

Final Project Proposal **CrossyRoad™**

For our project, we were inspired by the 2014 arcade video game CrossyRoad by Hipster Whale, which is essentially a modern endless version of the 1981 arcade game Frogger by Konami. Essentially, it is about a “ducky” that basically will never finish crossing the “road.” The endless gameplay requires a random generation of different environment lines full of objects that will shift downwards, while the player simultaneously moves the “ducky” upwards to avoid everything that wants to kill it. The objective is just to cross as many roads as possible and try to beat a high score of some kind. The game we will create will have a significant resemblance to the games listed above, but we intend to personalize our version of Crossy Road with similar but different environment design choices, original character(s), and perhaps some easter eggs if time allows.

The plan is to use Processing animations for our game interface and computer keys (WASD) for the player to interact with the game. When `Woo.pde` is run, the player will be met with a welcome page where they will press space to view the instructions to play and character selection. Pressing space again will change the window to a default start environment with a “ducky” in the center, top-down view. The environment will not start shifting downwards until the ducky presses any movement key.

Using the built-in `Math.random()` method, as the environments shifts downwards, new randomly generated lines of environment will appear at the top of the screen along with the respective entities of that environment. The different environments we plan to implement are...

- Grassland — basic platforms with trees but no moving entities
- Chopper — a person on the left or right of the screen throwing knives, which are moving entities comparable to a street with cars
- Milk River — a deadly river of milk with cereals floating on it, entities that the “ducky” can hop on, comparable to a river with logs

The end screen will display the skull symbol and the score of the player. This screen is displayed at death by any of the following methods:

- Sliced by a knife (ducky makes contact with knife)
- Not advancing fast enough, death by void
- Drowns in Milk

If the player chooses to press space, they will be brought to the welcome screen, and the cycle repeats.