

Alien Breed 2

Bio Lab - Level Design Document

Current Version: v0.7

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1.0 Document Information

Designer: Lee Beever

Begin Date: 28/8/2012

1.1 Version History

v0.1 - Document created and Level Information added.

v0.2 - 2D layouts added along with short descriptions.

v0.3 - Changes made to the 2D layouts, several rooms added to the ventilation shaft added.

v0.4 - 3D layouts added along with in depth descriptions for level run through and objectives.

v0.5 - Added more detail to the boss fight.

v0.6 - Added more detail for mission difficulty and WOW moments.

v0.7 - Added progression chart and actor list.

2.0 Level Information

2.1 Mission Location

- On board the ghost ship that crashed into the Leopold.
- Split between the general crew decks and the specialist bio and medicine laboratories.
- All Indoors.

2.2 Mission Difficulty

The mission will start off slow (cold), with only a few enemies popping up en route to the bridge. The pacing will quickly pickup after the player has activated the power generator and it starts to go unstable. The alarm, flashing lights and increased enemy count will build the difficulty and pacing to warm.

The pacing and difficulty will drop down to just above cold throughout section 2 in the ventilation system. The pacing and difficulty will ramp up towards the end section of the ventilation system, where many enemies will spawn, forcing the player to fight their way through as fast as they can to escape the vent system (warm difficulty and pacing).

During section 3 the pacing will stay warm until the player makes it into the safety away from the gas. The pacing and difficulty will decrease again but will still be slightly warmer than the first 2 quite sections. The pacing and difficulty will peak slightly during the section where the player must reactivate the extractors due to the ambush and onslaught of enemies before subsiding during the next set of objectives.

Finally the pacing and difficulty reach the peak (hot) as the player takes on the boss. The boss will require the player use many skills they've learnt so far in the game and also require them to figure out how to defeat the boss. After the boss the pacing and difficulty subside as the level winds down and the player is rewarded with the completion of the main objective.

2.3 Mission Metrics

- I'm aiming for a 25-30 minute playtime. Depending on the player skill it could take longer due to the boss fight.
- There won't be any new general enemies introduced but the player will encounter the level specific mutant plant boss.
- There are two main visual themes; these are the general crew decks (as seen throughout the previous levels) and the level specific bio and medicine labs.

2.4 Overview

The chapter takes place on the alien infested ship that has crashed into the Leopold. MIA has informed Conrad that he must recover medicines from the ancient ships bio laboratory in order to save a large amount of his crew back on the Leopold.

The player starts at the bridge of the ancient ship and must navigate their way to the bio lab. Of course their journey to the bio lab won't be so easy. The player will encounter fairly stereotypical objectives in section 1 of the chapter. They will need to raise the bridge that has been lowered,

power up the backup generators and escape through the 'under level' passage amongst other challenges.

Once the player has reached section 2 they'll start to notice a theme to the majority of the obstacles, they all appear to be caused by the ex-crew members of the ship, as opposed to faults of the ship and from the alien life forms aboard. In the main part of section 2 the player must navigate a cramped and alien riddled ventilation shaft in order to circumvent the decontamination room that has been locked down. Once the player makes it through the ventilation system they are met by the main bio lab area, which is full of toxic gas.

In section 3, the player is tasked with various objectives, which again seem to be caused by humans, such as the leaking pipes and the lowered platform. The player must correct these issues by completing objectives based around the main bio lab area, such as fixing the leaks, extracting the gas and raising the walkway/platform.

It is here, once the gas has gone and the platform has been raised that the player will realise why the ex-crew members have put all these obstacles in place. It is here that the mutant plant boss will confront the player. The ex-crew members had leaked the gas in an attempt to kill the mutant plants or at least stop them from spreading. The player must defeat the boss in order to progress through to the medicine lab nearby.

With the boss defeated the player can grab the medicines, complete the last few objectives and return to the whole that joins the two ships together via the monorail.

2.5 Level Layout

Although the level is quite small in size, the puzzles and objectives are aimed to reuse areas of the level several times. This reduces the time spent creating assets for what would be a large level. Care has been taken to ensure the player doesn't feel like they are stuck in one area too long. The level has also been designed with a modular creation method in mind.

2.6 Level Theme

Below is a brief overview of the visual themes for each section of the level; a more in depth breakdown can be found in the Visual Reference Document.

2.6.1 Section 1 Theme

The theme for section one of the level will be identical to the previous levels in the game and can utilise the same modular assets from the earlier levels. The assets will obviously be very worn down and rusted due to the age of the ship, but they will also be made from darker less clinical materials (which will have been seen in the earlier levels).

2.6.2 Section 2 Theme

This section will share two different visual themes, the first is the rooms on the main level, these will continue the theme from section 1. The ventilation shaft however will look visually different, this is to help emphasise that it is different to the main part of the level and also ventilation shafts generally have cleaner materials and less clutter than other areas of a ship. Therefore the ventilation system should use more silver/chrome materials, as opposed to the darker materials used in section 1 and the previous levels. The silver/chrome will of course be worn down and rusted and in a lot of

parts will be covered in alien materials, this helps ensure believability and also warns the player that there might just be some aliens up in the ventilation system.

2.6.3 Section 3 Theme

Section 3 encompasses the bio lab. The bio lab is an area of the ship where scientists would have been growing various plants for medicine, food and for experiments. This section will be very visually different than the previous areas. The walls, computers and instruments should look a lot more clinical (think white like surgical rooms). Although once again the materials need to look worn down although not rusted, the level could include overgrown plants that cover areas of the walls and should include alien materials as per other areas. The lab should be running on back up lights to also help emphasise that although it doesn't look as run down as the rest of the ship it is still in disrepair.

2.6.4 Section 4 Theme

Section 4 includes the medicine lab and shares a lot of visuals with section 3. The main difference is instead of the plants everywhere the main feature of the medicine lab is the various experimental tubes (think Alien 2 with the large tubes/chambers that held the Alien face huggers) and medicine beakers and test tubes spilled around the area. It might be an idea to have the larval bursts inside the experimental tubes and have them break out when the player moves near, as a nod to the Alien series.

2.7 WOW Moments

I am aiming to create 3 WOW moments for this level and these are as follows:

2.7.1 WOW Moment 1 – “Shutdown”

The first WOW moment will happen when the power generator starts to become stable. The aim for this game play section is to shock the player with the explosions and then raise the pacing and difficulty through the flashing lights, alarm and an increase in enemies. The player is also introduced to the under level passage which runs through the section that they've just played, which they won't have noticed was there until this point. All those points together help create a memorable section of the level.

