

Game Design Document

Run, Deliver & Gun 2.0

Exam

2D Shooter Game

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1. Genre and subgenre analysis

The two main inspirations I drew from are:

- Hotline Miami [1]
- Nuclear Throne [2]

One of the main aspects that I focussed on during the development of my Assignment 3 game, was the moments of comfort versus moments of discomfort as well as the mechanical progression from a puzzle-focused game to a bullet-hell-survival game that creates a nice progression of the frequency of stressful moments. The bullet-hell nature of my game (or more accurately: “enemy-hell”) was inspired by similar mechanics in games like Nuclear Throne, while the feelings of stress and being overwhelmed by enemy forces were inspired by similar game-feel and tone from Hotline Miami.

2. Hypothesis / Interrogation / Design goal

My design goal is to improve my simple 2D Top-Down Shooter Game from WSOA3003A Assignment 3. I intend to iterate on my original vision, improving it by spacing my game out into more levels. The original version had only three levels, and this limited my ability to effectively implement the pacing I wanted in my game. I was still somewhat successful the first time, but two additional levels (and *small* tweaks to the original three) will be exactly what the game needs to facilitate a more gradual (and user-friendly) progression.

My plan for level progression and change of mechanical focus: As before, the game will shift from a calm, puzzle-solving environment with a small number of enemies to a stressful “run-for-your-life” bullet-hell-survival game. This progression was a bit jarring in the original version since there were only three levels, but I intend to add two intermediary levels that will smooth the stress-vs-time curve of the game.

Note: the original level 2 and level 3 are now level 3 and level 5 respectively, with completely new levels 2 and 4 in between.

My plan for pacing (moments of comfort/discomfort): With more levels, the player will spend more time in the game, so the player has more time to get comfortable with the game’s mechanics. Consequently, when the mechanical focus of the game starts to shift, it will cause even more discomfort for the player when the rug is pulled out from under them. The player has more time to be tutorialized on the puzzle mechanics and starts to take that information as constant rules for the rest of the game (as in most games). This preconception of tutorial levels that most players have will predispose them to feel the full

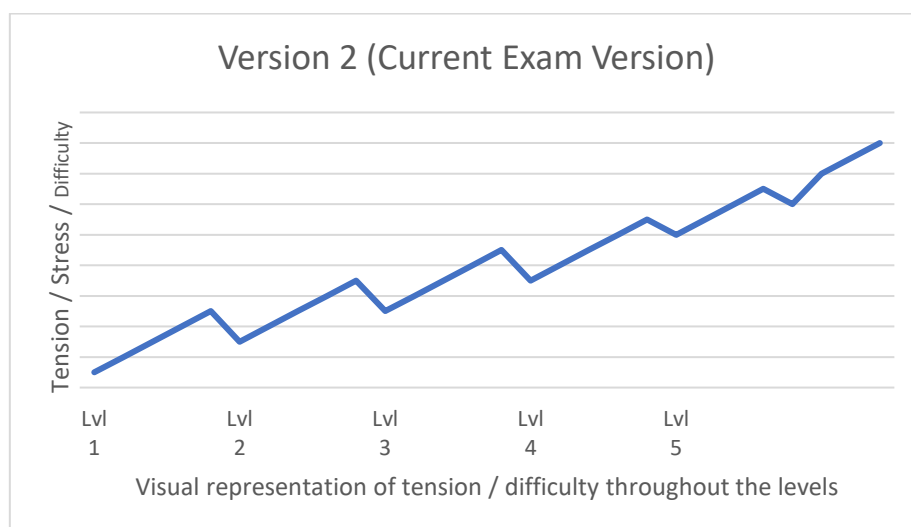
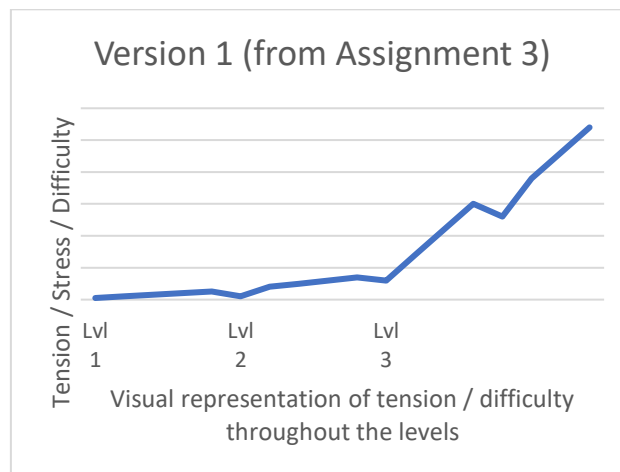
force of the trickery within my game. The puzzle nature of the tutorial levels will lull them into a false sense of security, so when the game shifts to a more dangerous and stress-inducing tone, the player will be all the more cut off guard. There will be moments of comfort throughout the game since constant stress is too exhausting for most players, and these can be as simple as a small area free of enemy-spawners that allows the players to sit awhile and calm down, before continuing.

