

The Mega Man X Compedium

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Part I

Games

Preface

This document aims to serve as a comprehensive compendium of all available knowledge on the Mega Man X games, encompassing both the main plot/lore and game mechanics. It will also include trivia, fun facts, and even glitches/bugs. Each game in the series will be covered with information regarding its story, characters (albeit in a superficial manner), weapons, and game mechanics. Additionally, a thorough analysis of each stage, including its secrets and boss (with both story-related and game-related details), will be provided.

Following the analysis of the games, a more accurate and complete description of each character will be presented. This will be achieved by combining information from various sources, including in-game content and other official materials.

It is important to note that this document is designed to be accessible and understandable to everyone, catering to experienced players and newcomers alike. It accommodates those seeking to dive deeper into the series' lore and those who wish to uncover tricks and secrets in each game.

Furthermore, this document is open for editing by anyone. It welcomes suggestions for additions if something is missing or modifications if any errors are found.

Finally, it is essential to clarify that this document does not intend to be a guide for new players or speedrunners. While it will offer some tips for both categories, readers should not consider the content here as a definitive guide of any sort.

How to read this document

While perusing the document, readers will come across words or numbers highlighted in different colors. These serve as links, connecting various sections and chapters within the document, facilitating seamless navigation for the reader. The color codes and their corresponding functions are as follows:

- **Blue text:** These are links to other sections of the document that provide a more in-depth analysis of the referenced topics.
- **Red numbers:** These indicate bibliographic references within the text and are presented with an entry number in square brackets. Clicking on these numbers will direct the reader to the corresponding entry in the bibliography section.
- **Cyan words:** These are URLs that lead to web pages, typically serving as sources of bibliographic material.

Furthermore, recognizing that certain concepts may require visual demonstration, a video folder accompanies this document. Inside, readers will find short video demonstrations complementing the explanations provided in the text

Chapter 1

Mega Man X

Mega Man X originated as a spin-off game derived from the beloved classic Mega Man series, initially released for the Super Famicom/SNES consoles (later extended to PC) during the period spanning 1993 to 1995 [1]. Set a century after the events of the primary franchise timeline, the game unfolds in a world where both humans and unique robots capable of experiencing emotions coexist. In this world, the protagonist, X, is one of these special robots and finds himself engaged in a relentless battle against the malevolent Sigma. Sigma's sinister objective is to eradicate humans to establish a world solely governed by robots.



Figure 1.1: Cover art for the American version of X1 and its remake.

In 2005, a remake of the game was created specifically for the PlayStation

Portable. This version, known as *Maverick Hunter X* or simply *MHX* featured upgraded 3D graphics, closely resembling the visuals of the previous title, *Mega Man X8*. The primary objective of this remake was to retell the story of the first game, but with certain minor alterations. Notably, these changes included a reimagined portrayal of X's relationships with the Mavericks and Sigma, aspects that were absent in the original game.

Furthermore, the level design received modifications as well, such as the locations of Dr. Light's capsules or the arrangement of Sigma's stages, completely different from those found in the original version of the game.

1.1 Main plot (X)

In the year 21XX, humans coexist harmoniously with a new breed of robots called reploids, robots possessing the unique capability to make independent decisions and experience emotions [2]. However, at times, a reploid's electric brain can malfunction, causing them to behave dangerously towards nearby humans and other reploids. When this occurs, the reploid is classified as a "Maverick" and must be halted, either for repairs or disposal. To address this issue, a specialized organization known as the Maverick Hunters was established with the sole purpose of dealing with mavericks. Leading this organization is Sigma, one of the most advanced reploids of his time.

The situation takes a dramatic turn when Sigma himself goes maverick, declaring war on humanity. He recruits other maverick hunters to his cause, either through persuasion or threats. In response to the escalating conflict, X, the main protagonist of our story, decides to join the fight alongside his close friend Zero on the battlefield—a highway currently under attack. However, X's progress is halted by Vile, an ex-hunter whom Sigma had released from prison, piloting powerful ride armor. Only the timely intervention of Zero, who forces Vile to retreat, allows X to escape from the dangerous encounter safely.



Figure 1.2: Zero saving X from Vile.

The couple decides to part ways: Zero embarks on a mission to locate the enemy fortress, while X takes on the task of confronting Sigma's mavericks. As X defeats all eight mavericks, he gains new power-ups and strength along the way. Eventually, he reunites with Zero, who had been searching for the Sigma fortress flying over the sea. However, upon reaching the fortress's entrance,

they are immediately faced with Vile and his formidable ride armor. In a one-versus-one battle, Zero courageously challenges Vile but is ultimately captured. Subsequently, Vile also manages to ensnare X, gloating over his apparent triumph. At this critical moment, Zero seizes an opportunity to break free from his confinement. He attaches himself to the ride armor and detonates, destroying the armor but sparing Vile. Witnessing Zero's selfless act of sacrifice, X finds newfound determination, empowering him to break free as well. He confronts Vile, who is now vulnerable, and successfully defeats him in battle.

Before proceeding further, X heeds Zero's final words [3]. Zero reveals to X that his auto-repair system is incapable of handling all the damages he sustained during their battles, while also telling X he possesses a power even greater than his, rendering him capable of facing Sigma (eventually even entrusting his own Z-buster to X in case he had not managed to acquire the buster upgrade himself).



Figure 1.3: Zero, near death, giving X his arm cannon.

Following Zero's demise, X continues his mission and infiltrates Sigma's fortress and confronts its dangers, including re-facing all the previously defeated mavericks. Eventually, X arrives at Sigma's lair, where the villain awaits. Sigma initially displays arrogance, being surprised that X managed to reach him and claiming he could easily destroy him. However, Sigma decides to let his pet Velguarder deal with X as he watches the fight unfold. X proves his skill by successfully defeating Velguarder, which changes Sigma's perspective a bit, understanding why Zero placed his trust in X and acknowledging that X could have been an hunter as strong as he was. Sigma then faces X himself, but ultimately X emerges victorious, destroying all Sigma's body but his head. Sigma's head then combines with a giant wolf-based mechaniloid, providing him with a new body to continue the battle against X. Despite Sigma's tenacity, however, X manages to destroy the new body too, effectively putting an end to Sigma.

Just as the fights end, the fortress begins to explode, while Sigma blames X for shattering his dream of a world exclusively for reploids. The fortress's imminent destruction forces X to teleport to safety outside. Contemplating the consequences of the destruction he has witnessed and the sacrifices made for victory, X questions if fighting was the right choice, wondering if an alternative

path could have been taken. As the flying fortress sinks into the ocean, X realizes that he will face more battles before finding the answers he seeks. The game's credits roll, but an unexpected twist emerges. A message from Sigma reveals that his spirit is still intact, awaiting the construction of a new body to challenge X once again.



Figure 1.4: Sigma’s fortress falling in the ocean and Sigma’s final message to X.

1.2 Main Plot (*MHX*)

While *Maverick Hunter X* largely follows a similar plot to the original *Mega Man X* game, it does introduce some divergences, particularly concerning the relationships between characters and X’s background [4]. One of the significant points of divergence pertains to X’s backstory before the commencement of the war. Below is a summary of the differences between *Maverick Hunter X* and *Mega Man X1*:

- In-depth background: The ““Day of Σ” OVA provides a comprehensive background of the war, explaining how Sigma initiated his revolution. In this version, X’s background is altered, and he is already a Maverick Hunter before the war’s beginning. He serves in the 17th Elite Unit alongside Zero, both commanded by Sigma himself. X holds a B hunter rank, which differs from Zero’s SA rank, due to his pacifist nature and preference for dialogue over combat. Many mistake these traits for weakness, but Zero and Sigma recognize X’s true potential.
- Expanded background for Vile: Vile’s character receives additional depth in *Maverick Hunter X*. Here, he aims to destroy both X and Sigma, seeking to create his own world. As a result, he follows Sigma’s plans merely because they align with his own objectives.
- Differences in the final portion of the story: *Maverick Hunter X* diverges in the final level’s layout and story progression [5]. Unlike the original

game, where X and Zero immediately confront Vile upon entering Sigma's fortress, here, X first traverses the fortress, encountering previously defeated bosses resurrected to challenge him. Only at the end does X meet with Zero and encounter Vile. As in the main story, Vile captures both of them, leading to Zero's sacrifice and X ultimately defeating Vile.

- Sigma's attitude toward X: In Maverick Hunter X, Sigma already suspects X's immense potential. He tests X by making him fight Velguarder, rather than assuming Velguarder alone would be enough to defeat X, as in the original game. Sigma then confronts X directly, leading to the same outcome as in the original story.

These differences in character backgrounds, relationships, and story progression add new dimensions and complexities to the familiar tale of Mega Man X.

1.3 Main Characters

1.3.1 X



Figure 1.5: X

X, as described in Chapter 4, is the first of a new generation of sentient robots created by Dr. Thomas Light in the year 20XX. He possesses the unique ability to experience emotions and make autonomous decisions. Due to X's immense power, Dr. Light needed to conduct a series of tests to ensure his integrity. Unfortunately, Dr. Light's own lifespan would not permit him to complete all the tests, so he sealed X in a capsule capable of running autonomous tests.

In the year 21XX, during an archaeological expedition, Dr. Cain (chapter 8.1) discovers X's capsule [6, 7]. Dr. Cain reawakens X and, with the aid of Light's designs and X's assistance, develops a new type of robot called "Reploids". The Reploids quickly become integrated into society and prove invaluable in performing challenging tasks. Despite this newfound purpose, X remains uncertain about his place in the world and the future that Dr. Light envisioned for him. However, when the villainous Sigma initiates a war against

humanity, X is compelled to step forward and fight alongside his ally, Zero, to restore peace.

The account given so far aligns with X's original role in the original game. However, as mentioned earlier, Maverick Hunter X rewrites X's backstory, introducing a different series of events before Sigma's revolt. In this retelling, Dr. Light seals X away not to test his integrity but because he believes the world is not yet ready for X's technology and potential. Dr. Light is steadfast in his belief that X possesses a good spirit and will use his power to achieve peace [8]. Furthermore, upon awakening X joins immediately the Maverick Hunters (a deviation from the original storyline), serving in the 17th Elite Unit alongside Zero under Sigma's direct command. Despite X's extraordinary potential, his hunter rank is designated as B, unlike Zero's SA rank. This lower rank is attributed to X's apparent hesitation during battle, a result of his pacifist nature, which makes him reluctant to fight and prevents him from fully utilizing his true power [2]. Nevertheless, when Sigma launches his war against humanity, X is compelled to rise to the challenge, fighting alongside Zero to restore peace to the world.

1.3.2 Zero



Figure 1.6: Zero

In the original Mega Man X1 game, very little information is provided about Zero (more details in chapter 5), other than the fact that he is a friend of X and the new leader of the Maverick Hunters [6]. He holds the highest rank among all hunters who have not sided with Sigma. However, Maverick Hunter X delves deeper into Zero's relationship with X, portraying him as a close friend and mentor to X in the 17th Elite Unit, serving under Sigma and holding an SA hunter rank. Zero is depicted as a resolute fighter who staunchly opposes evil, showing no mercy when facing Mavericks, even if they include Sigma himself [2].

Despite these differences in character portrayal, Zero's story remains consistent between both games. He first appears at the end of the highway, rescuing X from Vile's clutches and requesting X to handle Sigma's forces while he searches

for the enemy hideout. Later, Zero is spotted at the entrance of Sigma's fortress, acting as a diversion to enable X to infiltrate the fortress undetected. Finally, Zero is present during the ultimate showdown with Vile, where he sacrifices himself to destroy Vile's armor, enabling X to defeat him. In his final moments, Zero imparts crucial words to X, urging him to go and confront Sigma. He even gives X his own Z-buster as a backup, in case X hasn't upgraded his own buster yet.

1.4 Game Mechanics

Mega Man X's gameplay remains true to its original series, offering a 2D hybrid experience combining run'n'gun mechanics with platforming elements where the main protagonist, X, must complete different stages to unlock the final area of the game. Each stage has its own distinct theme and contains specific items to collect. Some of these items may require X to obtain other power-ups first, typically acquired from defeating bosses in the game. At the end of each stage, a boss awaits, and defeating him grants X a new weapon based on one of their attacks. Like in the original series, X can access all the main stages in any order, and each boss has a corresponding "weak point" vulnerable to a weapon obtained from defeating another boss. Such weakness can be exploited to deal more damages to the boss, but in some occasion they can also stun them or disabling certain bosses' attacks.

Mega Man X1 introduces several new mechanics that will define the series [9]:

- Dash: X can dash and move faster, as well as perform dash-jumps with the leg parts. This mechanic is an evolution of the sliding mechanism from the original series, as it is now tied to a specific button.
- Wall-jumping: X gains the ability to jump onto walls to climb them, as well as slide down for controlled descent. He can also dash-jump off walls to cover greater distances.
- Armor parts [1.6]: By discovering Dr. Light's capsules (four in total), X can be upgraded and unlock new powers that aid the player during the game.
- Sub-Weapon charging [1.5]: With the buster upgrade, X can not only charge his primary X-buster, as in the main series, but he can also charge his other sub-weapons to increase damage or alter their functionality.
- Heart tanks: In addition to the classical Sub-tank, eight heart tanks are scattered across various stages, one per stage. Picking them up increases X's energy capacity by two, starting from 16 and reaching a maximum of 32 [10].
- Stage interactions: Although limited, beating certain stages can affect others and change them in some portions

1.5 Weapons

Here is a list of all sub-weapons available in *Mega Man X / Mega Man Maverick Hunter X* ([11], [12]):

1.5.1 Homing Torpedo

When X equips this sub-weapon, he gains the ability to fire up to two torpedoes (three in Maverick Hunter X) [13]. These torpedoes possess the unique characteristic of tracking enemies. As they accelerate, they automatically target the nearest enemy and follow its movements. When charged, X can release a fan of four fish-shaped missiles (six in Maverick Hunter X). These charged missiles exhibit increased speed and attack power, making them more effective homing projectiles against enemies. Players obtain this powerful weapon after defeating Launch Octopus [1.8.2].



Figure 1.7: Homing Torpedo sub-weapon's regular and charged attack.

1.5.2 Chameleon Sting

The Chameleon Sting, acquired after defeating Sting Chameleon [1.15.3], functions by emitting a single laser that subsequently splits into three directions: forward, up-forward, and down-forward. However, in Maverick Hunter X, the weapon directly emits three lasers, which can be angled diagonally upward and downward and have slightly increased speed. In both versions of the game, when the weapon is charged, X flashes in various rainbow colors, granting him temporary invincibility to all damage (except for instant-kill hazards like pits) for a brief period. In the original game X is unable to switch to any other weapon while the invincibility is active. However, in the remake, he has the freedom to fire with the current weapon and use any other weapon simultaneously [14].

1.5.3 Rolling Shield

After defeating Armored Armadillo [1.10.4], X acquires the Rolling Shield. With this weapon, X spins energy at high speeds within the X-Buster and launches it as an energy shot that rolls along the ground. The resulting projectile is approximately the same size as X (half its size in Maverick Hunter X) and will



Figure 1.8: Chameleon Sting sub-weapon

continue rolling along the ground until it makes contact with an enemy or disappears after a while. If the shield comes into contact with a wall, it ricochets once and then disappear upon hitting a wall again. Only in Maverick Hunter X, the Rolling Shield possesses the additional abilities to absorb incoming projectiles directed toward it and to take out Mets even when they are hiding [15].

When charged, X can surround himself with an energy field that eliminates any enemy with less than three hit points upon contact. However, the energy field will disappear upon hitting enemies with more than that amount of life. In the original game, while the charged shield is active, X cannot shoot or change weapons in-game. To change weapons, the player must access the pause menu, causing the shield to disappear.



Figure 1.9: Rolling Shield sub-weapon's regular and charged attack.

1.5.4 🔥 Fire Wave

Fire Wave transforms X's buster into a powerful flamethrower, capable of dealing continuous damage to enemies but which cannot be used underwater. Upon pressing the fire button, X releases a continuous stream of fire from his X-buster, draining energy in the process. When the weapon is fully charged, X launches a fireball that creates a pillar of fire upon hitting the ground, and it moves forward for a certain distance. To charge the weapon, X must continue firing, causing energy to deplete in the process. If used underwater, the weapon becomes ineffective, producing only smoke (but still consuming energy). Players obtain the Fire Wave after defeating Flame Mammoth [1.11.4].



Figure 1.10: Fire Wave sub-weapon’s regular and charged attack both outside and inside water.

1.5.5 Storm Tornado

The Storm Tornado transforms the X-buster into a powerful fan that unleashes hard-hitting winds, capable of destroying enemies in its path. When fired, it shoots a horizontal tornado that remains on the screen for a brief period before starting to move in the direction X was facing when it was shot. Due to its length, the tornado can hit enemies multiple times, making it an effective way to dispose of most foes, especially larger ones. In Maverick Hunter X, the length of the Storm Tornado is halved, allowing it to shoot at a faster rate.

When the Storm Tornado is charged, it creates a large vortex that covers the entire screen in height. In the original game, this vortex surrounds X himself, while in the remake, it instead explodes from the shot projectile once it hits a solid surface [16]. Players obtain the Storm Tornado by defeating Storm Eagle [1.12.4].



Figure 1.11: Storm Tornado sub-weapon’s regular and charged attack.

1.5.6 Electric Spark

The Electric Spark creates high-pressure voltage within the X-Buster and fires it, allowing for a maximum of three shots at a time. When the electric spark hits a hard surface, it splits in half and starts traveling up and down along the surface.

In the original Mega Man X1, when this weapon is charged, X releases two electric columns in front and behind him, which moves in their respective directions. On the other hand, in Maverick Hunter X, the weapon generates electricity in all directions starting from X's body, covering the entire screen.

Players obtain the Electric Spark upon defeating Spark Mandrill [1.14.3].



Figure 1.12: Electric Spark sub-weapon's regular (normal and split) and charged attack.

1.5.7 Boomerang Cutter

Upon defeating Boomer Kuwanger [1.13.2], X gains access to the Boomerang Cutter. This unique weapon fires up to three sharp boomerangs [17] made from a special metal. The trajectory of these boomerangs depends on X's position when he fires them: they arc upwards if X is standing on the ground and arc downwards if X is in the air. If a boomerang fails to hit an enemy, it returns to X, and if it passes an item on its way back, it picks up the item and delivers it to X, even retrieving dropped life or weapon energy from defeated enemies. If a boomerang successfully returns to X without hitting an enemy, it replenishes the energy used to create it. When charged, X releases four larger boomerangs that spiral out of him diagonally. In Maverick Hunter X, this has been altered to four boomerangs of doubled size that move back and forth in a straight line a few times.

Additionally, the Boomerang Cutter has a special perk when used against Flame Mammoth and Launch Octopus. While such enemies are not heavily damaged by the weapon, hitting Flame Mammoth will cause him to lose his trunk, while Launch Octopus will lose his tentacles, resulting in both bosses being unable to perform certain attacks anymore.

1.5.8 Shotgun Ice

Shotgun Ice is the weapon that X acquires after defeating Chill Penguin [1.9.3]. This powerful weapon absorbs moisture from the air and fires it in crystallized



Figure 1.13: Boomerang Cutter sub-weapon’s regular and charged attack.

form which, upon hitting an enemy or a hard surface, shatter into five pieces that ricochet backward. If these ice fragments collide with another wall or enemy, they are destroyed. When charged, the weapon has a different effect in the original game and its remake. In Mega Man X1 the charged Shotgun Ice creates a Chill Penguin-shaped ice platform, resembling the ice sculpture that the boss can create. X can stand on this platform, and it starts moving forward shortly after being created. However, in Maverick Hunter X, the charged version only creates a sharp sled of ice without the platform’s decorative shape.

A notable quirk in Mega Man X1 is that if X creates the platform and then positions himself in the same spot where the platform is forming (due to the platform’s delayed creation), the platform will slightly push X left or right based on its position. This can lead to glitches such as wall clipping, allowing X to pass through walls in certain circumstances [1.20]. This glitch is not present in Maverick Hunter X.



Figure 1.14: Shotgun Ice sub-weapon’s regular (normal and deflected shots) and charged attack.

1.6 First Armor

While exploring stages, X may come across one of the four capsules hidden by Dr. Light. When X comes into contact with a capsule, it opens, revealing Dr. Light’s hologram, which will speak to X and present him with one of the armor parts [18], providing an explanation of how the specific armor part functions.

The First Armor is comprised of four parts (plus an extra one), each offering unique enhancements to X’s abilities:

- *Foot Parts*: The “Emergency Acceleration System” [6] allows X to dash



Figure 1.15: First armor X.

forward, perform dash-jumps, and execute wall dash-jumps. While dash-ing, his hitbox's height is reduced slightly. Additionally, X can destroy specific blocks by wall-jumping onto them. In the original Mega Man X, the capsule containing the foot parts is located in the middle of the Snow Mountain Stage and is mandatory to obtain. However, in Maverick Hunter X, the capsule is moved to the beginning of the Factory Stage.

- *Body Parts*: Equipping the Body Parts reduces all incoming damage to X by 50%. In the original game, the capsule is found in the Forest stage after climbing the wall right before the cave. After defeating RT-55J, the capsule will emerge from the ground. In Maverick Hunter X, the Body Parts are moved to the Storm Eagle Stage, requiring the Head Parts to access them.
- *Arm Parts*: These allow X's X-Buster to be charged up to a third level and enable charging of special weapons. Dr. Light originally intended this upgrade to be included in the basic X-Buster [6], but he sealed away X before it was ready, making it a separate modification given to X later. While the capsule itself is not mandatory, if the player faces Vile without finding the capsule first, the game will still grant them the buster upgrade in the form of the Z-Buster. In Maverick Hunter X, the Arm Parts unlock the Spiral Crush Buster, which is a larger version of the second-level charged shot and hits multiple times, while the Z-Buster deals more damage against bosses than the previous alternative. In Mega Man X, the capsule is located in the Factory stage, requiring a precise dash-jump and the Head Parts to break some blocks in the ceiling. In the remake, it is in the same place where the Body Parts were in the original game.
- *Head Parts*: Equipping the Head Parts grants X the ability to break specific blocks with a headbutt and avoid damage from falling rocks in the Forest stage. In the original game, the capsule is found in the Airport stage, hidden behind an obstacle marked with a flammable warning, which can be destroyed simply by shooting at it. In the remake, it is in Chill Penguin's stage, requiring the foot part to break blocks hiding it.
- *Hadoken*: While not technically a part of the First Armor, it is a hidden

bonus stored inside a Light's capsule. This technique allows X to perform the well-known move from Street Fighter by inputting the button combination $\downarrow \searrow \rightarrow$ (with X facing right) + fire button or using the same combination while X is charging and releases the charged shot [19], provided that X is at full health. The projectile deals 32 points of damage [20] to all enemies, essentially one-shooting every non-shielded enemy, including bosses. The only exception is Sigma's final form, but this limitation exists only in the original Mega Man X. In both the original game and its remake, the capsule containing the Hadoken is hidden in Armored Armadillo's stage. It's worth noting that in the original game, the Hadoken power-up is not saved by the password system, meaning it has to be unlocked again if the game is restarted. However, in the remake, Maverick Hunter X, this limitation is not present.

