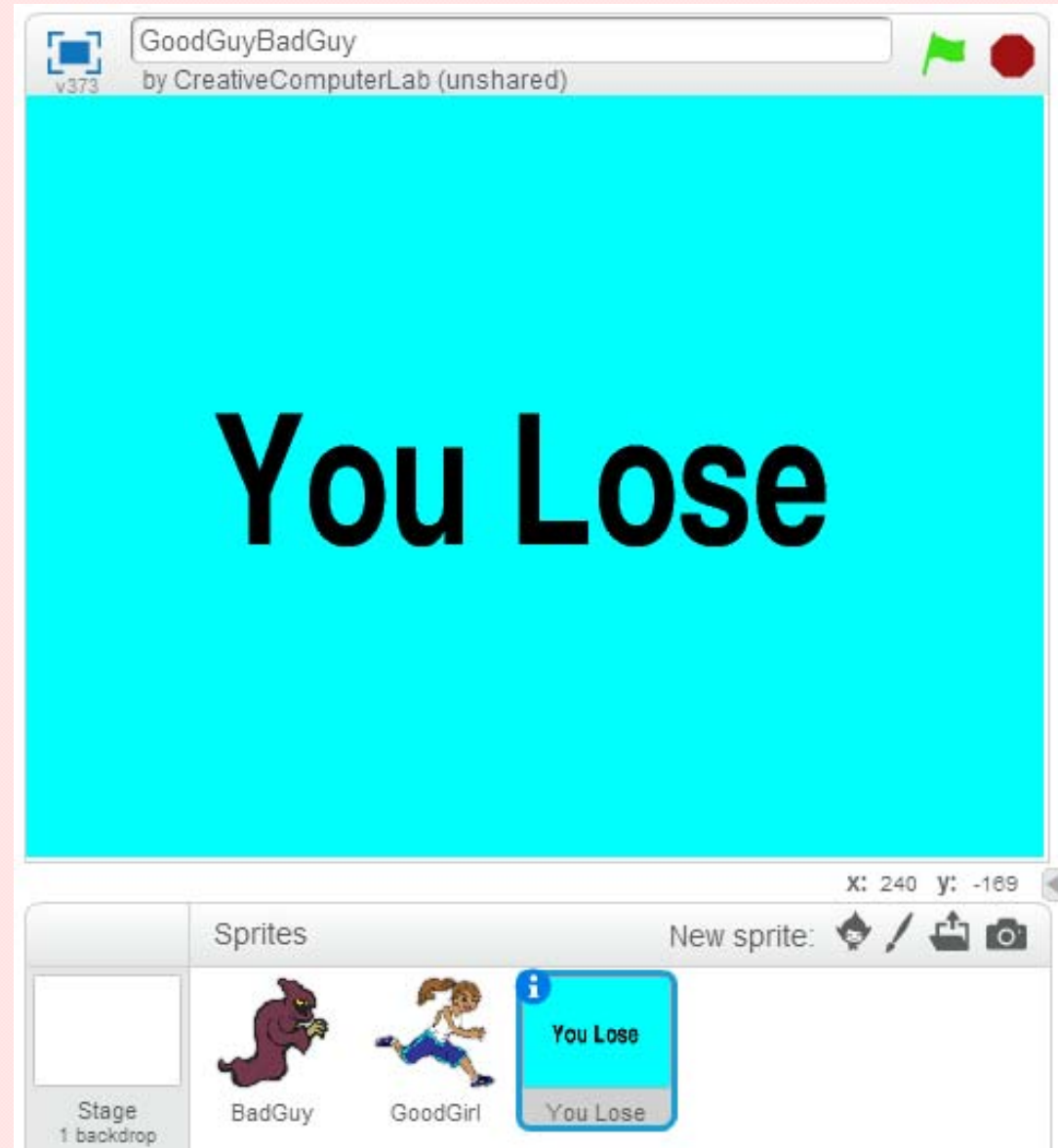
Create a Game Over Screen

- Also, you can set the font to what you like:



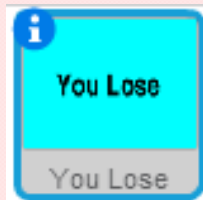
Create a Game Over Screen

- The sprite is exactly the same size as the stage.
- We need to write scripts that hide this sprite during the game and show it when the game is over.



