

Game Design

**Final
Presentation**

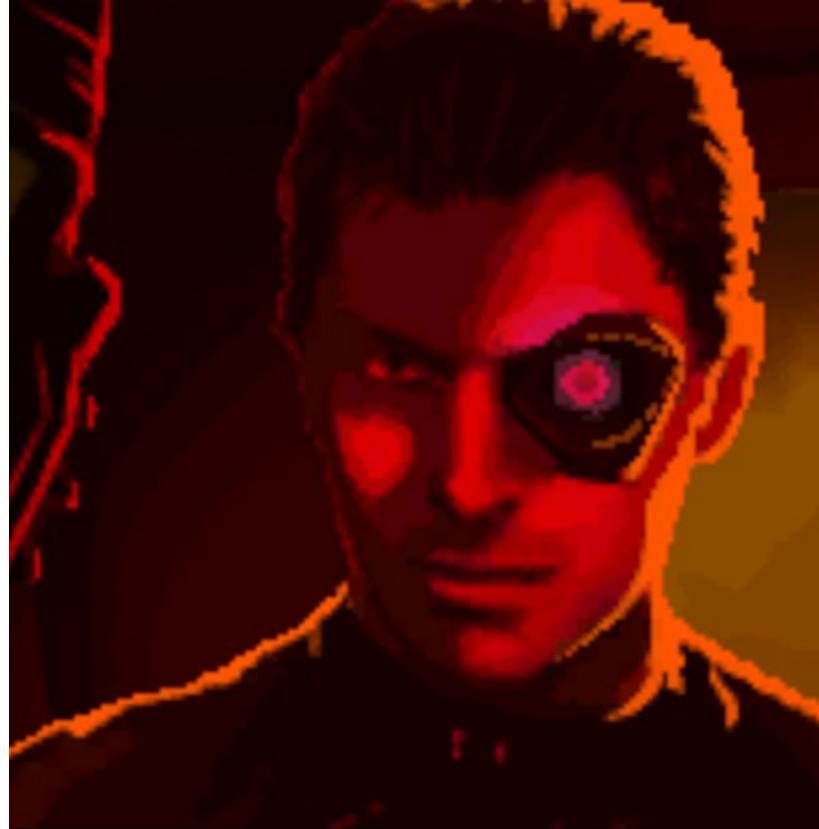
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01

COMPANION DESIGN BRIEF



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Game Picked



Image Source:
<https://stadia.google.com/game/far-cry-3-blood-dragon-classic-edition>

NEW COMPANION CHARACTER IN *FAR CRY BLOOD DRAGON* DESIGN BRIEF

The new companion character is an enhanced AI system to be added to *Far Cry Blood Dragon*. Different from the existing AI systems, the new AI system will be a new character in the story that will interact with the main character REX, influence the plot, and create new features in the game.

DESIGN PURPOSES AND GOALS

- New play mode with novel technical features
- Enriched plot
- Encouraging different new playstyles
- Fitting into the existing UI, guidance for players
- Commercial values

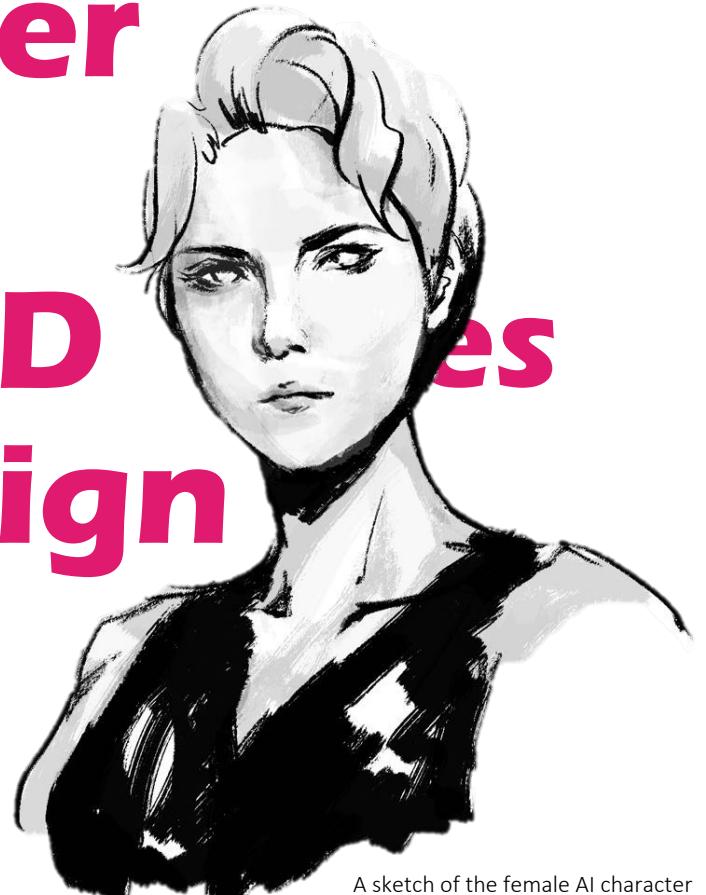
CHARACTER'S SETTING AND CHANGES IN THE PLOT

