

Formal Game Proposal

Jungle Couch Rage



Team 5

Floor Verhoeven, Manuel Mumenthaler, Liat Ben-Haim, Yanick Lukic and Luca Holzer

06-03-2017

Preface

Currently there are several greyed-out sections left in this document. These are options that we also considered, but currently deem less interesting/fitting to the game and theme. We might however want to come back to them and are also not fully set on them. The options in black ink represent our current most-favored ideas. If you however think that the greyed-out options are better than the ideas in black, we are open to receive feedback on this.

The assignment of tasks to team members is better done in person, we have scheduled a meeting for Wednesday the 5th of March. Due to this the assignment of tasks lists is sparsely populated at this time. Also tasks that are already assigned now are still subject to change.

Game Description

The game is set as a couch gaming experience with friends. The players control characters that are in a jungle environment in which they need to survive. Part of survival is helping each other to achieve goals that the individual players couldn't have achieved alone. However, sometimes in order to survive you also have to make sacrifices, and turn your back on some of your teammates. This game aims to highlight this contrast as a big part of survival and challenges players to find the optimal balance between improving yourself, or going for the team effort.

Game

The game consists of a defined number of rounds (e.g. five). The player with the most points on the scoreboard at the end of the last round wins the game.

Round

Each round consists of two phases, the challenge (cooperative) and the deathmatch (free-for-all) phase which both are described below. The final per-round ranking is based on the total survival times of each of the players in this round (phase 1 and phase 2 combined), with players who survived longer in the jungle ranking higher and earning more points.

Phase 1 (Challenge)

In the first phase the players have to collaborate to solve a specific challenge or puzzle, while under the pressure of a countdown timer (set to x minutes to prevent them from getting into endless discussions). The idea is that the size of the reward for solving the challenge is proportional to the number of players who are involved in achieving the challenge. E.g. there is a maximum reward size that can be achieved by 2 players, and a bigger reward can be achieved by 3 or 4 players.

Although the main purpose of phase 1 is to be cooperative, players also have the possibility to kill each other in this phase. However, the killer is punished by losing points from his total score (for balancing purposes, when a player decided to kill more than one other player his punishment will be bigger than the amount of points he would get for ranking first in this round). The victim cannot participate in this round's phase 1 anymore (resulting in a lower achievable reward). The victim is also punished in phase 2 of this round (this punishment will be described below).

Even though killing someone in phase 1 reduces your own score, players might be motivated to kill a player that is currently ranked first and far ahead of the others, to increase their own chance of getting closer to being in the lead, or to take the win away from the currently leading player.

Phase 2 punishments possibilities:

- A player is taken completely out of this round and hence cannot further increase the points he will get during it (low target implementation).
- A player cannot increase his ranking anymore and thus cannot increase the points he will get, but in phase 2 he is allowed to participate as a vengeful ghost (possible with an adapted character, ghost) and do damage/kill other players. Their weapons are weaker than those of the players who were not killed in phase 1.

Phase 1 ends when either the challenge is successfully solved (in case the challenge has a set maximum achievable number of points), when only one player is left or when the timer ends (whichever happens first). When there is only one player left at the end of the challenge, the challenge failed and a minimum of points is given to the players respecting the order of death. If the challenge ends due to the timer going off and the players haven't collected any points, all players get equally many minus points and phase 2 does not take place, since there are no points in the pool that can get divided.

Challenge Possibilities

- Low Target: There are as many platforms/button objects in the scene as players. These are activated by standing on top of them, the more platforms/buttons are activated simultaneously, the higher the reward. The challenge is solved as soon as all players are standing on a platform/button.
- Low Target: The players all have to press and hold a specific multiple controller button (e.g. the R1 button, at least something that isn't used in movement/killing control) at the same time to solve this challenge. Thereby the number of pressed buttons that is needed to solve the challenge corresponds to the number of players who are still alive. The more players are involved in pressing the buttons to complete the challenge, the more points are added to the global score-pool.
- Desirable Target: There are as many platforms as players in the game. As soon as more than two are occupied by players, collectibles start to spawn for the next (30?) seconds. If more platforms are occupied at a time, the spawn rate is increased. After the timer is done, players can again distribute on the platforms to restart it (Alternative: objects will

spawn at this rate for the rest of phase one). In the meantime they will have to collect the spawned items to fill the global points pool. These items will despawn after some time, so they have to be collected quickly. The challenge does not have a set “solution” so it will be ended timer-based or when there is only one player left.

- Desirable Target: Rewards are at different height levels in the scene and rewards that are higher up are worth more. Players have to form a tower of themselves in order to reach for the rewards. Players jump onto each other's head and the tower builds from bottom up (the bottom player of the tower can make the entire tower jump onto the next player). The challenge is solved when the players build a tower that contains all of the players that are still alive.
- High target: There are different items on the map. Moving an item to a marked location on the map results in additional points in the score-pool. Each item needs a specified number of players to move it. Heavier items need more players to lift it but accredit more points to the score-pool. The challenge is solved as soon as at least one item is moved to the marked location.

Phase 2 (Deathmatch)

After solving the challenge in phase 1 the players have to fight over the points inside the score-pool that they gained during phase 1. In phase 2 each player has a gun that can shoot a variety of different jungle-themed ammunition (e.g. coconuts, bananas, poisonous frogs etc.). The different amunitions have varying effects. Players that got killed in phase 1 will not be able to participate in phase 2 as a regular player, but instead will spawn as a ghost player. As a ghost player it is not possible to earn any points in a given round, but it is possible to shoot and damage/kill other players in order to stop them from earning points. However, the weapons of ghost players do less damage than those of non-ghost players.

Possibly the arena will contain power-ups which give access to new ammunition types (what type of access is yet to be determined: temporary in time, fixed amount of shots, etc).

The final ranking of a given round is given by the time that each player survived in the jungle (possibly in combination with bonus survival-time that can be collected from the map by non-ghost players).

Based on the achieved rank in this round (based on survival time in both phases, so ghost players also get a share) the points in the score-pool from phase 1 are distributed among the players as follows:

Rank	Points percentage
1.	60%
2.	25%
3.	10%

4.	5%
----	----

Phase 2 game play possibilities:

- No respawn & no physical points: The achieved percentage of the points which are added to the individual score depend on survival time of the respective player (more points for surviving longer). The round ends as soon as only one player remains living.
- No respawn & physical bonus time: The achieved percentage of the points which are added to the individual score depend on the survival time of the respective player (more points for surviving longer). Players (non-ghost) can collect bonus time that spawns in the arena, which will improve their ranking. The round ends as soon as only one player remains living.

Start screen

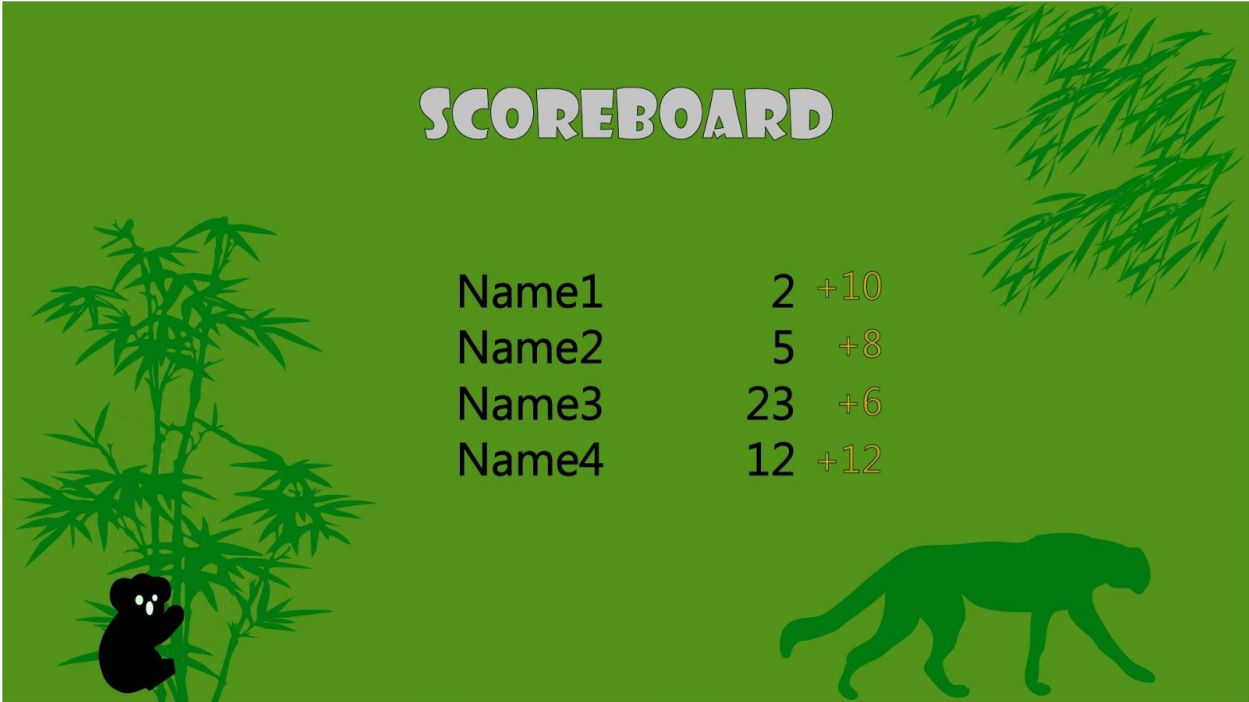


Scoreboard



A green-themed scoreboard slide. The title "SCOREBOARD" is in white bold text at the top center. On the left, there is a bamboo plant and a black bear silhouette. On the right, there is a tiger silhouette. The scoreboard data is as follows:

Name1	2
Name2	5
Name3	23
Name4	12



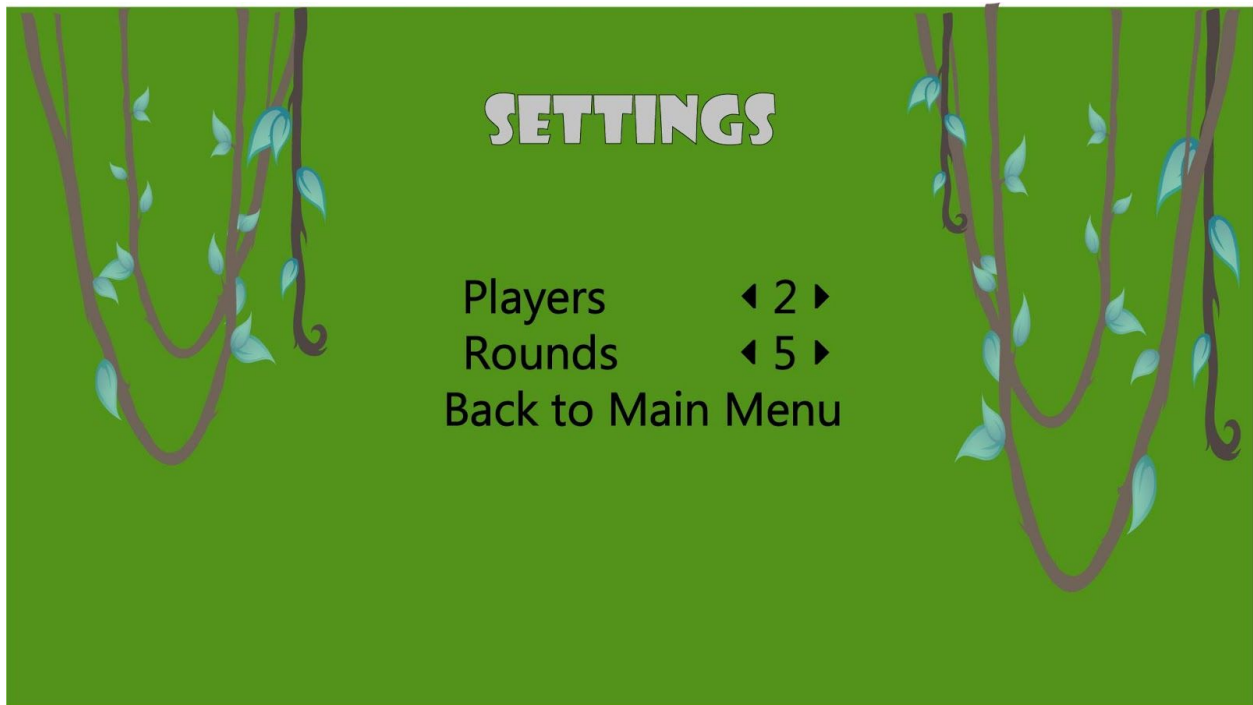
A second green-themed scoreboard slide, identical in layout to the first. The title "SCOREBOARD" is in white bold text at the top center. On the left, there is a bamboo plant and a black bear silhouette. On the right, there is a tiger silhouette. The scoreboard data includes additional values in orange text:

Name1	2	+10
Name2	5	+8
Name3	23	+6
Name4	12	+12

Settings menu

Including:

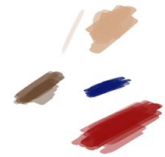
- Number of players (3 or 4)
- Type of challenge for phase 1 (if we manage to develop more than one type of challenge)



The rounds will be set to a fixed value, which we will determine during the playtesting phase. This image will be replaced in the final version, removing the option for choosing the number of rounds.