My plan for feedback to the player: Like in the original version the player will always see their health value, their ammo-count, and their ammo-type at all times (on the HUD). This will allow the player to make informed and meaningful decisions when playing. The player will also see a timer in the final level.

3. Design notes & process

General Design Notes:

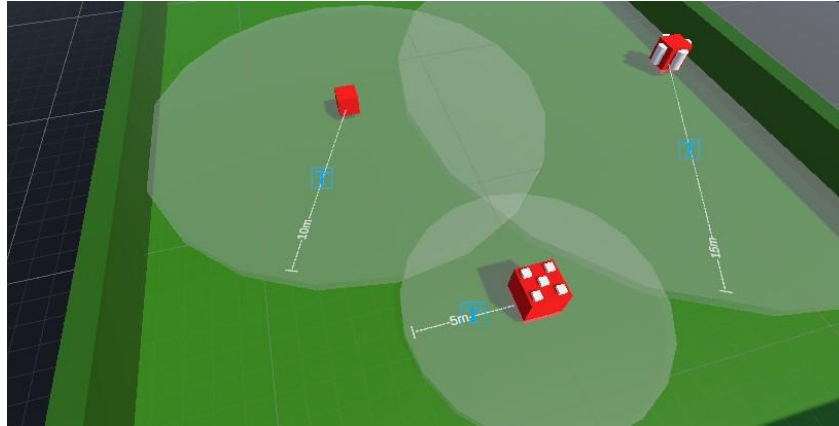
- The main focus of the game is the progression of stress (increase amount of moments of discomfort). *Note: the following graphs are only visual representations and do not contain any real quantitative data.*



- I added music, whose tempo increases each level, with the hopes that it would help gradually increase the tension and stress throughout the game. It succeeded, it gives the early levels a calm feeling and the later levels a sense of vivid stress.

Level1 (Puzzle):

- This is Level 1 from the original version (Assignment 3 game).
- I improved the tutorialization in this initial level to illustrate more clearly what every element in my game does.
- In addition to the transparent circles, the newly added text shows the view-radius of each enemy type clearly so that the player can make a mental note of the 5m increments between the enemy types.



- I added descriptions of certain game elements, such as upgrades, health-kits, portals, etc.



- I also added hints to tutorialize more emergent aspects of my game, such as luring enemies through walls to speed up a puzzle.