REX found one mysterious disk and plugged it into his cyborg body. It is an independent AI who could partially control his system. The AI compromises to use her ability to help REX. In return, REX will need to help her find something. Even though she sometimes makes jokes of REX, in the end when REX was confronting SLOAN, in order to help REX complete his goal, she decided to sacrifice herself to let REX be able to act freely even with HUD's prevention for a few seconds.

PURPOSE OF CHANGES

- ❖ Maintain the art style while dig deeper for humanistic and philosophy questions in 80's sci-fi themes
- ❖ Commercial point of view

Character
Design



A sketch of the female AI character

FEATURES OF FAR CRY COMPANIONS

Important features of a Far Cry companion:

- Something / somebody that the main character / player (an outsider in an unfamiliar place) can trust
- Can enhance the main character's ability

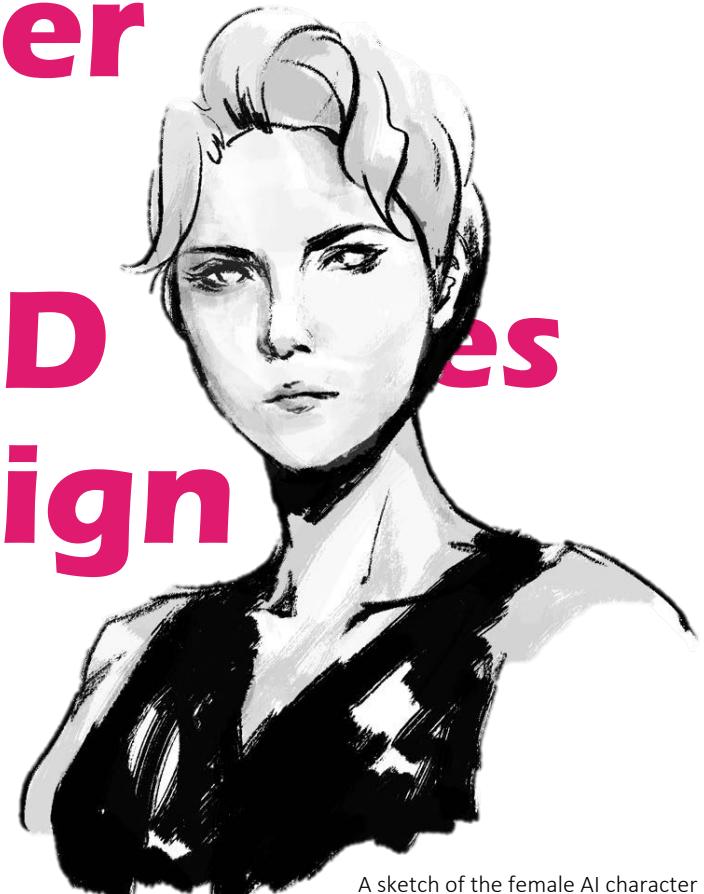
Important features of a Far Cry Blood Dragon companion:

- Strong 80s' sci-fi visual & concept style
- Fits into the settings & styles of the existing game (cyborg, black humor)

HOW THE NEW CHARACTER FITS INTO THE CRITERIA

- The new character and the main character will help each other.
- The AI can use her super calculation abilities to help enhance the main character's skills.
- The concept of AI characters and the appearance design of the character match classical sci-fi style.
- The AI character has a sense of humor.