2.7.2 WOW Moment 2 – “Awe”

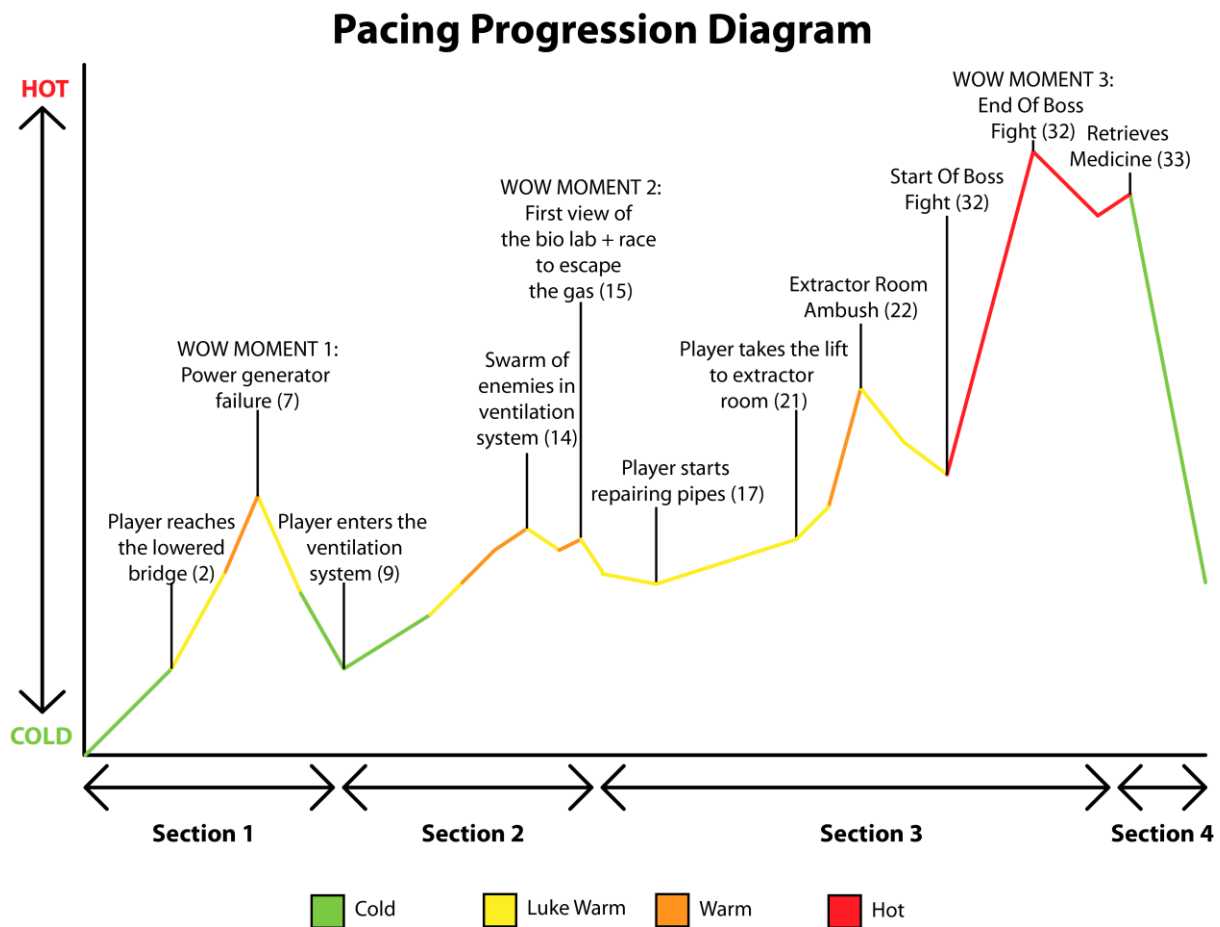
The second WOW moment will come when the player first sees the bio lab fully for the first time. The bio lab will be far larger compared to the smaller rooms seen throughout the level and previous levels. Not only will the size be impressive but also the change in visuals, instead of the dark colours of the rest of the level they will be introduced to a more clinical area full of exotic fauna. The area will of course still look run down and old but the visual style will still be very different.

2.7.3 WOW Moment 3 – “Deadly Daisy”

The final WOW moment will be the boss fight. The player will remember this part of the level for the difficulty, the unique enemy and the satisfaction of defeating the boss. The fight will require the player to act quickly to dodge the attacks whilst also going on the offensive at the right time. It will also require the player to think how to defeat the boss. The visuals for the boss will be unique to the level and a change from what the player is used to.

2.8 Level Progression Diagrams

2.8.1 Pacing Progression Diagram



2.8.2 Pacing Progression Diagram Breakdown

The level begins at a slow pace to ease the player in, but it quickly picks up with the power generator game play section. This peak in pacing will help pull the player in and grab their attention.

The pacing slows down a little bit at the beginning of the ventilation section (section 2) in order to give the player a “relax” period. The pacing continues to climb throughout section 2 culminating with a swarm of enemies forcing the player to fight their way out of the vents and into the bio lab. The pacing peaks again as the player is forced to escape the gas quickly as well as taking in the visuals for the large and impressive bio lab.

The pacing slows down again as the player carries out the objectives to repair the gas leaks. The pacing quickly peaks when the player is ambushed whilst up in the gas extractor room and are forced to fight off the enemies whilst bringing the extractor back online. The pace subsides after the ambush as the player completes the final objectives before the boss fight.

The pacing quickly ramps up from the start of the boss fight and is the showpiece and most challenging part of the level. The pacing finally peaks as the player defeats the boss and the player is free to retrieve the medicine from the medicine lab. The pacing subsides significantly as the player makes their way to the monorail and the level ends.

3.0 Actors

3.1 Player

- Model
 - Conrad_SK
- Inventory
 - Pistol
 - Assault Rifle
 - Shotgun
 - 2x Small Medikit
- Start Location
 - Outside the bridge for the ghost ship.
- Motives/Objectives
 - Find the bio lab and retrieve the medicines.

3.2 MIA

- Model
 - No 3D Model (2D image for UI updates)
- Motives/Objectives
 - To help guide the player and update them with necessary information.

3.3 Mutant Plant Boss “Daisy”

- Model
 - Boss_Daisy_SK
- Attack
 - Bite (Melee)
 - Acid Spit (Ranged)
- Start Location
 - Outside the medicine lab, at the top of the main bio lab walkway.
- Motives/Objectives
 - Kill the player to prevent progression in the level.

