

# Escape!

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## CSS 450 Final Project Proposal

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## **Purpose of *Escape!***

Escape is a simple interactive game where the player guides the hero through labyrinths. The objective is to explore the labyrinths to find an exit. The player must find keys to unlock doors blocking the hero's progress. Additionally, the player will have to guide the hero away from various monsters roaming the level, as they will attack the hero.

## **Objects in *Escape!***

The world contains the hero; monsters like zombies, blobs, and ghosts; items like keys and batteries; and level components like walls and doors.

## **Hero**

### **Behavior**

The player can guide the hero, an average human, by rotating him/her clockwise or counter-clockwise, and by walking forward or backward. The hero is equipped with a flashlight and a cell phone, which the player can toggle between.

The hero uses the flashlight to illuminate his/her way through the maze. However, the battery in the flashlight will slowly lose power; if the battery runs out, then the hero can no longer use the flashlight. In this case, the hero will resort to using his/her cell phone for illumination, though it pales in comparison to the ability of the flashlight. The cell phone does not drain battery power.

The player can also turn the flashlight to "bright mode," which will better illuminate the hero's path as well as momentarily stun monsters caught in the beam. Stunning monsters allows the hero to flee from them. To limit the player's use of bright mode, the flashlight's battery power will drain faster than normal.

### **Interaction**

Maze walls and doors limit the hero's movement. The player must guide the hero around walls and seek ways to open doors. Each door is color-coded; if the hero possesses a key that matches color with a door, then the door will unlock, allowing the hero to be guided through the doorway.

The player should guide the hero away from monsters because they will attack the hero. If the hero has been attacked too much, then he/she will perish, thus failing to escape the maze! If the hero shines the flashlight on a monster while the flashlight is on bright mode, then the monster will be momentarily stunned. The hero may then be safely guided past the monster.

The player may come across items scattered in the maze. The hero may be guided over to the items to pick them up. Keys found in the maze can be used to open locked doors. Batteries will replenish the flashlight's battery power, allowing the hero to use the flashlight for an extended period of time.

## **Animation**

The hero will move his/her feet in a simple back-and-forth motion while walking. The hero will also pull out and aim a flashlight or cell phone when switching between equipment. Lastly, the flashlight's beam will grow in size when bright mode is activated, shrink back to size when deactivated, or disappear when the battery power expires.

## **Monsters**

Three types of monsters roam the labyrinth: Zombies, Blobs, and Ghosts.

### **Zombies**

#### **Behavior**

A Zombie will walk the labyrinth aimlessly. If the hero walks near a Zombie, then the Zombie will pursue the hero. If the hero flees far enough from a Zombie, then the Zombie will resume aimless wandering.

#### **Interaction**

Like the hero, a Zombie cannot pass through walls or doors. If a Zombie collides with the hero, the Zombie will attack the hero. If a Zombie is caught in the flashlight's bright beam, the Zombie will be momentarily stunned in place and rendered harmless.

### **Blobs**

#### **Behavior**

A Blob will bounce around the labyrinth aimlessly. It will never pursue the hero purposely.

#### **Interaction**

Like the hero, a Blob cannot pass through walls or doors; instead, it will bounce off of them like a ball. If a Blob collides with the hero, it will "attack" the hero by running him/her over. If a Blob is caught in the flashlight's bright beam, the Blob will be momentarily stunned in place and rendered harmless.

### **Ghosts**

#### **Behavior**

A Ghost will float around the labyrinth aimlessly. If the hero walks near a Ghost, then the Ghost will pursue the hero. If the hero flees far enough from a Ghost, then the Ghost will resume aimless floating.

## **Interaction**

Unlike the hero, a Ghost can pass through walls and doors. If a Ghost collides with the hero, it will attack the hero. If a Ghost is caught in the flashlight's bright beam, the Ghost will be momentarily stunned in place and rendered harmless.

## **Level Components and Items**

In addition to the characters listed above, the game world also includes walls, doors, keys, and batteries.

## **Walls and Doors**

### **Behavior & Interaction**

Walls and doors are stationary and form the labyrinth that limits the characters' movement. Walls cannot be bypassed, but doors can be opened. Each door will be colored, signifying which key the hero must possess in order to unlock it (for example, a yellow door requires a yellow key to unlock it).

## **Keys**

### **Behavior & Interaction**

Keys sit stationary in various locations around the maze. If the hero collides with a key, then the hero will pick the key up. The hero can then bring the key to a door that matches in color in order to unlock the door.

## **Batteries**

### **Behavior & Interaction**

Batteries sit stationary in various locations around the maze. If the hero collides with a battery, then the hero will pick the battery up. The flashlight's battery power will be immediately replenished.

## Graphical User Interface of *Escape!*

To convey the world of *Escape!* to players, the following GUI will be presented.