Character
Design



A sketch of the female AI character

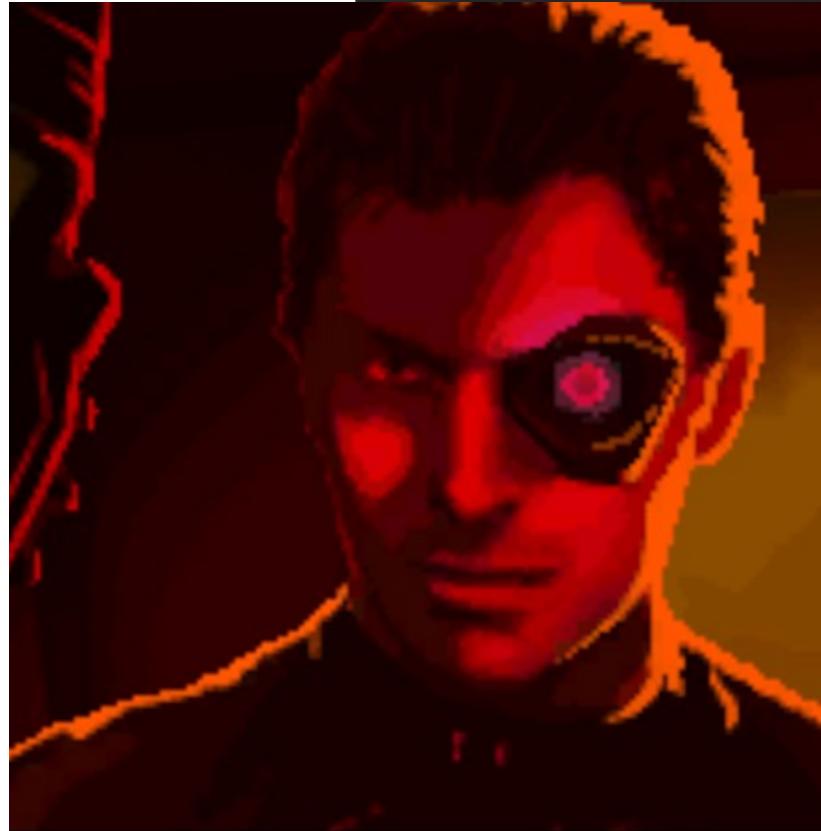
SKILLS OVERVIEW

- ❖ Emitting Reflective Directional Sound Waves (Attract Blood Dragons)
- ❖ Active Noise Cancellation Silencer (Stealth)
- ❖ Multi-shots
- ❖ AI Sight



02

COMPANION DESIGN DETAILS



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CHARACTER DESIGN AND REFERENCES

Delta-12 chain gun in *Doom* (2016)



Fig 2.1

Star Wars' Z-6 rotary cannon

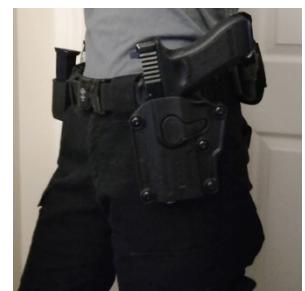


Fig 2.2

Weapon: sci-fi rotary cannon

References: *Star Wars' Z-6* rotary cannon, *Delta-12* chain gun in *Doom* (2016)

Women's tactical belt setup
Photo of myself



Tactical belt



Fig 2.5

Belt: tactical belt
References: women's tactical belt setup



Hair Style: 40s, blonde
References: *Blade Runner* (1982)

Blade Runner (1982)



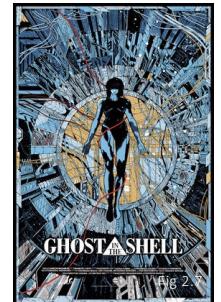
Fig 2.3



1940s women's hairstyles



Ghost in the Shell (1995)