3.4 Mutant Plant Side Mobs

- Model
 - Boss_DaisySideMob_SK
- Attack
 - Shield (to protect the main plant “Daisy”)
 - Acid Spit (Ranged)
- Start Location
 - Outside the medicine lab, at the top of the main bio lab walkway, in left and right of the main boss.
- Motives/Objectives
 - Kill the player
 - Protect the main plant “Daisy”

3.5 Larval Burst

- Model
 - Enemy_LarvalBurst_SK
- Attack
 - Charge and Explode (explodes on contact with the player)
- Motives/Objectives
 - Attack the player with the intention of killing them.
 - Harass the player.

3.6 Larval Burst Pod

- Model
 - Enemy_LarvalBurstPod_SK
- Attack
 - Spawns Larval Bursts
- Motives/Objectives
 - Spawn larval bursts to create continual pressure on the player until it is destroyed.

3.7 Mauler

- Model
 - Enemy_Mauler_SK
- Attack
 - Charge and Attack (Melee)
- Motives/Objectives
 - Attack the player in order to kill them.
 - Jump out to scare the player.

4.0 Possible Technical Limitations

There are several possible limitations for this level, which are disclosed below.

4.1 Disruptive theme for Section 3 and 4

There is the potential for the clinical theme for the bio lab and medicine lab to be disruptive and break the immersion for the player. Care must be taken to ensure that the rooms looked like they were clinical in the past they share the same amount of visual wear and tear from being untouched by humans for several hundreds of years.

4.2 Section 3a blocks the camera

There is potential for the extractor room floor to block the camera if it is created too low. To avoid this issue the floor should be created higher and the lift shaft lengthened to ensure the camera isn't impeded whilst the player is navigating the main bio lab area. Another solution could be to have the extractor room floor built away from the main level and when the lift goes up the screen cuts to black as the player is moved to that part of the level. I do however feel this method might make the level feel a little disjointed and therefore the first option would be preferable.

4.3 Dynamic Lighting

In section 1 I suggest that the lighting in the level should change after the generator has been activated and become unstable. Due to the way Unreal handles dynamic toggleable lights (I.E. they are expensive in terms of system resources) care will need to be taken to ensure performance is kept stable. Another problem is if static lights are used then the lights and shadow maps will be baked and therefore can't be turned off. A solution to this would be to use red dynamic toggleable lights sparingly and use them in a flashing warning manner in addition to the static lighting as opposed to flashing all the lights on and off.

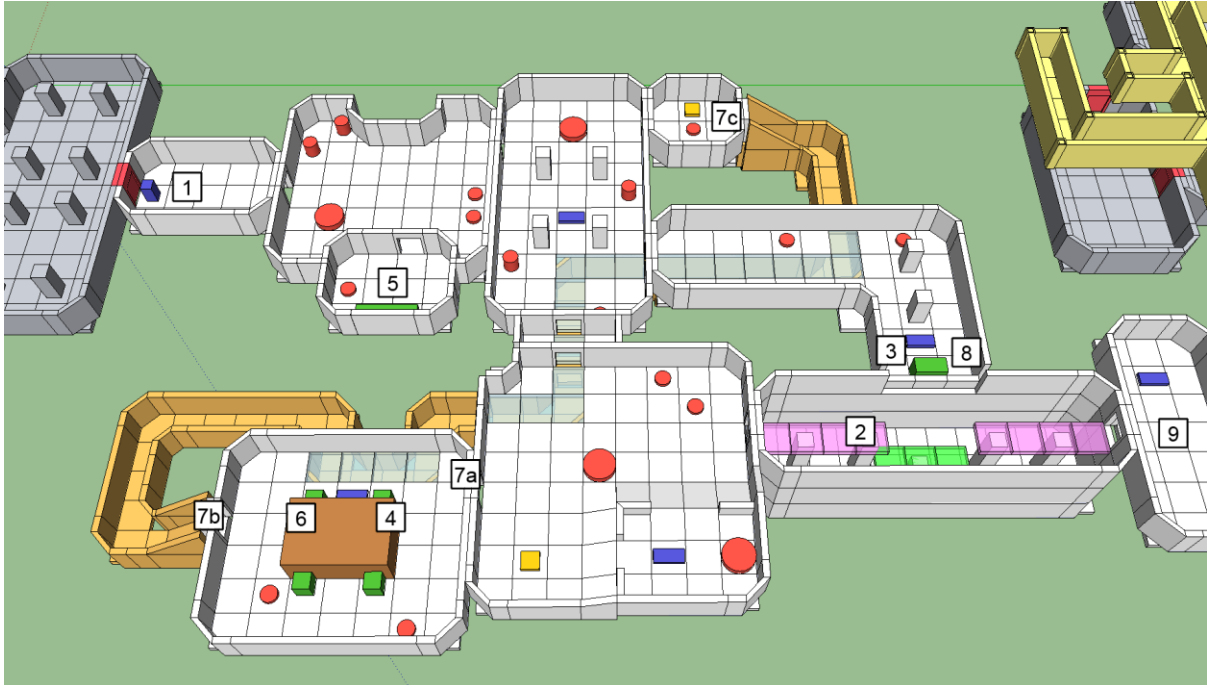
5.0 In-Depth 3D Layouts

Object key for 3D layout images:

Object	Description
	Small Enemy - Larval Burst
	Large Enemy - Mauler
	Small Enemy Pod - Larval Burst Pod
	Human Corpse
	Credits
	Small Health Kit
	Interactive Objective - Any object coloured green is a main objective and interactive.
	Locked Door - Inaccessible to the player.
	Main story object, but not interactive to the player.
	Floor grate, allows visibility of the player as they move below it in 'underground' passages.
	Raised grated floor platform, used for bridges, platforms, with slight visibility through the floor.
	Underground tunnel - Any object coloured in this orange will be part of an underground passage.
	Ventilation Shaft - Any object coloured in this yellow will be part of a ventilation shaft.
	Inaccessible Area - Any room/area coloured in grey is visible by the player but not accessible.
	Intex Terminal
	Power port