Program the “Game Over” Screen

- Here are the scripts for the “game over” screen.
- Notice that the “game over ” screen doesn’t need to know the value of “Lives”, it just responds to the broadcast.

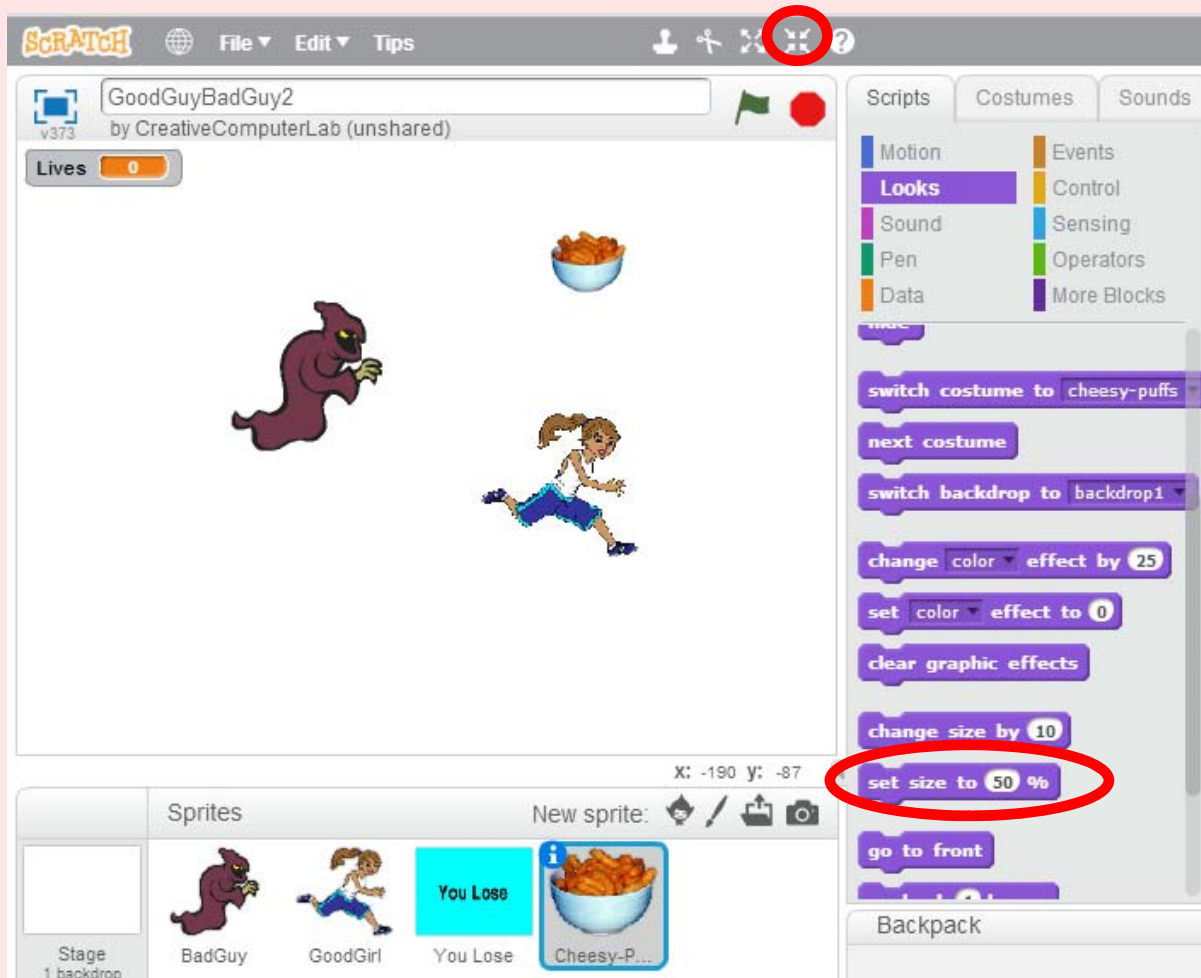


How Do I Win the Game?

- Right now, you can only lose the game. It is a test of survival to see how long you can last.
- We want to make it possible to win:
 - We will create a “health” or “food” sprite.
 - If you touch the “health” sprite, you gain 1 life.
 - You win the game if you gain a score of 10 lives.

