

## GRIN Assignment – Level Design (Game Design)

To fully understand my concept for this level, I will discuss and describe certain aspects of the fictional game and what my interpretation of the assigned task is.

### Task

First of all I will bring up some vital elements of the assignment.

#### *Played cooperatively*

“The game you should be designing the level for is a first person shooter that is played cooperatively with three other friends [...] The gameplay in the game is about solving things together with your fellow teammates.”

“...compelling and fun experience for the four cooperating players.”

Since this is a fictional game I take it as the only play of interest is when four players are playing together, hence I will not take one-, two- or three-player sessions into consideration when designing the level. Maybe the remaining players are A.I-controlled? Who knows...

#### *What is realism*

“...in a real world (or at least realistic) setting.”

“Det enda som gäller är att det känns realistiskt – om än på det sättet som Stjärnornas krig känns realistiskt om du förstår vad menar.” – Anders Hejdenberg

Vague term to say the least. As Anders himself said, Star Wars is realistic in its own way. The way I see it is that realism is that the internal logic is never broken.

### Game rules

Here is a description of the game rules considering movement, death, etc.

#### *2 Player climbing*

A player can climb another players back if the latter is crouched. It is not possible to make a stair out of three characters. I simply call this “2P Climb”.

#### *Death*

When a player sustains too much damage and "dies", he can't do anything until "revived". Any player can revive any player by simply "using" him. It takes a while of uninterrupted work for a revive to succeed, so

the reviver must be protected while doing it. When revived, the player only has a small amount of health.

If all players dies, it's game over.

## ***Regenerate health***

Health can only be regenerated by finding pick-ups in the level. This is to create a tension and the tactical choice of who should get it when one is found. A health pick-up is consumed immediately when picked up.

## ***Gas***

Gas-filled areas are dangerous for players without special tools (gasmask and biohazard suit). Those who have the tools can navigate in gas without any penalty except somewhat blocked view due to the actual gas. The players without the special tools can only be within the gas's proximity for a very short period of time before they start taking massive damage.

## ***Ammunition***

Ammunition for each tool can be dropped by killed enemies of any sorts

## ***Players***

I have tried to create a game design allowing all players to contribute and feel useful. This has been a focus in the game concept during the entire way of development.

I tried to think of a fun system for the players to each get a role, but not in the ordinary "soldier, engineer, medic and sniper"-kind of way. I wanted all the players to be able to stand tall in combat and I didn't want to force a specific player into a specific path in a challenge. That is why I tried to mold two players into possible actors for each "puzzle".

The game/level has two special themes except for combat; darkness and gas. I therefor made two players darkness adapted and two players gas-adapted, so when faced with any of them, there is not one obvious choice of character.

## ***Tools***

Some tools, I will describe the purpose and usage for because I don't think my solutions are the first things that comes to mind. All character class-names are for documentation purposes only and are not meant to be exclaimed in-game. Using cliché class-names makes it easy for people (you) to read and remember the characters.

### ***Sharpshooter (Gas)***

- **A scoped rifle** - Simply because it's a rifle with a scope does not mean it's a sniper rifle "useless" in closer range. My interpretation is that it's a none-automatic rifle fully capable of being of great use

without the scope in close- to mid-range combat as well.

- **A gas mask** - The gasmask allows the player to navigate through the poisonous gas without any harm for an unlimited amount of time. It has the exact same functionality as the biohazard suit.

## Engineer (Gas)

- **A shotgun**
- **A biohazard suit**- The biohazard suit allows the player to navigate through the poisonous gas without any harm for an unlimited amount of time. It has the exact same functionality as the gas mask.
- **A metal detector** - This piece of equipment is always active and cannot be "chosen" as a normal weapon. It starts beeping when standing close to a pods entrance point and when pods are surfacing it beeps like crazy, giving the players a short moment to get ready. The metal detector emits sound hearable by all players if they're close enough. The engineer will, of course, always hear it when its warning, but other players will have the audio-volume based on the distance to him.
- **A box of grenades**

## Gunslinger (Darkness)

- **A pistol** - A pistol does not necessary have be a bad choice of weapon. I imagine this as a quite powerful handcannon.
- **A flashlight** - It can be used while having the pistol drawn. Since a flashlight is a beam of concentrated light, it is also applicable as a tool for temporarily blinding enemies sensitive to light, if directed in their faces (eyes).
- **A landmine** - It's a anti-vehicle mine and is not triggered by people. The player can place this mine on the ground and if a pod surfaces at that location, it will detonate, destroying the pod. It can be picked up again, as long as it hasn't yet detonated.

## Soldier (Darkness)

- **An assault rifle**
- **A box of flares** - Thrown as a grenade a flare emits a very bright light at impact temporarily blinding enemies sensitive to light, after impact it remains glowing and brightens the area around it for a while. Even though it can act as a quite potent weapon, it can be recommended to keep the flares until dark passages needs light.

## Enemies

There are human enemies and gun-turrets.

### *Humans*

The human enemies comes with varied arsenal, which I have grouped into four classes; ranged, melee, rocket and sniper.

These four classes can each be equipped with heavy armour, making them impossible to take down unless

flanked or confronted with explosives, such as the grenades or a rocket fired from an enemy. If they're flanked they take "normal" damage.

All enemies are (gameplay-)immune to the poisonous gas.  
Enemies can see in the dark.

Enemies spawned from pods (check "Enemy factory") are sensitive to light, due to their underground presence.

## **Gun-Turrets**

Gun-Turrets are controlled using triggers and scripting.  
They use fully automatic firing and never ceases because of reloading. In theory they have unlimited range but their target are set and controlled with scripting.

Turrets can only be destroyed using explosives.

## ***Enemy factory***

Turrets are always pre-placed on the level, they are not created via spawnpoints.  
Human enemies are spawned with two different techniques.

The first one is pre-placed enemies that are loaded along with the level. These enemies are gone once killed and will not respawn.

The second way for enemies to be created are by spawnpoints I call "pods" that surface from underneath. These pods are connected to the underground and will spawn unlimited amount of enemies until disabled by the player. Each pod will keep track of the amount of enemies originating from that specific pod and will make sure not to spawn additional enemies until the amount is below a set max-value. The max-value can be set for each pod.

The pod can be described as a phone booth or a closet, with three walls and one open door/passage, from which the enemies exits the pod. Pods can only be disabled by destroying them using explosive power or by reaching its' outer back wall and destroying a control box (the gameplay is simply executing the "use"-command). A disabled pod still remains in the world. All pods are activated using triggers and scripting. Pod locations are pre-set.