

Fallout 4: "Half life"

Version 1.0

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1.0	Initial Document	Professor Ouellette	Feb 20, 2023

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Level Summary

Quick Summary

This single-player Fallout 4 level “Half life” serves as a supplemental level to the main storyline, which happens in a small town not far from Diamond city within the Commonwealth, before the “Institutionalized” quest. The level tells a story about a journey where the player goes to Moon River town to investigate the missing of Doctor Ironia’s patient, Avernia.

This level features multiple game styles including melee, ranged, and stealth (in some areas) styles, with the skill tests set on cover-shooting, weapon switching, squad cooperation, charisma check, lockpicking, hacking, and pickpocketing. Armed with a new piece of equipment – a surge pulse grenade, which allows the player to mess their Synth enemies’ faction around for a few seconds, the player can take different ways to fight their way through Synth & traps in the factory of the town.

Level Feature Overview

Category	Sub-Category	Feature List
Player	Player Weapons	<ul style="list-style-type: none"> • Melee <ul style="list-style-type: none"> ○ Baton (from Synth) ○ Axe • Ranged <ul style="list-style-type: none"> ○ Institute laser ○ Pistol ○ [Optional] Shotgun (chest, lockpicking) ○ [Optional] Gamma gun (by chest, hacking) ○ [Optional] Reba (Sniper rifle, chest, exploration) • Thrown <ul style="list-style-type: none"> ○ Surge pulse grenade (change faction, custom weapon)
	Player Skills/Abilities	<ul style="list-style-type: none"> • Charisma check • Lockpicking • Hacking • Pickpocketing • Stealth • (Resource management) • (cover & vertical shooting)
AI	Enemies	<ul style="list-style-type: none"> • Synth/Hacked Synth <ul style="list-style-type: none"> ○ Leveled melee ○ Leveled ranged ○ Leveled (Legendary) boss • NPC (potential enemy) <ul style="list-style-type: none"> ○ Doctor Ironia (Human, Boss Raider level) ○ Parlos (Synth, Boss Raider level)
	Friendlies	<ul style="list-style-type: none"> • Detective Lyle (pre-quest starter)

		<ul style="list-style-type: none"> • Doctor Ironia (female doctor; may change faction based on player's choice) • Parlos (male Synth businessman; may change faction based on player's choice) • Newt (Town mayor, side quest giver, the first greeter in the town) • Townspeople <ul style="list-style-type: none"> ○ Chest guard (require charisma check) ○ Pedestrians
Challenges	Gameplay Themes	<ul style="list-style-type: none"> • Fight with Synths (melee, ranged, boss level) • Faction switching in combat <ul style="list-style-type: none"> ○ Use surge pulse grenade to switch faction • Ranged & melee cover shooting/attacking • Charisma check
	Obstacles/Hazards	<ul style="list-style-type: none"> • Traps (laser blocking the way) • Locked door (requires key or lockpicking or hacking) • Terrain (can see the goal in the early stage but cannot access it right away, need to find the way)
	New/Unique Gameplay	<ul style="list-style-type: none"> • Use surge pulse grenade to change enemies' faction
Context	Where Fits in Game	<ul style="list-style-type: none"> • Before the "Institutionalized" quest, after entering Diamond City • Standalone level <ul style="list-style-type: none"> ○ Supplemental to the main storyline ○ Won't affect the main quest of the game • Fictional <ul style="list-style-type: none"> ○ New story & new combat • The player can access the content near Red Rocket Station through NPC Detective Lyle, who will show up, after the "Dangerous Minds" quest with Detective Nick Valentine
	Challenge Fit	<ul style="list-style-type: none"> • The level fits into the game at around the end of ACT II of the main quest flow, where the player already knows about charisma check, stealth, lockpicking, hacking, pickpocketing, and different melee and ranged weapons. Besides, at that stage, the player should already know about their enemies (Synth) in a way what they can do and how the player can handle with them in different gameplay styles
	Additional Info	<ul style="list-style-type: none"> • In the start of the quest, it assumes the player already helped Nick Valentine as a background • The story should happen before the "Institutionalized" because the story is about Synth, and becoming Institutionalized will affect the choice
Aesthetics	Major Visual Themes	<ul style="list-style-type: none"> • Town – Concord • Hospital • Lab – The Institute

	Setting/Mood	<ul style="list-style-type: none">• Rainy• Gloomy• Suspenseful
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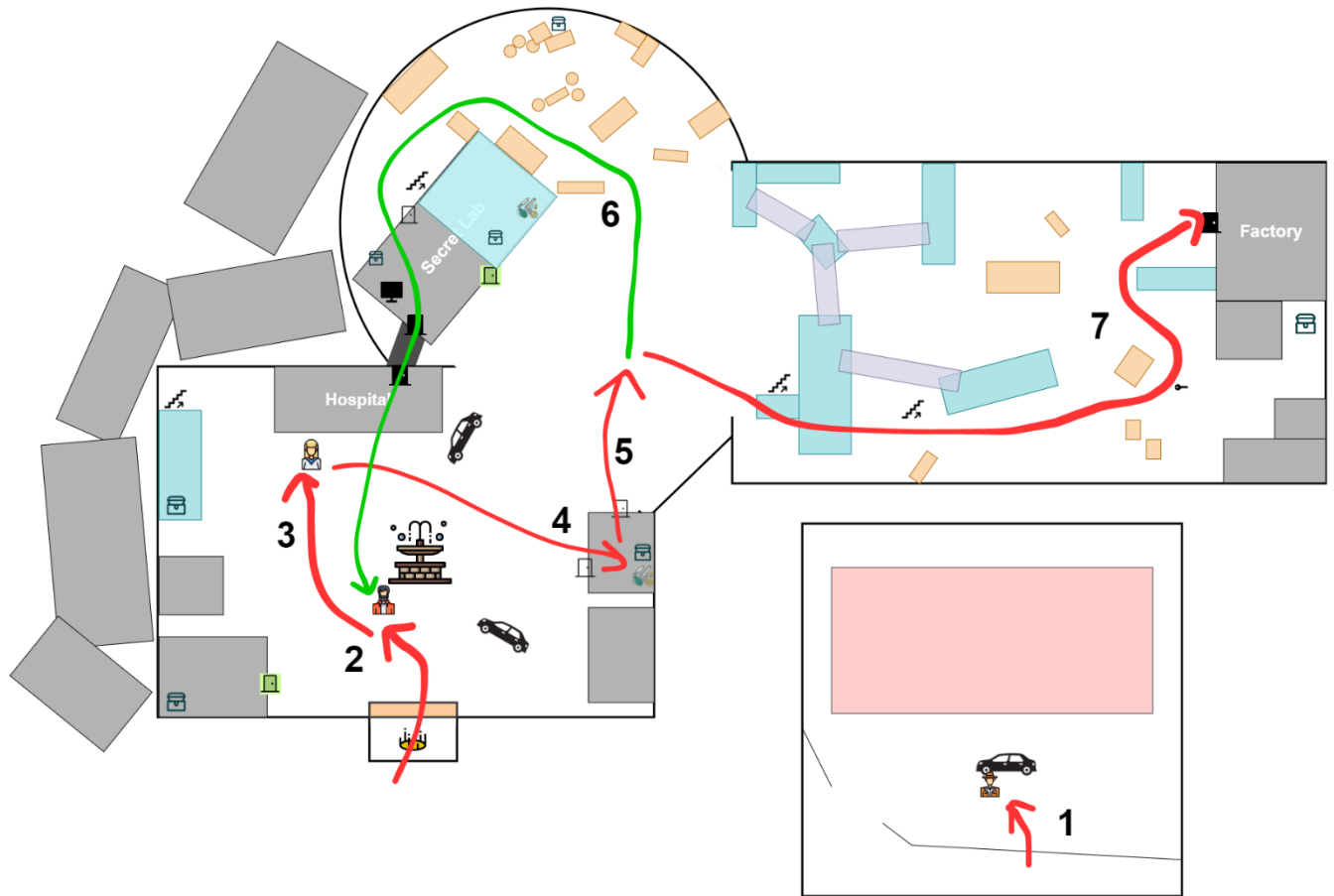
Development Schedule

Milestone	Date
LDD	2/20/2023
Whitebox	3/6/2023
Initial Gameplay	3/27/2023
Gameplay Complete	4/17/2023
Aesthetics	4/24/2023
Launch	5/1/2023

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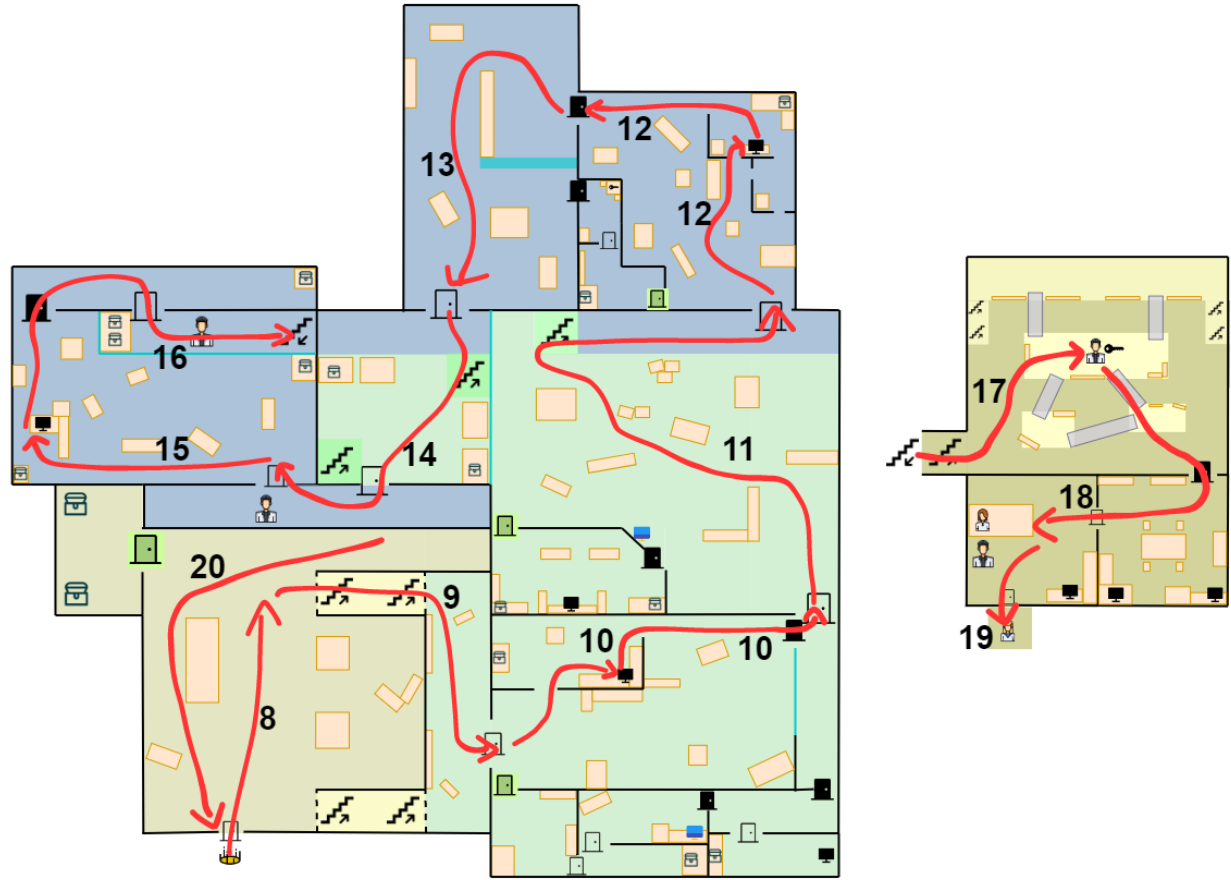
Level Overview

Overview Map



Legend [9]		One big grid tile (4x4) = One Creation Kit tile	
	Detective Lyle		Avernia
	Mayor Newt		Car (teleport & prop)
	Doctor Ironia		Teleport destination
	Parlos		Landmark fountain
	Pickups (health & ammo & items)		Weapon
	Door/laser that requires key/terminal		Stairs (up & down)
	Ranged enemy Synth		Terminal
	Higher platform (exterior)		Boss Synth
	Melee enemy Synth		Furniture/Medium-Low cover
	Bridge		Window
	Key		Pillar/full story cover
	Main path		Window First floor Second floor Third floor ** The higher, the lighter **
	Side path		Building
	Alternate path		Hackable Terminal
	Enemy path		Enemy path

Figure 1: Overview Map 1 [8]



Legend [9]		One big grid tile (4x4) = One Creation Kit tile	
	Detective Lyle		Avernia
	Mayor Newt		Car (teleport & prop)
	Doctor Ironia		Teleport destination
	Parlos		Landmark fountain
	Pickups (health & ammo & items)		Weapon
	Door/laser that requires key/terminal		Stairs (up & down)
	Ranged enemy Synth		Melee enemy Synth
	Higher platform (exterior)		Furniture/ Medium-Low cover
	Bridge		Window
	Key		First floor
	Main path		Second floor
	Side path		Third floor
	Alternate path		Pillar/full story cover
	Enemy path		Hackable Terminal
			Building
			Terminal
			Boss Synth
			Window
			Door that allows lockpicking
			Unlockable door
			Terminal
			Building
			Pillar/full story cover
			** The higher, the lighter **

Figure 2: Overview Map 2 [8]

Map Label	Gameplay Summary
1	Player finds NPC Detective Lyle and talks to him, quest starts. Accept -> Lyle gives a ride
2	Player talks to Town Mayor Newt when arriving Moon River Town, he tells the player to find Ironia for more details on Main quest, meanwhile gives a side quest (find the key in Secret Lab)
3	Player talks to Ironia, knows about the background, and is tasked to find her patient Avernia in the factory.
4	[Optional] get some gears in the town
5	Start journey: main quest & side quest branch
6	Take down the hacked Synths near the Secret Lab, enter the lab and get the key, could return through a secret door leading to hospital, side quest complete
7	Take down the Synths guarding the factory and get the key from Synths to open the gate, enter the factory

8	Force greeted by Parlos, start by a quick talk, know a little bit about the character and the background. Then he leaves through the door behind him, need to chase him
9	Synths rush out, take down Synths and go to the second floor
10	Unlock the door by terminal in a room, eliminate Synths on the way and get to the door, enter the next room
11	See the stairs on the left but it is blocked by a glass window, find the way to the left. See the door on the third floor, go to the stairs and get to the door, eliminate Synths on the way
12	Find door locked, find the terminal and unlock the door, get to the door, enter the next room
13	See a leveled boss Synth and door through window, eliminate all Synths and get to the door
14	Get to the opposite through stairs, eliminate Synths in the room
15	When entering the room, force greeted again by Parlos through a window, chase him. Find the terminal and use it to unlock the door
16	Eliminate the Synths on the way and get to the glass room. Find a secret stairs and get to the next room back onto the ground floor
17	Force greeted by Parlos again and fight with him, after defeating him talk to him
18	Get the key and go to Avernia's room with him
19	After talking and knowing the story, go back to the first hall through shortcut. However, meet Ironia after opening the door. Make a major choice, and fight the other one
20	Quest complete, go back to the town and report to Newt

Narrative Flow Chart

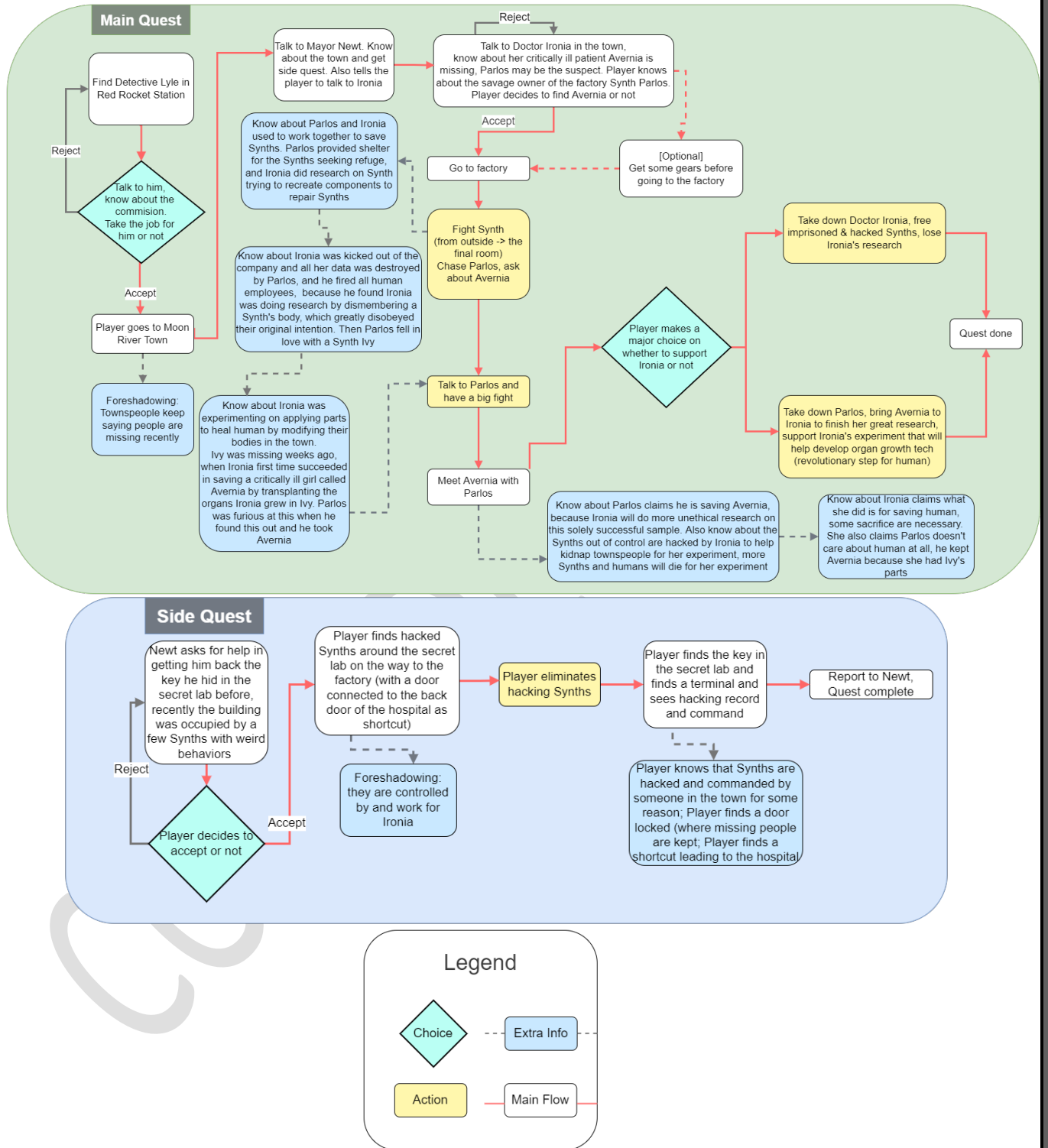
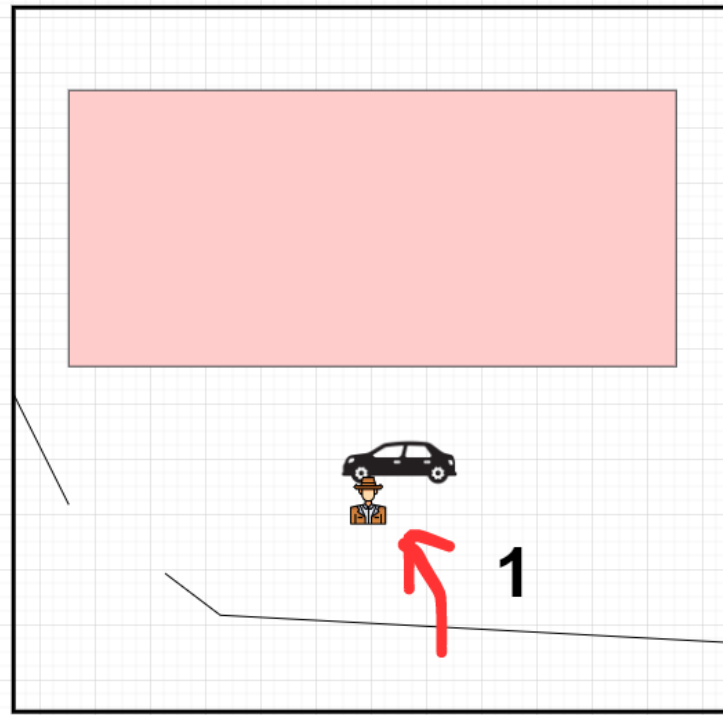