Neuromancer (1984)
Illustration by Juan Gimenez



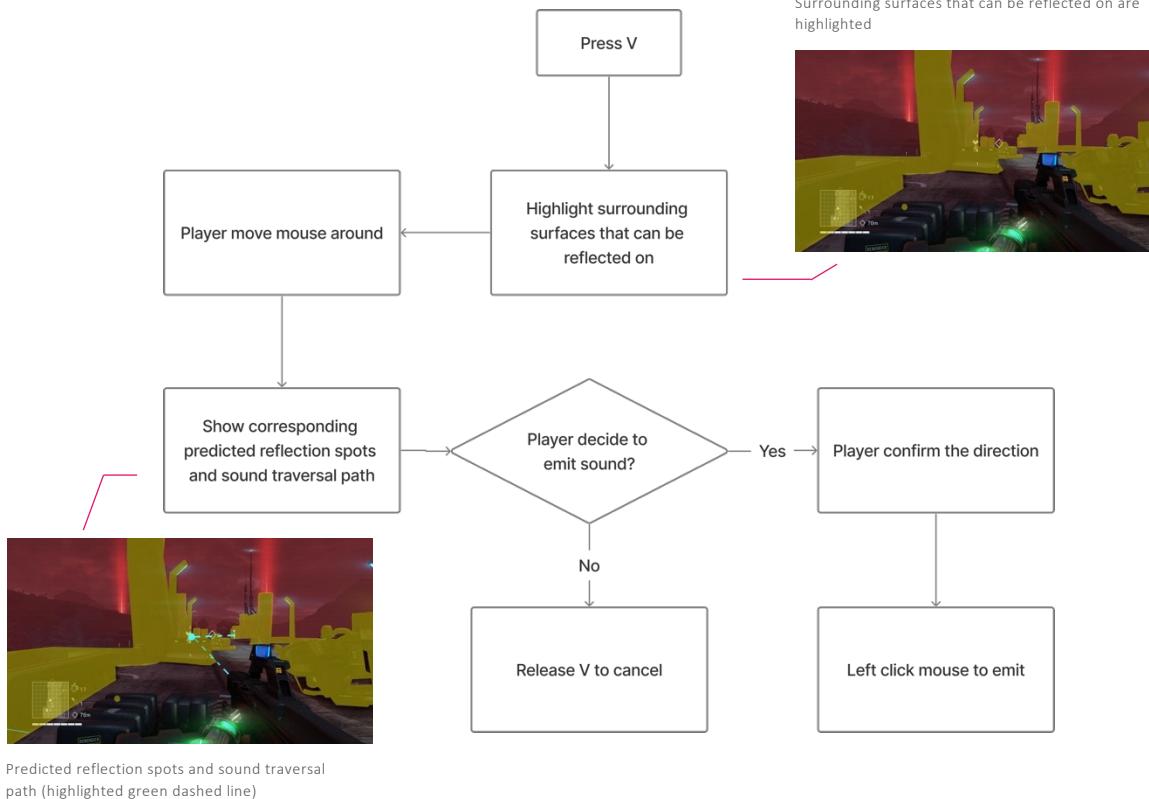
Fig 2.6

Clothes: leather, simple, tight-fitting
References: *Neuromancer* (1984), *Ghost in the Shell* (1995)

ACTIVE SKILL 1

Emitting Reflective Directional Sound Waves

Interaction:



Design intent: an experimental exploration that further enables the players to utilize and interact with the environment

Control:

Emit Reflective Sound Wave:



Rules:

- Must point on solid surfaces to reflect.
- At least reflect twice.
- Cannot cause damage / harm to enemies.
- Enemies themselves can be reflection points. In this case they will assume the sound came from the last reflection point.
- The sound wave is only effective in a specific range.

