Mechanics, Dynamics, and Aesthetics Analyses of the game Survival Shooter:

Part 1 - MDA Table:

Mechanics	Dynamic's	Aesthetics
Player Controls (Player Movement)	Moving the player model in a direction (given from player input) on a 2D Plane	Challenge
Weapon Controls (Mouse)	Can shoot bullets, can only shoot at a certain rate.	Challenge, Submission (Both at different times)
	Shooting at enemy's (& kill enemies).	
	Can Shoot in any direction (aim),	
Animation Controls	Different Animations (Idle/Walking/Death) are played (triggered) depending on the game state (mainly player character state)	Fantasy
Player Health (Health Bar)	Player can take damage from coming into contact with enemies.	Challenge, Submission
	Player can die when out of health	
Player Re-spawn	Upon the player dying they begin again almost instantly (creates an endless survival)	Submission
Enemy Spawn (Position & Rate)	Enemy's will spawn in specific places, they spawn at a specific time rate	Challenge, Submission
Enemy AI	Enemy will move or "home in" on the player	Challenge
	Enemy will deal damage (attack?) the player	
Score	Player receives specific amount of points per enemy kill (differs via enemy type). Score is displayed at the top of the game view and at the end of the game. Can introduce the element of High score	Challenge, Fellowship
Camera Control (orthographic)	Isometric view, moves alongside player movement	Challenge
3D Mesh Objects (e.g. Lego, Chair)	Creates Obstacles for the player, can also create tactics for the player (e.g. kitting)	Challenge
SFX, Music, Lighting	Different assets can describe an area (dark setting can mean it is night), complements immersion, sets the scene, tells the story (if any)	Narrative, Fantasy

Part 2 - Describe one complete sequence from Mechanics to Dynamics then Aesthetics:

The sequence being described will start from the mechanic of Weapon Control to Aim to Challenge. Here is an explanation on how this mechanic intertwines, effects its connecting dynamic (aiming) & Aesthetic (challenge) and their relation to one another will.

Firstly the dynamic of aiming is solely connected to the player using the weapons control's, in the terms of the workshop game this is done via the mouse, the mouse is what the player uses to control the weapon, as the player moves the mouse in a direction (aka controlling the weapon) the gun's direction follows, for instances if the player moved the mouse left the gun will move left, and the same turning right, there for if the player was shooting the bullets would aim where ever the mouse is pointing.

The aim of the gun also moves in tandem with the speed of which the player is using the Weapon control, meaning the faster they move the mouse in a direction the faster the gun aims in that direction to (it also applies to slower the movement of the control the slower the guns aim turns).

The arcs of fire also effect's how the gun is controlled, this is the affective area in front of the muzzle of the weapon in which it can hit a target when fired in game, in the survival shooter game the gun can shoot a single bullet from the tip of the barrel in a straight line at certain intervals meaning there is not really any curvature of the bullets trajectory.

Together this mechanic and dynamic gives the player the feeling that they are being challenged as they have to use the weapons controls to aim the gun at the enemy's with precision, miss and you won't do anything to anything, it can be difficult to aim if you're moving the mouse slow as by the time you use the controls to aim at the enemy the enemy has already got to you, controlling the aim with speed in its self is a challenge as go to fast and your aim will fly past the enemy, but aim fast enough and you will be able to aim at the several enemies at a faster pace.

Design for new experiences / Design Two Aesthetic Concepts:

Part 1 – Adding a new Aesthetic to the game:

A good Aesthetic to add to the survival game could be Discovery as there are many ways to implement this with a range of mechanics and dynamic, it is also a good (and easy) way to add more levels of fun and fleshes out the game.

One of the simpler or "easier to implement" mechanic could be inserting Collectable's (and Collectable's Score) this would add a level of discovery by allowing and asking the player the "discover" all collectable's, the collectables would be hidden the best they could be to make it feel like you're truly discovering them.

The dynamics connected to this mechanic would be "pick up collectable" meaning when the player comes into contact with the collectable it disappears of the map, a second dynamic could be adding to the collectables score whenever the player "picks up" a collectable, which could be displayed on screen and lastly the dynamic of "hunting or finding" the collectable, meaning the time when the player is seeking out the collectables, this mechanic goes in tandem with the mechanic; Player controls (and its dynamics) as it is needed for the player to be able to walk around to collect the pick-up.