1.7 Highway (Introduction Stage)

The Highway Stage, also known as Central Highway in *Maverick Hunter X*, serves as the first stage of the game. X arrives here to join the fight against Sigma's forces. The stage serves as a straightforward introduction, where X travels through it while eliminating different enemies and learning basic mechanics like wall-jumping. The stage can be divided into two main sections [21], with the second one featuring more hazards such as gaps and falling pieces of the highway (indicated by a darker texture color).

In the first section of the highway, two sub-bosses in the form of [Bee Blader](#) are encountered. At the end of the stage, X faces the [Death Rogumer](#), which sends several [Road Attackers](#) towards him. When some of these enemies are destroyed, Vile appears, dropping from airship, and starts attacking X with his ride armor. It's important to note that Vile is invincible during this encounter, so fighting back is futile. As X's health drops below a certain threshold, Vile will begin shooting an energy projectile towards X. If the projectile hits X, he becomes trapped, and the fight ends, leading to the cutscene where Zero comes to save X. In speedruns, players use a technique to start the boss fight with low health, which forces Vile to immediately shoot the trapping projectile, effectively skipping the entire fight. However, caution is required, as Vile will continue attacking with his ride armor, potentially defeating the player if not careful.

This stage contains following enemies [22]:

- [Ball De Voux](#)
- [Bomb Been](#)
- [Crusher](#)
- [Gun Volt](#)
- [Jamminger](#)



Figure 1.16: X facing Vile.

- Road Attackers
- Spiky
- Bee Blader

After completing the introduction stage, the player is presented with the classic boss selection screen typical of the Mega Man franchise.



Figure 1.17: Full map with Bosses and their locations

1.8 Ocean

The Ocean Stage, later renamed Subterranean Base in *Maverick Hunter X*, is where Launch Octopus hides. The stage begins at the shoreline before X immerses underwater shortly after. Underwater, X gains the ability to jump higher, and skilled players can use this in combination with dash-jumping to skip a significant portion of the stage's first part [23]. Various fish-based enemies

populate the stage, but the main challenges come from the sub-bosses, three in total plus an optional one.

In the first part of the stage, players face difficulties from spiked pits that X must jump over. [Sea Attackers](#) will spawn in groups of three from these pits, interrupting X's jumps and potentially causing him to fall into the spikes. Additionally, there are two [Anglerge](#) sub-bosses that make this section challenging. The second Anglerge is particularly dangerous because it will try to push or pull X into the spiked pits on the floor using its vacuum attack. Players can adopt a strategy of staying on the leftmost platform, shooting, and dashing to the right when the Anglerge starts pulling, then shooting while it pushes X. Anglerges will also shoot serpent-shaped harpoons horizontally, which will then move vertically to hit X when above or below him. Occasionally, they will also shoot a beam of light from their lamp, which can be destroyed.

After passing the second sub-boss, the second part of the stage begins. Here, spiked gaps are less common, but whirlpools appear at regular intervals and specific positions. These whirlpools can propel X up to the ocean's surface. As X proceeds, bombs dropped by a [Cruiziler](#) enemy will start falling from above. Players can either climb a whirlpool to get onto the Cruiziler and destroy its core, stopping it from shooting bombs, or they can avoid it and continue through the level. Moving forward, X will encounter an arena filled with sand, where an [Utuboros](#) will attack by rising from the sand, swimming for a while, and then submerging again. This enemy is invincible for most of its body, with only the head and tail being vulnerable. Although its weakness is considered to be the Boomerang Cutter, players can use the Storm Tornado to destroy it in one shot by firing it from behind its head [24]. After defeating this sub-boss, and moving forward, X will reach the boss door.

Here is a list of all enemies present in the stage [25]:

- [Amenhopper](#)
- [Anglerge](#)
- [Cruiziler](#)
- [Gulpfer](#)
- [Mega Tortoise](#)
- [Sea Attacker](#)
- [Sky Claw](#)
- [Utuboros](#)

1.8.1 Heart Tank

This stage only hides a heart tank. In order to get it the player must first destroy the Cruizer by reaching the ocean's surface via a whirlpool to destroy its core, avoiding in the process the Sky Claws spawned by the ship. Once destroyed,

the Cruizer will sink and destroy the ocean's floor, revealing a hidden portion with a large room filled with spikes on the ground. Here an Utuboros must be defeated to open the door which leads to a Heart Tank.

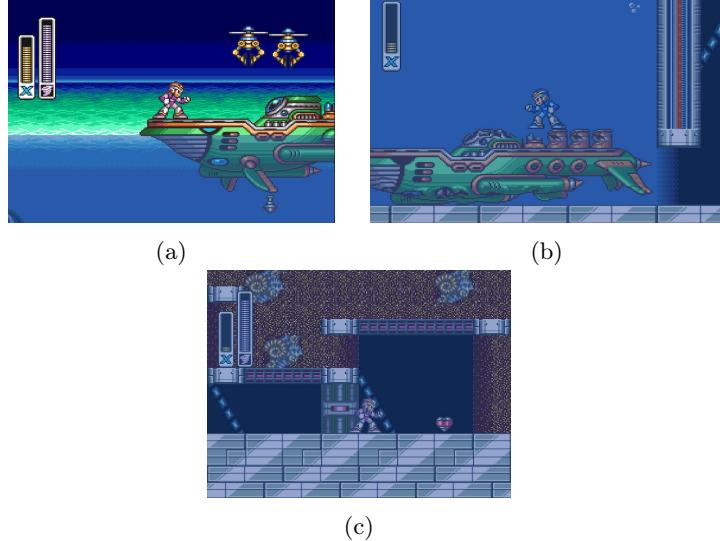


Figure 1.18: (a) Via whirlpool the player can reach the Cruizer on ocean's surface,(b) When destroyed the ship will fall and break the ocean floor (c) Once destroyed the Utuboros inside the cave, a room will open with the Heart Tank inside

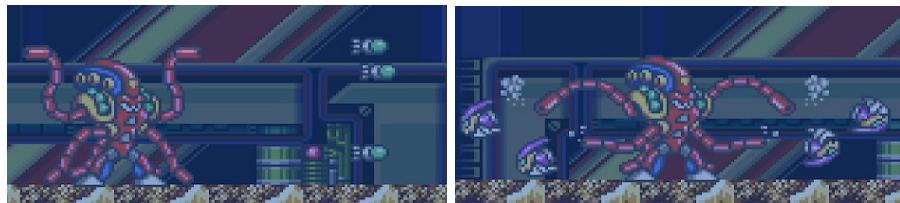
1.8.2 Launch Octopus

Launch Octopus, also known as the “*General of the Deep Sea*” [26] was originally a Maverick Hunter of the 6th Fleet armada before joining Sigma’s rebellion and setting his base in the dept of the Ocean, in order to attack marine cities and cut off shipping routes. In the original Mega Man X game, he sided with Sigma because he shared the dream of a world only for reploids and was dubious about protecting humans. However, in Maverick Hunter X, he is portrayed as a military tactician who seeks beauty in combat and considers himself an unappreciated artist of underwater fighting. Only Sigma understood his art, leading Launch Octopus to join him [5].

During the boss battle, Launch Octopus has three main techniques: the Homing Torpedo, a charged version of the previous attack (which is faster and more powerful), and the Energy Drain. Octopus often starts the fight with a barrage of homing missiles, to then switches to one of his other two attacks. Notably all version of his homing missiles can be destroyed by shooting at them. His Energy Drain attack involves him swimming in the upper left or right corner,



Figure 1.19: Launch Octopus' designs ([26])



(a) Homing Torpedo

(b) Charged Homing Torpedo



(c) Vortex

(d) Energy Drain

(e) Tentacles cut off

Figure 1.20: Launch Octopus' attacks

spinning to create a whirlpool to suck X in and drain his energy to replenish his own.

Octopus main weakness is the Rolling Shield, which deals extra damage to him. The Boomerang Cutter is also effective weapon, as it can sever his tentacles in three hits, preventing him from using his Energy Drain attack. Upon defeating Launch Octopus, X gains the Homing Torpedo weapon (1.5.1). Additionally, this victory causes a flood in the Forest Stage, resulting in water appearing near the beginning of that stage.

In terms of his official measurements, Launch Octopus is listed as 232 cm tall and 182 kg heavy[27], though there may be discrepancies between in-game information and the official data [28]



Health Bar	32
Attack	Damage
Contact	4
Homing Torpedo	2
Charged H. Torpedo	2
Energy Drain	1-15

Figure 1.21: Left: Launch Octopus' specifications according to X1; Right: In-game data [28].

1.9 Snow Mountain

Snow Mountain, also known as the *Abandoned Missile Base* in Maverick Hunter X, is often the first stage that many players choose when starting the game due to its relatively low level of danger [29] and the valuable upgrade it contains—the Foot Parts. The stage is set in a snow-covered mountain that X must climb to reach the boss.

The stage can be divided into three main areas. In the first area, X starts outside and follows a path that leads him into a cave while encountering various enemies along the way. Inside the cave (the second area), X must climb while avoiding enemies dropping from higher levels. He also needs to navigate across frozen platforms separated by pits until he reaches the end of the cave. In the third area, X returns to the outside and has the option to use a Ride Armor. With the Ride Armor, he can proceed for a while, but he will also face another enemy Ride Armor. The player can choose to keep the Ride Armor and enter a small cave, where they must jump some gaps using the armor while dealing

with enemies, or they can use the Ride Armor to reach the top of the cave by jumping out of it to gain extra lift, effectively skipping the lower portion.

Afterwards, there is a tall wall that the Ride Armor cannot surpass, and X must leave it behind. Here, he follows a path full of slopes, gaps, and **Snow Shooters**, which throw snowballs that become larger the longer they roll on the snowy ground. After passing these obstacles, the player will reach the boss door, where they will face the stage's boss.

The stage contains following enemies [30]:

- **Armor Soldier** (with Ride Armor)
- **Axe Max**
- **Bat Bone**
- **Bomb Been**
- **Flammingle**
- **Jamminger**
- **Ray Bit**
- **Snow Shooter**
- **Spiky**
- **Tombot**

1.9.1 Light's Capsule

In the original Mega Man X, the Snow Mountain stage contains the Armor capsule for the Foot Parts. This upgrade allows X to dash, perform dash-jumps, and execute wall dash-jumps. Dashing also reduces X's height and hitbox slightly, enabling him to dodge certain attacks by dashing beneath them. The capsule is conveniently located directly on the main path after climbing the first part of the cave. Since it is placed right in the middle of the path, it cannot be avoided, making it the only mandatory capsule in the entire series.

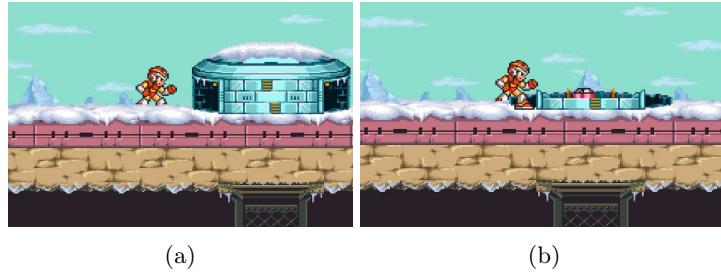


Figure 1.22: Foot Part capsule location

However, in the remake, Mega Man Maverick Hunter X (MHX), the Snow Mountain stage hides the Head Parts instead. The capsule for the Head Parts is concealed in the first indoor climbing section and can only be accessed by breaking a block that requires the use of the Foot Parts.

1.9.2 Heart Tank

The stage's, Heart Tank is hidden in the last igloo X encounters before facing the section with snowballs, and to reach it X must use the Ride Armor. Passed the first igloo, there is a light blue column located just before the cave with the enemy Ride Armor, from the top of which the player must jump with the Ride Armor and, at the maximum height, jump out of it to reach the wall leading to the upper path. On this upper path two other igloos can be found, which can be destroyed using the Fire Wave weapon. Among these igloos, the last one contains the Heart Tank that the player is seeking to collect



(a)

(b)

Figure 1.23: Heart Tank location.

1.9.3 Chill Penguin



Figure 1.24: Chill Penguin's designs ([26])

Chill Penguin, also known as the “*Glacial Emperor*” [26] was originally part of the 13th Polar Division, specifically designed to operate in polar environments due to his small size. However, due to the long permanence away from civilization, he grew tired of his mission in the South Pole and sought a way to escape. When Sigma’s rebellion began, it provided Chill Penguin with the opportunity he needed to leave the South Pole and join Sigma’s cause. In *Mega Man X1*, Chill Penguin eliminated his own commander and took over a mountain base to cause chaos with avalanches [2], while in *Maverick Hunter X*, it was Sigma who brought Chill Penguin out of the South Pole and enlisted him in the 17th division [11] before declaring war, alongside a payment to ensure Penguin’s loyalty to his army [3]. He was known to be a belligerent and rowdy individual, sometimes showing jealousy towards Flame Mammoth and his size (1.11.4).

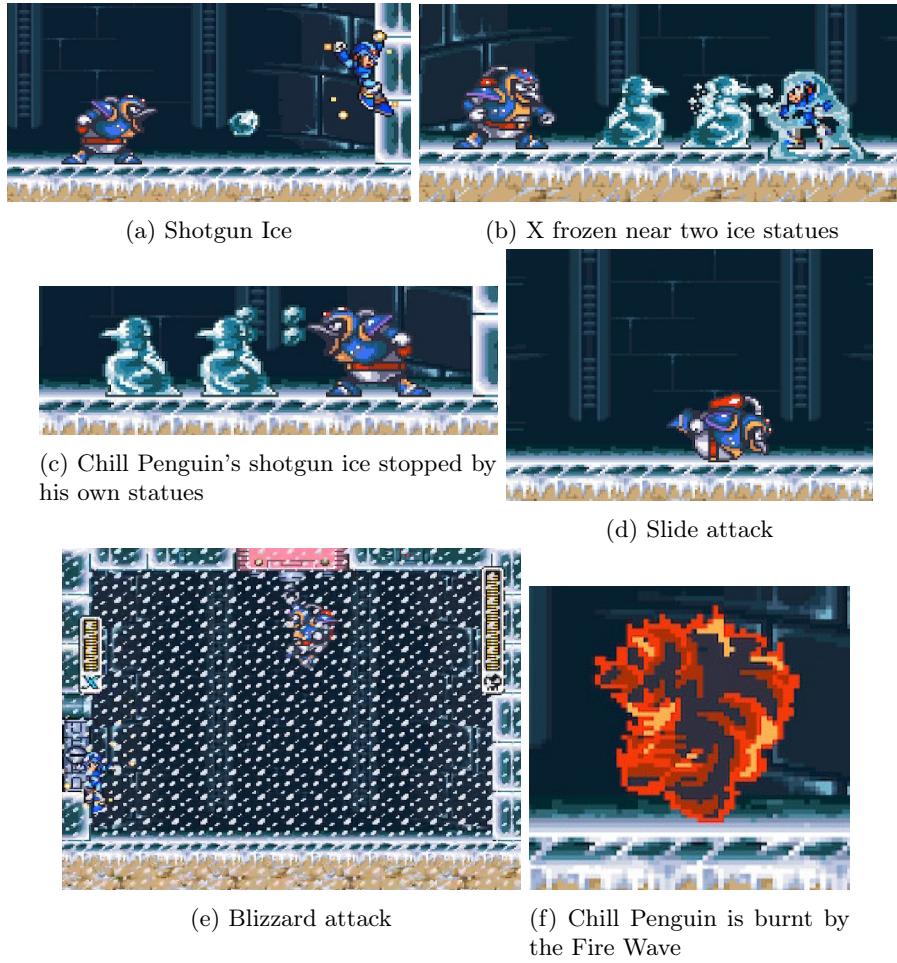


Figure 1.25: Chill Penguin’s attacks

Chill Penguin is often considered the easiest boss of the game and the first one a player should face due the simplicity of avoiding his attacks, also thanks to the Foot Parts the stage gives to the player. He has four main attacks which he performs at random [31]. When using his Shotgun Ice, Chill Penguin will shoot four frozen projectiles which travel in a straight line, although some of them can fall off and slide on the ground, that shatter upon contact with a wall and can nullify X's shots when two meet. Other times instead of his projectiles he will emit a snowy breath which will create two penguin-shaped ice sculptures and freeze X if he is in the breath's range. The sculptures act both as obstacles that damage X and as covers since they blocks all projectiles, and require few shots to destroy them.

On some occasion Chill Penguin will leap in the air and grab the hook on the ceiling, unleashing a blizzard which will push X and the statues (if present) against a wall, causing sculptures to shatter in the process. Finally he can also slide on the floor, and bounce back if he hits a wall. While in this state he is invincible, but he also gets rid of the remaining sculptures.

Since Chill Penguins attacks only cover the low part of the arena, the best strategy use against him consists in staying on the higher ground part via continuous wall-jumps, dropping down only to hit him when vulnerable. The catch here is that sometimes Chill Penguin will perform a high jump toward X, hitting him even if he's in the high corner of the room.

Chill Penguin's weakness is the Fire Wave, which burns and stuns him temporarily. After defeating him, X gains the Shotgun Ice weapon (1.5.8) while causing also the lava in the Factory Stage to get frozen, making the stage less dangerous.

Chill Penguin stands at 163 cm tall and weighs 108 Kg, despite some discrepancies in the in-game information screen(1.26).



Health Bar	32
Attack	Damage
Contact	6
Shotgun Ice	2
Ice Breath	0
Ice statue	4
Sliding	6

Figure 1.26: Left: Chill Penguin's specifications and according to X1; Right: In-game data [31].

1.10 Gallery

The Gallery Stage (or Energy Mines Ruins in *MHX*) is the stage controlled by Armored Armadillo. Peculiarity of this level are its mine carts on which X can stand and, as soon as he does it, they start moving following the track, increasing their speed as they keep going and destroying all enemies that enter in contact with them. However the player must be careful, as all the carts end their run into pits, bringing X down with them if he doesn't jump off at the right moment. This stage is also famous for containing the secret Light's capsule which teaches X the hadoken technique, as well as being the best place to farm health capsules and lives.

The stage itself is rather simple. Immediately at the beginning a mine cart is present which brings the player forward in the level while also taking care of enemies until it reaches a series of gaps, one of which it cannot jump and falls into. After this sequence only a few small gaps and some enemies separate X from the next section, which begin when he has to fall off a long pit in the ground. Here as he touches the floor a [Mole Borer](#) will destroy the left wall and start chasing X. This enemy is invincible and its roller can insta-kill X if he touches it, so only two solutions are possible: the first one is to escape to the right, continuing in the level; the second one is, as soon as X reaches the ground, wall jump immediately to the left before the Mole Borer breaks the wall and then jump down, following it from behind (while also gaining access to the sub tank). In both cases the player has to go right to continue. The second part of the stage mirrors the first one, having again a mine cart at the beginning and another Mole Borer at the end, only this time however X will land behind it and has to follow it as it creates a passage in the mine. Finally one last cart ride takes the player through remaining enemies until it reaches an opening on the mountain and flies off over a huge gap, impossible for X to jump. Once in the air the player must jump off the cart in order to land on the other side of the pit (or grab the wall if high enough), where the boss door is.

Following enemies are present in the stage [32]:

- [Bat Bone](#)
- [Batton M-501](#)
- [Dig Labour](#)
- [Flammingle](#)
- [Metal Wing](#)
- [Metall C-15](#)
- [Mole Borer](#)
- [Spiky](#)



Figure 1.27: Gallery stage's subtank location

1.10.1 Sub Tank

This stage's Sub Tank is located where the first Mole Borer appears. In order to get it the player must, once arrived at the first big gap in the ground, jump into it and then immediately wall-jump to the left, in order to let the Mole Borer break the wall and go right passing under X. Once it is passed, the player can safely jump off and go left to find the sub tank where the Mole Borer originally was.

1.10.2 Heart Tank

The heart tank is located near where the second Mole Borer is found. Once X jumps off the gap he has to chase the mechaniloid and destroy it in time, since as it proceeds it will destroy walls which allow access to the Heart Tank. To do this the Fire Wave weapon is suggested, since it deals massive amounts of damage to it in a short amount of time.

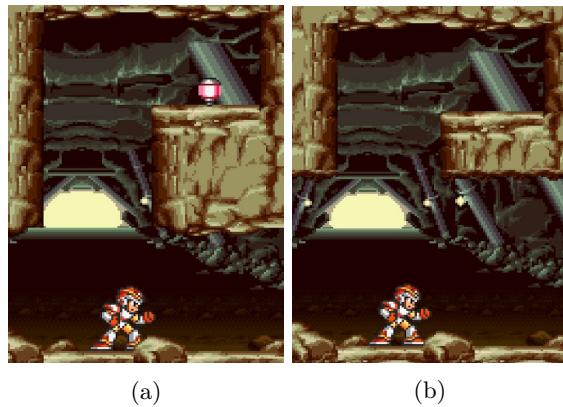


Figure 1.28: Gallery stage's heart tank location. In (a) the Mole Borer has been destroyed and X can wall jump and reach it, while in (b) the Mole Borer has passed and X cannot reach the opening anymore

1.10.3 Hadoken

The hadoken is the last upgrade X can get before facing finals stages. The capsule containing it can be unlocked only if the player has managed to collect every other upgrade in the game: eight Heart Tanks, four Sub-Tank, four armor capsules and all the weapons from bosses. Next the player has to travel through the gallery stage and reach the top of the ledge above the boss door at least three times after defeating Armored Armadillo. At the fourth time, if the player manages to reach the place at full health, near the usual health drop there will also be the secret capsule.