Player character (regular and ghost player)

This image only explores the dimensions of body parts so far. Accentuating the cute factor by the large head size and stubby looking legs. Monkeys would be the intended character type.



Jungle arena

Due to the fact that we are still debating whether to use a split-screen first-person view or an isometric view we don't have a concept image for the jungle area that the game will take place in yet.

Technical Achievement

The main technical achievement that we are going pursue will be the 3D animation of the game characters. The characters will be animated to look very cute but when they die their remains will look gory, much like the jungle also has elements that look cute and beautiful but actually aren't. Since no-one cleans up the jungle, the scenes of death will be marked by permanent blood splatters in the color of the player that died there. Possibly we will also try to procedurally generate the maps that are used in phase 2 of the game (although this is only a requirement for the high target).

"Big Idea" Bullseye

- "Jungle contrasts"
- Cute vs gore
- Teamwork vs opposition
- One-for-all vs all-for-one
- General focus on opposites / contrast

Development Schedule

1. **Functional minimum:** minimal items to make something that you might call a game. You'd be embarrassed if you only got this far, but at least it'd be something.
 - a. Only phase 2 (shooter)
 - b. Arena, possibly with some obstacles (do not need to look like trees etc.)
 - c. Simple player character
 - d. Simple weapon (tube) that can shoot balls symbolising nuts
 - e. Player death (one hit kills)
 - f. "Bullets" travel in a straight trajectory
2. **Your low target:** Your target for what you want to get done--the least possible to feel sort-of OK about the result.
 - a. Phase 1: simple challenge(s)
 - b. Assets look recognizably jungle themed (weapon, ammunition, character, arena)
 - c. Death in phase 1 leads to not being able to play at all in phase 2
3. **Your desirable target:** This is what you're aiming for, if things go reasonably well.
 - a. Phase 2: collectible bonus survival time
 - b. Multiple weapons

- c. Blood in the color of a) the killer or b) the victim that stays for the rest of the game (=max 5 rounds).
 - d. Per-player life bar, different weapons have different damage.
 - e. Death in phase 1 leads to playing as a ghost player in phase 2
 - f. "Bullets" travel in a parabolic trajectory
 - g. Players have some control over the parabolic trajectory of their weapons
4. **Your high target:** It might be possible to get this much done, if all goes extremely well.
- a. Procedural generation of the maps in phase 2
 - b. Power-ups in phase 2 (e.g. speed-up, doing more damage etc.)
5. **Your extras:**
- a. Varied cooperative puzzles for phase 1
 - b. Phase 1 challenges where the players have to perform a certain action which then spawn points in the scene. These points have to be collected in order to be added to the point-pool for phase 2. The points are collectible until only two players remain, and points stop spawning after the first kill.
 - c. Respawning in phase 2 and a ranking based on number of kills

Task lists

1. Assignment tasks:

Task	Description	Who	Hrs	Actual	Due date
1.1	Rough draft of the project proposal	All			06.03.17 - 17:00
1.2	Final formal project proposal	All			13.03.17 - 17:00
1.3	Prototype	All			20.03.17 - 17:00
1.4	Interim report	All			21.04.17 - 17:00
1.5	Alpha release	All			08.05.17 - 17:00

1.6	Playtest	All			15.05.17 - 17:00
1.7	Conclusion + Demo Video	All			02.06.17 - 17:00
1.8	Make formal game proposal presentation	All			13.03.17 - 17:00
1.9	Make physical prototype presentation	All			20.03.2017 - 17:00
1.10	Make first playable demo presentation	All			03.04.2017 - 17:00
1.11	Make interim demos presentation	All			24.04.2017 - 17:00
1.12	Make alpha release demos presentation	All			08.05.2017 - 17:00
1.13	Make playtest presentation	All			15.05.17 - 17:00
1.14	Make final presentation	All			29.05.17 - 17:00

2. Functional minimum:

Task	Description	Who	Hrs	Actual
2.1	Implement horizontal aiming of the weapon	Manuel	4	

2.2	Implement collision test of bullet and player	Floor	6	
2.3	Design a 3D character mesh	Luca & Yanick	16	
2.4	Design a simple 3D weapon mesh	Luca & Yanick	3	
2.5	Implement removal of player upon hit	Liat	1	
2.6	Implement moving of character over map	Liat	4	
2.7	Implement (non jungle theme) arena		8	
2.8	Implement shooting of a bullet (trigger and bullet animation)	Manuel	4	
2.9	Implement random initial spawning of the players on the map	Liat	2	
2.10	Design a start screen		3	
2.11	Implement start screen		2	
2.12	Implement score-tracker	Floor	2	

3. Low target:

Task	Description	Who	Hrs	Actual
3.1	Implement a simple challenge for phase 1		16	
3.2	Design a jungle-themed arena		8	
3.3	Implement jungle-themed arena		8	

3.4	Implement killing in phase 1		5	
3.5	Implement a tracker of people who die in phase 1 and exclude them in phase 2		2	
3.6	Testing of complete low target		2	

4. Desirable target:

Task	Description	Who	Hrs	Actual
4.1	Design survival time points	Luca & Yanick	3	
4.2	Design extra 3D ammunition meshes	Luca & Yanick	16	
4.3	Design a blood splatter pattern	Luca & Yanick	2	
4.4	Place blood spatters in scene when someone dies		2	
4.5	Implement different damage for different weapons		5	
4.6	Implement a per-player life bar		3	
4.7	Design a 3D skeleton player mesh for the ghost players	Luca & Yanick	8	
4.8	Give people who die in phase 1 a skeleton character		1	
4.9	Implement bullets travelling with a parabolic		10	

	trajectory			
4.10	Implement trajectory control for the weapons		6	

5. High target:

Task	Description	Who	Hrs	Actual
5.1	Implement procedural generation of the maps in phase 2		30	
5.2	Implement power-ups in phase 2		20	

Week Number	Deliverables/ milestones	Tasks to complete till this week	Tasks to complete in this week
Week 1 (20/2 - 26/2)			
Week 2 (27/2 - 5/3)			
Week 3 (6/3 - 12/3)	1.1		1.8
Week 4 (13/3 - 19/3)	1.2		
Week 5 (20/3 - 26/3)	1.3		
Week 6 (27/3 - 2/4)			
Week 7 (3/4 - 9/4) First playable demo at 4/4		2.1 - 2.12	
Week 8 (10/4 - 16/4)			
Week 9 (17/4 -	1.4		

23/4)			
Week 10 (24/4 - 30/4) Interim demo at 25/4		2.1 - 2.12 and 3.1 - 3.6	
Week 11 (1/5 - 7/5)			
Week 12 (8/5 - 14/5) Alpha release at 09/5	1.5	2.1 - 2.12, 3.1 - 3.6 and 4.1 - 4.10	
Week 13 (15/5 - 21/5)	1.6		
Week 14 (22/5 - 28/5)			
Week 15 (29/5 - 4/6)	1.7		

Assessment

The main strength of the game will be that it forces the players to consider when and to what extent to be cooperative to win the game. As the game is set up as a local multiplayer experience, it will create real-life discussions between the players of the game as they each try to decide on an optimal strategy for themselves to win.

Anyone who has at least two other people to play with could play this game. The game makes them both collaborate but also forces them to be competitive within the group. Also the game will really give a strong survival feeling to the players since the playing field and all its elements will be jungle themed.

The appearance of the jungle elements will highlight the contrast of cute vs gore that is present in the jungle. Additionally the style of game play will highlight the contrast between collaborating to survive the jungle and survival of the fittest and natural selection. The design will be a success if players start to have discussion with each other in order to try and come up with the best possible strategy for each of them. Most likely a successful implementation of the game will also often make the scoreboard leader of the game frustrated with his "friends", as they might try to kill him in phase 1 instead of collaborating with him.

Formal Game Proposal

Jungle Couch Rage



Team 5

Floor Verhoeven, Manuel Mumenthaler, Liat Ben-Haim, Yanick Lukic and Luca
Holzer

12-03-2017

Glossary:

Term	Definition
Match	A match is one complete experience of playing the game (with every player starting at zero points and a final ranking and winner at the end). A match consists of several (5) rounds.
Round	A part of a match. Starts with an empty point pool and every player alive and at full health. It ends when only one player is left alive.
Point Pool	During a round the players can increase the amount of points in this pool by picking up collectibles. At the end of the round these points are distributed to the players based on their ranking in this round. It is reset to zero at the start of each round.
Collectible	Items that can be picked up to increase the amount of points in the global pool.
Ghost	An alternate character for a player that died during the round. The ghost can't collect any points and he can't be damaged. He can affect other players in negative ways (like dealing damage or slowing them) but the ghost should not be as strong as a normal character.

Game Description

The different tribes of monkeys living in this jungle are very competitive and regularly try to find out which tribe is the best. For this purpose they each choose a champion, of course their most fearsome monkey, to compete in a tournament to find out who will take the magical golden banana home to show that he is indeed the best monkey. They will fight each other in a battle to survive the longest to win the most bananas. But unfortunately someone locked the bananas inside an annoying chest, which one monkey alone cannot unlock. They are forced to work together to free the bananas! With whom will each monkey team up and what rivalries will be revealed in today's challenge?

The game is set as a couch gaming experience. The players each control a monkey that represents one of the jungle's monkey tribes and that is trying to survive the longest. Part of survival is helping each other to achieve goals that individuals couldn't have achieved alone. However, sometimes in order to survive you also have to make sacrifices, and turn your back on some of your temporary teammates. The monkeys have to collaborate in order to spawn more bananas into the game, but in the end they all want to be the last one standing as this will reward them with the most bananas.

This game aims to highlight the big contrasts of survival and challenges the players to find the optimal balance between improving yourself, or going for the team.

Game

This game is an isometric 3D multiplayer shooter. Each match consists of a defined number of rounds (e.g. five), where each round ends with a last man standing deathmatch. In every round the players need to work together to fill a global point pool. The points collected are not directly awarded to the players, but distributed at the end of each round while the last surviving player gets the most points. Players can earn points in each round and the player with the most points on the scoreboard at the end of the last round wins the game.

Although players want to try and kill each other, because the ranking is based on who survives the longest, they also are motivated to work together in order to fill up the point-pool from which the points will finally be distributed.

