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Flicker

See what's in front of you

Summary

Flicker is a dark game about not knowing exactly what is around you. In Flicker, the player attempts to move a square through a maze full of pits to reach a goal. However, everything the player can see besides itself and the goal is in black and white, making half of the world visible with the lights on, and the other half visible with the lights off.

When the lights are off, the player can see the glowing white walls of the maze, but they cannot see the dark pits inside it. When the lights are on, the player can see the dark pits, but the bright walls blend in with the bright light making them invisible. The lights will flicker on and off according to how the player moves about the maze. The player has no direct way to turn on the lights and will have to use their memory and best judgement to find their way to the goal. If the player falls into a pit, the lights will show them the error of their ways briefly before they are plunged into darkness and must try again.

Features List

- Mazes full of pits to fall into
- Intelligent light switch flicking AI that responds to player behavior
- Increasing levels of difficulty
- Limited to the following restrictions:
  - The grid cannot exceed 16 beads in either dimension at any time.
  - No glyphs are allowed in any beads.
  - Only white, black or shades of gray can be used in the grid, background or status line.
  - The game can use either the mouse or the keyboard for all user input, but not both. If the mouse is used, the mouse wheel cannot be used. If the keyboard is used, only the space bar and WASD/arrow keys can be used, and the WASD keys must work the same as the arrow keys.
  - No intelligible words, initials, labels or numbers in any language can appear anywhere, except for the game's title in the status line.

Target Audience

Flicker targets both the anxious puzzle solver and the patient puzzle solver. The anxious puzzle solver will move before thinking, and run all over the maze. The game will respond by turning on the lights to reveal the pits just before the player hastily falls in. The anxious player will have to quickly react to stop themselves from falling into a pit. The patient puzzle solver will think about each move carefully and move slowly. The game will respond by

turning on the lights less often, and not so easily prevent them from falling into a pit, preventing their caution from making the game too easy. Both types of players will be challenged in the style of play they choose.

Experience Goal

Flicker is designed to evoke the following emotions:

Surprise

When a player runs around the maze, the light switch flickering AI will take note of their quick movement and surprise them by turning on the lights just before they fall into a pit. In all other instances, the lights will flicker on, but in this case the lights will suddenly turn on instantly and be accompanied by a loud note on a piano. The sudden appearance of the pit threat and suddenness with how the lights turn on will create surprise.

Despair

In Flicker, the player is essentially half blind, only able to see half of the things in the world at once. This means there during most of the game, any move could be your last, and every black square stepped on with the lights off could be death. This should lead to a certain amount of despair from the worry of death.

Regret

To regret failure, the player must feel like they could have avoided it, if only they had thought twice, if only they had tried a little harder to remember the location of that last pit. The game will make the locations of the pits visible to the player for just long enough to give the player a reasonable chance for their style of play, so if they fail and must watch themselves fall into a pit, they are left to feel regret the whole way down.

Play Description

Tutorial

The tutorial consists of two levels. In level 1, there are no pits, the player only has to move right to the goal. They learn to control using WASD or arrow keys, and learn that they can be bounded by white walls. In level two, the player sees what appears to be the same room, but when they step forwards, they fall into a pit and the lights turn on revealing pits where there were not before. With the lights on, the player can see how they must walk around the edge of the room to get to the goal. In this level they learn about pits, and how they cannot be seen in the dark.
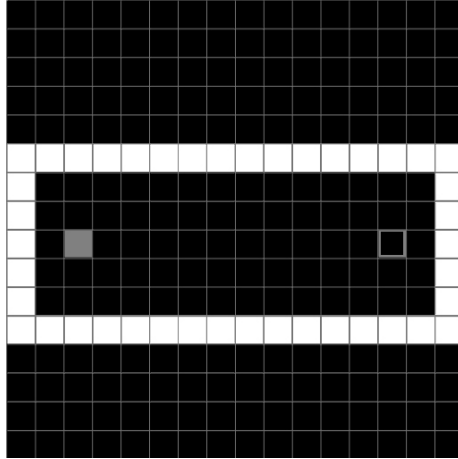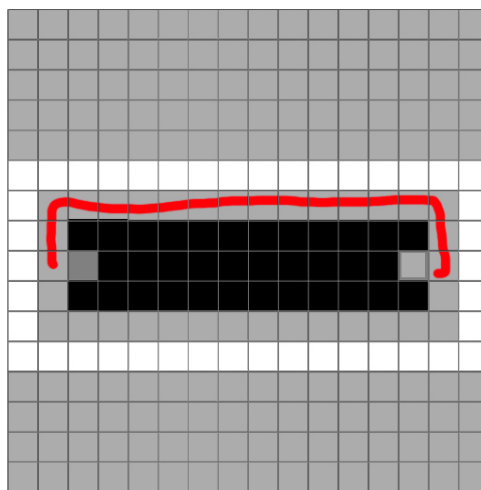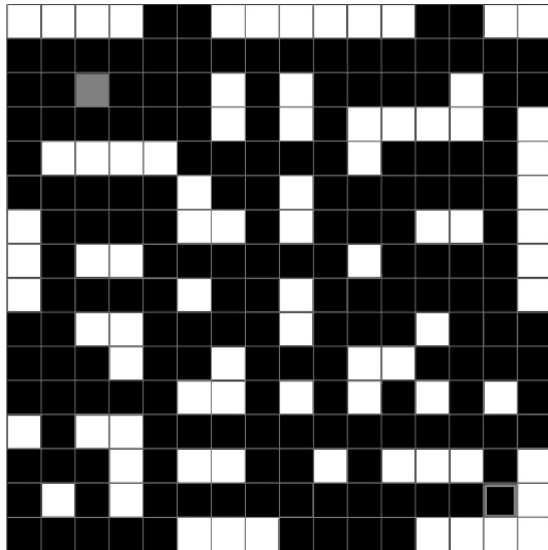
Level 1
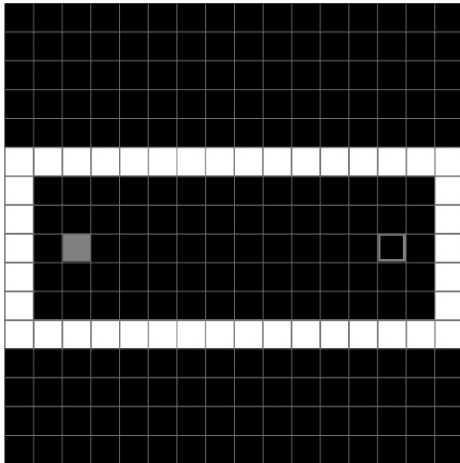
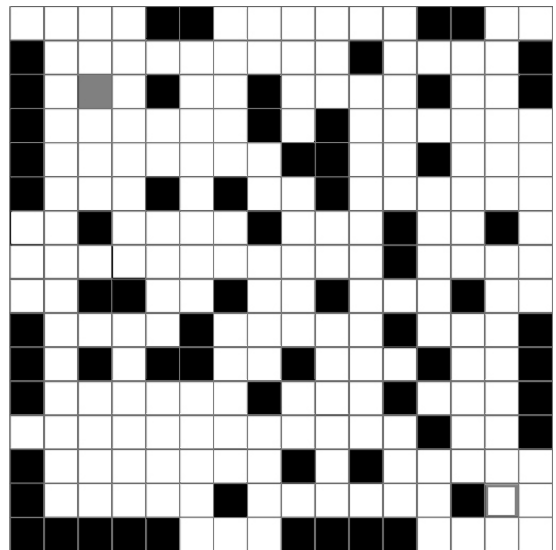

