TITLE: COLLECTOR

Logline: It's not stealing

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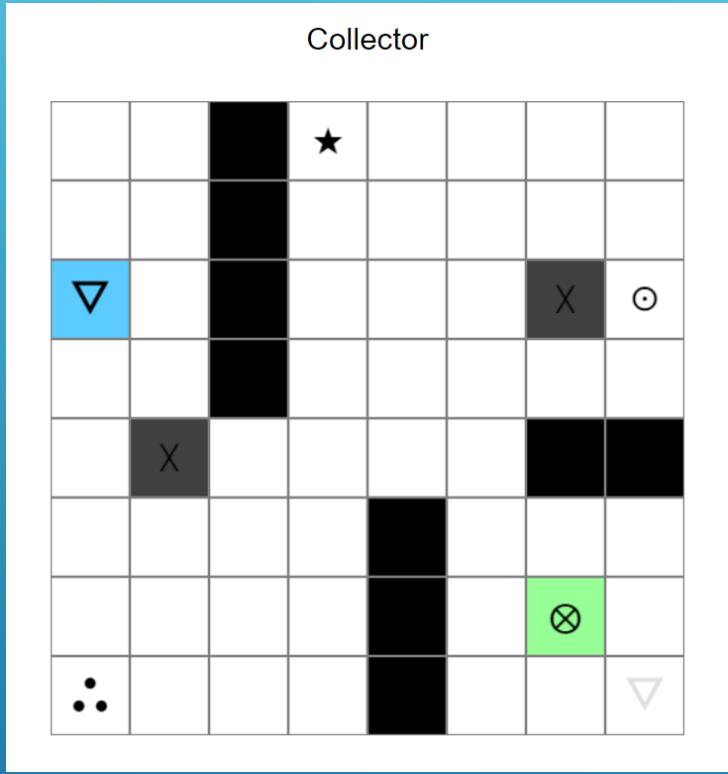
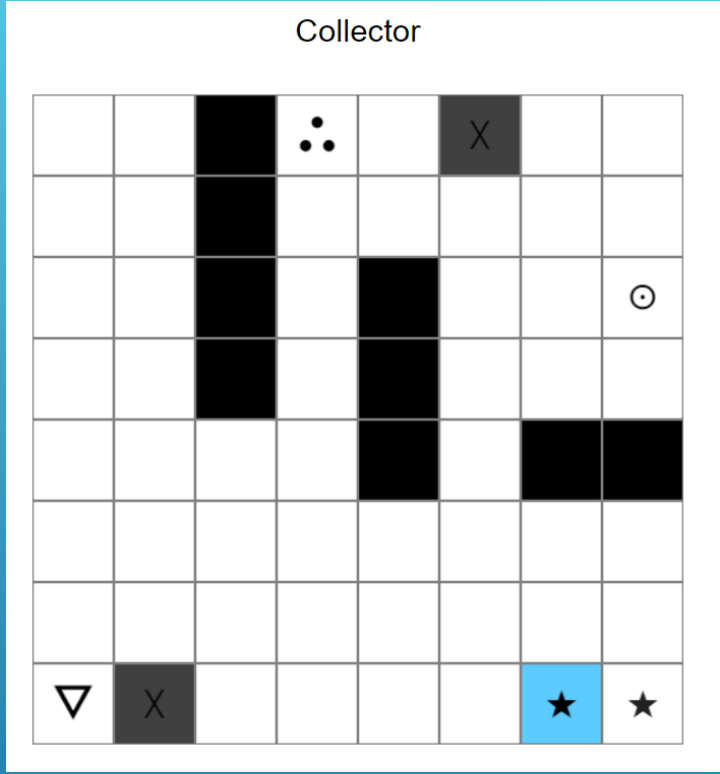
Play Description

The player moves a square around the board. The glyph of the player's square changes to indicate which glyph they must collect next. The goal of each level is to collect all of these glyphs on the board in the correct order without getting hit by enemies that have an "X" glyph. There will also be switches on the board. When the player steps on a switch, the enemy of that switch's color will turn green and will receive a target glyph. This will only last for 4 seconds. If the player collides with a green enemy, that enemy will be destroyed. Upon collision with a non-green enemy, the player must restart the level.