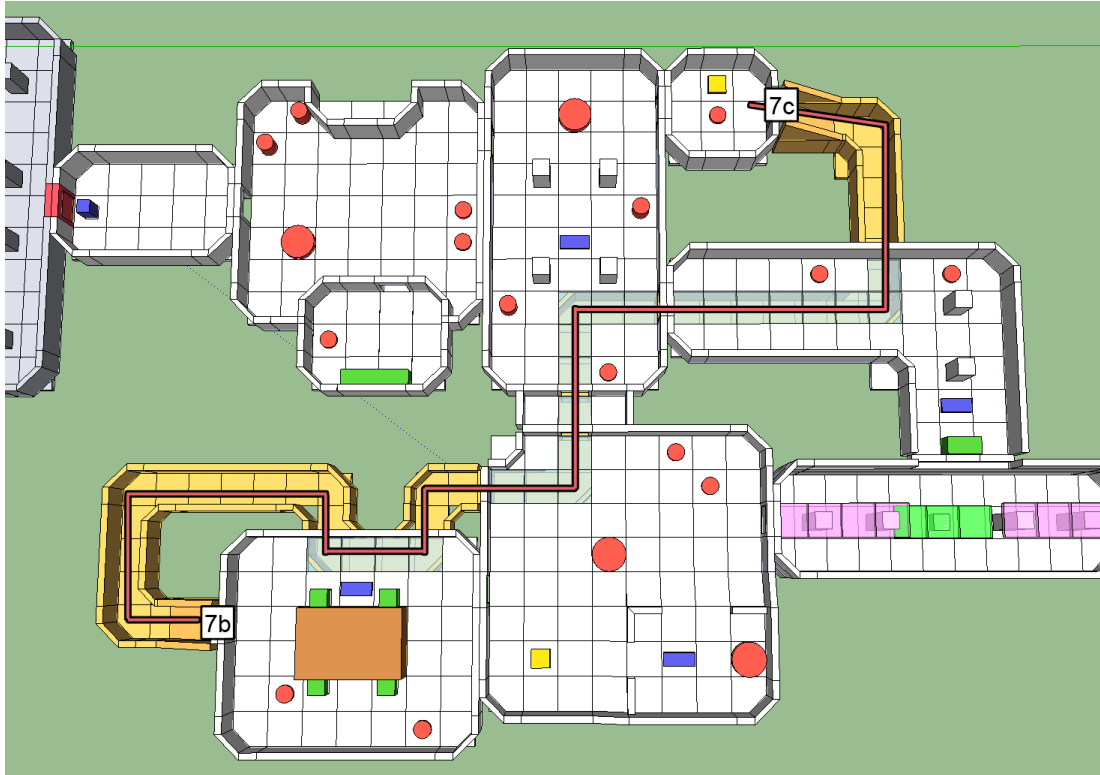
Note that sections are used purely to split the map up in this document to aid with clarity and the physical level in the game will not be split into sections and will play seamlessly.

5.1 Section 1



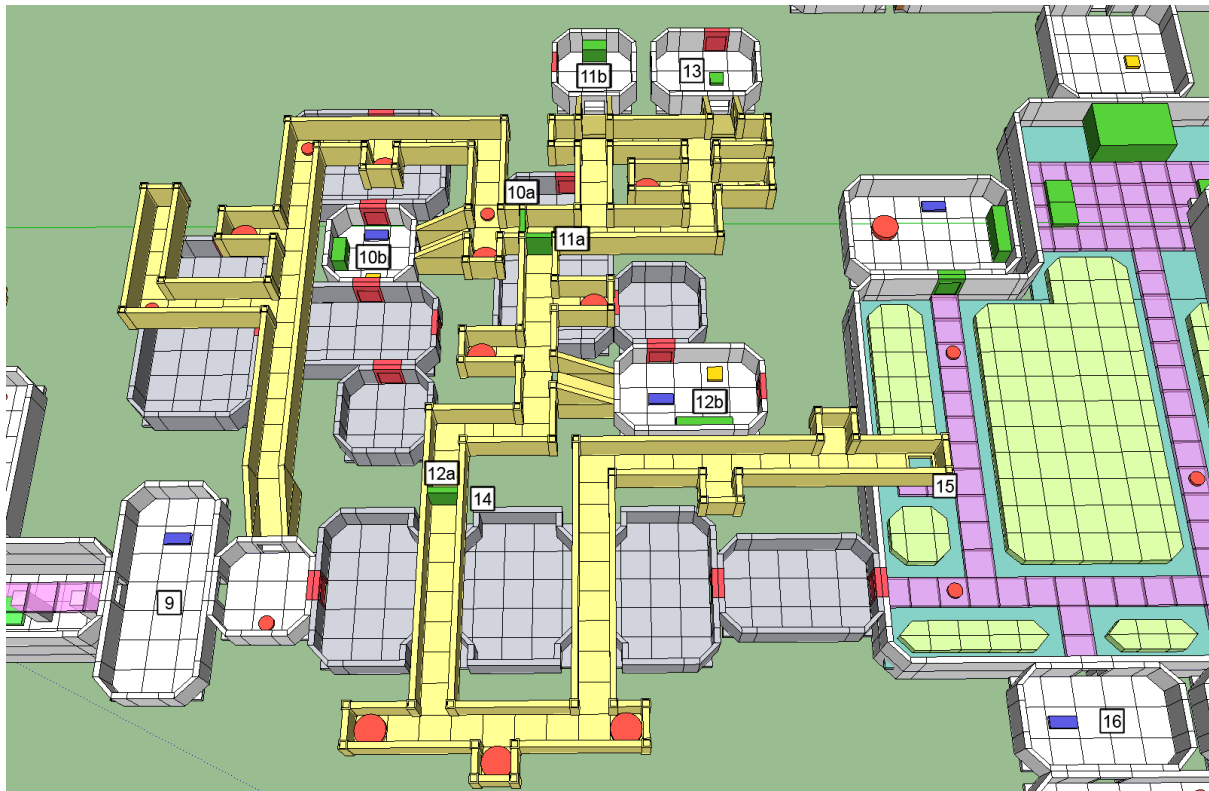
1. The player starts just outside the bridge in a safe room.
2. The player navigates through several rooms to the waypoint marked at (2), upon arrival the player will see that a section of the bridge isn't raised and they won't be able to progress until it is raised. MIA informs the player that they must locate the bridge switch in order to raise it.
3. The player is lead to the bridge switch (3) by the waypoint. The player will be prompted to activate the bridge (SPACE) switch. The progress bar completes and activates a fixed camera in game cut scene that shows the bridge begin to lift up but suddenly stops as the lights flicker and go out.
4. The lights are now out in this section and the player must therefore navigate to the backup generator in the dark. Once they arrive, they are informed that they must activate the switches in the correct order. MIA tells them that the order will be documented on a computer at (5).
5. The player navigates to (5) in the dark whilst being ambushed by various enemies en route. Once at (5) they can access the computer to retrieve the order.
6. Players navigate back to the backup generator (6) and then attempt to activate the switches in the correct order. Each switch will need to be clearly labelled to ensure the player knows which is which. Each switch will take a short amount of time to activate but after each one more enemies will spawn causing the player to secure the area before continuing with the switches.
7. (7a) Once the generator is brought back online the power returns and the lights come back on. The generator should suddenly start to shake violently and spark sporadically, to alert