Round

For each round there is a point-pool, which the players need to fill up by collaborating. After the end of a round, every player is awarded a set percentage of the point-pool, based on his ranking in the round. The per-round ranking is based on the survival times of each of the players in this round, with players who survived longer in the jungle ranking higher and therefore earning more points. Each round is set to last until there is only one player left.

Gameplay

Every player has a gun that can shoot a variety of different jungle-themed ammunition (e.g. coconuts, poisonous frogs etc.). The different types of ammunition have varying effects and

do a different amount/ type of damage. The players shoot at each other in order to try to reduce the lifebar of the other players. When a player's life bar becomes zero, he dies and his ranking for this round becomes fixed (the first player to die ranks last, the second player to die ranks second-to-last etc.).

Dead players will respawn as ghosts for the rest of the round. This will 1. prevent them from getting bored, 2. make sure the remaining players can't just collect points indefinitely, 3. give the dead players a chance to practice the mechanics of the game and 4. allow them to gain revenge on their cowardly killer! As a ghost player it is not possible to increase his own ranking for this round anymore, but it is still possible to shoot at other players and do damage to them or kill them and therefore prevent them from increasing their rank. The ghost should be balanced in order to still have an impact on the game without making them dominate over the living. Balancing them could involve less damage, incapacitating effects or making them slower than living players.

In order to have something to fight for, the players have to collect points (bananas) to fill up the point-pool. These points are distributed over the jungle arena as collectibles that the players can pick up. This forces players to move around the map (instead of simply hiding behind a tree) because otherwise they might survive the longest, but there won't be any points to distribute. Of course this does expose them to being hit by other players, and thus they have to find a balance between the two goals of collecting points and making sure they don't die.

When the amount of points that are available to be picked up runs low, players can decide that they want to spawn more points. In order to do this players have to collaborate and move into a small open area that is central to the map. As soon as two or more players are in this area, more collectibles will spawn on the map. Again players have to make a well-considered decision about whether or not they want to do this, as being in the central-area makes them very vulnerable to be killed by other players since there is no objects to hide behind.

Additionally to the collectibles, there are power-ups which can be gained by two collaborating players through activating a platform (ruin/temple) at the same time. They will give access to f.e. speed up, damage bonus, armor, heal, ammunition/ weapons.

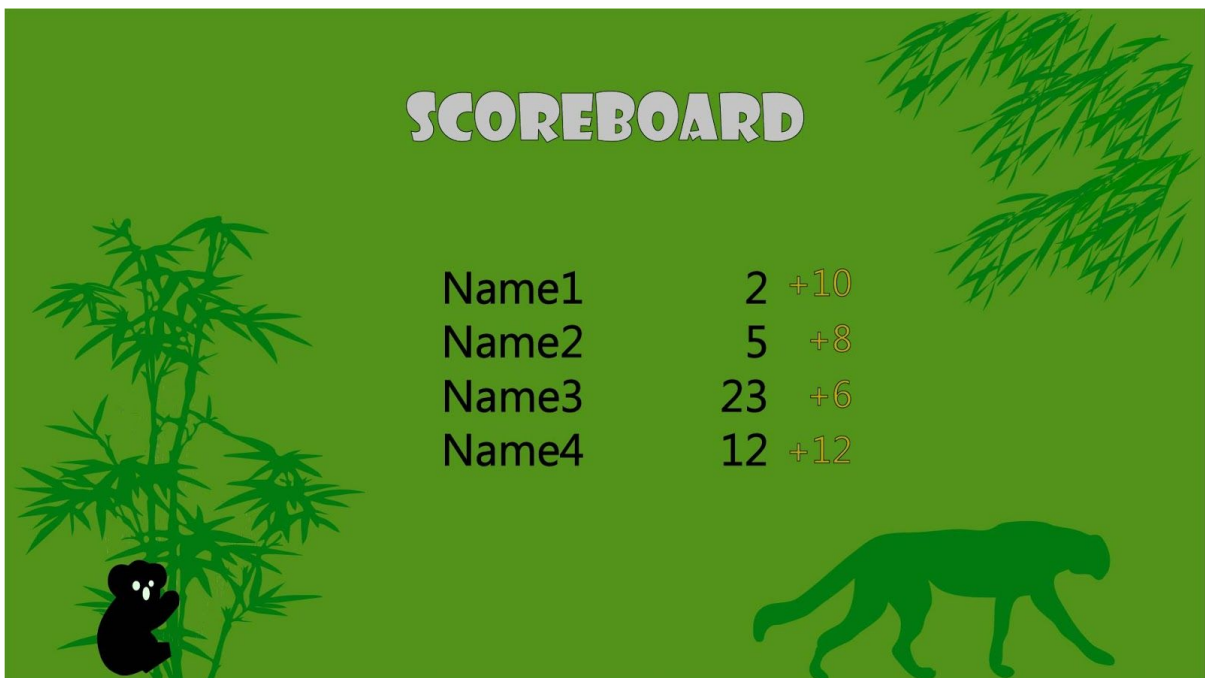
Based on the achieved rank in this round (based on survival time in this round) the points in the point-pool are distributed among the players as follows:

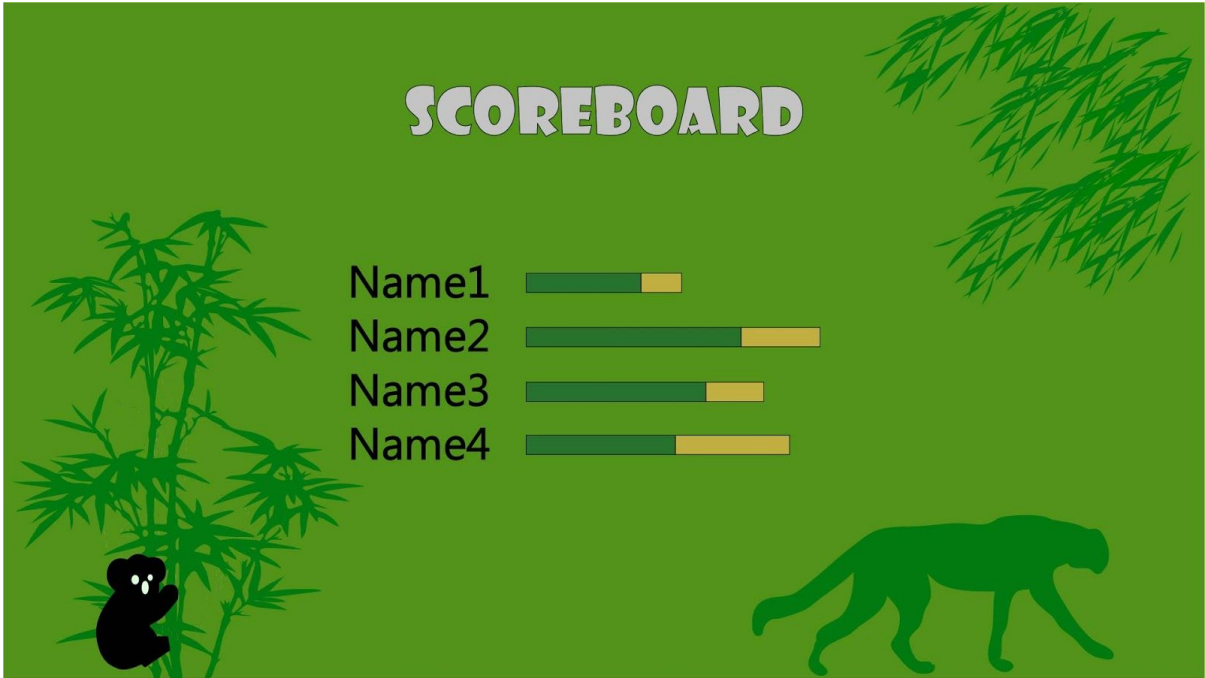
Rank	Points percentage
1.	60%
2.	25%
3.	10%
4.	5%

Start screen



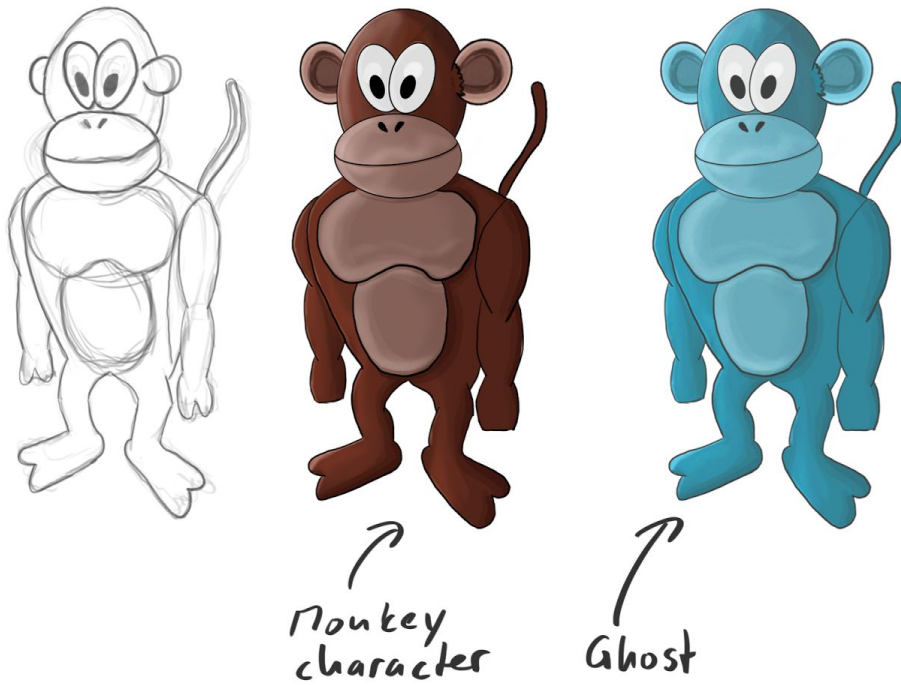
Scoreboard



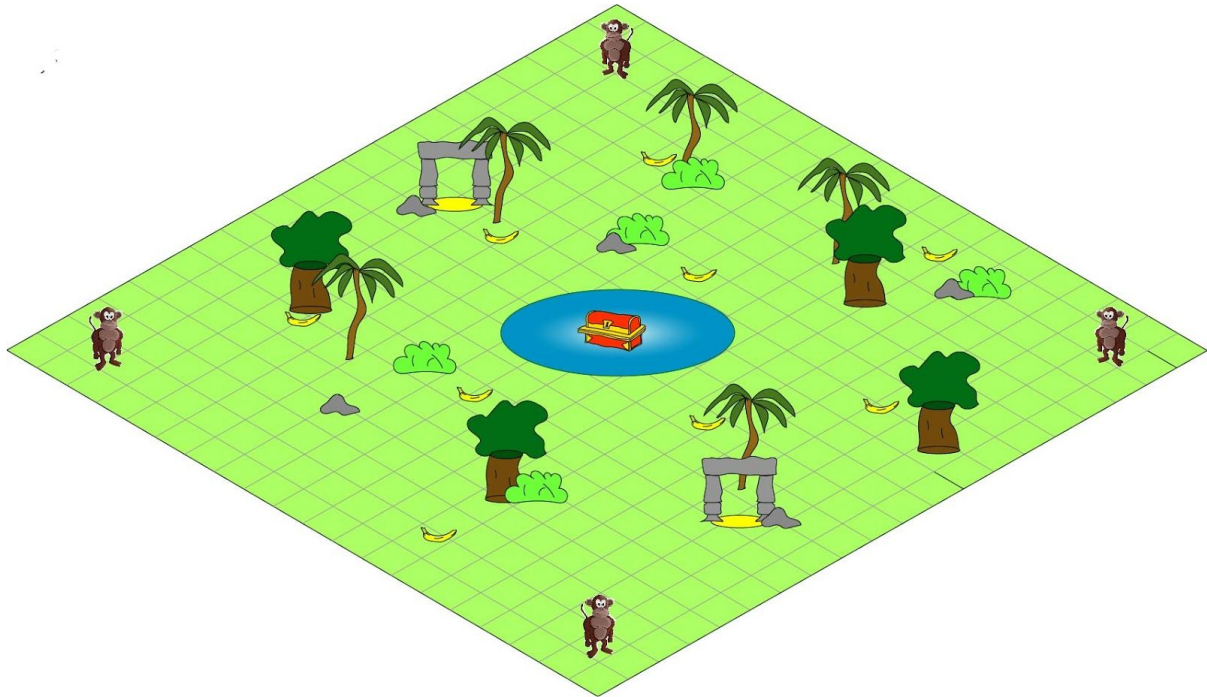


Two different options: Scoreboard with points filling into numbers or a scoreboard using a visual comparison of points achieved by each player so far.

