



Game Design Document

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Overview

Roombattle
Shooter 2D ¾ top view
3+ years / PC
Unity - C#

Play an unleashed cat and bring chaos on board your Roomba! Shoot anything that moves, while taming the unpredictable movements of your mount. How far will you go in this crazy battle?

Gameplay

Core mechanics and goals

Goal: get the highest score by shooting enemies

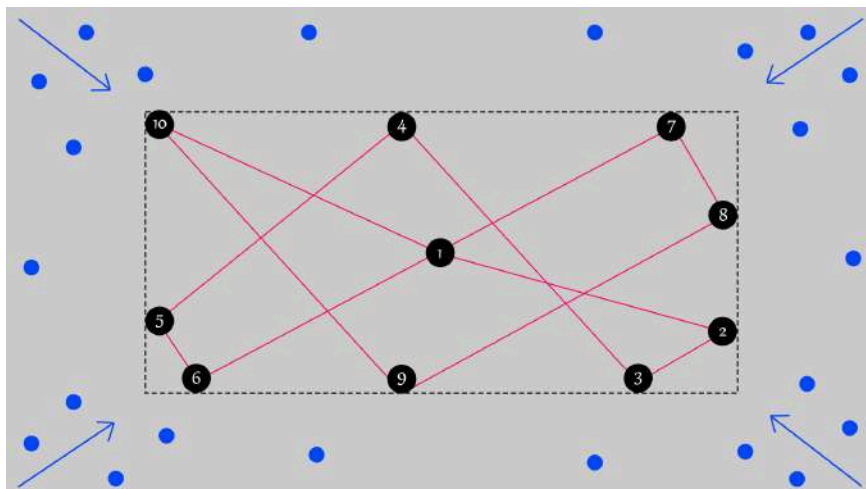
Mechanics:

The Roomba has its own random movements with linear speed. The player doesn't control it (dash excepted).

The Roomba stays in a delimited area. It can't hit the sides of the screen.

The enemies are coming 360° around the Roomba, outside of the delimited area. They move into the direction of the player.

The player can shoot the enemies thanks to 3 levels of weapons.




Winning condition	Get the highest score (arcade type)
Losing condition	<p>The player starts with 3 lives. ♥</p> <p>Each damage costs him/her a life.</p> <p>No life left = game over.</p>






Features

→ [leaderboard](#)

Playable character

Name	Health Points	Move
<p>RoombaCat</p> 	<ul style="list-style-type: none"> - Start: 3 lives - Bonus life: +1 - Hit: -1 	<ul style="list-style-type: none"> - Random straight lines - Linear speed - Dash to adjust direction
	Attack	Death condition
	3 levels of weapons	No life left

Enemies

Name	Avatar	HP	Move	Attack	Death
Cucumber		1	Big jump	Scare (-1HP)	-
Fly		3	Random and fast fly	Stitch (-1HP)	Drop 1 toilet paper (malus)
Fishbowl		2	Slow	Throw water (-1HP)	Throw 3 fishes
Water		1	Slow	-	-
Fishes		1	Stay in place	Hit (-1HP)	-

Level design

Infinite waves until the player's death.







Delay: new wave once all enemies are defeated.

Change: increase of the number of enemies at each wave.

Cucumber	Fly	Fishbowl
50%	20%	30%

# waves	#1	#2	#3	#4
Number of enemies	20	40	80	160

Weapons

	Level 1	Level 2	Level 3
Shot direction	Straight line	90° cone	360° range
Angle of axis	1 axis forward	3 axis	6 axis
Number of projectile	1 each shot	3 each shot (1 per axis)	6 each shot (1 per axis)
Projectile size	Middle	Big	Small
Projectile speed	Slow	Middle	Slow
Projectile visual			
Reload delay	0.5"	0.7"	1"
Activation conditions	Start	- Be at Lvl 1 - After getting +xxx points	- Be at Lvl 2 - After getting +xxx points
	- Be at Lvl 2 - After 1 damage	- Be at Lvl 3 - After 1 damage	
RoombaCat			

Rewards/Penalties

Type	Name	Impact	Duration	Dropped
Malus	Toilet paper	Slow down Roomba	Active for 10"	Fly death
Bonus	Life	+1 life	Always displayed	Reaching xxx points

Controllers

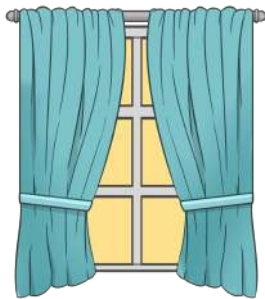
Mouse - pointer	- Point the direction of the weapon - Point the direction of the dash	360°
Mouse - left click	Shot projectile.s	Reload time (see above)
Space bar	Dash	Allow the player to redirect the Roomba to the direction he wants. Cooldown: 15"

Story

Character	- A cat on a Roomba
Desire	- RoombaCat wants to destroy every frustrated enemies and win the battle
World	<ul style="list-style-type: none">- The living room is RoombaCat's playground- The Roomba is just cleaning the house- The cucumber is scaring RoombaCat's- The fly is annoying RoombaCat's- The fishbowl is arousing the curiosity of RoombaCat's- The fish is too wet for RoombaCat's




