

Update 1

Team Zahlen

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# BRIGHT

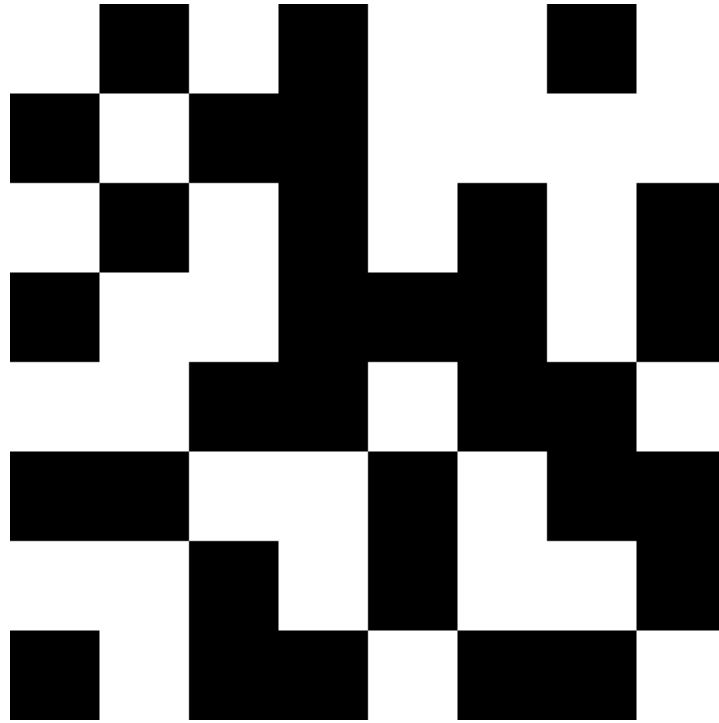
*Move towards the light*

## Summary

BRIGHT is a puzzle game in which the objective is to change every tile to the same color, white, with a click. Each click changes the color of the desired tile and its surrounding tiles, so trying to change any particular tile can have tricky consequences. The player only has so many clicks to solve the puzzle, so each move must be planned out. The puzzle becomes more difficult each time you solve it, requiring more and more clicks to solve.

## Features List

- Puzzles are randomly generated
- Puzzles get progressively more difficult
- Players have limited number of moves to solve each puzzle



An example of a potentially difficult level

## Target Audience

Our target audience is casual game players who are colorblind and want an experience unimpaired by their vision.

## Experience Goal

Part of the experience we would like to create is that of the mindset of the game Reversi or Othello. Similar in concept to our game, in these games, the player chooses a black or white tile and all previously placed tiles between that and another tile of the selected color change. Our puzzle game's mechanics are similar, but operate entirely differently.

Reversi or Othello's board is a simple 8 x 8 grid, but BRIGHT is different. Our game's space grows with difficulty and teaches the player how to play over several increasingly difficult levels. The game begins with a small and manageable amount of tiles to pick from and eventually scales to a number where multiple clicks must be made to achieve victory.

Reversi or Othello's objective is to own the color with the most space occupied by that color by the end of the game, but our puzzle game's objective is to change every tile to a single color, a feat which is very difficult in Reversi or Othello without extremely meticulous planning.

Of course, Reversi or Othello is a two player game, but BRIGHT cannot be a two player game because Reversi or Othello's moves are limited by the amount of tiles that can be placed on the board, meaning the end always occurs after a set amount of moves. BRIGHT's tiles can be changed back and forth endlessly if not on a game-winning move, but will game over the player if they take too many moves to complete a level.