Player character (regular and ghost player)



Jungle arena



The arena will also be surrounded by a dense jungle to enhance the jungle feeling.

Technical Achievement

The main technical achievement that we are going to pursue will be physical particle systems for blood splattering and explosions. The monkey characters will look very cute when they're alive, but when they die, gory-looking blood splatters will shoot out of them. Also the weapons will look cute and innocent at first sight, but will cause not-so-cute explosions when they go off. Since there is no one to clean up the jungle, the blood splatters that follow upon a player's death will remain in the scene for the rest of the game.

"Big Idea" Bullseye

- "Jungle contrasts"

Development Schedule

1. **Functional minimum:** *"minimal items to make something that you might call a game. You'd be embarrassed if you only got this far, but at least it'd be something."* **"The functional minimum of this game is a minimalistic shooter that at least two players can play together. Players can move over the arena plane and shoot in a straight line using any input device. There is a simple arena using a floor plane and cubic obstacles. Characters are displayed as cubes or spheres and they use a simple collision detection algorithm to prevent them from**

intersecting. If a player is hit by a projectile, he loses and the other player wins the game.”

- a. Isometric camera view
 - b. Arena, consisting of a plane and cubes as obstacles
 - c. Simple player character (sphere or cube)
 - d. Shooting small projectiles in a straight line
 - e. Player death (one hit kills)
 - f. (Controller) input
 - g. Simple collision detection (AABB or OBB)
2. **Your low target:** *Your target for what you want to get done--the least possible to feel sort-of OK about the result. “The low target of this game includes the core gameplay and graphical elements described in this paper. The players have to collect and fight over the points over multiple rounds.”*
- a. Gameplay:
 - i. One match consists of multiple rounds with a winner at the end of the match.
 - ii. Global points pool with point distribution based on the ranking after each round.
 - iii. Collectibles to fill up the global points pool.
 - iv. Simple but working level design
 - v. HUD to display points in pool, round number, remaining number of players
 - b. Graphics:
 - i. Assets look recognizably jungle themed and cute.
 - ii. Basic animation for player character
 - c. Detailed collision detection
3. **Your desirable target:** *This is what you're aiming for, if things go reasonably well. The desirable target includes all non-optional gameplay and graphics ideas discussed in this paper.*
- a. Graphics:
 - i. Smooth animation transitions (C0 continuous)
 - ii. Cel Shading
 - iii. Gory animations when player gets killed
 - iv. Ghost character model / texture
 - b. Technical:
 - i. Permanent blood, and Explosion particle effects
 - ii. Efficient Collision detection
 - iii. Sounds (music, shooting, explosions,..)
 - iv. Basic particle effects (temporary blood splashes)
 - c. Gameplay:
 - i. Life Bars for each player (over the character or on the HUD, no longer one hit kills)
 - ii. Ghost system
 - iii. Option to respawn collectibles in the center of the arena
 - iv. Projectiles with explosive behaviour and damage rating

4. **Your high target:** It might be possible to get this much done, if all goes extremely well.
 - a. Graphics:
 - i. More variety in obstacle design
 - ii. Additional animation techniques to increase the animation blending quality
 - b. Gameplay:
 - i. Multiple ammunitions with different damage
 - ii. Traps (Environmental)
 - iii. Power-ups (e.g. speed-up, doing more damage etc.)
 - c. Technical:
 - i. Increase game performance if necessary
5. **Your extras:**
 - a. Procedural generation of the arena maps

Task lists

Assignment tasks

Task	Description	Who	Hrs	Actual	Due date
A.1	Rough draft of the project proposal	All	14	20	06.03.17 - 17:00
A.2	Final formal project proposal	All	20		13.03.17 - 17:00
A.3	Prototype	All	20		20.03.17 - 17:00
A.4	Interim report	All	15		21.04.17 - 17:00
A.5	Alpha release	All	15		08.05.17 - 17:00
A.6	Playtest	All	30		15.05.17 - 17:00
A.7	Conclusion + Demo Video	All	20		02.06.17 - 17:00

A.8	Make formal game proposal presentation	All	4		13.03.17 - 17:00
A.9	Make physical prototype presentation	All	4		20.03.2017 - 17:00
A.10	Make first playable demo presentation	All	4		03.04.2017 - 17:00
A.11	Make interim demos presentation	All	4		24.04.2017 - 17:00
A.12	Make alpha release demos presentation	All	5		08.05.2017 - 17:00
A.13	Make playtest presentation	All	5		15.05.17 - 17:00
A.14	Make final presentation	All	6		29.05.17 - 17:00

Programming and design tasks

ID	Task	Development Target	Responsibility	Hrs	Actual
1.1	The scene is visible through an isometric camera	Setup	Graphics	8	
1.2	Basic entity classes for game objects are implemented	Setup	Architecture	16	
1.3	Primitive graphics for game objects	Setup	Graphics	6	
1.4	A basic arena is implemented	Setup	Graphics /	8	

	and visible		Level		
1.5	A character can be moved over the arena plane	Setup	Gameplay	5	
1.6	Basic game code structure is set up	Setup	Architecture	8	
2.1	Characters can shoot projectiles horizontally (aiming and movement of projectile)	Minimum	Gameplay	6	
2.2	Characters die if hit by a projectile	Minimum	Gameplay	1	
2.3	Character can be controlled using a controller	Minimum	Gameplay	5	
2.4	Simple collision detection for characters and projectiles	Minimum	Technical	8	
2.5	Multiple player objects	Minimum	Gameplay	2	
2.6	Player character spawns randomly on map at start of round	Minimum	Gameplay	4	
2.6	Ranking based on deathmatch	Minimum	Gameplay	2	
2.8	Implement start screen	Minimum	Gameplay	2	
2.9	Implement score screen	Minimum	Gameplay	3	
2.10	Design start screen	Minimum	Design	3	
2.11	Design score screen	Minimum	Design	3	
2.12	Testing of complete minimum functionality	Minimum	Gameplay	2	
3.1	A match consists of multiple rounds, with players accumulating points	Low	Gameplay	3	
3.2	Points from a global pool are distributed at the end of each round	Low	Gameplay	1	
3.3	Collectibles can be picked up to	Low	Gameplay	4	

	increase the point pool				
3.4	Implement jungle-themed character, projectile, collectibles and obstacles	Low	Gameplay	5	
3.4	Simple level design (loading from level file) is present	Low	Level	10	
3.5	Design jungle-themed models and textures for character, one projectile, collectibles and obstacles	Low	Design	14	
3.6	Design simple animation (walk and shoot)	Low	Design	6	
3.7	Load models for each entity type	Low	Graphics	5	
3.8	Basic animations are played when a character takes an action (walk and shoot)	Low	Graphics	4	
3.9	Collision detection is accurate	Low	Technical	6	
3.10	Testing of complete low functionality	Low	Gameplay	3	
4.1	Smooth animation transitions	Desirable	Graphics	5	
4.2	Models are displayed using cel shading	Desirable	Graphics	10	
4.3	Gory animations are played when a character dies	Desirable	Graphics	4	
4.4	Design gory character death animations	Desirable	Design	6	
4.5	Design different texture for ghost character	Desirable	Design	4	
4.6	Basic particle effects can spawn and despawn after a short time (non-permanent blood splatters etc)	Desirable	Technical	12	
4.7	Particle effects for explosions	Desirable	Technical	12	
4.8	Collision detection is as efficient as necessary	Desirable	Technical	6	

4.9	Sound effects (music, shooting, explosions,...) are included	Desirable	Technical	14	
4.10	Life bars are displayed for each character	Desirable	Gameplay	4	
4.11	Dead players respawn as ghosts for the rest of the round.	Desirable	Gameplay	1	
4.12	Projectiles use explosions and a damage rating	Desirable	Gameplay	6	
4.13	Balancing	Desirable	Gameplay	8	
4.14	Testing of complete desirable functionality	Desirable	Gameplay	4	
5.1	Design multiple variants for each object to increase variation (e.g. different types of trees)	High	Design	10	
5.2	Additional animation techniques are used to increase animation quality	High	Graphics	8	
5.3	Design multiple projectiles	High	Design	6	
5.4	Multiple weapons with different attributes are available	High	Gameplay	4	
5.5	Implement power up mechanic	High	Gameplay	6	
5.6	Players can work together to gain power ups	High	Gameplay	14	
5.7	Design environmental traps	High	Design	4	
5.8	Traps activate every X seconds or when a player gets close	High	Gameplay	8	
5.9	Increase game performance if necessary	High	Technical	-	
5.10	Blood particles stay for the rest of the match	High	Technical	8	
5.11	Balancing	High	Gameplay	16	
5.12	Testing of complete high functionality	High	Gameplay	5	

E.1	Procedural Generation of assets or map	Extra	Technical	-	

Timeline

For more detailed planning please see the issue tracking on gitlab. It is easier to keep up to date and offers time tracking features. Milestones have been added and all tickets were assigned to one.

Week Number	Deliverables/ milestones	Tasks to complete till this week	Tasks to complete in this week
Week 1 (20/2 - 26/2)			
Week 2 (27/2 - 5/3)			
Week 3 (6/3 - 12/3)	A.1		A.8
Week 4 (13/3 - 19/3)	A.2		A.9, 1.1-1.6 (Setup), Prototype for A.3
Week 5 (20/3 - 26/3)	A.3		Minimum target
Week 6 (27/3 - 2/4)			A.10, Low target
Week 7 (3/4 - 9/4) First playable demo at 4/4		Low target	Desirable target, Low target backlog
Week 8 (10/4 - 16/4)			Desirable target
Week 9 (17/4 - 23/4) Interim report at 21/4	A.4		A.11, Desirable target
Week 10 (24/4 - 30/4) Interim demo at 25/4		Desirable target	Desirable target backlog
Week 11 (1/5 - 7/5)			A.12, High target
Week 12 (8/5 -	A.5	High target	A.13, High target backlog

14/5) Alpha release at 09/5			
Week 13 (15/5 - 21/5)	A.6		
Week 14 (22/5 - 28/5)			A.14
Week 15 (29/5 - 4/6)	A.7		

Role Assignment

Of course everyone is a game developer, additionally we have assigned the following roles:

- Producer : Liat
- Programmers (Lead-Dev on):
 - Collision system, Particle System: Floor
 - Game Play System, Level System: Liat
 - Animation system, Rendering System: Manuel
- Artists:
 - Level, Textures, Assets: Luca
 - Character and animation: Yanick

Of course this does not hinder anyone to help out in one of the other roles.

Assessment

The main strength of the game will be that it forces the players to consider when and to what extent to be cooperative to win the game. As the game is set up as a local multiplayer experience, it will create real-life discussions between the players of the game as they each try to decide on an optimal strategy for themselves to win.

