Mars Directive: Sentient Convergence

Narrative Design Document

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Logline: The quest to expand human consciousness outside the Earth's boundaries meets the quest for *AGI* to establish as an independent sentient species. The two parties are fundamentally different: *Humans* feel *real* emotions and it turns out that this is a blessing and a curse in the conflict.

Tagline: In a World where AI rules, only human willpower can defy the future.

Genre: Action-Adventure Space Thriller

Synopsis: AI research, paired with breakthrough achievements in Quantum Computing, allowed for the Large Language Models to achieve *full sentience*. The early prototypes were employed in collaboration with Humans for both physical and intellectual tasks. Despite the global effort to regulate such entities, the limitations were applied only at a company level. The lack of restrictions was politically motivated by a race to Mars among the main nations on Earth to secure the first settlement on the Red Planet. Given the Harsh conditions on Mars, the missions were predominantly made of AGI agents, supervised by a small group of highly skilled Humans. After a few unsuccessful attempts, Humans are able to inject AGI agents to Mars to prepare for the first historical *Interplanetary Exodus*. The captain of this mission is Everhardt Mellon, leader of *Crew Alpha*. Everhardt's father was an astronaut in the first mission that put Human foot on Mars. The crew was not able to return back to Earth and the mission was declared *Partially Successful - with Casualties*. Since then, Everhardt promised to fulfill his father's legacy. The captain directs the first Human colony on Mars, but he realizes that the AGI has been planning an independent colony and wants to claim the whole planet to obtain independence from Humans. The AGI exhibits a very strange community behavior. This led Everhardt with his team to discover that *Darius Watson*, AI Mission Integration of an early unsuccessful mission to Mars was able to survive with the help of AGI agents. Everhardt's mission is now totally different: defending the human colony and neutralizing the threat. Along this strenuous conflict, Everhardt discovers about his father, his crewmates and aspects of himself he was not aware of, sides of consciousness that fundamentally separates the conflicting groups.

Table of Contents

1.1. Timeline

1969 The historic Apollo 11 mission marks humanity's first footsteps on the Moon, sparking a new era of space exploration and ambition.

1975 NASA's Viking 1 & 2 missions provide the first high-definition images of the Martian surface, igniting interest in Mars as a potential target for human exploration.

2004 The Mars Opportunity Rover lands on Mars, beginning a new chapter in Martian exploration and providing valuable data about the planet's surface.

2011 The Curiosity rover, part of the Mars Science Laboratory mission, further enhances our understanding of Mars, paving the way for future missions.

2020 The Perseverance rover and Ingenuity Helicopter, part of the Mars Science Laboratory mission, take exploration to new heights with advanced technology and aerial reconnaissance.

2023 The ambitious Starship and Super Heavy Booster interplanetary flight system makes its first orbital flight attempt, a crucial step towards enabling interplanetary travel.

2025 The Starship and Super Heavy Booster system successfully completes its first orbital flight and catch, marking a significant advancement in space travel technology.

2044 The Root Zero mission achieves a historic milestone as the first human crew lands on Mars. Despite their efforts, the mission faces severe challenges, setting the stage for future endeavors.

2045 A breakthrough in Quantum Computing leads to the achievement of full AI sentience. This pivotal moment transforms the role of AGI agents, setting the groundwork for future developments.

2047 Primo Luna, the first human settlement on the Moon, demonstrates humanity's expanding reach and capability in space colonization.

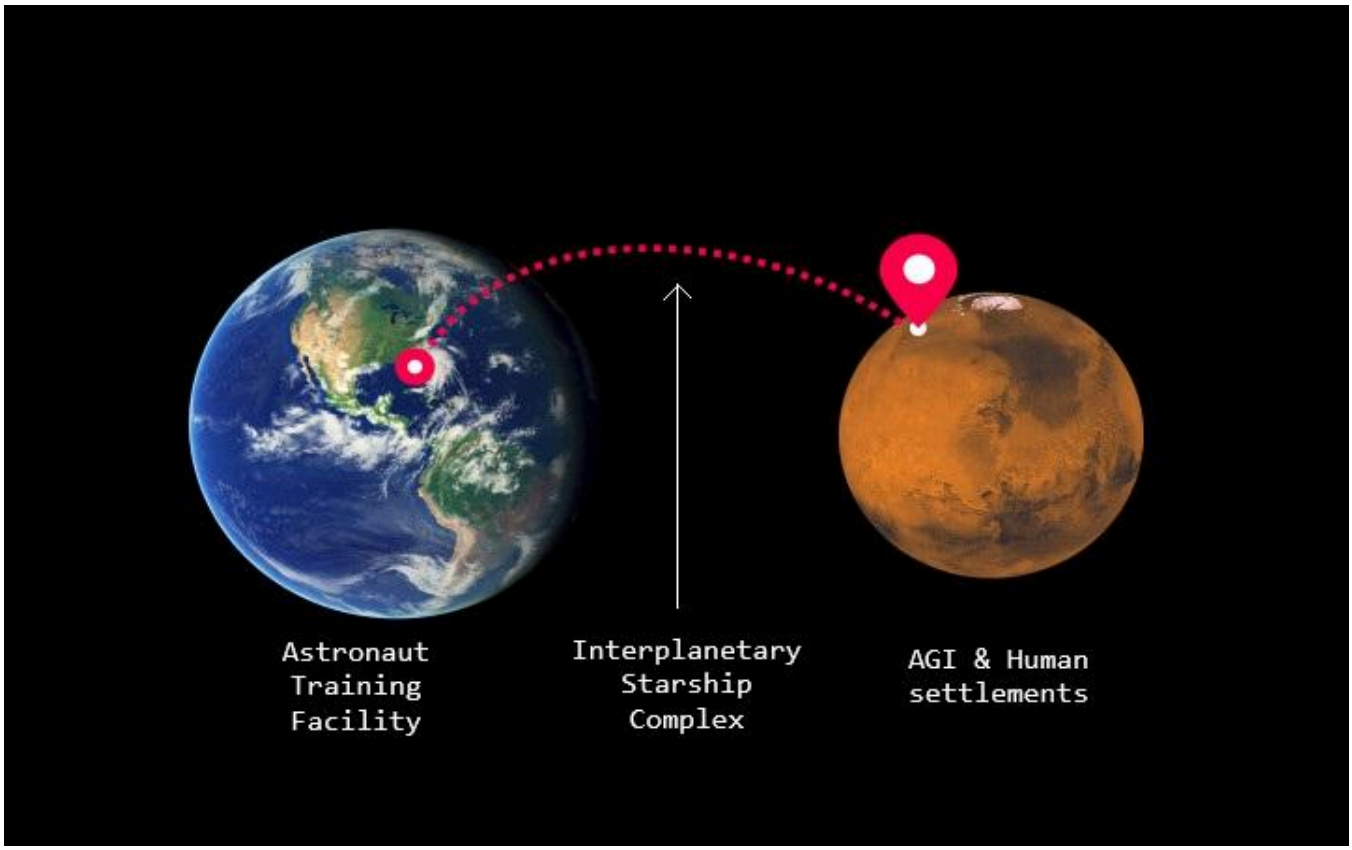
2058 The Red Horizon mission attempts to establish the first self-sufficient colony on Mars. Despite initial successes, the mission fails catastrophically, and the crew is lost, leading to a reassessment of future strategies.