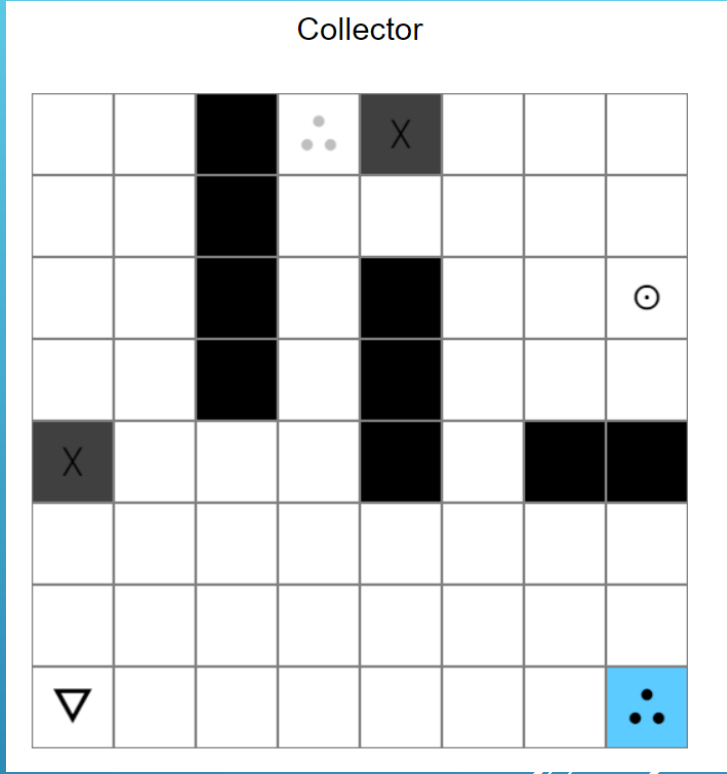
Screen Shots



Stepping on the switch causes enemies of that color to become vulnerable.



Destroying all non-gray enemies on a level causes a random change (in this case, the middle wall moved up).



Collecting a glyph will cause the glyph on the player to change to what they need to collect next.

Features

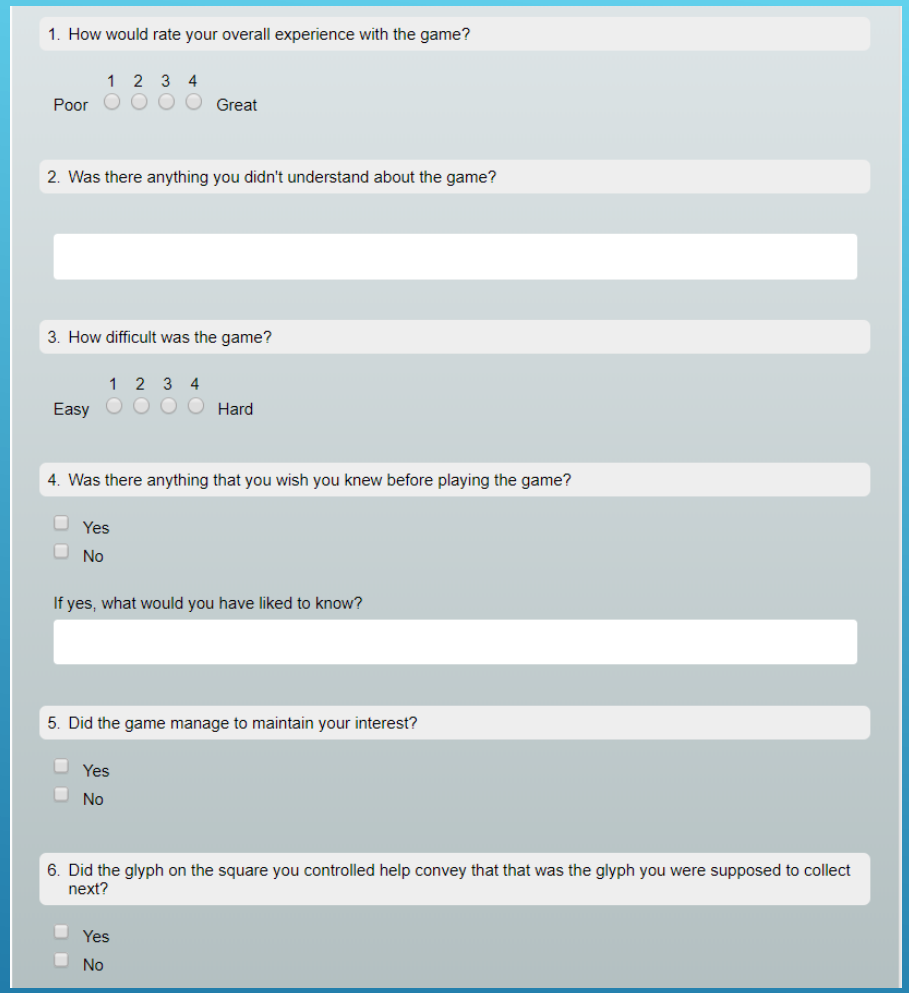
- Design restrictions
  - Input only from the keyboard
  - Max grid size of 16x16 beads
  - No words, initials, numbers or labels in any language except for title in status line.
- Emotional Goal: Surprise
  - If the player destroys all non-gray enemies in some levels, the level will change in a randomly chosen manner.
- Multiple Levels
  - Start out with simple levels to show mechanics of the game.
  - To increase the difficulty:
    - Increase the number of collectible glyphs and moving squares.
    - Set the paths and speed of enemies so that the player must move carefully.
- Audio
  - Sound effects for colliding with moving squares, picking up the right glyph, and trying to move onto a space that is not valid (wrong glyph, wall, or off the grid).
- Various Visual Cues
  - Cues upon collision and collection so audio is not required to play.
    - Player's glyph changes upon collection.
    - Border appears around the player after destroying a vulnerable enemy.