Anyone who has at least two other people to play with could play this game. The game makes them both collaborate but also forces them to be competitive within the group. Also the game will really give a strong survival feeling to the players since the playing field and all its elements will be jungle themed.

The appearance of the jungle elements will highlight the contrast of cute vs gore that is present in the jungle. Additionally the style of game play will highlight the contrast between collaborating to survive the jungle and survival of the fittest and natural selection. The design will be a success if players start to have discussion with each other in order to try and come up with the best possible strategy for each of them. Most likely a successful implementation of the game will also often make the scoreboard leader of the game frustrated with his "friends", as they might try to kill him quickly instead of collaborating with him.

Game prototype

Jungle Couch Rage

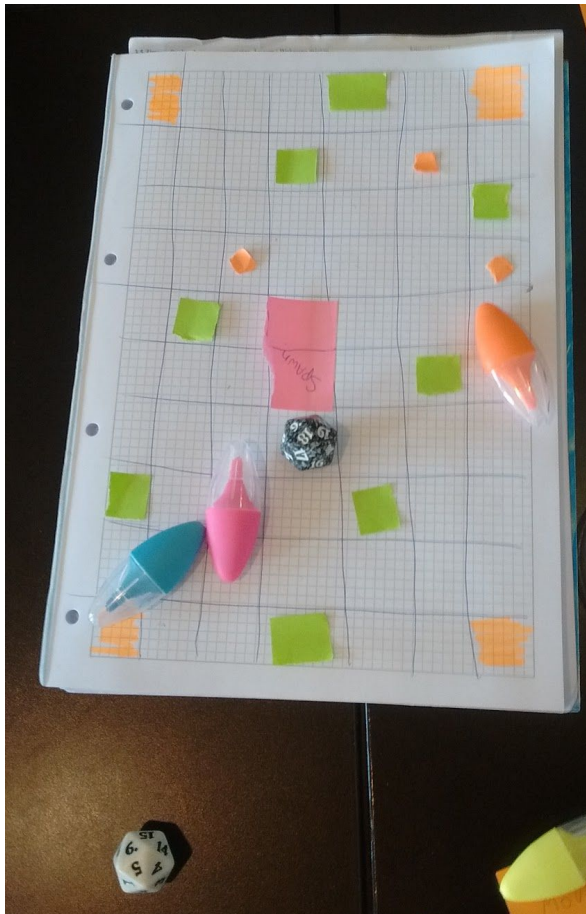


Team 5

Floor Verhoeven, Manuel Mumenthaler, Liat Ben-Haim, Yanick Lukic and Luca
Holzer

20-03-2017

For the presentation of the prototype: use magnets for trees, players, ghosts and points, they can be stuck to the blackboard.



The final prototype consists of a playing field that looks like a regular rectangular grid. The orange squares represent the fields where the players spawn, the pink squares are the fields that the players have to stand on in order to spawn more points into the playing field and the green squares represent the trees (obstacles). The small orange pieces are the physical points that the players can collect. Each mini-marker represents one of the players and the die represent the ghost players.

Each player starts with 4 lives at the start of the game, and one life will be deducted for every time that a player is hit. A player dies when he has no lives left and he then becomes a ghost player.

One person is assigned the computer role and he/she keeps track of the number of lives each player has and counts down before every turn.

At every turn each of the players has to decide which one of the following actions he/she wants to perform. They can choose

out of the following: stay still, move (max. 2 fields, diagonal also allowed) or shoot + move (shoot and then move max. 1 field). All players have to choose an action card at the same time and reveal it to the other players. Then first all the shooting actions will be resolved, followed by the moving. Players that get shot will still finish their action (they will still perform

their shot). When 2 or more players die in the same turn, rolling the die decides the order in which they'll be ranked (this won't be the case in the computer game).

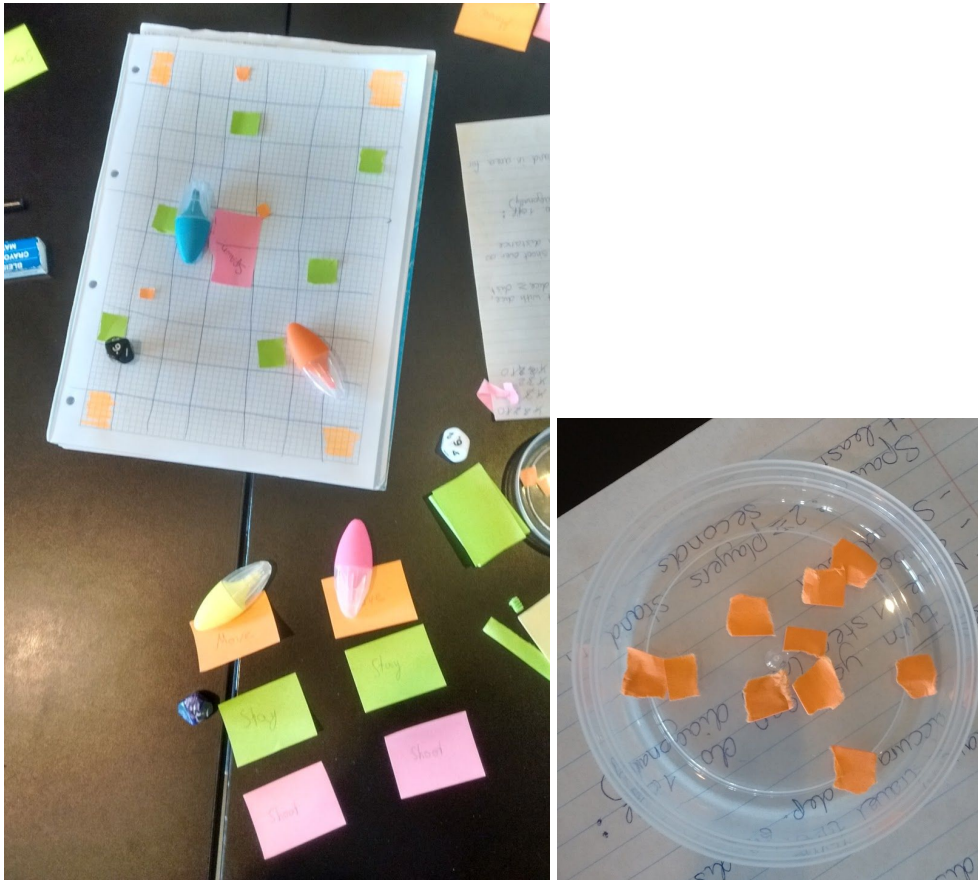
In order to test whether a shot is a hit or a miss, we count the number of tiles that need be traversed in the shortest path to the opponent that a player is shooting at. We then roll a 10-sided dice and when the number on the dice is equal to or larger than the distance to the other player it is a hit (when the distance is more than 10 tiles, a player simply needs to roll a 10 in order for it to be a hit), otherwise it is a miss. For ghost players the number on the dice has to be equal to or more than double the distance.

This is supposed to model the higher difficulty of hitting someone who is farther away, since precisely aiming with the controller will be harder the further a target is away from the player. It is possible to hit another player if there is no obstacle in the way. To determine whether you have line of sight, a straight line is drawn from shooter to target and if this line does not go across any obstacles, it is possible to hit the target at a difficulty corresponding to the distance.

We started this final prototype without the ghost players and also with the rule that players could only move 1 tile, stay still or shoot per turn (so no combination of move and shoot in 1 turn). The limitation of only allowing one action per turn made the game very static and not fun to play at all (it turned out that shooting whenever someone was in close range was a far superior strategy, and fleeing from an opponent was barely possible). Due to this we added that rule in a next iteration of our prototype. The prototype without the ghost players also was not a lot of fun to play, as teaming up against an individual player did not have any consequences. When we added the ghost players this added a possibility for someone to take revenge after they got killed, and it got less attractive to team up against one particular player and the game got more fun to play.

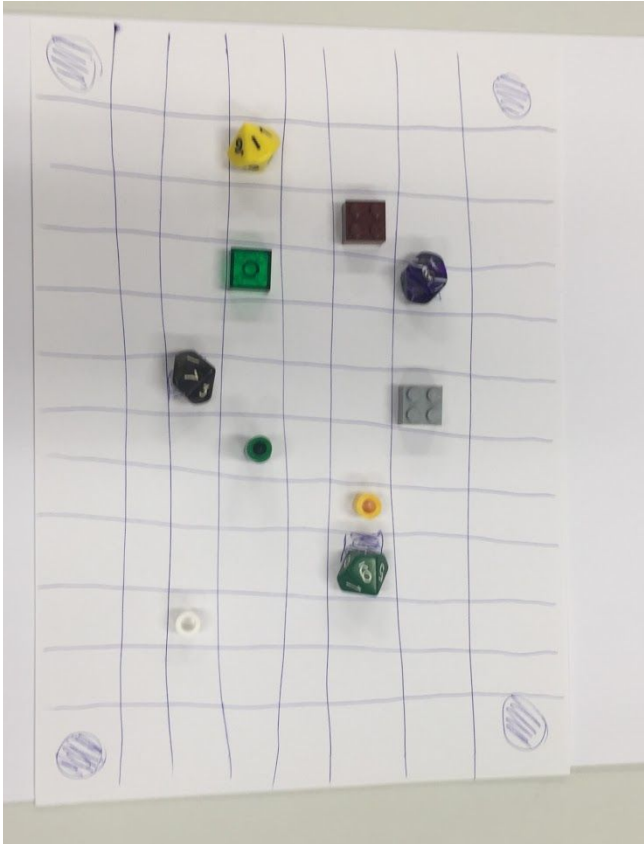
Another thing that we had to adapt when testing our prototype was the amount of points that was spawned into the arena at the beginning of a round. Since we had a relatively small arena, we quickly realized that initializing a large amount of collectible points greatly discouraged players to make agreements to move into the central spawning area. Also it encouraged a strategy of staying in one position and letting other players collect points while they move around and then shoot them. Since these were both opposites of what we were trying to achieve, we decided to add less initial points into the arena and this made the game more fun to play and encouraged players to move around more and also to collaborate in order to spawn more points.

A final thing we realized from playing our prototype was that the initial positions where players spawn should either be random or symmetrical, to give players approximately equal chances of shooting others at the beginning of the round. We also found out that it is probably best to place obstacles between the spawning points that prevent players from shooting at another player in the first turn.



Second iteration of prototype: Playing field with obstacles (green) and player objects (markers) can be seen on the left. On the right the collected shared points pool can be seen, it was distributed at the end of each round to the players according to death order.

Additionally between game proposal one (two phase approach) and two (merged approach) we did a first iteration of the prototype. Here each player had 10 lives, represented by the number on the die. Each die represents one player. When we tried to play out our idea of the “phase 1” concept (moving to a platform with multiple players in order to spawn points) turned out to be incredibly boring. This started a discussion about the usefulness of the separation into phase 1 and 2 which ultimately ended up in the changes for our second game proposal. The main difference between prototype one and two is that we removed this separation of rounds into phase. Since we really liked the idea of mixing some cooperation into the antagonistic playstyle of shooters, we tried to come up with a way to integrate the cooperation more seamlessly into our main game. This led to the second iteration of prototype and game proposal.



First prototype

Interim Report

Jungle Couch Rage



Team 5

Floor Verhoeven, Manuel Mumenthaler, Liat Ben-Haim, Yanick Lukic and Luca Holzer

23-04-2017

Progress

Up until this point we have finished the complete setup, minimal and low target levels. We have also finished a big part of the desirable target level.