A second mechanic that could be implemented into the game to add Discovery could be hidden parts of the map which may not be obvious at first glance for example a wall that seems a little discoloured could indicate that it may be a passage to a new part of the map or hidden behind object's (a door way, hidden behind the view of a static model in the game). The dynamics connected this method of "hidden areas" may be "finding or searching" for the hidden areas, upon discovering the passages, "researching" or scouting out the new areas to see what if offers may be another dynamic, it can also create dynamics such as "kitting" enemies into the new area which may offer an easier time of avoiding them, choke points could also arise from this as the enemies would have to follow you through the passage which may be a tight gap.

It can even be implemented with using buttons or levers around the map where the play could stand on a button and it open a door or passage somewhere and they must find out where, this method could introduce 2 means of discovery, firstly finding the buttons and secondly once pressing the button finding where the new area opened. This method of inputting "hidden areas" in to the game will offer the same dynamics as the above paragraph but also the dynamics of activating the buttons them self & deciding where to door has opened or which passage is connected to which button.

A final mechanic that could be used to implement the feeling of Discovery, could be adding randomly procedural generated rooms that branch of the starting room, this would add a large element of Discovery as the possibilities are randomized, meaning even when you play the game several times there could be new rooms that can show up to be explored. Some dynamics that could come from this could be the discovery of brand new room's as it is randomly created running to rooms to just see what was generated could be something the player enjoys doing.

Part 2 – Improving on an Aesthetics already in the game:

There is only a small source of Fellowship currently in the Survival Shooter which stems from the score function as players can remember there score and try and beat one another however this is a very simple way of doing so. There could be several ways to implement the feeling of "Fellowship".

One simple way of adding fellowship could be through adding a scoreboard dynamic, you can do this local or online, this would be done by saving the players score upon them dying and then displaying said leader-board, this would create the feeling of fellowship as you can compete against other players as for dynamics connected to this mechanic, I don't think any specific one would arise.

Another mechanic that could be used in the Survival Shooter would give a strong sense of Fellowship is adding the option to play with 2 players, which could be done by allowing a second play to play with a controller, as this would be local multiplayer it just adds to the sense of having fellowship. A few dynamics can arise from this mechanic such as using to the 2 players to split up the enemy load for example the players could go to separate side of the map which would force enemies to split so the addition of another play would add several new tactics players may use, as they could always find a point of the map where it's good for them to stand back to back and cover enemy's coming from both ways or they could just play their own ways but just together.

You could even intertwine the above to mechanics by introducing a second leader-board dedicated to 2 players this creating the sense of fellowship from them both maybe even stronger.

Documenting the prototyping of a level for Survival Shooter:

Intended aesthetic, and the mechanics and dynamic changes:

The intended aesthetic I am trying to implement through the new map and its prototypes, is Challenge as I feel like it is one of the easier ways to implement fun. One of the main mechanics I try to introduce is a moving or changing map, in the sense that if the player does not move forward or around they a liable to "falling off or getting caught by the edge of the map" (will lead to the player dying) this idea can be seen below.

The way this introduces a challenge is the sense of urgency the fact that player cannot stand still or stay in one area for too long otherwise takes the risk of dying. I use this mechanic in my first idea (or iteration). The map would be 1 room (a bedroom) and the outside of room would start to collapse in.

However, this created the problem of the map, firstly becoming too small and thus boring, secondly after a while there would be to many enemy's and nowhere to go and lastly limits where enemies can spawn as they cannot spawn on the parts of the map that are removed at some point.

This led to my second attempt at using the mechanic of a moving map and the mechanic of having another way to die either by falling of a map or being caught by the edge of the map.

