**Game Design Document: Pong**

**Overview**

Pong is a classic arcade game that was first released in 1972. The game is a simple two-player game that involves hitting a ball back and forth across a screen using two paddles.

**Gameplay Mechanics**

* The game is played on a single screen with a black background.
* The screen is divided into two halves by a white line that represents the "net."
* Each player controls a paddle that can be moved up and down along the screen's edge using a knob or button.
* The goal of the game is to score points by hitting the ball past the opponent's paddle.
* The game ends when one player reaches a predetermined score, typically 11 or 21 points.

**Game Flow**

* At the start of the game, the ball is served from the center of the screen.
* The ball moves back and forth across the screen, bouncing off the paddles and the edges of the screen.
* The speed of the ball gradually increases as the game progresses.
* If the ball hits the top or bottom of the screen, it will bounce back in the opposite direction.
* If the ball hits the edge of the screen behind one of the paddles, the opponent scores a point, and the ball is reset to the center of the screen for the next serve.
* If the ball hits the edge of the screen behind the other paddle, the game continues with the ball in play.

**Art Style**

* Pong has a simple, minimalist art style.
* The game features black and white graphics, with a white line representing the net and two white rectangles representing the paddles.
* The ball is typically a small white dot or circle.

**Sound Design**

* Pong has simple sound effects, such as a beep or a boop, to indicate when the ball hits a paddle or the edge of the screen.
* There may be additional sound effects to indicate when a point is scored or when the game ends.

**Conclusion**

Pong is a classic game that has remained popular for decades. It’s simple mechanics and minimalist art style make it easy to learn and play, while its increasing difficulty level keeps players engaged. Pong's enduring popularity is a testament to the timeless appeal of classic arcade games.