The images below show our game and try to illustrate some of the gameplay. The image to the right shows the screen right after the game started, each monkey starts in it's own corner. Every player controls one of the monkey characters. The player uses the left control stick to make the monkey walk, the right control stick to control the viewing/shooting direction and RT (right trigger, spray shoot) or RB (right shoulder button, single shot) to shoot. The arena contains several obstacles (trees, mini trees masquerading as bushes, ruins), that provide shelter for players, since other players cannot shoot or move through them. Some difficulty of moving occurs due to the roots of the trees also being able to collide with the players, possibly we will need to make them ignore player collisions.

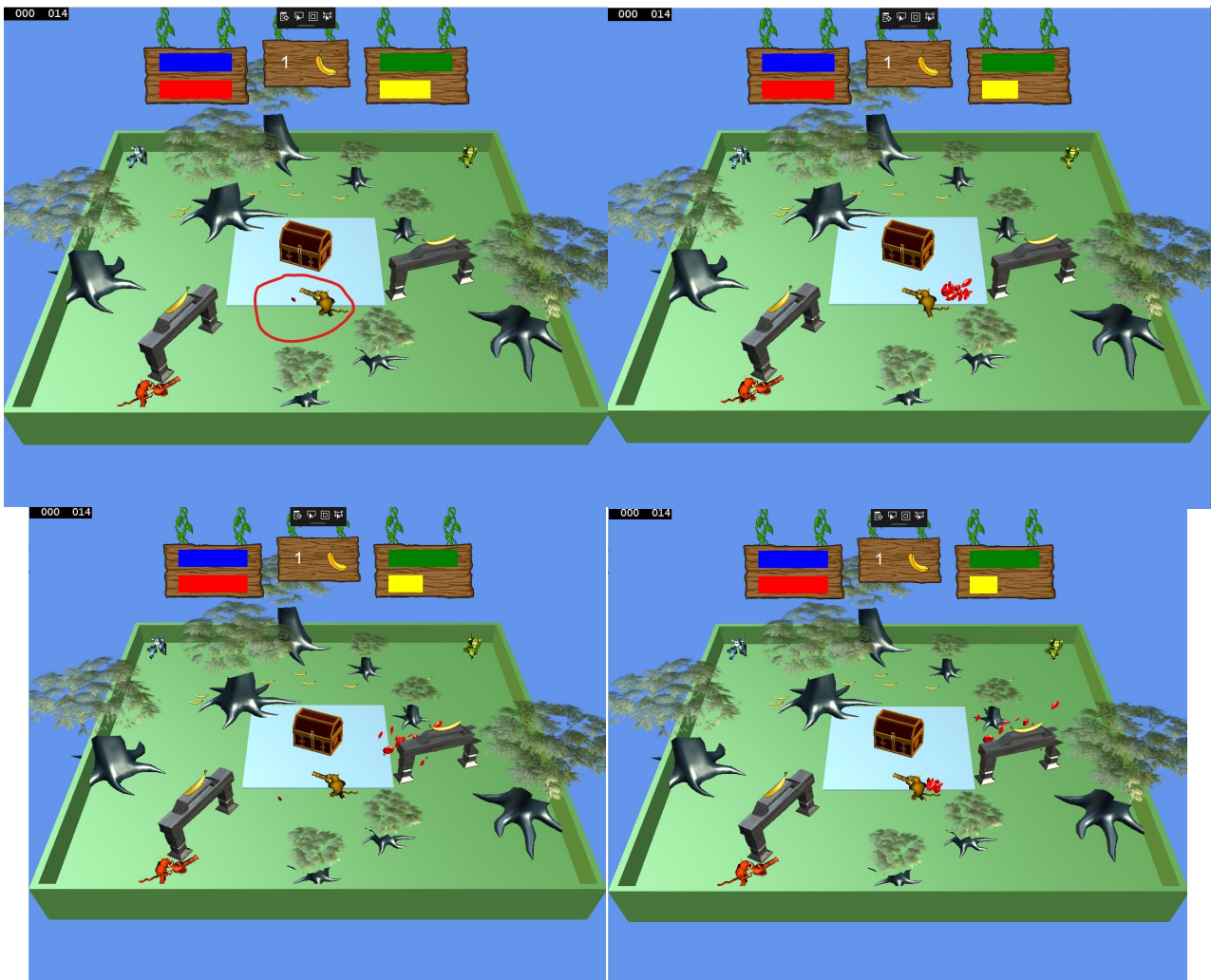


The four monkey characters, side by side. On the left they are shown when they are alive, and on the right when they are ghosts. The way we indicate that they are ghosts will be changed in a later release to something more obvious. Additionally the head-up display also shows if a player currently is a ghost.

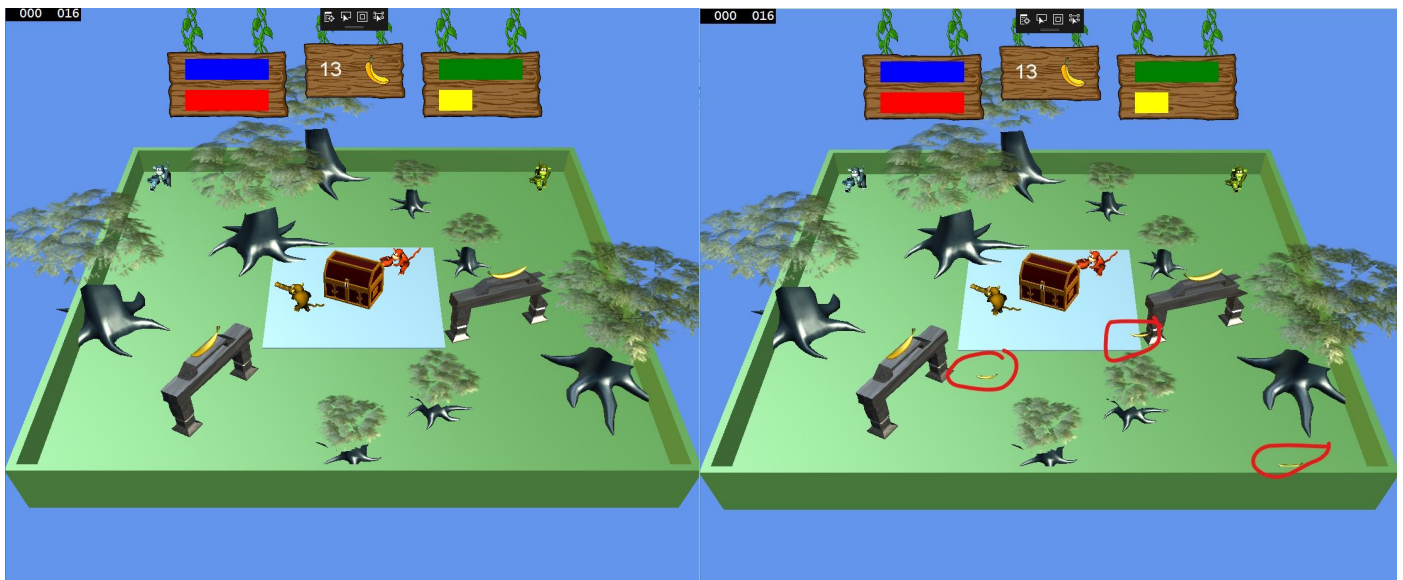
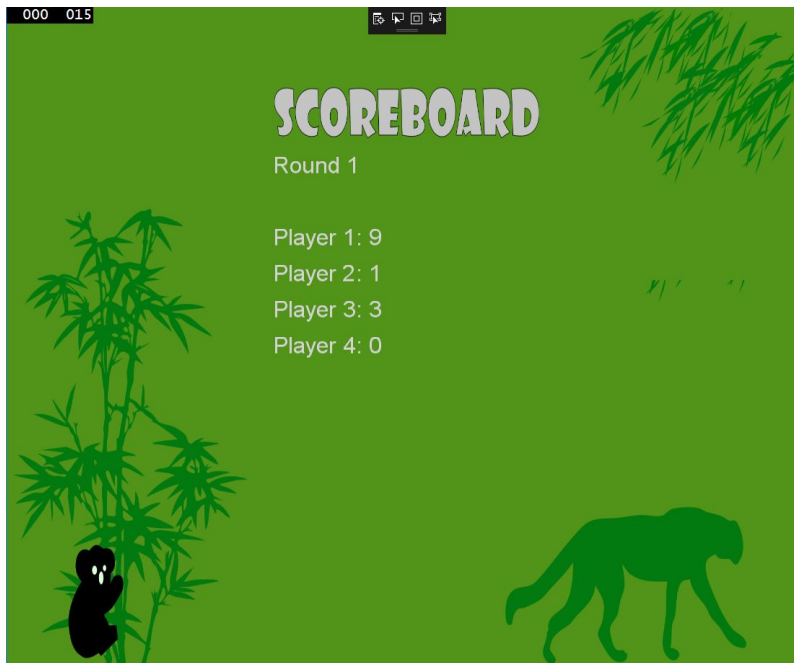
The image below shows the head-up display after the green player died and turned into a ghost. The life bars of the other players are displayed in their respective color.



In the following images the sequence of the yellow player being shot by the red player repeatedly can be seen. A spray of blood (using a particle system) is sprayed in the opposite direction of where the player was shot from.



The scoreboard currently only shows the total score as text and displays the round number of the last round played.



In the above pictures you can observe that if two players stand within the collectible spawn area (blue square) new bananas spawn.

Implementation challenges

The hardest part was to create the setup for the game and make it easy to expand and implement further features. We spent more time than expected in this phase as we had a couple of code architectural decisions that we later revised and refactored.

Also a significant amount of time was spent getting used to the event and delegate system that we implemented throughout our game for communication purposes. The effort is worth it to decouple the different parts of the code.

Additionally making our game use 3D graphics lead to some challenges in anticipating what monogame is capable of using when it comes to the feature-set that Maya offers. A lot of time was spent on revisiting the art assets to make them visible and behave correctly in the game. As can be observed in the screenshots, we still experience some difficulties with the tree assets. Overall a lot more time was invested than we estimated. Especially the time needed for debugging was underestimated severely. Thanks to everyone investing a bit more time we could however stay mostly within our plan. Although as expected we will be needing the time we planned in as a buffer towards the end of the semester.

Design revisions

No design revisions were made so far. We would like to perform another playtesting with the current version of our game. Enough functionality is now implemented to test the ideas we had when it comes to gameplay.

Informal playtesting with friends

An informal (fairly minimal) playtesting was done with four friends. They were each given a controller and no explanation as to how to control anything.

This was done about two weeks ago and hence on an earlier, more minimalistic version of the game.

We shall list some of the observances made here:

- The players had difficulty to distinguish who controlled which monkey.
 - This is expected, as at that stage all monkeys looked the same (only one single model was used).
- They did not realise when a player died
 - Again this was expected due to the missing feedback. At that stage the head-up display wasn't implemented yet, neither was the change in model to ghost status. It clearly showed the need for both.
- The players were confused about the purpose of the collectible bananas and ignored them for the first round. Upon clarification, they started collecting them.
- Player's only ever used the trigger to shoot, since the spray shoot seems to be easier to aim.
- There was some confusion to where each player starts. Player's voiced the question: "Where do I start?", "Which monkey is mine?"
- Players had trouble identifying which monkey is controlled by whom. And enemies were clearly present as could be observed by utterances such as: "Who is this person stalking me all the time?"
- They suggested to have limited ammo and that one could possibly recharge ammo if one goes near a tree and shakes it.

Alpha release
Jungle Couch Rage



Team 5

**Floor Verhoeven, Manuel Mumenthaler, Liat Ben-Haim, Yanick Lukic and Luca
Holzer**

07-05-2017

Progress

Up to this point we have finished all layers up to and including the desirable layer. We have also finished all parts of the high layer, except for testing and balancing of the final game. Some items from these layers got removed as we decided that they wouldn't make the game more interesting/fun to play. For example, powerups and environmental traps got removed since the game rounds only last a short amount of time and there would be "too little time" for players to be interested in these. Other to-do items were removed as they simply weren't needed (e.g. smooth animation transitions were not necessary to make the transitions look good enough). One major visible difference from our previous release is that cel shading is now implemented.