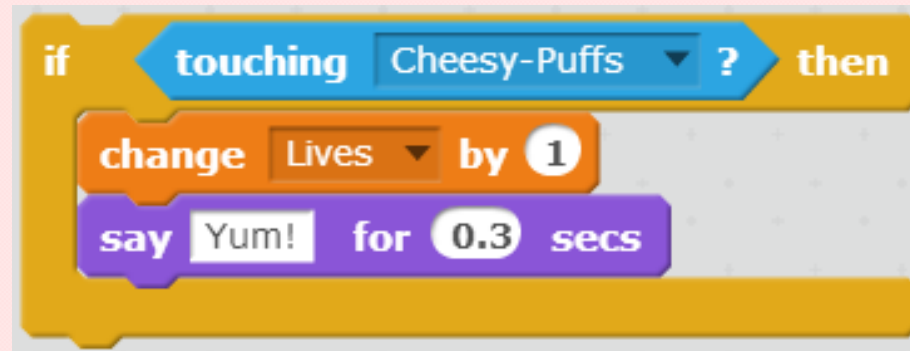
Create the Health Sprite

- Create a health or food sprite.
- Shrink it using the shrink tool or “set size to” block



Sense The Food Sprite

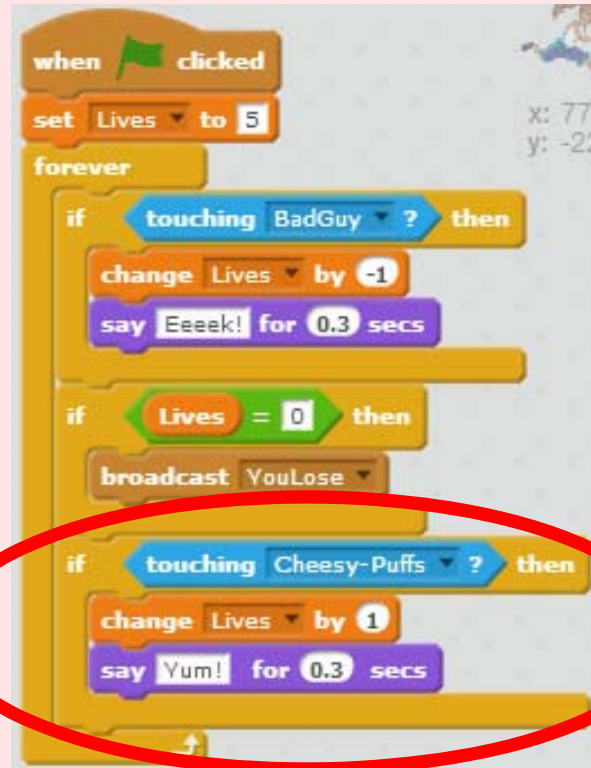
- The good guy needs to know when he's touching the food sprite. We need to write a script similar to the script that knows when he's been touched by the bad guy:



- What is happening to the variable “Lives” when touching the bowl of chips?

Add Health To Project

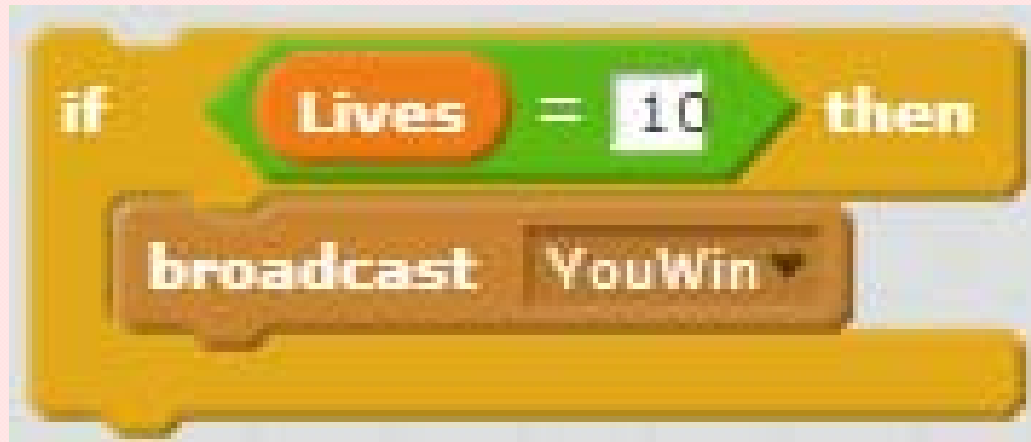
- Put the health script into the Good Guy's script:



- Why is it OK to put the health script and the “touching BadGuy” script in the same forever loop?