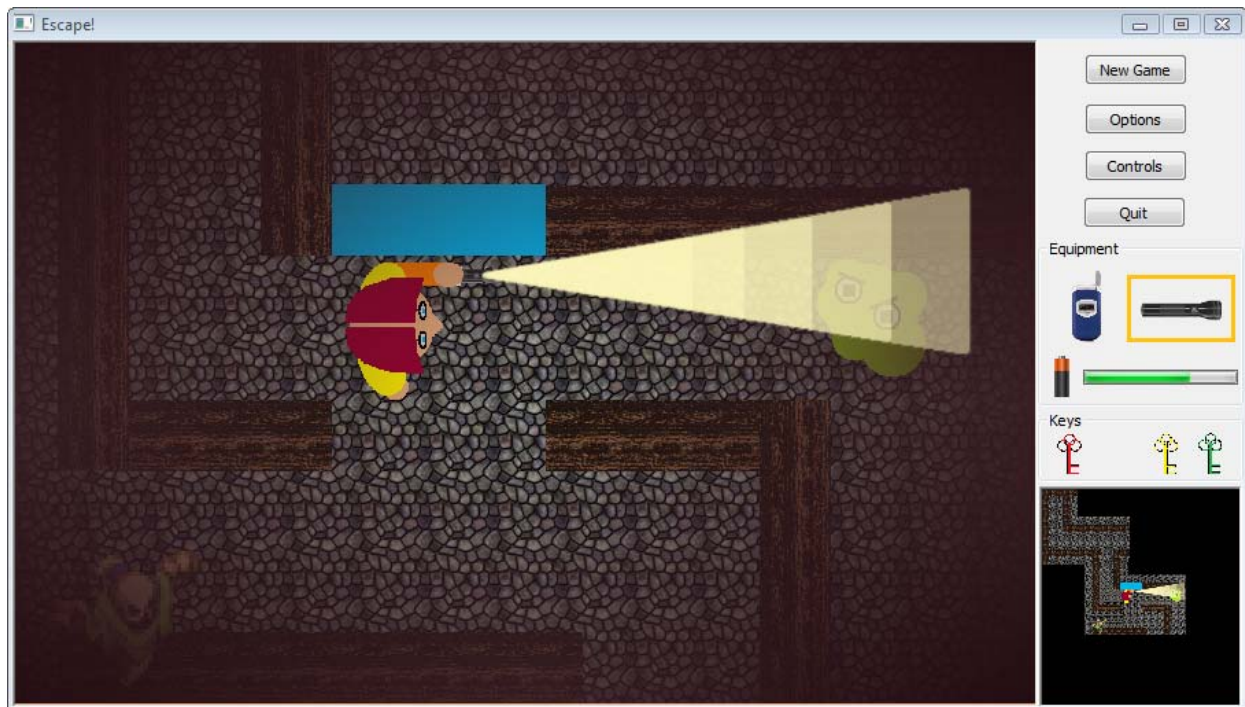


Figure 1: Prototype screenshot of *Escape!* game play.

### Large View

The GUI is occupied mostly by the large view (left 5/6 of the dialog). The hero always stands in the center of the large view. The large view displays only the most immediate world objects surrounding the hero.

### Small View

The small view sits in the lower right corner of the GUI. It is like a world map, displaying the entire maze and all objects within it. However, a grid of dark squares initially hides most of this view. Only when the hero is guided to a hidden section will that section be revealed in the small view. For example, Figure 1 shows the path that the hero has explored, and no more. The hero can also pan and zoom the view of the map through use of the left mouse button.

### Status

Sitting above the small view are the game status echoes. These are divided into an equipment section and a key section. The equipment section shows whether the hero is holding the cell phone or flashlight. It also holds a progress bar signifying the remaining battery power of the flashlight. The keys section simply shows which keys the hero is currently carrying.

## Dialog Buttons

Above the status bars are five buttons: New Game, Options, Controls, Pause, and Quit.

- New Game will start a new game of *Escape!* and restart the current game of *Escape!*
- Options will open a dialog window that allows the player to adjust the difficulty of the next game of *Escape!*, as well as allow the player to save or load a game.
- Controls will open a dialog window that explains the keys to guide and control the hero.
- Pause will pause the current game.
- Quit will end the current game of *Escape!* and close the GUI.

## GUI Controls

To guide the hero through the maze, the player must use the following keys:

- ←: rotate hero counter-clockwise
- →: rotate hero clockwise
- ↑: walk hero forward
- ↓: walk hero backward
- Z: equip cell phone
- X: equip flashlight/toggle brightness level

To interact with the dialog buttons of the GUI, the player may use the mouse.

## Sounds of *Escape!*

During game play, sound effects will be played to add excitement *and* response to the experience. An eerie song will be played as background music to heighten tension. Additional sound effects, like a monster growl when a monster starts pursuit of the hero, a grunt of irritation when a monster is stunned, a yelp when the hero is attacked, a click when the player toggles flashlight modes, the sound of lock-and-key when a door is unlocked, and a jingle of trinkets when the hero picks up an item will help compliment the related visual cues and strengthen the player's understanding of the world.