Figure 3: Narrative Flow Chart [x]

Level Details

Detail Maps

Red Rocket



Legend [9]		One big grid tile (4x4) = One Creation Kit tile	
	Detective Lyle		Avernia
	Mayor Newt		Car (teleport & prop)
	Doctor Ironia		Teleport destination
	Parlos		Landmark fountain
	Pickups (health & ammo & items)		Weapon
	Door/laser that requires key/terminal		Stairs (up & down)
	Terminal		Hackable Terminal
	Ranged enemy Synth		Melee enemy Synth
	Boss Synth		Building
	Higher platform (exterior)		Furniture/ Medium-Low cover
	Bridge		Window
	Key		Pillar/full story cover
	Main path		Window color legend
	Side path		Floor color legend
	Alternate path		Enemy path

Figure 4: Detail map: Red Rocket [8]

Map Label / Stage	Event Summary	Event Details
1	Find NPC Detective Lyle near his car at Red Rocket	<p>Key information:</p> <ul style="list-style-type: none"> Activates quest and map marker Tells that he had a flat tire and is replacing tire <ul style="list-style-type: none"> ○ Foreshadowing: replace parts Tells that he is on an urgent call but he just received a request from his old friend Newt, Mayor of Moon River Town

		<ul style="list-style-type: none">• Quest about finding a missing person• If reject, greeting changes• Upon accepting, quest is added to Data<ul style="list-style-type: none">○ Lyle says that he can offer a ride○ Objective: Moon River Town -> Newt Conveyance: <ul style="list-style-type: none">• Bright red car• A man in suit walks around/crouches at his car replacing his tire
1*	Go to Moon River Town	Key Information: <ul style="list-style-type: none">• Take Lyle's car to the town• Upon accepting: Car is unlocked

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Moon River Town - Exterior

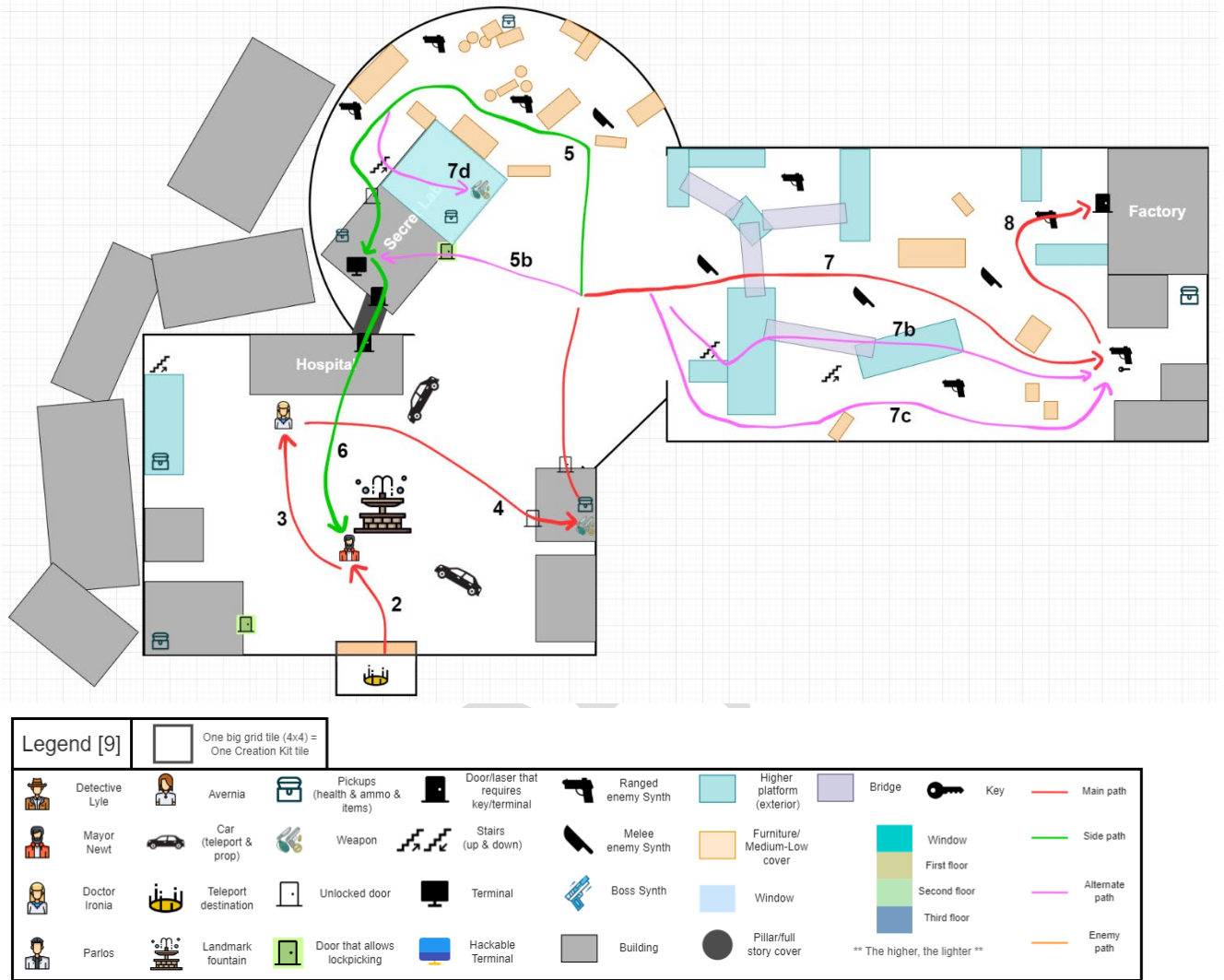


Figure 5: Detail map: Moon River Town [8]

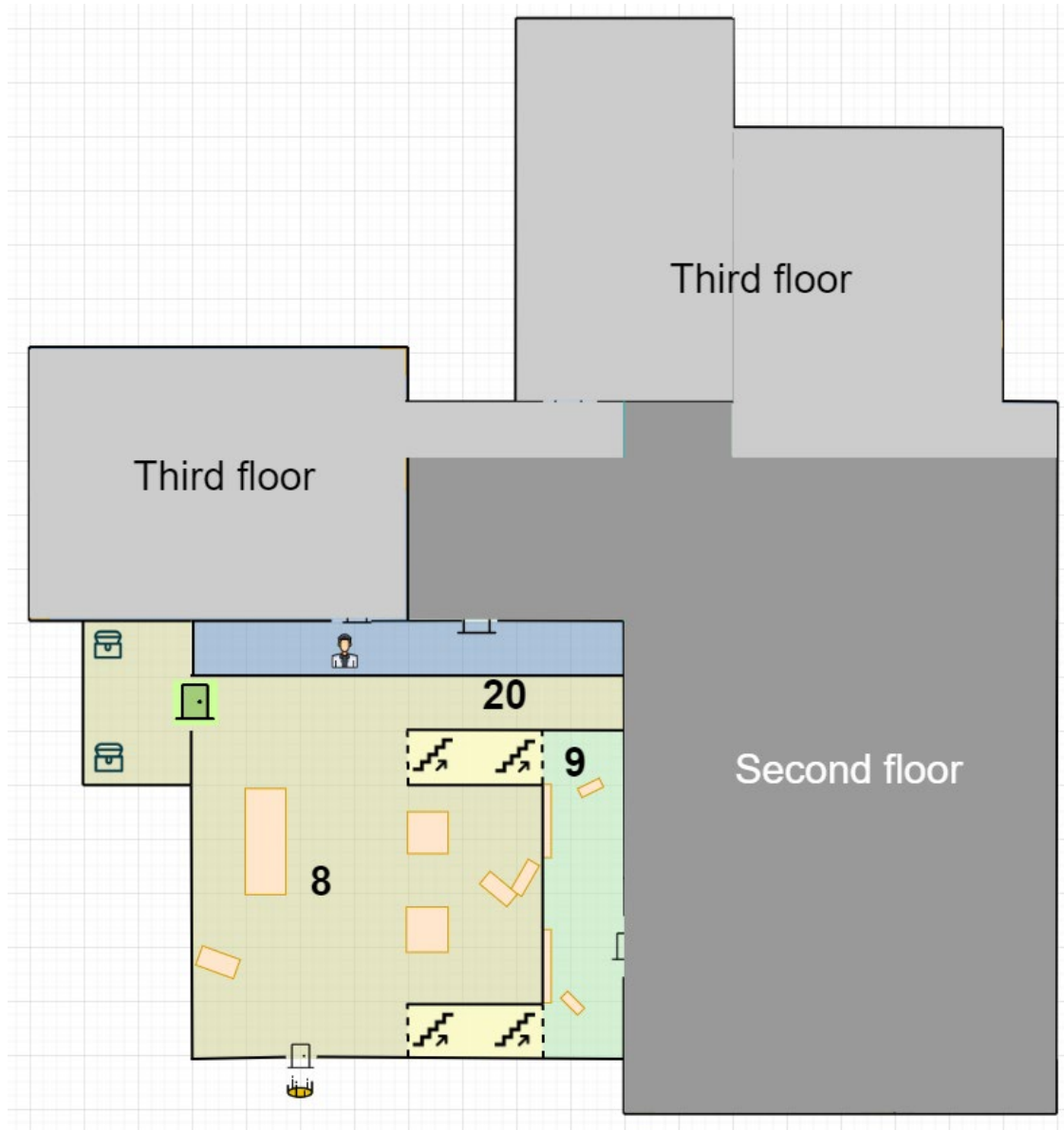
Map Label / Stage	Event Summary	Event Details
2	Enter Moon River Town and talk to Newt	Key information: <ul style="list-style-type: none"> • People are missing, Ironia reported one case, talk to her for more details <ul style="list-style-type: none"> ○ Objective: talk to Ironia • Parlos and factory • Lots of Synths in the town, they follow rules, except some behaving strange (in the building behind hospital) • Give side quest: lost key in secret lab, find it to him

		<ul style="list-style-type: none"> ○ Objective: find the key ● Quest fails if killing NPC before quest complete (applies to all stages if not otherwise noted) <p>Conveyance:</p> <ul style="list-style-type: none"> ● Framing <ul style="list-style-type: none"> ○ Fountain and a man nearby ● Pinching <ul style="list-style-type: none"> ○ A car pointing to the fountain narrows down player's attention ● Light (streetlamp) <p>Challenge/goal:</p> <ul style="list-style-type: none"> ● Charisma check: get more caps ● Give the basic information and flavor of background
3	Talk to Ironia	<p>Key information:</p> <ul style="list-style-type: none"> ● She is looking for Avernia, her critically ill patient ● Avernia was missing two days ago after the operation ● Savage Synth Parlos in the factory, must be him taking Avernia <ul style="list-style-type: none"> ○ Objective: go to factory ● Optional: get some gears <p>Conveyance:</p> <ul style="list-style-type: none"> ● Right behind Newt, easy sight line ● Big signage above her: hospital ● Light (streetlamp) <p>Challenge/Goal:</p> <ul style="list-style-type: none"> ● Charisma check: foreshadowing she is not caring about Avernia herself but something Avernia brings to her ● Portray the image of a good doctor caring about her patient
4	[Optional] get gears	<p>Key information:</p> <ul style="list-style-type: none"> ● Contains: <ul style="list-style-type: none"> ○ Institute laser (ammo x60) ○ Pistol (ammo x 60) ○ Surge pulse grenade x3 (change faction, 1 damage) ○ Part of armor ○ Stimpak X3, Bobby pin x 4 ● NPC/note introduces Surge pulse grenade <p>Conveyance:</p> <ul style="list-style-type: none"> ● Light (streetlamp) ● Townspeople wandering in that area <p>Miscellaneous:</p> <ul style="list-style-type: none"> ● Encourage exploration & challenge check:

		<ul style="list-style-type: none"> • On the bottom left corner, a chest (shotgun) can be obtained by lockpicking the door • On the top left corner, a chest (suit) can be obtained
5	[side quest] eliminate Synths and enter the secret lab	<p>Key information:</p> <ul style="list-style-type: none"> • Ranged Synths x 3, melee Synths x 1 • Low – medium level, considering player may do side quest after finishing the main one • A chest can be found in the corner (pickups) • Find a key on the ground in the building that can be entered without a key from the back <ul style="list-style-type: none"> ○ This is not an interior requiring teleport, it's an open building in the small world with door • A some pickups can be found in the building • If investigating terminal, will know these weird Synths are hacked by someone in the town, and they are commanded to kidnap Synths • Objective: Newt <p>Conveyance:</p> <ul style="list-style-type: none"> • Right at the front left when exiting gear room • Light (streetlamp) • Pinching <ul style="list-style-type: none"> ○ A car narrows down player's sight line and help focus on the target <p>Challenge/Goal:</p> <ul style="list-style-type: none"> • Cover-shooting • Stealth: lots of covers • Players learns to use surge pulse grenade
5b	Alternate path to the building	<p>Key information:</p> <ul style="list-style-type: none"> • Could enter the building straight without engaging in the combat <p>Conveyance:</p> <ul style="list-style-type: none"> • Light: streetlamp <p>Challenge/Goal:</p> <ul style="list-style-type: none"> • Lockpicking: hard
6	[side quest complete] Report to Newt	<p>Key information:</p> <ul style="list-style-type: none"> • Get back through a secret door leading to the hospital <ul style="list-style-type: none"> ○ Foreshadowing: it's something to do with the person in hospital • Could backtrack • Reward: stimpak x 3, caps x 150, exp medium
7	Get the key from Synths guarding the factory	<p>Key information:</p> <ul style="list-style-type: none"> • Encounter: ranged Synth x 4, Melee Synth x 3 <ul style="list-style-type: none"> ○ Low level

		<ul style="list-style-type: none"> ○ They stay at their position until a target is found by the squad • A chest (pickups, including bobby pins) can be found behind the building • Can find a note from the body: bring her back <p>Conveyance:</p> <ul style="list-style-type: none"> • Large billboard above the factory • Light indicating the entrance • The Synth with key wears different suit • Can be directly noticed when coming out from the Secret Lab (the door requires lockpicking can be opened from inside) <p>Challenge/Goal:</p> <ul style="list-style-type: none"> • Vertical combat <ul style="list-style-type: none"> ○ Elevated platforms, bridges • Cover-shooting with verticality • Better sight line to observe the battlefield (standing on the platform)
7b	Alternate path to 7	<p>Challenge/Goal:</p> <ul style="list-style-type: none"> • Utilize verticality to create advantage/find a advantage point
7c	Alternate path to 7	<p>Challenge/Goal:</p> <ul style="list-style-type: none"> • Stealth • Pickpocketing
7d	Alternate path to 7	<p>Key information:</p> <ul style="list-style-type: none"> • Rooftop of Secret Lab • Can get ammo, pickups and a sniper rifle <p>Challenge/Goal:</p> <ul style="list-style-type: none"> • Different game style: sniper <ul style="list-style-type: none"> ○ Can kill Synths from distance
8	Enter the factory	<p>Key information:</p> <ul style="list-style-type: none"> • Use key to unlock the door • Teleport to the interior <p>Conveyance:</p> <ul style="list-style-type: none"> • Light, highlight the entrance and its lock

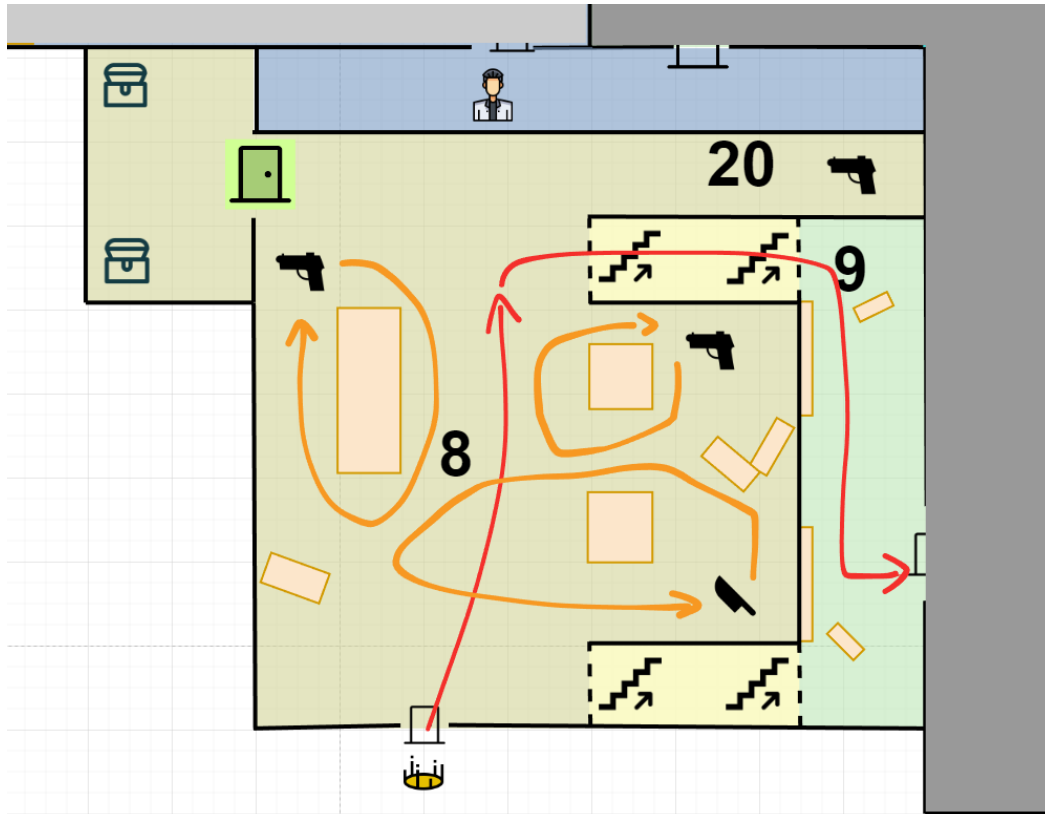
Factory: First Floor Overview 1



Legend [9]		One big grid tile (4x4) = One Creation Kit tile
	Detective Lyle	
	Mayor Newt	
	Doctor Ironia	
	Parlos	
	Pickups (health & ammo & items)	
	Door/laser that requires key/terminal	
	Ranged enemy Synth	
	Higher platform (exterior)	
	Bridge	
	Key	
	Side path	
	Enemy path	
	Terminal	
	Boss Synth	
	Window	
	First floor	
	Second floor	
	Third floor	
** The higher, the lighter **		

