

# Devlog

by Daniel Meyer

Welcome to the devlog for Funny Monkey Game!

Here, I'll be documenting my personal process of how I go through my personal planning to reach my goal: completing and releasing a game within only 112 hours of active work time!

Throughout this document, I'll be using the following icons to reflect on my planning in a condensed, easy-to-read format:

- Development to the start of the
- How much time did I *actually* need for this task?
- $\mathbf{X}$

How much time do I have *left*, according to my planning?



To make the goals I have for this game a bit more tangible and concrete, I decided to determine its design pillars and values. These are the game's core principles that I can hold my design choices against: are the features/changes I'm considering to implement really working in favour of the intended experience?

(see also: <a href="https://www.charliecleveland.com/game-pillars/">https://www.charliecleveland.com/game-pillars/</a>)

#### Pillars

#### 1. Exhilarating Chaos

The chaotic gameplay and constant action should make the player feel stimulated at all times, occasionally on the edge of exhilaration and being (positively) overwhelmed.

#### 2. Continuous Room for Improvement

The player should always feel challenged to try and score higher than on their last run; it should be clear to them what more they can learn and do to maximize their score.

#### 3. Plug & Play

It should be quick and easy for the player to start a new run, whether it be from starting up the game or from their last run's post-game view. Extra players should be able to join and leave with minimal effort, also between runs.

#### Values

#### 1. Low Skill Floor, High Skill Ceiling

The game should be easy to pick up by new players who have at least *some* experience with top-down shooters, while at the same time offering enough skill expression for more experienced and dedicated players to compete with each other on the leaderboards.

In other words: when someone plays the game with their little sibling, they should be able to simply have a good time together.

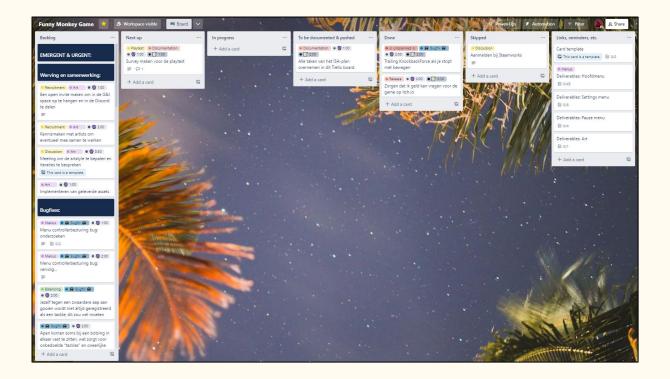
#### 2. Encouraging Sportsmanship

The game should have space for players to express their skill mastery and chase the highest score, but that should not come at the cost of the enjoyment of more casual players. Experienced players should have no reason to get angry about the performance of a less experienced player.



# Setting up a Trello board

😧 1h 🛛 📝 2h 🖉 109h



To make it easier for myself to stick to my planning, I created a Trello board. Quick summary of the less self-explanatory lists:

- Backlog: Contains all of the atomic, manageable tasks I had come up with while writing my pitch for this project; the tasks are ordered from most to least important for release.
- To be documented & pushed: Before I drag a task to "Done", I drop it in this list to remind myself that I should add an entry for the task to this devlog and (if applicable) push my changes to git.

#### 04/03/2023

# Setting up a playtest survey

😳 1h 🛛 📝 1h

🛣 108h

How much <b>fun</b> did you have while playing the game? *						
	1	2	3	4	5	
None at all	0	0	0	0	0	A lot
How often did you find yourself <b>bored</b> , waiting for action to start happening? * (i.e. the game waiting too long with spawning new enemies)						
	1	2	3	4	5	
Never	0	0	0	0	0	All the time
How often did you experience moments of <b>exhilaration</b> ? * (i.e. tensing up in intense moments / being on the edge of your seat)						
	1	2	3	4	5	
Never	0	0	0	0	0	All the time

To verify whether the experience meets the expectations set by the design pillars and values, I designed the survey I'll be using for the final playtest around them.