Level 2 Lights Off
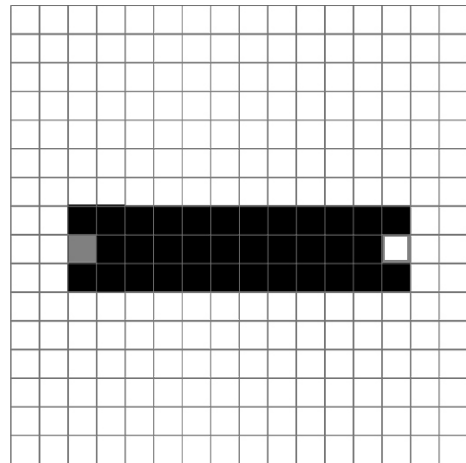
Level 2 Lights On

Level 2 Solution

Later levels could be much more difficult, as seen in the examples below.
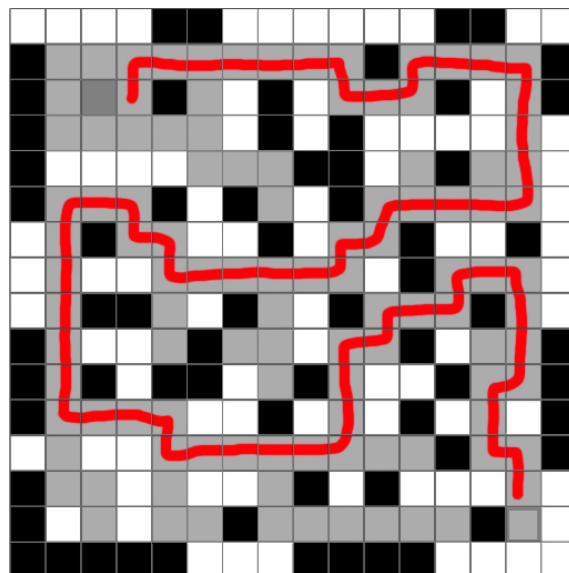

Level X Lights Off

Level X Lights On

A later, much more complicated level. The player must navigate from the northwest corner to the southeast, avoiding the various pits hidden in plain sight.

Level X Solution

The Player and the Goal

Many maze games have been made in perlenspiel before, and Flicker's design learns from them. To distinguish between the player and the goal, we have a solid block as the player and a square outline as the goal. The concept of moving the square into the square hole should be more intuitive than moving one arbitrary colored block to another arbitrarily colored block.

Death

When the player falls into a pit, their block will decrease in size as if it is moving away from the screen and falling down into a pit. The lights will turn on, for long enough to show the player that they have fallen into a pit, and then the lights will quickly flicker off. On the last flicker the player block will respawn at the start.

Light Switch Flicking AI

The light will be programmed to turn on according to how the player moves about. This is broken down into a few rules.

1. The lights switch on instantly when the player falls into a pit
2. The lights switch on instantly when the player runs onto the square before a pit
3. The lights have a chance of between 0% and 50% of flickering on once every 7 seconds. This chance is closer to 0% if the player is standing still, and it is closer to 50% if the player keeps moving.
4. The lights flicker off after being on for between 0.5 and 1.0 seconds.

The AI will keep track of how many times the player moved in the past 7 seconds. The more times this is, the more likely the lights are to turn on, but if the player stops moving, eventually they will have to move for there to be a chance for the lights to turn on. This way players cannot wait around in one spot to build a mental map of the maze.

Project Plan

- Sean
  - Program a level loader
  - Program lights switching on and off
  - Program AI to switch lights on and off
  - Design levels
- Stone
  - Find music
  - Find sound effects
  - Design levels