Figure 6: Detail map: First Floor Overview 1 [8]

Factory: First Floor 1



Legend [9]	
	One big grid tile (4x4) = One Creation Kit tile
	Detective Lyle
	Avernia
	Pickups (health & ammo & items)
	Door/laser that requires key/terminal
	Ranged enemy Synth
	Higher platform (exterior)
	Bridge
	Key
	Main path
	Mayor Newt
	Car (teleport & prop)
	Weapon
	Stairs (up & down)
	Melee enemy Synth
	Furniture/ Medium-Low cover
	Window
	Side path
	Boss Synth
	Terminal
	Window
	Alternate path
	Boss Synth
	Terminal
	Window
	Alternate path
	Enemy path
	Parlos
	Landmark fountain
	Door that allows lockpicking
	Hackable Terminal
	Building
	Pillar/full story cover
	** The higher, the lighter **

Figure 7: Detail map: First Floor 1 [8]

Map Label / Stage	Event Summary	Event Details
8	Enter factory, talk to Parlos and fight Synth	<p>Key information:</p> <ul style="list-style-type: none"> Force greeted by Parlos, he claims he doesn't have Avernia and persuades the player to return After dialogue, enemies come out <ul style="list-style-type: none"> Ranged Synth x 3, melee Synth x 1 Low level Objective: get to the second floor <p>Conveyance:</p>

		<ul style="list-style-type: none">• Parlos stands in front of the player above (third floor) Enemies come out from right first, drage player's attention to the right Challenge/goal: <ul style="list-style-type: none">• Cover-shooting• Vertical combat• Charisma check: tells that he is protecting Avernia if success, otherwise he doesn't admit he has Avernia
9	chase him to the second floor	Conveyance: <ul style="list-style-type: none">• Light highlights the door to the second floor on the right

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Factory: Second Floor Overview

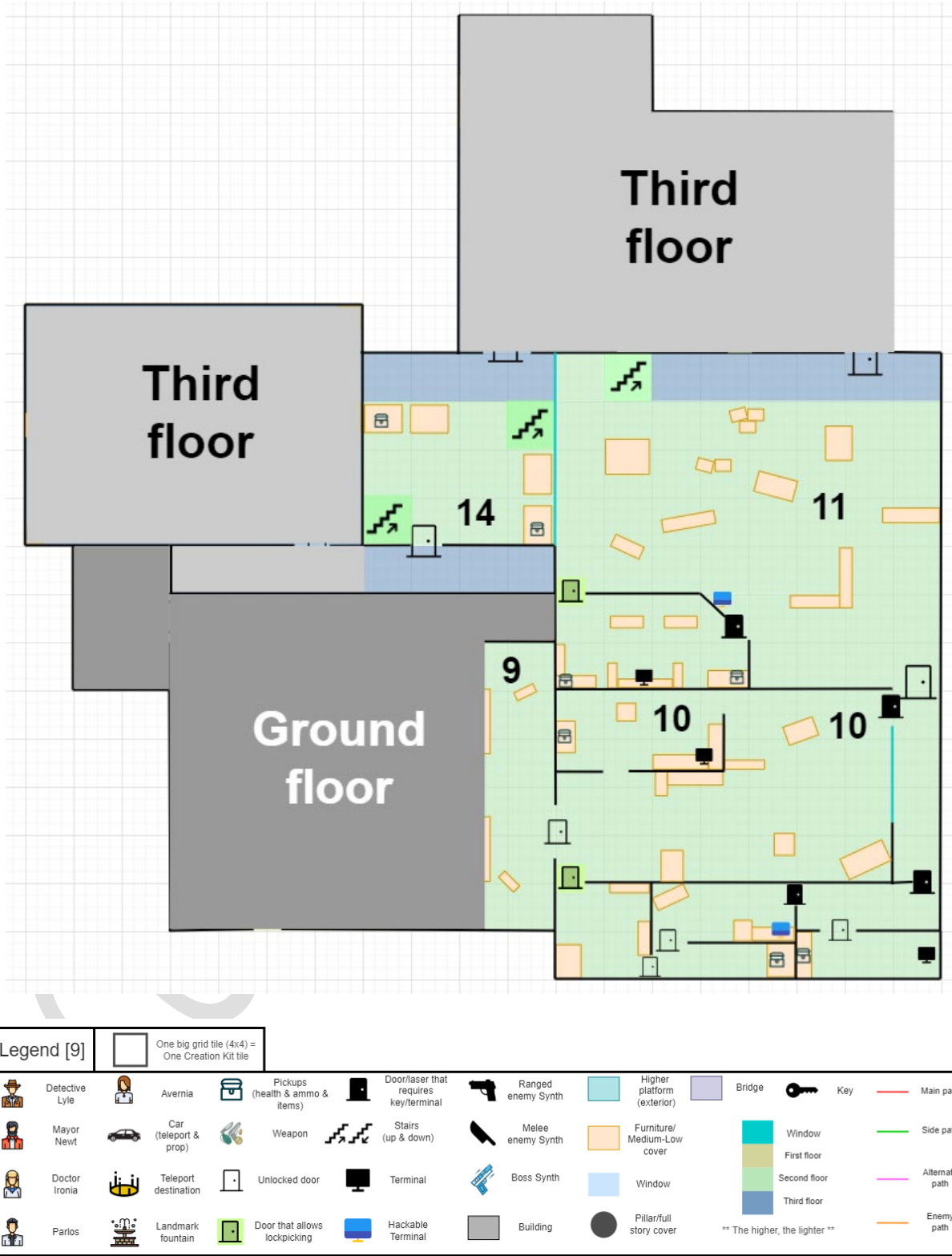
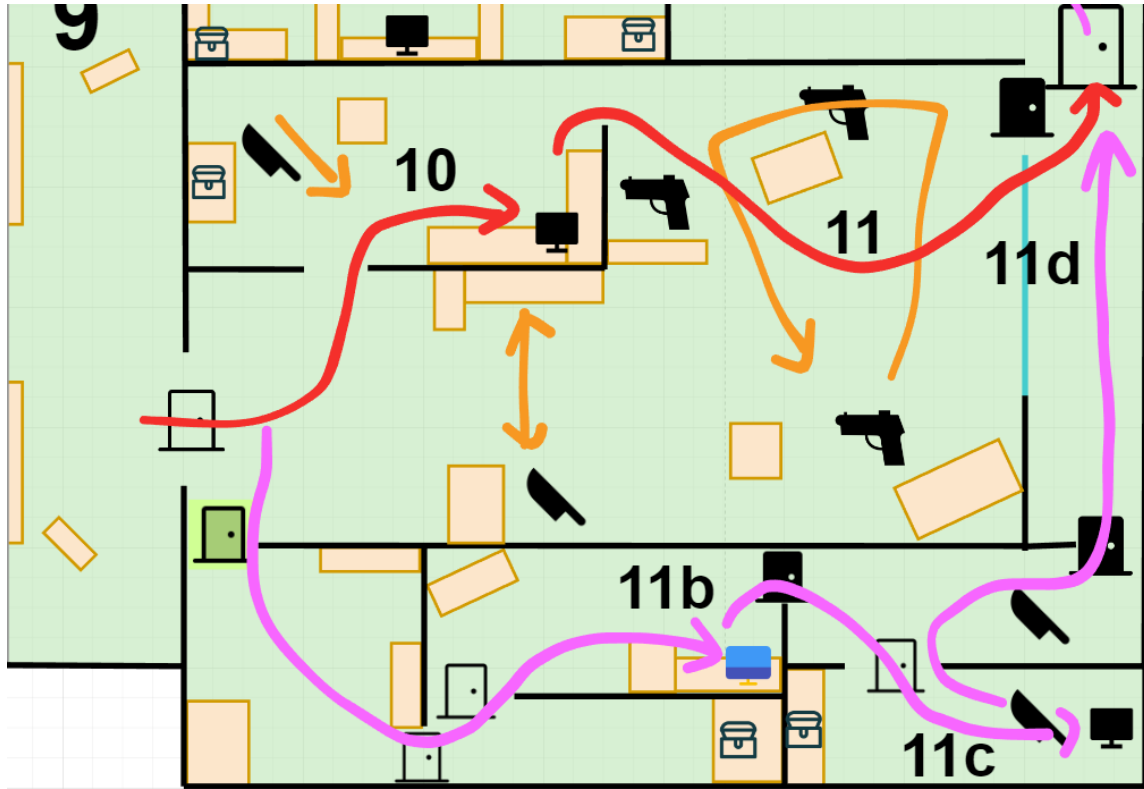


Figure 8: Detail map: Second Floor Overview [8]

Factory: Second Floor 1



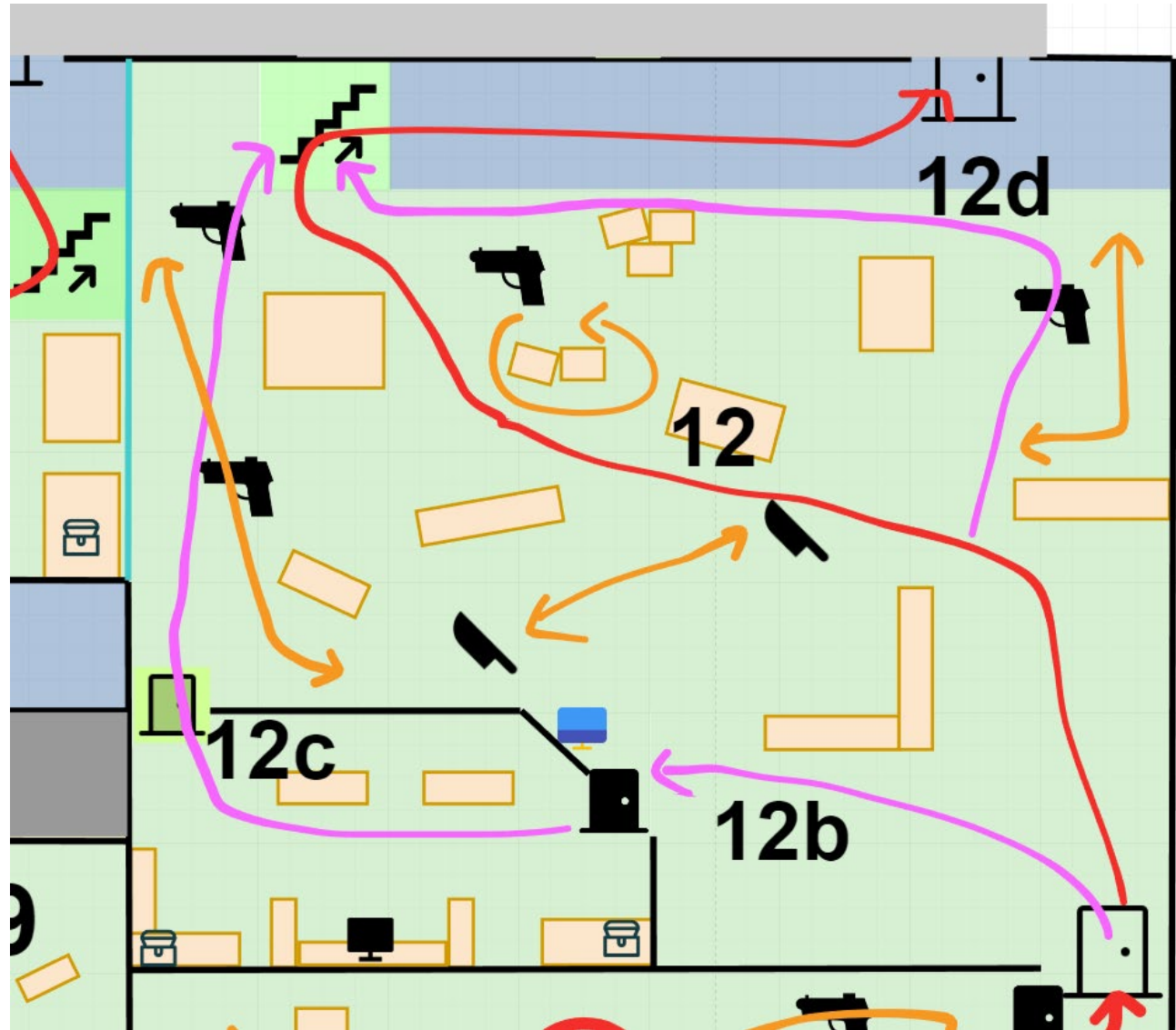
Legend [9]		One big grid tile (4x4) = One Creation Kit tile	
	Detective Lyle		Avernia
	Mayor Newt		Car (teleport & prop)
	Doctor Ironia		Teleport destination
	Parlos		Landmark fountain
	Pickups (health & ammo & items)		Weapon
	Door/laser that requires key/terminal		Stairs (up & down)
	Ranged enemy Synth		Melee enemy Synth
	Boss Synth		Building
	Higher platform (exterior)		Furniture/ Medium-Low cover
	Window		Pillar/full story cover
	Bridge		Key
	Window		Main path
	First floor		Side path
	Second floor		Alternate path
	Third floor		Enemy path
** The higher, the lighter **			

Figure 9: Detail map: Second Floor 1 [8]

Map Label / Stage	Event Summary	Event Details
10	Get to the terminal and unlock the door	Key information: <ul style="list-style-type: none"> Encounter (patrol) <ul style="list-style-type: none"> Ranged Synth x 3, melee Synth x 2 Low-medium level

		<ul style="list-style-type: none"> Pickups: bobby pin x 4, stimpak x 3, ammo x 30 others <p>Conveyance:</p> <ul style="list-style-type: none"> See the door through glass Pinching <ul style="list-style-type: none"> Covers form a direct way <p>Challenge/goal:</p> <ul style="list-style-type: none"> Cover-shooting Stealth
11	Get to the door and enter the next room	<p>Key information:</p> <ul style="list-style-type: none"> Objective: find the way to the third floor
11b	Alternate path to 11: get into the room on the bottom	<p>Challenge:</p> <ul style="list-style-type: none"> Requires lockpicking <ul style="list-style-type: none"> Low-medium level
11c	Hack the terminal and open the door leading to the next room	<p>Challenge:</p> <ul style="list-style-type: none"> Hacking <p>Miscellaneous:</p> <ul style="list-style-type: none"> Pickups: surge pulse grenade x 3, all rifle ammo x 30, shotgun x 20, pistol x 20
11d	Get into the room and use terminal to unlock the door, fight Synth and get to the final door	<p>Key information:</p> <ul style="list-style-type: none"> Encounter: (raid) <ul style="list-style-type: none"> Melee Synths x 2 Low-medium level <p>Miscellaneous:</p> <ul style="list-style-type: none"> Pickup: bobblehead, charisma + 1

Factory: Second Floor 2

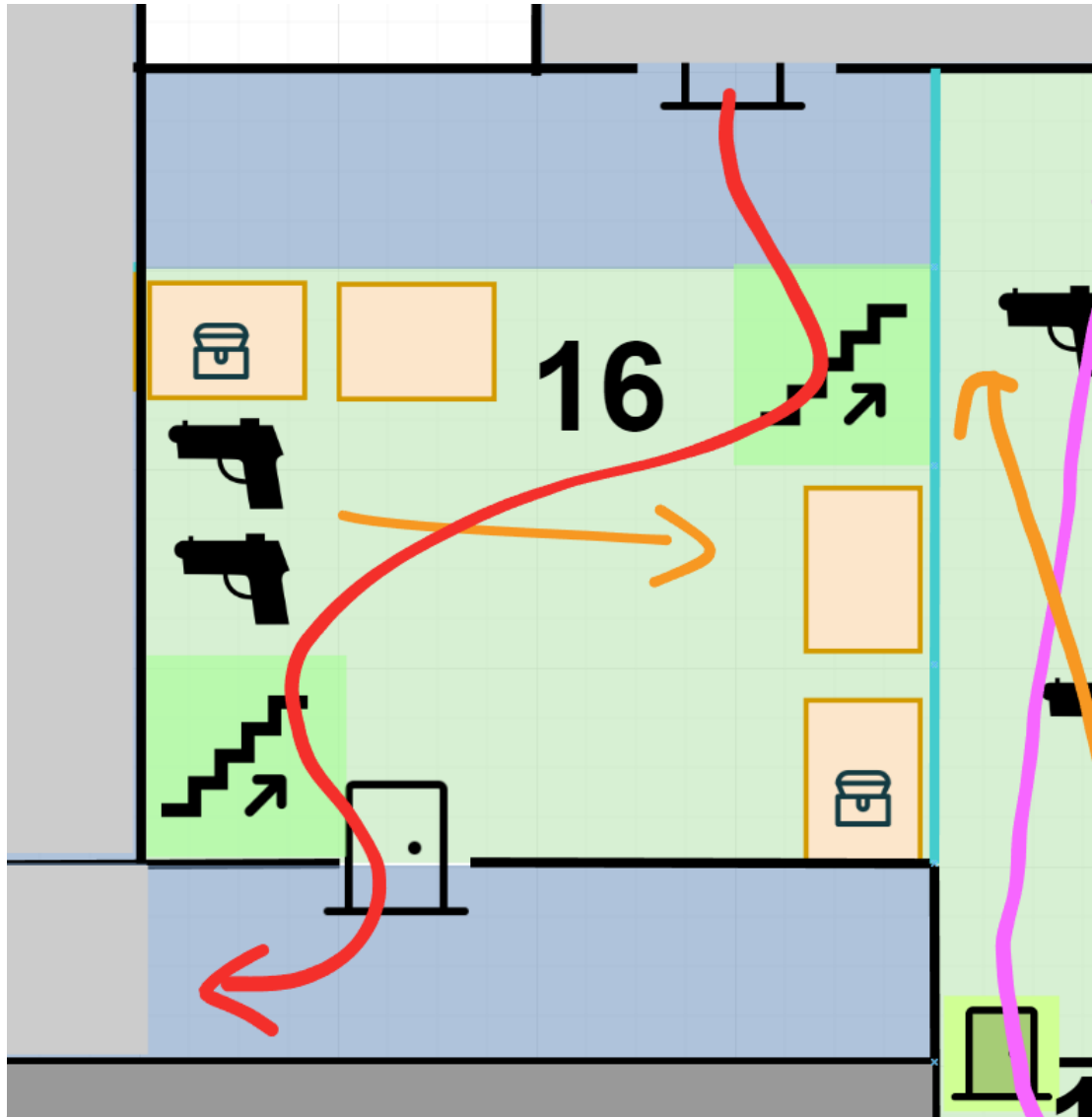


Legend [9]		One big grid tile (4x4) = One Creation Kit tile
	Detective Lyle	
	Avernia	
	Pickups (health & ammo & items)	
	Door/laser that requires key/terminal	
	Ranged enemy Synth	
	Higher platform (exterior)	
	Bridge	
	Key	
	Main path	
	Mayor Newt	
	Car (teleport & prop)	
	Weapon	
	Stairs (up & down)	
	Melee enemy Synth	
	Furniture/Medium-Low cover	
	Window	
	Side path	
	Doctor Ironia	
	Teleport destination	
	Unlocked door	
	Terminal	
	Boss Synth	
	Window	
	Alternate path	
	Parlos	
	Landmark fountain	
	Door that allows lockpicking	
	Hackable Terminal	
	Building	
	Pillar/full story cover	
	** The higher, the lighter **	
	Enemy path	