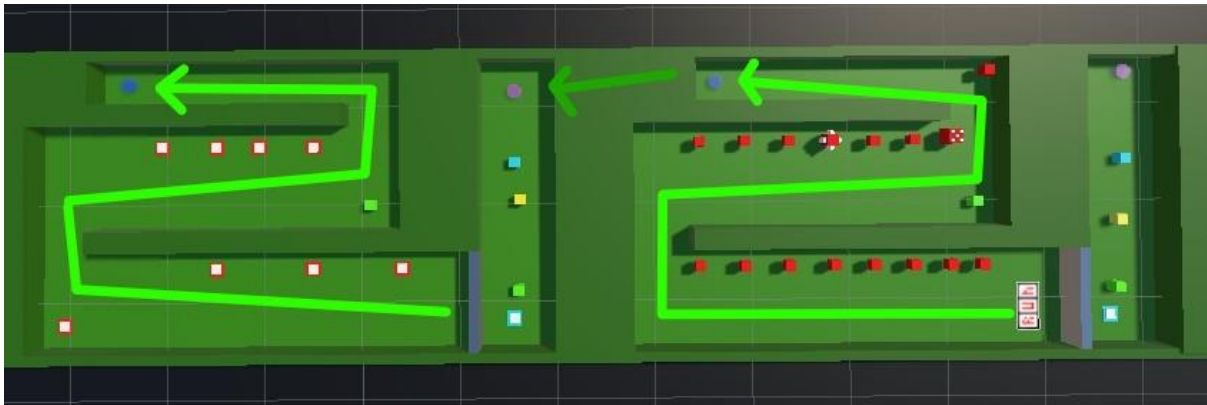


Level2 (Puzzle 2):

- This is a completely new level. It is meant to ease the transition from puzzles to the “run-away” style of Level 3 (the original Level 2).
- Thus this level contains both puzzles similar to Level 1 and runs similar to Level 3.
- This level contains the most hidden breakable walls – to make the puzzles faster for players that experiment with the shooting mechanic.



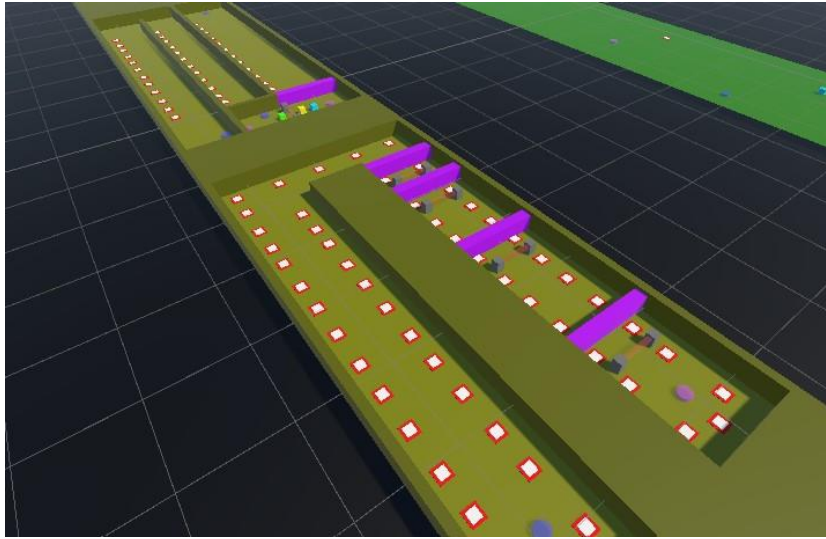
- This level introduces the “runs” that appear in Level 3, acting as a tutorial that primes the player to run rather than shoot for “run” sections.



- The first run has static enemies, so it is possible for the player to defeat all the enemies – like most players would have up until this point whenever there were non-spawner enemies.
- The second run is like the ones in the next level (spawners that are activated multiple times), just easier and shorter.

Level3 (Bullet hell):

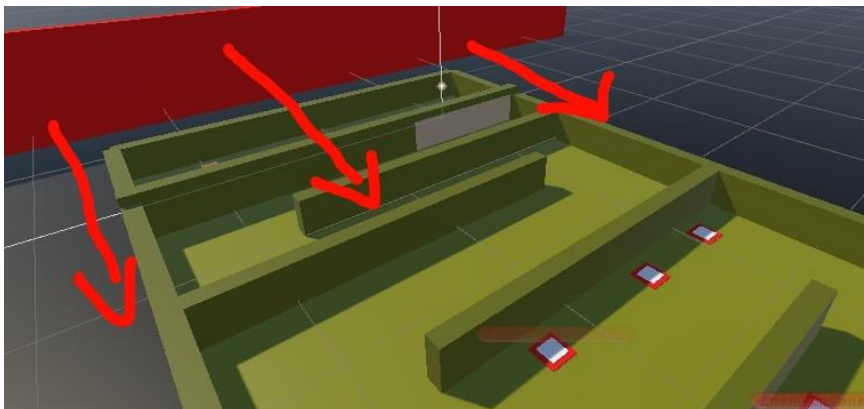
- This is Level 2 from the original version (Assignment 3 game).
- The runs in this level are more difficult than the tutorial runs in the previous level.