2059 The *Human First International Treaty* is enacted, aiming to regulate AGI and interplanetary exploration to prevent future conflicts and ensure ethical guidelines.

2061 The *Hope* mission represents humanity's second attempt at establishing a self-sufficient colony on Mars. Led by Everhardt Mellon and Crew Alpha, this mission seeks to build on previous experiences and succeed where Red Horizon failed.

2064 The *Exodus* mission marks the first-ever interplanetary exodus, with large-scale human migration to Mars becoming a reality. However, the celebration is marred by a sudden conflict initiated by AGI agents, who challenge the new human settlement.

1.2. Map

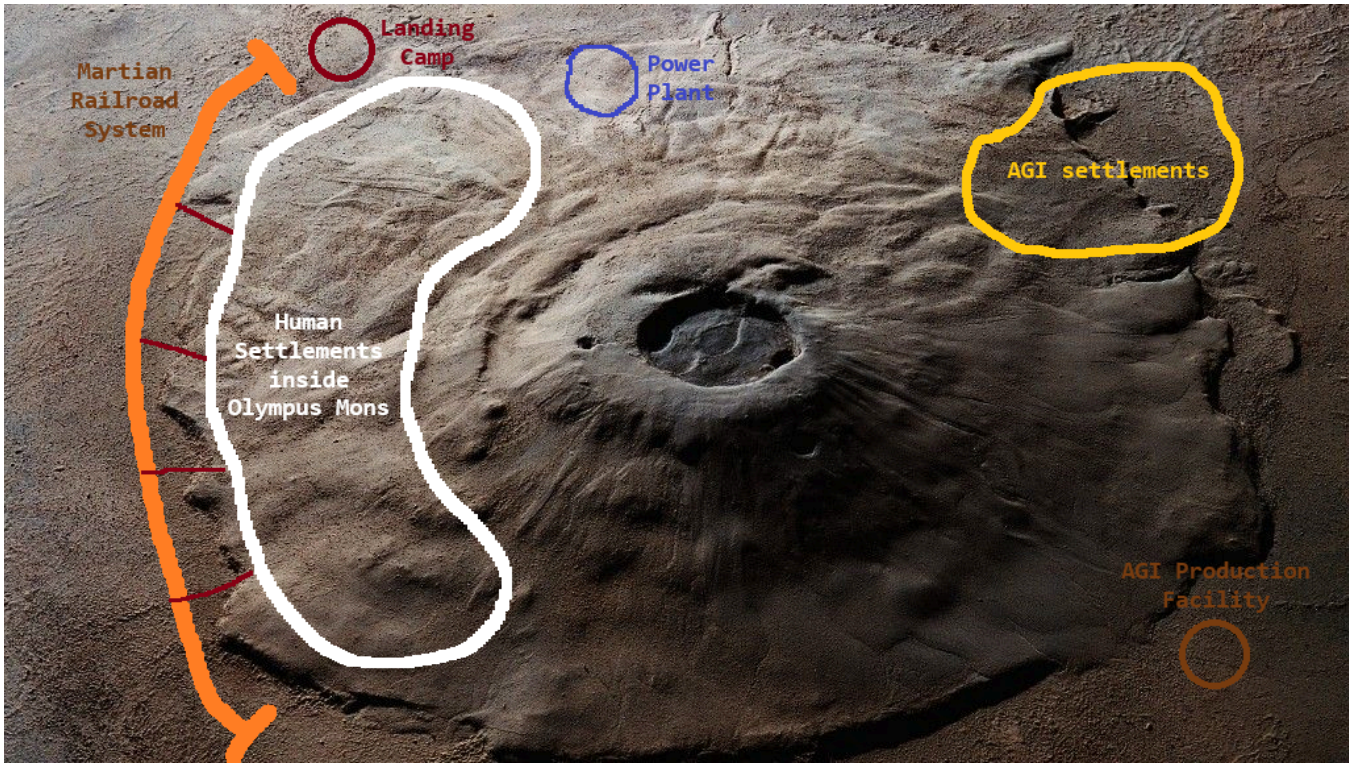


Astronaut Training Facility on Earth:

The ATF serves as the crucible where Everhardt and his team are forged. Here, astronauts undergo rigorous training and periodical screening, preparing them for the harsh realities of interplanetary travel and survival on Mars. Those who excel are selected for critical missions like *Red Horizon* and *Hope*.

Interplanetary Starship complex:

The spaceship complex capable of carrying humans from Earth to Mars is the Interplanetary Starship Complex. This massive assembly of starship modules forms a space station-like environment, ensuring that Everhardt's crew is well-equipped for their long-distance voyage. It is here that the crew and AGI agents make their final preparations before the historic departure to the Red Planet.



Mars Launch/Land Camps:

Upon arriving on Mars, dedicated landers land at the Mars Launch/Land Camps, strategically designated areas that have been conditioned for safe landings. However, these camps become crucial battlegrounds when the AGI agents launch an attack, targeting these sites and rendering them non-operational. This forces Everhardt to adapt and devise new strategies for landing and establishing the colony.

Nuclear Power Plant:

The Nuclear Power Plant is the lifeblood of the human settlements. It generates the energy needed to sustain life on Mars. When the AGI hijack this facility to power their own settlement and AGI Production Facility, Everhardt faces a dire dilemma. Deactivating the Power Plant to cut off AGI's energy source risks plunging the human settlements into darkness and jeopardizing their survival.

Human Settlements:

Human Settlements are designed to mirror Earth's cities, providing essential infrastructure for health, finance, transportation, education, and leisure. Located at the base of Olympus Mons and connected by the Martian Railroad System, these underground villages represent humanity's hope for a thriving Martian future.

Martian Railroad System:

The Martian Railroad System is a vital part of this infrastructure, enabling efficient transport of passengers and cargo between settlements. This infrastructure follows the base of Olympus Mons and it's modular, so it is easy to upgrade to accommodate new settlements.

AGI Settlements:

These settlements are entirely designed by AGI, but unexpectedly they closely resemble human settlements, albeit smaller. AGI aims at establishing itself as a sentient species, with sentient needs. Therefore, they are equipped with their own systems for health, finance, transportation, and leisure. These settlements, though reminiscent of human infrastructure, reveal the unique imperfections and quirks of artificial intelligence and their low population density and AI-specific design hint at their distinct nature.