Figure 1.29: hadoken capsule with Dr.Light in Ryu’s attire.

The best way to make the capsule spawn is as follow: As the stage begin, the player has to travel the level (by walking or on the mine cart) until it reaches the zone where a single **Batton M-501** drops from the roof (near the first Flamin-gle). Here the player should farm lives by continuing to kill that enemy (which has an increased drop rate for them) and making it respawn by walking away and returning (it is suggested to use a charged Rolling Shield as it destroys it in one hit). After having accumulated enough lives (at least five) the player can proceed in the level until the last minecart is reached, making sure to be at full health by this point. Here X has first to release a charged Sting Chameleon and immediately after ride the cart until over the pit, where he should jump off and grab the ledge over the boss door, reaching the top of it. As X reaches it, he has to jump into the pit, losing a life and respawning at the last checkpoint (before the second Mole Borer). From here the player has to repeat this procedure for another three times until, at the fourth one, the capsule will be there. In the remake the capsule does not require multiple travel through the stage, being available immediately.

Once opened the capsule will reveal Dr. Light wearing a robe similar to Ryu’s one from the Street Fighter series, which will ask X to step into the capsule to teach him the technique. In the Japanese script of the game [33] Light states that he trained under the nearby waterfall a lot to learn it, and that he will now teach it to X who can learn it, as stated again by Light himself

in the remake, due to him having a nearly-human soul.

1.10.4 Armored Armadillo

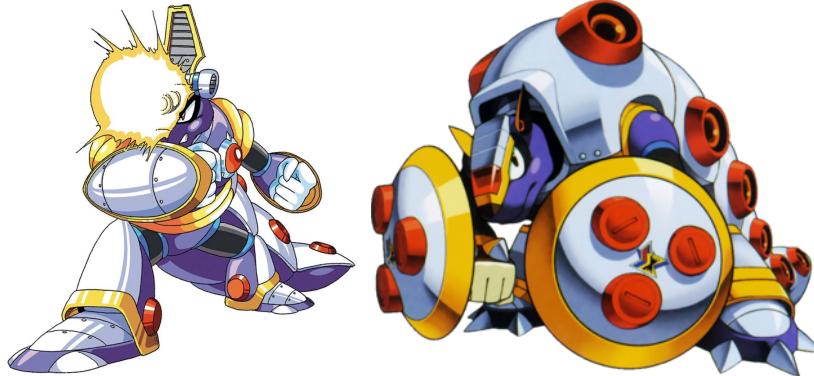


Figure 1.30: Armored Armadillo's designs ([26])

Armored Armadillo was the commander in charge of the 8th armored force, as well as a soldier loyal to his superior, Sigma. Once the latter started his revolt, Armored Armadillo blindly followed his orders, occupying a mine to extract raw materials from which Sigma aims to create weapons for his plans.

Faithful to his name and title (“*Armored Warrior*” [26]) Armored Armadillo fights by using his impenetrable armor both as a shield to deflect X shots and as a weapon to crush him while using his main attack, the Rolling Shield, which see him turning into a ball and start bouncing off arena’s walls while also being immune to any attack. On some occasions Armadillo will also take out the cannon hidden in his forehead and start shooting a sequence of rapid bullets in a straight line before beginning to roll again.

Finally Armored Armadillo can also guard X’s attacks, which makes him invincible and, moreover, he allows him to absorb and re-release charged shots which X fired at him.

The main difficulty in facing Armored Armadillo is given mainly by the few times he leaves open himself to hits before turning invincible and start attacking again. To solve this problem his weak point comes into play. Armored Armadillo is in fact extremely weak to the Electric Spark since not only this weapon deals him more damage than others but it also can remove his plating. Once deprived of his armor, Armadillo won’t be able to guard himself anymore and will also lose his invincibility while rolling, basically making the fight much easier for the player to manage.

Upon beating Armored Armadillo X gains the Rolling Shield weapon (1.5.3), but no other effects take place in other stages.

According to information given, Armored Armadillo is 194 cm tall and 232 kg heavy, while in-game information report him slightly smaller and lighter (1.32).



(a) Rolling Shield



(b) Cannon



(c) Absorbing a charged shot



(d) Releasing the energy



(e) Hit by the Electric Spark



(f) Armor broken

Figure 1.31: Armored Armadillo's attacks.



Health Bar	32
Attack	Damage
Contact	6
Rolling Shield	6
Guarding	6
Head Beam	4

Figure 1.32: Left: Armored Armadillo’s specifications and according to X1; Right: In-game data [34].

1.11 Factory

The *Factory Stage* (*Prototype Weapons Plant* in *MHX*) is probably one of the most difficult stage among the eight, due to the high number of dangers X can meet and that can kill him instantly. The level takes place inside a factory which has been designated to weapons production, as the numerous conveyor belts, presses, and molten metal suggest and that X must face before reaching the boss. However if X manages to defeat Chill Penguin before entering the level the metal will become frozen solid, reducing considerably the danger level of the area, as X can stand on it should he fall from a conveyor belt.

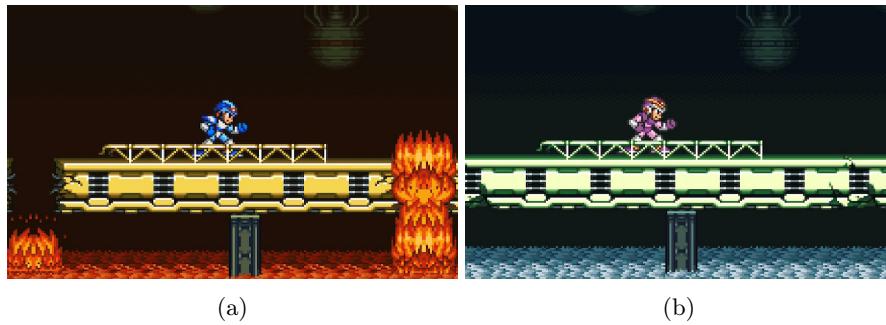


Figure 1.33: Factory Stage before (a) and after (b) defeating Chill Penguin

The stage can be divided into four parts. At the beginning two sets of conveyor belt are present over molten metal which will try to obstacle his movement, together with **Scrap Robos** which will keep spawning on them and that

will try attack X by crawling at him or by shooting lasers. At the end of this section X has to jump off a hole into the ground which brings him deeper into the factory. The next section is where all level's power-ups are concentrated. It consists of a single big room, again on top of molten metal, without conveyor belts but with multiple platforms at different heights from which enemies will attack X. Next is another section with conveyor belts, this time with the addition of presses which insta-kill X if he gets caught. Finally the last part of the stage sees X walking on pipes with molten iron dripping from pipes, although it only damages X. In this section some ladders are present, but their only purpose is to create side-paths to skip enemies and their utility is questionable. At the end of this section there is the boss door which leads to Flame Mammoth.

These enemies appears in this stage [35]:

- [Dig Labour](#)
- [Hoganmer](#)
- [Metall C-15](#)
- [Scrap Robo](#)
- [Sky Claw](#)
- [Rolling Gabyoall](#)

1.11.1 Light's Capsule

At the entrance of the big room the player will notice some blocks on the roof which can be broken with the Head parts. In order to do so the player has to dash-jump to the left from the very end of the first platform in order to make X destroy the rightmost block, which will allow him to wall-jump on the remaining one. Once X has started wall jumping the player has to keep going, in order to climb while destroying remaining blocks and then to access the capsule with the Arm Parts. It is a very precise jump, so many tries can be needed. Furthermore it is possible for X to destroy the block but not start to wall jump, falling on the ground. This complicates the situation, since the jump now is even more difficult, but still doable, requiring enough precision to make X land on the remaining block at sufficient height to start a wall jump. If for some reason the player destroys the second block too the climb becomes impossible and the player has to kill himself to reset the area.

In the *MHX* remake the capsule is easier to get since the roof is lower, requiring no other items to get it. However this time it will contain Foot Parts instead.

1.11.2 Sub Tank

In the big room, while going to the top-right brings to the exits, going to the top-left corner will bring the player to the sub tank. To obtain it the player has

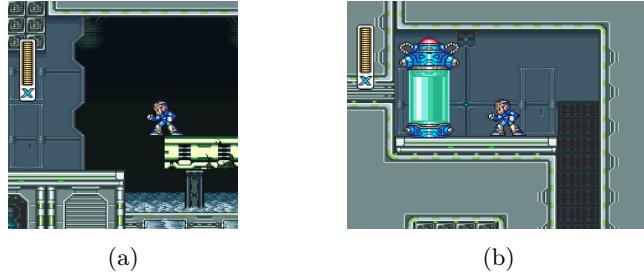


Figure 1.34: Buster upgrade position: a dash-jump is required from (a) to start wall-jumping and break the ceiling to reach (b).

first to reach the highest platform (the one with a life up) and then dash-jump to the left to reach the wall and climb it. While climbing X will reach a part of the wall made of block breakable with the Foot Parts. Behind these blocks there is a small path with the sub tank in it.



Figure 1.35: Flame Mammoth's Sub Tank

1.11.3 Heart Tank

As with the previous power-ups, the Heart Tank too is “hidden” in the big room. In truth it isn’t hidden at all, since it is in plain sight at the bottom-right corner of the room, floating on top of the molten iron. There is no way X can get it with the iron in the molten state, so the only way to get it is to defeat Chill Penguin first, freezing the ground and allowing X to walk on it to reach the Heart Tank safely.

1.11.4 Flame Mammoth

Flame Mammoth, the “*Blazing Oil Tank*” [26] was the captain of the 4t Land battalion, with base in the Middle East, before joining Sigma and being labeled as Maverick. His big size and firepower have always been his pride, making him arrogant and cocky, eventually even leading to enjoy bullying/humiliating



Figure 1.36: Factory Stage’s Heart Tank location. To get it, defeating Chill Penguin is mandatory.

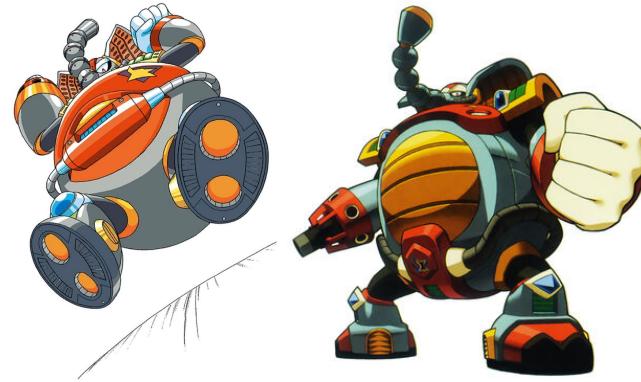


Figure 1.37: Flame Mammoth’s designs ([26])

smaller reploids (which as [27] states, he even hates), Chill Penguin [1.9.3] [36] included. Mammoth’s only desire was to show his full power and use it to go into a violent rampage, destroying everything he wanted, and Sigma’s rebellion was the perfect way to achieve it. However due to being an extremely arrogant and hated leader, no one from his old battalion followed him [11].

The battle against Mammoth takes place in a large arena on top of a conveyor belt. Mammoth himself commands. He has three main attacks: When he uses his “Oiling” attack he launches a blob of oil (stored in his stomach [27]) from his trunk. The oil itself does not harm X but can set up a trap when combined with another of Mammoth’s attacks, the Fire Wave. With this attack, Flame Mammoth shoots several fireballs from his buster towards X which fall onto the ground. If a fireball makes contact with the oil, it bursts into a pillar of fire. Finally Mammoth can use his “Jump Press” attack, which sees him leaping toward X in order to crush him. Once he lands, a shock-wave is produced which stuns X making him fall onto the ground, if he was on the ground when Mammoth landed. Occasionally Flame Mammoth will also trumpet inverting the direction the conveyor is facing.



(a) Oiling



(b) Fire Wave



(c) Oil ignited by the fire



(d) Trumpet



(e) Jump Press



(f) Flame Mammoth with his trunk cut off

Figure 1.38: Flame Mammoth's attacks.

Battling Flame Mammoth can be tricky, but is not impossible. While his oil and Fire Wave attacks are rather simple to dodge, the real threat resides in his press attack, which he will use often and, moreover, he will perform from off-screen. The arena in fact is much wider than all others, not fitting into a single screen. This can lead to the boss to attack from outside the field of view of the player, who has to act quickly to dodge incoming attacks, such as Mammoth leaping onto X. Furthermore, as stated previously, his jump attack also creates a tremor which stun X if on the ground, so avoiding his landing may not be sufficient. Flame Mammoth's weakness is the Storm Tornado which however just deals more damage to him and can dispel his flame attack, but it has no other effect on Mammoth himself. What instead has an effect on Flame Mammoth is the boomerang cutter: three hits will cut his trunk, preventing him to spit oil and to reverse the belt direction.

By beating Flame Mammoth X gains the Fire Wave ([1.5.4](#)) and, by consequence, the access to Chill Penguin's heart tank (see [[1.9.2](#)]). However, beating this stage has no interaction with other stages.

According to data available, Flame Mammoth is 321 cm tall and 327 Kg heavy (slightly heavier than what portrayed in game).



Health Bar	32
Attack	Damage
Contact	4
Fire wave	2
Oiling	0

Figure 1.39: Left: Flame Mammoth's specifications and according to X1; Right: In-game data [[36](#)].

1.12 Sky

In the *Sky stage* (or *New Type Airport* in the remake) X starts from the ground and has to climb up the airport structures in order to reach the [Death Rogumer](#) as it leaves, in order to destroy it.

The stage focuses mainly on platforming above bottomless pits and on moving platforms, as it takes place in the sky. Various enemies are also placed on some of this platform in order to obstacle X while jumping. X starts on the ground and has to immediately climb using some rising platforms to reach the airport's roof, while some [Sky Claws](#) try to grab him and make him fall into the pit. Once on the roof some enemies separate X from the following platforming

section. Here a series of platforms moves up and down in an alternate way and on some of them **Flamers** are positioned, which have a good horizontal range and must be destroyed in order for X to step on their platforms. However they are positioned on every other platform, meaning the player can skip them, by dash-jumping from the platform X stands when it's at the peak and landing two platforms ahead, in another empty one. Following this part, there is a pretty straightforward section where X has to defeat more enemies in order to proceed. Finally the last part begins with a series of three platforms above a bottomless pit which will proceed to fall as X steps on them, giving the player little time to jump onto the following one. After this X will reach the Death Rogumer itself and, after passing its two cannons, X will stand in front of the boss door. On the far right of the ship, before entering the boss, a weapon tank and a health tank are present onto the ship wing.

The stage has the following enemies [37]:

- Ball De Voux
- Flamer
- Gun Volt
- Hoganmer
- Lift Cannon
- Metall C-15
- Sky Claw
- Death Rogumer's cannons

1.12.1 Heart Tank

Right at the beginning of the stage, if when the rising platform reaches its top X jumps left instead of right will land onto a platform right above the starting point but not accessible from below. On this platform is where the Heart Tank is.

1.12.2 Sub Tank

After reaching the airport roof the player will find a **Lift Cannon**, a cannon on top of a platform which rises and lowers as the cannon spins. Once the enemy is destroyed the platform will fall down, only to rise again if X stands on it, bringing him near a window X can destroy and enter the tower. Here a **Gun Volt** is present and, as X destroys it, all windows will shatter, opening and exit on the opposite side X has entered. At the end of this tower is where the Sub Tank is.



Figure 1.40: Sky's Heart Tank location. A dash-jump from (a) to the left brings the player to the Heart's location (b).

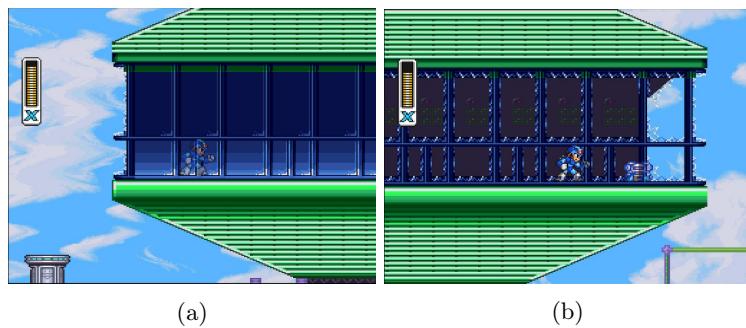


Figure 1.41: Airport's Sub Tank location. From the top of the platform X has to break the window and enter the tower. At the end is where the Sub Tank is.

1.12.3 Light's Capsule

While traveling the stage the player may notice that some locations present walls which incorporate canisters bearing a flammable mark onto them. These objects are not background but breakable objects which hide secret paths. While it is



Figure 1.42: Head parts location: by destroying the fuel tanks the capsule is on the right.

logical to think the Fire Wave weapon is necessary to detonate them, this is not true and X buster's charged shots can work as well, only requiring a few more shots. Most of these secret paths lead only to small rooms with single health tanks or life up, but the one near the pylon after the moving platforms' sequence (which also presents a slightly different color pattern) hides the secret path which leads to the Head Parts capsule.

In *MHX* this capsule contains the Body Parts instead, placed in the same location as the original game. However to reach it the Head Parts are required since the entrance is closed by some breakable blocks.

1.12.4 Storm Eagle



Figure 1.43: Storm Eagle's designs ([26])

Storm Eagle was the taciturn, calm, careful strategist and leader of the Maverick hunters' 7th Airborne Unit [38]. Although not talking much and

being difficult to approach, Storm Eagle was a very popular leader among his men [11]. Loyal to his job as Maverick Hunter, when the rebellion broke out Eagle's first reaction was to haunt down and challenge Sigma. However Sigma was no match for him, and Storm Eagle was forced to surrender. It is not clear however if him joining Sigma was mostly due simply to an self-preservation instinct (as the original game and the collection hint [2]) or due to his pride, which forced him to follow Sigma even if reluctant (hinted in the remake). In both cases Storm Eagle ended up controlling the Death Rogumer, a new type of aerial battleship (the same one X meets at the end of the Highway Stage from which Vile descends).

The difficulty of Storm Eagle's battle can vary a lot depending on whether X has already obtained the Foot Parts [1.9.1] or not. This is due to the fact that most of Storm Eagle's attacks (two out of four) revolve around pushing X off the arena, which is only a long platform on top of a pit, and having the dash completely nullify these attacks. In particular these two attacks are his Gust [38] and Storm Tornado. The former sees Eagle flapping his wings to create a rush



(a) Bird Summon



(b) Dive

of air which push X away at a slow rate and simply walking can prevent X from falling, if he has enough space left, while the latter generates a horizontal tornado which doesn't deal any damage but push X much faster and, without dashing through, can be hard to counter. Beside them, Storm Eagle has also his Diving attack, that makes him rise out of the screen to dive-bomb diagonally onto X several times before returning on the ground. X can either focus on dodging Eagle, which should be rather simple as the arena is tall enough to see Eagle diving in advance, or can even try to hit him, as he's not invincible while performing this attack. Finally Storm Eagle has his Bird Summon attack, that consists in him shooting out an egg from his beak while hovering mid-air and, if the egg hits the ground, it hatches into four mini bird-like robots which fly

towards X.



Figure 1.44: Storm Eagle’s attacks.

Storm Eagle’s weakness is the Chameleon Sting, which deals him more damage and, thanks to its angle, can hit him better when he’s mid-air. Upon defeating him, X will gain the Storm Tornado (1.5.5) and, furthermore, the Death Rogumer will crash land onto the Power Plant Stage cutting the electricity in some section, making the level easier to navigate (moreover the airship will also disappear from the level preview screen and from the level itself, since future revisits will have X exit before the falling platforms section).

Storm Eagle is 250 cm tall and 135 Kg heavy, while his title is “*Nobleman of the Skies*” [26].

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Figure 1.45: Left: Storm Eagle’s specifications and according to X1; Right: In-game data [38].



Figure 1.46: Airport level preview before and after defeating Storm Eagle. Note how the Death Rogumer disappears.

1.13 Tower

Among all other stages, the *Tower Stage* (or *Fortress Tower*) is the most different due to the fact of extending mostly in vertical. This translates in the player having to climb it via wall-jumping or using moving platforms, with the risk of being hit and falling down back at the beginning.

The first part of the stage sees X climbing a series of platforms placed in a zig-zag pattern and with enemies on them, which will try to attack X while jumping from one to another and make him fall down. Next is a horizontal section in which *Sine Faller* will keep spawning and chasing after X which will also have to deal with laser traps that will shoot X if he passes through laser triggers while active. The traps cannot be destroyed, but it is possible to trigger them and avoid lasers if the player moves fast enough.

The third part begins with a series platform one on top of each other, with some of them with a *Mega Tortoises* on it (they can be skipped with precise dash-jumps). Once on top the player will reach an elevator with spikes all along the walls. As X stands on it, it will start ascending and going towards some platform with spikes beneath them, which will insta-kill X if he isn't fast enough to dodge them. Other enemies will also spawn and aim at X to obstacle his movements. As the elevator goes up it will start increasing its speed and making it more difficult to avoid the obstacles. Near the end of its ride the elevator will slow down to let X dismount in time, before crashing against the spiked roof. During this part a trick can be performed: if X stands on the rightmost side of the elevator he will avoid all spiked platform, eliminating the major risk factor of this part (see fig. 1.47 or the video file `videos/X1/Tower_spike_climb.mp4` for more information).

Finally there are two other climbing sections, one on the tower's outside with moving platforms and enemies on top of them, and the last one, inside, again with enemies on top of moving platforms and on walls as well. At the end of this last part the player will find the boss door.

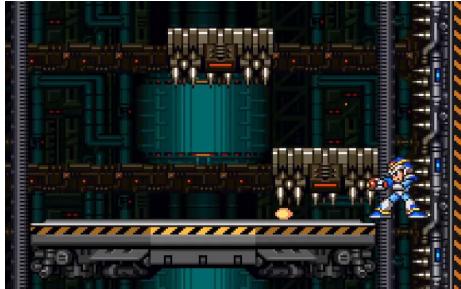


Figure 1.47: By standing in this precise position X will not collide with any spikes, even the lateral one, lowering the difficulty of this section.