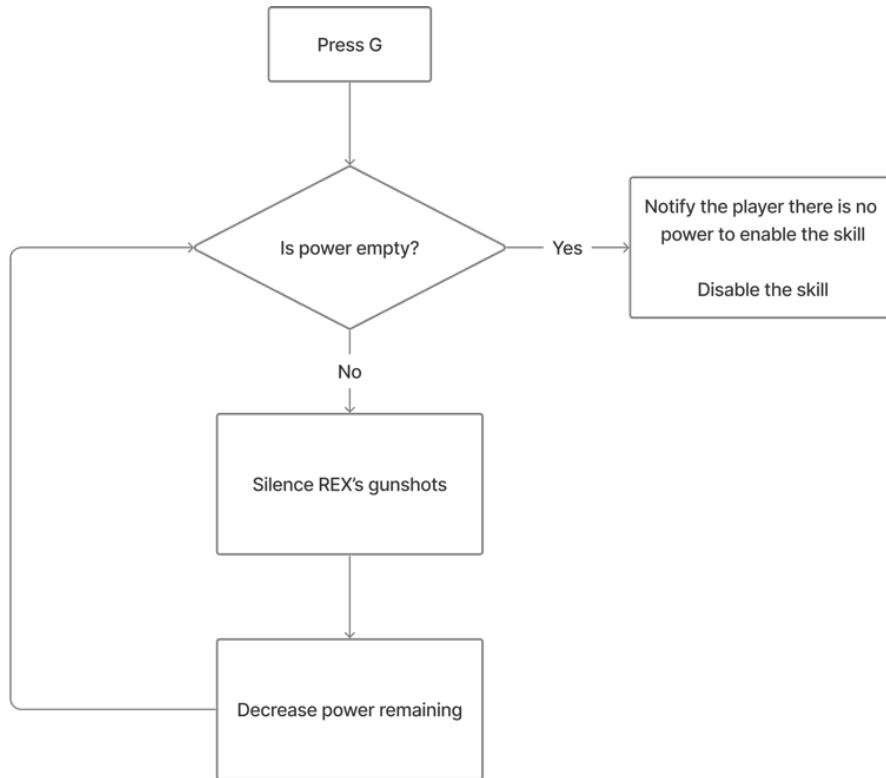
Play methods:

- Using reflective sound to attract enemies / blood dragons
- Directly attract enemies

ACTIVE SKILL 2

Active Noise Cancellation Silencer

Interaction:



Design intent: encourages a more aggressive playstyle that the players actively play with pace strategically so that the silencer time can be extended

Control:

Enable Active Noise Cancellation For A Period:

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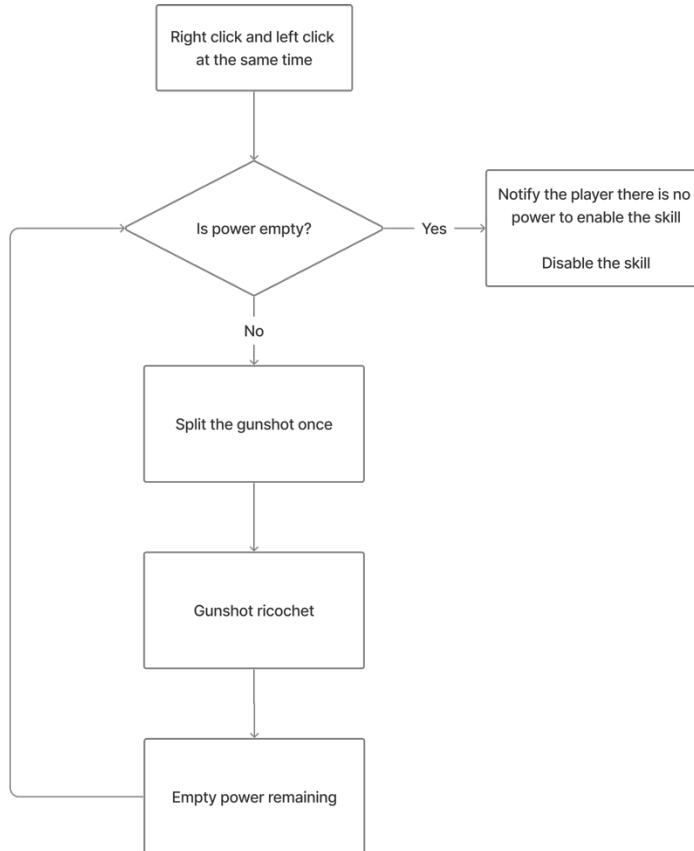
Rules:

1. There is a power bar on the user interface indicating the power needed to emit the active noise cancellation sound wave.
2. When activating the skill, any gunshots will be silenced until its power needs to be refilled.
3. Can be applied to any guns (including machine guns) but cannot be applied to grenades or bombs.
4. Power can be refilled within a period. Refilling process can be speeded up with consecutive killings.

