

## I. *Boomshine* ICE Overview

Our next project is a *Game or Interactive Experience*. To supply you with a fully working Game template, we'll be implementing a version of a casual web game named *Boomshine*.

*Boomshine* is from the “chain reaction” genre and was originally implemented on the web in Flash - although it now is also available on iOS and Android. You can read about it and play it here:

<http://jayisgames.com/archives/2007/03/boomshine.php>

<https://www.youtube.com/watch?v=mFPnB2EJkxs> (video if flash is blocked)

<http://www.yvoschaap.com/chainrxnadvanced/> HTML5 version (*lacks music and polish*)



## II. Concepts Covered

This multi-part exercise exposes you to the following:

- Game Screens/States
- Pause/Unpause
- Circle Collision Detection
- 2 channel sound using the `<sound>` element
- “delta time” variable to smooth the animations
- Javascript OOP: object literals, module pattern, function constructors
- `Object.seal()`, `Object.freeze()`, `Object.defineProperty()`
- all about the `this` keyword
- `Function.bind()`
- capturing mouse clicks
- how to make this Boomshine ICE fun to play (at least for some people)

We'll also “break” the code as we go along and look at some of the quirkiest features of JavaScript.

Other related topics we'll cover in non-Boomshine supplemental exercises:

- keyboard control
- sprite sheets
- using a JS library to play multi-channel sound
- particle systems
- bounding box collision detection

### III. Boomshine ICE

Our initial version of Boomshine is a 5 part exercise.

As you build and play our version of Boomshine, ask yourself: "At what point does this become a minimal game?"

Our version is deliberately incomplete and lacks the polish to make it somewhat addictive. This is deliberate, because you will need to finish the game as a coding exercise.

**\* Be sure to play the original web version of *Boomshine* all the way though at least twice. After you've fully played it ask yourself. What features does it have beyond our version that make it more addicting than our Boomshine? Be prepared to discuss this in class.**