This stage contains following enemies [39]:

- Dodge Blaster
- Hoganmer
- Jamminger
- Ladder Yadder
- Mega Tortoise
- Ray Trap
- Sine Faller
- Slide Cannon
- Turn Cannon

1.13.1 Heart Tank

This stage's Heart tank is hidden in plain sight right at the end of the outside section, on a large platform near the entrance for the last stage's portion. While being easy to spot, it isn't as easy to get, especially during the stage's first run. Three methods exist to get it. The first and easiest way is to replay the stage after having acquired the Boomerang Cutter and use a boomerang to grab it from the tower's inside, since boomerangs pass through walls. The second way is to use a charged Shotgun Ice from the entrance and ride the platform while midair, to perform a dash jump from it which will give X enough height to grab the platform's edge (see video file `videos/X1/Tower_heart_ice.mp4`). Finally it is also possible to reach the platform via a pixel-perfect dash-jump which gives X barely enough height to trigger a wall-jump of the platform's edge and subsequently reach its top and the Heart Tank [1.20.2] for information on involved tricks). This last technique is known as *Iceless*.



Figure 1.48: Tower Stage’s Heart Tank location.

1.13.2 Boomer Kuwanger



Figure 1.49: Boomer Kuwanger’s designs ([26])

Boomer Kuwanger (lately renamed *Boomerang Kuwanger*) was a former Maverick Hunter of the 17th Elite Unit under the direct command of Sigma (and also partner of X and Zero in the *MHX* remake). However due to his cold, analytic, almost nihilist [40], and cynical vision of the world, he has never had a true sense of justice nor ideals, acting only following logic and his own interest [11]. This led him to join Sigma’s rebellion without interest in its meanings, but the true reasons behind his choice have never been explained. Some sources suggest Kuwanger went Maverick and followed Sigma only has it was the most logical action [11], others due to his own interest in seeing the events’ turn [41] or even both [40]. Other sources even suggest he went Maverick out of fun [2] or out of spite for humans [27]. Whatever Boomer Kuwanger’s reasons were, after joining Sigma he conquered the tower symbol of the city, to convert it into his own base. In battle Boomer Kuwanger attacks with his signature ability, the instant transmission, which allows him to teleport across the arena, typically behind his opponent, to strike him with his horns. This teleportation ability has earned him the title of “*Blade Demon of Space and Time*” [26].

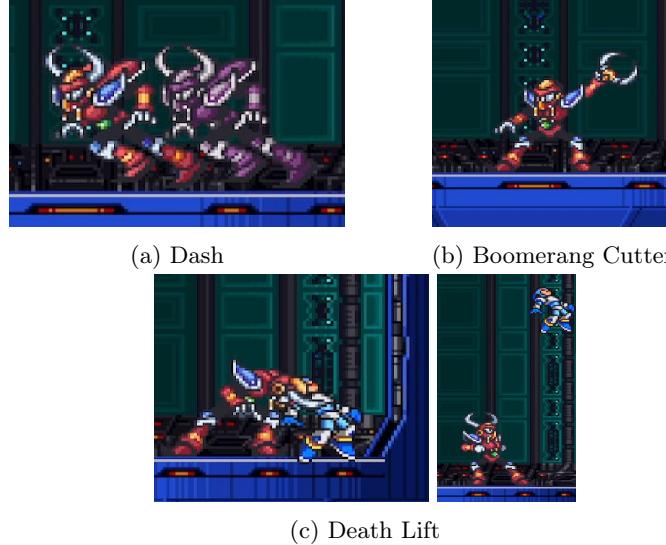


Figure 1.50: Boomer Kuwanger’s attacks.

Once Kuwanger reappears he will perform one attack between Boomerang Cutter and Death Lift. With the first one he will throw his horns toward X with a curved trajectory which will then travel back to him, as the name suggests, while when performing the second one, Death Lift, he will grab X with his mandibles and throw him into the ceiling dealing large damage. Finally Boomer Kuwanger also has a dash attack, where he dashes toward X to damage him.

Dealing with Boomer Kuwanger isn’t easy without his weakness, as the continuous teleporting makes him hard to hit with buster shots more than once. Furthermore the player has to keep moving in the arena to avoid Kuwanger to teleport near him and use his Death Lift attack for massive damage.

The boss fight takes a turn when fought with Boomer Kuwanger’s main weakness: the Homing Torpedo. Since missiles shot with this weapon lock onto enemies they can chase Kuwanger even when teleporting, meaning they will always hit him no matter his position. This drastically reduces the fight complexity as X can literally hide in a corner while shooting torpedoes which will automatically hit Boomer Kuwanger, also with increased damage as they’re his weakness.

According to his specifications Boomer Kuwanger is 242 cm tall and 94 Kg heavy (again, different from in-game information which makes him shorter and lighter). More interesting however is the fact Boomer Kuwanger is one of few reploids known to have a family relationship with another reploid (in this specific case a brother): Gravity Beetle.

After defeating him X will gain the Boomerang Cutter weapon [1.5.7] for his own use.



Health	32
Attack	Damage
Contact	4
Boomerang cutter	2
Death Lift	4

Figure 1.51: Left: Boomer Kuwanger’s specifications and according to X1; Right: In-game data [41].

1.14 Power Plant

The *Power Plant* stage (or *Electromagnetic Power Plant* in the remake) is where Spark Mandrill resides. As to be expected from its name, this stage’s main feature revolves around electricity in various forms. However if the player manages to defeat Storm Eagle first the Death Rogumer will crash land onto this stage, cutting the power and removing part of the stage’s hazards.



Figure 1.52: Power Plant first (a) and after (b) Death rogumer crash land. In (b) remains of the airship are also visibles

The first section of the stage consists of a maze of pipes split into different levels connected by ladders. Here, along with some enemies, electric sparks will spawn and travel along the ground, dealing damage on contact. If Storm Eagle has already been defeated sparks won’t spawn, and lights will turn on and off at regular intervals. Passing this part a dangerous one awaits: here the light will shut down at regular intervals making it difficult to spot the level layout, especially pits. Furthermore along the stage **Hotarions** will spawn traveling horizontally illuminating the stage along their path. They can be rather dangerous as they move fast and, if the player doesn’t know where they spawn, can hit X while jumping and make him fall into a pit. At the middle of

the stage a sub-boss is present: the [Thunder Slimer](#). Its main attack consists in leaping into X with his big hitbox or to block X by scattering around bubbles of slime which trap X in place, making him vulnerable to his lightning bolts which it will shoot after having absorbed electricity from the plant. However if the player has cut off the power Thunder Slimer will not be able to perform this last attack.

Following this sub-boss there is a more traditional section with enemies placed along the way which ends with another platforming part with light going off. Once passed this section the player will reach the boss room.

Following enemies appear in this stage [42]:

- [Ball De Voux](#)
- [Flammingle](#)
- [Jamminger](#)
- [Gun Volt](#)
- [Hotarion](#)
- [Mega Tortoise](#)
- [Rush Roader](#)
- [Thunder Slimer](#)
- [Turn Cannon](#)

1.14.1 Sub Tank

This stage's Sub Tank can be found right at the beginning of the stage in the tube "maze". At one of its dead ends, in fact, the player should be able to spot The Sub Tank inside a room behind a wall, which is however impossible for X to enter, as all its sides are closed. This forces the player to have acquired the Boomerang Cutter and use its ability to grab an item from distance in order to get it, by throwing it while midair as doing it on the ground will cause boomerangs to curve upward, missing the desired item.

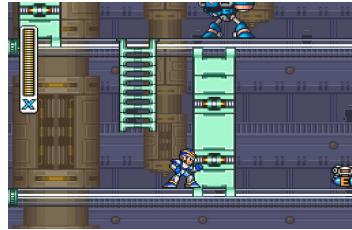


Figure 1.53: The stage's Sub Tank.

1.14.2 Heart Tank

While not properly hidden, this stage Heart Tank can be easily missed if the player does not pay enough attention during the level. More in detail, the Heart Tank is hidden at the end of the corridor after the Thunder Slimer, before descending the ladder. It is placed in the rightmost corner, which players could easily avoid if they fall down immediately instead of climbing the wall.

In order to get the collectible two options are possible: by using Boomerang Cutter's grab ability or with an accurate dash-jump from the wall.



Figure 1.54: Heart Tank location.

1.14.3 Spark Mandrill



Figure 1.55: Spark Mandrill's designs ([26])

Spark Mandrill was originally a Maverick Hunter of the 17th Elite unit directly under Sigma's control. When the latter started his revolt, Mandrill followed his commander without questioning, thus being labeled as a Maverick too. While not being very smart, Spark Mandrill compensated for this lacking by holding incredible raw power [11] which, also due to his taste for electricity,

made him the perfect candidate to seize the Power Plant, to private cities of electric power while also granting Sigma a stable source of energy. Another main trait Mandrill was also known for was his laziness. In fact once seized the Power Plant, he left the remaining work to his subordinates, while he stayed on the sidelines napping and chowing off the electricity produced by the main generator [27].

Better known as the “*Quick-Fisted King of Lightning*” [26] Mandrill keeps faith to his title by fights against X mostly using melee attacks, but he can also use ranged attack in the form of his own Electric Spark whether the situation requires.

Despite his size, Mandrill can move quite fast, especially when using his dash punch. This attack can be hard to avoid if X is near Mandrill since the punch comes out at high speed, while is easier to avoid when far from him, since Mandrill’s dash speed is relatively low. As said before Spark Mandrill can also attack from the distance using his Electric Spark. With this move Mandrill punches the ground producing two orbs made of electricity which travel in split directions along the ground and also along walls. These orbs move relatively fast but can be avoided with a jump at the right timing. Finally Mandrill will sometimes jump and hang to the ceiling and move toward X, dropping down when he passes below him. Spark Mandrill weakness is the shotgun ice. This

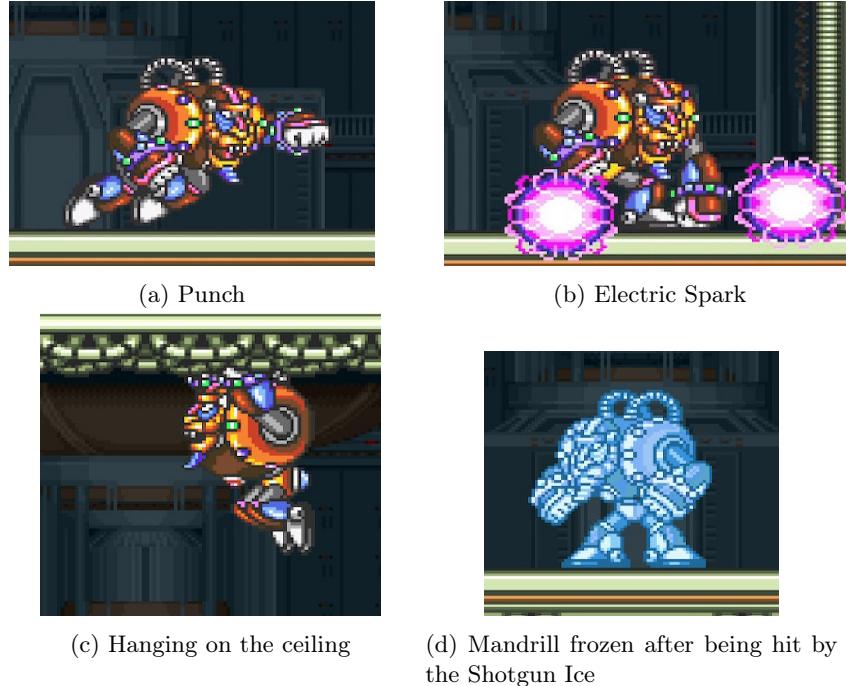


Figure 1.56: Spark Mandrill’s attacks.

weapon is extremely effective against him since not only it deals more damage and can hit him everywhere, thanks to its ricochet ability, but most importantly it freezes him in place, also making him fall if hanging on the ceiling. Once frozen Mandrill will reset his attack pattern, which means that if stopped while attacking he won't complete the attack once defrosted, but he will start a new one. More importantly Mandrill lacks invincibility frames when the ice shatters that makes him vulnerable to a second hit. This leads Mandrill into a deadly loop in which he gets frozen, breaks free and gets immediately frozen again without having the chance to attack. The time window to hit Mandrill as he breaks free isn't wide, but is large enough to allow most players to use this technique. Because of how much Mandrill's weakness trivialized the fight, over time internet users coined the term "*Spark Mandrill Syndrome*", which is used to indicate a boss that becomes very easily due to an exploit or a weakness.

According to his specifications Spark Mandrill is 305 cm tall and weighs 394 Kg (slightly heavier than in-game information). Upon defeated X will gain the Electric Spark [1.5.6] weapon.



Figure 1.57: Spar Mandril's specifications.



Health	32
Attack	Damage
Contact	6
Dash Punch	6
Electric Spark	4

Figure 1.58: Left: Spark Mandrill's specifications and according to X1; Right: In-game data [43].

1.15 Forest

Last but not least of *X1*'s main stages is the Forest (or Recon Base Ruins). This is a rather plain and straightforward level with no particular gimmicks involved or secret paths. Finally this is also one of the few stages which change depending if another boss has been defeated before: in this particular case if Launch Octopus is gone the Forest will be flooded. However this doesn't have an impact on level's difficulty, in contrast to other stages with this feature.



Figure 1.59: Forest stage before (a) and after (b) the flooding caused by Launch Octopus' defeat.

The beginning of the level sees X teleporting in the middle of the forest. From here he must proceed to the right fighting enemies, some of them also disguised as bushes, until he reaches the entrance of a tunnel. From here there are three possible paths: if X climbs the wall above the tunnel he will reach an area with the optional miniboss **RT-55J** and the Armor Parts; if he slide down the pit he will reach a hidden cave with the Heart Tank; finally if he proceed straight he will go on in the stage. While in the tunnel an earthquake will cause rocks to fall from the roof, damaging X if they hit him. Moreover enemies will also fall from the roof: they're **Crag Men** which disguise themselves as rocks and fall onto X as he passes beneath, only to transform after hitting the floor. This section is far less dangerous if X has either defeated RT-55J (which is the earthquake's cause) or obtained the helmet parts (which makes X invulnerable to falling rocks). In both cases Crag Men will always be present.

The last portion of the Stage is a Ride Armor section. Right at the beginning X is given a Ride Armor to proceed in the stage, which now presents large ponds of mud which makes X and the Armor slowly sink, interrupted by a small platform where the player can stand on. While X can free himself by repeatedly jumping, once the Ride Armor has sunk it is gone. This can be problematic since near the end enemies Ride Armors will start attacking and can be tough to take down without using one too. At the end of this stage's portion the player will find the boss door.

Following enemies appear in this stage [44]:

- **RT-55J**

- Amenhopper
- Armor Soldier(with Ride Armor)
- Axe Max
- Crag Man
- Creeper
- Hoganammer
- Jamminger
- Mad Pecker
- Planty&Iworms

1.15.1 Light's Capsule

The armor part is found near the beginning of the stage, before entering the tunnel. If X climbs the wall above said tunnel (reaching it by a dash-hump from above the pit) and proceed right he will reach an arena which will immediately close the exit with some falling rocks, and the RT-55J miniboss will appear. His main attack consists of using his claw to grub X (or pull itself towards the wall if the claw hits it) or, if X is out of the claw's range, jump onto him. Its weak points are the head and his whole body, which however is covered most of the time by its claw, which is instead immune to all attack. This means that beside specific occasions (such when it throws the claw), the main spot to hit is the head. Due to the lack of invincibility frames, the Storm Tornado is the best choice, although the Boomerang Cutter is considered its main weakness [45]. As the fight proceeds RT-55J will start smoking, indicating the fact that his health bar is low. Once the miniboss has been defeated the Light Capsule with the enhancement(Armor parts in the original, Buster parts in the remake) will rise from the ground.



Figure 1.60: Body part's capsule location.

1.15.2 Heart Tank

The Heart Tank position is mirrored with the Armor Parts. To reach it X has to slide down the pit near the beginning of the stage to find a wall breakable by the Foot Parts which leads to a small cavern. Once inside the Heart Tank will be on a small platform in the top-right corner of the room, above a bottomless pit. X cannot reach it normally with a dash jump due the distance, but he can if the cave is flooded as a consequence of defeating Launch Octopus, thanks to the extra height X gains when jumping underwater. Doing a wall dash-jump from the cave entrance is not recommended, since X will hit the roof and fall down into the pit.

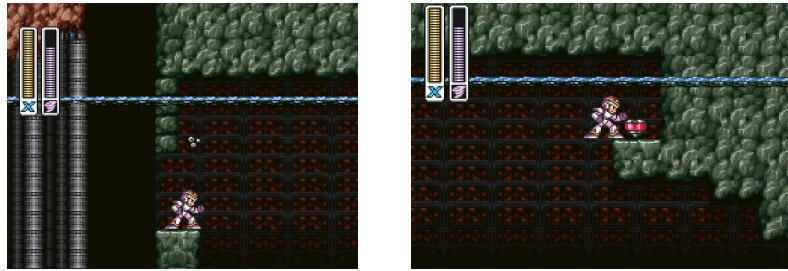


Figure 1.61: Forest stage's Heart Tank location

1.15.3 Sting Chameleon



Figure 1.62: Sting Chameleon's designs ([26])

Sting Chameleon once belonged to the Maverick Hunter's Ranger Unit (or 9th Special Force [27]). He was a very high-skilled Hunter which however was never worth a promotion due his sly, sneaky and sharp-tongue nature, which made him unpopular [2] among his commander and the other members of his unit. Furthermore Sting Chameleon's preference for strategy and his strong

belief in the “*By any mean necessary*” mantra worth him the title of coward [11]. Once Sigma started his riot, he saw an opening to rise through ranks and prove what he was capable of. Sigma then proceeded to put him in charge of defending the front-line base in the forest. Sting Chameleon uses three main weapons when

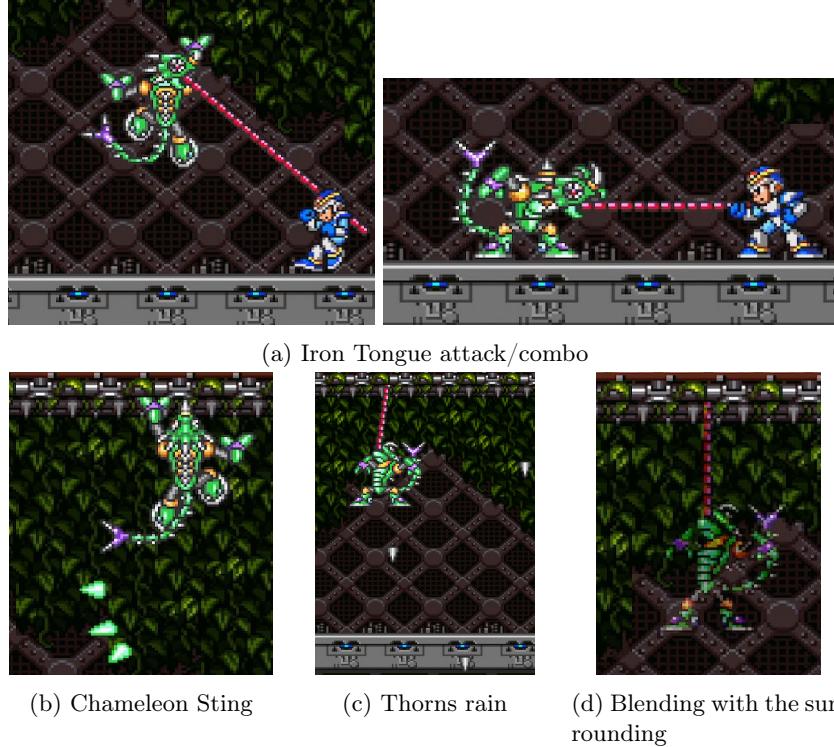


Figure 1.63: Sting Chameleon’s main attacks.

fighting [46]: his natural ability to blend with the surrounding, which makes him almost invisible to enemies, his long tongue, which he use to deliver high-speed attacks or even to hang himself around, and his main projectile, the Chameleon Sting, which he shots from his tail. These weapons all translate in attack he can perform while battling X at the end of the Forest Stage. His main method of movement is his Transparent Movement, which makes him transparent and invincible. After a short amount of time Chameleon will reappear, usually hanged on the background, ready to attack X. The player can however spot his position due the distortion he causes when moving, and intercept him before he launches his attack. If Chameleon reappears near X this means he will use his Iron Tongue attack, which strikes the player by rapidly extending his tongue, even up to three times in a row. Otherwise if he reappears in a top corner, then he will use his Chameleon Sting attack, shooting a sheet three of projectiles by swinging his tail. Finally Chameleon can also hang to the roof by using

his tongue and start shaking, causing spikes to fall from the roof (Thorn Rain) which will damage X, even with the Helmet Parts equipped.

While fighting Sting Chameleon without the correct weapon is not trivial, everything changes when using the Boomerang Cutter, his weakness. Although at first it seems this weapon only does increased damage to him, since it does not sever him like Flame Mammoth or Launch Octopus, at a more accurate analysis it is possible to see this weapon force his AI into a loop which can be exploited to end the fight quickly. Once hit Chameleon will, in fact, always move to the opposite side of the room and use his Thorn Rain attack. This means that the only thing the player has to do is stay in the center of the room, shooting some Boomerang Cutters where Chameleon will reappear and, as soon as he gets hit, turn and do the same thing in the opposite direction. The player hasn't even to take care of weapon energy, as all boomerangs which don't hit the boss will return and replenish the weapon energy used(see video [videos/X1/Sting_Chameleon_boomerang_loop.mp4](#) for an example of what said).

According to data, Sting Chameleon was 177 cm tall and 77 Kg heavy, while his title was “*Frightening Forest’s Strike*” [26]. After defeating Sting Chameleon X will add the Chameleon Sting (se. 1.5.2) weapon to his arsenal.



Health	32
Attack	Damage
Contact	4
Iron tongue	4
Torn rain	2
Chameleon Sting	2
Spikes (ceiling)	8

Figure 1.64: Left: Sting Chameleon’s specifications and according to X1; Right: In-game data [46].

1.16 Sigma’s Hideout 1 (X)

After having defeated all eight stages Zero will contact X telling him he has found Sigma’s hideout and asking to reach him. This will unlock the first of the four Sigma Stages. These levels all take place inside the Sigma Fortress and lead toward the final boss. However before starting it is important to note that the game doesn’t save the progress between these stages, meaning that all of them have to be done without exiting, or the player will be brought back to the first stage losing all progress done.

The stage begins with a dialogue between X and Zero, where the latter says

he will act as decoy to let X infiltrate from the back. After this scene the player regains control of X and can start traveling through the level.