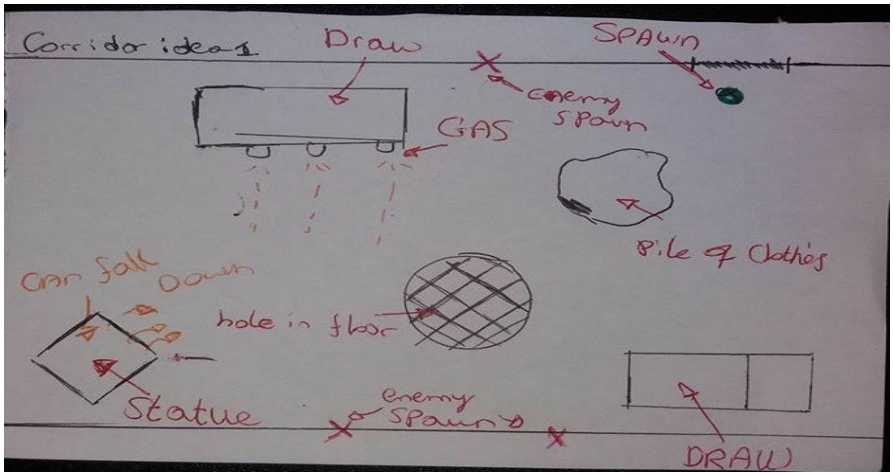
Please view the video below for an example:

https://youtu.be/ZpQudZF2st0-

as you can see the tiles represent just a part of the "never ending corridor" as it will keep growing in front of you, as you can see sometimes the order of which the "tiles" or "part of the map that shows in front of you" will change order out of 5 "tiles" (which you will see in screenshots throughout the essay) which gives the player a bit of fresh air to the layout of the "endless hallway" I decide to keep the main prospect of this iteration and then began iterating the finer details of each "tile" or "part" of the corridor.

One of the dynamics that are supposed to come from this mechanic is the idea of finding different "paths" through each part of the corridor as some may be faster.

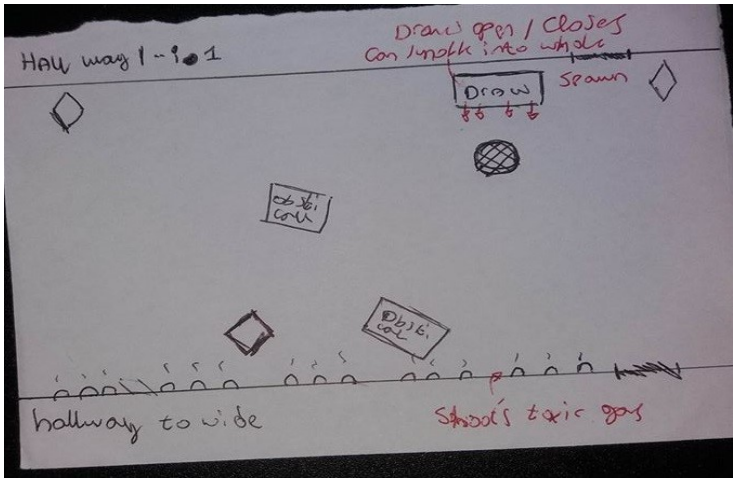
Another mechanic I introduce to give the player more challenge is trap's that can both kill or hurt the player & enemy's, these traps give risk to the player but creates the dynamic of leading enemy's in to them which in turn helps give balance to the game and ensuring the game is not too hard for the player it becomes frustrating.



"The Traps here are the; 3 streams of "poisonous gas", the statue which can fall down if you shoot it enough (can be used to kill enemy's) and the hidden hole in the floor (only the player can fall down this) "

as you can see there are various traps on each tile, I will explain more about these in the next section but for now I would like to highlight that there are various paths and traps the player has to suffer through or use, a dynamic that I want from this is for the player to spend time playing over again until they find their preferred routes allowing a different experience when playing again.

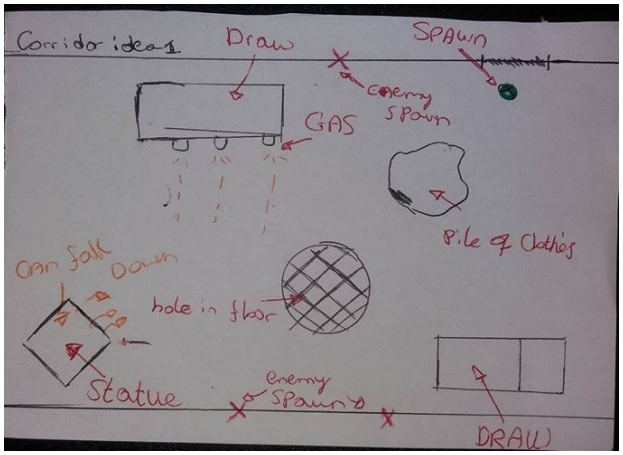
Implementation of the level, including special features, spawn points, flow of play, choke points, probable tactics and defensive positions etc.:



