

Intro to Programming

Scratch #13b – Zombie Invasion Part II

Objective: Add a start screen to the Zombie Invasion project which asks the user if they wish to play an easy game or a hard game. The easy game should be the one you created for Scratch 13a. You will make the game harder for this assignment, but only if the user requested a harder game.

Note: You **must** finish Scratch 13a before you start this assignment.

1. Login to the Scratch website. Continue with your *first_last_scratch_13* project.
2. Make the following enhancements:
 - a. Add another backdrop to the Stage. It should look something like this and be named *Start Screen*.



- b. Create 2 different **Sprites**. One is a button with the word *Easy*, the other is a button with the word *Hard*. You can make your own or download images from the Internet.
 - c. Create 3 different variables **for all Sprites**. *EASY*, *HARD*, and *Difficulty Level*. None of these variables appear on the Screen.
 - d. When the Green flag is clicked, pick any sprite to initialize *EASY* and *HARD* to be any values you choose as long as they are different.
3. The *Score* and *Player Lives* variables should be hidden on the Start Screen. They should show up when the game starts.
4. Figure out how to make changes so that the *Start Screen* is displayed when the green flag is clicked along with your 2 buttons. You want the game to be harder if the hard button is pressed. The *Difficulty Level* should contain the value of *EASY* or *HARD* depending on which button was pressed. Here are some suggestions:
 - a. Change all *When green flag clicked* flags in the existing project to *When I receive start*.
 - b. When the green flag is clicked, the 2 buttons and the start screen should show. Everything else should hide.
 - c. When the *Easy button* is clicked, it sets the variable *Difficulty Level* to *EASY* and then broadcasts *start*. When the *Easy button* receives *start* it should hide. The *Hard button* has the same code except that *Difficulty Level* is set to *HARD*.
5. Now, you need to make changes in the *Zombie* if the *Difficulty Level* is *HARD*. This means you will have many more if-then blocks in the code.
 - a. At a minimum, *Zombies* need to *Point Toward Player* **inside** the forever loop when they start as a clone.

- b. Choose one or more of the following: Zombies are harder to kill (more lives), Zombies move faster, Zombies spawn more often. What else can you think of?
6. Always do *File->Save now* before you log out of the Scratch website.
 7. Now do *File->Save to your computer*.
 8. Turn in your *first_last_scratch_13.sb3* file to *missblomeyer.com* in the usual way.

