# Creative Coding Final Project

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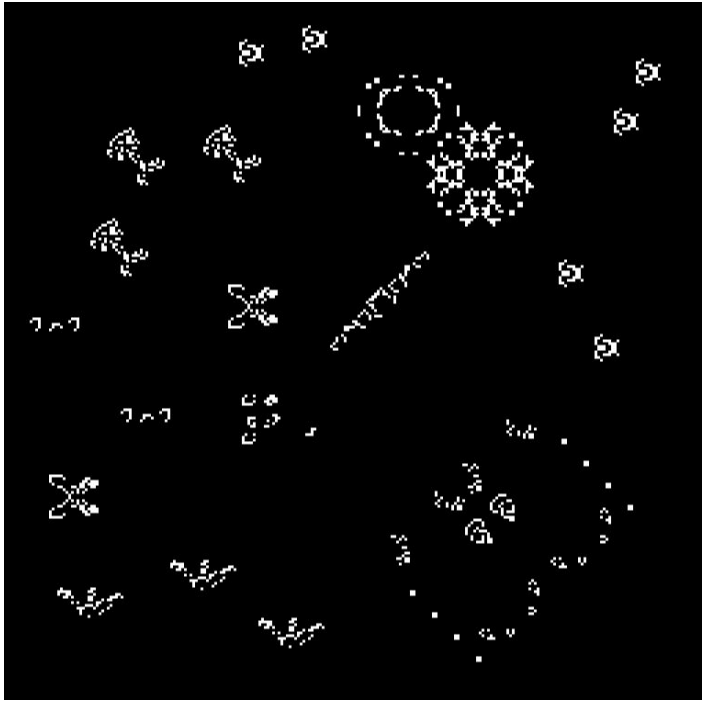
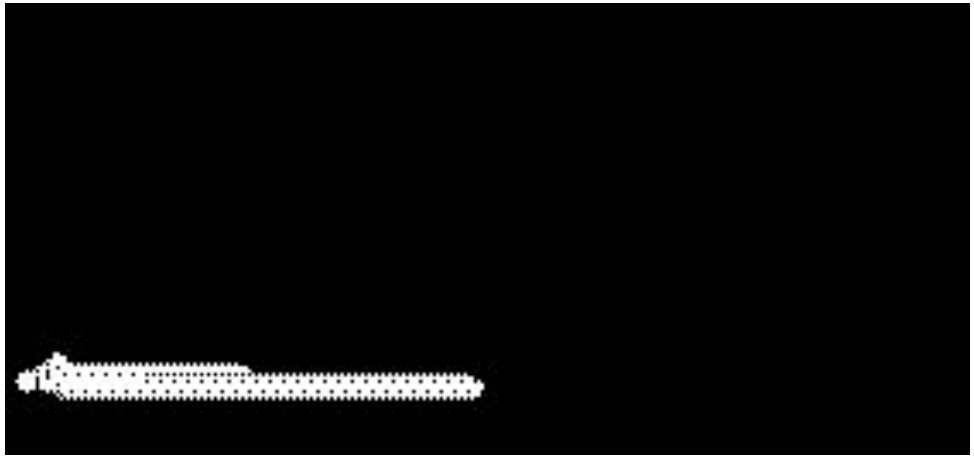
# Conway's Game of Life

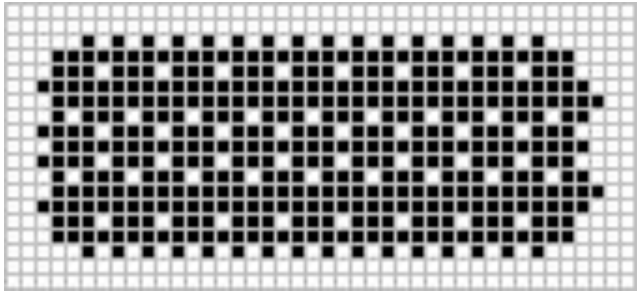
- Rules
  - Any live cell with fewer than two live neighbours dies
  - Any live cell with two or three live neighbours lives on to the next generation.
  - Any live cell with more than three live neighbours dies
  - Any dead cell with exactly three live neighbours becomes a live cell
- Variations of the original
  - Brian's brain
  - Life without death
  - Color Variants