Should I come up with something new I want to learn from the playtest, I can now come back to the survey and add or rephrase questions.

The survey can be found here:

https://forms.gle/ogNkzPufPUSDJC7r5



# Deciding on the art deliverables

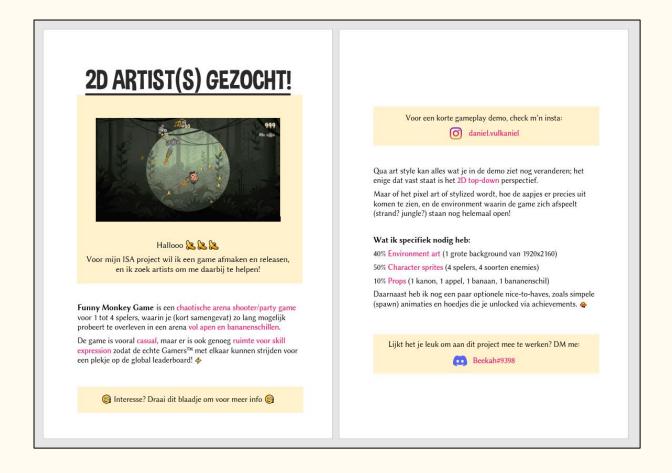




I'll be making a one-page recruitment letter to hang in school, through which I hope to get in contact with game artists who'd like to help. To make it clear to potential collaborators what exactly I am looking for, I've defined a list of concrete deliverables for the art assets. 06/03/2023

# Designing an invite poster

😳 1h 🛛 📝 1h 🖉 106½h



Now that I have a clear overview of the art deliverables, I designed an open invite to (hopefully) recruit one or more artists with, which I'll be hanging in school. And now we wait!

#### 22/03/2023

# Printing the poster (and making a gameplay video)

😧 ½h 📝 3½h 🛣 103h



When I asked my study group for feedback about my invitation poster, someone gave me the brilliant idea to add a QR-code that directly links to a gameplay video – which, I realised, I didn't really have, so I went and made one!

The video can be seen here:



# **Redesigning the lobby menu**

😳 2h 📝 6h 📓 97h



As part of my effort to fix a stubborn lobby-related bug, I redesigned the lobby menu to use a ready-up system instead of a single start button. I've also incorporated a UI element for picking a player profile, paving the way for highscores and (fingers crossed) achievements!

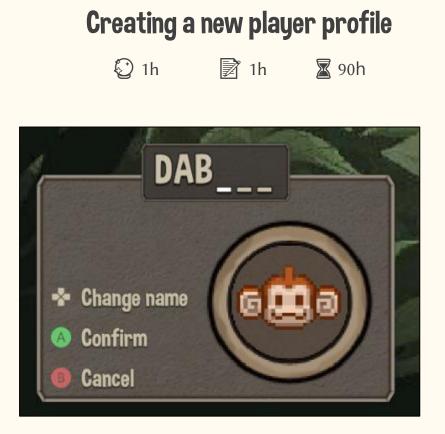
# Switching between scenes

😳 4h 📝 6h 📓 91h

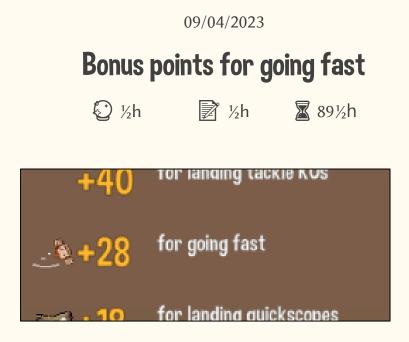


By learning about and incorporating multi-scene editing into this project, I have now (finally!) made it possible for players to switch between the game and menu scenes at will.

This means that players are now free to join and leave inbetween rounds, and that the host can now properly quit the game wihout using Alt+F4.



Players can now create a new profile through their lobby interface! For now, profiles are only saved within the same game session; I still need to think of a proper solution for the game's I/O.



As a little treat to myself for doing so much tedious back-end and UI work, I've added a score modifier for keeping your average velocity (measured over 2 sec) above a certain threshold: continuously slipping and sliding around at high speed will now earn you bonus points!



