# **PortendsGreatness**

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## Swipe Brick Breaker

This is a clone of the hit game "Swipe Brick Breaker" Users will control a chain of balls as they attempt to clear the board of bricks that appear on the screen. As the user progresses through the game, bricks require more hits to break and the user attains more balls to shoot out. Brick clumps of 2 or more of the same color can be broken at the same time. The bricks can be broken as long as they are adjacent to a similarly colored brick which is hit by a ball. There are also random special balls that are acquired and can be used, and stacked in their queue of balls to use. The game ends when the wall of bricks reaches the edge of the screen.

## Target Goals:

- Have a clean working version of the game
  - Variable difficulty bricks
  - Accurate brick breaker-esque physics
  - Intuitive user interface

#### Reach Goals:

- Power up
- Two player mode
- Ability to save and exit from game and come to it later.
- Moving bricks

### Term 2 Concepts:

- Nodes: To break adjacent bricks of the same color
- Queues: Used to store powerups/special balls which can be used in FIFO order.

#### Classes:

- Board: A Board has-a Block, has-a Launcher, has-a Player
  - int score
  - Blocks[][] layout
  - Launcher launcher
  - Player player
- Ball
  - int xdir, ydir, speed, xpos, ypos
  - boolean isDead
- Block
  - int health, xpos, ypos
  - int hitBottom(), hitTop(), hitLeft(), hitRight(): returns information about reflected velocity
- Launcher: Launcher has-a Ball
  - Ball[] balls
  - xshift, yshift
  - void launch(): launches ball stored in balls
- Player: provides user input
  - void fire(): provides direction for launcher