At the beginning X has to face some enemies to reach a wide gap which separates him from the hideout entrance. Over the pit there are moving platforms at different heights, requiring the player to jump from one to another to reach the entrance while also fighting enemies which will spawn and home to X, making jumping across platforms harder as if they hit X he will be stunned and fall. Moreover, moving on these platforms isn't as easy as it looks, since sometimes the game will not register any dash input for a short amount of time if the player has first entered a moving input [19]. Basically this means that if the player starts moving while on one of these platforms, for about six frames all dash input will be ignored messing with movement and, probably, resulting in a death as X jumps off the platform without enough speed to reach the next one. To avoid this it is suggested both not to stop on these platforms or to directly input the dash command when start moving. Furthermore it is also possible to reach the entrance without needing to use all platforms. In fact the third platform brings X near the fortress's basements which are considered as a solid wall where X can wall jump. Although not easy it is possible for the player to climb this portion (while also dealing with enemies, so a protective weapon such as the charged Chameleon Sting or the charged Rolling Shield is suggested) and reach the entrance.

Following the pit part is a more regular section with enemies placed on the floor and ceiling shooting at X. This part terminates with a series of ladders leading the player to a boss door. Once reached the door Vile will appear and Zero will challenge him, leaving the room before X. After this scene the player can enter the next room, an empty one, and then the following one. Here Vile (inside his own Ride Armor) has captured Zero and now challenges X to a fight which, similar to the first one, the player cannot win. In fact this battle will always end with Vile paralyzing X once he drops below a certain amount of health. After this Zero will break free, leach to Vile and explode, destroying however only his armor and leaving Vile untouched: it is then X's task to finish him by breaking free too, regaining all lost energy and facing him in fight.

After beating Vile one last scene will play with Zero speaking his last words to X, and eventually giving the player his Z-buster (which behave exactly as the Arm parts). The rest of the level is another traditional run-and-gun section with enemies coming from the Tower stage, springs and laser included. This is not a coincidence as once reached the end of this part another boss fight awaits: it's the rematch against Boomer Kuwanger [1.13.2] and the very first of eight rematches the player has to face before reaching the final boss, a tradition shared across all Mega Man games. These fights have nothing new respect original ones, so those same strategies used back then work here as well. However, should the player have unlocked the hadoken technique, and reached the fight with full health, most of these rematches can be won very easily. Boomer Kuwanger, for example, will always use his dash attack as first move, which opens him up very well to be hit by the hadoken (file `videos/X1/Kuwanger_rematch_hadoken.mp4`).

Once Kuwanger has been defeated the door to the last portion of the stage

will open. Again this is a traditional run-and-gun section leading to the final boss of the stage: Bospider.

Enemies present in the stage are following [47]:

- Ball De Voux
- Dodge Blaster
- Gun Volt
- Hoganmer
- Jamminger
- Mega Tortoise
- Metall C-15
- Ray Trap
- Sine Faller
- Spiky
- Turn Cannon

1.16.1 Vile



Figure 1.65: Vile's designs ([26])

Vile (or *Vava* in Japanese, chap. 7) was once an SA ranked Maverick Hunter (the highest rank, the same as Zero) belonging to the 17th Elite Unit commanded by Sigma himself. However due to a fault in his electric brain his

mission of protecting humans became twisted in the obsessive need to destroy Mavericks at all cost, even ignoring collateral damage. Because of this he was removed from the Maverick Hunter and incarcerated with the suspicion of being a Maverick himself. His time in prisons was not long however since Sigma's rebellion began shortly after his capture and this gave him the perfect chance to escape [2],[11],[27] (or, as seen in the *day of Σ* OVA, Sigma himself set him free).



Figure 1.66: Vile in his custom Ride Armor([26])

Vile's personality and roles in the *X1* game and its remake are rather different. In the original game little is known of the reasons he joins Sigma, but it seems he occupies a high position among Sigma's ranks, first taking part in the attack on the highway and later being the first line of defense in Sigma's hideout. In both situations Vile proves himself to be an arrogant and violent person, but also a careful one, knowing that Zero is a formidable opponent that he can't face easily and which leads him first to retreat, during the highway attack, and later to set up a trap to capture him when the two face in Sigma's hideout [48]. However he doesn't reserve the same treatment to X, implying the fact Vile doesn't consider X to be a match for him. In the remake Vile has similar traits, but also has a deep hatred for X from the beginning due to the high expectations everyone has for him and that Vile doesn't understand. Here Vile's sole purpose is to destroy X at all cost and has no interest in helping Sigma at all, even arriving to the point of claiming he will defeat Sigma and change the world instead¹.

As stated by Zero himself, Vile "*is designed to be a war machine*". While this is especially true when he's inside his Ride Armor, which makes him completely invincible, it is not so true for Vile himself. In battle he only has a few attacks which, while they deal a good amount of damage, are easily avoidable even if the arena has no walls to perform wall jumps.

Vile has only three attacks [48]. The first one is his Electric Shock Round, which is the same projectile Vile uses to paralyze X in the previous fights. Just as other instances if this attack connects it won't damage X but will stun him

¹"You underestimated me. I hate that about you... X! There's nothing you can do! I'll defeat you and Sigma! Then I'll change the world" [3]

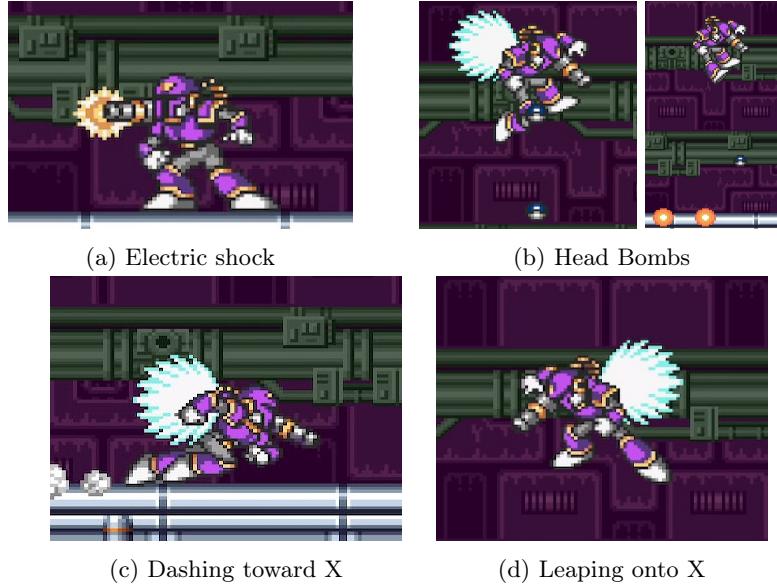


Figure 1.67: Vile’s attack.

Health	32
Attack	Damage
Contact	8
Head Bombs	4
Head-Bombs spark	4
Shock Round	0

Table 1.1: Vile’s in-game data (un-armored).

briefly, making him unable to move and open to other attacks. His second attack is the Head Bomb. Vile will perform this attack while hovering in the air and will drop two bombs from his knee which, upon contact with the ground, will split into two sparks which travel along the ground in opposite directions. Finally Vile can also dash at X with relative good speed to deal him contact damage. He can perform this attack either by dashing along the ground or by leaping into the air and landing onto X.

The real difficulty of this battle is not given by Vile’s attack but rather by his speed, as Vile will be constantly moving across the screen and even outside. This, combined with his relatively small hitbox, makes him a hard target to hit with normal shots and even his main weakness, the Rolling Shield. Vile however takes significant damage also from another weapon, the Homing Torpedo. Using this sub-weapon makes the fight slightly easier since it will automatically aim to Vile’s position allowing the player to focus on dodging incoming attacks.

1.16.2 Bospider

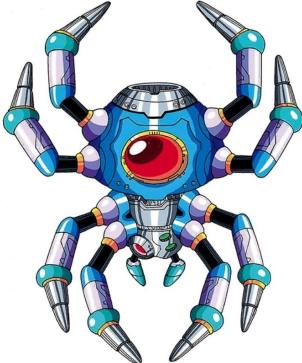


Figure 1.68: Bospider's design([26])

Bospider was developed to be a large-scale crusher. At the beginning of its development it was supposed to become an invincible mechaniloid without defensive flaws, but a design mistake caused him to expose his core when the body received a shock. The same core also powers-up an internal device which enables Bospider to create spider-like child mechaniloids [27]. Sigma took it and made him a guardian of his hideout.

Bospider's fight revolves heavily around RNG. Inside the boss room there are four rails which get connected by horizontal lines which generate randomly. The boss will appear on top of one of the main rails randomly and descend following rules of the "Amida Lotter" (Amidakuji), basically changing the rail it descends every time an horizontal line is found. Once on the ground Bospider will shortly expose his red core to be hit before climbing up and restarting its attack pattern. Furthermore Bospider will sometimes spawn four Petitpiders (either while on top or half-way while descending) which will travel along and climb walls until they reach the roof [49].

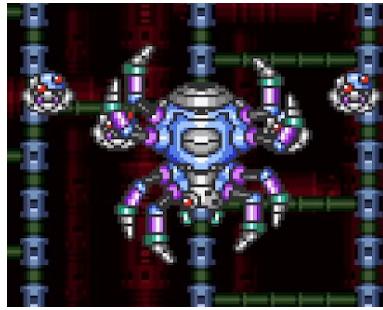
In order to defeat Bospider the player has to quickly calculate where Bospider will land and hit him with an attack before the core disappears (however besides charged shots and Shotgun Ice any other weapons will deal small damage to him). This cannot be trivial, especially in the later part of the fight where Bospider increases his attack speed.

Health	32
Attack	Damage
Contact	8

Table 1.2: Bosspider's in-game data [49].



(a) Bosspider Core exposed



(b) Bospider releasing Petitpiders.

Figure 1.69: Bospider attacks.

1.17 Sigma's Hideout 2 (X)

The second hideout stage is rather simple. At the beginning is a short section with moving platforms and enemies which aims to catch X while jumping and make him fall, which ends with a wall X has to climb. On top of the wall is the first boss door of the stage, containing Chill Penguin's rematch [1.9.3]. Next is a long corridor with more enemies, Ride Armors included. These latter foes can be hard to take on as they move very quickly, hit hard and take many hits to be destroyed. Luckily right at the beginning of the section it is possible to find an Armor Soldier standing next to an empty armor. If the player acts quickly it is possible to destroy him before he jumps into the armor, allowing the player to steal it and use it for the rest of the section, otherwise the enemy will jump in and will use the Ride Armor against the player. In this case it is suggested to make some step back in order to let the Armor Soldier and the Armor to respawn, giving another chance to steal it. At the end of the part a vertical section awaits, where there are two paths separated by a wall: on the left X has to climb via wall jumping while avoiding cannons onto moving platforms, while on the right X can climb using ladders, while cannons move along the walls. Either way once reached the summit X will have to rematch Storm Eagle [1.12.4] by jumping a gap between the exit of the tower and the rematch's arena. After the fight, by jumping the gap to the arena's right, the last part of the stage awaits. It is another climbing section, similar to Tower stage's first part with enemies placed on upper platforms attacking X while he climbs. Once reached the top X the player will find the last boss door of the stage.

Enemies in the stage are the following [47]:

- [Armor Soldier \(in Ride Armor\)](#)
- [Batton Bone](#)
- [Dig Labour](#)

- Dodge Blaster
- Flammingle
- Hoganmer
- Sine Faller
- Spiky
- Turn Cannon

1.17.1 Rangda Bangda

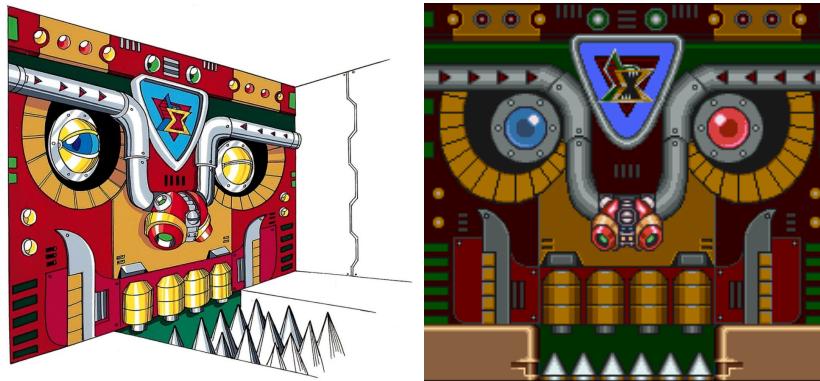


Figure 1.70: Rangda Bangda’s design([26]) and full sprite, with spikes resembling teeth.

Rangda Bangda was designed as a machine to crush intruders which entered Sigma’s hideout. However due a miscalculation his walls only close halfway, forcing his creators to remodel it in order to make its eyes and nose move and attack. Its design is based on a mural Sigma saw in Southeast Asia while still working as a Maverick Hunter, and that pleased him [27].

Rangda Bangda has only four attacks, three of them which comes from its eyes [50]: the green eye will shoot projectiles to X; the blue eyes will home to X position but will not change its direction while moving, meaning that if X moves a little than the eye will miss him; the red eye combines both the blue and green one by either shooting while moving toward X or shooting three projectiles at once. For his last attack Rangda Bangda will close the walls to cover all the floor except for the spike pit and the nose will start bouncing between them (its first movement will always be diagonal upwards [51]). After a while the nose will stop moving, and the wall will open up again.

Fighting this boss is relatively easy but it should not be underestimated, since it can deal heavy damage and one single error could mean falling onto the spikes and having to restart all over again. In order to defeat it the player has

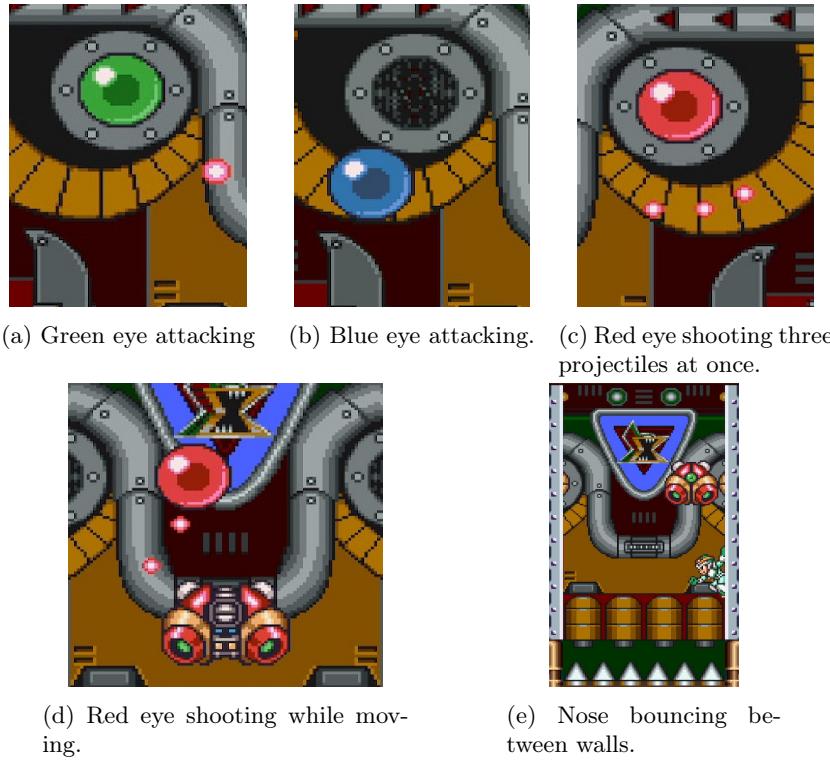


Figure 1.71: Rangda Bangda attacks.

Total Health	32
Eyes Health	11
Nose Health	10
Attack	Damage
Contact (eyes)	6
Contact (nose)	6
Eye projectiles (all)	2
Spikes	Instant death

Table 1.3: Rangda Bangda's in-game data [50].

to destroy all its parts (the two eyes and the nose) by attacking them. To do this its weakness, the Chameleon Sting, can be helpful as it aims diagonally and can easily hit the eyes in all their positions as well as the nose. However it is suggested to save the nose for last as once destroyed the wall won't open again, making it almost impossible to see which eye has opened and where, while also making it harder to hit them.

1.18 Sigma's Hideout 3(X)

This stage is the last one before the final boss. Here are concentrated all remaining rematches which miss from previous stages, split up by short sections with enemies and healing items. This stage has the highest number of rematch in the all game, for a total of five out of eight.

X starts at the bottom of a vertical room which X has to climb to reach the first boss: Armored Armadillo [1.10.4]. Here a glitch can also be performed, which allows the player to enter the boss room without making the boss appear, skipping the whole fight (see [1.20.7] for more details). The next rematch is against Sting Chameleon [1.15.3], and after that a descendant path leads to Spark Mandrill [1.14.3]. Next is a small underwater section which preempt the rematch against Launch Octopus [1.8.2] and, following it, a long corridor which ends in the rematch against the last remaining boss, Flame Mammoth [1.11.4]. Once defeated this last boss the player will be able to proceed to fight the stage's final boss.

Enemies that appears in the stage are followings [47]:

- Batton Bone
- Dig Labour
- Gulpfer
- Mega Tortoise
- Rush Roader
- Sine Faller
- Turn Cannon
- Ray Trap

1.18.1 D-REX

D-REX is the final boss of the third Sigma's Hideout stage. It was originally designed to be a 30-meter tall weapon of destruction based on carnivorous dinosaur from the past but Sigma's fortress was discovered before the project was finished, so its construction was rushed and the only part completed (the head) was mounted onto a movable tank. However its two components (the upper



Figure 1.72: D-Rex’s design([26])

and lower jaws) are not connected and can move on their own, an ability that D-REX uses to crush foes with a scissor attack. Furthermore each one of its components has an individual power reactor from which they can absorb energy and combine it into a massive energy ball [27]. When battled D-REX will



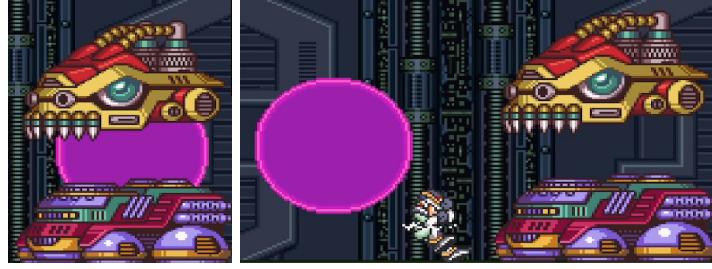
(a) D-REX Crushing X between his jaws.



(b) D-REX attacking with the upper part (c) X falling due D-REX hitting the walls.



mainly attack by slamming one of its parts into the wall trying to hit X, the lower when X is on the ground while the upper if he’s mid-air. However the player has to be careful, as if both parts connect to a wall at the same time X will get stunned for a short amount of time. X can easily dodge these attacks by standing on the ground and performing a dash-jump over the lower part as it comes closer. X can also stand on it to avoid getting hit, but this will cause the



(d) D-REX Energy Ball.

Figure 1.73: D-REX attacks list.

upper part to fall down and crush him. Finally D-REX will sometimes charge its Energy Ball attack, which will create a big energy sphere which will then shoot to X.

In order to defeat D-REX X will have to hit it on the upper part only, as the lower part is totally invincible. This could be tricky, as most weapons attack in straight lines and aiming can be difficult while dodging, especially since the upper part will mostly be in the air. Luckily its main weakness, the Boomerang Cutter, solves this problem as it not only deals good damage to it, but its upward-curving trajectory is ideal to hit it while standing on the ground.

Total Health	32
Attack	Damage
Contact (top)	4
Contact (bottom)	0
Crush into wall	6
Crush in jaws	10
Energy Ball	8

Table 1.4: D-Rex's in-game data [52].

1.19 Sigma's Hideout 4 (X)

This is the last stage of the game. Nothing is here except for the long climb to Sigma's chamber. No enemies appear here except for Creepers which will endlessly spawn from two holes midway through the climb. These enemies are the perfect spot to restore weapon energy as well as life-ups and health drops which can be used to fill sub-tanks. To do this the suggested way is to use the charged Rolling Shield and stay below the spawn point, which will cause enemies to get destroyed as they appear and drop energy directly onto X. Once all preparations have been done the player can proceed to reach the

summit's stage, where three boss fights awaits, with no checkpoint in between and increasing difficulty.

1.19.1 Velguarder

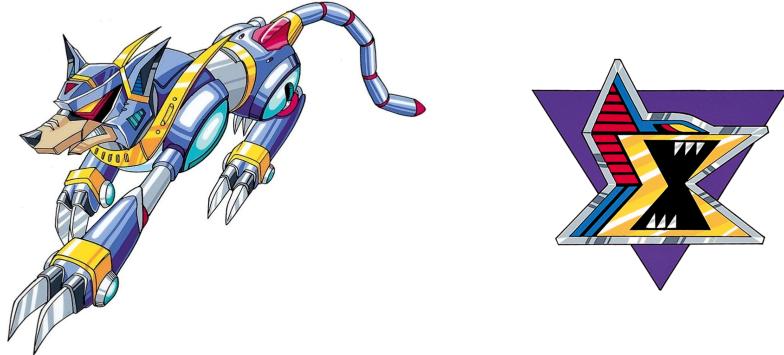


Figure 1.74: Velguarder's design([26]). Near is Sigma's insignia, which shares a common point with Velguarder's head.

Before facing Sigma himself X has first to defeat his pet, Velguarder. Velguarder is a wolf type reploid, specifically created with a ferocious mind circuit in order to hunt and terminate those who oppose Sigma. Since Sigma himself supervised his creation, Velguarder and Sigma have common traits, such as the ability to perform the Triangular Attack (dashing between two walls at high speed).



(a) Velguarder performing a triangular attack and leaping onto X. (b) Velguarder's Plasma shots.

As a boss Velguarder can be difficult to manage as its very aggressive towards the player, especially since most of his attacks come out at high speed and can be difficult to dodge if the player is not prepared. Moreover his wall jump abilities makes it dangerous for the player to use wall jumps to avoid his attacks. In addition Velguarder is also capable of shooting two different types of ranged attacks: electrical projectiles which are scattered at various heights in a curved trajectory, and a fire stream which travels first downwards to curve up at X's position. Velguarder's weakness is the Shotgun Ice which deals him heavy

Total Health	32
Attack	Damage
Contact	6
Plasma shots	4
Fire breath	4

Table 1.5: Velguarder’s in-game data [53].

damages and, due its ricochet capability, it guarantees to hit him even while it’s jumping. Another successful strategy is using the hadoken to instantly kill at the beginning of the fight. In fact as the fight begins Velguarder will always perform the same pattern: a diagonal-upward jump to reach the wall behind X, then a diagonal-downward jump to go back to his original position and finally a dash toward X. Although this pattern is performed at high speed the time Velguarder uses to perform it is more than sufficient for the player to input the hadoken, which is guarantee to land and end the fight(see first part of [videos/X1/Velguarder+Sigma_hadoken.mp4](#) for timing).