# **Noteworthy playtest**

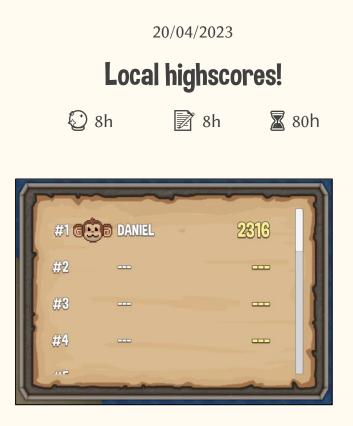
😳 ½h 📝 1½h 📓 88h



Today I've playtested the game in 2P with a friend of mine, who has never really played indie games but does have the muscle memory for FPS games. He picked it up relatively quickly, wanting to play "just one more" again and again, constantly moving the goal posts to reach a higher and higher score – bingo!!

Some notable feedback, paraphrased:

- The processes of starting the game and starting a new round were nice and fast. There was never a moment of dull waiting.
- The difficulty curve feels good and, contrary to my personal belief, the first dozen or so kills didn't actually feel slow.
- If it weren't for me explaining the mechanics to him, my playtester wouldn't have known about 2 out of 3 core ways to KO enemies.
  Some kind of tutorial level, where the player is shown how to land a KO with the cannon, a tackle and a banana-accelerated tackle, would have helped.
- In the future PvP mode, it might be cool to have alternative maps, e.g. some with destructible props and/or pools of water.



In all the playtests I've had so far, I've noticed that barely anyone really pays attention to the points they earn – after all that time I've spent designing a bonus point system for landing cool and risky KOs!

One notable piece of feedback I received in this regard (besides making score popups float to the HUD score counter) is to show highscores in the post-game menu, to show players how they compare with their friends.

Highscores were high on my list of priorities anyway, so: what better time than now?

I spent about a full working day to implement the back-end necessities for local highscores, including an asset to add some form of encryption so that the barrier for cheating is not as low. This also means that profiles and highscores can now be locally saved!

Highscores can now be viewed from the main menu and the post-game screen, though I'm running a bit low on the latter's screen real estate... might need to give the post-game screen a bit of an overhaul soon.

### Crying about cartoon SFX requiring a paid license

😧 8h 📝 6h 🕱 74h

<proces.jpg>

After months of getting used to the game's sound palette, I found out that the classic cartoon sound effects I was using are not in the public domain, and require a \$500 license... :(

However! After some intensive searching through various sound libraries, I've found quite a few suitable replacements already, also thanks to my friend having way too many credits on Splice to ever use by himself.

# Added music made by a fellow student!

😳 2h 🛛 📝 2h 🖉 72h



#### Daniel 04/10/2023 12:34 PM

Hello peepz! Ik ga eind mei een kleine party game releasen, genaamd Funny Monkey Game. Op dit moment gebruik ik de Diddy Kong Racing theme als soundtrack, maar die kan ik natuurlijk niet meenemen in een release 😬 Specifiek ben ik op zoek naar een uptempo loop van ~1 minuut met daarvoor een intro stukje, 160-180 bpm. Het kan full-on game muziek zijn, maar iets met breakbeat/jungle influences is ook van harte welkom.

Preview van de game: https://youtu.be/nq5vin4JOlg



While my artist recruitment poster yielded no results, I wrote a musician recruitment message that received 2 reactions within 5 minutes of posting it on a HKU Discord server.

Both musicians made demos that I tried to play the game to, but there can of course only be one... thanks, CheesyMantisFondue!

Nice! Now I don't have to worry about royalties related to the music.

### Make my own character sprites



I sadly did not get any responses on the artist recruitment poster I made earlier. With only a couple weeks left until the deadline, I ultimately decided to make them myself.

With some earlier experiments not quite working out aesthetically, I used the Super Monkey Ball sprites I used as placeholders for inspiration – though admittedly, they might be a bit too similar...