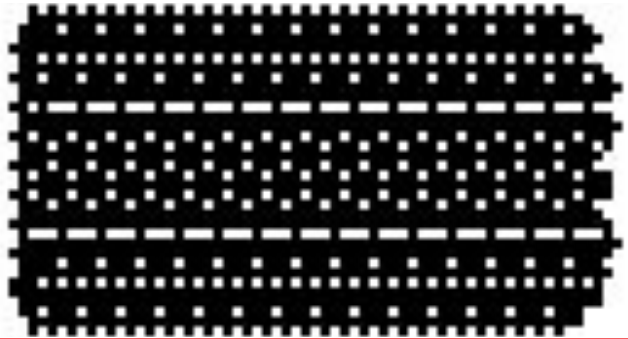


# Life Without Death

- Live cells never die
- Dead cells are born if they have exactly 3 live neighbours
- Made of still lifes (non moving patterns)

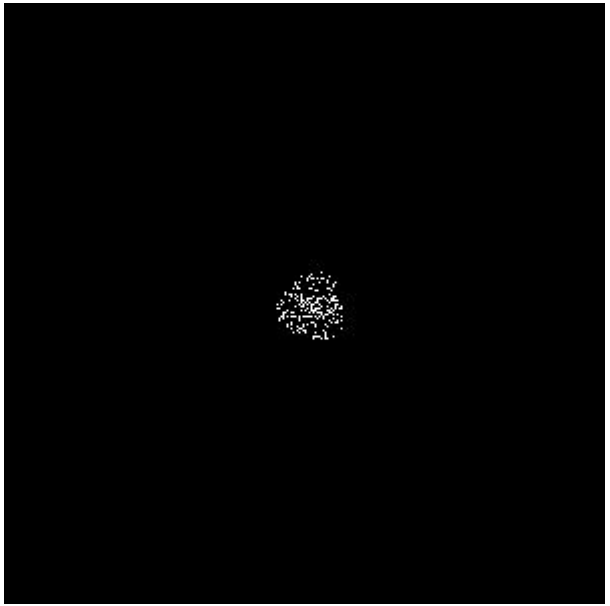






# Brian's Brain

- Builds off of the Seeds generation rule
  - Dead cells with exactly two live neighbors will turn into live cells on the next generation
- Instead of dying immediately it will move to a state of dying
  - It will die in the next generation
- Has mostly oscillators (moving patterns)



# Color Variants

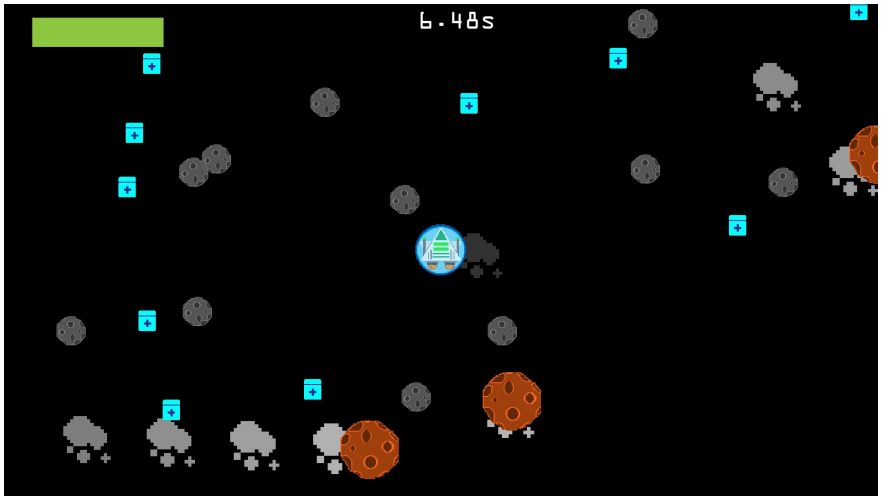
- Cyclic Cellular Automata
  - Whenever a cell is neighbored by a cell whose color is next in the cycle, it copies that neighbor's color--otherwise, it remains unchanged.
- Rational colorizations
  - When a child is born, its color is simply the average color of its parents.
- Color by number of neighbors or state

# P5.play Library

# Asteroid Survivor

Recreate Asteroid Survivor in P5.js

- Make it playable in a web browser
- Add more features to the game

# Platformer Game

- Recreate the platformer
- Add new levels