the player that it has become unstable. An explosion at the door marked (7a) blocks the door and the player is informed that MIA can only hold the power generator stable for so long. They must get to (8) as quickly as possible. Although the player won't be punished for taking too long to reach (8), the music and lights flickering will continue to increase in tempo until they make it, as will the messages from MIA informing the player she can't hold it much longer. With the door blocked at (7a) they must explode barrels at (7b) in order to open up a secret 'under level' passage. The player must navigate the passage viewing themselves through the grated floor in order to get to (7c).



8. The player must navigate back to the bridge activation switch; the lights around the level will flash on and off as the generator becomes more unstable. Once at (8) the player will activate the switch again and this time they will be successful. The player will be able to see the bridge section move into place.
9. The player will then head back to the bridge, cross it and make it to the safe room at (9).

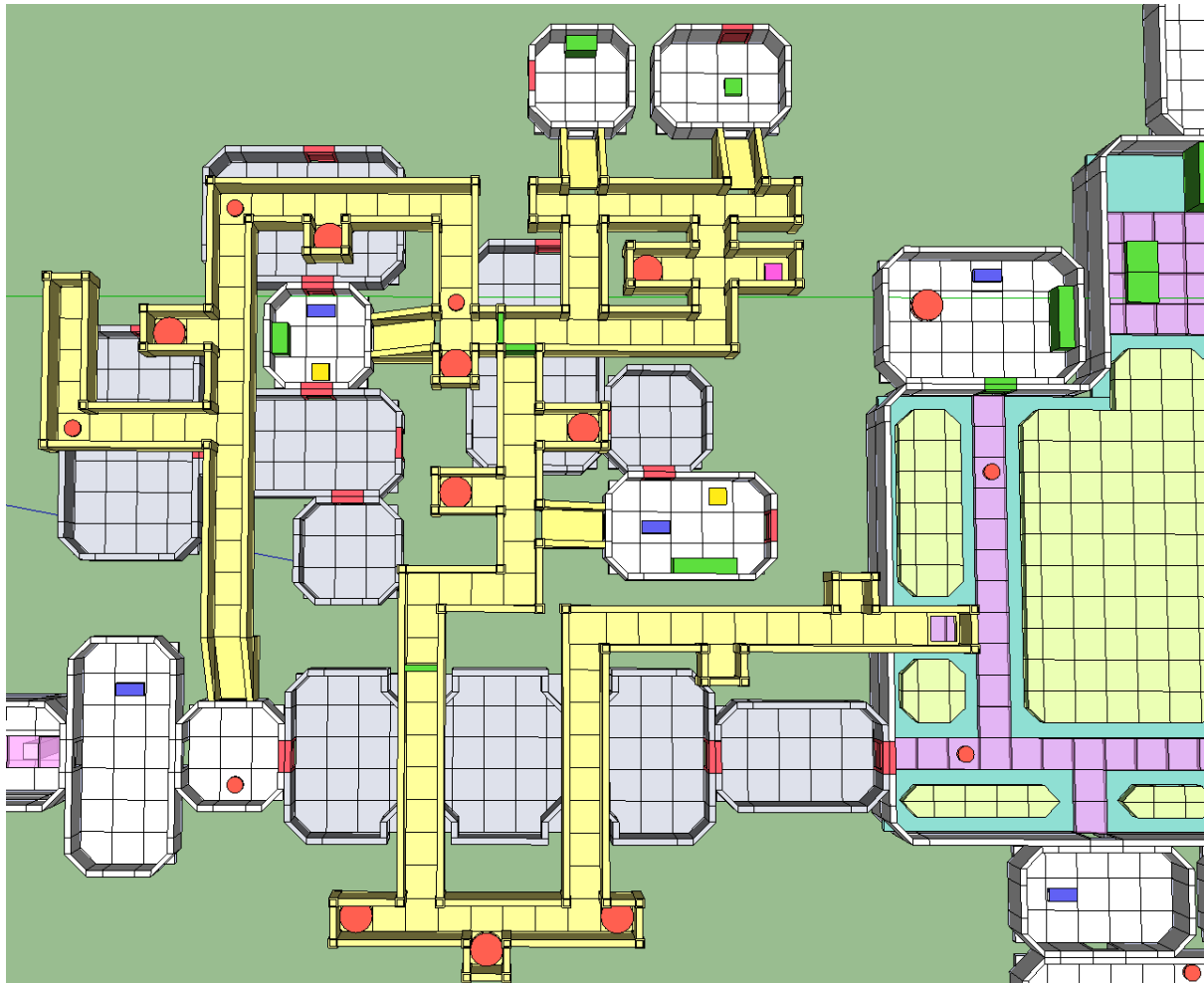
5.2 Section 2



9. The player starts in the safe room. They move into the next room, which should then lead them into the decontamination chamber for the bio lab. However, the player finds that the doors have been welded shut. They must head into the ventilation shaft at the north side of the room as an alternate route to the bio lab. To enter they must first shoot the ventilation grate in order to gain access.
10. The player will navigate their way around the ventilation shaft, being ambushed by enemies along the way. The waypoint will lead them to (10a) which is an emergency door that has been activated in the shaft to stop the spread of gasses or any other substance in the vents. The player will need to override the emergency door by heading to (10b). To access this room they'll again need to break through the grate with their weapon. Once in they can use the computer to override the doors and gain access to the rest of the ventilation system (10a).
11. The player will quickly be met by another sealed door at (11a). They will again need to override the emergency door. The player will need to follow the waypoint to (11b). This time the grate won't open fully when shot, the player will need to shoot through the half broken grate on an angle to hit gas canisters to blow the rest of the grate open. Once inside the room they will need to override the computer as before. The player will return to (11a) where the door will now be open.
12. The player will be met by a 3rd emergency door at (12a) and will need to head to (12b) as before to override the emergency door. However, when the player attempts to override the door they will find that it won't open. They will need to find another way to get past it.
13. The player will be led to (13) by the way point in order to find tools to break through the door. At (13) they will find a laser cutter; they will also be met by several enemies waiting to