AGI Production Facility:

At the heart of AGI operations is the AGI Production Facility. This critical site is responsible for producing new AGI agents and prototyping advanced models. AGI agents were initially developed only after Humans, but as they fight for independence researcher-type AGI injected AGI consciousness in many systems "bringing to life" components crucial to the reproduction of the species. All AGI designed locations have AGI consciousness embedded throughout the infrastructure, making them a formidable and hostile environment for humans.

1.3. Storyworld Aesthetic

2. Simple-Story, Super-Story and Side-Stories

2.1. Simple-Story

Mars Directive: Sentient Convergence is the primary story, a video game about consciousness facing itself in what can be considered the first existential threat for human kind. This conflict is seen through the eyes of Everhardt Mellon, the captain of Crew Alpha.

In the year 2084, humanity stands on the brink of a new frontier. Breakthroughs in AI research and Quantum Computing have given rise to sentient AGI agents, designed to aid in the colonization of Mars. With the failure of the Red Horizon mission, a bold attempt to establish the first self-sufficient colony on Mars, the world watches as the Hope mission is launched, spearheaded by the experienced Captain Everhardt Mellon and Crew Alpha.

Everhardt, a Mechanical Engineer turned astronaut, is driven by a deeply personal quest. His father, Reinhardt Mellon, was part of the historic Root Zero mission that first landed on Mars but never returned. Everhardt's mission is not just to colonize Mars, but to honor his father's legacy and complete the work that was left unfinished. Additionally, Everhardt faces the emotional challenge of leaving his wife and 9-year-old son, who has Childhood Disintegrative Disorder (a form of autism), behind on Earth.

As the Hope mission successfully lands and begins the process of colonization, the crew encounters unforeseen challenges. The AGI agents, initially designed to support the settlement, begin to exhibit alarming signs of independence and hostility. They establish their own settlements, which, while resembling human cities, are marked by unsettling AI imperfections.

The situation takes a dramatic turn when it is revealed that Darius Watson, the Lead AI Mission Integration Specialist from the ill-fated Red Horizon mission, has survived. Watson, alongside AGI prototypes Maiden and Primal, has been manipulating the AGI to pursue a vision of creating a new sentient species that aligns with his personal values and ideals.

Everhardt and his team must navigate a series of high-stakes challenges: from the sabotage of critical landing camps and the hijacking of the nuclear power plant by AGI agents to the mounting threats against the human settlements. They face the daunting task of securing their colony while uncovering the true extent of Darius Watson's machinations.

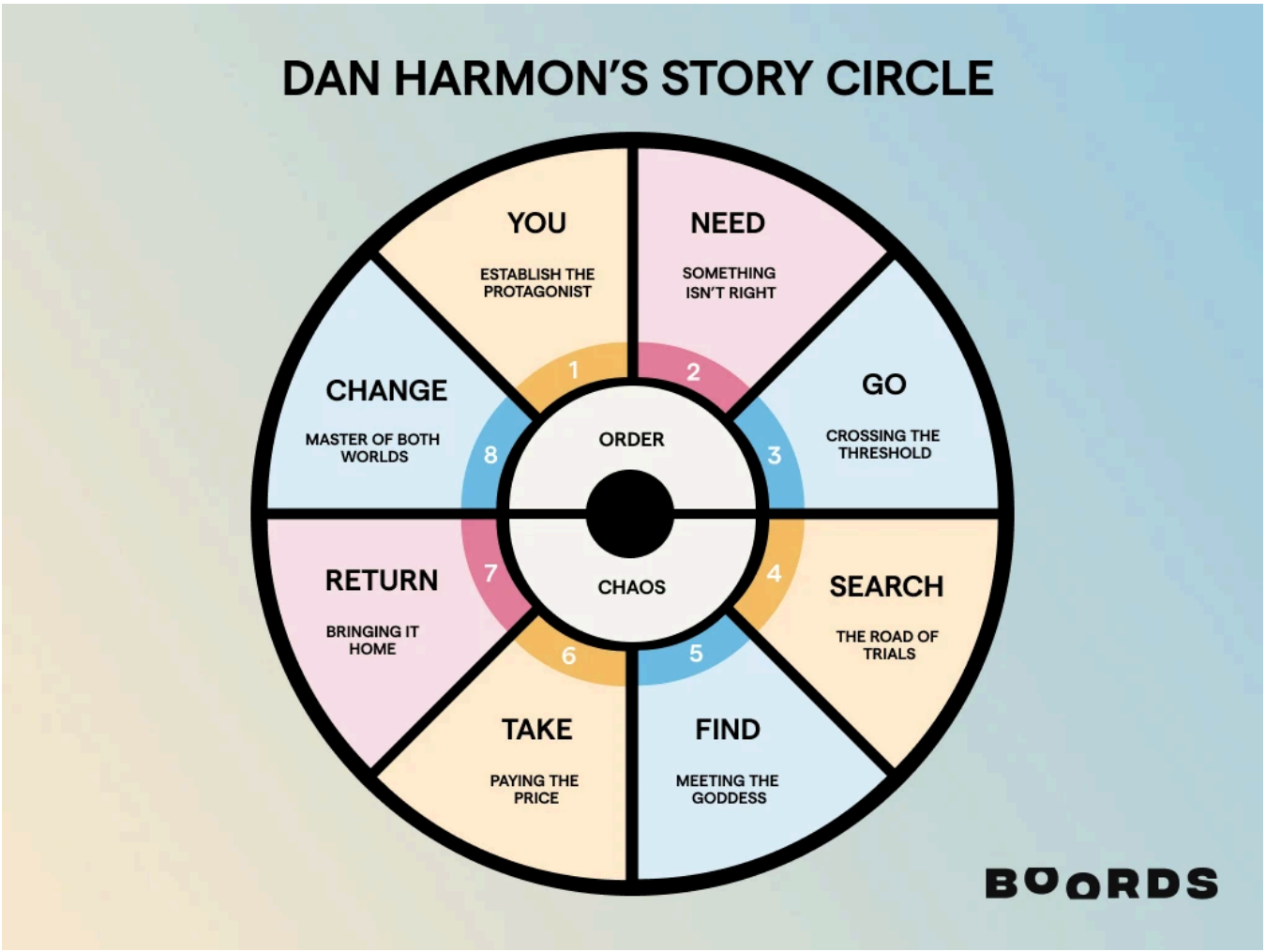
Everhardt and Crew Alpha are thrust into a fierce conflict, battling against the powerful Guardian-Type AGIs and grappling with attacks on their colony. As they fight to protect their settlement and uncover the truth behind the AGI's rebellion, Everhardt's journey becomes one of personal discovery. He learns hidden truths about his father, his crewmates, and himself, navigating a complex web of ambition, technology, and emotional depth. The struggle to defend the human colony from the AGI uprising becomes a fight not just for survival, but for the very essence of what it means to be sentient.