Play Tests

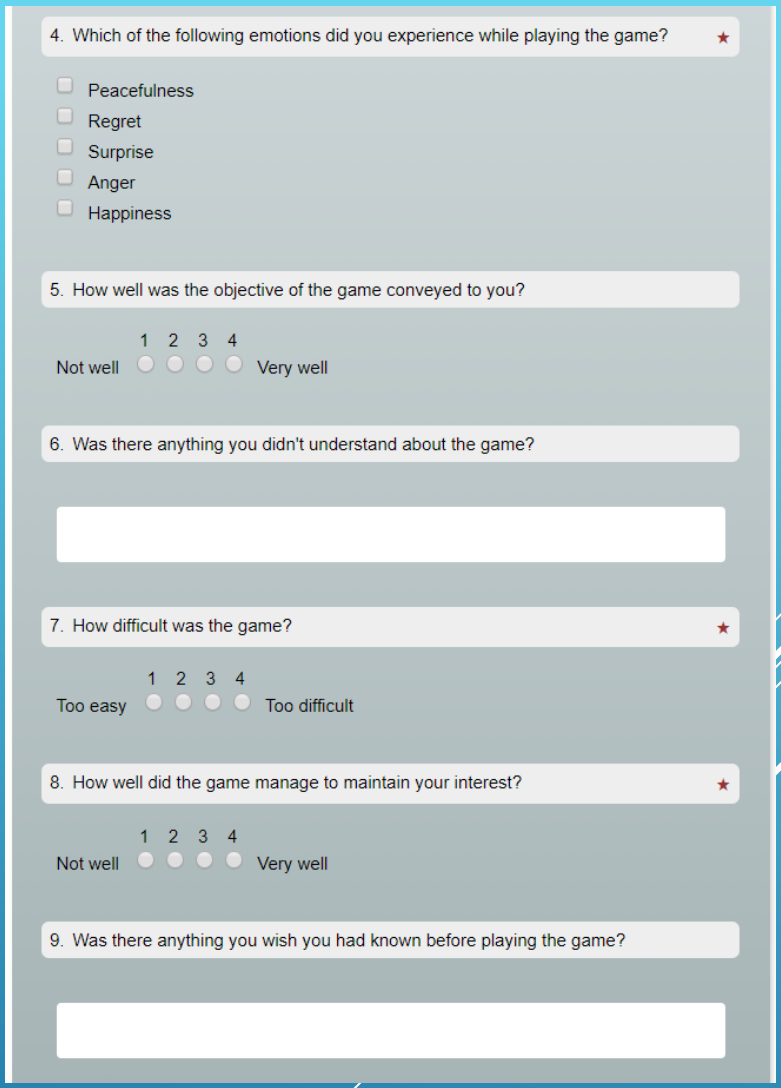
- Signifiers for switches and enemies were unclear.
  - People didn't realize that the enemies could be destroyed.
  - Change: Vulnerable enemies now change in color, alpha, and glyphs.
- Further signify where the player has to go.
  - Change: the next glyph that has to be collected now pulsates.
- The game has to be surprising, but fair!
  - Movement was too simple, and then too erratic.
    - Change: Each enemy moves along a set of pivot points, allowing for more complex paths. Most of the paths are toned down to be more natural.
  - Moving squares used to be able to collide into the at the starting point of the level, leading to frustration.
    - Change: No enemy moves over the bead where the player starts.
- While the random order was surprising, it also hindered level design.
  - Change: While the order of collection (in terms of location) is the same in each level, the glyphs placed at each location are random.

Surveys

- Main take-aways:
  - The vulnerability of some enemies was not clear.
  - The effect of the switch was not clear, either.
  - The game was too easy.
    - The enemy paths had to be more complex to help increase difficulty.
  - Try having the enemies be vulnerable for a short time after the switch was stepped on rather than for the whole level.



