

# Assignment #2: Event-Driven System Implementation

Peiyuan.Xu

## What does the game look like?

This is a level-based mini-game where players control a small cube to collect coins and progress to the next section. Upon reaching the next section, players will find a door and a treasure button at the endpoint. The button is a key that players must obtain to unlock the door and achieve victory. The upper part of the game map moves from top to bottom, while the lower part moves from bottom to top.

## What Features Will the Game Have?

The game will have several features:

**Movement Mechanics** – The player can only move forward and follow a fixed path. They cannot change direction freely; instead, they must collide with designated walls to alter their direction.

**Speed Boost** – There will be a speed boost tool. When the player touches it, they will instantly gain double speed for 5 seconds.

**Traps** – The game will include traps. If the player touches a trap, they will be sent back to the starting point.

**Coin Collection** – Players can collect coins, and the number of collected coins will be displayed.

**Event System** – The game will utilize an event system to handle mechanics such as coin collection, opening doors, and collecting keys.

## Challenges Encountered During Development

The main challenges encountered during development were related to implementing features that had not been done before, such as changing direction upon collision and using the event system for interactions like pressing buttons and opening doors. These were new mechanics that required learning and experimentation.

Additionally, another issue arose during development: when transitioning from the upper part of the game to the lower part, the coins collected by the player in the upper part were not carried over to the lower part.

### **The Impact of the Event System on the Game**

I believe it makes the game mechanics more diverse. In my previous games, the mechanics were not as rich, but this time, I have made the game more engaging. Additionally, it is clear that the game's coherence has improved significantly, making the overall experience more logical and well-structured.