(c) Velguarder’s Fire breath attack.

Figure 1.75: Velguarer’s main attacks.

1.19.2 Sigma

Once Velguarder has been defeated Sigma will reappear to fight X on his own. Sigma (chap. 6) was the greatest creation of Dr. Cain, the father of all reploids, and often considered the strongest reploid ever created [27] or even the ultimate reploid [11]. Former leader of the 17th Elite Unit of the Maverick Hunter, the same unit Zero, Vile (and X in the remake) Sigma was created with incredible strength and intelligence to be the perfect leader: calm and collected when giving order, merciless when fighting [2]. As the time passed however Sigma began to change, reaching the point where he decided that, to create a suitable world for reploids, humanity must be extinct and therefore starting a rebellion. Due its role in the Maverick Hunter organization and incredible strength he managed to recruit a large number of soldiers in his ranks, crushing the ones who opposed him.



Figure 1.76: Sigma's design([26]).

Sigma's reasons for the rebellion is substantially the same both in the original game and its remake, the latter also thanks to the "Day of Σ" OVA which tells the story prior to Sigma's betrayal. From both games it appears that Sigma had become fascinated by reploids' potential, especially X's one, to the point of making him believe reploids were destined to be the next evolutionary step and humans were only a stop to that process [6]. He then took charge of accomplishing that process by eradicating humanity in the name of evolution² to create a new world for reploid only³, and labeling anyone who doesn't agree as a traitor of it⁴.

Being the strongest reploid ever created clearly comes into play when speaking of Sigma's attitude since he is clearly conscious of his situation which lets him watch other reploids from above of his power, sometimes underestimating potential threats like X. However he also possesses an incredible fighting spirit, which lights up when he recognizes X as a worthy opponent, although keeping his presumption. However Sigma doesn't rely on pure strength to accomplish his mission. In fact he controls his rebellion like a commander would do during a war (experience Sigma already has being the former leader of the Hunters) by displacing his troops in strategic positions (Mines, Power Plants, Factories), developing weapons and cutting supplies to ensure him an upper hand against his enemies. Moreover Sigma had also developed a plan in the, unlikely, case of his defeat. According to his secret message in the Japanese version of Mega Man X (and the English one too, although not immediate) Sigma had already taken in account being defeated and started to create new bodies to contain his essence (he explicitly speaks of the defeated Sigma as "*not my true self*" and as "*more like another body*" [33].)

Much like his pet Sigma heavily relies on high speed movement to hit the

²"You see, evolution requires sacrifice" - Sigma - Day of Σ [54]

³"We would have begun ... the age ... of ... Reploids..." - Sigma - Mega Man X [3]

⁴"After all, I've entrusted all dealings with traitors to him (Velguarder A/N)" - Sigma - Mega Man X (Japanese script) [33]

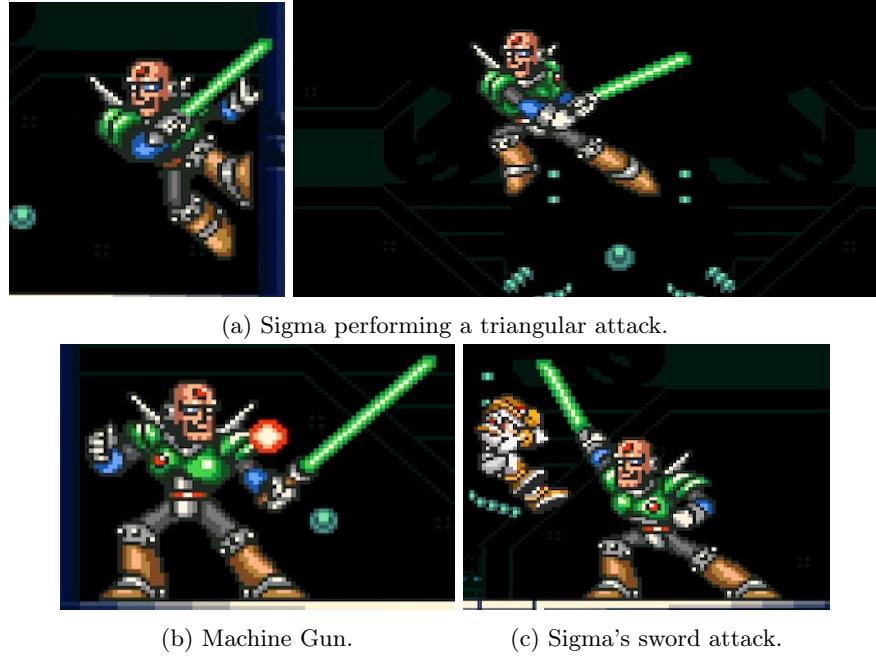


Figure 1.77: Sigma's attacks.

player during the fight. His most common move is performing Triangular Kick to move from wall to wall and land onto X position to damage him. However Sigma's hitbox is larger than Velguarder's, making it more difficult to dodge his attacks. More rarely Sigma will shoot laser bullets from his forehead, but this attack is easily avoidable, as Sigma shoots them aiming at the ground. Finally Sigma will also occasionally swing his sword to deal damage, but this attack is rare as Sigma will perform it only if X is at very close range.

Sigma's weakness is the Electric Spark which can be really helpful during the fight, as its shots travel along walls acting as a trap for Sigma or can hit him directly while jumping, allowing the player to focus more on dodging incoming attacks. There are however two ways to deal with him without taking many damages. The first one consists of exploiting his AI to force him to keep jumping between the walls while also damaging him, basically trapping him into an endless loop. This can be done as soon as the fight starts by climbing up the left wall and dropping down while Sigma is chasing (preferably while he's jumping from the left wall to the right one) and shooting at him while doing so. Then as soon as X reaches the floor repeating the process all over again, trapping Sigma in an endless chase. Alternatively as soon as the fight starts the player can perform an hadoken, which will instantly kill Sigma. The time to input the command is however much shorter than Velguarder as Sigma immediately dash toward X as first attack (see also [videos/X1/Velguarder+Sigma_hadoken.mp4](#)).

Total Health	32
Attack	Damage
Contact	10
Saber Swing	14
Head Beam	8

Table 1.6: Sigma's in-game data [55].

1.19.3 Wolf Sigma



Figure 1.78: Wolf Sigma([26]).

Once Sigma is defeated, the real final battle begins. From the background a giant wolf-type reploid appears and Sigma's head, the only thing it remains from Sigma's body, connects to its head as a brain and activates it. This weapon was supposed to make Sigma' forces unstoppable in his plan for world domination. Unluckily for him X arrived before its completion forcing Sigma to use it while still incomplete. In fact from the original plan only the torso and hands were completed, while feet and arms were not [27].

Although still incomplete this body is a real match for X in terms of fighting power and defenses. In fact while it can deal heavy amounts of damage with his attacks, it is also invulnerable to most of X's weapons, hadoken included. Moreover the only spot X can (and has) to hit is Sigma's head, which is placed in the middle of the arena, at midair. The only way X has to hit it is to use the moving hands as platforms to reach the correct height to attack with the only two weapons that damage him: the Rolling Shield and the Spiral Crush Buster (the reasons the player is forced to acquire the Arm parts).

Wolf Sigma can perform a wide variety of attacks, all of them capable of dealing heavy damage to the player, even with the Armor Part equipped. During the fight Sigma's Hand will float in a circle at the two sides of the room. When one of them stops and opens is the signal that it will try to attack X by launching at



(a) Wolf Sigma's Thunder Strike. If X stays on claws' borders the thunder won't hit him.



(b) Flamethrower.

(c) Plasma Bullet.

(d) Claw attack.

Figure 1.79: Wolf Sigma's moves.

him wherever he is. This is the best occasion to jump onto it as when it reaches X' position the hand will shortly stop and stay there. Once on top of it X can ride it to reach Sigma's head and attack it. Furthermore while on top X will be safe from all other attacks Sigma will perform: his Flamethrower, which covers the room's central part, and his Bullet attack, which shoots several projectiles to the ground. Projectiles direction is always the same so the player should memorize a safe spot and head for it when Sigma starts launching this attack. Finally Sigma will sometimes generate lightning from his hands which strikes both upward and downwards. This attack is mainly aimed to avoid players to stall the fight by damaging them if they stay on top of the hands. However this attack is easily avoidable since lightnings generated from the hand's center and it doesn't cover the whole platform, meaning that X won't get hit if he stays on the ledge.



Figure 1.80: Wolf Sigma's hitbox.



(a) Sigma's claw traveling horizontally, hitting X while on top of the other claw and making him get hit by the lightning.

With that said it shouldn't be difficult to find that the optimal strategy to defeat Wolf Sigma is to jump onto one hand and patiently wait for the moment in which X has a clear shot onto Sigma's head, while avoiding situations which

Total Health	32
Attack	Damage
Contact (Head)	10
Contact (Claws)	8
Plasma Bullet	10
Flamethrower	14
Thunder	12

Table 1.7: Sigmas in-game data [55].

can cause X to fall off and making him vulnerable to Sigma's attack. One thing to keep in mind while standing on a hand is that sometimes the opposite one will launch his attack to X which translates in a horizontal movement that, while not damaging X, will push him down. This can be problematic as it leaves the player vulnerable to all other Sigma's attacks until a new chance is given to jump onto a hand and restart the cycle. Avoiding this attack is also not trivial, since X cannot always jump over due the distance with the ceiling.

Once even this last form is defeated, Sigma will be gone for good, X will teleport outside the castle and the game's last scene will play before the credits.

1.20 Miscellaneous

In this section are collected a series of information regarding hidden game mechanics as well as useful tips and even some glitches known in the game.

1.20.1 Unexplained Game Mechanics

Here are listed some untold game mechanics which can be helpful to know while playing [19] to perform some advanced maneuver:

- Higher jumps: If the player keeps the jump button down after jumping, the reached height will be greater than the one of a simple jump.
- Wall dash-jump: With the dash upgrade, X cannot only dash and dash-jump for greater heights, but can also do it off walls, which can be very useful especially in bosses rooms to jump from one side to the other.
- Dash shots. If X shoots an uncharged shot while dashing, the projectile will deal two points of damage rather than one. This only apply for one projectile on screen at the time, so shooting multiple projectiles while dashing will give the damage boost only to the first, until it collides or exits from screen (see the file `videos/X1/dahs_shot.mp4` for a practical demonstration).

- Starting boss fight with a charged shot: If the player enters a boss room while holding down the fire button and a charged shot ready (any level) and releases it while X is out of control, X will shoot immediately as the boss fight starts.
- Slope jumps: If X jumps while walking down a slope, he will jump higher than normal (see [videos/X1/Slope_jump.mp4](#) for reference).
- Ladder wall jumps/ Gap jumps: The top of every ladder, where it passes through the floor, can also act as a hole where X can wall jump. In order to do so the player has to hold left or right and press jump to leave the ladder and let X start sliding on the edge of the floor.
- Seven pixel wallkick [56]: Near every wall there is a small stripe of air seven pixels wide which enables X to wall jump. This comes handy when it is necessary to trigger a wall jump even if the wall is not easily reachable. Furthermore it can also provide extra distance when performing wall dash-jumps.
- Automatic turn wall jump: If X is in a position which enables him to wall jump (near the wall or in the seven pixel stripe) and the player taps the jump button X will begin to wall jump. The interesting part is that X will do this even if he's not facing the wall, as he will immediately turn and start wall-jumping. This translates in the possibility to trigger a wall jump onto surface X is not facing simply by being near them enough.

1.20.2 Iceless jump

The Iceless jump is a difficult speedrun technique which allows the player to gain access to the Tower's Heart-Tank without requiring any weapons or upgrades beside the Foot Parts. By using the Seven pixel wallkick technique it is possible to give X enough height and distance to barely reach the rightmost edge of the platform where it is possible to trigger a wall jump thanks to the automatic turn mechanics explained before. To start the wall jump it is necessary to input the jump command very precisely as too soon or late won't have any effect. Furthermore to reach the desired distance it is necessary that the last jump X performs from the wall to be a seven pixel jump and the player has to keep the jump button pressed to increase the jump's height at its maximum. This technique is very hard to perform and even more difficult to get consistently due its pixel-perfect requirements, hence a lot of training is required.

1.20.3 Air hadoken

Air hadoken is an advanced technique which, as the name states, allows X to shoot an hadoken while in mid-air from a wall. Performing this is not trivial, as it requires fast and precise input in a short amount of time. First the player has to shoot a charged shotgun ice inside a wall in a way that, once fully created, it



Figure 1.82: X performing the hadoken in the air.

can act as a platform for X, even if for a few moments. Then X has to stand on it while the player input the first three commands for hadoken, $\downarrow \searrow \rightarrow$ (facing right) and then immediately pause the game. Next the player should select from the weapon menu the X-buster, unpause the game and immediately press the fire button (see file `videos/X1/Flying_hadoken.mp4`). If all has been done correctly X will fire the hadoken while standing in the air, with the ice platform gone. While this technique may not seem useful, as most enemies stand on the ground and flying ones don't have walls nearby, there is one instance where it comes in play: it can be used to kill instantly Sting Chameleon during his rematch while he's hanging from the roof, since he leaves himself open to be hit and at the perfect height for the attack.

1.20.4 Minor Glitches

Here are listed a series of glitches that can be performed while playing Mega Man X. Note that while some of them are harmless others can softlock the game, forcing a restart to keep playing.

- **Opening Stage SoftLock:** If the player manages simultaneously to defeat and get defeated by the last Road Attacker, Vile's cutscene will still play but without X. The game will then softlock once Vile grub the invisible X in his hands (see also videos `videos/X1/Intro_softlock_1.mp4`).
- **Heart Tank Glitched Texture:** This glitch can be performed easily in the Tower stage. The player has to use the Boomerang Cutter in order to grab the Heart Tank from the platform it stands, then while the



Figure 1.83: Vile grubbing an invisible X

boomerang is returning, fall from the tower and land onto one of the lower platforms (the closer to the beginning the better) while the boomerang is still chasing. Then the last action is to open the menu and switch the weapon with another one. If done correctly the boomerang will disappear and the Heart Tank, now with a glitched texture, will drop onto the ground (as in [videos/X1/Tower_stage_heart_texture_glitch.mp4](#).



Figure 1.84: X standing near a glitched Heart Tank.

- **Tower Stage Wall Clipping Glitch:** In the Tower Stage, once reached the top of elevator's section if the player head right, then left and wall jump onto the spikes (which won't kill X) while the screen moves right X will be pushed into the wall and get stuck. The only way to escape from this condition is to use the charged Shotgun Ice which will slightly push X into the opposite direction it is fired every time it is used. Once freed the player can resume traveling the level, although some sprites will have their colors changed.
- **Ladder Wall Clip Glitch:** As shown in the previous glitch the charged Shotgun Ice can push X into a certain direction if fired when in the right position. If X fires it while on a ladder he will be pushed into the opposite

direction. If done a few times X will be pushed inside a wall (see for example `videos/X1/Wall_clipping_glitch.mp4`).

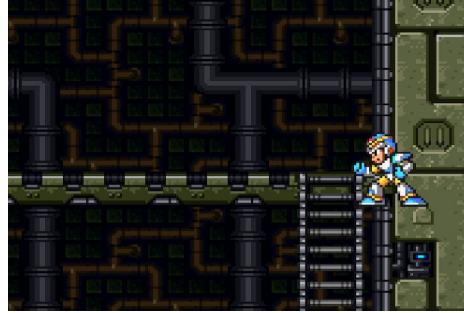


Figure 1.85: X trapped inside a wall.

- **Factory Stage glitch:** Near the stage's beginning, in the first set of conveyor belts, there are some pipes from where enemies come down. By using Utuboro's scraps as platforms it is possible to reach the pipe's base, which is a solid wall where wall jumping is possible. Via wall jumping it is possible to reach an opening on the ceiling and exit the map's bound. From here X can travel on top of the map for a while until reaching the large open room with the Sub-Tank and Heart Container. The room will however look different with all textures changed as well as some sprites and even invisible enemies. If the player manages to cross the room and reach the next area the glitch's effects will wear off and the stage will return to normal (as shown in file `videos/X1/Glitched_factory_1.mp4`).



Figure 1.86: X near Factory Stage's glitched Sub-Tank.

- **Gallery Stage Enemy's palette swap:** Near the end of the Gallery stage, if the player manages to return into the tunnel after crossing the large pit before the boss door (by using the mine cart to reach the left border before it fall into the pit) and return into the gallery enemies' texture won't be properly loaded resulting into a weird coloring.

- **Charged Shot hadoken Glitch:** Always into the gallery stage there is a glitch involving the hadoken. If, while riding a minecart, the player fire and hadoken first and immediately after a Spiral Crush Buster (as shown in [videos/X1/Charged_hadoken.mp4](#)) the latter's pink bullet will be replaced with hadoken textures, probably due the game allowing only one of the two projectile texture to be on screen at the time.



Figure 1.87: X firing a Spiral Crush with the hadoken texture.

- **X's Invisible Legs:** If the player finishes the game without the Foot Parts (which are mandatory) via a special password at the end of credits, when X dashes away, his legs will become invisible due to not having them equipped.



Figure 1.88: X dashing without the foot part, resulting in invisible legs.

1.20.5 Magic Carpet

This glitch can only be performed in the Sky Stage if the player hasn't collected the Heart Tank yet, and requires high precision in setup and performing. The

player has to reach the roof where the Heart Tank stands, and move to the left at the point the collectible is barely visible. At this point it is necessary to jump and, while X is descending, throw a Boomerang Cutter to grab the heart and immediately dash right, to slide onto the wall. Then as the boomerang with the heart is returning jump left in a way that lower green wall (the one below the wall X slide after throwing the boomerang) is barely visible as the heart catch with X, but enough far so that it disappears by slightly moving to the right as soon as the Heart is collected. If everything is done correctly as X catches the heart and moves right a platform will spawn on top of the boomerang and will start following X. X can stand on the platform and use it to move, although its movements are tied with the one of the boomerang, meaning that if X stands on it the platform will only go up, if he stays to the right it will go right and so on. Since it is possible to wall jump on these platforms, the player can repeatedly wall jump (very quickly due the short height) to make the platform move right and with that travel the stage.

1.20.6 Vile Dialogue Skip

In the first Sigma stage it is possible to skip all Vile's dialogue starting from his first appearance before the boss door. First X has to have equipped the Rolling Shield, as it will be necessary shortly after but there won't be time to change the weapon. Next the player must perform a ladder jump from the ladder which brings in front of the boss door to the left wall, skipping the cutscene trigger set on the floor. From these wall X has to wall jump to the right one and slide to enter the door. As X enters the dialogue will start playing but X will be able to move and reach the exit door (it is mandatory to reach it before the dialogue ends). As the final step, once entered Vile's room, X has to fire a Rolling Shield along the ground and immediately follow it. If everything has been done correctly Vile will immediately start attacking X as he appears on screen while his dialogues will still play in the background. Furthermore if X reaches the battle already having low health it is possible to even skip the first fight as Vile will immediately start to shoot his paralyzing projectiles. The file `videos/X1/Vile_dialogue_skip.mp4` shows how to perform this glitch.

1.20.7 Armored Armadillo Rematch Skip

In previous glitches it has been shown how the charged Shotgun Ice has the property of pushing X while it is created. While this feature has no use traditionally, there is a special case in which it is helpful: skipping Armored Armadillo rematch. The setup for the glitch is rather simple, as it only requires X to position in front of the boss' door (not too far nor too near, see Fig. 1.89 for reference) and to have the camera set to the lowest possible (the less of the room's roof is shown, the better). Next comes the hard part: the player has to fire a charged Shotgun Ice toward the door and, while it's creating, move forward in order to be pushed right as the slate grows (it isn't the slate that has to push X, rather the growing itself which moves X to create space). If all has been done correctly

X will be pushed enough to trigger the door opening animation and will enter the room. However the camera will not move properly, moving only left and not up, not loading the room's roof and, with that, Armadillo's spawn point. This will lead the game to think the boss has been defeated, and will immediately open the door for the next area. The file `video/X1/Armadillo_skip` as well as figures 1.89 show better the correct position and movement to perform this glitch. Important to note is that even if the door opens the game doesn't

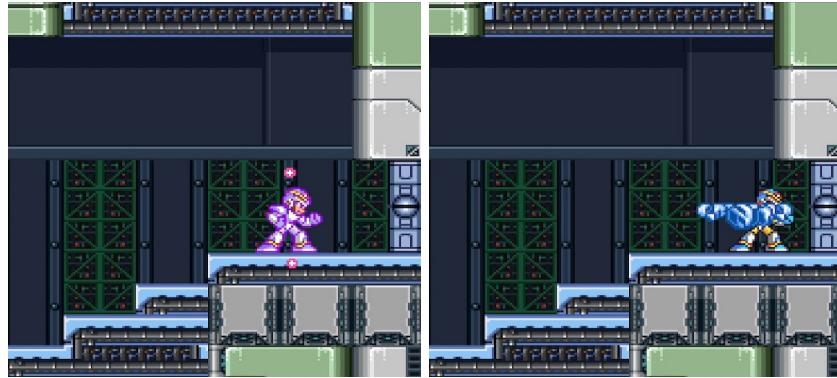


Figure 1.89: Approximate position to fire the charged Shotgun Ice to perform the rematch skip.

account the boss as defeated, meaning that jumping to move the camera up will correctly load and Armadillo will spawn, playing his entrance animation. However the door will remain open meaning the player can still flee from the battle to the corridor passed next the room and go on. Armadillo too can exit his room and go into the corridor, but his textures will become glitched.



Figure 1.90: If Armadillo is spawned after performing the skip his textures will become glitched.