Currently we are mostly working on balancing and polishing the game and improving the game playing experience overall. This includes a help screen to explain the mappings of actions to buttons, improving feedback in the score screen, making sure game entities such as players are easy to distinguish, fixing the aspect ratio and other improvements. Some of these were brought to our attention by regularly playtesting with the same group of four volunteers who were kind enough to test our game weekly.

The images below show our game and try to illustrate some of the gameplay.

The image to the right shows the main game screen right after the first round has started. Each player is in its own assigned corner and controls one of the monkey characters. Unlike in our interim release, all monkeys face the middle of the arena now. You can also see that the arena was expanded and trees were placed around the playing field instead of boring green walls. The HUD now also shows a coconut image for each player. This serves as an indicator for whether or not the coconut projectile (LT button) is currently available (it has a cooldown time) and is unavailable to ghosts.



Compared to the interim report we also slightly changed the monkey and ghost characters. We made their colors a bit brighter so they are easier to distinguish and we gave the ghost characters a complete new model to emphasize the difference to the regular players (monkeys) as well. The pictures below show the monkeys and ghosts side by side.



In addition the HUD shows an image of a ghost when a player is dead as well.

The image below shows the HUD display. You can see that one player has become a ghost player and for the other players you see their lifebar and whether or not the coconut projectile is currently available for them.



The following images show what happens when a player is shot. You can see the blood spraying as a result.



The images also show what happens when a coconut projectile collides with another object (or when it has reached its range distance), namely a particle explosion will occur. The particles that form the blood spray are all colored red, while the particles for explosions are shades from yellow to red. There is an ongoing discussion whether we should make them in shades of red (like an explosion) or brown and white so it looks like fragments of a coconut. This will be updated in the next release.

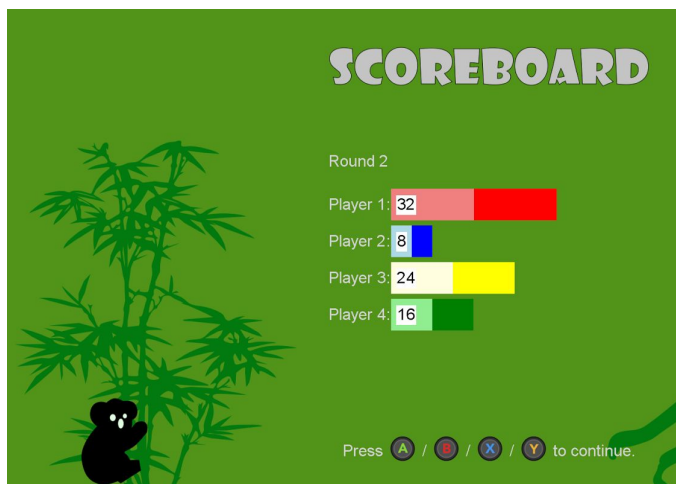


The next images show how players can spawn more collectible bananas into the scene. While they are in the central spawning area, the chest will rise up through the floor and when it gets to its original position above the floor, more bananas will spawn into the scene.



In order to provide new players with an easy way to learn how to use the controller, we included a visual help screen that shows the use of each of the buttons. The image below shows this help screen.

Finally, the image below shows the scoreboard that gets displayed after each round. It shows bars with the score achieved in the latest round (bright colors) and the score that was obtained up to that point (lighter colors).



Implementation challenges

One thing that has proven to be harder than expected was to make sure that the game performance was high enough to ensure an enjoyable gaming experience. Especially the explosions, particle systems and permanent blood splatters turned out to be a big challenge in this respect. As players were shooting each other, a lot of blood and explosion particles

got created and we initially gave each of them a collision component, to ensure that particles vanish if they hit something. This of course greatly increased the load on the collision detection system, which slowed down the game significantly to an unplayable degree. We decided to remove the collision component from the particles since the visible changes were minimal to the players and didn't bother them. Most people didn't even notice that particles now reappeared on the other side of an object, after having passed through them.

We had also implemented blood splatter textures that were applied to the floor after a player got shot, and that stayed there for the rest of the game.

Design revisions

The amount of blood led to some controversial discussion because it turned out to be rather messy after some time of playing the game. We therefore implemented several ways to adjust the amount of blood in order to be able to react on the feedback from our playtesting sessions (we can change the overall amount or for specific events like hit by ghosts/ normal player/ explosion or death). Finding the right parameters will take some time so the current amount of blood is not our final solution. Also the powerups and environmental traps were removed from the design since we didn't have enough time any more to implement them properly, bug-free and well balanced, and we also felt like they wouldn't add much to the game experience. We prefer to focus on streamlining and making what we have as much fun as possible.



Permanent blood after about two rounds, before making any adjustments to the blood amount and texture resolution. It gets progressively more extreme and testers reactions were negative so far.

Playtest

Jungle Couch Rage



Team 5

Floor Verhoeven, Manuel Mumenthaler, Liat Ben-Haim, Yanick Lukic and Luca
Holzer

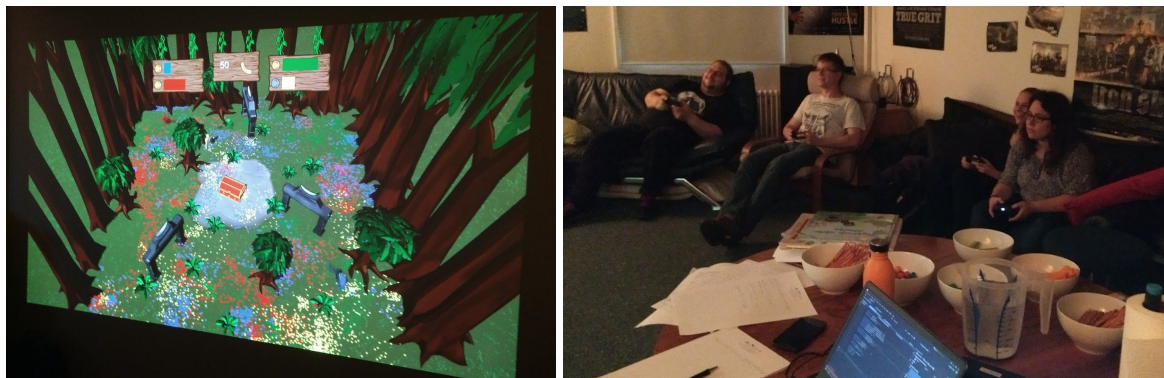
15-05-2017

Playtesting sessions

Describe who you recruited for playtesting and how you organized the playtesting sessions. If possible, include some photos.

For the playtesting we held two sessions both on Wednesday the 10th of May, with a total of 14 players who all filled out the questionnaire. The testers were friends and people we know from other study courses as well as a couple of strangers recruited via friends of friends or from students associations. None of them had played the game before. Below you can see some photos from these test sessions.

TODO: include photos



Setup for one of the sessions on Wednesday (group 1), unfortunately due to using a projector the room was a little dark for pictures. For this session the players were asked to play 3 matches, where for each match the following parameter was changed: no permanent blood / permanent, red blood / permanent colorful blood. After these three matches they were asked to fill out our questionnaire, followed by a couple more games played. During all the games notes were taken on what was said by the players. We also tried a few different settings for parameters such as walking speed, damage amounts etc. And asked them which they preferred.

Questionnaire

List the questions you chose to ask the testers. Summarize their answers.

We made a questionnaire for the playtesters to fill out. This contained questions about general demographics as well as their experience playing our game. Below you can find the

non-demographic questions with for each one a summary of the given answers. Demographic details will only be mentioned if they significantly affected the answers.

Jungle Couch Rage Questionnaire

Please answer the questions on the first page before you look at the second page!

What was the most fun aspect of the game?

What was the least fun aspect of the game?

What else made the game fun to play?

What else prevented the game from being more fun?

How could we make the game more fun?

Should we change anything else?

Did you encounter any bugs? If yes: please describe what happened

End of page 1

Age:

18-25 25-30 30+

How often do you play games?

Daily Multiple times per week A few times per month
 Fewer Never

Do you usually use a controller or Mouse/ Keyboard?
 Controller Mouse/Keyboard Both

Graphics:

Did you like the blood spraying when a player was hit?

Yes No

Did you like the blood on the floor?

Yes No

Did you prefer blood to be red or player coloured?

Paint that jungle red! I prefer paintball

Why?

Would you like the game to be more brutal (limbs falling off, monkeys looking damaged when on low health, splatter animation on death)?

Yes No

Gameplay:

Was the number of rounds appropriate?

5 Rounds is fine I'd rather play ___ Rounds

Should we change the amount of health compared to weapon damage?

Health is ok Increase health Reduce health

Should we change the damage of:

- Ghost: No Increase Reduce
- Stone: No Increase Reduce
- Coconut: No Increase Reduce

Should we change the walking speed of:

- Player: No Faster Slower
- Ghost: No Faster Slower

Did you find a dominant strategy (if a player does X he will always win)?

Did you feel like you had a chance at winning?

Would you change something about the ghost mechanic?

Would you change something about the banana collection?

Would you change something about the banana respawning?

Did you use the banana respawning?

Yes No

If not: why?

Would you change something about the controls?

Did you feel in control?

1. Did you remember how to control the different weapons?
2. Did you feel overwhelmed by the controls?
3. If yes, how could we improve it?

How was your overall expression about the game?

- Awful, I would never play it again
- Meh, I didn't like it much but could be convinced to play again
- Ok, I would probably play it again
- Great, where can I get a Copy?

Did we miss anything or do you have additional comments?

Trends and suggestions

Comment on overall trends you learned from the exercise, as well as any specific suggestions that were particularly useful.

There were many things we learned from our many playtesting sessions, not just the ones performed for this milestone. In fact there are so many that we probably won't manage to list them all here.

Overall the test players liked our game idea, the graphics and audio. Especially the ghosts were appreciated and mentioned a few times as being an interesting game element. We were given several suggestions that turned out to be very helpful in further improving our game. One suggestion was to give ghost players the ability to destroy bananas and another one was to make bananas give some extra health to the player that collects them. Another suggestion was that we should make the collisions with bushes less strict as players felt like they hit the bush when expecting their shot to easily pass it. It turned out that we had a small bug that made the collision spheres for the projectiles bigger than their visible mesh, giving them a very counter-intuitive feeling. A different thing that was suggested by almost all players was to increase the walking speed. Regarding to gameplay we noticed that there were no real fighting hotspots on our map, which indicated that the layout worked quite well. This was confirmed by the testers. Another trend that we noticed was that the better players of group 1 found the ghosts annoying, while the players that frequently died early and thus became ghost players found it very fun to play them. Interestingly the second group on Wednesday (group 2) was a bit less annoyed by the ghosts, possibly because they were a larger group and each player spent less time playing overall than in group 1, or because they did more often group up against the better players, giving them the opportunity to also play as ghosts. None of the players asked for the removal of the ghosts though, even when prompted. Finally, many testers complained that they were unable to see how many points each player currently had while playing. This was a problem because they sometimes wanted to focus on the leading player but were unable to because they did not remember who had the most points.

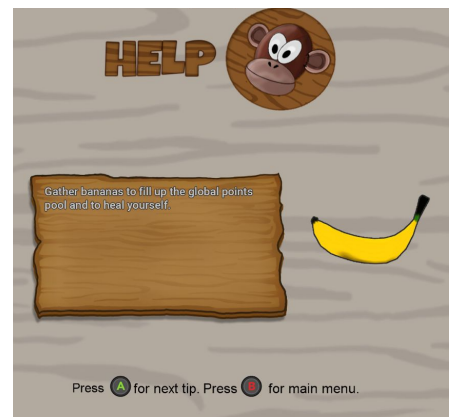
Changes due to playtesting



Finally, describe any changes you made to your game based on the playtesting.