"First Iteration of the spawn area of the corridor"

This is the "tile" the player will spawn on and as you can see this part of the corridor utilises various traps around the map. As you can see I've placed the player spawn top right of the corridor (although the tiles or the map pieces are given randomly you will always start in this part of the corridor) one of the reason's I have done this is to enhance the challenge of not being caught by the closing end of map which will happen from the right, placing the spawn here also helps with flow of play as it forces the play to get used to running forward/ left.

Special features this map has are mainly the trap's, in the images below there a several traps around the room

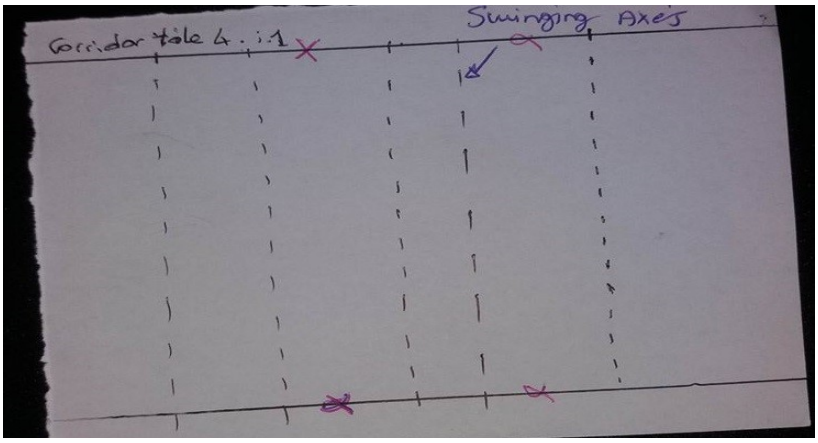


"Second Iteration of the Spawn Area"

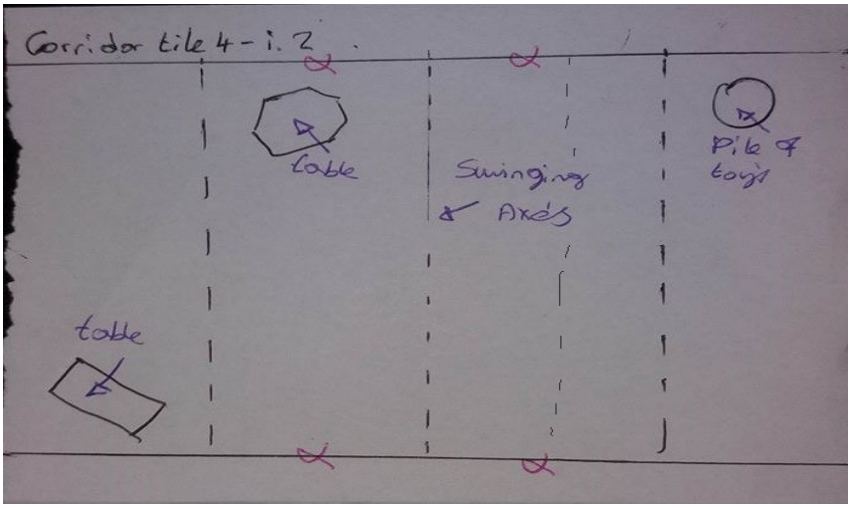
I made changes to the number of traps in the room to fill empty and otherwise pointless space but they also give you new tactics to play with (for example you could move forward closer to the top of

corridor and time when the gas spawn goes off so you can time when to lead the enemy's through it).

