

Splatoonio Feature List

A design document detailing all possible features for Splatoonio. Created and maintained by Adam Evans, Michael Harrington, Ian Howell, Eric Michalak, Luke Parton, Deacon Seals, and Illya Starikov.

Last Revised: *October 3, 2017*
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Contents

1 Index

Game Board: The pixel map data structure that tracks enumerated pixel color

2 Server

Server Team: Eric Michalak, Deacon Seals, Michael Harrington

2.1 Tasks

- **Entire team (done):** Create client/server communication protocol
- **Deacon, Michael (done):** Research server frameworks
- Create games with unique IDs
 - Add players to games with unique IDs (added to smallest team)
 - Add players via group lobbies
- **Eric:** Manage account information in a database
 - **(done):** Leaderboards
 - **(done):** Achievements
 - Player Level
 - Statistics (items used, accuracy, players hit, total distance, total painted)
 - Unlockables (new items, etc)
- **Eric:** Maintain game state in a database
 - Bounds (lat/long)
 - Color of the *Game Board* map pixels
 - Active players and player information (held items, brush size, name)
 - Game clock
- **Deacon, Michael:** Play games
 - Handle game state changes (e.g. adding players, items spawning...)
 - **Deacons:** Update *Game Board*
 - **Michael:** Implement public REST API
- **Deacon:** Multiple concurrent games
- **Michael:** Generic API calls (winning team, percent controlled)

3 Mobile

iOS Team: Adam Evans, Illya Starikov

Android Team: Ian Howell, Luke Parton

3.1 Tasks

- Plays game
 - **(iOS, Android done):** Draws main display map in background - potentially fancy map (stretch goal)
 - **Ian (iOS done):** Paint board pixels slightly transparently over the map
 - **(iOS done):** Draw minimap displaying only the board (not map)
 - Display location of other players with arrows on the board edges or on the minimap (do we even want to do this anymore?)
 - **Ian:** Track the user's location/direction and move/rotate accordingly
 - **Luke:** Update game state from server
 - Game Features (see section 3)
- **(iOS done):** Stub out server calls
- **Adam:** Query server for leaderboards and achievements
- Query server for available game by user's location
- Query server to create/join a public game
- Query server to create/join a private game
 - Custom map and boundaries
 - Custom item spawns
- **(iOS done):** Create an options page

4 Game Mechanics

4.1 Games

- 3 teams per game: red/green/blue
- Game duration: 10/20/30 minutes
- Team with the most points wins

4.2 Player

- Paints ground under player with team's color
- brush size slowly increases with distance

4.3 Items

- Players collect items
 - Items spawn randomly?
 - Random Items every n seconds
 - Select an item every n seconds
- Items can damage players, resetting their brush size
- Bomb: paint a circle anywhere on the map by tapping the screen
- Green Shell: throws a shell which travels in a line painting everything under it

4.4 Scoring System

- Teams get points based on percentage. ($10\% = 10$ points)
- Teams get additional points for controlling a marked region (CompSci Building = 10 additional points)