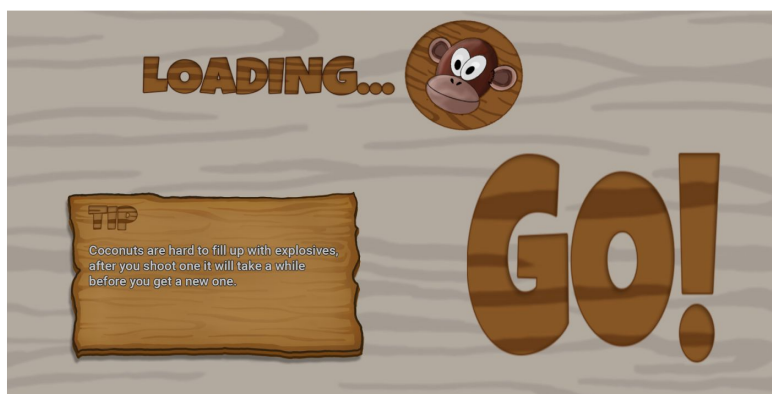


There were quite a few changes that were implemented after the playtesting sessions on Wednesday, which then could be retested on the following testing on Sunday. From the playtesting we learned what limits to use for the blood particles to ensure that the game would run smoothly on the XBOX. Since we were repeatedly given the feedback that testers were missing some sound, we added a sound effect for the exploding of the coconut. Also it became clear from the testing that players didn't feel a lot of incentive to collect/spawn extra bananas. We therefore added extra purpose to the bananas in the form of a small gain in health for the player who collects the banana. Additionally we gave ghost players the option to destroy bananas to reduce the points pool and prevent the players from gaining health. Another change that we made is that we made the explosive coconut projectile available to ghost players. It became evident during the playtesting that this was necessary as the game would sometimes stall when there was only 2 players left alive. In this case it sometimes happened that the ghosts split up and each started attacking a different player. When the alive players hid behind obstacles, the game came to a stall. Giving ghosts access to the explosive projectile enables them to do damage to the alive players when they're hiding behind obstacles as well, and therefore makes the game more dynamic. This change was also meant as a balance to the lifegain the monkeys get when collecting bananas, to make sure the last two players can't spawn bananas forever. It also simplifies the controls, since the players were confused when they were unable to use the coconut as ghosts. In return for this added power, the ghosts now get stunned for a short time period when they get hit by an explosion, which should also reduce the frustration of playing against ghosts by giving the monkeys some kind of counterplay possibility. We also updated the HUD to include the current points of each player. Finally we also improved the precision of control over the joysticks, since players repeatedly commented that the controls felt clanky.





A very important addition to the game is a “How to Play” section in the menu, which explains our most important game features. Additionally the load screen shows a very short game tip before each round. Some examples are: “Ghosts destroy bananas when they pick them up. Less points for everyone!” or “Confused? Have a look at the “How to Play” section in the menu.”



Other changes include new textures for ghosts (making them quite white) such that they’re more easily recognized as ghosts. Additionally the green player has a new colour now: violet. Green was very hard to see on the green floor and needed a reskin. The hud has now more information, such as the round number and the points earned in previous rounds per player.



We also have a new awesome video that should be played when the game starts up. Unfortunately we haven't managed to incorporate it into our code yet (see <https://gitlab.inf.ethz.ch/PRV-GTC/gamelab-2017-team5/tree/master/Project/GameLab/Content/Intro> to view).

Additional play testing session on Sunday 14th of May

After implementing all the described improvements and a couple more for better user experience we performed another playtesting on Sunday 14th of May. A total of 7 players were present. Only two of which have seen the game in previous stages. We just let them play as many matches as they felt like it and asked them for comments and observed whether they managed to understand all the features available without our help. We're very happy that for this session, we did not need to provide any help for the players to understand the game. Upon asking they said that the help provided by the game was enough for them. Overall they were very happy with the experience and had mostly some changes to the user interface suggestions. The most important of which would probably be that they find the "head up displays" (hud) hard to read during the game since you're focused on your monkey. Instead they'd prefer that information to be hovering over the monkey's head. It is yet to be seen whether we can incorporate the suggestions from this session.

Due to testing whether a certain bug got fixed (some bananas weren't collectable) we set the number of bananas that spawn from the chest very high (150 each). People had a surprising amount of fun with this "semi-infinite" (since the bananas act as a health potion players got continuously healed) mode, which leads us to potentially offer it as a game mode.



Very colorful playing field after having almost infinitely long rounds due to gigantic amount of bananas.

Conclusion

Jungle Couch Rage



Team 5

Floor Verhoeven, Manuel Mumenthaler, Liat Ben-Haim, Yanick Lukic and Luca Holzer

30-05-2017

Final game

Jungle Couch Rage is a free-for-all shooter with some cooperative elements. It also provides an easy entry point for new players to learn in a stress free environment as Ghosts. Albeit the Ghosts mechanic was a lot of work to balance, we are quite proud of the result. Some of our testers have named the Ghosts as their favourite part of the game. They have lead both to situations of frustration and joy. Both scenarios were in our goals and we are therefore quite happy to have achieved them.

The graphics are more or less how we initially expected them to look: we have self made assets for the monkey, ghosts, stones, coconuts, bananas, ruins, trees, bushes, the chest and the floor as well as for the GUI. The assets are rendered using a custom Cel-Shader to make them fit together visually. We also included Skinned animations but since it took a lot longer to make a basic version work, especially because it was difficult to 'correctly' export them for blender so monogame could display them without artifacts, we did only include one idle and one walking animation with no blending between the two.

Our goal to find a balance between cooperative and competitive gameplay mostly succeeded: after playing for a few rounds, players usually started to spawn bananas, most often when only two players were left, because these two players would both benefit from the bigger points pool. We did however also see a lot of rounds where players did not cooperate in any way, focusing only on shooting. This is an aspect that would need to be improved in further development. We also didn't implement the powerups that we initially wanted to include because we decided to rather spend the remaining time improving, balancing and polishing the core mechanics of our game - which took more time than we initially planned.

We made a lot of small changes since the alpha release:

Graphics:

- After the alpha release demo in class we decided to implement a paintball mode in addition to the normal mode: instead of red, the blood takes the color of the injured monkey, leading to a much less realistic and brutal look.
- We changed the textures and colors of many game objects: all monkeys got a more natural colored texture while the green monkey was changed to purple to make him easier to see in the general green environment. The ghosts were changed to almost completely white with colored weapons to distinguish them from the monkeys. The bullets were also changed to almost white because they were hard to see on the TV.

GUI/HUD:

- Each player has his own board that shows his current score in addition to his health. This makes it easier to see who is in currently in the lead, which is crucial to give players the chance to team up on the best player.

- Before each round starts, a tip is shown for a few seconds to remind players about some of our core mechanics.
- The controls screen was expanded to also include a detailed explanation of the game.
- A options screen makes it possible to switch between blood and paintball modes. In addition, players can select the “crazy banana mode” which led to a lot of laughs in the playtest groups.

Gameplay:

- When the last monkey dies in each round, the game will only switch to the score screen after his death animation instead of immediately.
- The banana spawning with the chest was reimplemented because the previous implementation led to a lot of bugs and unexpected behaviours.
- The controller now plays a very short vibration when a player is hit and a longer one when he dies, to give better feedback to the player.
- Many polishing and balancing changes:
 - Ghosts can now also shoot coconuts to make the gameplay less confusing and also for balancing reasons
 - The walking speed of all characters was increased
 - Bananas now act as health potions to make them more interesting to spawn and collect.
 - Ghosts can now be stunned using the coconuts to give the monkey a small way of countering them
 - Ghosts can now destroy points by collecting bananas (reducing the amount of points in the pool).
 - Added an additional sound for the explosions to make them feel more rewarding.

We would like to mention here that all art assets have been made in house (except the font and sounds) and we have only used few external libraries (such as MonoGame.Extended).



SCOREBOARD



FINAL ROUND

🌟 PLAYER 1:	68
PLAYER 2:	17
PLAYER 3:	51
PLAYER 4:	34

PRESS **A** / **B** / **X** / **Y** TO CONTINUE.



CREDITS



LIAT BEN-HAIM	CODEMONKEY
MANUEL MUMENTHALER	CODEMONKEY
FLOOR VERHOEVEN	CODEMONKEY
LUCA HOLZER	DRAWMONKEY
YANICK LUKIC	DRAWMONKEY

Jungle Couch Rage: Shooter Free-for-All



Course experience

Our final game mostly follows the initial ideas we had for our game. We left out some extra features such as environmental traps, power-ups and death animations as we felt these would not add a lot to the game and we were running tight on time. Instead we invested more time into polishing the overall experience than was initially planned for. Also our very first idea of a 2-phase game got revised. Instead of splitting the cooperative and non-cooperative gameplay into 2 phases (which would basically come down to creating 2 games in 1) we incorporated them both into one main game where players have to fight each other in order to win, but they need to help each other in order to be able to accumulate more points.

We were mainly able to follow our development schedule. In the beginning we ran behind the schedule a little bit as the setup took a larger time investment than expected. However we had made our initial schedule such that there would be some space for overflow in the later half of the course, so we were able to catch up again. The development schedule, prototype and playtesting contributed to our final game since they provided good intermediate evaluation points. The development schedule gave us a clear route to follow and enabled us to plan the workload over the semester. The prototype showed us early in the course what some of the pitfalls and shortcomings of our game were, which we then corrected and adapted accordingly. Finally the playtesting gave us very good feedback on small things that the players would like to see changed. Some playtesters suggested larger changes/additions but unfortunately due to time constraints it was no longer possible to include these in our game. We filtered for the best and doable suggestions from our testers and implemented these in a very short time.

The course definitely met our expectations, a lot of work had to be invested (which was to be expected for a 10 ECTS course) but it gave a very fulfilling feeling afterwards. We are very proud of the game we managed to put together in this semester and think it is super fun to play and looks awesome. The schedule was well spaced-out overall. Sometimes it collided with deadlines and assignments of other courses, but all in all we are happy about the schedule. Being provided with a theme definitely helped us to create a nice game. Without a fixed theme it can be hard to come up with something at all, and also in a group of 5 people it will be super hard to come to an agreement on what kind of game to develop.

We are very happy with our final game result and consider it a success. We were not able to include all features we initially planned on, but given that we have the feeling that they wouldn't have added much to the playing experience, we are very happy with what we achieved.

Using MonoGame for the game development was very helpful. It is a rather well-known framework for developing games and therefore there is a lot of online references. Albeit as a caveat we would like to mention that if you do happen to run into a more esoteric problem, such as video being unable to play, you have a hard time finding any helpful resources. Using MonoGame ranged from being very nice up to extremely frustrating. It sometimes made life a lot harder than expected (animations) but on the other hand a couple of other things were easier than expected (drawing both 3D and 2D on the same screen).

MonoGame seems to be more fleshed out for 2D or Two-And-A-Half-D games, lacking a bit in 3D support. Some of the usual tricks we couldn't do (trees using semi transparent planes for the leaves) and animations were a bit tricky. Sometimes the exports from Maya and Blender worked fine, sometimes they didn't. We couldn't quite figure out what features MonoGame supports and which it doesn't. This made working on those more trial and error compared to for example Unity. There are fewer libraries than for other frameworks, meaning we had to implement more from scratch instead of being able to focus on some specific parts. We would not recommend writing a 3D game using MonoGame at this stage.