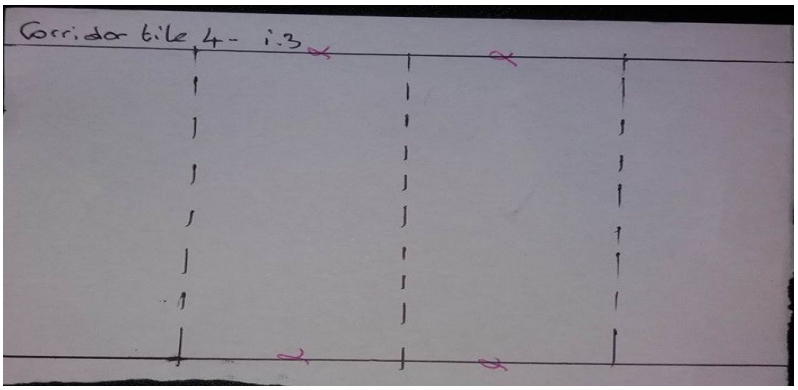
As you can see in the image below we have part of the corridor with a special feature which has 3 swinging axes' which you must run through, I changed the amount of swinging axes to 3 from 4 or more on this part of the corridor, as in my final iteration I changed around some of the enemy spawns this is because if their spawning on the far side from the player there's way to high of a chance of them getting hit by the axes before reaching the player.



"Part "4" of the Corridor, First Iteration, to many swinging axes"



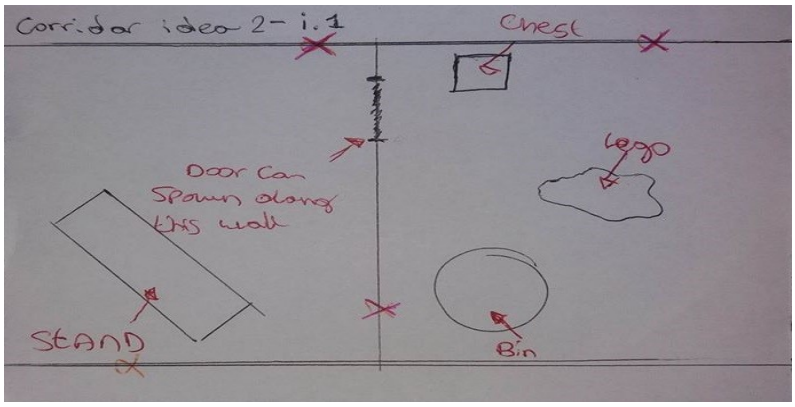
"Part "4" of the Corridor, Second Iteration, Points static Object's I want the swinging axes to be focused on in the tile "



"Part "4" of the Corridor, Third and final Iteration, I remove the pointless static objects and reduce the amount of axes once more, The mechanics evident in this part of the corridor would be Dying to the Swinging Axes and Enemy's Dying to

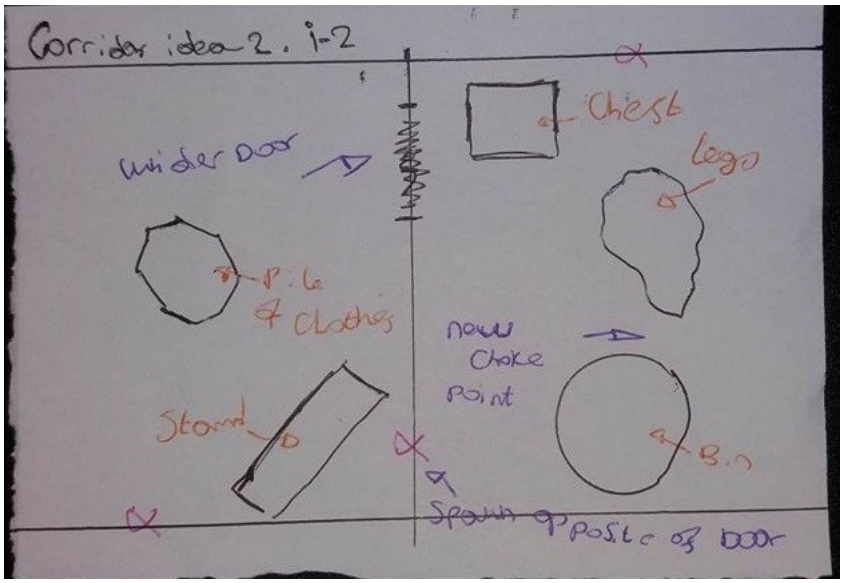
Swinging Axes a dynamic that could arise from this is timing when you run through to ensure enemies are hit by said swinging axes"

I create a special feature which purposefully creates a choke point for the player, seen in the examples below, it is the door way in the wall that is blocking your path,



"Area 2 – First Iteration, I would like to point out the door you need to get through can appear at any place along the wall, as can the enemy spawn"