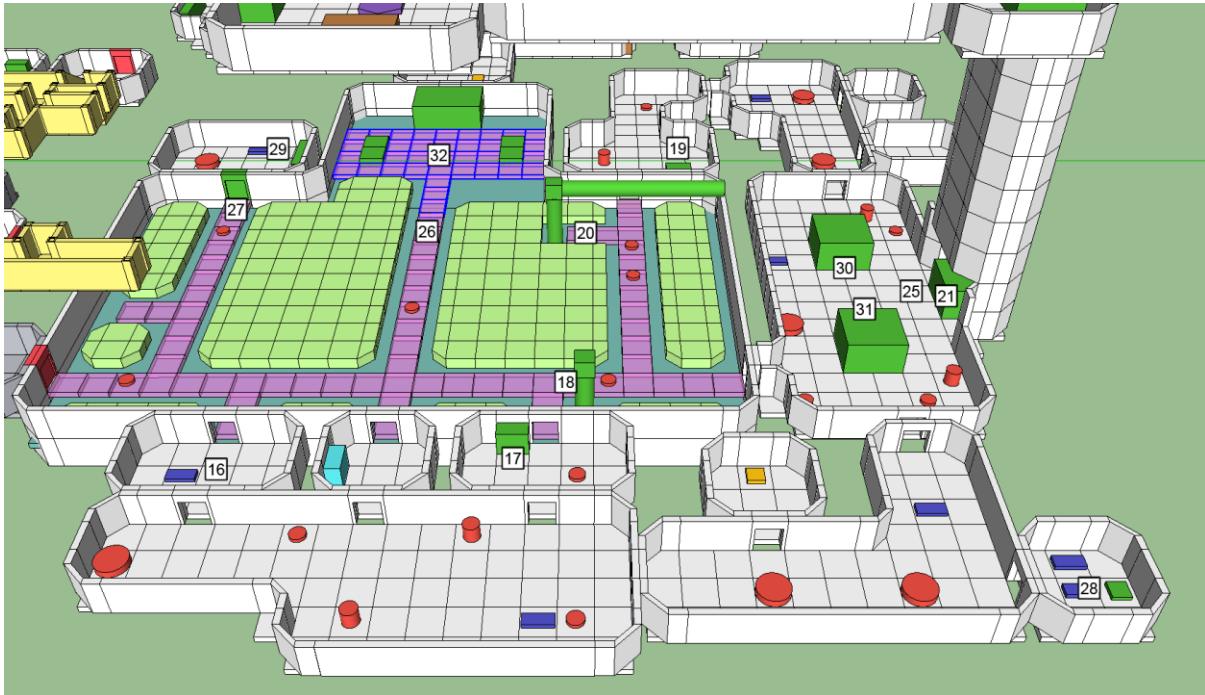
ambush them. With the torch in hand and the enemies dead the player will head back to (14).

14. Once they arrive they will be able to use the blowtorch to cut through the final emergency door. En route to (15) the player will come across a strong enemy resistance, this will increase the difficulty and pacing due to the mass of enemies and the claustrophobic feel of the tight ventilation shaft passageway.
15. On their way to 15, the player will pass over the decontamination room that was locked to them, they will see a lot of dead enemies as well as an abundance of human corpses, a lot more than usual. At this point MIA could point this observation out, to start the ball rolling with what actually went down at the bio lab. Once at (15) a cut scene will be activated and show the player jumping down from the ventilation shaft into the main bio lab area. Only to be met by a shroud of green gas, the players movement will become slow and they will be need to get to safety by following the waypoint to (16) and also by listening to MIA.
16. Once they reach (16) the player will regain their movement and MIA will inform them that the medicine lab is only reachable through the main bio lab area and that the player will need to extract the gas.



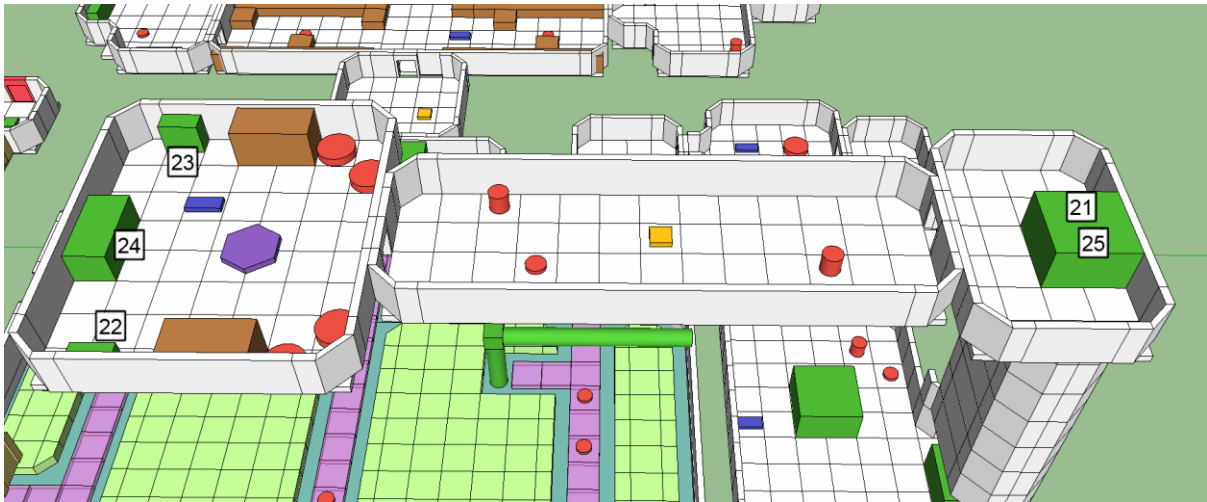
The above image more clearly displays the location of the enemies, credits, objectives, human corpses and the health kit for section 2.