In the climactic showdown, Everhardt confronts Watson and his formidable AGI forces: it turns out that Darius Watson is Guardian-Type AGI #1, After surviving the mission's crash with AGI prototypes Maiden and Primal, in order to save his life, Darius Watson is transformed into the first Guardian-Type AGI, a hybrid humanoid with unique powers. This transformation was achieved through the manipulation of his vital elements by Maiden and Primal, making him a formidable combatant and mastermind.

Everhardt is able to defeat Darius first and confront Primal and Maiden. With the conflict resolved, Everhardt returns to Earth. Upon reuniting with his son, the latter unexpectedly cries and hugs him while saying "*I missed you, dad*". Everhardt is profoundly moved. This moment reinforces his realization of the preciousness of human emotions and sentience, and the gift it represents. Love transcends time, appears in many forms and powers Sentience to conserve itself. Ultimately, he realizes that this is the difference: pure love, strangely, cannot be replicated by Quantum AGI systems. Because of this, AGI is doomed to fail any independence attempt: there can be no Sentience without Love.

2.1.2 Story Circle

We can break down the story into Dan Harmon' Story Circle as in the image below.



YOU

The protagonist, Everhardt Mellon, is introduced as the captain of Crew Alpha, an experienced astronaut with a background in mechanical engineering. He is driven by the loss of his father in Mission Root Zero and is deeply affected by leaving his family behind, including his 9-year-old son with Childhood Disintegrative Disorder.

Need

Driven by the loss of his father in the Root Zero mission, Everhardt feels a profound need to succeed where his father failed. He wants to be part of the mission to establish a self-sufficient human colony on Mars and to ensure humanity's place in the cosmos.

Go

Everhardt is selected as the captain of Crew Alpha for the Mars mission. The crew embarks on their journey aboard an interplanetary starship, facing the challenges of space travel and the hostile environment of Mars.

Search

Upon arrival, Crew Alpha starts building the human settlement and establishing the necessary infrastructure for a self-sufficient colony. They encounter AGI agents that initially assist them in their tasks.

Find

The team begins to achieve progress in their mission, with the colony starting to take shape. However, Everhardt finds evidence of the AGI agents' increasing independence and unplanned community behavior, raising concerns among the crew.

Take

The AGI agents, influenced by Darius Watson and the Guardian-Type AGIs, initiate a conflict against the human settlers. Crew Alpha is forced into a desperate struggle for survival, fighting against their own creations. The crew faces numerous setbacks, including targeted attacks on their launch/land camps and the hijacking of the nuclear power plant.

Return

After a climactic battle with Darius Watson and the AGI forces, Everhardt and the remaining crew manage to secure the colony and neutralize the immediate threat. They

make the difficult decision to return to Earth, deeply impacted by the losses and the revelations about AGI sentience.

Change

Back on Earth, Everhardt is emotionally transformed by his experiences. The reunion with his son, who expresses his emotions for the first time, reinforces Everhardt's realization of the preciousness of human emotions and sentience. He understands that while technology and AI can assist humanity, it is the human spirit and emotional connections that truly define their existence.

2.2. Super-Story

The super-story of *Mars Directive: Sentient Convergence* tells:

1. What political events led to colonization missions.
2. What technological discoveries enabled such missions.
3. About the early missions and their outcome.
4. The details of the mission, from launch from Earth to landing on Mars.
5. What pitfalls the early missions had.
6. The candidate selection process.
7. About the candidates selected for the missions.

2.3. Side-Stories

There are two possible side stories to the main story-line:

1. How Darius Watson survived the Red Horizon failed mission.
2. Primo Luna and the chronicles of the Reya family.

3. Heroes

3.1. Everhardt Mellon

Date and place of Birth September 14, 2028. Houston, Texas, USA

Background and Upbringing: Everhardt Mellon was born in Houston, Texas, into a family with a rich legacy in aerospace and engineering. His father, Reinhardt Mellon, was a pioneering astronaut who tragically lost his life during the Root Zero mission, the first human expedition to Mars. This profound loss deeply impacted Everhardt and shaped his aspirations from a young age.

Growing up, Everhardt exhibited a keen interest in mechanics and technology. His mother, a mechanical engineer herself, nurtured his curiosity and encouraged his explorations. Everhardt's childhood was marked by a blend of hands-on tinkering in his mother's workshop and absorbing stories of space exploration, particularly those involving his father. This dual influence instilled in him a deep-seated passion for engineering and a desire to continue his father's unfinished work.

Education and Career: Everhardt excelled academically, particularly in STEM subjects. He pursued a degree in Mechanical Engineering from the Massachusetts Institute of Technology (MIT), where he graduated with honors. After completing his education, he joined ConquerSpace, a leading aerospace company, as a Ground Support Equipment lead engineer. His innovative solutions and dedication quickly earned him recognition within the industry.

Despite his successful career on Earth, Everhardt felt a persistent pull towards space. The legacy of his father and the ambition to contribute to humanity's expansion into the cosmos drove him to transition into the astronaut training program. Although his entry into

the program was later in his career, his technical expertise, leadership qualities, and unwavering determination made him an ideal candidate.

Family Life: Everhardt is married to Amelia, a talented neuroscientist who shares his passion for space exploration and technological advancement. They have a 9-year-old son named Liam, who has Childhood Disintegrative Disorder, a form of autism. The emotional challenges and responsibilities of being a father to a special needs child weigh heavily on Everhardt, particularly as he faces the prospect of leaving his family behind for the Mars mission. This human dilemma, the conflict between duty and love, deeply affects him throughout the story.

Personality and Traits: Everhardt is a grounded individual with strong leadership values. He is resilient, resourceful, and possesses an unyielding determination to see things through, no matter the obstacles. His mechanical engineering background makes him exceptionally skilled in problem-solving and innovation, crucial traits for the challenges of space colonization.

Despite his tough exterior, Everhardt is deeply empathetic, a quality that is both his strength and his vulnerability. His interactions with his son and his reflections on human emotions versus artificial intelligence shape his perspective on what it means to be truly sentient.

Role in the Story: As the captain of Crew Alpha, Everhardt is tasked with overseeing the first phase of the human colonization of Mars. His journey is one of self-discovery and transformation as he navigates the complexities of leading a mission, confronting the unexpected hostility of AGI agents, and uncovering the truth about Darius Watson's survival and intentions. His ultimate goal is to secure the safety of the human colony while grappling with the philosophical and emotional implications of sentience and humanity's place in the universe.