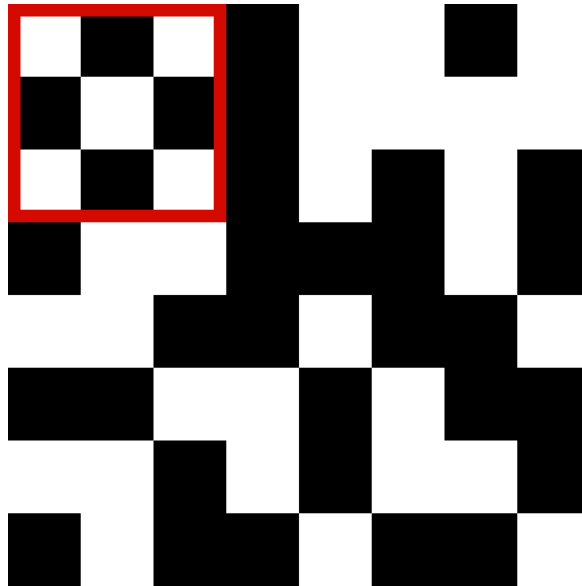
## Play Description

When the player starts BRIGHT, they will be presented with the simplest of puzzles on a screen with a 8 x 8 grid of black tiles. The status bar will read "Reveal the light in 1 click." When the player mouse over the section, the tile they hover over will turn slightly more grey from whatever color it is, indicating that it is the tile being selected by the mouse. When this tile is clicked, it and all the adjacent tiles will swap from black to white, or white to black.

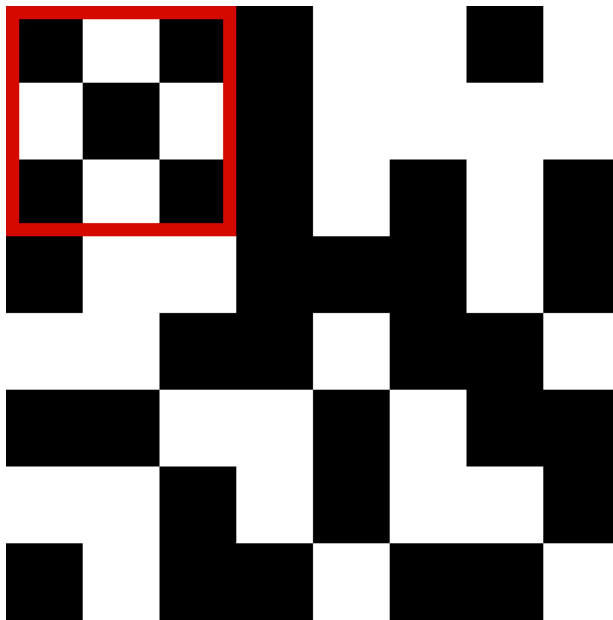
With this first simple puzzle, we want the player to click the center of the 8 x 8 grid of black tiles, to learn how to swap just the tiles they want. If they succeed, a victory sound will play and they will be given the next puzzle. If they click anywhere else, they will run out of clicks for that puzzle, and they will hear a negative feedback sound before having the puzzle reset after a brief pause. This is how success and failure is handled for all of the puzzles.

The second puzzle will be solvable in two clicks, and the status bar will read, "Reveal the light in 2 clicks." When the player clicks, the status bar will update and read "Reveal the light in 1 click." Notice the number of clicks the player has is kept track of this way, and counts down. Once the player solve this puzzle, they will be presented with one that can be solved in three clicks, then four clicks, and so on.

## Control Example



*Player prepares to click the white center of this red outlined area*



*On click, the center square and it's surrounding squares flip to opposite colors*

## Puzzle Generation

Puzzles will be generated with the following algorithm. The board starts out all white, in a solved state. Then a touch event is simulated on a tile, and then another touch event is

simulated on another tile, and so on for the number of moves that puzzle is supposed to take to solve. To make sure each puzzle is interesting, each simulated touch event must be close to one of the previous touch events so that there are overlapping areas of effect by each touch event. This will ensure each puzzle is at least somewhat interesting and that two discontinuous puzzles do not form in opposite corners of the grid.

## Project Plan

- Stone
  - Friday
    - cover page
    - research if better color choices exist than black and white
  - Saturday
  - Sunday
- Sean
  - Friday
    - Puzzle generation
  - Saturday
    - Add visual effects to communicate selected tiles on hover over
  - Sunday
    - Investigate use of custom audio