- There were no significant changes made to this level. The re-pacing (more gradual change from puzzling to survival bullet hell) is mainly done by the new levels added. The new levels allowed for a more gradual gradient of stress levels, rather than the exponential increase of the previous version.

Level4 (Bullet hell 2):

- This is a completely new level. It is meant to ease the increase of stress felt between the original Level 2 and 3 (now 3 and 5).
- This level is designed as an easier version of Level 5 to ease the player into the survival-style of the final level.
- While this level doesn't have the timer that level 5 has, it does have the "death wall" that encroaches on the player to create tension. The goal is still to reach the end of the level (like the previous levels), while the "survive until the timer runs out" goal is exclusive to Level 5.

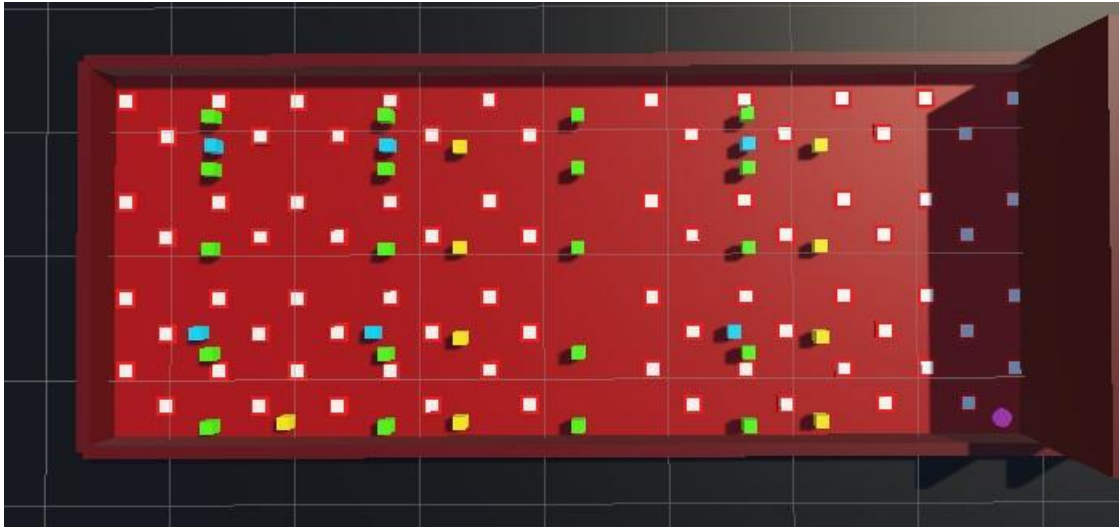


- This level's difficulty is similar to Level 5's difficulty in terms of Enemy Spawn Delays per section, however in Level 4:
 - Has fewer spawners within each section.
 - The player does not need to survive until a timer runs out (they can simply sprint to the end).
- The abovementioned points do make this level considerably easier.

Level 4	Enemy Spawn Delay (sec)				*See focus slowly shift fr
Section 1	3,5	*start area			
Section 2	2,5				
Section 3	2				
Section 4	2,5	*walls like start area			
Section 5	1,5	*can simply run away			
Section 6	2	*final dence area			
Level 5	Enemy Spawn Delay (sec)				
Section 1	3	*start area			
Section 2	2				
Section 3	3	*small enclosed area			
Section 4	2				
Section 5	1,5	*area followed by open area (no spawners - moment of comfort)			
Section 6	2,5	*final area - forced into by Death Wall for final 30 seconds of timer			

Level5 (Survival):

- This is Level 3 from the original version (Assignment 3 game).



- Having Assignment 3's version playtested by peers it was discovered that the existing hint towards pressing space to jump was not clear enough, thus in the new version there is a clear tutorial text hint that tells the player to jump.



- Other than the above-mentioned text and text telling the player (more clearly) to rest before the point of no return (final enclosed room), there were no changes made to the level. The re-pacing (more gradual change from puzzling to survival bullet hell) is mainly done by the new levels added.

4. Reflection

4.1 Reflection on Initial Assignment (Assignment 3: 2D shooter)

I feel that I achieved many of my original design goals to some degree with my first attempt, albeit to a smaller scale than I initially wanted. I successfully implemented shooting mechanics, projectile upgrades, enemy types, and puzzle mechanics.