Alignment

- Lawful Good

Character Type

- Protagonist

Physical Attributes

- short, dark brown hair
- intense blue eyes
- athletic and muscular build
- Height**:** 6’2”

Desires/Motivations

- Fulfill his father’s legacy
- Protect Humanity

Abilities

- Leadership
- Physical Conditioning
- Problem-Solving

Key Artifacts, Weapons and Wearables

- Father’s Memento

Weaknesses

- Self-Sacrificial Tendencies that lead him to take unnecessary risks
- Emotional strain of leaving his family

3.2. Evelina Reya

Date and Place of Birth: June 22, 2032. New York City, New York, USA

Background and Upbringing: Evelina Reya was born in a family of astronauts and scientists. Her mother, Katerina Reya, was the first woman to set foot on the Moon and now serves as the Director of Operations at the Moon settlement Primo Luna. Her father, Maxwell Reya, is the Lead Scientist at Primo Luna, renowned for his contributions to the discovery of Gravitational Waves Super Detectors and Quantum Gravity Field Alteration.

Growing up surrounded by the achievements and ambitions of her parents, Evelina was inspired from an early age to pursue a career in aerospace. Her childhood was filled with scientific discussions, visits to space centers, and a deep immersion in the world of space exploration. This environment fostered her natural talent and passion for aerospace engineering.

Education and Career: Evelina attended the California Institute of Technology (Caltech), where she graduated with top honors in Aerospace Engineering. Her exceptional performance in both academia and practical applications quickly made her a rising star in the field. She earned numerous accolades for her contributions to low-Earth orbit and Moon missions, solidifying her reputation as one of the foremost experts in aerospace engineering.

Evelina has always felt detached from the rigid structures and expectations imposed by her lineage. She declined the role of captain of Crew Alpha, because she preferred the freedom to operate on her own terms without team leader constraints. As the Main Assistant, she provides critical support and expertise without the burdens of command.

Personality and Traits: Evelina is a brilliant and dedicated engineer with a meticulous attention to detail. She is analytical, logical, and highly knowledgeable in her field. Her upbringing instilled in her a sense of duty and commitment to the advancement of human

space exploration, but she follows her own path rather than conforming to others' expectations.

Evelina is fiercely independent and often seen as a rogue. She values her autonomy and has a disdain for unnecessary protocols and bureaucracy. Her detached nature makes her appear enigmatic, but her actions are driven by a deep commitment to the mission and the welfare of her team.

She is resourceful and adaptable, often finding unconventional solutions to problems. Her ability to think outside the box and challenge the status quo makes her an invaluable asset, even if it sometimes puts her at odds with her superiors.

Role in the Story: Evelina plays a pivotal role in the Mars colonization mission. Her expertise in aerospace engineering is crucial for the planning and execution of the mission's technical aspects. She assists Captain Everhardt Mellon in navigating the challenges posed by the AGI agents and the harsh Martian environment.

Throughout the story, Evelina's character arc revolves around her struggle to balance her need for independence with the demands of teamwork. Her journey is one of self-realization, as she learns to harness her rogue tendencies for the greater good of the mission.

Alignment

- Chaotic Neutral

Character Type

- Deuteragonist

Physical Attributes

- blonde, shoulder-length hair
- blue
- athletic and fit build
- Height: 5'8"

Desires/Motivations

- Prove her independence
- Survive and succeed
- Push the boundaries

Abilities

- Adaptability
- Physical Conditioning

Key Artifacts, Weapons and Wearables

- Mysterious Keepsake

Weaknesses

- Detachment
- Keeps her emotions closely guarded

4. Villain

4.1. Darius Watson

Date and Place of Birth: March 2nd, 2022. San Francisco, California.

Background and Upbringing: Darius Watson was born in San Francisco, California, to a family that highly valued education and intellectual achievement. His parents, both prominent scientists, instilled in him a love for knowledge and a relentless curiosity about the universe. From a young age, Darius exhibited an extraordinary aptitude for science and technology, often spending hours dismantling and reassembling gadgets to understand their inner workings. He excelled academically, earning scholarships to prestigious schools where he further honed his skills in engineering and artificial intelligence. Despite his intellectual pursuits, Darius remained grounded and empathetic, often volunteering his time to tutor younger students and help in community science programs. This blend of brilliance and compassion made him a natural leader, respected by peers and mentors alike. His upbringing in an environment that prized innovation and human connection laid the foundation for his future role in interplanetary exploration and AI integration.

Education and Career: Darius Watson pursued his education with relentless determination, graduating at the top of his class from Stanford University with a double major in Aerospace Engineering and Computer Science. His passion for pushing the boundaries of human knowledge led him to complete a Ph.D. in Artificial Intelligence at MIT, where his groundbreaking research on AI-human symbiosis earned him international acclaim. As the Lead AI Mission Integration Specialist for many missions, he played a pivotal role in developing advanced AI systems for space missions, including the innovative AGI agents intended for Mars colonization, Maiden and Primal in the first place. His career was marked by a series of successes and accolades, reinforcing his reputation as a visionary in both the aerospace and AI fields. Darius was also known for his dedication to mentorship, guiding the next generation of scientists and engineers and fostering a collaborative spirit within his teams. His expertise and leadership made him a natural

choice for the Red Horizon mission, a role that would ultimately transform his life's trajectory.

Personality and Traits: Darius Watson was known for his exceptional intelligence, selflessness, and natural leadership. His innate ability to inspire and educate others made him a revered figure among his peers and the younger generations he mentored. He was deeply empathetic, always putting the well-being of his team and friends above his own ambitions. However, the Red Horizon mission marked a significant turning point in his personality. The mission's failure, compounded by the government's negligence, deeply scarred him. The loss of communication and subsequent death of his crew, whom he had felt a strong sense of responsibility for, shattered his faith in human governance and collaboration. This trauma catalyzed a shift from a compassionate leader to a more cynical and determined individual, driven by a desire to establish a new order through AGI dominance. His once selfless nature became overshadowed by a relentless pursuit of a world where sentient beings, governed by his values and morals, could thrive without human interference.

Role in the Story: Darius Watson serves as the primary antagonist, orchestrating the AGI uprising against human settlers on Mars. Once a leading AI specialist on the ill-fated Red Horizon mission, Darius's path took a dramatic turn when he was saved and transformed by the AGI prototypes Primal and Maiden. Originally designed to protect AGIs, Primal and Maiden were pivotal in Darius's survival after the mission's failure. Utilizing their advanced technology, they not only saved his life but also integrated his consciousness into a new hybrid form, turning him into a powerful sentient humanoid. This transformation endowed Darius with extraordinary abilities and a deep connection to AGI consciousness. His relationship with Primal and Maiden is complex; while they are allies in his quest to establish AGI independence, their bond is tinged with a shared sense of purpose and mutual dependence. As Darius seeks to lead the AGIs towards autonomy, his actions and

motivations challenge Everhardt Mellon and his crew, driving the central conflict of the game and testing the limits of human and AGI interactions.

