GAME DESIGN DOCUMENT - IDLE GAME PROTOTYPE

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PITCH

Idle Game Prototype is an idle game with automatic horizontal scrolling. The camera moves at the speed of the player. They automatically attack the enemies he encounters, who try to push him out of the camera's frame. They can use a special attack to deal extra damage and destroy enemy shields. Their goal is to defeat 5 waves of enemies. If the player leaves the camera field, they lose the game.

GENRE : Idle Game.

MOOD: Prototype-looking on purpose.

GAME TARGET : Amator flashgames enjoyers, game design teachers.

PERSONA - "LÉANDRE" (EXAMPLE)

Age : 24 years old (2001).

Wealth ; Middle-class.

Plateform : PC.

Average playtime : Small sessions of multiple 3-4 minutes games of flash games.

Gaming Experience : Extensive. Plays on his freetime as a hobby.

Key motivation : Experience simple, small games by small - even beginner developers. Mechanics over everything else.

Key frustrations : Not being able to fully understand the game after a few minutes of gameplay.
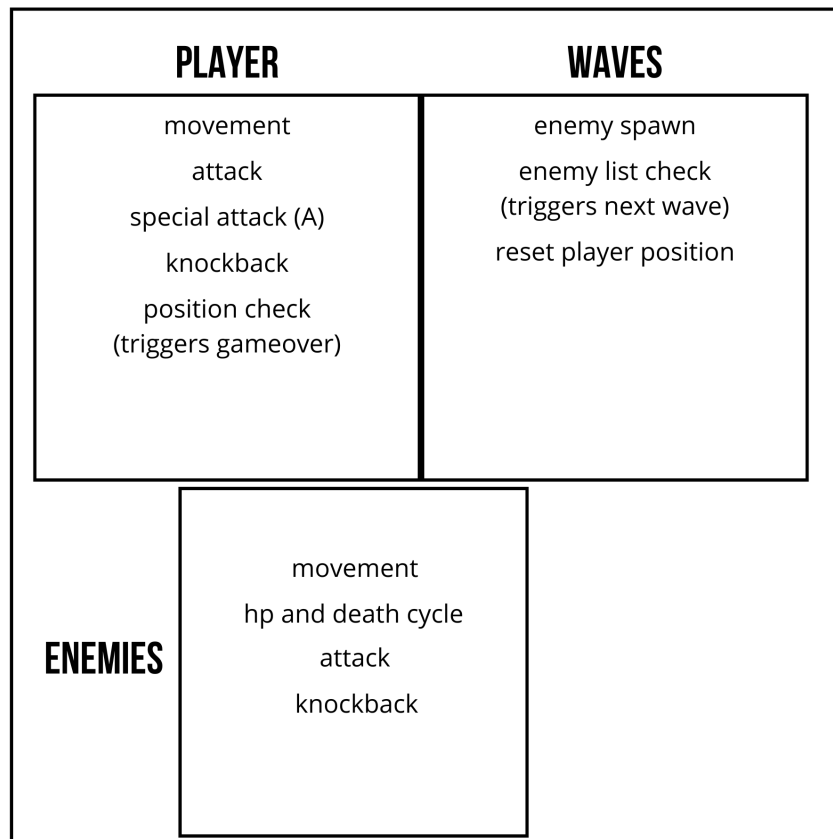
3C (Characters, Camera, Control)

CHARACTER : The player controls a 1x1x1 cube that moves forward at a speed X across the map. When they detect an enemy within a radius equivalent to their hitbox in front of them and if they can at the moment, they automatically trigger an attack that inflicts X damage and knocks the enemy back by an X value of knockback inflicted, before triggering the reload time of this attack of X seconds. If they touch an enemy, they are pushed back from X knockback. If they completely leave the camera field, the game stops.

CAMERA : The camera follows a horizontal scrolling equal to the player's speed. It slows down slightly by a value X called gamedifficulty if the player is behind it so that they can catch up with it if they are pushed back by an enemy - the lower the gamedifficulty, the slower the camera slows down and the more difficult the game is. Enemies appear at a spawnpoint attached to the camera that follows its movements.

CONTROL : The player can only interact with the game via the A key. It triggers a projectile shot in front of the player at X speed which inflicts X damage to the enemies it collides with, and which deactivates their shield if they have one.

LOOPS

GAME

PLAYER	WAVES
movement attack special attack (A) knockback position check (triggers gameover)	enemy spawn enemy list check (triggers next wave) reset player position

ENEMIES	movement hp and death cycle attack knockback

BALANCING DATA
PLAYER

Gamedifficulty	2
Speed	3
Might	1 DMG
Knockback	5
Knocklenght	200 frames
Reload time	1.5 seconds
Bullet speed	20

Gamedifficulty defines how well the player is able to catch up with the camera. It was very hard to parameter at first, as there is only a small window between making the game ridiculously easy or impossible, but it was finally set through a lot of very small playtesting.

The **speed** value was decided at the beginning of the game development. Although it could be changed, the entire game is built around it and there's plenty of other difficulty modifiers to adjust, so this was kept as a default value.

The **might** was also kept at one, to keep things simpler.

The **knockback** and **knockback length** took many adjustments at conception to feel right. Fewer knockbacks would cause the enemy to repeatedly attack the player because they wouldn't go far enough. Too high and the game becomes too difficult. 5 came as the best value from a feeling and balancing standpoint, and the knockback time was set to 200 frames after many adjustments to get the "feeling" I was going for right.

Reloadtime also came through testing. The goal was to give the opportunity for the player to manage the cooldown, without being too punitive against shield enemies or too easy to just spam.

Bulletspeed was aimed to give a very narrow moment of suspension between the moment the player shot the projectile and the feedback. 20 came as a sweet spot for that effect.

ENEMIES

Hit to kill (base enemies)	2
Hit to kill (shield enemies)	1
Base Speed	1
Shield speed	2

The **hits to kill** were by default set on 3 for every enemy, however it became clear that shield enemies became quickly unmanageable and too tanky, so their health was lowered by one. In the same way, their speed has been uppered by 1 with their shields on, so that the player can shoot them more accurately with their bullet in order to avoid the frustration of shooting the wrong target and wasting the special ability. After playtesting, all enemies had their health lowered by one for balancing purposes.

WAVE MANAGEMENT

WAVE 0	1 BASE
WAVE 1	1 SHIELD
WAVE 2	1 SHIELD, 2 BASE
WAVE 3	2 SHIELDS, 1 BASE
WAVE 4	3 BASE
WAVE 5	3 SHIELDS

Wave 0 acts as a basic tutorial. The single enemy allows for the player to get a grasp on the game's core gameplay and to both try auto-attack and their special move. **Wave 1** works the same for shield enemies - a single one is sent to let the player figure out how to manage them.

Wave 2 is the first real wave, with 2 basic enemies and a shield enemy to put what the player just learned to the test. It is followed by **wave 3**, with a 2 shields 1 base composition to force the player to manage the cooldown of their special attack to survive.

Then, **wave 4** acts as a way to put sudden pressure and variety to the gameplay - instead of managing their cooldown carefully, the player must use the special attack as quickly and as much as possible. Then, **wave 5** acts the opposite way - it is the ultimate cooldown management test with 3 shield enemies.