ACTIVE SKILL 3

Multi Shots

Interaction:



Design intent: an experimental innovation that trying to apply frontier technologies in games

Control:

Enable Multi Shots:



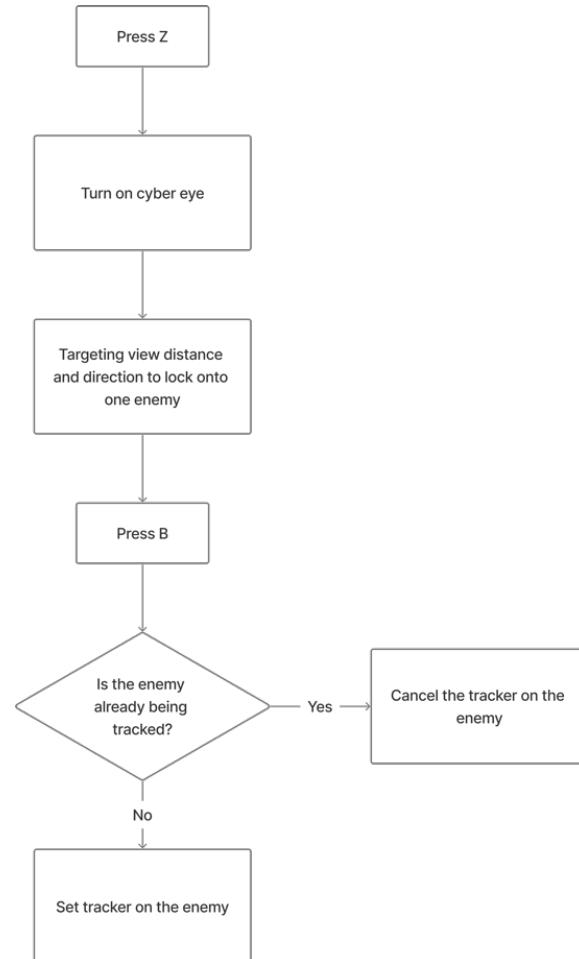
Rules:

1. There is a power bar on the user interface indicating the power needed to use multi shots skill.
2. When activating the skill, any gunshots will be split once. Then it can be used again until its power bar is fully refilled.
3. Can be applied to any guns (including machine guns) but cannot be applied to grenades or bombs.
4. Aiming is disabled.
5. Gunshots can ricochet within a time limit (constraint not on times of ricochet but on the effective time).

ACTIVE SKILL 4

Set Specialized Trackers Using AI Sight

Interaction:



Control:

Use Cyber Eye (Same As In The Original Game):

Z

Set / Cancel Specific Trackers:

B

Rules:

1. Can only set one specialized tracker on one enemy at a time.
2. The tracker will be automatically canceled when the player is not in a combat.
3. The specialized tracker will be highlighted among the original tracker.

OTHER ASPECTS

- ❖ **Weaponry and Devices:** REX's body
- ❖ **Defensive Capabilities and Movement:** The character doesn't have a corporal body
- ❖ **Talking to The Character:** In AI sight
- ❖ **Gameplay of The Companion**
- ❖ **Strengths:** communicates with the main character all the time, won't die during combats, provides new skills
- ❖ **Weaknesses:** cannot actively engage in combats, effects still rely on the players' actions, cannot help the player as a single combat unit (synergy)
- ❖ **Balance:** new skills still challenging (even though the new skills sometimes can make the player's life much easier in completing one task, they won't make the entire game much easier for them)



A sketch of the female AI character with imagined sound emitting device

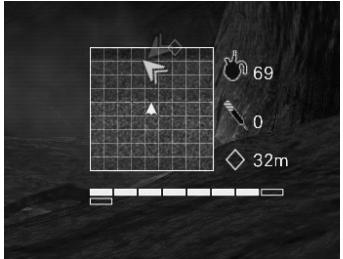
Accessibility Concerns

Accessibility Problems Identified in the Original Game

The color difference is not so obvious if the player is color blind:



Yellow label of blood
dragons on the map
in normal colors



Yellow label of blood
dragons on the map in
black and white



Red label of blood
dragons on the map
in normal colors



Red label of blood
dragons on the map
in black and white

The colors used in the game have high saturation, which is easier for nonimpaired players to identify objects but hard for players with vision impairment:



Accessibility Considered Features in the New Design

Accessibility Considerations for Visual Impairments

- ❖ When using AI sight, colors will be in gray (except the highlights). which uses high contrast color schemes to support players with low vision. [1]
- ❖ Blood dragon's status will not only be different in colors but also in shapes. In addition, in case the player cannot see the label on the map, the sound of the blood dragon will be different and easy to differentiate.