Figure 10: Detail map: Second Floor 2 [8]

Map Label / Stage	Event Summary	Event Details
12	Fight Synth and get to the third floor through stairs	<p>Key information:</p> <ul style="list-style-type: none"> • Encounter (patrol) <ul style="list-style-type: none"> ○ Ranged Synth x 4, melee Synth x 2 ○ Low-medium level <p>Conveyance:</p> <ul style="list-style-type: none"> ○ See the door above in the front ○ See stairs ○ Affordance: stairs ○ Also see temporary final goal on the left through glass (a door leading to the position where Parlos was standing when the player entered the factory) <ul style="list-style-type: none"> ▪ can get there through the stairs from the opposite on the third floor <p>Challenge/goal:</p> <ul style="list-style-type: none"> • Cover-shooting • Surge pulse grenade • Melee combat • Weapon switching • Prioritize enemies
12b, 12c	Alternate path to 12: get into the room on the left	<p>Key information:</p> <ul style="list-style-type: none"> • Terminal: know about the history of the factory: Parlos kicked all humans out months ago • Chest: axe • Pickups: ammo x 30 to all, stimpak x 2, surge pulse grenade x 2 <p>Challenge:</p> <ul style="list-style-type: none"> • Hacking • Lockpicking (can be opened inside without lockpicking) • Melee
12d	Alternate path to 12	<p>Challenge:</p> <ul style="list-style-type: none"> • Stealth

Factory: Second Floor 3



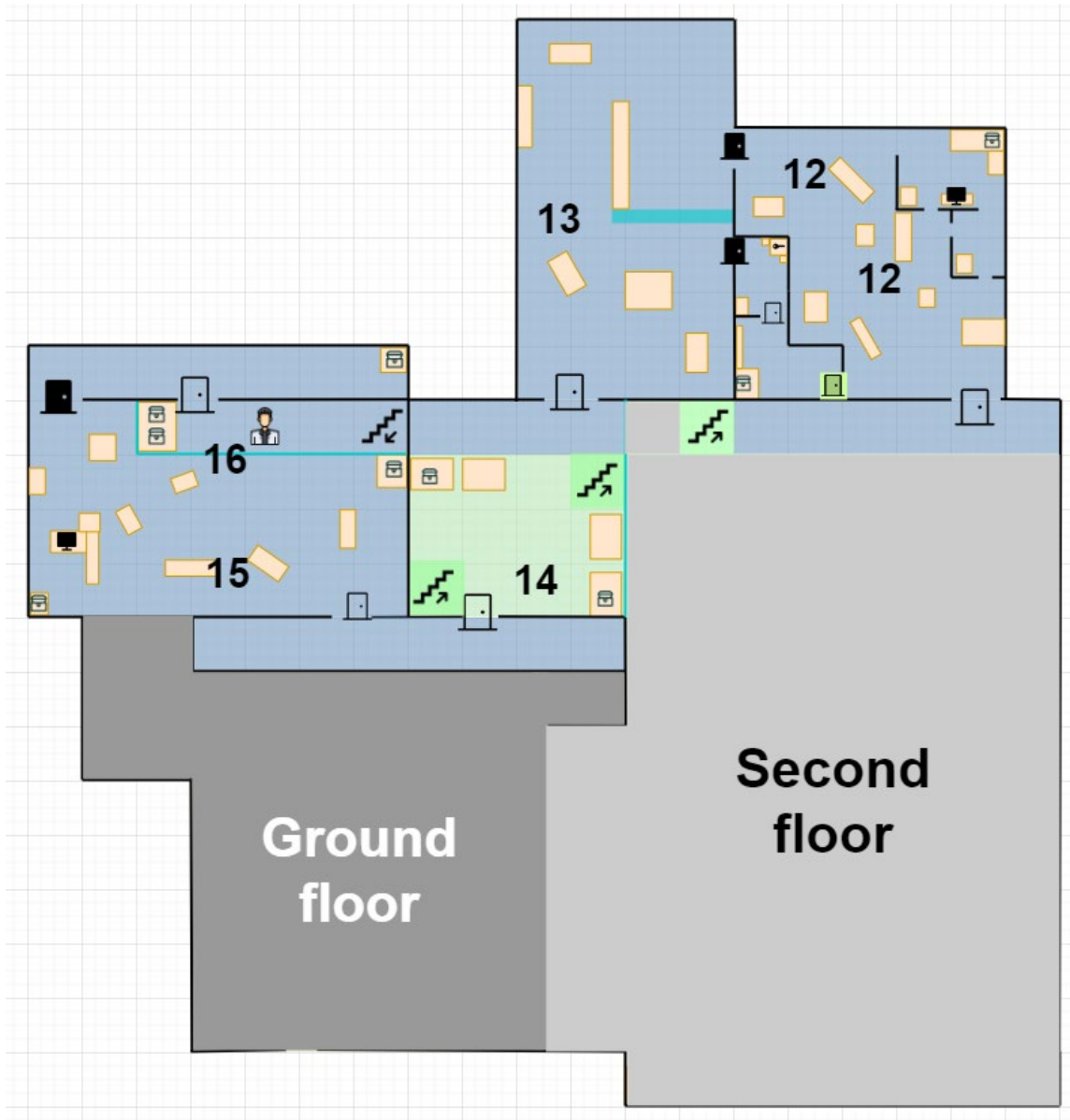
Legend [9]		One big grid tile (4x4) = One Creation Kit tile	
	Detective Lyle		Avernia
	Pickups (health & ammo & items)		Door/laser that requires key/terminal
	Ranged enemy Synth		Higher platform (exterior)
	Bridge		Key
	Main path		
	Mayor Newt		Car (teleport & prop)
	Weapon		Stairs (up & down)
	Melee enemy Synth		Furniture/Medium-Low cover
	Side path		
	Doctor Ironia		Teleport destination
	Boss Synth		Window
	Alternate path		
	Parlos		Landmark fountain
	Door that allows lockpicking		Terminal
	Hackable Terminal		Pillar/full story cover
	Building		
	Window		
			** The higher, the lighter **

Figure 11: Detail map: Second Floor 3 [8]

Map Label / Stage	Event Summary	Event Details
16	[After getting out from the Third Floor from the top side] Fight Synth and get to the opposite third floor	<p>Key information:</p> <ul style="list-style-type: none"> • Encounter (raid) <ul style="list-style-type: none"> ○ Ranged Synth x 2 ○ Medium level <p>Conveyance:</p> <ul style="list-style-type: none"> ○ See the door on the opposite ○ See stairs ○ Affordance: stairs <p>Challenge/goal:</p> <ul style="list-style-type: none"> • Surge pulse grenade • Vertical combat • Weapon switching <p>Misc:</p> <ul style="list-style-type: none"> • Pickups: surge pulse grenade x 1, stimpak x 2, ammo x 30 to all, others

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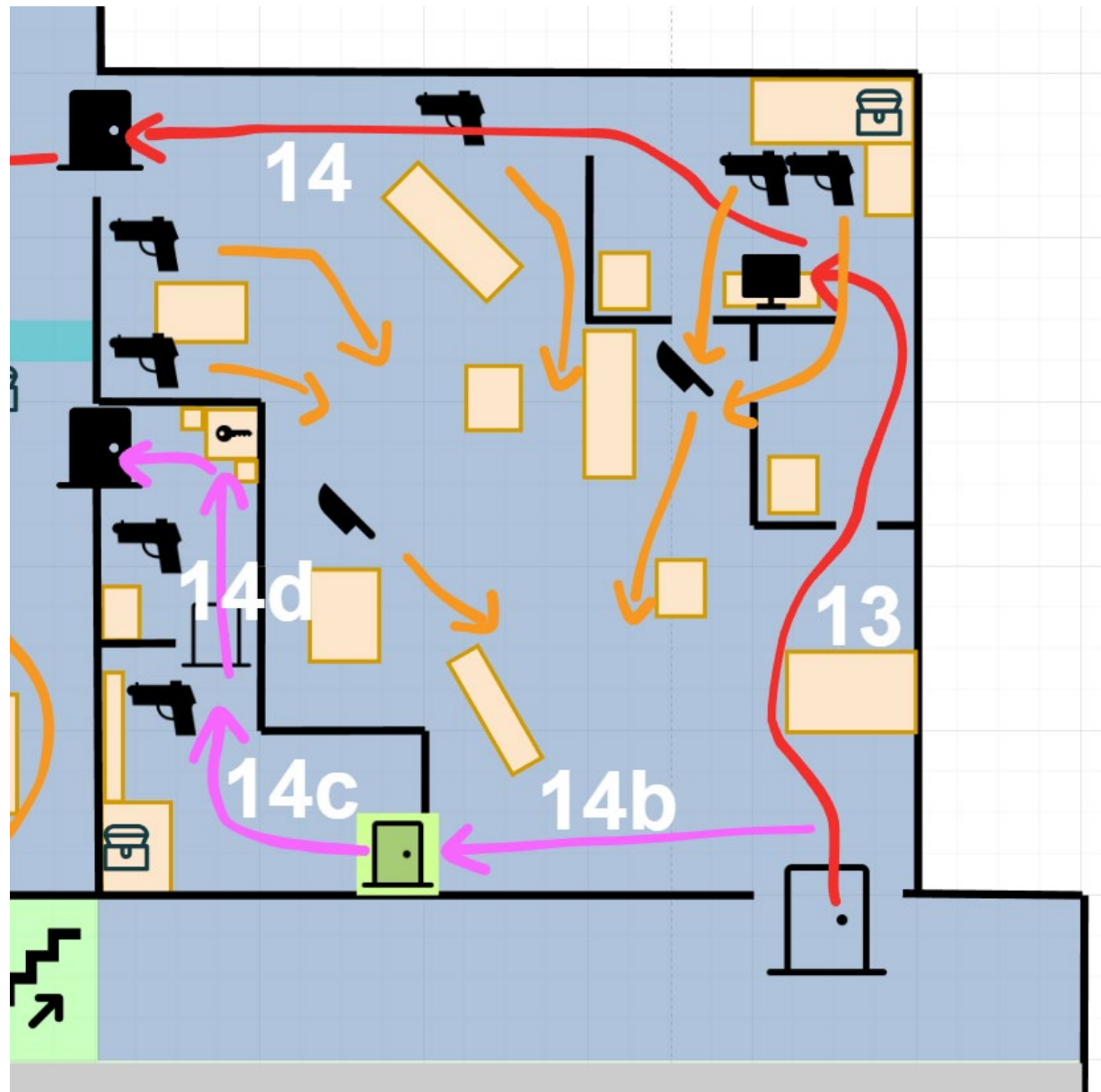
Factory: Third Floor Overview



Legend [9]		One big grid tile (4x4) = One Creation Kit tile	
	Detective Lyle		Avernia
	Mayor Newt		Car (teleport & prop)
	Doctor Ironia		Teleport destination
	Paros		Landmark fountain
	Pickups (health & ammo & items)		Weapon
	Door/laser that requires key/terminal		Stairs (up & down)
	Ranged enemy Synth		Melee enemy Synth
	Boss Synth		Building
	Higher platform (exterior)		Bridge
	Furniture/Medium-Low cover		Pillar/full story cover
	Window		Key
	Window		Main path
	First floor		Side path
	Second floor		Alternate path
	Third floor		Enemy path
** The higher, the lighter **			

Figure 12: Detail map: Third Floor Overview [8]

Factory: Third Floor 1

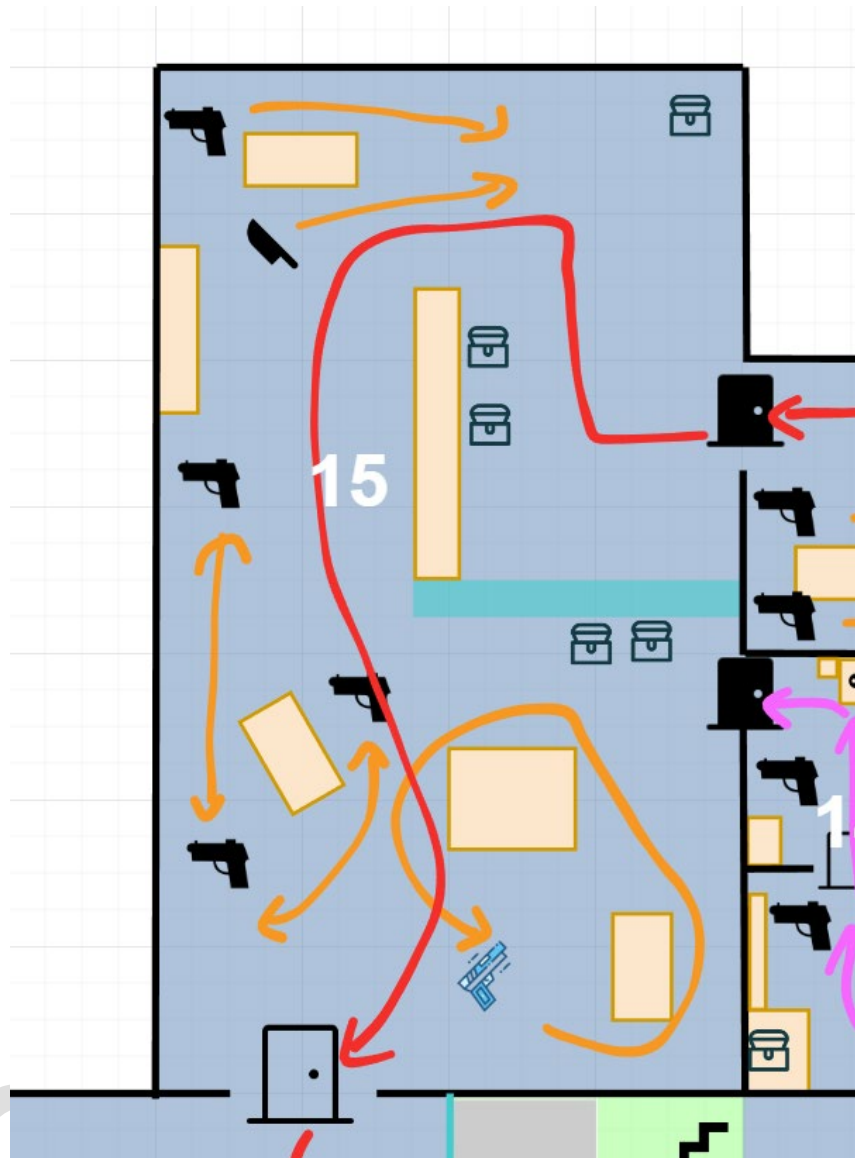


Legend [9]	
	One big grid tile (4x4) = One Creation Kit tile
	Detective Lyle
	Avernia
	Pickups (health & ammo & items)
	Door/laser that requires key/terminal
	Ranged enemy Synth
	Higher platform (exterior)
	Bridge
	Key
	Main path
	Mayor Newt
	Car (teleport & prop)
	Weapon
	Stairs (up & down)
	Melee enemy Synth
	Furniture/Medium-Low cover
	Window
	Side path
	Doctor Ironia
	Teleport destination
	Unlocked door
	Terminal
	Boss Synth
	Window
	Alternate path
	Parlos
	Landmark fountain
	Door that allows lockpicking
	Hackable Terminal
	Building
	Pillar/full story cover
	First floor
	Second floor
	Third floor
	Enemy path
** The higher, the lighter **	

Figure 13: Detail map: Third Floor 1 [8]

Map Label / Stage	Event Summary	Event Details
13	Find the terminal and unlock the door/laser	Key information: <ul style="list-style-type: none"> • Encounter (raid) <ul style="list-style-type: none"> ○ Ranged Synth x 2, melee Synth x 2 ○ Medium level • Pickups: bobby pin x 3, rifle ammo x 30, others Conveyance: <ul style="list-style-type: none"> ○ Pinching <ul style="list-style-type: none"> ▪ See the door on the diagonal ○ Lights Challenge/goal: <ul style="list-style-type: none"> • Cover shooting • Stealth • Prioritize enemies
14	Get to the door	Key information: <ul style="list-style-type: none"> • Encounter (raid) <ul style="list-style-type: none"> ○ Ranged Synth x 3 ○ Medium level
14b, 14c	Alternate path to 14: get into the room on the left, and get into the next room	Key information: <ul style="list-style-type: none"> • Encounter (ambush) <ul style="list-style-type: none"> ○ Ranged Synth x 1 ○ Medium-high level • Pickups: stimpak x2, gamma gun, surge pulse grenade x 1, others Conveyance: <ul style="list-style-type: none"> • Lights Challenge/goal: <ul style="list-style-type: none"> • Lockpicking
14d	Find the key on the desk and enter the next room	Key information: <ul style="list-style-type: none"> • Encounter (ambush) <ul style="list-style-type: none"> ○ Ranged Synth x 1 ○ Medium-high level • Key • Shortcut to the next room

