

## Chip's Challenge – Reflection

### **Final Design Comments:**

My final design, in both levels, revolved around mimicking the locked door situation that I found very fun in the original Chip's Challenge. In both levels of my game, the player is expected to obtain the key, and unlock the door guarding the "portal" to the next level. In level two the complexity is added by having a spider chase the player as they move. This drew inspiration from the Columbus game we made earlier this semester. The spider only moves some of the time as to allow for the player to have an advantage, however, after playing it a number of times through testing, it was still not easy to make it all the way. In terms of the design patterns, I have seen the usefulness of the state and observer patterns before, however I was always skeptical of the factory method from our in-class examples. After using it, I can see the versatility and the convenience that it provides when dealing with similar objects.

### **Changes I Would Have Made:**

#### Features:

From a feature perspective, I think I would plan more ambitious levels. Once I had the backbone set up (the factory, chip movement, the okToMove Function) I found scaling from level 1 to level 2 pretty straightforward, and I could have been more ambitious in both levels. I also would have like to experiment with design in the UI so there was a character board in a window attached to the main game, in order to make it more similar to the original game.

#### Design:

If starting from scratch again, I would have like to see the possibility of creating an event handler class, to run all the functions that handle picking up keys and transitioning levels. Right now, those are in main, but I would like to see that class cleaned up. I also would want to work on passing less things into functions and creating more shared variables which would allow for simpler code without the need of so many inputs.