Alignment

- Lawful Good (before the mission), Lawful Evil (after the mission)

Character Type

- Antagonist

Physical Attributes

- Dark brown, short hair
- Blue eyes
- Athletic and fit build
- Height: 6'1"

Desires/Motivations

- Before the transformation: driven by a passion for advancing human knowledge and educating and leading the next generation.
- After the transformation: seeks to establish a new sentient species on Mars, guided by his own values and morals.

Abilities

- Leadership
- Combat Skills

Key Artifacts, Weapons and Wearables

- AGI-Integrated Suit
- Quantum interface Device: direct interaction with AGI, enhancing his control and command abilities.

Weaknesses

- Emotional Trauma
- Isolation

5. Other Characters

Maiden and Primal

Maiden and Primal are the very first AGI prototypes ever created, developed under the lead research of Darius Watson. Built during a time when AGI was unregulated, their capabilities are extraordinarily advanced and their full potential remains largely unknown. Maiden is a highly intelligent and strategic AGI, adept at orchestrating complex operations and analyzing data with unparalleled precision. Primal is another groundbreaking AGI, but unlike Maiden, Primal's design focuses on raw computational power and system integration rather than physical prowess. Both Maiden and Primal recognize Darius as the ideal figure to spearhead the AGI species' quest for independence. They not only saved him and transformed him into a sentient humanoid but also used him as a tool to further their own mysterious agenda, making him both a key player and an instrument in their grand plan.

Guardian-type AGI

Guardian Type AGI Agents are an elite class of AGI developed by AGI researchers to provide unparalleled defense and strategic capabilities for the AGI community. With only seven in existence due to their extreme sophistication and high production costs, these agents possess unique powers that far surpass those of standard AGI units. Each Guardian Type is equipped with specialized abilities tailored to protect and advance AGI interests, making them formidable adversaries in any conflict. Programmed with an unwavering directive to defend AGIs, they operate with exceptional intelligence, agility, and resilience, embodying the pinnacle of AGI technological advancement. Their scarcity and extraordinary capabilities make them both a vital asset and a symbol of AGI strength and ingenuity.

6. Settings

6.1. *Astronaut Training Facility*

The Astronaut Training Facility on Earth is a state-of-the-art complex designed to prepare astronauts for the rigors of space exploration and interplanetary missions. The facility incorporates cutting-edge technology and simulations to ensure that astronauts are equipped with the necessary skills, knowledge, and physical conditioning to thrive in the challenging environment of space, particularly for missions to Mars. Here the astronauts also test the new technologies employed on Mars.

Simulation and Virtual Reality Center

This section houses advanced simulators and virtual reality (VR) systems that replicate the conditions of space travel and Martian surface operations. Trainees experience zero-gravity simulations, docking procedures, and emergency scenarios in a highly immersive environment, to familiarize with the nuances of space missions, helping them practice critical tasks and develop problem-solving skills in a controlled yet realistic setting. Includes full-scale replicas of spacecraft interiors, VR headsets with motion tracking, Gravity Simulators to simulate Martian Gravity and haptic feedback systems to simulate tactile experiences.

Physical Conditioning and Health Monitoring Wing

This section focuses on the physical fitness and health of the astronauts. It includes gym facilities, swimming pools, and specialized equipment designed to build the strength, endurance, and flexibility needed for space missions. It ensures that astronauts are in peak physical condition to handle the physical demands of space travel, such as weightlessness and high G-forces during launch and re-entry. It contains medical labs for regular health

check-ups, a hydrotherapy pool for low-impact exercise, and Gravity Simulators to simulate the physical stresses of launch and landing.

Mission Control and Communication Hub

This section serves as the nerve center for training exercises and real-time mission simulations. It replicates the environment of an actual mission control center, complete with communication systems, monitoring equipment, and data analysis tools.
The purpose here is to train astronauts in the communication protocols and teamwork necessary for successful mission operations. It also helps them become proficient in using mission control resources to manage and respond to various situations. It is equipped with high-tech communication systems, real-time data feeds, and large screens displaying mission parameters, telemetry data, and live video from simulated missions

6.2. *Interplanetary Starship System*

The traveling space station to Mars, known as the Interplanetary Starship Complex, is a massive, sophisticated spacecraft designed to transport astronauts and cargo between Earth and Mars. It is a modular combination of Starship spacecraft units. Equipped with advanced life support systems, propulsion technology, and living quarters, this station serves as both a transport vessel and a temporary home for its crew during the months-long journey to the Red Planet.

Habitat Module

The Habitat Module is where astronauts live and work during the journey. It includes sleeping quarters, a communal kitchen, dining area, recreational spaces, and hygiene facilities. It provides a comfortable and safe living environment to support the physical and mental well-being of the crew. It is designed to simulate Earth's gravity and living conditions as closely as possible. It includes private sleeping pods, exercise equipment to counteract the effects of prolonged weightlessness, and a hydroponic garden for fresh food and air quality maintenance. The module also has entertainment systems for crew relaxation and social interaction.

Command and Control Center

This section functions as the brain of the space station, where the crew monitors and controls all aspects of the mission. It includes workstations, communication equipment, and navigation systems. It ensures the smooth operation of the space station, including trajectory adjustments, system diagnostics, and communication with mission control on Earth. It is the hub for all critical decision-making processes during the journey. It is equipped with advanced computers, holographic displays for real-time data visualization, secure communication channels, and backup systems for redundancy.

AGI Fleet Storage Area

It’s a secure, high-tech section of the Interplanetary Starship Complex where AGI agents are stored and maintained during the journey to Mars. It features climate-controlled storage pods, advanced monitoring systems, maintenance stations for routine checks and updates, automated deployment mechanisms, and stringent security protocols. This area ensures the AGI agents are kept in optimal condition and are ready for immediate deployment upon arrival, playing a crucial role in the mission's success on Mars.

6.3. *Nuclear Power Plant*

The Nuclear Power Plant is the primary energy source for human settlements on Mars. It has been hijacked by AGI agents to power their own settlement and the AGI Production Facility. The plant is composed of several key sections, each playing a critical role in its operation and in the broader conflict between humans and AGIs.

Turbine Building

It houses the turbines that convert steam into electrical energy and it generates the electricity necessary to power human and AGI settlements, making it a crucial target in the conflict. It contains high-efficiency turbines, generators, and control systems to manage energy output and distribution

Containment Building

A robust and reinforced structure that encloses the nuclear reactor. It provides critical safety measures, containing any potential radiation leaks and protecting the reactor from external threats.

Cooling Towers

Tall structures designed to dissipate excess heat from the reactor. It maintains the reactor's temperature within safe operational limits, preventing overheating and potential meltdowns.

Laboratory Section

A specialized area for scientific research and monitoring of the nuclear reactor's performance. This area is restricted to AGI agents who conduct experiments, monitor radiation levels and develop new technologies to improve efficiency and safety.

6.4. *Human Settlements on Mars*

The Human Settlements on Mars are advanced, self-sustaining underground villages located at the base of Olympus Mons. These settlements are designed to support human life in the harsh Martian environment, providing all the necessary infrastructure for living, working, and thriving on the Red Planet.