One of my design goals was to facilitate a shift in tone and mechanical focus from a calm puzzler to a fast-paced run-and-gun experience to an intense survival-bullet-hell experience. This shift was successfully implemented in this original version, however, the shift is a bit too abrupt between levels (since there were only three).

The main aspect I interrogated during development was the moments of player comfort and discomfort as they go through the game. The limited scope of merely 3 levels hindered my ability to properly pace the progression of discomfort throughout the experience. While I feel that I succeeded in using the difference between moments of comfort and discomfort to effectively create suspense (and periodically surprise the player), the pacing between levels (especially in terms of difficulty) left much to be desired. The difficulty spike between level 2 and level 3 was a bit harsh – many peers that I got to playtest the game went through the first two levels without dying once and then started to fail quite a bit in the third - which created frustration rather than the intended feeling of stress.

4.2 Reflection on Exam Version

It can be seen in the game design spreadsheet that all the base mechanics (bullets and enemies) of the game has not been altered between versions, since I feel that I was already successful in creating and balancing these systems in isolation. The only changes made were to do with the level design (i.e., the way these systems were used together, in what order, the number of enemies, etc.).

As stated above, the main aspect I interrogated for this game was the moments of player comfort and discomfort and the main problem with the original version was the pacing of difficulty and tension throughout the game. Thus, the main focus of this iteration is to improve the pacing of the game by smoothing it out with extra, intermediate, levels that give the player more time to get acquainted with the mechanics and the objectives that they are expected to complete in each level. Essentially: having more levels gives the game more time to prime the player to change their behaviour for upcoming objectives or levels, thus smoothing out the difficulty progression between levels. Another aspect of level design I focused on during this iteration is tutorialization. The existing level 1 had an effective layout, but the tutorials within the level were not as clear as they could have been in the original version, and thus I added clearer tutorial-text throughout this level (and level 5).

I feel that I achieved my new design goals of improving my original design by adding intermediate levels and spreading out the pacing of the game to facilitate a more gradual progression (more linear than exponential). I also feel that my overall plan for using players' preconceptions of puzzlers, 2D shooters, and tutorial levels to subvert their expectations and push them into moments of discomfort was more successful than the previous version due the extra levels and improved tutorial.

These moments of discomfort where the game's "status quo" (tone and mechanical focus) shifts, now that the player has more time to get used to the "status quo" of the game (due to the increased number of levels), create stress, discomfort, and confusion more effectively than the original version. And, importantly, these moments are now more often characterized by the intended feelings of stress and discomfort, rather than the frustration some felt with the original (smaller scale) version.

4.3 Overall Reflection

In terms of the final product as a whole, while the game is still relatively simple, it is a fun and concise experience that slowly goes from a calm puzzle game to a stressful survival-bullet-hell game that effectively plays with the player's preconceptions of 2D shooters and puzzle games as well as any affordances the player might have made if they have experience with the genres tackled by this game.

In terms of my growth as a designer, it was an interesting experience returning to an already submitted game with the aim of improving rather than creating from scratch. It was especially helpful to get more practice in iterative design. Since the previous assignments thus far were very different and disconnected from each other, there was little time to rethink ideas and I mostly just focused on new ideas with each game. This exercise in iterative design was also helpful to a design aspect that has troubled many of my games: difficulty pacing. The re-evaluation of one's work really helped me to dial in the difficulty in a way I was unable to before.

In conclusion, I feel that I was, with my original version, successful in terms of achieving my design goals at that time, i.e., creating a simple 2D shooter that starts off as a puzzle game but transitions to a survival-bullet-hell experience. Then, with my new version, I feel that I was successful in terms of achieving new my design goals of improving the difficulty pacing as well as improved facilitating of the moments of comfort versus moments of discomfort (and the stress and tension that the contrast can cause).

References

- [1] Dennaton Games, "Hotline Miami," 2015. [Online]. Available: https://store.steampowered.com/app/219150/Hotline_Miami/.
- [2] J. W. Nijman and R. Ismail, "Nuclear Throne," 2015. [Online]. Available: https://store.steampowered.com/app/242680/Nuclear_Throne/.