Factory: Third Floor 2

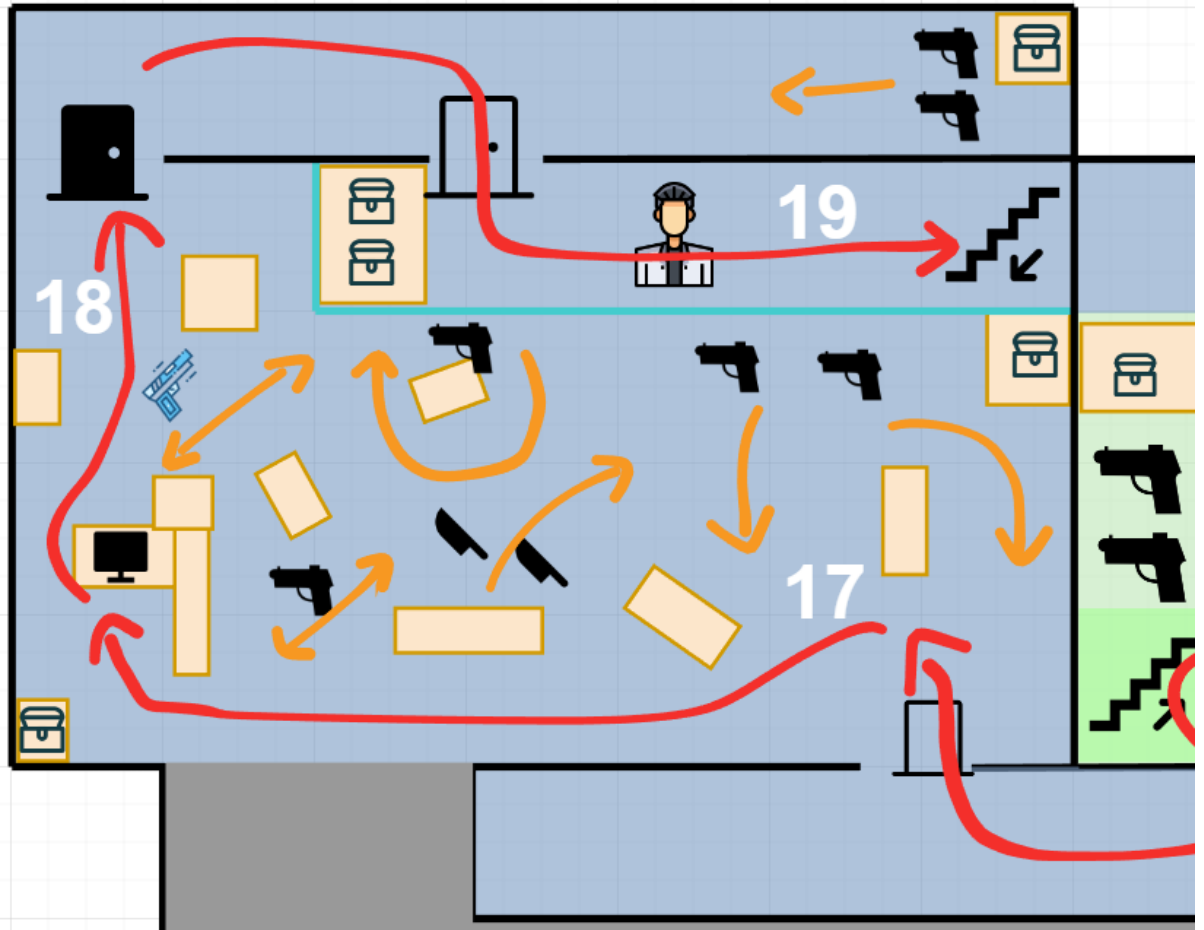


Legend [9]		One big grid tile (4x4) = One Creation Kit tile	
	Detective Lyle		Avernia
	Mayor Newt		Car (teleport & prop)
	Doctor Ironia		Teleport destination
	Parlos		Landmark fountain
	Pickups (health & ammo & items)		Weapon
	Door/laser that requires key/terminal		Stairs (up & down)
	Ranged enemy Synth		Melee enemy Synth
	Higher platform (exterior)		Boss Synth
	Bridge		Building
	Key		Pillar/full story cover
	Main path		Window
	Side path		Furniture/Medium-Low cover
	Alternate path		Window
	Enemy path		First floor Second floor Third floor
			Hackable Terminal
			Unlocked door
			Terminal
			Door that allows lockpicking
			Terminal
			Pillar/full story cover
			** The higher, the lighter **

Figure 14: Detail map: Third Floor 2 [8]

Map Label / Stage	Event Summary	Event Details
15	Eliminate normal Synth and boss Synth then get to the door	<p>Key information:</p> <ul style="list-style-type: none">• Encounter (patrol)<ul style="list-style-type: none">○ Ranged Synth x 4, melee Synth x 1○ Medium-high level• Boss Synth<ul style="list-style-type: none">○ Gatlin○ High level• Pickups: stimpak x 3, all ammo x 30, surge pulse grenade x 1, others <p>Conveyance:</p> <ul style="list-style-type: none">○ Can see the door through glass○ Lights <p>Challenge/goal:</p> <ul style="list-style-type: none">• Cover shooting• Prioritize enemies• Strategy making (plan path)• Resource management

Factory: Third Floor 3

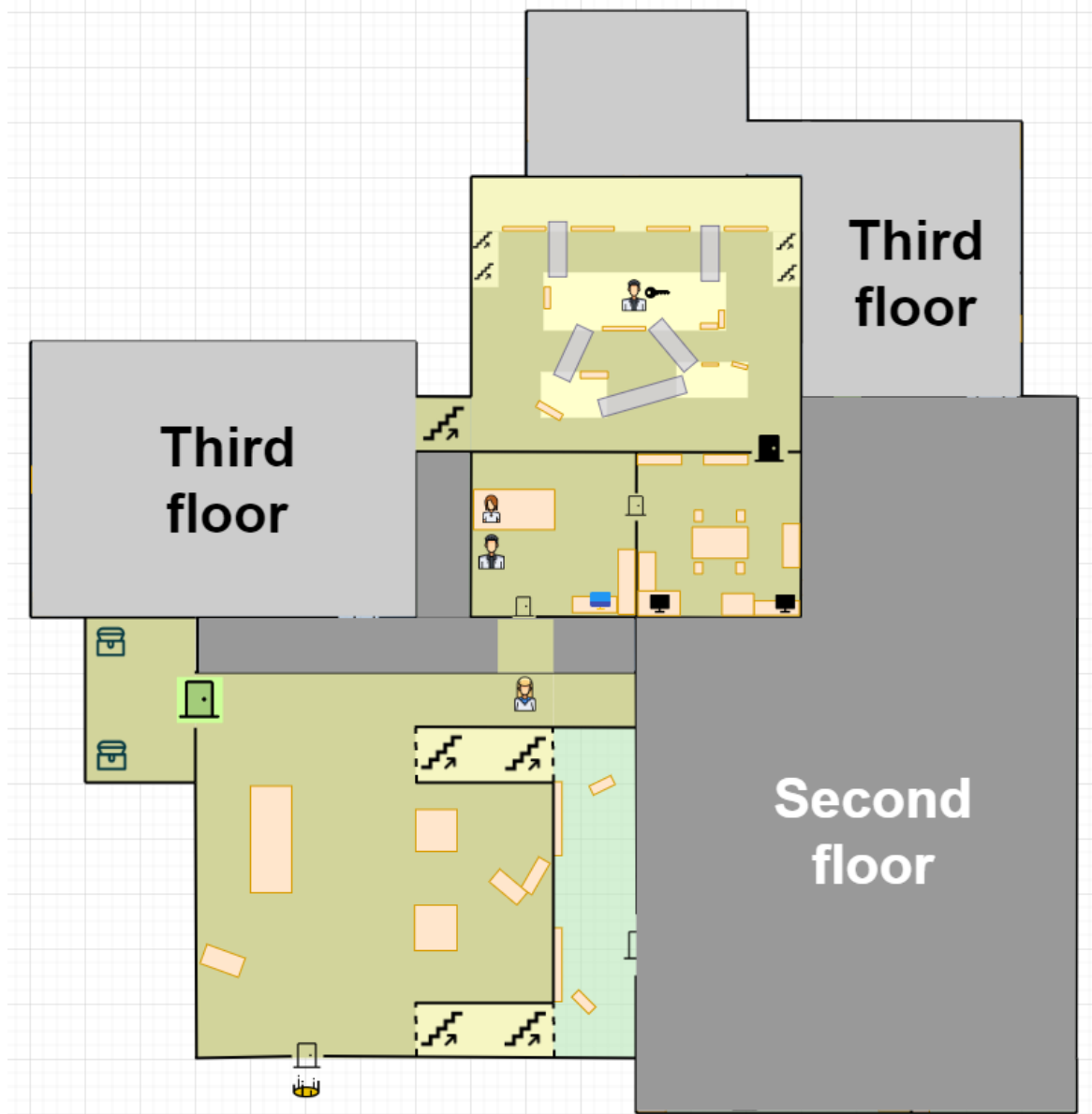


Legend [9]		One big grid tile (4x4) = One Creation Kit tile															
	Detective Lyle		Avernia		Pickups (health & ammo & items)		Door/laser that requires key/terminal		Ranged enemy Synth		Higher platform (exterior)		Bridge		Key		Main path
	Mayor Newt		Car (teleport & prop)		Weapon		Stairs (up & down)		Melee enemy Synth		Furniture/Medium-Low cover		Window		Side path		Alternate path
	Doctor Ironia		Teleport destination		Unlocked door		Terminal		Boss Synth		Window		Window		Alternate path		Enemy path
	Parlos		Landmark fountain		Door that allows lockpicking		Hackable Terminal		Building		Pillar/full story cover		Bridge		Alternate path		Enemy path

Figure 15: Detail map: Third Floor 3 [8]

Map Label / Stage	Event Summary	Event Details
17	Force greeted by Parlos, find the terminal and unlock the door	<p>Key information:</p> <ul style="list-style-type: none"> • Encounter (patrol) <ul style="list-style-type: none"> ○ Ranged Synth x 4, melee Synth x 2 ○ 2 ranged and one melee Synth are medium-high level, the rest are High level • Pickups: ammo x 20 • Parlos tells that Ironia is not trustworthy and dangerous, he is saving Avernia • Parlos makes his last warning then leaves through the secret stairs <p>Conveyance:</p> <ul style="list-style-type: none"> ○ Framing: can see Parlos through glass ○ Light highlights the terminal and the door ○ Pinching: can see the door <p>Challenge/goal:</p> <ul style="list-style-type: none"> • Cover shooting • Prioritize enemies • Strategy making (plan path) • Resource management • Stealth
18	Get to the door	<p>Key information:</p> <ul style="list-style-type: none"> • Boss Synth <ul style="list-style-type: none"> ○ Laser gun ○ High level
19	Fight two ambushing enemies and follow Parlos to the stairs	<p>Key information:</p> <ul style="list-style-type: none"> • Encounter (ambush) <ul style="list-style-type: none"> ○ Ranged Synth x 2 ○ One medium, one High level • Pickups: all ammo x 40, stimpak x 3, surge pulse grenade x 2 <p>Challenge/goal:</p> <ul style="list-style-type: none"> • Prioritize enemies • Resource management

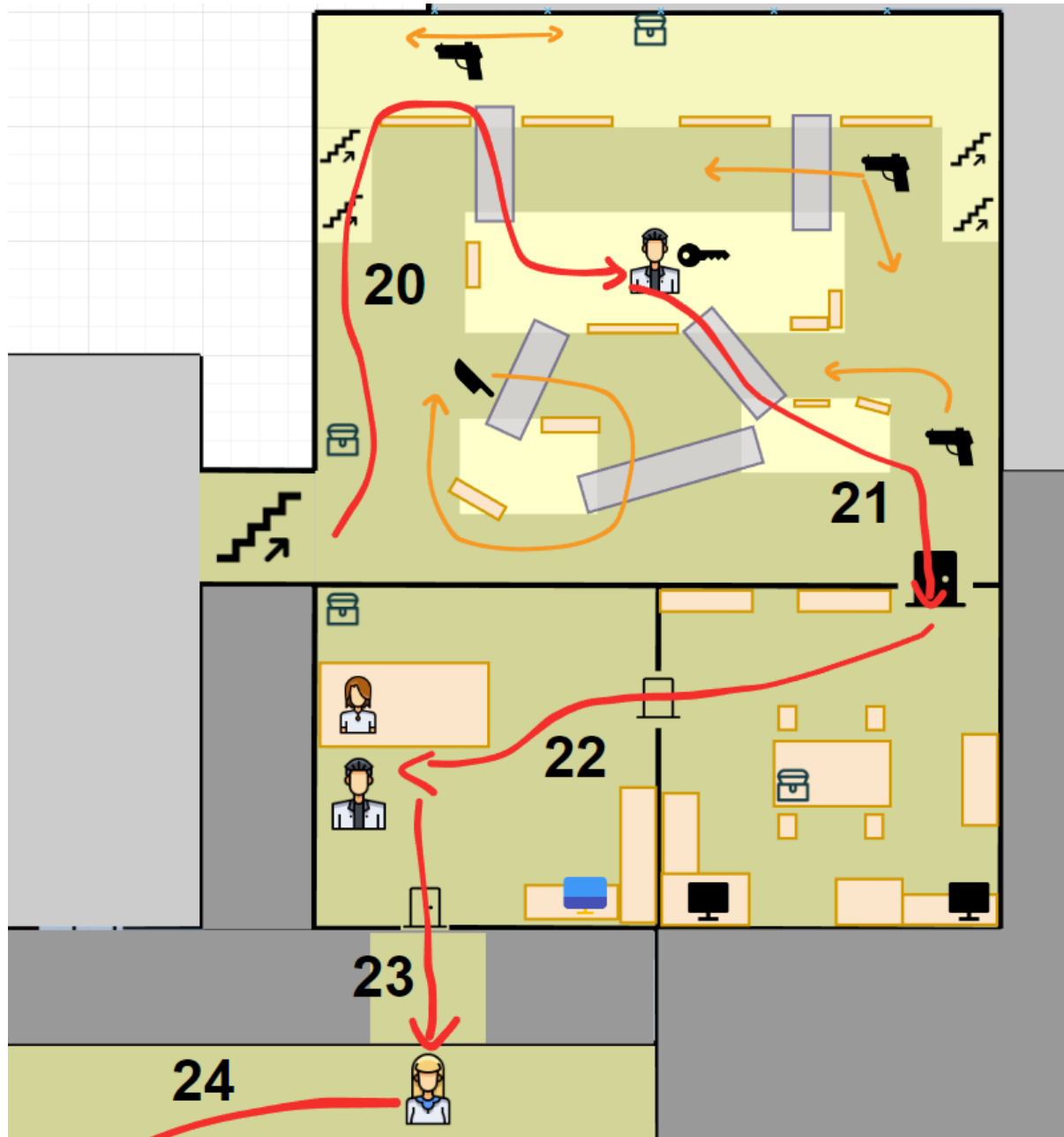
Factory: First Floor Overview 2



Legend [9]		One big grid tile (4x4) = One Creation Kit tile	
	Detective Lyle		Avernia
	Mayor Newt		Car (teleport & prop)
	Doctor Ironia		Teleport destination
	Parlos		Landmark fountain
	Pickups (health & ammo & items)		Weapon
	Door/laser that requires key/terminal		Stairs (up & down)
	Ranged enemy Synth		Melee enemy Synth
	Boss Synth		Higher platform (exterior)
	Bridge		Key
	Furniture/Medium-Low cover		Window
	Terminal		Pillar/full story cover
	Hackable Terminal		Main path
	Building		Side path
	Window		Alternate path
	First floor Second floor Third floor		Enemy path
** The higher, the lighter **			

Figure 16: Detail map: First Floor Overview 2 [8]

Factory: First Floor 2



Legend [9]		One big grid tile (4x4) = One Creation Kit tile	
	Detective Lyle		Avernia
	Mayor Newt		Car (teleport & prop)
	Doctor Ironia		Teleport destination
	Parlos		Landmark fountain
	Pickups (health & ammo & items)		Weapon
	Door/laser that requires key/terminal		Stairs (up & down)
	Ranged enemy Synth		Melee enemy Synth
	Boss Synth		Building
	Higher platform (exterior)		Furniture/Medium-Low cover
	Window		Pillar/full story cover
	Bridge		Key
	Window		Main path
	Window		Side path
	Window		Alternate path
	Window		Enemy path
	Window		** The higher, the lighter **

Figure 17: Detail map: First Floor 2 [8]

Map Label / Stage	Event Summary	Event Details
20	Fight with Parlos and get the key	<p>Key information:</p> <ul style="list-style-type: none"> • Ranged Synth x 3, melee x 1 <ul style="list-style-type: none"> ○ High level (patrol) • Boss Synth Parlos <ul style="list-style-type: none"> ○ Gatlin ○ High level • Pickups: stimpak x 2, all ammo x 40 <p>Conveyance:</p> <ul style="list-style-type: none"> ○ See Parlos directly on the higher platform ○ Lights highlight the exit <p>Challenge/goal:</p> <ul style="list-style-type: none"> • Cover shooting • Prioritize enemies • Strategy making (plan path) • Resource management • Vertical combat
21	Talk to Parlos and meet Avernia with him	<p>Key information:</p> <ul style="list-style-type: none"> • Get the key from him • Parlos used to work with Ironia to save Synth, he provided shelter Ironia researched on recreating replacing parts • Something went wrong and they broke up, he kicked her out • He didn't trust humans anymore • Show the player what ironia did to Avernia <p>Conveyance:</p> <ul style="list-style-type: none"> • Walk with Parlos
22	Talk to Avernia	<p>Key information:</p> <ul style="list-style-type: none"> • Ironia did research on growing organs in Synth and healing human by transplanting the organs from Synth to human • Ironia hacked Parlos's Synth and kidnapped Synth in the town for her experiment • Ironia experimented on her patient as well • Avernia is the precious sample – the sole success • Ironia will kill all Synths and Avernia • Parlos fell in love with Ivy, Ironia transplanted organs from Ivy to Avernia to save her • Claims Ironia will kill all Synths and her patients <p>Challenge/goal:</p> <ul style="list-style-type: none"> • Hacking

		<ul style="list-style-type: none"> ○ Know about Parlos fired all humans and destroyed Ironia's data ○ Know about Parlos refused to offer help to the town (letter replied to Mayor) ○ Know about Parlos is cruel to human but has crazy affection to Avernia
23	Encounter Ironia and make major choice	<p>Key information:</p> <ul style="list-style-type: none"> ● Parlos kept the human girl Avernia because she has organs from Ivy, he doesn't care about human at all ● Parlos destroyed Ironia's data ● Parlos had no idea what this research means to human ● Ironia invites the player to accomplish this great achievement ● Ironia did these because she thinks sacrifice is necessary for a greater improvement ● She promises Avernia will have a new life if the player helps her ● Major choice: support Ironia or stop Ironia ● Fight with Ironia/Parlos <ul style="list-style-type: none"> ○ Boss, high-level ○ Laser gun ● Shortcut to the first hall ● Fight in the hall ● If kill any of them before making major choice, automatically join the other's faction (as if the player chooses the other one) <p>Challenge/goal:</p> <ul style="list-style-type: none"> ● Cover shooting ● Resource management ● Vertical combat
24	Quest complete, report to Newt	<p>Key information:</p> <ul style="list-style-type: none"> ● Report to Newt, quest complete ● For aftermath, see the section in Appendix B "Aftermath" & "Narrative Summary" ● Reward: <ul style="list-style-type: none"> ○ Exp high ○ Caps 500