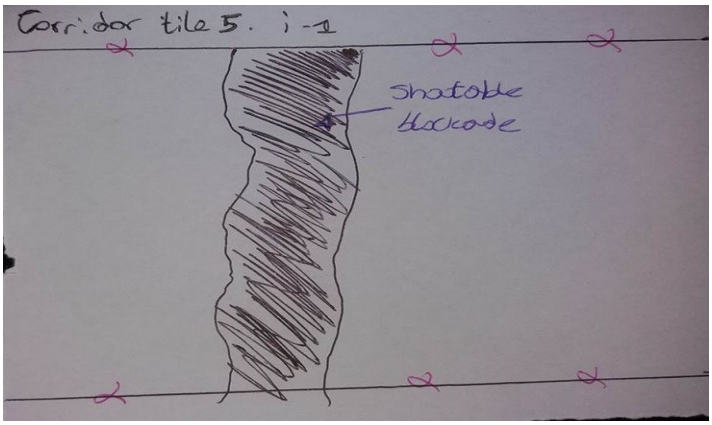
you and enemy's must come through the door thus making the enemy's funnel through momentarily, this also adds challenge as you have to make it through the door before the other end of the map closes in on you, I have also placed an enemy spawn on the wall your running into meaning you will probably be forced into having to take care of them to get through the door before kiting the enemy's already chasing you through the choke point, however once you get to the choke point, it would be a good tactic to keep as many enemy's as you could chasing you until this point so once you're through the door you can turn around and shoot down single line as they funnel through.



"Area 2 – Second iteration, as you can see I moved some of the static objects around, mainly the stand bottom left of the screen to the right hand side of the room as in the first iteration it was blocking a large area towards the part of the corridor, I also created larger static objects on the right hand side to create another choke point, the door is slightly wider making it easier for players to get through , populated the left hand side a bit more and moved the enemy spawn on the left hand side of the map further away from the wall to give players a bit of breathing space as they pass through the choke point"

And finally, there is a part of the corridor where a shoot-able blockade with so much health blocks your way, which you must shoot down to get through, this is to affect the flow of game and creates a

big sense of urgency as the map closes in on you need to know how much time you need to spend on the blockade and also on the enemies to make sure you don't get swamped.

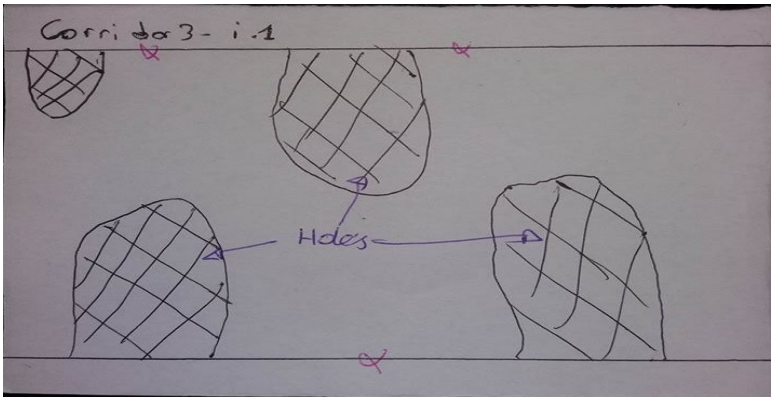


"Area 5 - first iteration, the player has to shoot down the blockade while having to deal with any enemy's following, the blockade would have 200 health (so 20 shots), the second iteration to this is further down"

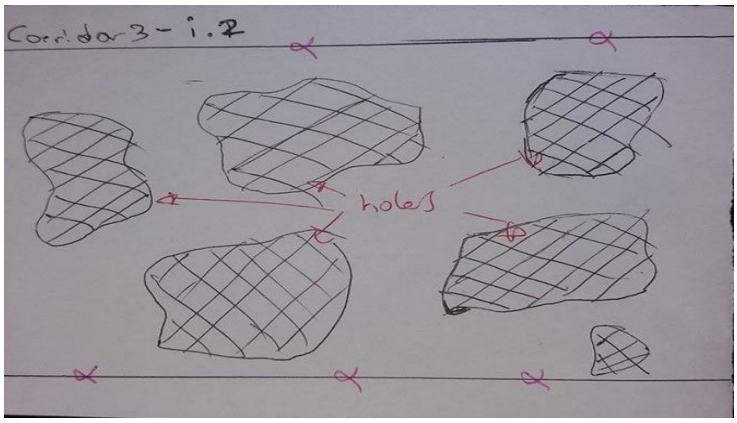
There are more choke points and special features that give players tactics and defensive positions, I will try and explain some of these in my annotations.

