

M256 Computer Programming

Array of Pebbles Exercise

Setup: From the O: drive, copy the entire folder “*Array of Pebbles*” into your Canvas folder. This folder includes the file *ArrayOfPebbles.html* which you will edit, as well as various picture files that you will use.

In the previous exercise (*Jumping Bird*), we created a bird that can jump and fire off one pebble at a time. In this exercise, we use that as a starting point to create a bird that can fire off multiple pebble objects.

Task #1: Two Pebbles

Read through the file *ArrayOfPebbles.html*, which includes completed code for `birdClass` and `pebbleClass`. It also includes the instantiation of a pebble object (`pebble1`) and the corresponding `update()` and `draw()` methods. Bottom line: this is where we left off in the previous exercise, where we can fire off one pebble at a time (must wait until this pebble is off-screen before we can fire again).

Your first task is to allow the user to fire off another pebble, even if there is a pebble on the screen already. (The two pebbles are separate and will each be acting independently and doing their own thing.) So, at any given time, there can be either zero, one, or two pebbles on the screen at once.

Task #2: More Pebbles

Having up to two pebbles on-screen at once – is that enough? Modify your code so that the program allows for “more” pebbles on-screen at once. (I’m leaving the specific number vague, and allowing you to make a decision on what you feel would be “enough” or “appropriate” for a game of this type.)

Task #3: Even More Pebbles

What if we wanted to allow hundreds of pebbles on-screen at once? (Scenario: hold down enter to auto-fire continuously.) We will code this up together.