Skill Progression Chart

Map Marker ID->	Start	Red Rocket NB1	Moon River Town NB2 3 4	Factory - First Floor NB5 6	Factory - Second Floor 7 8 9	Factory - Third Floor 10 11 NB12 13	Factory - Finale 14 NB15 16
Core mechanics (Challenge / Proficiency)							
Move	M	E	E E M	M	M M M M	M H H	H X H
Jump	E	E	E M	M	M M M M	M M	H X H
Attack (melee/ranged)	E	E	E M	M	M M M M	M H	H X H
Interact	M	E	E E E	E	M M M	M M	H H X H
Actions & Skills (Challenge / Proficiency)							
V.A.T.S.	M		E E	E	M M M	H H	H H H
Defending (bash)	E		E M	M	M M M M	H H	H X H
Lockpicking	E		E	E	M M M	H	
Hacking	E				M M M		
Charisma check	E			M			
Stealth	E		E E	M	M M M	M H	H
Predict (if an enemy is about to attack; if the player will get hurt)	E		E E	E	M M M M	H H	H X H
Dodge attack	E		E E	M	M M M M	H H	H X H
Find the way & secret items	E	E	E E E	E	M M M M	M M	H M M
Locate enemies	E		E E	E	E M M M	H M	H M M
Switch weapons & strategy making and switching	E		E E	E	E M M M	H H	H X H
Aim	E		E E	E	M M M	H H	H X H
Pickpocketing	E		E				H
Resource management (including AP)	E		E E E	E	M M M M	M H	H X H
Prioritize enemies	E		E E	E	M M E	M H	H H
Enemies (Challenge)							
Synth Ranged	E		E E	E	M M M	M H	H H
Synth Melee	E		E E	M	M M	H H	H H
Boss (Leveled; NPC)	E					M	H X X
Weapons & Equipments (Proficiency)							
Pistol	E		E E E	M	M M M M	M H	H H H
Institute Laser	E		E E E	M	M M M M	H H	H X X
Snipe Rifle	E		E	E	E M M	M M	M M M
Shotgun	E		E E E	E	M M M	M H	H H X
Gamma Gun	E					M M	H X X
Baton			E E	E	E M M	M M	H H H
Axe					E E	M M	H H X
Surge Pulse Grenade			E E E	E	M M M	M H	H X X
Pickups (supplies & collections) (Difficulty & rarity)							
Medicines	E		E E		M M M	M H	H H
Ammo	E		E E E		M M M	M H	H H
Bobblehead	E				E		
Bobbypins	E		E		E		H

0:00 1:00 2:00 3:30 5:00 5:30 6:40 8:00 9:30 11:00 12:30 14:40 15:10 17:50 20:00 21:00 22:30

Notes:
 *00 : 00 = Minute : Second
 * This chart tracks the main path based on the main quests (Institute line)
 * This chart assumes the player takes the possible & intended paths, and collects all weapons

Figure 18: Skill Progression Chart

	Legend			
	E	M	H	X
New skills	Intro	Reinforce	Master	
Starting Skills (START)	Beginner	Advanced	Expert	Master
Challenges	Easy	Medium	Hard	Legendary

Aesthetic References

The level takes three major aesthetic themes – town (Concord style; exterior), factory (fallout 4 like manufacturing factory; main interior) and lab (The Institute style, side interior).

In the factory it is built with lots of crates, machines, pipes, metal grids and so forth, together creating an industrial look, where verticality is highly stressed here. In the lab there are lots of experimental apparatus, office settings, medical facilities, and cells (following the story)

For the exterior which is a town the story happens contains several buildings like in Concord, some trees and foliage, a street with a road circling around the big fountain, an open small hospital where the player can walk in, several vehicles, and passersby. The weather is set at rainy (at dusk), giving the feel of gloomy, suspenseful.

Visual Theme 1 Exterior: Concord style town & factory



[1]



[2]



[3]



[4]

Figure 19: Contact Sheet for Visual Theme 1 [1,2,3,4]

Visual Theme 2 Interior: Lab and Factory



[5]



[5]



[6]



[7]

Figure 20: Contact Sheet for Visual Theme 2 [5,6,7]

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Appendices

Appendix A: New Skills / Gameplay Mechanics

<Mechanic A>

Surge pulse grenade

- Description
 - A newly developed grenade that is effective against Synth. It releases a special pulse in area that will paralyze the control center of Synth for seconds by contact
 - After throwing this grenade, it will explode after 2 seconds or on impact, and will change Synth's faction to be friendly to the player and hostile to other Synths for 3 seconds
- User Interface
 - Takes the similar look to fragment grenade
 - Has an area electric energy pulse VFX when it explodes
- Parameters
 - Damage: 1
 - Duration: 3 seconds
 - Recharge time: N/A
 - Supply: rare; 3-6 in total for the whole level (some are in chest)
 - Area: ½ or 1/3 of Cryo grenade
- Conveyance
 - Description by notes or dialogue
 - Teaching in the early stage
- Feedback
 - Enemies affected by this will be rendered in a blue hue/VFX/outline and will return to normal after the effect

Appendix B: Context Detail

General Context

“Half life” is a standalone optional supplemental level to the main game. It is available after the quest “Dangerous Minds” where the player will meet Detective Nick Valentine, before “Institutionalized”. It contains a main quest and a side quest with challenges including charisma check, lockpicking, hacking, pickpocketing and so forth set at a low level to allow the player easily to engage in the level & story. The player can find Detective Lyle near the Red Rocket Station after “Dangerous Minds” and start the quest by talking to him. The quest revolves around the commission where the player is tasked by a town mayor & Dr. Ironia to find a missing patient, and finds out the threatening fact beneath the surface. The stage is set in a town called Moon River Town, which is not far from Diamond City in the Commonwealth.

Backstory

Detective Lyle is a good friend of Nick. This day on his way to an urgent call he had a flat tire and stopped at the Red Rocket looking for a replacing tire, at this time players found him. Since Nick talked a lot about the player, Lyle knew about the player as well. Lyle now has something urgent to deal with, while he has just received a new request from his old friend Newt (the town mayor) which is to find a missing patient. So, Lyle gives this seemingly easy job to the player, and sends the player to Moon River Town.

Synth Parlos and Doctor Ironia used to work together to save Synth refugees. Parlos provided shelter by starting a manufacturing factory and Ironia did research on changing Synth’s broken parts by recreating new ones. But one day when Parlos found out Ironia was doing her experiment by dismembering a Synth Parlos kicked her out and destroyed all her research data, and Parlos fired all humans in this factory because of Ironia’s “betrayal”. Then Parlos fell in love with a Synth called Ivy, and Ironia continued to do her research in Moon River Town hospital on growing perfectly fit organs in Synth and healing humans by transplanting these organs from Synth to human body. As a doctor she could do her experiments on critically ill patients easily, but for Synth she used her collected knowledge to secretly hack Synths nearby and commanded them to kidnap more Synths for her experiments.

A few days ago, Ironia first time succeeded in healing a patient called Avernia by transplanting the organs grown in a kidnapped Synth Ivy, when she was about to do more research and take more data on this precious successful sample, Parlos found out the reason of Ivy’s missing, and he took away Avernia with all his fury. Then worried Ironia reported to Newt who then asked Detective Lyle for help.

Aftermath

- The player chooses to stop Ironia’s unethical experiments. All kidnapped and hacked Synths are freed, and the town returns to a peaceful sanctuary, just as its beautiful name, attracting more Synth refugees to come. However, Parlos still refuses to offer any help to humans in the town, making the town invulnerable to attacks from outside. Meanwhile since all the research data is lost, and the town loses a highly skilled doctor, people gathering here are exposed to the invasion of illness and forced to continuously require help from outside.

- The player chooses to support Ironia’s research. Avernia is brought back to Ironia for her more dangerous experiments. Soon after, Avernia finally wakes up with her new body – Ironia has made a revolutionary step in human history, she succeeds in her organ-growing technique. The technique spreads through the world quickly and is bought by many big bio-technology companies. More and more people recover from deadly illnesses, however, with more and more Synths missing. The Institute has decided to act now.

Narrative Summary

Stage	Event Summary	Event Details
0	Quest start	<ul style="list-style-type: none"> • Player finds Detective Lyle in the Red Rocket <ul style="list-style-type: none"> ○ Know about Detective Lyle and background of the commission ○ Learnt that Mayor Newt is asking for help ○ Know about Moon River Town
5	Quest rejected	
7	Quest accepted	
10	Travel to Moon River Town	<ul style="list-style-type: none"> • Detective Lyle gives the player a ride
20	Talk to the Town mayor Newt	<ul style="list-style-type: none"> • Know about the town <ul style="list-style-type: none"> ○ Basic info on Missing, weird Synths, Ironia • Take side quest • Told to talk to Ironia for details
25	Talk to Dr.Ironia	<ul style="list-style-type: none"> • Learn that patient Avernia is missing, and she saw suspicious figures walking towards the factory • Learn that (told by Ironia with bias) the owner of the factory Parlos is a savage Synth who abandoned the town hospital and left patients to die because he didn’t want to save human, he only cared about Synth
29	[optional] Get some gears	
30	Fight with Synth – stage 1	<ul style="list-style-type: none"> • Outside the factory • Find a terminal containing a command “bring her to me” • The player makes sure Avernia is here
40	Fight with Synth – stage 2	<ul style="list-style-type: none"> • Inside the factory • Cut scene <ul style="list-style-type: none"> ○ Learn that Parlos doesn’t want to start the hostility between him and the player and persuades the player to return ○ (charisma check) Parlos claims he is protecting Avernia
50	Fight with Synth – stage 3	<ul style="list-style-type: none"> • Second floor in the factory • Cut scene <ul style="list-style-type: none"> ○ Learn that maybe Ironia is not as good as we thought ○ Parlos claims he took Avernia to save her
60	Fight with Parlos	<ul style="list-style-type: none"> • Learn that Parlos and Ironia used to work together

		<ul style="list-style-type: none"> Learn that Ironia did unethical experiments on Synth then Parlos kicked her out and destroyed her data
70	Find Avernia in coma in a bed with Parlos	<ul style="list-style-type: none"> Parlos tells that Avernia is the solely successful sample and Ironia will do more experiment on her and he claims that he doesn't want to sacrifice anyone in this ridiculous experiment Learn that Parlos just found out Ironia is kidnapping Synths in the town and doing experiments to those critically ill patients in her hospital Learn that Avernia has hacked Synths to do this for her
80	Dr.Ironia shows up in this room as well (after the player has eliminated all enemies on the way) [Major choice]	<ul style="list-style-type: none"> Ironia tells that Parlos cares about this human girl Avernia just because Ivy's organs have been transplanted to Avernia, otherwise he doesn't want to save human at all Ironia claims that she wants to save human, if she succeeds illness may not exist anymore in the future. To do this, some sacrifices are necessary Design goal <ul style="list-style-type: none"> Make two choices more balanced, neither of them is purely good nor bad Main focus still revolves around Ironia's experiment (stop sacrifice <-> revolution) Choice 1: Stop Ironia's experiment, take down Ironia Choice 2: Support Ironia's experiment, take down Parlos
90	Join Parlos faction, fight Ironia	
100	Join Ironia faction, fight Parlos	
110	Quest complete	<ul style="list-style-type: none"> Go back to the town with Parlos, free all Synths imprisoned in Ironia's secret lab, and destroy all research data. No Synths will be harmed here but humans in the town will keep suffering from illness and attacks from outside
120	Quest complete	<ul style="list-style-type: none"> Go back to the town with Ironia, she takes Avernia back to her hospital and continues doing her experiment, more Synths are sacrificed, organ growth tech will be completed soon

Appendix C: Character Descriptions

NPC 1: Detective Lyle

Description	Shares the same outfit with Nick Valentine, human male, medium tall, black hair
Background	Had a flat tire on his way to an urgent request, while repairing his car at the Red Rocket, he got a new request from Newt. As he was torn between two requests, the player showed up
Goals/Motivation	Gives the player quest, tells the player about himself and Moon River, gives the player a flavor and a ride
Personality/Archetype	Generous, charismatic, casual, easy-going, Sherlock Holmes-like but looks busy
Relationships	Friend of Nick, heard of the player's glory; Old friend of Mayor Newt

NPC 2: Doctor Ironia

Description	Scientist, doctor, looks professional and harmless that elicits great sympathy by her words
Background	Used to work with Parlos to help protect Synth, when researching on recreating parts to repair Synth's body, she was inspired to grow organs in Synth's body to heal humans (and kicked out by Parlos and all her data was destroyed). In order to accomplish this impressive feat. After she first time succeeded in transplanting grown organ from a Synth Ivy to her patient Avernia, Avernia was taken by Parlos
Goals/Motivation	Get Avernia back – She is the precious sample
Personality/Archetype	Performs like she is the perfect victim, and claims she did everything for human ignoring the harm she has brought to others, intelligent but lacks empathy
Relationships	Ex-workmate to Parlos; Avernia's doctor-in-charge; Hacker and commander of the weird Synths

NPC 3: Parlos

Description	Synth businessman but not bad at fight, feels like a mafia boss, well-dressed and looks smart
Background	Used to work with Ironia to help Synth, settled down here near Moon River Town and took the charge of a weapon manufacturing factory. When he found out what Ironia did to Synth he expelled Ironia and all humans and destroyed all her data . Fell in love with a Synth called Ivy. Recently he found Ivy was missing because Ironia's hacked Synths took her and Ironia did experiment on her by growing organs in her body to save a critically ill patient Avernia, with his full fury he took the Avernia
Goals/Motivation	Avenges Ivy's death; Frees all Synths kidnapped by Ironia; Ceases Ironia's unethical experiment; Keeps Avernia safe
Personality/Archetype	Understanding, sympathetic, charismatic and personable, but unfriendly to human
Relationships	Ex-workmate to Ironia; Fell in love with Synth Ivy; Had affection towards Avernia for her having a half-life of Ivy

NPC 4: Mayor Newt (side quest giver)

Description	Normal mayor, wearing a suit, medium height, blonde hair
Background	Lost a key near secret lab before which is now occupied by Ironia's hacked weird-acting Synths. Meanwhile, associating with the recently frequent missing as well as his worry that the offenders could do something worse, he must ask for help
Goals/Motivation	Get back the key lost in the secret lab and find the missing patient. If possible, investigate the reason behind this, bring safe and peace back to the town
Personality/Archetype	Timid, righteous, dull
Relationships	Mayor of the town; Old friend of Lyle

Appendix D: Dialog Flow

NPC 1: Detective Lyle

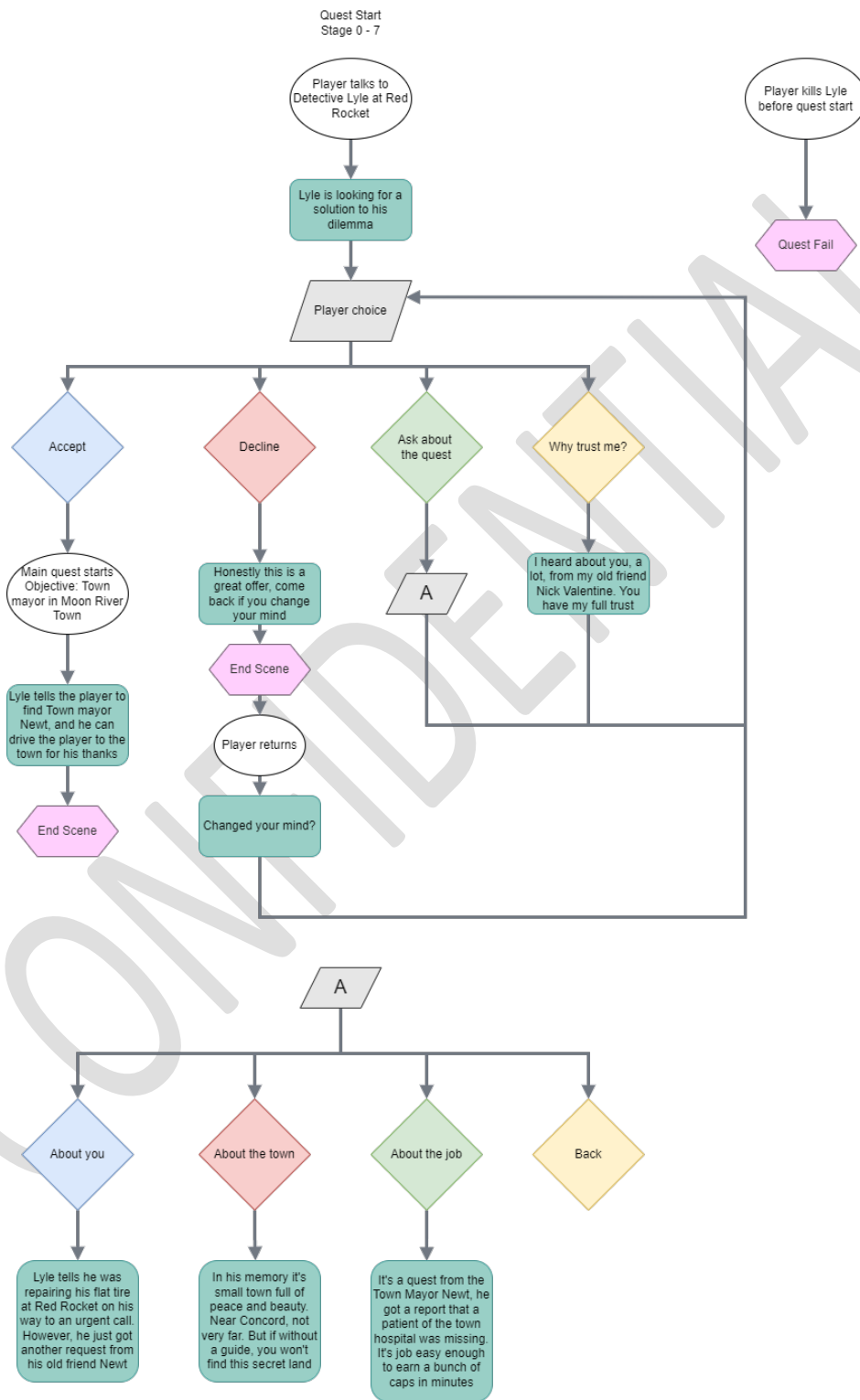


Figure 21: Dialog: Character 1 Lyle, Stage 0 – 7 [8]

