

# Project overview and goals:

Surf.xyz (Name pending) is currently being developed by the following:

## **Lorenzo “GameLogic”**

Part-time programmer with 10 years of experience, specializing in game design, backend mechanics, mathematical algorithms, and project management.

Responsibilities in current project:

- Algorithms pertaining to RPG mechanics, and the like.
- Implementation of all RPG mechanics
- Movement system
- Perfecting the “Player experience” regarding project goals.
- Art assets
- Camera control
- Player HUD
- Project and team management
- All front-end player mechanics not pertaining to waves or the like.

## **Rivaldo “Zeex”**

Full-time programmer with multiple years of experience, specializing in backend mechanics, server management and programming, and server optimization.

Responsibilities in current project:

- Backend server optimization
- Game website and server structure
- Wave mechanics and optimization
- Map design and map building
- Backend “player experience” such as leaderboards, and minimaps.
- Partial RPG mechanic implementation when needed (I.E. Wave stats)
- Not breaking my mechanics.

## Goals:

Providing an intuitive user experience that is simple to understand, and easy to get into. By default, each mechanic should serve a dual or triple purpose. I.E. right click boost, stats, waves, etc.

Providing users with a safe and non-toxic playing environment. Being a kids-game, we need to provide a safe environment.

Addictive, highly re-playable gameplay that provides encourages repeated play.

A highly monetizable environment to provide a constant revenue stream.

## Gameplay:

Players fight off against each other in a large open bathtub-style map.

As your character moves, he generates a wave directly behind him which “destroys” enemies that touch it head-on with their surfboards.

The goal of the game is to collect wood in the water in-order to earn levels, which can then be spend on stats ( See “RPG MECHANICS” ) at which point players begin to fight off against each other in outer-middle part of the map.

### **Player features:**

Players can press the left-click in-order to gain a short boost which provides:

- 1.4x increase in movement speed
- No delay in rotation (0.003 second delay without)
- Quicker rotation speed (Lack of delay provides this.)

Boost is gained spend at a rate of 20 per second, and is regained through the following:

- 1.5 per second not in boost mode.
- 5 per wood gathered.
- 20 per player killed.

Initial boost maximum is 100. Maximum is 150.

# Rpg mechanics:

## EXP System:

Players earn EXP from multiple sources.

- Picking up wood found on the water.
- Killing enemy players.

When dying, players lose EXP.

Players lose half of their levels, and drop 40% of the exp they had for other players to pick up.

When a player respawns, their stat-points are reset.

When a player respawns, his spawn-point is dependent on levels remaining.

Level 1-5: Outer zone.

Level 5-15: Outer-middle zone.

Level 15+: Middle PVP zone.

Read (ZONES) for more information.

## Level system:

Players gain levels from EXP. EXP required is exponential.

Each level grants one stat point which can be used in the following:

- Wave width (10 levels maximum)
- Wave length (10 levels maximum)
- Movement speed (10 levels maximum)
- Turn speed (10 levels maximum)
- Maximum speed boost (5 levels maximum)

**Stat math:**

Wave Width – Each level increases width by 10% of original value  
Wave Length – Each level increases length by 50% of original value  
Movement speed – Each level increases move speed by 5 percent of OV  
Turn speed – Each level increases turn speed by 4 percent of OV  
Maximum speed boost – Each level provides 10 boost increase to OV.

**Max values:**

Wave width – +100%  
Wave length – +500%  
Movement speed – +50%  
Turn speed – +40%  
Maximum speed boost – 150 total

Every 5 levels (up to level 15) players can choose one of the following:

**Level 5:**

5% increased movement speed (Overall speed. I.E 5% of 500%.)  
5% increased wave size (Overall wave size.)

**Level 10:**

10% increased EXP gain  
5% increased wave width (overall wave width)

**Level 15:**

5% turn speed (overall speed)  
20 increase to boost.

Every 10 levels, players can choose one of the following (Choices override):

**Level 10:**

- Wave splits into 2.
- Wave width shortens by 10%, length increases by 10%.

**Level 20:**

- Wave splits into 3.
- Going over your own wave allows you to jump slightly, by-passing An enemies wave if not too wide.

**Level 30:**

- Wave splits into 2, and slow down nearby player turn speed by 10%.
- Single wave. 20% thinner, 10% longer. Drags players into, forcing them to move at  $10 * \text{MoveSpd\%}$  towards it. (Enemy Movspd lv 10 = 100%.)

# Zones:

There are two main zones. The middle “warzone” and the outer “leveling zone”.

The warzone is located over a bath mat, and is where most players fight each other.

The leveling zone is outside of this zone, and is where players go to level.

The leveling zone features an abundance of wood, where as the warzone is scarce in wood. When players die, they’re respawned in different zones depending on their level (see RPG MECHANICS)