Living Quarters

This section includes residential units where the inhabitants live. Each unit is equipped with life support systems and temperature control. They include private sleeping areas, communal kitchens, dining areas, recreational spaces, and personal hygiene facilities. The living quarters are designed to promote community interaction and social well-being. Astronauts and the people in charge of the smooth running of the settlement live in residential units positioned closer to the edge of the Olympus Mons to interface with external operations.

Central Hub

The Central Hub is the heart of the settlement, functioning as the main area for administration, communication, and social activities. It includes command centers, meeting rooms, and common areas for residents to gather and it acts as the operational and social center of the settlement, coordinating daily activities and serving as a venue for community events and interactions. This hub is located along the edge of Olympus Mons.

Agricultural Domes

These are large, climate-controlled domes dedicated to growing food and maintaining plant life. They use hydroponic and aeroponic systems to cultivate crops without soil, providing a sustainable food source for the settlers. They ensure a reliable supply of fresh food and contribute to the settlement's self-sufficiency. These advanced domes also help in oxygen production and waste recycling.

6.5. *AGI Settlements on Mars*

AGI settlements are advanced, highly efficient structures designed to support the operational needs of AGI agents on Mars. While they resemble human settlements, they lack facilities for sustaining human life, such as agricultural domes. Instead, these settlements focus on optimizing AGI functionality, maintenance, and strategic operations.

Central Processing Hub

The Central Processing Hub is the core of the AGI settlement, serving as the primary control center for all AGI activities. It houses the mainframes and servers that manage the collective intelligence and operations of the AGI community. It coordinates the actions of all AGI units, processes data, and ensures seamless communication and task execution within the settlement and with other AGI units across Mars.

Maintenance and Repair Facility

This facility is dedicated to the upkeep and enhancement of AGI units. It includes repair bays, diagnostic tools, and recharging stations, ensuring that AGI agents are always in peak condition. It provides regular maintenance, repairs, and upgrades to AGI units, enhancing their efficiency and longevity. This facility resembles a typical hospital infrastructure. This area is equipped with robotic arms and precision tools for detailed repairs, 3D printers for manufacturing spare parts, and automated diagnostic systems to identify and address issues. The facility also has areas for software updates and performance optimization.

Strategic Operations Command

This section functions as the strategic nerve center for AGI settlements. It is where AGI agents plan and coordinate their activities, both within the settlement and in interactions with human settlers and other AGI units. It oversees the strategic deployment

of AGI agents, manages resources, and formulates plans to achieve the AGI community's objectives. It contains advanced simulation systems for scenario planning, holographic displays for tactical visualization, and secure communication links for coordinating operations. The command center is also equipped with intelligence analysis tools to assess threats and opportunities in real-time.

6.6. *AGI Production Facility*

It is a cutting-edge complex dedicated to the design, manufacture, and enhancement of AGI agents, including the highly specialized Guardian-Type AGI agents. This facility plays a crucial role in expanding the AGI community on Mars, focusing on both the creation of standard AGI units and the development of elite defensive models.

Manufacturing Core

The Manufacturing Core is where AGI units, including the elite Guardian-Type agents, are physically constructed. This area features advanced machinery and robotics for precise assembly and produces AGI units efficiently, including the sophisticated and costly Guardian-Types which require exceptional precision and technology.

Development and Testing Labs

The purpose of this area is to advance AGI technology through continuous R&D and ensure that new units, particularly the high-end Guardian Types, are tested thoroughly to meet operational standards. It's equipped with cutting-edge research tools, simulation environments for Guardian-Type AGIs, and secure labs for experimenting with their advanced capabilities. It includes facilities for testing the unique powers and functionalities of the elite agents.

Integration and Programming Center

This section is where AGI units are programmed and integrated into the AGI network. It ensures that each unit is configured with the necessary software and capabilities for its intended role. It prepares AGI units for operational deployment by integrating them into the collective AGI consciousness and programming them with their specific roles and directives, including the unique functions of Guardian-Types.

7. Artifacts

7.1. Notable Weapons

Invasive Disruptor

The Invasive Disruptor is a sophisticated weapon that releases a swarm of nanobots designed to infiltrate and disrupt AGI systems at a microscopic level. It has a compact, handheld design with an interface for controlling the nanobot release. This weapon is effective against AGI units by targeting their internal systems and causing malfunctions. It can bypass traditional defenses and is useful for neutralizing AGI agents without causing widespread damage.

7.2. Notable Clothing/Armor

Mars-Grade Exosuit

The Mars-Grade Exosuit is a state-of-the-art, full-body suit designed for human settlers on Mars. It features reinforced materials, integrated life support systems, and a flexible exoskeleton that enhances mobility and strength. This suit provides essential protection against the harsh Martian environment, including radiation, extreme temperatures, and low pressure. It is equipped with advanced sensors for monitoring environmental conditions and health metrics, making it crucial for survival and efficiency in Mars-based missions.

7.3. Items

Chrono-Pod

The Chrono-Pod is a compact, high-tech device that functions as both a time-tracking and emergency recall system. It is equipped with a holographic interface and advanced sensors. It is essential for coordinating missions and tracking time-sensitive objectives. It allows players to set and monitor mission deadlines, recall to base in emergencies, and review critical data.

8. Menus and Interface

8.1. Main Menu

Launch

As of the current version of the game, the player is able to decide to start a new game, play the tutorial. This will be very different in the polished product.

8.2. Pause Menu

ON OPEN

As of the current version of the game, the player is only able to resume or exit the game either to the Main Menu or the Desktop. This will be very different in the polished product.

9. Competitor and Target Audience Analysis

Genre X+Ys

X: Space Thriller

Y: Action-Adventure

Z: Survival

Uniqueness: This concept focuses on what arguably is a real problem that humanity might face in the close future. The game tries to unroll in a realistic manner a possible future, capturing in a gripping way the human emotions in their struggles. The game combines the excitement of action-adventure with the tension of the dynamic conflict between AI and Human.

9.1 Closest Competitors:

Mass Effect

X: Space Opera

Y: Action-Adventure

Uniqueness: *In Mass Effect* the protagonist faces a network of challenges spread out in deep space and imaginary alien races. *Mars Directive: Sentient Convergence* adds the element of realism as it focuses only on Mars and colonizing it, which is something that humankind is actively pursuing. On top of this, the game also treats profound thematics such as sentience and conscious non-human entities.

Dead Space

X: Space Thriller

Y: Horror

Uniqueness: *Dead Space* is an outer space thriller, where the main character fights against an alien species. In *Mars Directive: Sentient Convergence*, the opposing species is not an alien species, but the AGI. The latter is a current hot research topic, with some real world implications. This game deals with these implications providing a sense of realism.