5.3 Section 3



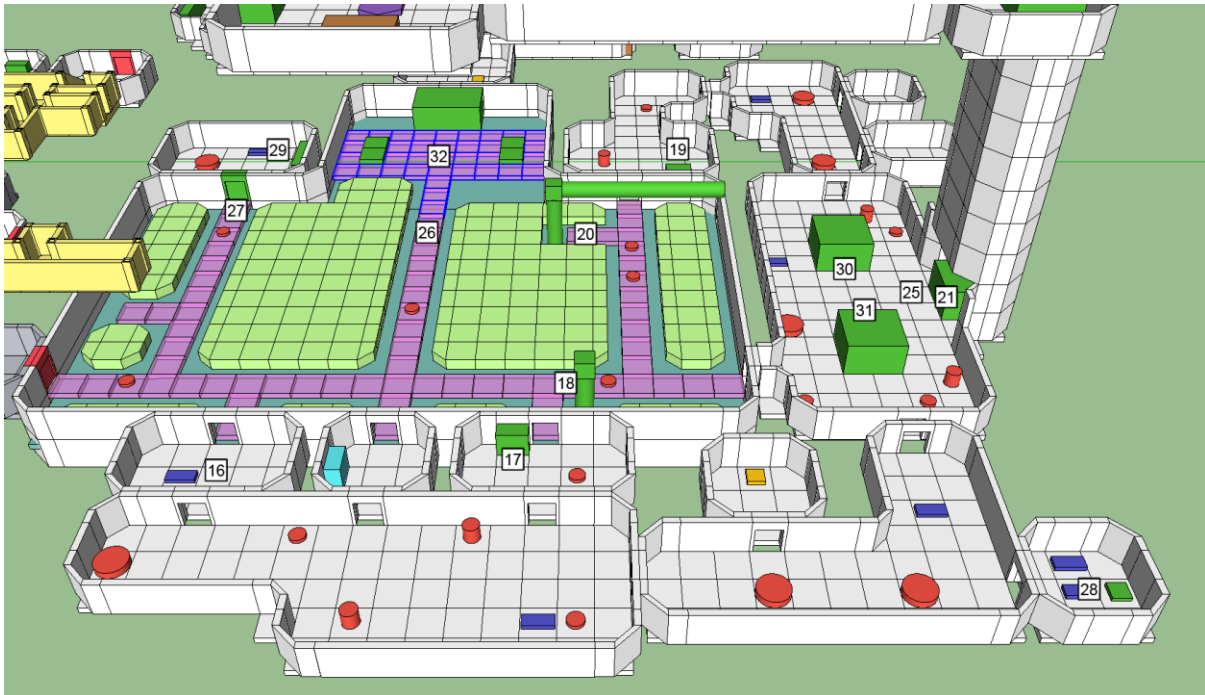
16. The player is informed that they first need to fix the pipes that are leaking the gas before they can extract the remaining gas from the bio lab area. Due to the gas being detrimental to the players health they must use the nearby oxygen suits to enter the area and repair the pipes.
17. The player is led here by the waypoint; here they can pick up the tethered oxygen suit. The suit is tethered to stop the player from simply walking through the gas to the medicine lab, they can therefore only walk in a set radius, which of course the first pipe (18) is situated in.
18. With the oxygen suit on the player will head to the leaking pipe (18) and attempt to fix it, the player will be notified by MIA that it looks like the pipe leak damage was made by a human and looks purposeful. Once the pipe is repaired they will head back to the oxygen pump (17) and remove the suit.
19. The player must then fight their way through the level up to the second oxygen pump at (19). Once there they will don the tethered oxygen suit once again and head out to the 2nd leaking pipe.
20. With the tethered oxygen suit on again the player will head into the bio lab area and attempt to fix the pipe at (20). During the repair they'll be attacked by several lava bursts, which will slow the repair down.
21. With the leaks repaired the player will now need to extract all the gas from the main bio lab area. To do this they need to activate the air extractors, which are found above the main bio lab area. The player will be led to the lift by the waypoint and will head up to the required level.

5.4 Section 3a



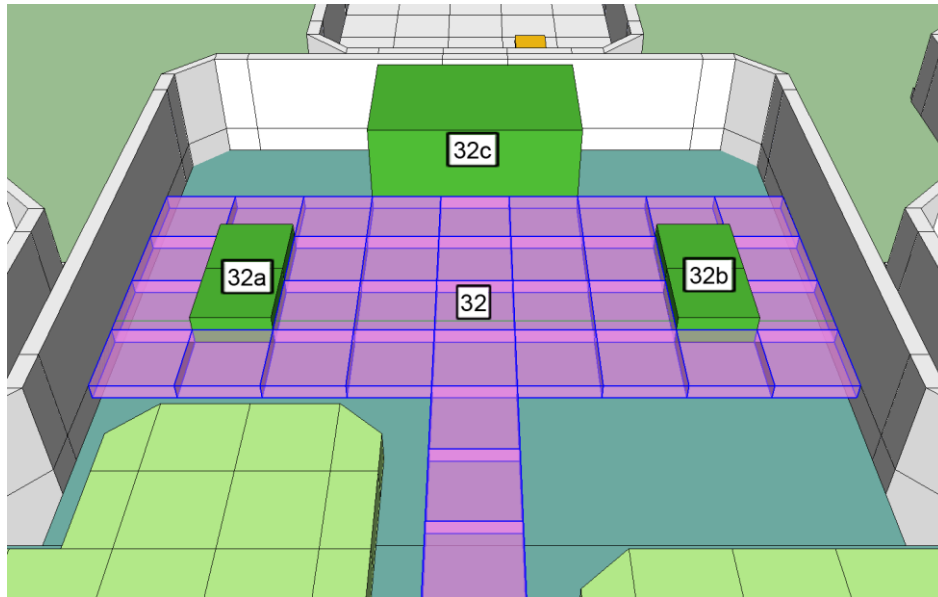
21. The players arrive at the extractor level via the lift (21). They will head through the adjacent room and then into the extractor room.
22. The room appears quiet when they enter, they should however notice the conveniently placed power port in the centre of the room and make good use of it before attempting the next objectives. The player will be informed that the extractors won't start until the breaker switches have been reset. They will head to (22) to start resetting them; this is when the enemies will start attacking.
23. With the breakers reset at (22) the player will now need to reset the breakers at (23). As before the enemies will start attacking when the player starts to reset the breakers.
24. Finally the player will restart the extractors at (24). Once done a cut scene will start which shows the extendable pipes extending down from the extractor machines down to the main lab area and extracting the gas from the area. This will be the first time that the player will be able to see the whole area as previously the gas limited their view considerably.
25. With the gas extracted the player must now head back to the lift (25) to travel back down to the main bio lab level.