Development of the level to make use of design concepts such as Meaningful Choices, Challenge, Balance, and Chance:

A main point of the created level is to give people various choices and different routes, meaning some of the forced choices will need to have a meaning behind them for strategic reasons (hence a meaningful choice), for example the part of corridor as seen bellow



"Area 3 – First Iteration. Stale, linear and uninteresting, spawn locations make it difficult to get past tight points"



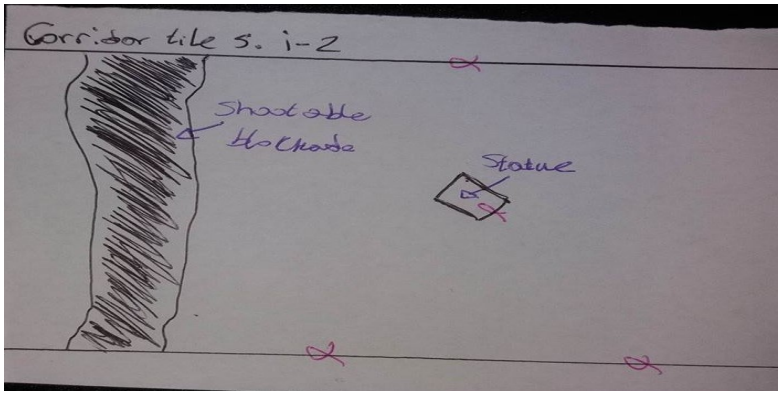
"Area 3 – Second Iteration, changes are described below"

as you can see in the first iteration it was a more linear path and only one of them, this one makes the game play stale and also makes it too difficult to make it from one end to another having to go all the way around the long indents, in my second iteration I have created many paths the player can choose to follow, giving more meaningful options on how the want to "kite" or manipulate the enemy's and balancing the routes ensuring they can get to the other side of the area in time, I also added more enemy spawns to this area to ensure there was enough to make it a challenge but placed them in area's which would give balance on how many come at your and where they do so, for example near the bottom middle, in the image above there are several enemy spawns grouped together, this is because in the middle of the map there is a larger safe area giving you a chance to "kite" the enemy's around.

There's also meaning full choice in which if any traps you try to use against your enemy's as some may be easier to hurt yourself in that the enemy's -shows picture of spawn room- as you can see in the image above in my first iteration there wasn't many traps, nor were they evenly put out (for example how there is just a wall of gas vents) in my final iteration you can see more of selection has been given and even various routes you can kite enemy's giving the player all the more choices to make.

As I chose the aesthetic for the map as Challenge I like to think the entire idea of the map closing in on its self already gives a new type of challenge; not staying still too long in one spot, not only does it create this challenge but it brings a sense of urgency which may deter the players thinking,

In the room below I moved the placing of the shoot-able barricade further away from the player to balance out the time they need to shoot the barricade down and the time they have until the edge of the map closes in on them, giving them more space, I also removed the two enemy spawn's on the other side of the barricade and I realised they would be rather pointless until the barricade had been shot down, meaning enemy's that spawned on the other side would just end up swamping the other side



"Area 5 – Iteration 2. Changes described above, I also added a spawn in the middle of room, they spawn out of a static object"

I believe in a way the swinging axe area of the corridor (as show further up) creates a small area of chance, as there is a chance that enemies may end being hit by them, another way there is chance implement into this map design is how the entire map works, you could get lucky and get 2 or 3 "easy" area's in a row or the same on in a row giving you more of a time learn new tactic's, there's also chance revolving it may give you an area which is perfect for a situation you're in (for example if you just had the whole maze area and are kitting a lot of zombies a choke point would be helpful so the area with the wall and 1 way through, it will help trim down the pack following you) or one that would make it even more difficult (for example your once again kiting a group of enemies and the

next area to show is the barricade room, it may be hard to shoot down the blockade will dealing with all those enemies).