Know the Winning Score

- The good guy needs to know when he's got the winning score of 10 lives. We need to write a script similar but opposite to the losing script:



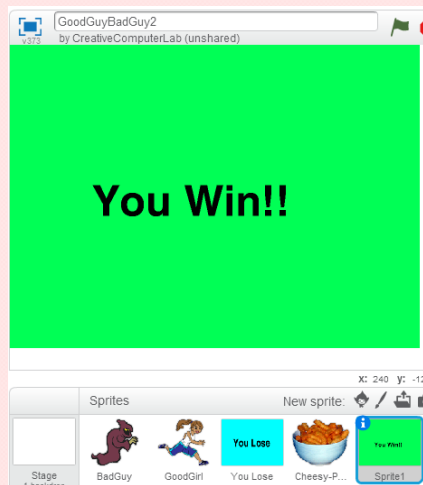
Claim the Victory!

- Add this script to the good guy's main loop:



Win the Game

- Add a “You Win!” screen sprite to the game.
- Write a script similar to the “You Lose” screen sprite. Can you spot the difference between the “You Win” script and the “You Lose” script?

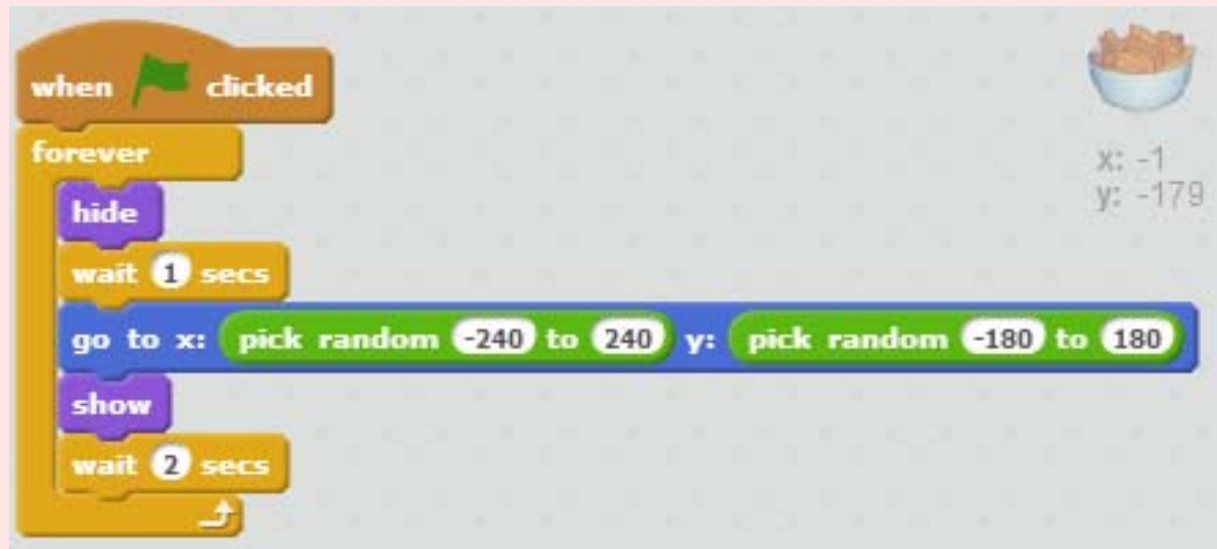


Make the Game More Difficult

- Touching the bowl of chips is too easy.
- Let's make the bowl of chips:
 - Disappear and reappear
 - Move to random locations on the stage
- This will make the game more interesting and challenging.

Touch Those Chips!

- What is happening in this script for the chips?



- For how many seconds are the chips visible?
- For how many seconds are the chips invisible?
- Why are the x values between -240 and 240?
- Why are the y values between -180 and 180?