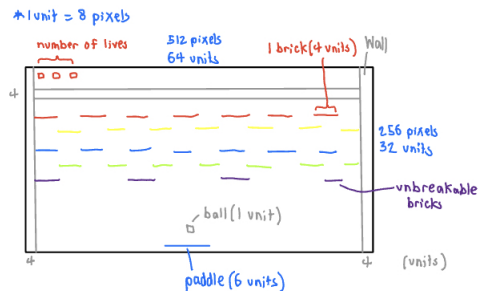


Project Demo 2

Ethan Ing and Luhan He

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1 Memory



Memory

- store address
- store keyboard address
- paddle position
 - └ curr. x-coor.
 - └ curr. y-coor.
 - └ paddle width
- ball position/vectors
 - └ curr. x-coor.
 - └ curr. y-coor.
 - └ curr. x-direction
 - └ curr. y-direction
- colors (9 colors)
- Started (flag for when ball has been launched)
- Lives (# lives remaining)
- Deleted (# bricks deleted, so we can check if user wins)

Figure 1: A diagram of what it should look like and how we will store our memory

2 Diagram

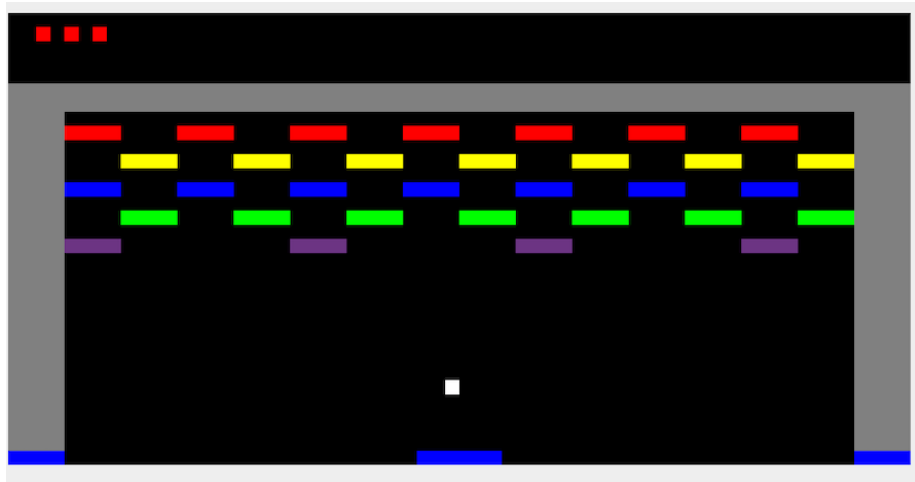


Figure 2: A snapshot of the bitmap display

3 Diagram with brick removed

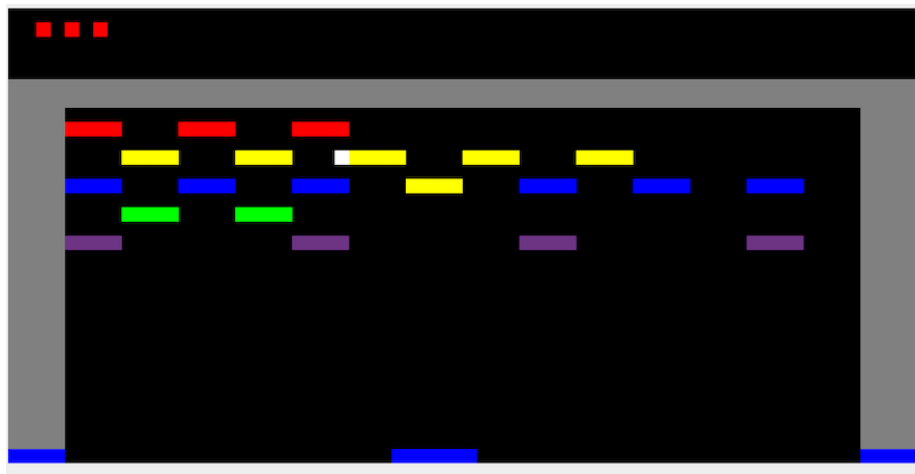


Figure 3: A snapshot of the bitmap display with bricks removed

4 Ball Direction

6. How will ball change direction?
- we change the x & y direction of the ball to change direction.
 - use x -direction & y -direction ball vectors to change direction.
 - ex. $x\text{-direction} = 1 \rightarrow \text{right}$
 $x\text{-direction} = -1 \rightarrow \text{left}$
 - for ex. when it hits right wall, change x -direction to -1 so the ball will go left
- or
- when it hits the top wall, change y -direction to 1 so the ball will go down

Figure 4: Condensed explanation of how the ball will change directions

5 How to Play

How to play

- classic breakout rules w/ 3 lives

- Controls

 - a : move paddle left

 - d : move paddle right

 - p : pause/unpause

 - q : quit game

spacebar: launch ball

 - ↳ must launch ball after each life
has been lost & to start the game

- player has 3 lives to remove all bricks (28 bricks)

- purple bricks are unbreakable

- blue bricks must be hit twice to remove
(will turn yellow when hit once)

Figure 5: Instructions on how to play the game