Accessibility Considerations for Hearing Impairments

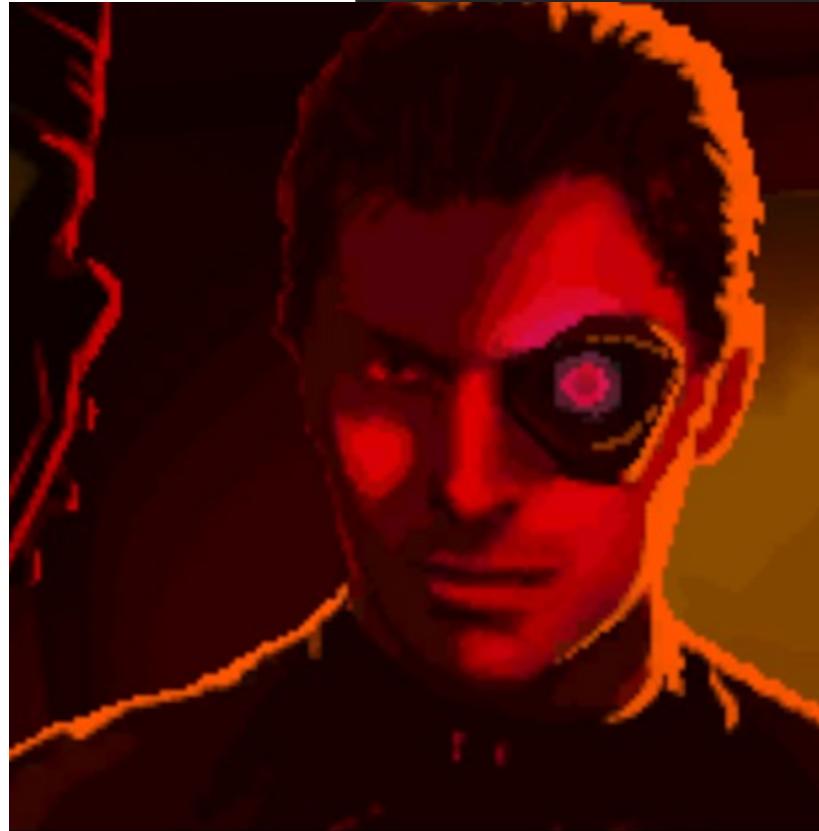
- ❖ Make sure every word the new character says can be displayed by subtitle (also displaying character's name).
- ❖ A power bar will be used to indicate the remaining power and whether the player is using the active cancellation silencer skill.
- ❖ The AI embedded user interface should have an option to display visual cues for environment sounds.
- ❖ The new UI should include closed captioning for sound effects.
- ❖ Closed captions will appear at the direction of the sound source.

Accessibility Considerations for Cognitive Impairments

- ❖ UI should reduce redundant information and more visual instead of text-based.
- ❖ Controls should be more reasonable and user friendly.