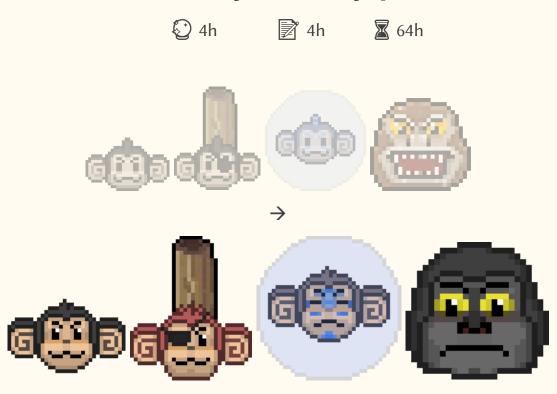
I'm planning to change the sprites a bit still, most notably to make the ears a bit more distinct from the SMB sprites.



I also made some hats to add variety to player sprite shapes! I'm planning to lock some of these behind achievements, if I still have the time for that down the road.



## Make my own enemy sprites



Same story for the enemy sprites. I actually had a lot of fun making these, and feel like they're much more distinguishable than they were before!

# **Add facial expressions**

© 4h 🛛 4h 📓 60h

A playtester mentiond that it wasn't very clear that the game works with coyote time, and suggested I should add some feedback for it. I solved this by adding a facial expression that shows when the player is outside of the arena, but not yet KO'ed (the fourth sprite in the sheet above).

I've also added a loopable sound to accompany this visual effect.

And, since I was working on a small system for that anyway, I added some more facial expressions! For when you land a KO, for when you eat an apple, for when you get tackled really hard, for when you are KO'ed...



I got a little dragged away, and made them for enemies as well...





...well, at least some of it! I've made a brand new VersusScene, which tracks player scores in the top right corner of the screen and shuffles them up and down based on these scores.

The next step is to implement a win condition. My current idea is to give the players 30-60 seconds after the first KO has been made to score as many points knocking out other players as they can; each player would respawn immediately upon knockout.

Another idea is to give each player an amount of lives, and let players fight it out until there is only one left standing. This approach might make for some cool finale-type moments, but does leave the knocked-out players doing nothing... but maybe that's not so bad with how hectic and fast the game already is.

A friend gave me some very interesting ideas for this PvP mode, most notably about potential killstreaks and a negative feedback loop... to be continued!

### **Completely revamped post-game screen**

😳 16h 📝 20h 🛣 37



It took some time and effort, but WOW, is the result worth it.

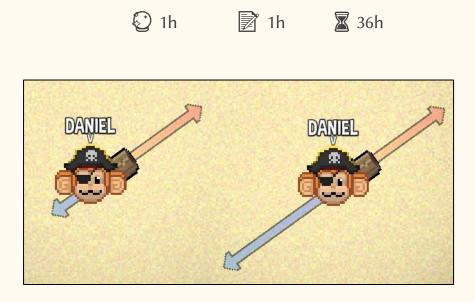
When you finish a game now, all the points you've earned are broken down and incrementally added to your final score; a highscore entry item is created, counting up in sync with the score breakdown and updating your position on the leaderboard IN REAL TIME!!! And I'm not even talking about a simple position swap, but WITH SMOOTH REORDERING ANIMATIONS!!!

Oh, and each performance is now properly graded between "F" and "S++"!

Besides making it incredibly easy to see how you're competing with your friends, this revamp should once and for all shift players' attention from how many KOs they land to how many points they earn – and hopefully encourage them to learn more about the many ways to earn bonus points.

Playtest pending ...

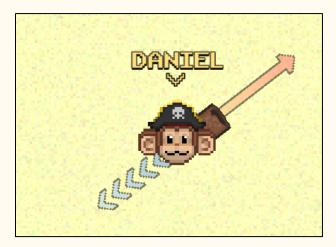
# Variable knockback indicator length



It seems unclear to new players that it's possible to negate the cannon's knockback if you walk in the direction of your shot. To make that more clear, I've made the knockback indicator's length scale with the dot product of your movement and aiming vectors.