NPC 2: Doctor Ironia

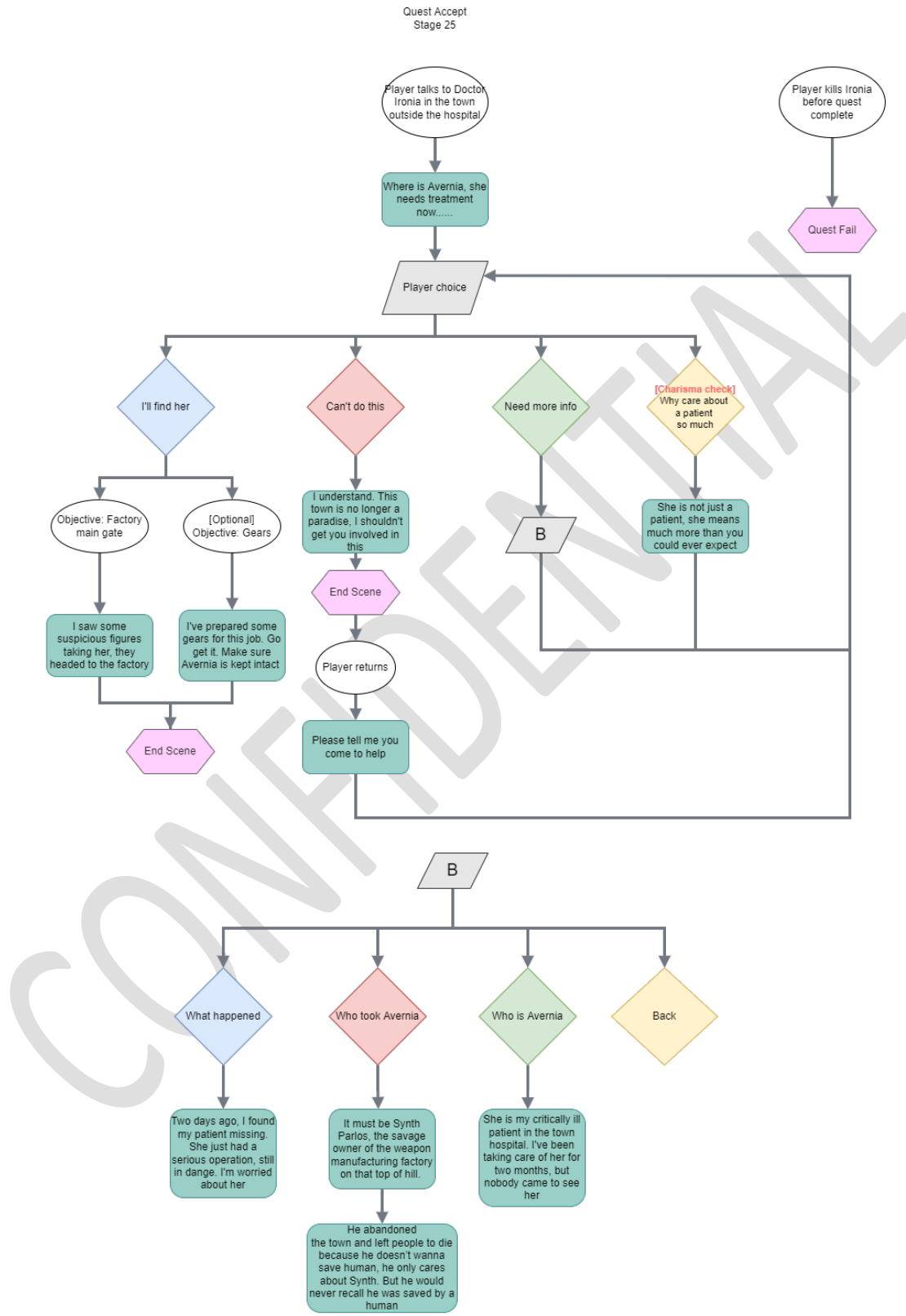


Figure 22: Dialog: Character 2 Ironia, Stage 25 [8]

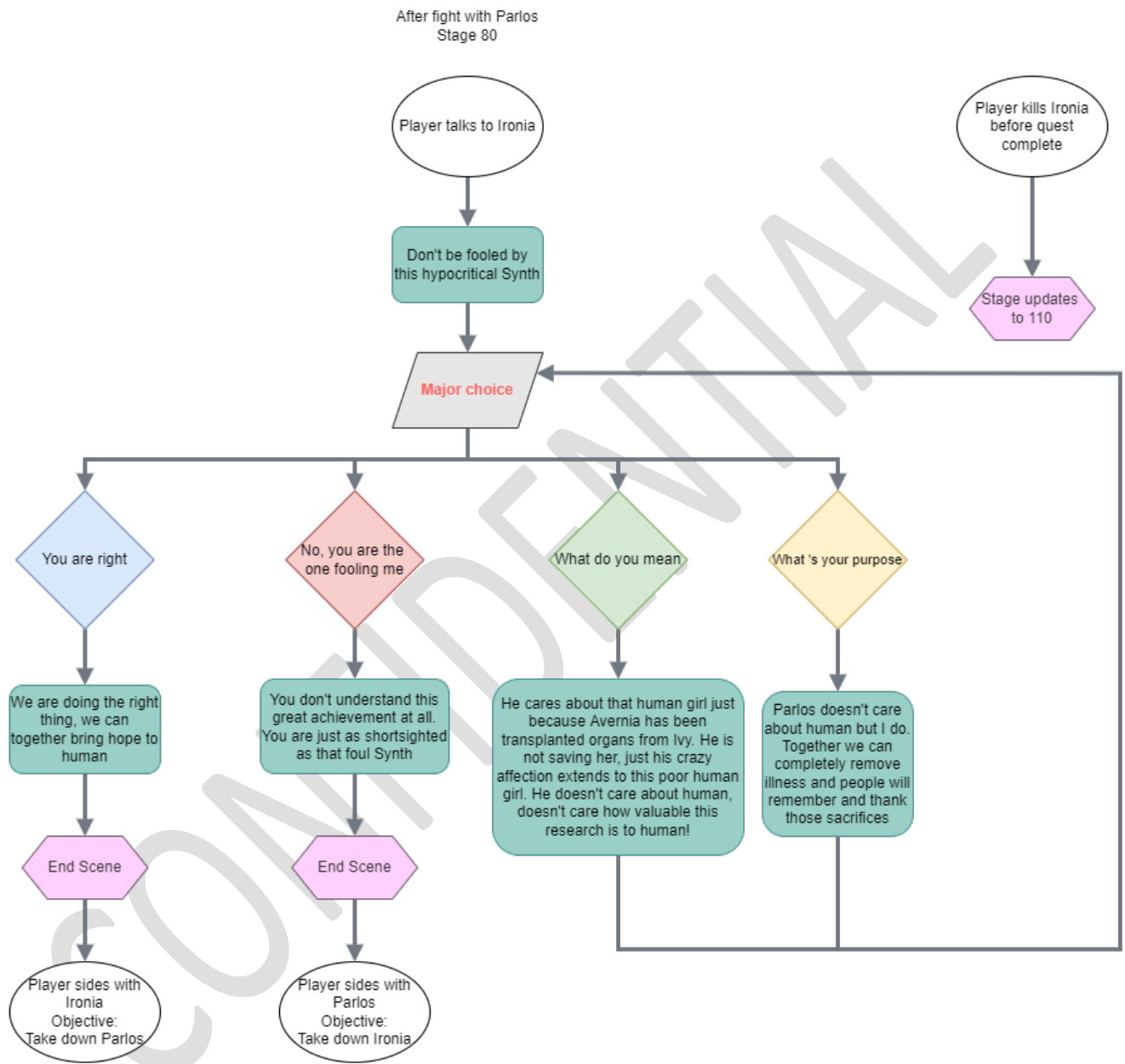


Figure 23: Dialog: Character 2 Ironia, Stage 80 [8]

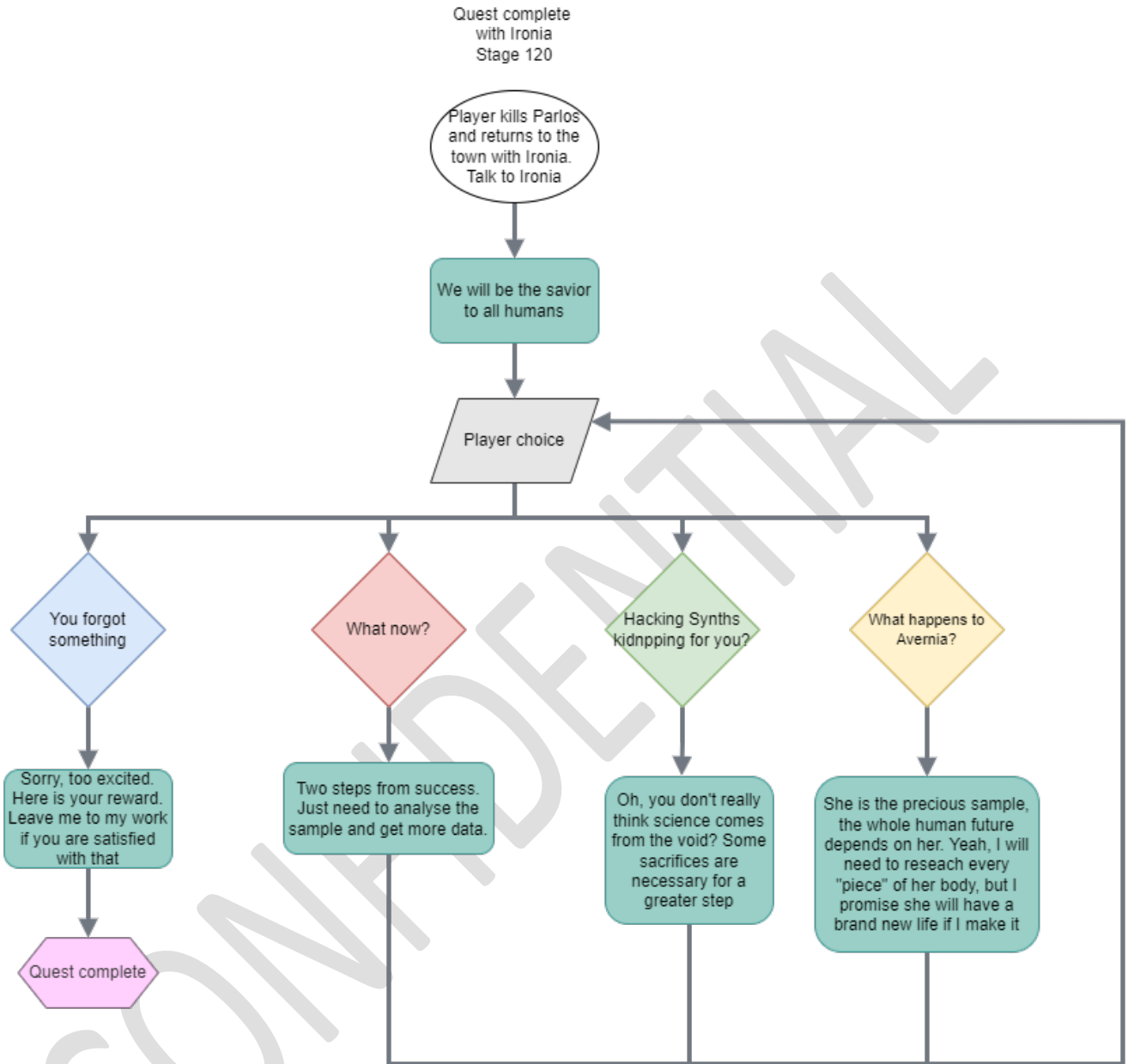


Figure 24: Dialog: Character 2 Ironia, Stage 120 [8]

NPC 3: Parlos

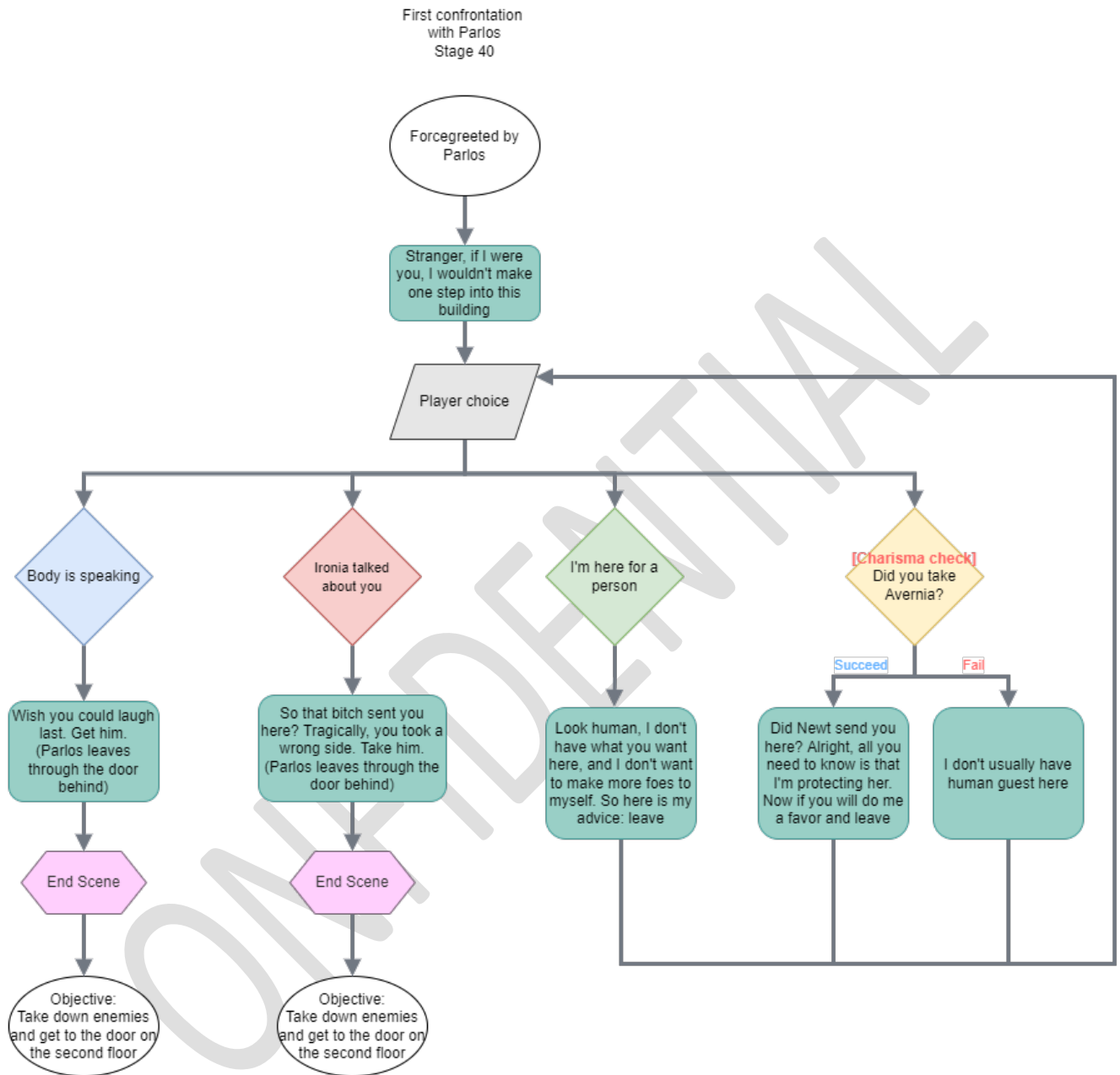


Figure 25: Dialog: Character 3 Parlos, Stage 40 [8]

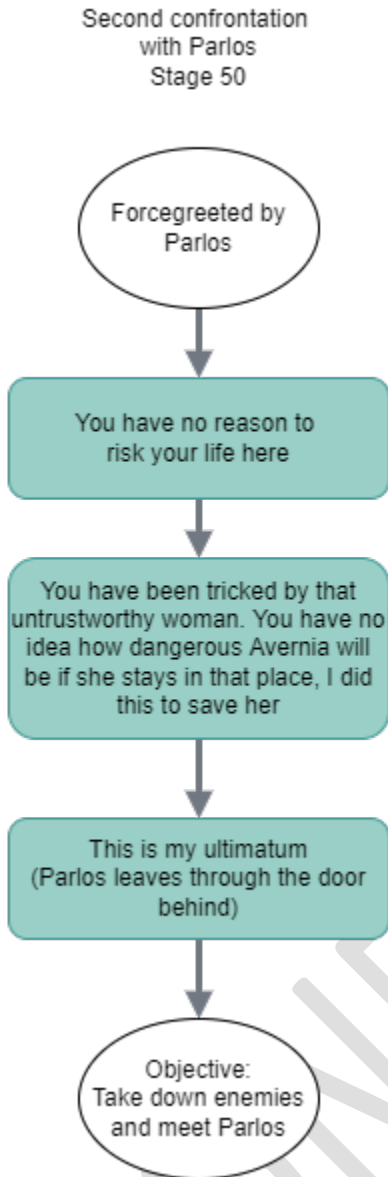


Figure 26: Dialog: Character 3 Parlos, Stage 50 [8]

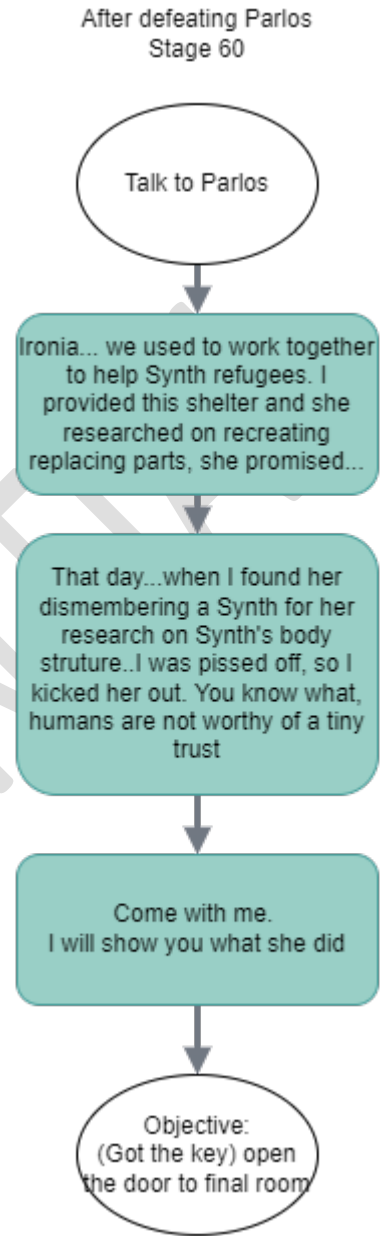


Figure 27: Dialog: Character 3 Parlos, Stage 60 [8]