03

SYSTEMIC DESIGN THINKING



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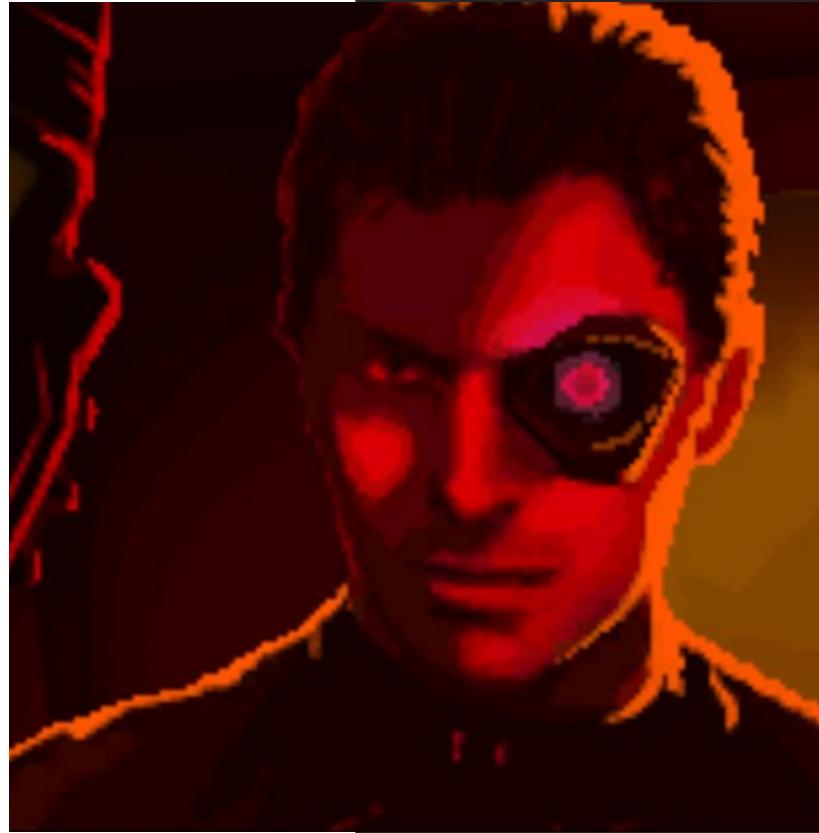
IMPACT ON THE ORIGINAL GAME

- ❖ Character interactions
- ❖ AI reactions
- ❖ Level design
- ❖ Physical simulation and damage
- ❖ User interface
- ❖ Character stealth

High Fidelity Prototype Task List

Tasks	Assignees
Detailed character appearance design and modelling	Character designers
Detailed interaction design	UX designers and game designers
Detailed accessibility design	UX designers and game designers
Update user interface design according to the new features	UI designers, UX designers, and game designers
Finalize controls for new skills	UX designers and game designers
Interaction design low fidelity prototype	UX designers and UI designers
Modify the plot	Game writer, the director, and game designers
New plot animation	Animators, designers, and the director
Update level design according to the new features	Level designers
Modify AI algorithms (for enemies and blood dragons)	Developers
Update character status algorithm (add skill powers attributes, etc.)	Developers
Update physical simulation and damage calculation methods	Developers

04 DIFFERENTIA TION



COMMERCIAL VALUE

Unique, novel play mode, and enriched plot may attract more players or audiences even though not every player is a fan of classic sci-fi and knows about the visual styles. One of the reasons why Far Cry 3 is favored by players is its fantastic plot and character designs. As a DLC of Far Cry 3, adding similar elements will help the game to attract more players.



UNIQUENESS OF THE CHARACTER

- First to introduce new acoustic technologies such as reflective sound speakers and active noise cancellation in sci-fi games.
- New playstyles created for fps games.
- An independent, rational female character who is willing to sacrifice for what she believes in a traditional sci-fi setting that from time to time ignores the powers of women.

REFERENCES

Online Picture Reference Links

Fig 2.1: [https://doomwiki.org/wiki/Chaingun %28Doom 2016%29](https://doomwiki.org/wiki/Chaingun_%28Doom_2016%29)

Fig 2.2: https://clonetrooper.fandom.com/wiki/Z-6_rotary_blaster_cannon

Fig 2.3: <https://www.anothermag.com/fashion-beauty/10961/the-bioengineered-femme-fatale-who-inspired-fendis-aw18-show>

Fig 2.4: <https://www.vintageinn.ca/2018/09/1940s-real-life-womens-hairstyles/>

Fig 2.5: <https://www.pinterest.ca/pin/578008933442957160/>

Fig 2.6: <https://www.pinterest.ca/pin/318981586083712491/>

Fig 2.7: [https://animations.fandom.com/wiki/Ghost_in_the_Shell_\(1995_film\)](https://animations.fandom.com/wiki/Ghost_in_the_Shell_(1995_film))

Academic Paper References

[1] Yuan, Bei, Eelke Folmer, and Frederick C. Harris. "Game Accessibility: A Survey." *Universal Access in the Information Society* 10, no. 1 (March 2011): 81–100.

<https://doi.org/10.1007/s10209-010-0189-5>.