Assignment 16



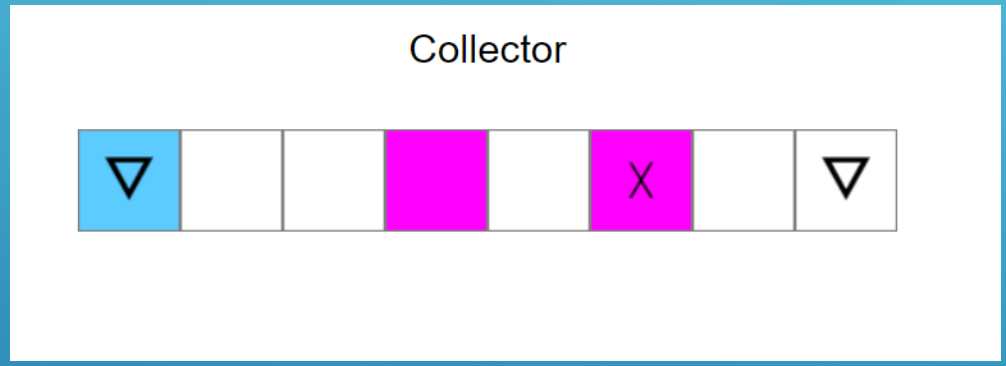
Assignment 17

Critique

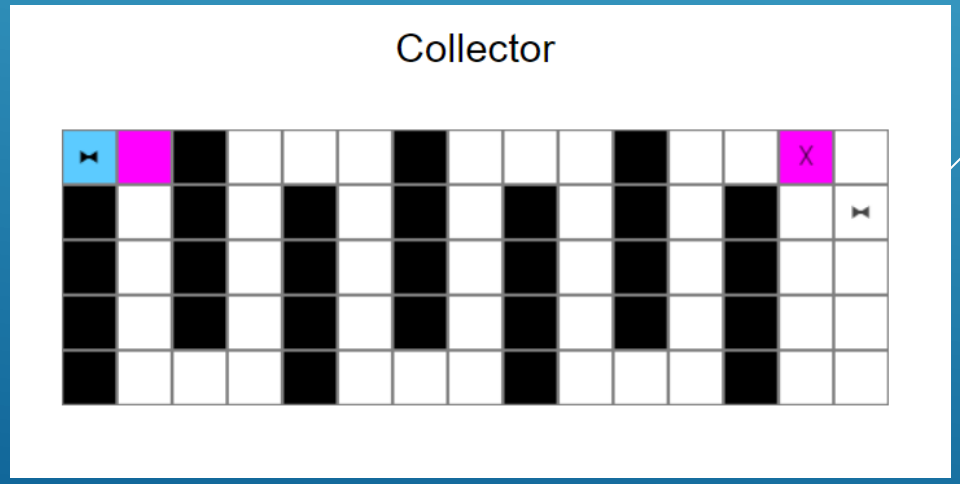
- Multiple mechanics were still not properly signified.
  - At this point, the color, alpha and glyph of the vulnerable enemies were changing, but the player wasn't forced to interact with them.
  - It wasn't clear that the effect of the switch was on a timer.
  - Levels should be added to make the player notice these mechanics.

Result

Require the player to move through an enemy.



Put the player far enough away from an enemy so they see that the effect of the switch is on a timer.



Major Changes Since Critique

- To cause surprise, when a player destroys all non-gray enemies in some levels, a random change will occur.
  - While these changes are meant to surprise the player, they are also meant to be minor changes. It will still be possible to finish a level.
  - One of the following:
    - Remaining enemies slow down
    - Remaining enemies speed up
    - Walls in the level change (this is different depending on the level).
- If an enemy can be made vulnerable via a certain switch, it is now the same color as the switch.
  - The same enemy corresponds to the same switch with each playthrough.
  - Gray enemies do not have a switch that can make them vulnerable.

Demo Code: Creating an Enemy's Path

```
//Create the path the enemy will move on by connecting the points in pivot with calls to PS.line().
makePath(pivots) {
    var path = [];
    path.push([pivots[0], pivots[1]]);//Push on the first point (not included in PS.line())

    for (var i = 0; i < pivots.length - 3; i += 2) {
        //Grab the next two points to connect.
        var startX = pivots[i];
        var startY = pivots[i + 1];
        var endX = pivots[i + 2];
        var endY = pivots[i + 3];

        var tempPath = PS.line(startX, startY, endX, endY);//Create the line connecting them.
        for (var x = 0; x < tempPath.length; x += 1) {
            path.push(tempPath[x]);//Push each step on the path array.
        }
    }

    if(path.length === 1){//If enemy is still, put the first point on as the second step, as well.
        path.push([pivots[0], pivots[1]]);
    }
    this.path = path;//Store the path in the object.
}
```

Demo

http://users.wpi.edu/~jsswetz/portfolio/Collector/game.html