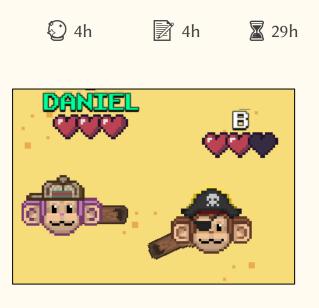
#### UPDATE 25/05/23

A playtester pointed out that the arrows, despite their different colours, are too hard to tell apart. They suggested I give the knockback arrow a bit of a different shape; here's the result:





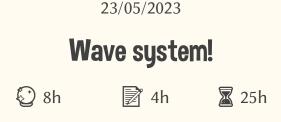
## A win condition for Versus Mode



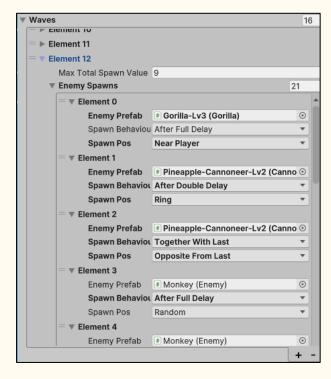
I've found a worthwhile combination between the two PvP win conditions I though about earlier.

The first player to earn a total of 500 points wins. However, each player also has only 3 lives: when only one player remains, they earn a chunk of points equal to 10% of their opponents' total earned points. Then, all players that had 0 lives are respawned with 3 new lives.

This should create a slight negative feedback loop, where knocking out players who are ahead earns you more points. At the same time, since the winning player's lives are not set back to 3, they're put at a disadvantage for winning the next round as well. "Rubber banding", if you will.



After feedback from playtests, I've made a rather big change to the game's enemy spawning system, and thus to the entire pacing of the game. A change that seems to create a much more interesting intensity curve for the game.



Instead of simply spawning monkeys in an infinite sequence, the game now follows a curated list of 15 increasingly difficult waves. I've set it up in a way that allows me full control over where and when enemies spawn: near the player after ~3 seconds of the last, together with the last enemy on the opposite side of a ring around the centre, in the centre of the arena when no other enemies remain...

This also means that the game is no longer endless, which kind of solves an issue I had with the highscore system before. Before, players could (theoretically) stay on top of the highscore by somehow cheesing their way through making as many KOs as possible. Now, they are actually required to earn more points on their average KO and utilise the style point system.



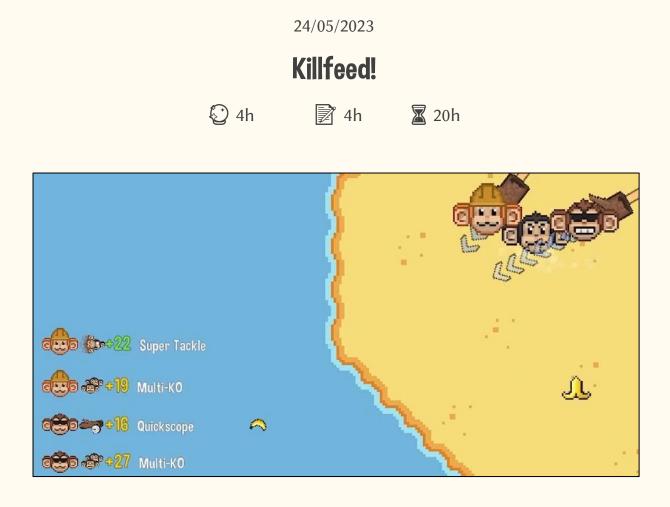


I became a bit blind to it while testing the game on my own, but there were still some physics/collision-based issues that had to inevitably face at some point.

1. Slipping over more than 2 bananas makes you go so fast that the player's hitbox often just shoots past that of potential targets. While the absurdity and risk of flying off-screen at mach 5 is a huge fun factor of the game, the fact that it caused collision detection to be skipped was a detriment to making the physics of the game feel reliable.

