

# Color Merge GDD

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## [Overall Concept](#)

## [Gameplay](#)

[Flow](#)

[Scoring](#)

[Parameters](#)

[User Experience Screens](#)

## [General Skillz Implementation](#)

[Do Not Show Ads to Skillz Players](#)

[Highlight Tournament Mode in Game Tutorial](#)

[Tournament Basics](#)

- [1. Implement tournament conditions as variables in the Skillz app](#)
- [2. Ideal tournament setup](#)
  - [a. Dying and other loss conditions](#)
  - [b. Avoid ties](#)
  - [c. Limit tournament types by number of DAU](#)
- [3. Tournaments must be fair](#)
  - [b. Use Skillz Random as the randomizer](#)
  - [c. Communicate to players that opponents are players with similar ratings](#)
- [4. Consider live events even if not present when first released](#)

## [Soft-Launch Benchmarks](#)

## [Other Considerations](#)

[Portrait Phone Orientation](#)

[Gameplay Using Only 1 Thumb](#)

[Pause Button](#)

[Meaningful Sound Effects](#)

[Controls for Muting Game Audio](#)

# Overall Concept

The player matches 3 or more squares of contiguous colors, which merge the squares into a single, more valuable square. New squares are re-populated from the top, creating a never

ending game board. The player who acquires the highest value squares before the timer ends, wins the match.

# Gameplay

## Flow

1. Player initiates Skillz match
2. Gameplay begins
  - a. Player is given a random starting board
  - b. Display a countdown from 3
  - c. 3 minute timer begins
  - d. Any segments of three or more contiguous colors are seamed together and display as one polygon. This is a “potential merge.”
  - e. Player matches colors by tapping on any potential merge.
    - i. The blocks merge into a single square of the same color, positioned where the player tapped.
    - ii. The new block displays text of the number of merged blocks. Example: if 9 blocks were merged, the new block says “9”
    - iii. If the merged block contained other blocks that already had a number, sum that number into the total. Example: If our 9 block is merged with a 5 block and 3 unlabeled blocks, the new block will display “17.”
    - iv. If the block exceeds 50, the block will change to a unique color just for “50” blocks. Any overage will not be added, so the total will not exceed 50.
    - v. Once the player has earned at least one 50 block, the game can begin populating new 50 blocks as it fills in the gameboard.
      1. *It is important that both players get these at the same rate and positions once they are unlocked. To do this we recommend the game’s re-population schema include 50 blocks from the beginning, at the same rate and positions for both players. If a player has not unlocked ‘50’ yet, then replace that block with a backup block. Again, the backup block must be the same for both players.*
    - vi. If the player matches 50 blocks, the new merged block will score a bonus (see below) and go away.
  - f. When the timer is under 20 seconds, the game will display a visual warning
3. Power-up
  - a. The player will have one power-up to use, a magnet.
  - b. Tapping the magnet will prompt the player to choose a square.
    - i. Note: the player can not choose a 50 square

- c. The square will then suck up every similarly colored square regardless of juxtaposition or position. The new square will be the same color and have the total of all the squares.
  - d. The player will have 2 of these to use whenever they want
4. Game Complete
  - a. The game ends:
    - i. When the 2 minute timer is complete
    - ii. Or when there are no potential merges AND the player has no power-ups remaining.
5. Generate score and display score summary
  - a. See Scoring, below
6. Submit to skillz SDK

## Scoring

Scoring is pretty simple, following this chart:

Merged Block	1 point per block
Merged Block with a number under 25 in it	1 point regardless of number
Merged Block with a number 25 to 49	2 points per block
Merged Block with number 50+	50 points per block

## Parameters

Skillz parameters allows our teams to quickly adjust facets about the game without needing to change the game's code or resubmit to Apple. This is especially important in game variables that we want to test.

We recommend the following parameters be added:

- Power-up on/off (default on)
- Power-up starting number (default 2)
- Timer duration (Default 2 minutes)
- Minimum number of blocks for a potential merge (default 3)
- Scoring (one parameter per line in the chart above)

## User Experience Screens

The game will need the following screen UI

1. Title Screen
  - a. Game Logo and Title
  - b. Studio Logo
  - c. “Play Now” Button
  - d. “Learn to Play” Button (re-initiates Tutorial Sequence)
  - e. Audio Controls
2. Tutorial Sequence
  - a. How the tutorial is executed is the developer’s choice. We recommend combining the basic and advanced tutorials with the ability to finish a single sample match
3. Gameplay Screen
  - a. Timer
  - b. Powerup
  - c. Current Score
  - d. Gameboard
4. 50 Block Bonus Sequence
5. Timer warning sequence
6. Power-up magnet choice sequence
7. Gameplay Pause
  - a. audio controls
  - b. Ability to quit the game which aborts the match
  - c. Any other settings necessary per developer
8. End of Game Summary
  - a. After the game ends display a score summary
    - i. Final score of the game
    - ii. (optional) Players personal high score for comparison
    - iii. (optional) Player’s high score over the past week
  - b. Include a “Submit Score” button that times out after 10s and automatically submits to the SDK

## General Skillz Implementation

### Do Not Show Ads to Skillz Players

For your game Skillz tournaments will be a revenue stream in and of themselves. Showing ads in your cash tournament mode/SKU is generally counter-productive, as ads create friction, distract players, and negatively impact the user experience of your game. The best practice is not to show ads to players for the first 3 days.