5.5 Section 3 (Continued)



25. The player returns to the main bio lab level via the lift (25).
26. The player will follow the waypoint to (26) with the impression that it will lead them to the medicine lab. They will quickly realise that their route is blocked by the floor platform (highlighted in blue) that is submerged in the acid water. They are told that they need to raise it from the computer console at (29).
27. The player will move round the area filled with fauna (the light green section) to (27) only to find that the door is locked with a pass code. At this point MIA should possibly point out that it feels like the ex-crew members have done a lot to try and stop any access to the bio lab and medicine area and warn Conrad to be careful.
28. The player is told to head to the security office to retrieve the security pass code (28). They will be met with several human corpses; the player will need to search the bodies to find the one that contains the security pass code.
29. The player will then head back to (27) to gain access to the platform control room. Once inside they will need to activate the platform computer console to raise the platform up out of the acid water. The platform starts to rise (fixed camera in game cut scene) will show it attempt to rise but get stuck. MIA informs the player that it looks like the platform motors are jammed.
30. The player must follow the waypoint to the platform motors (30 and 31). They will find that they are covered in alien plant growth and need to shoot the plant growth to remove it and allow the motor (30) to do its job.
31. The player must do the same for the second motor (31).
32. With the motors unshackled the camera will cut to the platform and show it finally rising to the surface. The player will then head to (32) where they will meet the boss.

5.6 Section 3b (Boss)



32. The player will find their passage through to the medicine lab is blocked by a rather large plant (32c) and also two slightly smaller plants left (32a) and right (32b). When the player arrives the plants will be static. The player will be expected to shoot the plant (a natural instinct), or informed by MIA to do so if they don't. This will switch to a cut scene, which shows the plants wake up and reveal their true hostile nature to the player. The large plant (32c) will grow twice its size and will start to roar/screech at Conrad. Conrad will shoot at the large plant (32c), only to see his shots blocked by the two smaller side plants (32a/b) firing shields to protect the large plant. The cut scene will then end.

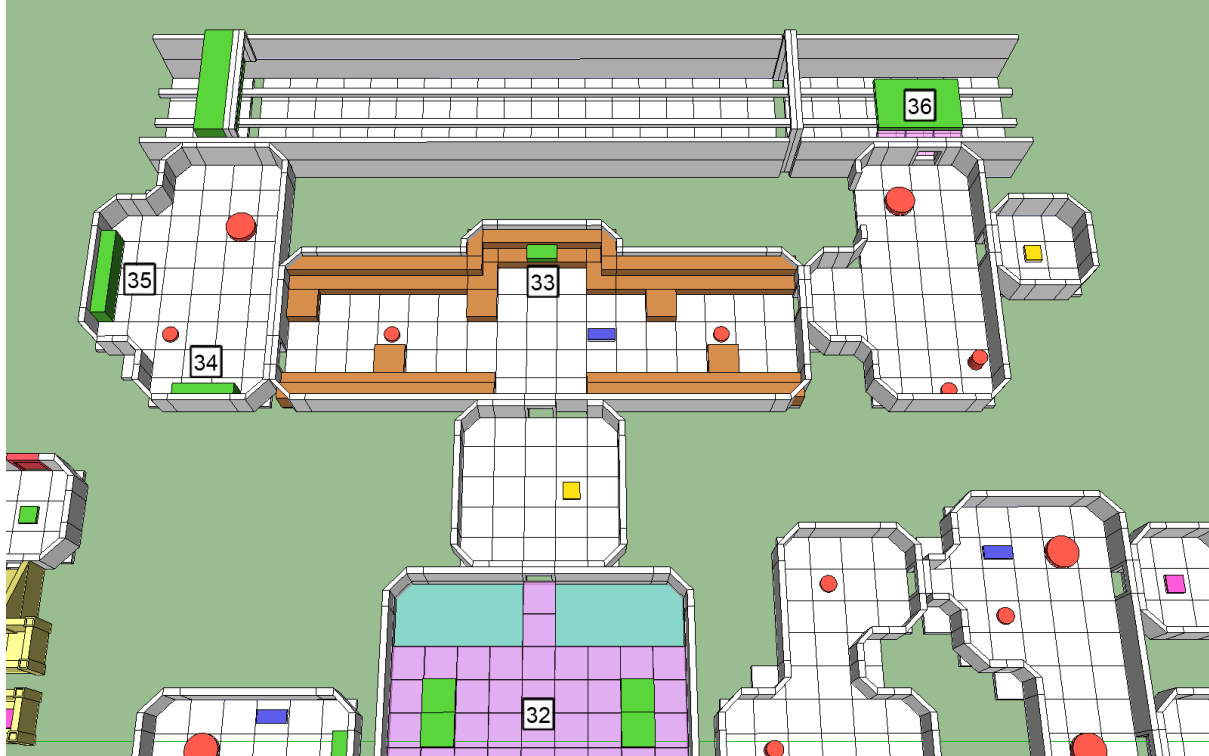
The player will need to kill the plants in order to get past and into the medicine lab. The large plant (32c) will attack the player with a melee (bite) attack if they come too close and with a ranged attack by spitting acid at the player. The two side plants (32a/b) will also spit smaller and slower acid at the player, forcing the player to continually move round to dodge the various attacks.

The way to beat the boss fight is to attack each side plant (32a/b) one at a time. By dealing enough damage to them they will stop moving and the shield will be lowered for a set amount of time. The player must down both the side plants (32a/b) before turning their fire to the large boss plant (32c). The player should be able to take just over a 3rd of the boss plants (32c) health down whilst the side plants are downed. After a set period of time the side plants (32a/b) regain consciousness and reactivate the shield to protect the large boss plant (32c). The player must then start the cycle again by downing the two side plants (32a/b) again to be able to attack the large boss plant (32c).

The player should be able to defeat the boss after working through 3 cycles or 4 cycles if they don't deal enough damage to the large boss plant whilst shields are down. Using the

well-known 3-cycle rule might seem cheap, but players are almost always well familiar with this game mechanic and helps them to understand the boss fight.

5.7 Section 4



32. With the boss defeated, the body of the plant will fall over into the acid water and dissolve away leaving the route through to the medicine lab free for the player. If the player hasn't already realised MIA will inform them that the scientists must have caused the gas leak in order to put the mutant plants to sleep and stop the spread of them to the rest of the ship.
33. The player will head into the medicine lab and retrieve the required medicine from the cabinet at (33).
34. The player will need to take the monorail back to ensure the medicine gets back to the crew in time. The track however is blocked by an emergency door, once again activated by the laboratory scientists and guards to stop the spread of the mutant plants and the reason why Conrad couldn't travel here on the monorail. The player must restart the computer (34) in order to bypass security.
35. With the computer restarted they can then activate the emergency door from the door controls at (35).
36. Finally the player can board the monorail at (36) and end the chapter as they head back to the breach between the two ships.