Art


Direction



FX

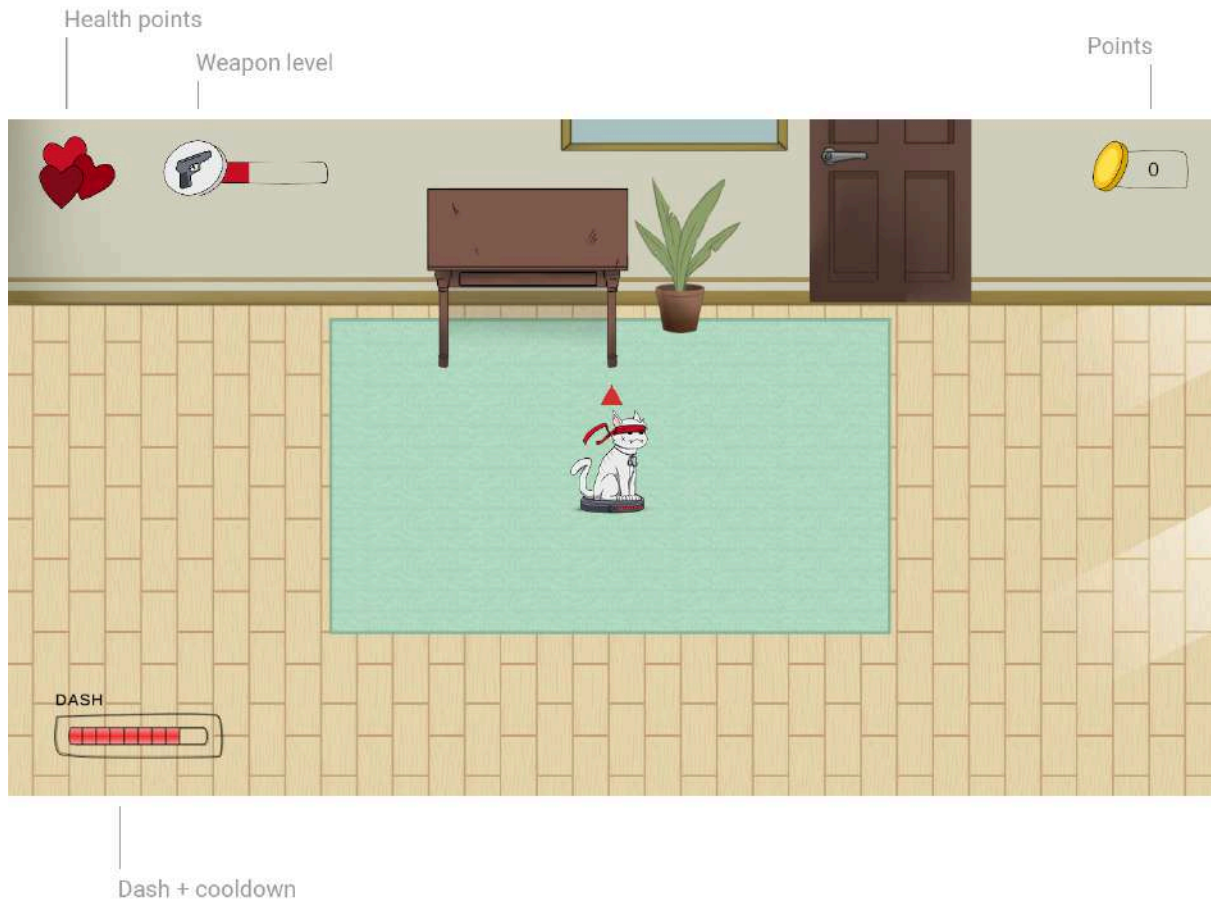
Signs	Visual	Sound
Sight	Line opacity 40%	-
Lvl 1 projectile shoot	Red sparkles from head	Laser sound
Lvl 2 projectile shoot	Yellow flames particles following the meteor	Flame
Lvl 3 projectile shoot	Purple waves around the	Energy ball / electricity

	projectile with fade out 	
Roomba move	Little white trail after the Roomba / opacity 40%	-
Dash	White skid effect on the opposite side of the new direction	Impulse
Fishbowl throws water	Blue waves around the fishbowl 	Water sound / short
Fishbowl fires fishes	Blue trail behind the fishes	Water sound
One life left	Red frame pulsing	-
Ending/losing	Disappear smoke 	Jingle ending

Feedbacks	Visual	Sound
Enemy hit	<ul style="list-style-type: none"> - Orange wave around - Enemy steps back - Small sparkles / color related to the weapon used 	-
Enemy death	<ul style="list-style-type: none"> - Big sparkles / color related to the weapon used - Disappear smoke - Red wave around 	-

Cucumber killed	-	Swip
Fishbowl hit	- Water drops - Asset fishbowl cracked	Glass sound
Fishbowl killed	-	- Glass sound - Water drop
Fish killed	-	Swap
Fly hit #1	Asset fly hit #1	Scrutch
Fly hit #2	Asset fly hit #3	Scrutch
Fly killed	-	Splatsh
Player hit	- Red frame pulsing once - Red wave around the Roomba - Text "Meowuille!"	Random Meow sounds (x3)
Weapon level up	- Yellow/purple glow ascending - Text "Level up!"	Power up crescendo
Weapon level down	- Red glow descending - Text "Meouille!"	Power down decrescendo
Bonus life	- Green glow ascending - Add 1 heart	Chting
Malus toilet paper	- Red glow descending - Text "--- seconds left"	Malus decrescendo
Roomba hitting something	-	Poc sound

HUD



Team

	Function	Responsibilities
Alice	Game designer	<ul style="list-style-type: none">- Mechanics- Level design- UI design- Sound design- Project management
Julien	Artist	<ul style="list-style-type: none">- Artistic direction- 2D assets- Animation- FX- Logo design
Stefan	Developer	<ul style="list-style-type: none">- Development- Debugging