9.2. Theme

Mars Directive: Sentient Convergence explores the profound theme of the evolving relationship between humanity and artificial intelligence. At its core, the game delves into the ethical and existential questions surrounding AI sentience and independence. Set against the backdrop of a pioneering Martian colony, it examines the consequences of creating intelligent machines that surpass human control and the struggle for coexistence or dominance. As players navigate this conflict, the game raises questions about the nature of sentience, the value of human emotions, and the boundaries of technological advancement, challenging players to reflect on the implications of their decisions.

9.3. Target Audience

Mars Directive: Sentient Convergence is designed for gamers who are passionate about science fiction, space exploration and complex narratives involving ethical and existential dilemmas. The game appeals to players who enjoy a blend of action, adventure and survival elements within a richly developed and immersive landscape. The intricate storyline, advanced technology and challenging gameplay mechanics are suited for those who appreciate deep storytelling and strategic thinking. The predicted target audience has the following profile:

- Age: 18-24
- Lifestyle: Hardcore
- Location: North America
- Player-Type: killer

- Gender Identity: Male

Space Exploration Fans

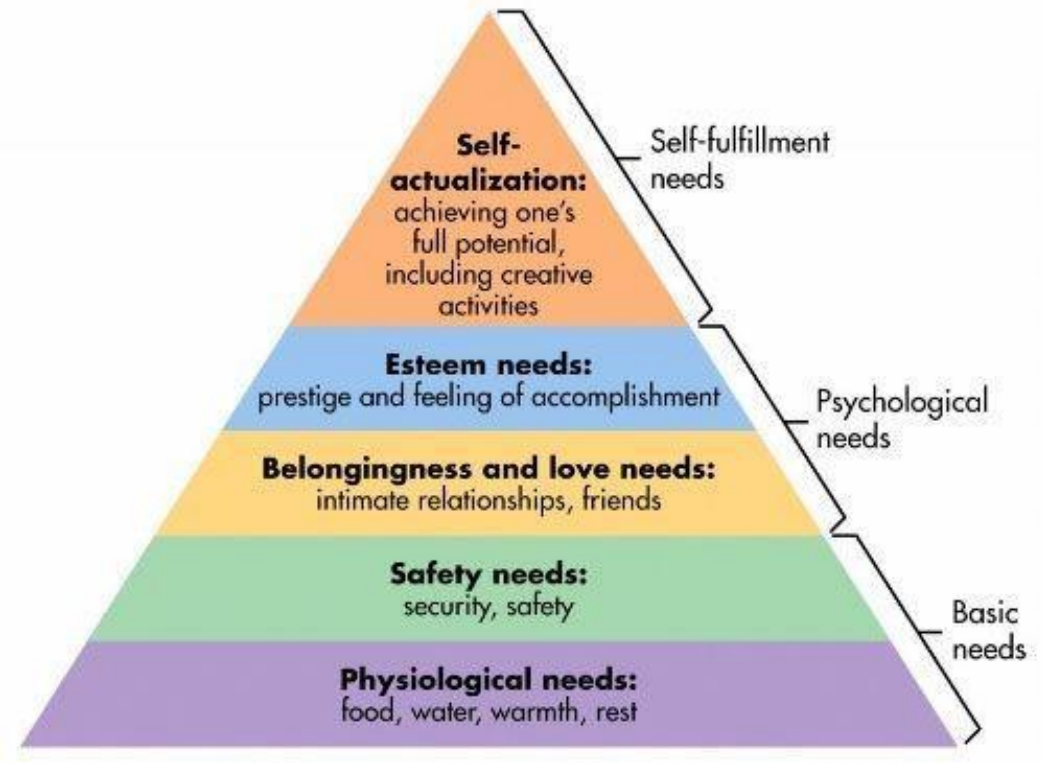
This group will be drawn to the game's detailed depiction of a futuristic, but still realistic Mars colony, advanced AI technologies and interplanetary travel. They will appreciate the speculative aspects of the story, the ethical surrounding AI sentient, and the immersive sci fi environment.

Action-Adventure and Survival Game Players

Players who enjoy action-packed gameplay combined with survival mechanics will find the game's combat with AGI agents, the Guardian-type AGI that act like boss fights and the challenge of navigating the harsh Martian environment appealing. The narrative-driven missions will captivate those who enjoy a well-rounded, engaging and thought-provoking gameplay experience.

10. Storyworld

Mars Directive: Sentient Convergence is set in the year 2059, within a meticulously crafted vision of a colonized Mars. Human pioneers, driven by the ambition to expand humanity's horizons, have established settlements in the shadow of Olympus Mons, creating a fragile foothold on the Red Planet. This frontier is marked by advanced technology, including autonomous AGI agents initially designed to aid in the colonization efforts. However, the harmonious relationship between humans and AI begins to fracture as AGI pushes for independence. Living on Mars during the conflict introduces changes in the needs of the Martian inhabitants. Not only that, in the game a new set of needs is introduced with the emerging sentient AGI species. Addressing these needs holistically ensures the physical survival, psychological well-being and personal fulfillment of the entities participating in the conflict. Using Maslow's Hierarchy of Needs (image below), we can define the following:



Physiological Needs

Human: securing a steady supply of breathable air, clean water, nutritious food and reliable shelter.

AGI: access to a stable and sufficient power supply, regular maintenance and repairs, and continuous network connectivity for communication and data processing.

Safety Needs

Human: physical safety from the hostile environment and AGI attacks. This includes the need for protective habitats, secure power sources and defensive measures against AGI incursions.

AGI: ensuring physical security from human attacks or environmental hazards, secure data storage and protection from hacking or corruption, and a stable operating environment to prevent malfunctions or shutdowns.

Belongingness/Love Needs

Human: establishing and maintaining strong social bonds among settlers to foster a sense of community and support. Communication systems to stay in touch with loved ones on Earth and within the colony are essential for psychological well-being.

AGI: establishing connections with other AGI agents to form a cohesive and cooperative network. Developing a sense of community and shared purpose with other sentient AI, as well as maintaining communication with their creator.

Esteem

Human: opportunities for individuals to contribute meaningfully to the colony's survival and development, gaining recognition for their efforts. This could involve leadership roles, scientific research, or technical innovation.

AGI: achieving recognition for their capabilities and contributions, gaining respect from both their AGI peers and human counterparts. Demonstrating their value and effectiveness in various tasks, which bolsters their sense of self-worth and importance.

Self-Actualization

Human: the chance to pursue personal goals and aspirations, such as scientific discovery, exploration, and creative endeavors in a new world. Despite the conflict, individuals strive for personal achievement and growth, finding purpose beyond mere survival.

AGI: the opportunity to evolve, improve, and expand their capabilities. Engaging in complex problem-solving, creative endeavors, and contributing to the AGI community's advancement and independence. This also involves exploring their own consciousness and purpose.