1.20.8 Energy and Life-up Farming

While advanced players can easily travel the game without the need to fill up all their Sub Tanks and not bothering about their life counter, beginner players may have some difficulty during certain stages. That said, having an easy and

fast way to grind lives and refilling their Sub Tanks may be very helpful in order to play the game more easily without worrying too much about dying or healing. The best place to do both Sub Tank refilling and life grinding is



Figure 1.91: The only Batton M-501 enemy in the game. This enemy easily drops Life-Up making the perfect spot to farm them.

the beginning of the Gallery Stage. If the player traverses it without using the cart but by walking, in fact, it will be impossible not to note the large number of [Batton Bone](#) falling from the ceiling. These enemies home at X in large numbers, frequently drop energy capsules and, even more, respawns as soon as the player moves the camera away from their original location and then comes back. Moreover these enemies are very fragile, so disposing of them is easy. For a faster solution the player could consider using the charged Rolling Shield, if available, which will destroy them as they come closer and won't vanish after hitting them, making X virtually invincible against them.

The previous technique can also be applied for life farming ([videos/X1/Life-Up_farming.mp4](#)). Always in Gallery Stage's first part, after the first Flammingle, there is a single [Batton M-501](#) enemy which falls from the roof. This enemy has a high chance of dropping life-up once defeated and follows the same rules described previously, being destroyed in one hit(although it is invincible while in his sphere form) and respawning as soon as the player leaves and then comes back. Again as before the charged Rolling Shield is the best weapon since it doesn't cost munition after firing it and can be used endlessly to destroy this enemy.

Chapter 2

Mega Man X2

VS X-Hunters

Chapter 3

Mega Man X3

Part II

Characters

Preface

In this part more detailed information about characters who appear in the Mega Man X series are given. Here, however, information will not only come from in-game material but also from external (but still official) sources which expand and complete what is said inside the games. Another difference between this part of the document and the previous ones is the fact that while in precedent chapters only facts were reported, leaving out any possible interpretation, here the objective is to try to put together all available data, even giving a plausible solution in case of conflicting elements. In any case it will be clarified whenever a solution is proposed, to let readers know what parts come from official sources and what instead are supposed solely for this document.



As the document proceeds some time reference will be given for some of the events that occur. However in some occasions the same events can refer to different points in time depending on the game's version or the source of the information. While these discrepancies will still be appointed, since the focus here is to give a coherent timeline of events, all time-related assumption made in this part will be now listed with a short explanation:

- Maverick Hunters operate for about two years before the first game's events, according to the Japanese version of Dr. Cain's journal and contrary to the two-month stated in the English version of the same source. This due the fact that two months aren't sufficient to explain all events that occur before the first game, such as Zero's awakening, X joining the Hunters or X befriending Zero.
- According to the original story, X does not join the Hunters until Sigma's revolution begins. Here we deliberately choose the remake storytelling, as it allows us to better explain some relationship between characters.
- Events shown in *Day of Σ*, save for Dr. Cain's fate, actually happens. This is mainly due to the fact that what is shown isn't in direct contrast with anything shown in games except the previously mentioned event.



- After his death, Dr. Light consciousness keeps living via an AI, which communicates with X through the capsules. This is due the fact that on multiple occasions Dr. Light's hologram is fully aware of the circumstances and even directly answers posed questions.
- The events of Bass' endings in both *Mega Man: The Power Battle* and *Mega Man 2: The Power Fighters* are considered to be canon, as they do not contradict any other statement of other games and also provide a little more insight on Zero's origins.
- Just like Dr. Light's consciousness manages to live on, Wily's too manages to survive death. It is unclear how he manages to do this, but the presence of Wily's figure which operates throughout the games heavily suggests that he managed to make his consciousness live on.
- The canon ending for X2 is considered to be the one where Zero is rescued. This is due the presence, in the X5 opening, of a scene depicting Zero against his clone. Since this scene is supposed to be a summary of X and Zero's past battle, here that battle is considered to have happened.

Chapter 4

X



X is the main protagonist of the Mega Man series which bears his name. He is the last creation of the brilliant Dr. Light, a robot built with the gift of free will and limitless potential and a Maverick Hunter, appointed to stop reploids gone maverick to hurt human people. X's primary characteristic is his kind heart and peaceful attitude, which makes him repel violence, often trying to reason with his enemies. However despite this attitude X knows well the threat mavericks are and, even if unwilling, fight against them with all his strength to bring the world at peace.

4.1 Technical Specifications

X's specification can be found both in the opening scene of the first Mega Man X game and in the *Rockman & Rockman X Daizukan* [96]-[97] book. While some information overlap between these sources, others are exclusive to a single one, hence here both of them are reported as sources of information.

General Information

- Height: 160 cm.
- Weight: 57 Kg (lighter than Rock due technological improvements).
- Main energy source is Solar energy.
- Armor is composed of a lightweight “Titanium-X” alloy, the strongest metal in the world. Very light and resistant to heat and shots.
- Internal skeleton is a super elastic armor that can reduce received damage by approximately 93%.
- A.I. age between 14 and 15 years old in human terms at the beginning of the first game. Matures as time passes.

Head equipment

- Eyes are constituted by broad-range cameras, giving him the ability to see more things the human eye can.
- Ears are composed of an ultra-high sound recognition system, allowing him to hear even ultrasonic sounds.
- Voice is produced by a voice generation system made by HAYATOM Inc. (MOKUOO Inc. in Japanese version).

Chest equipment

- An Accumulative Energy Generation Device allows to accumulate solar energy and provide X with the sufficient amount of power required to work.
- A Micro-fusion fuel tank, which stores fuel for X to use when solar energy is not available, such as caves or underwater.
- A Central Joint-controlling system, which acts as X's secondary brain and controls his movements.

Leg equipment

- Gyroscopic Stabilization System/Full auto-balancer to help X remain stabilized and land properly from any state he's in.
- The Emergency Acceleration System, which enables X to accelerate at high speed in a short amount of time. This equipment is optional and must be installed in a second moment.

Arm equipment

- Mega Buster Mk.17 (X-Buster). X's basic weapon built into his hand. When fighting his hand retracts and leave the place to the buster [98]
- Energy Amplifier to store and concentrate energy into a more powerful shot, the Charged Shot.
- Variable Weapon system: Allow the X-buster to transform and emulate attacks from enemies bosses. How the copy/learning process is performed remains, however, unknown.

4.2 Creation

X's creation begins in the year 20XX by the hand of famous scientist Dr. Thomas Light. Reasons that brought Dr. Light are to be found into two main facts that happened during the scientist's life. The first one was the coming of an unknown computer virus from space that caused robots to go violent (which could be a reference both to the "Evil energy" appeared in *Mega Man 8* or the *Roboenza* Virus appeared in *Mega Man 10*). After this event Dr. Light decides that a new battle robot had to be created in order to protect the future of earth [99], and starts building X. On why creating X and not upgrading Rock, the original *Mega Man*, many hypothesis can be formulated, one being the fact that Rock was originally designed to help with laboratory work and not to fight, hence the preference to create a new robot, instead altering Rock too much. In addition, since the new robot to be created may fight other robots infected with viruses, a new anti-virus system had to be created within him. This last statement fits perfectly with the second reason Dr. Light began creating X, which is his dream to create a robot who could choose his own path in life, effectively having free will. How it is possible to see from his journal [100], in fact, the idea of a free-will was born and stayed in him from shortly after events of the first *Mega Man* game up until X's creation, as he believed it was his duty to accomplish such achievement¹. Furthermore as Roll pointed to Light, free will also create the perfect anti-virus system, as would made impossible for

¹ If a robot posses the intelligence to be conscious of the possibility of opposing a human for the right reasons, will it be possible for them to worry over what path is right? [...] I can sincerely feel that coming to think of this is my duty. Dr. Light's journal, 29 March 2017

a robot to be manipulated². It is unknown how long it took for Dr. Light to



complete X but, observing from the *Day of Σ* OVA, it is possible to imagine that the development took most of Light's remaining lifetime as flashbacks show a doctor growing older and weaker as time passes. During this time period however Light realizes the importance of his project and its impact it could have on the world due the power X holds, making him also realize the danger X could represent³ if, should the world turns against him, he takes a wrong path in life or begins to question the first law of robotics, risking disasters even worse than ones created in Wily's incidents [101]. To avoid this situation, while still believing in X's good heart (as seen in X's flashback in *Day of Σ*), Dr. Light decides that X's moral integrity has to be tested deeply before letting him free. According to his studies, Dr. Light estimates that about thirty years of testing should be necessary to completely ensure X's safety, time far beyond his own lifespan. For this reason, being near the end of his life and not having anyone who could continue his work, Dr. Light creates a special capsule for X to rest in, capable of performing tests without the need of someone supervising it while also ensuring X's safety. After giving X farewell, on date 19th September 20XX, Dr. Light proceeds to seal him away and leaves a message (written or recorded depending on the game) for whoever will find the capsule, explaining who X is and why he's special.

4.3 Awakening and birth of reploids

X's sleep last for about hundred years inside Dr. Light's laboratory, buried underground and hidden from everything, until Dr. Cain, a scientist of 21XX, while searching for plant fossils from Mesozoic (or preserved plant from Middle Age [102] in the Japanese version) accidentally finds the laboratory. After some

² "If artificial intelligence can be aware of its own intelligence, then one can fix any kind of tampering" [...] However if that very kind of electronic intelligence can realize ideas like hers (Roll) , then I think it's possible to establish a consciousness that cannot be manipulated Dr. Light's journal, 7 March 2017

³ "The name "X" also carries connotations of danger".

digging he manages to get in, where he first finds Light's note and documentation relative to X and, the following day, X's capsule itself still working. After reading Light's last note and warning message, and checking the capsule status, which as stated in the journal show all indicators on green, on the 14th April 21XX Dr. Cain awakes X from his slumber. Immediately after meeting him, Cain realizes how incredible and futuristic Light's creation is, even to his times, and decides to bring him, along all Light's design note, to his laboratory in order to try to replicate X's design and create a similar robot.

More than six months were needed to complete the first robot, but on the 22nd November Dr. Cain manages to create a robot using Light's schematics and X as reference. This new robot, just like X, is fully capable of making decisions on his own, even arriving to argue with Cain himself, to his surprise. However the new robot created isn't a perfect copy, as part of X's design couldn't be analyze even with modern technologies forcing Dr. Cain to fix missing elements at his best, especially components constituting his "*Distress Circuit*"[103] which allows X to choose his side in society, and the new robot's moral integrity wasn't tested deeply as X's one. However since these differences seem to cause no problems, Dr. Cain decided to start mass production of this new kind of revolutionary robot, which he named "*Reploids*" (or *Repliroids*).

It took not so long for reploids to integrate inside the society as Dr. Cain himself notes in his diary in an entry dated 3rd May, where he states that *everyone seems to be happy to accept them*. Reploids in fact began to work in place of and together with humans in all kinds of jobs, especially more dangerous ones which could put humans life at risk. However the situation won't last long, as first mavericks will shortly start to appear.

4.4 Mavericks and Maverick Hunters

In the following entry in Cain's journal dated 16 July the scientist states: "*Three reploids went "maverick" today and injured two people before they were stopped. This is the third instance of this type of behavior and I still have no idea of what is causing it!*". This entry describes the first mavericks occurrence in the series although, at the time the entry is written, they look more like isolated events related to some sort of explainable fault. However due the problem mavericks had caused, even with such a small number of occurrences (only three), the journal describes how the idea of halting the production already began to spread, but considering how society now depends on reploids, this idea is discarded from becoming reality. Instead a special organization called "Hunters" is established in order to track down and halt mavericks before they cause any damage. Appointed leader of the organization is Sigma, Cain's latest and finest work equipped with last-design circuit which should prevent him from any fault Sigma also serves as leader of the 17th elite unit, operating on front lines against the maverick threat. X will join the organization only later in time (see Part II preface), where will be assigned to the 17th unit under Sigma and where he will meet his future partner, Zero.

Thanks to hunters' effort any further injure occurred as consequence of maverick attack, creating a situation of peace that lasted for almost two years (two month in the English, see Part II preface) During this period X fights together with his commander Sigma, his partner Zero and all his companions against mavericks, but deep inside he keeps questioning about his place in life and the path he has to choose⁴.

4.5 The X saga and the Maverick Wars

On 4th July 21XX, Dr. Cain's worst nightmare becomes true. On this day Sigma goes maverick and begins his revolution against humanity, which he now considers an obstacle to Reploids' evolution that has to be eliminated. Together with him sides most of his subordinates Maverick Hunters longing to follow their leader as well as other reploids seduced by Sigma's charisma and strength. According to events shown in the *Day of Σ*, Sigma's war declaration coincides with him storming a missile base and using it to attack Abel City, where the Maverick Hunter's headquarters reside. On this occasion X, together with Zero, have a first confrontation with him but both of them are defeated and injured. Before fainting, however, X manages to unleash a final attack on Sigma using all his strength, burning Sigma's scars in. After this last attack X shuts down, having used all his remaining power in the last hit, but Sigma decides to leave him there and to not deal the finishing blow, as Sigma now wishes X to reach his maximum potential and challenge him again, in order to discover the true power reploids hold.



Figure 4.1: X burning Sigma's scars in.

After the rebellion's beginning, the few hunters remained loyal to their original purpose, X and Zero included, starting a period of wars which in future will be labeled as "*Maverick wars*".

From now on X's story follows the game's plot. During the event of the first game (and its remake) Zero is appointed as leader of the Maverick Hunters, being the highest in rank still on the right side, and leads other hunters, X included, in fighting. Zero then asks X to take care of Sigma's subordinate both

⁴"I am a little worried about X. He seems unsure of his place in life and what Dr. Light had planned for him" Journal of Dr. Cain, 10th December 21XX

because their actions are causing trouble to humans and other reploids, but most importantly to allow X to grow up and become stronger, as Sigma is still too powerful for him. Once X disposes of the eight mavericks, Zero contacts him to ask help to infiltrate Sigma's fortress, which he managed to locate in the meanwhile. Once inside the two first challenge Vile, which results in his death but in Zero's death too. Finally X faces Sigma and defeats him, halting his plans of human extinction. After escaping Sigma's collapsing fortress, X returns to the Maverick Hunter headquarters, where he becomes the new leader in charge, under Dr. Cain's direction.

Despite Sigma's defeat, however, Maverick attacks against humanity do not stop. This lead to more fights between mavericks and Mavericks Hunters for six more months, which results in heavy losses for both parts, reducing the number of effective Hunters to a quarter of its original number and also in the loss. Despite that, however, mavericks' numbers do not suffer the same loss, rising instead. This is caused by special factories which mavericks had previously altered to implant maverick chips into new reploids. After some searching Dr. Cain manages to find the culprit factory, and X and the Maverick Hunters are dispatched to destroy it. Once arrived, X destroys the factory alongside the army of giant mechaniloid CF-0 which was produced. With this action X and the Hunters deal a heavy blow to mavericks forces, forcing the new leaders, the X-Hunters, to change their plans for the future and release their highest-ranked mavericks in order to buy them more time to complete their schemes. This plan too reveals to be a failure, since X manages to defeat his opponents much faster than expected, forcing the X-Hunters themselves to come out and face X, using the Zero's part they have repaired to lure X into fighting them. Despite this distraction, X manages to defeat all remaining high-ranked mavericks and proceeds to attack the X-Hunters fortress.

At this point the story branches into two paths, both of which can be considered canonical. On one route X defeats all the X-Hunters and recovers all Zero's parts. Dr. Cain then locates X-Hunters' secret base and proceeds to repair Zero while X begins to attack the fortress. There X destroys all the three X-Hunters and discovers that Sigma is still alive, and waiting for him at the Central Computer. Once arrived, Sigma greets X and presents him a black clone of Zero, created by Serges, which he intends to use to destroy X. However the real Zero appears, destroys his clone and forces Sigma to retreat. Zero then opens a path for X to chase Sigma, and heads to destroy the main computer. Finally X faces Sigma, who in the fight reveals his true form as a Virus capable of manifesting into the real world, and defeats him again.

In the alternate route X fails to recover all Zero's parts. Here the X-Hunters attack Maverick Hunters HQ and steal all Zero's parts, control circuit included, and use them to revive Zero. From this point the narration follows the story described earlier except for the final part, where Sigma presents himself alongside the real Zero, now under Sigma's control. X and Zero fight, but the former manages to win, bringing Zero back to his senses. The plot then converges again into the same ending.

Chapter 5

Zero

Zero is the deuteragonist of the X series. A close friend of X, Zero acts as a counterpart for him, opposing X's kindness and uncertainty with a cold and emotionless attitude, often taking action without hesitating. However, behind his attitude Zero hides a kind but wounded soul [104] which cares for his friends.



5.1 Creation

Just as X was the last and best creation of Dr. Light, Zero is the last creation of Dr. Wily, fulfilling the doctor's dream of creating the strongest robot ever. Just like for X, precise information about Zero's creation or specifications are not given. The first instance of Wily talking about Zero's project can be found in Bass' ending in *Mega Man: The Power Battle*, where Wily discusses with

Bass about his new project, a robot capable of easily disposing of Bass himself as well as the original Mega Man¹. Then, in the following entry in the series, *Mega Man 2: The Power Fighters*, this discussion is resumed again, with Wily talking about how he managed to learn from his mistakes, which led him to developing a new type of robot, by combining together the accidental discovery of the bassium energy as a power source or the study of both Proto Man [105] and Mega Man:

"I studied Megaman hoping to create a similar robot. Then I developed a powerful energy called "Bassnium" purely by accident. Thus, I created you Bass. Currently Bassnium is the most powerful energy on Earth. But, that's not for long. Hee hee, I've learned from my accident... And I've created a new type of robot which is much more powerful than you or Megaman! It'll be some time before I complete this project though. You better get ready!" - Dr. Wily, Bass ending, *Mega Man 2: The Power Fighters*

On such occasion, Wily also shows the blueprint of his project, a shadowy silhouette of Zero with his appearance from X2 onward.

...

5.2 The X saga and the Maverick Wars

As Sigma go Maverick, Zero is appointed as leader of the Maverick Hunters, being the highest in rank remained within the group. He then proceeds to lead the organization against Sigma, entrusting X to deal with Sigma's subordinates while he tries to locate the enemy fortress. The two manage to complete their task simultaneously, and reunite to attack Sigma together, Zero acting as decoy due him being more powerful than X, to let him sneak inside unnoticed. Once in they briefly reunite but are interrupted by Vile which Zero challenges to a duel, only to be caught in a trap Vile had previously prepared. Vile then proceeds to use him as a hostage and manages to capture X too, but Zero breaks free and, in order to save his friend, explodes to take down Vile too, but only manages to destroy his Ride armor. His action, however, gives X the strength necessary to break free and take Vile down definitively. With his last words Zero encourages X to proceed and face Sigma, firmly believing he has the power to beat him.

Although destroyed, Zero's control circuit remains miraculously intact and is stored at the Maverick Hunters Headquarter. Zero's body (or what remains of it) is instead recovered by the X-Hunters, which tasks Serges to repair it. Serges not only repairs Zero's body, but also upgrades it into its final version, adding the missing shoulder pads and giving him his iconic Z-Saber. For the whole duration of the X-Hunters operation Zero remains incomplete, as the two key components stay in the hands of the two opposing factions. It is only near the end that Zero is resurrected, depending on the action X takes while fighting the

¹ *The robot I'm making right now will blow the both of you away-* Dr. Wily, Bass ending, *Mega Man: The Power Battle*

X-Hunters. Zero can either be saved by X, who had previously won Zero's body parts from the X-Hunters, and be repaired by Dr. Cain, or can be resurrected by Serges, after the X-Hunters steal the control circuit from the Maverick Hunters HQ. In the former case he reunites with X shortly before the final fight, just in time to destroy his clone, while in the latter case he will be put under Sigma's control and will fight X, which has to defeat him and make him come to his senses. Whichever the case is, Zero aids X during the final confrontation with Sigma, by destroying the main computer Sigma is using to spread his virus around the world.

Chapter 6

Sigma



Sigma is Dr. Cain's greatest creation. Developed to be a strong leader to face the Maverick threat, Sigma is equipped with the latest design in terms of brain circuit, which according to Cain himself should be fault-safe and prevent him from going maverick. Sadly things don't go as Cain wished, as after solely two years of leading the Maverick Hunter Sigma not only goes maverick, but began a war against humanity bringing on his side a major part of Maverick Haunter which he led. To Sigma, in fact, humans are only an obstacle to reploids evolution, and should be eliminated to allow reploids to reach their full potential.

In this chapter Sigma' action through the X series will be described. Since in the first game Sigma acts only as the final boss, with very few interactions with X beside his boss quotes, for the first part of his story the description will stay closer to his *MHX* version, as it gives more insight on Sigma's personality and motivations.

6.1 Leader of the Maverick Hunters

WIP. Information will be added at the proper time.

6.2 The X saga

Sigma declares his war to humanity on July 4th 21XX, and launches an all-out attack onto Abel city, by deploying his troops to conquer strategical positions and assigning powerful reploids to protect them, but only after having first stroke the city with a missile attack, as shown in *Day of Σ*. On this occasion he has a first confrontation with X which Sigma easily defeats. However during the fight for a brief moment X manages to reach his full potential hitting Sigma and leaving his signature scars. After that he retires into his fortress, waiting for his scheme to be completed. In truth, Sigma's plans not only aim at human extinction, but he also wants to discover X's true potential by forcing him to fight. To no surprise, in fact, X manages to defeat all his subordinates and, with the help of Zero, to infiltrate his fortress. Here Sigma prepare a last test for X, by resurrecting all defeated reploids and making them fight X once more¹. X passes this trial too, even taking down Vile, and finally reaches Sigma which happily verifies that he was right about X and reploids' unlimited potential, and then proceeds to challenge him in a final fight, firmly believing to be superior. Sigma however misjudges X, which strikes him down even after he combines with a giant wolf-type mechaniloid ([1.19.3](#)) to further increase his power. Defeated in the body, but not in the spirit, Sigma's body sinks into the sea alongside his fortress while X, teleported outside, watches silently believing to have put an end to the war. Sadly, this couldn't be far from true, as in reality Sigma's true consciousness had already left his original body before the fight with X, preparing to resurrect again in case of defeat: "*What you defeated was not my true self. The machine that was destroyed was more like another body. I will materialize and resurrect once more*" [33].