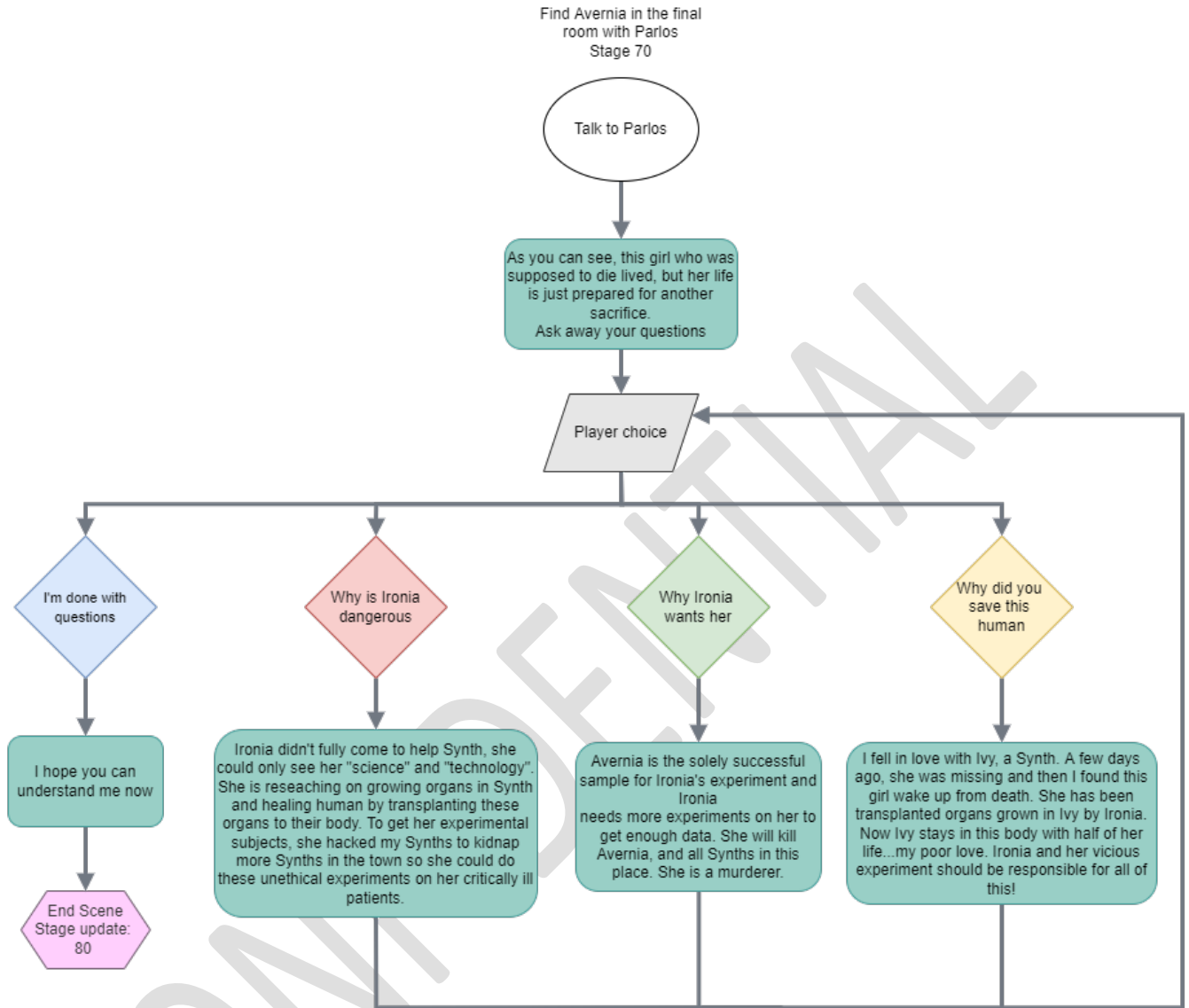


Figure 28: Dialog: Character 3 Parlos, Stage 70 [8]

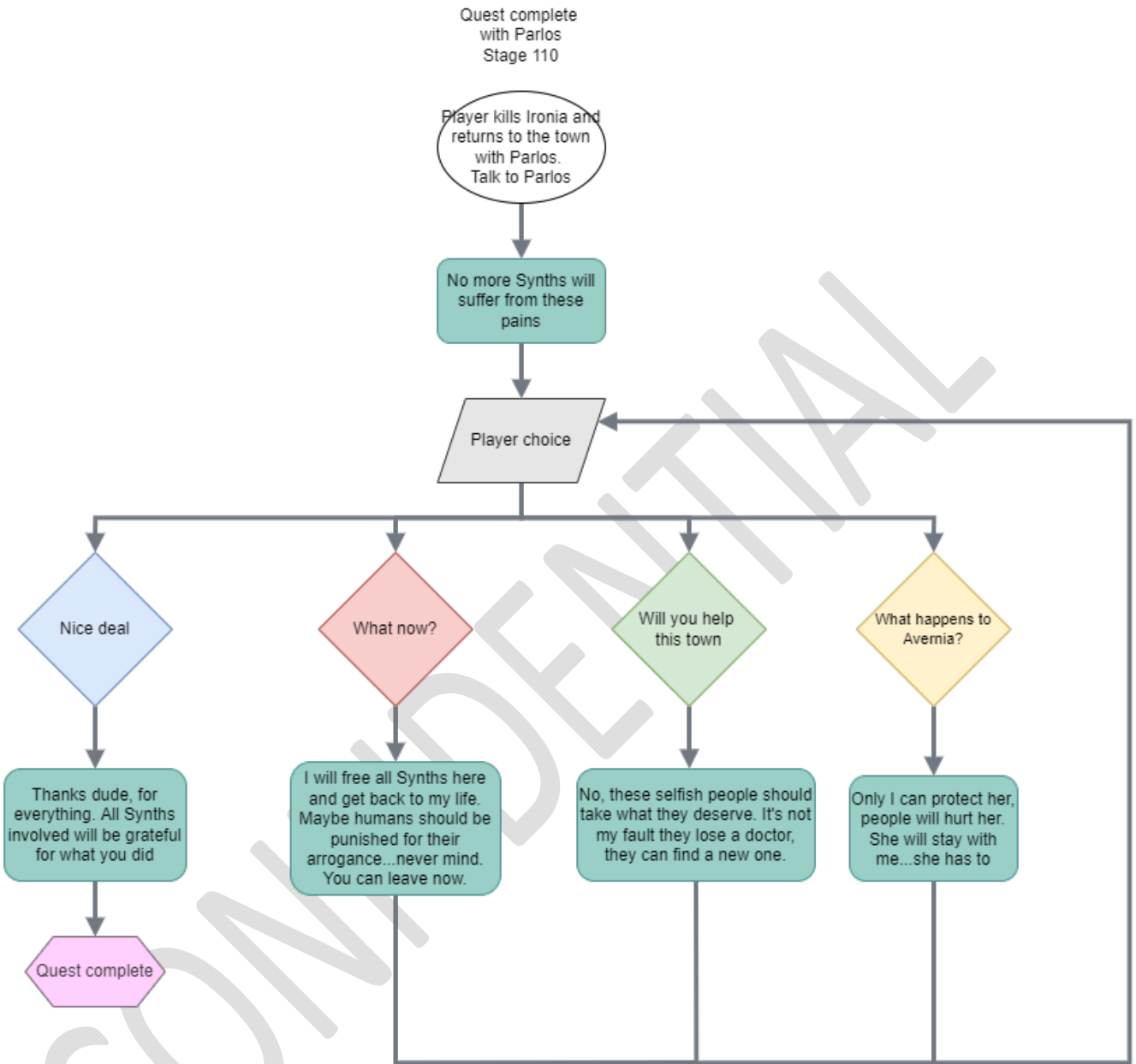


Figure 29: Dialog: Character 3 Parlos, Stage 110 [8]

NPC 4: Mayor Newt

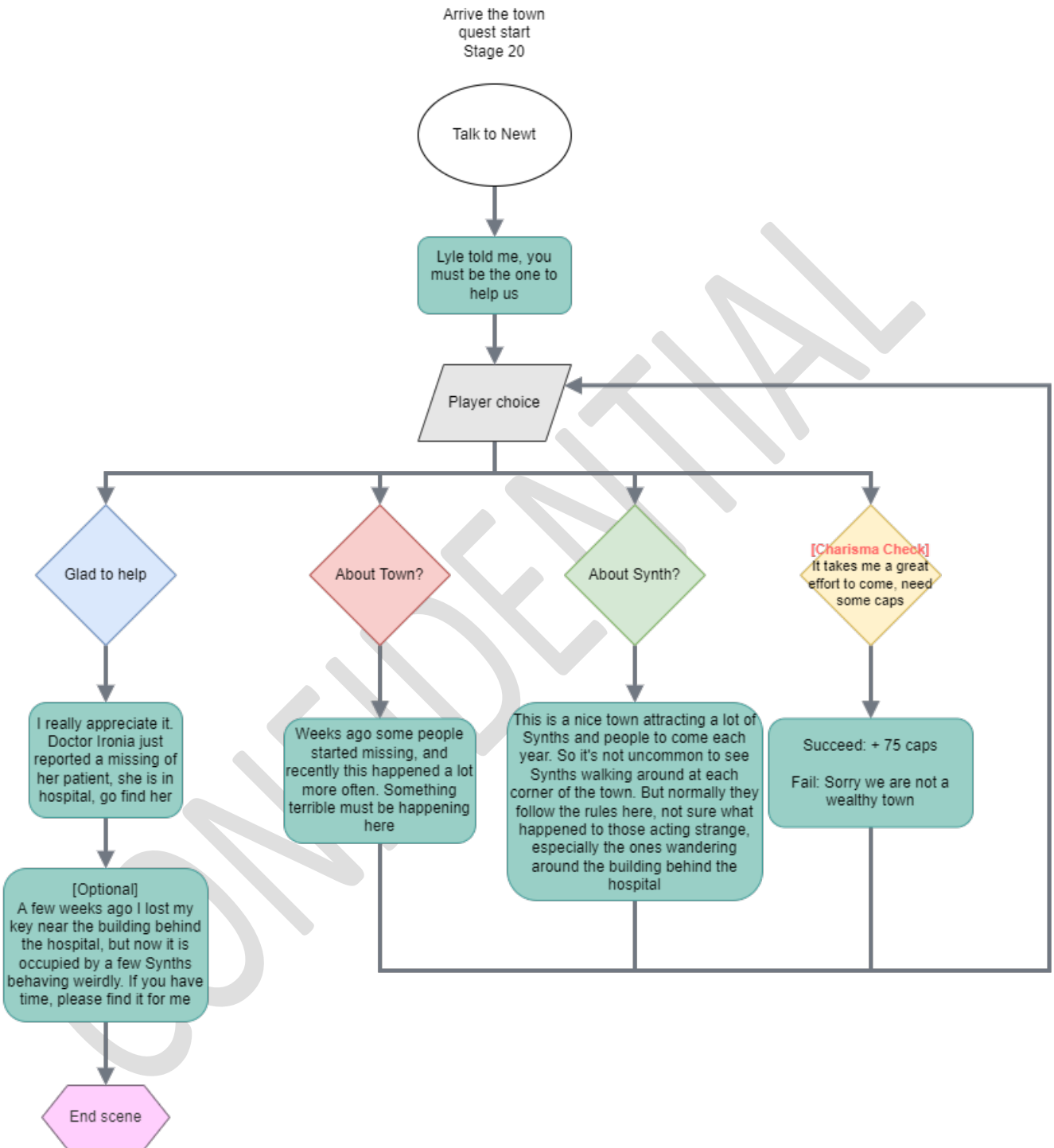


Figure 30: Dialog: Character 4 Newt, Stage 20 [8]

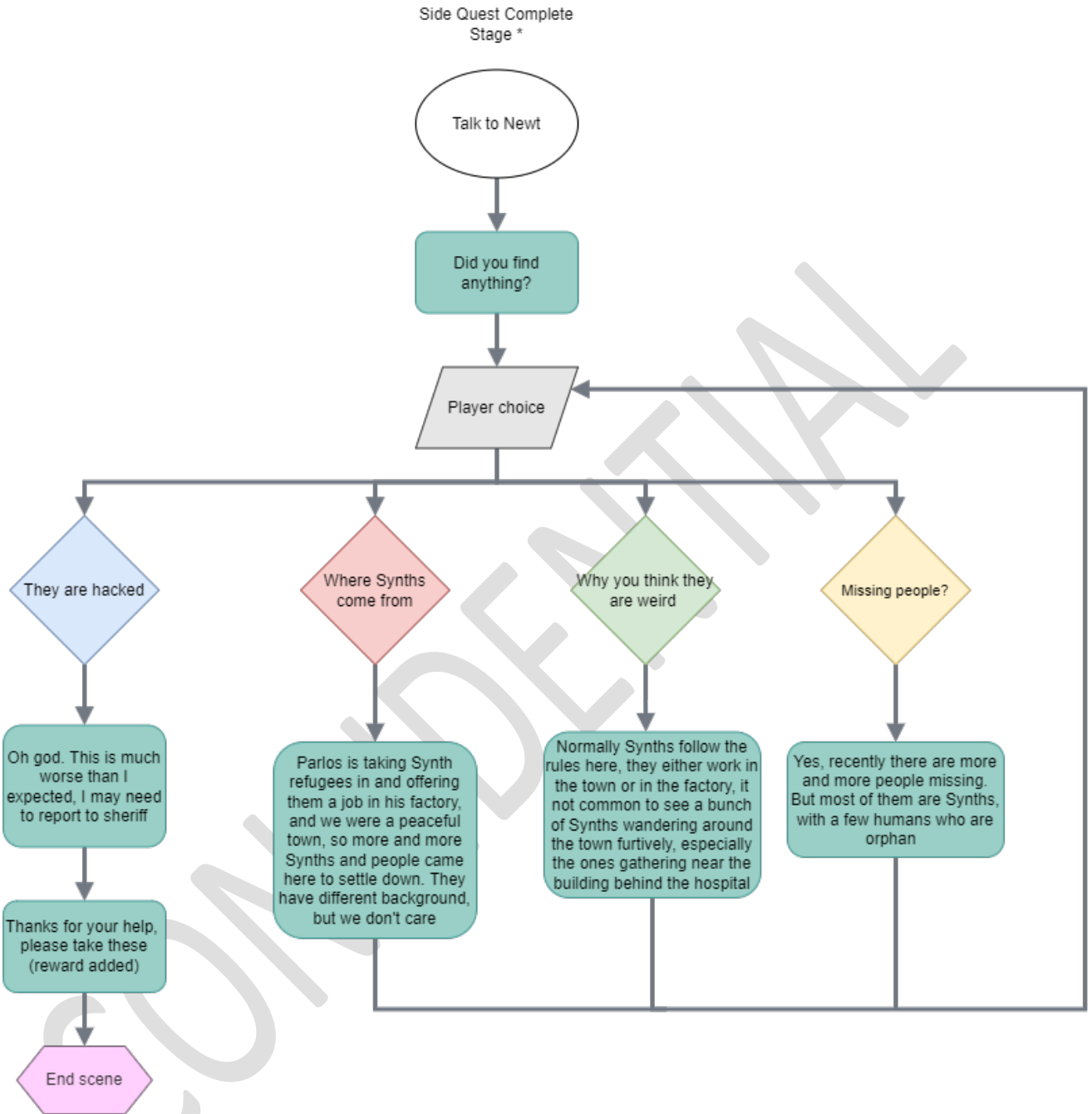


Figure 31: Dialog: Character 4 Newt, Stage * [8]

Appendix E: Development Risks

Map Label	Description/Mitigation	Type	Priority
	<p>Narrative pieces</p> <ul style="list-style-type: none"> • Arrange information pieces in the dialogue/notes in a good way to make sure the player is collecting core information which builds up to help make major choice • To avoid making the story too complex to the player <p>Mitigation</p> <ul style="list-style-type: none"> • List the core narrative pieces and follow the flow to create a dialogue skeleton first • Then iterate and make changes 	Dialogue	High
	<p>Faction based mechanics</p> <ul style="list-style-type: none"> • Easy to mess around enemies' original faction & relationship when they recover from the effect (when the effect is over, enemies may have already built hostility towards each other and will not become friendly any more) <p>Mitigation</p> <ul style="list-style-type: none"> • Clear their hostility when they become normal again • Or change the effect to be "change enemies' faction to be a third independent faction which will keep enemies fighting both other enemies & the player" • Or enlarge the effect time to make sure they will probably not have the chance to become normal <ul style="list-style-type: none"> ○ This increases the power of the weapon and needs to balance 	Script	High
	<p>Continued dialogue after the combat</p> <ul style="list-style-type: none"> • There will be a continued dialogue between the player and Parlos after beating him, then Dr.Ironia will come and prompt the player to make major choice after talking. This includes a lot of animation, cut scene and dialogue after combat. <p>Mitigation</p> <ul style="list-style-type: none"> • If hard to achieve, could let Parlos die and the player make choice considering his will, since the major choice is focusing on Ironia 	Script/Dialogue	High

Appendix F: Key Asset Needs

Description	Type	Priority
NPC models (Lyle, Newt, Parlos, Ironia, Avernia, townspeople, raiders, etc.) <ul style="list-style-type: none"> • Avernia doesn't need animation and movement • Lyle needs an animation crouching at his car and replacing his tire 	Model (including mesh, material/textures and animation)	High
Crates (could be interacted with to get items)	Model	High
Items (including all those can be used by the player, e.g. pickups, weapons, armor) <ul style="list-style-type: none"> • Bobby pin • Weapons <ul style="list-style-type: none"> ○ Baton ○ Grognak's Axe ○ Bladed board ○ Institute laser ○ Pistol ○ Combat shotgun ○ Gamma gun ○ Reba (Sniper rifle) ○ Surge pulse grenade (fragment grenade look) • Armor in all parts • Pickups (radaway, stimpak, etc.) 	Model	High
Enemy spawning system (several waves)	Script	High
(Charisma check system)	(Script	High)
(Lockpicking system)	(Script	High)
(Pickpocketing system)	(Script	High)
(Stealth system)	(Script	High)
Faction change system	Script	High
M/L covers (see also Lab pieces & Factory pieces below)	Mesh (including material/textures)	High
Modular kits & architecture items <ul style="list-style-type: none"> • Interior <ul style="list-style-type: none"> ○ Lab pieces <ul style="list-style-type: none"> ▪ Wall, ceiling, floor, pillars, etc. ▪ Office settings (desk, electrical appliances, etc.) ▪ Lab settings (sample container, high-tech devices) <ul style="list-style-type: none"> • Could be used as covers ○ Factory pieces <ul style="list-style-type: none"> ▪ Wall, ceiling, floor, pillars, etc. ▪ Factory settings (machines, metal grids, pipes, crates, shelves, etc.) <ul style="list-style-type: none"> • Could be used as covers • Exterior 	Mesh	High

<ul style="list-style-type: none"> ○ Concord style town <ul style="list-style-type: none"> ▪ Wall, roof, street, road • Doors (both interior and exterior) 		
Lights (dusk light in exterior; normal lights in interior – darker in factory, lighter in lab but both bright enough to see clearly)	Light	High
Car (can use other transport models as substitute)	Mesh	Medium
Fountain (landmark, hero piece)	Mesh	Medium
Town set dressing (e.g. Foliage, normal trees, streetlamps)	Mesh	Low
Weather system (rain, dusk)	Script	Low

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