I initially thought this would be an enormous undertaking, that I would have to rewrite my entire semi-custom physics code. However, all that seemed to be necessary was to set the collision detection mode of the player's rigidbody to "Continuous" instead of "Discreet"!

2. Sometimes when tackling heavier enemies (cannoneers and gorillas), it would not register as a tackle, and instead cause you and your enemy to be shoved in the direction of the tackle. Something seemed to be off in my formula for tackle recoil, and the main thing that solved it was to reset the player's velocity entirely before applying the recoil force.



While I've been trying to avoid using the word "kill" in my game to keep things lighthearted and rated E for everyone, "KO Feed" doesn't work quite as well as a technical term.

I've had help from a fellow designer at school to create a system that explains where the players' style points come from. In the bottom left corner of the game's UI, players (and potential stream viewers) now have a bit more of an overview as to what exactly is giving them all those points.

Whenever a KO is made, the game determines which score modifier in their combo gave them the most points, and shows that modifier's icon and title.

Items will automatically disappear after 5 seconds, or when the system reaches its limit of 5 items.

# Fully functional (global) highscore menu

😧 4h 🛛 📝 8h 🖉 12h



It took a bit more effort than expected, but I've finally found an elegant way to show and update global highscores!

The highscore menu has 8 tabs: 4 for local leaderboards (1P-4P) and 4 for global leaderboards. Opening a global leaderboard tab sends a GET-request to the leaderboard over at <u>http://dreamlo.com/</u>, whereas opening a local leaderboard will attempt to upload any cached entries that failed to upload back when that entry's run had ended.

### All assets are now royalty-free!

😳 4h 📝 4h 📓 8h



After buying an asset on itch.io for the arena, painting new icons for score modifiers, and browsing Splice for audio files to edit for new impact SFX, all assets in the game are now royalty-free.

Since the asset I used for the arena is part of a spritesheet, I now also have the tools to make new (Versus) maps in the future!

With all the assets now royalty-free, I can *actually* put a price tag on the game! Which I've decided to make \$2.19, the price of one bunch of bananas.

For players who *might* be interested in the game but would prefer to try part of it before buying the full version, I made a free demo build where they can experience the first 5 waves and play 3 free Versus games per day.

### Bugfixing, documenting, making promo material...

 $\bigcirc$  >8h  $\bigcirc$  >8h  $\bigcirc$  <0h

Since I haven't nearly been able to document every single change, bugfix or design decision, I think it's fair to allot the last 8 hours of my planning to everything that needed to be done outside of the (mostly) major updates documented in this file.

Admittedly, I worked on the game for quite a bit more than the 112 hours I had initially planned for it. I got the opportunity to integrate this project in two more school courses: one about Level Design, and one about Marketing.



The course about Marketing gave me the amazing opportunity to present Funny Monkey Game at **Night of the Nerds** on June 7th, for which I made a promo video to demonstrate the game's final mechanics and assets:

https://www.youtube.com/watch?v=flRl7wq\_Fbg

...and a poster to put on display at the event, shown to the left!

# Wrapping Up

I hope this file has served its purpose of giving you an insight into my journey towards my first ever indie game release.

Reaching this point with Funny Monkey Game has been far from a walk in the park. However, even though I still feel like I have so much to learn about indie game production, I am very happy with how the release of Funny Monkey Game turned out.

Along the way, I've learned how to approach others to help me with the game, how to keep bugging my friends and fellow designers for more and more playtests and feedback, how to keep my design pillars in mind with every decision I make, how to make enticing promo material and distribute it, how to engage with my game's *actual* audience, and much, much more.

However, one of the most valuable things I've proven to myself is that I actually *can* follow a more structured planning and keep my eyes on the prize, and not get too distracted by impulsive new ideas – at least not all the time!

To finalize my indie game release experience, I'd love to reach the point of having a community to engage with about the game. To make that happen, I have some relatively small updates planned – including extra levels for Versus Mode and unlockable hats through achievements – and will send my game to Twitch/YouTube content creators in the hopes of creating a snowball effect.

And while it would be incredible to experience that snowball turning into an avalanche, I'd already be more than happy with a snowman :)