# Highlight Tournament Mode in Game Tutorial

The Skillz platform currently only provides support for developers to upload a static image tutorial. If a developer uses this feature at all, their tutorial image typically presents a brief overview of your game's controls and principles. The players sees the tutorial image before entering their first game. However, since playable tutorials in the game engine are generally far more effective, we'd prefer that you incorporate the Skillz tournament mode into your initial game tutorial, even if you only use the Skillz platform in a separate tournament SKU.

## Tournament Basics

### 1. Implement tournament conditions as variables in the Skillz app

This refers to conditions such as time, prize, scoring, etc. Skillz allows easy configuration of these values such that you can easily test and change without having to release a new build or go through platform certification.

### 2. Ideal tournament setup

Ideally, the tournaments feature various modes, with the goal of providing an interesting gameplay session as described below:

#### a. Dying and other loss conditions

Do not end a match when someone dies once. There are 2 issues here: First, it can cause games to run very short or very long. Second, it is unsatisfying for players to die very early in a match when they are playing with money on the line. However, often other loss conditions are perfectly reasonable, and even the issues above can be mitigated by starting the player with 2 extra lives.

#### b. Avoid ties

Tournament players, particularly cash players, dislike ties. Skillz offers tiebreaking functionality, but they should be rare edge cases. Tune your scoring to favor close scores while still avoiding ties.

#### c. Limit tournament types by number of DAU

The key here is to ensure a player pool large enough to allow people to play games in a timely fashion and match them up against opponents that give the player a fair chance to win. Multiple modes fracture that player pool, making fair matchmaking less timely. There are benefits to listing more tournaments, but before your Skillz DAU grows sufficiently, we strongly prefer to focus on the mode that's most likely to succeed. The number of modes can then scale with your DAU as it grows.

### 3. Tournaments must be **fair**

This means fundamentally that both players have identical starting positions.

#### b. Use Skillz Random as the randomizer

We have tested extensively and using it allows for common seeds, which enables tournament viewing and fairness. This is also critical to allowing proper streaming. We provide much more detail in our support materials at <https://cdn.skillz.com/doc/developer/>

#### c. Communicate to players that opponents are players with similar ratings

Remind players that we are providing matches against other real people and that their own skill will determine who wins. Do this by placing an in-game explanation hitting these points, when generating levels, when player-matching, etc.

### 4. Consider live events even if not present when first released

Skillz has invested a great deal of time to build a system that presents live-streaming events that are perfect for promotion and growth. You should expect that players and viewers will want to watch live streams of your tournament mode and consider how your game can take advantage of this system, even if you don't expect to run live streams immediately after your launch.

## Soft-Launch Benchmarks

Skillz considers the following metrics when evaluating your game during launch, and a solid benchmark is listed next to each:

D1 Retention (all players)	28%
D7 Retention (all players)	14%
D30 Retention (all players)	5%
Daily games/non-cash player	10
P1 Retention (cash players)	75%
P7 Retention	40%
P30 Retention	15%
Daily games/cash player	15

Install-Deposit Ratio	4%
Average Cash Entry Fee	\$1.50

Note that individual games may exhibit significant variations, particularly around number of games played (depending on the length of a single match), but the above is meant to provide a good holistic balance to give you a sense of relative game performance.

## Other Considerations

Here are a few other best practices about mobile games in general that Skillz recommends to developers we work with:

### Portrait Phone Orientation

Studies have shown that mobile game players have a strong preference for games that are played in portrait orientation, rather than landscape orientation, particularly on mobile phones. Obviously, giving players both options is better than only 1, but if you only have resources for 1, then portrait is the clear choice.

### Gameplay Using Only 1 Thumb

Similarly, studies have also indicated that mobile gamers significantly prefer to play games with 1 hand, using for input the thumb on the same hand holding the device. If your game is difficult to play in this manner, consider iterating.

### Pause Button

Because players are usually playing for real money in our games, the outcome of a single match is more important to them than might be expected for most mobile games. But because they are playing on a mobile device, often while in transit or being interrupted, they often strongly desire to pause the game. The best practice is to include a pause button that pauses the game and hides any information that the player could use to gain an advantage by pausing frequently.

### Meaningful Sound Effects

Helpful sound effects are an excellent way to give players feedback on whether they're doing well in a game, or why something happened on a part of the screen that they weren't looking at. In Skillz games, helpful sound effects (SFX) are a much more valuable addition than background music.

## Controls for Muting Game Audio

Players often use their devices for multiple functionalities at once - especially, listening to music/audio from a background app while playing a game. Give people options to mute their audio, choose the game music, selectively mute or choose the sound level of SFX/music/narration - all of these are great ways to make sure players find a way to engage with your game the way they prefer to.