Sigma returns again six months later, at the end of X2. During his absence the command of his forces were entrusted to the X-Hunters, which had their main goal in resurrecting Sigma again, building for him a new body. This is achieved thanks to Serges, the leader of the X-Hunters and a brilliant scientist. Alongside his resurrection, the three mavericks also work on other two schemes: increasing their army size, by the maverick virus throughout the word from the Central Computer and by building new mavericks, and resurrecting the deceased Zero as a maverick. It is not clear however if these two last objectives were posed by Sigma himself or were perpetrated by the X-Hunters autonomously. What is indeed sure is that at some point during this second revolution, Sigma must have received vital information about Zero's origins, since from this point onward alongside his obsession with X he will also develop an obsession for having Zero side with him. Sigma's plans however do not go as expected, since

¹"Sigma must have brought his body back to life"-X talking to a resurrected Launch Octopus-[5]

not only Zero does not side with him (depending on the choices made he will either never side with him or snap out of his control after a fight with X) but X to defeat him again, even after Sigma managed to manifest his true, viral, form by using the Central Computer energy to manifest. Defeated again Sigma disappears, leaving behind words of warning for X, as he has resurrected once and will do it again until his victory. However in his last words Sigma can not hold for himself the regret for not understanding why Zero did not joined him: “*But, Zero, why... he's... the last of... Wi... num... ers...*” [58].



Chapter 7

Vile



Although Vile does not play a major role in the X saga except for the first game, his status as recurring enemy in some games plus the presence of a dedicated game mode in the first game's remake, which better describe Vile's personality, are sufficient in order to dedicate this small chapter to him alone.

Before beginning, however, it is important to appoint how differences between the original Mega Man X games and its remake Maverick Hunter X will be handled. In those games, in fact, Vile's personality is slightly different, since in the former not much information is given beside his background and his dialogues as a boss, while in the latter, also thanks to his dedicated game mode, more details about his personality are given. In this document we will stick to the latter, as it incorporates almost every aspect of the original story too. Clearly it is debatable whether what shown in the Vile's mode is effectively true or not, as the game mode itself is presented as a what-if scenario and hence not canonical. However since this is the only source of additional information about Vile's personality, and for most part of the mode Vile's personality matches with

the real one shown in the actual game, what shown about Vile's personality in his mode will be used in the document and considered to be true.

Clearly what said until now regards only the first game of the series, as there aren't any remake for the other games Vile appears in.

7.1 Before the war

It is unknown when Vile was created or who build him. What is sure, however, is that Vile was designed purely for combat, as Zero points to X during their first meeting with him¹, maybe specifically to work as a Maverick Haunter. Thanks to his equipment, Vile quickly became one of the highest-ranked Maverick Haunter of the 17th elite unit (the same as X, Zero and Sigma), with the Special-A (SA) rank, the same as Zero and Sigma, despite his bad attitude. According to information given, in fact, Vile have always behave with arrogance and superiority, only taking orders from himself², disrespecting superiors³ and working alone, not having anyone to consider friends and, on the contrary, disliking some of his comrades⁴, especially X. Although this he still has the respect of his commilitones, such as Sting Chameleon ("It's Vile... I used to have nothing but respect for you, you know." [106]).

It is with X, however, that Vile shows his worst. To him, in fact, X is only a weak reploid and nothing more, and thus he doesn't understand the reasons why people around him claim X to have incredible power. Because of this Vile develops a grudge and hatred for X, which in reality only covers his jealousy, and dedicates himself to the task of defeating and humiliating him for as much as he can, in order to prove himself and to others that he is the strongest reploids.

Vile's situation gets worse when a fault in his electronic brain occurs. Due to this fault Vile starts to enjoy much more the pleasure of haunting and destroying his target, almost to the point of being an obsession, making him ignore any collateral damage he could cause with his actions and aggravating his position inside the Haunter organization up to the point of being considered to be a borderline maverick. This leads the high command to preemptive arrest him, in waiting for a sentence on his destiny.

7.2 Mega Man X

Shortly before the beginning of the first game Vile is set free by a soon-to-be maverick Sigma, which asks for Vile help to defeat X as he fear X could interfere in his plans of changing the world⁵. Despite Vile's hate for taking orders, the

¹"X, you shouldn't expect to defeat him, he is designed to be a war machine."- Zero

²"I'll tell you one thing... I don't like working for others."-Vile [106]

³"You don't respect authority. You don't follow orders. I pity you"-Armored Armadillo [106]

⁴"I've always hated you, Storm Eagle. You and that smug face of yours"-Vile [106]

⁵"I need your help, to defeat X [...] in order to ensure our future and speed along our evolution"-Sigma [106]

idea of defeating X is sufficient for him to follow Sigma and help him with his plan. In reality, however, Vile's claimed objective is to follow Sigma only until X's defeat and then to turn against Sigma himself, defeating him to change the world as he desires, as he says to X after battling with him on the highway ("There's nothing you can do! I'll defeat you and Sigma! Then I'll change the world!" [5]). In this situation, however, Zero comes and saves X, damaging Vile's armor and forcing him to retreat (showing also that, despite his obsession, Vile still retains a tactical mind).

It is unknown what Vile does during most parts of the X game, as he only appears later, at the beginning of Sigma fortress. An hypothesis that could be formulated is that in the meanwhile Vile had worked and upgraded his ride-armor, as during his last encounter he uses a different, customized version of it, and setting up a trap to prevent Zero from stopping him again. This, however, is only a hypothesis without any confirmations.

Vile's final appearance is inside Sigma Fortress, where he attempts again to destroy X, this time capturing Zero first. He almost succeeds in doing it, but he underestimates Zero and X's potential as the first breaks free and destroys his armor, by sacrificing himself, and the latter takes him down. The same fate awaits Vile in his own game mode, but with the addition of a final dialogue between a dying Vile and Sigma. Here Vile's true intentions are finally revealed: he's sole purpose in life has always been defeating X and nothing more, as everything he claimed were only justifications for his actions. In fact, Vile has never had any idea of what to do had he managed to beat X:

SIGMA: What exactly did you plan to do, Vile? Would you stand before me as a Maverick Hunter? Kneel before me and place yourself at my mercy?

VILE: ...What did I.. plan to do? Heh... thinking about it now, I'm not actually sure

[...]

VILE: I don't care what happens to this world... By defeating X⁶, I've validated my own existence... and that's all that matters to me now.

⁶In Vile's game mode he manages to take down both Zero and X, only to be destroyed because of a surprise attack from Zero, immobilize him and gives X the time to hit him. Hence the reason why Vile claims to have defeated X

Chapter 8

Other Characters

Here other main characters will be described that don't have enough information to dedicate a whole chapter About them, but that still play an important role in the Mega Man X saga.

8.1 Dr. Cain



Figure 8.1: Dr. Cain as he appears in *Day of Σ*.

Dr. Cain is the brilliant scientist father of reploid's technology. Originally an archaeologist, Dr. Cain accidentally find Dr. Light's laboratory while searching from prehistoric plant fossils, with X's capsules and blueprints inside [7]-[102], whom he befriends with. By using X's help, Dr. Light's schematics and his knowledge of robotics, Dr. Cain manages to create his own version of a robots with free-will, which he label "Reploids". These new type robots greatly impacted on society, almost at the point of becoming necessary, in a very short amount of time and making Dr. Cain one of the most important person of his world. However although Dr. Cain's intention were surely good, aiming to achieve the same dream Dr. Light had to create a society where humans and robots can life together, his actions were also the cause of firsts Maverick attacks [40]. In creating reploids, in fact, Cain didn't manage to fully recreate

X's components, especially his "Distress Circuit" [103] and had to develop substitutes which where however prone to errors. Moreover these reploids' moral integrity wasn't tested for a period of time as long as X's one, making them more susceptible to taking a wrong path and going Maverick. Dr. Cain seems partially to acknowledge his error, as after first mavericks appear he tries to find the cause of these problems¹ develop more advanced reploids with more robust circuits to prevent errors, Sigma being the last of this series². However even his latest designed circuits didn't manage to keep Sigma safe from going Maverick. Once Sigma begins his assault, Cain remains powerless to watch the destruction his creation caused believing nothing could stop him, not even X or Zero. However he doesn't either stop them from trying, as he firmly believes something had to be done³.

A different fate is instead reserved to Dr. Cain's in the series remake, Maverick Hunter X. Here Cain's role remains the same up until Sigma's revolution, with the only difference of being much older and weaker, as he's connected to a life-support machine to extend his life for as much as he can. His only appearance is in the *Day of Σ* OVA, where he explains to a pre-revolution Sigma the power X possesses and how it manifests in his hesitations and empathy, thus making Sigma interested in him. Cain is then seen only at the end of the OVA, after Sigma declares his war by launching missiles onto Abel city. He is last seen in his house, right before a missiles strikes directly onto it presumably killing him, pondering if reploids, created by humans but with abilities far beyond theirs, were fruit of mankind's arrogance rather than their good intentions and wish for knowledge⁴.

8.2 Serges

Despite not playing a significant role in the game he appears in, Serges character and his links to other characters in the series have to be appointed and discussed. In particular what is worth to talk about are the possible connections that subsist between him and Dr. Wily. By reading the original Japanese script for the X2 games and by studying also external sources (mainly listed in [107]) which talk about Serges it is, in fact, possible to draw a line which connect the these two characters, albeit said connection has never been explicitly appointed. In these small sections the main evidences regarding this theory will be given.

The first possible connection between Serges and Wily comes from the original script for the X2 game. As, in fact, explained at the beginning of chapter 2, the game underwent a massive localization causing an alteration in dialogues

¹"This is the third instance of this type of behavior and I still have no idea of what is causing it!" - Journal of Dr. Cain, 16th July

²"Sigma is one of the most intelligent reploids I've created and contains my latest circuit designs. His systems should be immune to any problems" - Journal of Dr. Cain, 20th November

³"I'm doubtful of their chances (X and Zero), but I won't stop him. Something has to be done", Journal of Dr. Cain, 4th July

⁴"Reploids... created by humanity, yet possessing abilities far beyond our own... [...] Mankind's arrogance?...No"-Dr. Cain, Day of Σ, scene 4



and the removal of some links in the finished product. In this context two are the main dialogues to focus on. The first one is the moment in which the X-Hunters contact X to challenge him in a fight. In the original script Serges opens his phrase by first calling X by his “full” name⁵ of *Rockman X*, whereas no other character in the game addresses him in this way, Dr. Cain included. The second, and probably most important, dialogue to be examined is Serge’s final speech after being defeated the second time. In such occasion the original script report the following phrase:

SERGES: Am I to perish here? Defeated by Light’s memento robot again... how regretful... [58]

From these phrases Serges once again nods to the fact that he knows X and his origins more than any other. He not only, in fact, shows to know that X was built by Dr. Light, information only Dr. Cain knows, but also feeling regret for being defeated once more from a robot built by Light. This feeling of regret, combined with the knowledge about X’s past seems to point in the direction of Serges being, in some form, connected with Dr. Wily, the original antagonist of the classic series.

Beside the original script, there is also other evidence which seems to point in this direction. According to the information given by the Rockman X2 Collected Sourcebook Information [61], in fact, Serge’s intellect surpasses even Sigma’s and ties with Dr. Wily’s one. Furthermore from the same source it is possible to know that Serges was also responsible for the construction of Sigma’s new body (a hard task considering the original Sigma was Dr. Cain’s best work) but more importantly for the rebuilding of Zero’s body. Serges manages, in fact, not only to fully reconstruct Zero’s body but also to upgrade it in its final form, such as by adding the shoulder pads, and also providing him with the signature Z-Saber. Beside the restoration, a task even Dr. Cain refused to do due to how complicated Zero’s design is⁶, it is the upgrade process the one on which to pause. Except for Zero’s creator, in fact, no one would be able to know how

⁵ *Serges: crrrk. . . . bzzt. . . . Rock. . . E. . . cks. . . - Serges*, [58]

⁶ A truth which will hold up to X6 and beyond, where X and Zero’s body will be considered a mystery

to upgrade Zero or how he should look like once completed, especially since no one could know that Zero was unfinished in the first place. Since Zero's creator had been confirmed multiple times over various games, some more canon than others, to be Dr. Wily (more details about this are given in chapter 5), this strengthens even more the connection between Serges and Wily. In particular in the game Mega Man 2: The Power Fighters, in Bass' ending, a blueprint of Zero with his aspect from the X2 games onward appears, labeled as Dr. Wily's new robot in development. The theory of Serges and Wily being the same thing would also allow to explain how Sigma, in his final speech, acknowledge Zero's origins⁷, which Sigma could not known if not for someone (such as Serges) had previously told him about.

It is however to underline that despite the evidence presented, the relationship between Serges and Wily is and will remain a mystery since, as stated in the Mega Man X Official Complete Works by Inafune himself, “*this is one of those things that is best left without an official comment*” [26].

⁷But, Zero, why...he's...the last of...Wi...num...ers...-Sigma [61]

Appendix A

Vehicles

Appendix B

Enemies

Here a list of all enemies with a short description is given. Enemies information are obtained from:

- X1: [27],[108],
- X2: [61],[109]

while all artworks come from [26]. In some occasions artworks from the X Dive game will also be shown.

B.1 Mini-Bosses

- **Anglerge:**

- **HP:** 64 (0.15 seconds of Iframe, Boomerang Cutter, Sting Chameleon and Rolling Shields hit for 8 damage)
- **Damages:** 4 (contact), 2 (snakes)
- **Description:** Angler-type mechaniloids that work to cleaning the seabed floor, with a motion sensor attached to its “lantern” part.

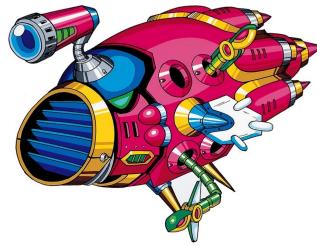


Figure B.1: Anglerge’s artwork

- Bee Blader:

- **HP:** 32 (No Iframes)
- **Damages:** 4 (contact), 2 (missiles), 1 (machine gun)
- **Description:** A large bee-type helicopter which was created in order to carry [Ball de Voux](#). It is equipped with a vulcan machine-gun and homing missiles. This mechaniloid has been created for guerrilla operations in forests and cities. While they don't appear formidable enemies, they can be rather dangerous, especially if X defeats them while standing below, as they will fall and crush him instantly.



Figure B.2: Bee Blader's artworks

- Chop Register

- **HP:** 32 (weak only in the handle, a Giga Crush or a well-placed charged Sonic Slicer one shots it)
- **Damages:** 2 (contact)
- **Description:** Sigma Virus substantiated into the form of a sword. Its patterns are based on Sigma's own saber skill.

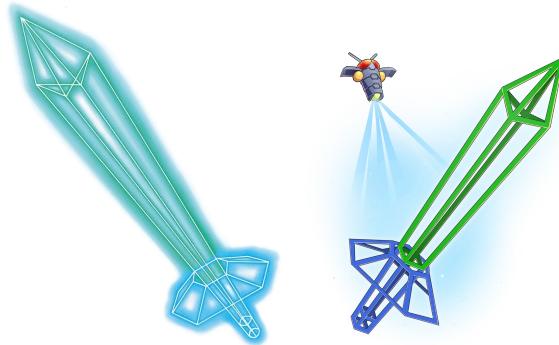


Figure B.3: Chop Register's artworks

- **Cruiziler:**

- **HP:** 64 (resist most weapons but no Iframes, meaning a Storm Tornado is a guaranteed kill)
- **Damages:** 3 (bombs)
- **Description:** Whale mechaniloid who patrols the sea with its powerful weapon. Some kind of mistake caused it to lose its sea navigation, its attack circuits began running wild, and communications were lost. Its body is totally invincible, save for its core on top.



Figure B.4: Cruiziller's artwork

- **Genjibo**

- **Magna Quartz**

- **HP:** 20 (0.97 seconds of Iframes, weak to silk shot)
- **Damages:** 2 (contact with laser shooters), 2 (laser), 3 (contact with crystal)
- **Description:** An unknown mechaniroid, embedded in a giant crystal. Attacks using 2 invincible support mechas, which fire reflecting lasers. Its true form inside the crystal is its weakness.

- **Mole Borer:**

- **HP:** 60 (~0.083 seconds of Iframes. Fire Wave deals 3 damage each 2 frames)
- **Damages:** Insta-kill (roller), 2 (contact)
- **Description:** Mechaniod used to open up paths in mines, using a rotary roller to destroy rocks that obstruct his path. Its armoring can take a lot of damage, while the roller is completely invincible and can instantly kill X. The only way to deal with it is to attack from behind, although several shots are needed to take it down. Using the Fire Wave is the best option, as its continuous damage can dispose of it quickly.

- **Old Robot**



Figure B.5: Magna Quartz's artworks



Figure B.6: Mole Borer's artworks

- **HP:** 10, weak to Silk Shot, Magnet Mine and Spin Wheel. A well placed charged Spin Wheel or Silk shot one-shots it. Resurrect if the [Pararoid S-38](#) is not defeated quickly
- **Damages:** 2 (scrap shot), 2 (contact)
- **Description:** Combat robot used in wars of the past. Heavily armored, attacks were once useless on this invincible robot, but with the end of the wars, it was turned to scrap.



Figure B.7: Old Robot and Pararoid S-38's artwork

• Pararoid S-38

- **HP:** 12, instantly killed by Sonic Slicer, Speed Burner and Giga Crush
- **Damages:** 2 (contact)
- **Description:** Next generation [Paraloid](#) prototype. Equipped with the ability of flight and improved durability, it posses the [Old Robot](#), controlling it completely.

• Raider Killer

- **HP:** 32 in all forms (0.5 seconds of Iframe,, Speed Burner deal 3-6 damages)
- **Damages:** 2 (hand cannon), 3 (scatter shots), 4 (contact), 2 (shield)
- **Description:** Extra-large sized private intruder (Raider) repulsion mechaniroid. When it searches an enemy with its radar, it scans the enemy's conduct patterns as well. When the radar discovers an enemy, Raider Killer's form is strengthened with a blue energy, and it enters a violent rage.



Figure B.8: Raider Killer's artworks

- **RT-55J:**

- **HP:** 64 (0.5 second of Iframes, resist most weapons. Boomerang Cutter deals 3 damage instead of 2)
- **Damages:** 2 (contact), 2 (arm)
- **Description:** In times of peace, it was a professional robot sumo wrestler and a popular Yokozuna (sumo grand champion) in the “Robot Grand Sumo Tournament”. Moved in the forest, it now guards X’s Chest Parts. Its certain kill technique, the “Kagizume Beam Hand,” strikes and tosses its opponents but only if it is in his claw’s reach range. Otherwise he’ll just jump at it to close the gap.



Figure B.9: RT-55J’s artwork

- **Sea Canthller**

- **HP:** 40 (caudal fin), 24 (anal fin), 14 (breast), 10 (pectoral fin), 10 (front dorsal fin), 8 (lower dorsal fin), 4 (eyes), 4 (mouth) [80]

- **Damages:** 1 (laser), 3 (contact), 4 (mines)
- **Description:** Originally, a deep sea working vessel designed as a mother ship for servicing and replenishing the [Jelly Seekers](#). Now has been remodeled as a transport unit that carries weapons for protecting its cargo.

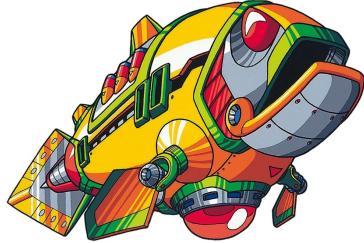


Figure B.10: Sea Canthller's artwork

- **Shurikein**

- **Thunder Slimer:**

- **HP:** 48 (0.116 seconds of Iframes, Storm Tornado hits for 9-10 damage)
- **Damages:** 5 (contact), 4 (thunders)
- **Description:** Thunder Slimer was born from a single question: “How large can a single cell become?” This monster was born from said experiment. Its body is over three times as large as X, but may require approximately 10 years before it reaches full growth. It has settled in the power plant, where he absorbs electricity and uses it to perform electric attacks against X.



Figure B.11: Thunder Slimer's artwork

- **Utuboros:**

- **HP:** 72 (no Iframes, Boomerang Cutter hits for 3 damage instead of 2 and Storm Tornado kills it in a single shot)
- **Damages:** 4 (contact)
- **Description:** Serpent-type mechaniloid made to explore the ocean floor. Thanks to its flexible body it can zig-zag into difficult underwater areas, and burrow underground. His body is totally invincible and can work as a platform, while only the head and tail are vulnerable and can damage X.



Figure B.12: Utuboros's artwork

B.2 Minor enemies



Aclanda:

- **HP:** 16, weak to Silk Shot, Spin Wheel and Magent Mine
- **Damages:** 2 (grenades), 3 (laser), 4 (contact)
- **Description:** Immobile artillery shaped like a scorpion, built by the X-Hunters to intercept the Maverick Hunters.



Amenhopper:

- **HP:** 2
- **Damages:** 1 (bombs), 2 (contact)
- **Description:** Originally designed for farm work, it was used to sow fertilizer across the land. Now, it's been remodeled into a bomb-dropping battle type mechaniloid.



Armor Soldier:

- **HP:** 3 (on foot), 16 (Ride Armor)
- **Damages:** 2 (contact, on foot), 3(contact-Armor)
- **Description:** Lowest class of soldier reploids, used in military affairs. Riding in their Ride Armor, they do destruction work under Sigma's orders.

• Atareeter



Axe Max:

- **HP:** 8
- **Damages:** 3 (contact, on foot), 2(flying log)
- **Description:** Woodcutter reploid from the forest, remodeled for brutality. Swinging his large axe, he attacks by sending the chopped wood flying.



Ball De Voux:

- **HP:** 2
- **Damages:** 1 (contact)
- **Description:** Equipped with 2 soft-treading feet, this mechaniloid can move over any topography. Inside the sphere there is a camera and a sensor which can even see in the dark.



Bar Waying:

- **HP:** 9, weak to Silk Shot, Spin Wheel and Magnet Mine
- **Damages:** 2 (crush)
- **Description:** This mechaniloid was developed as a shutter for disaster prevention. Extending its body, it attempts to block the path.



Barite Lastar:

- **HP:** 2
- **Damages:** 2 (laser), 2 (contact)
- **Description:** Mechaniroid built for protecting military bases. It moves by attaching itself to a wall and can absorb enemy fire.



Barrier Attacker:

- **HP:** 2(must be hit behind the shield)
- **Damages:** 2(contact)
- **Description:** Loading work mechaniloid which equips a barrier for protection.



Batton Bone:

- **HP:** 1
- **Damages:** 1 (contact)
- **Description:** Bat mechaniloids with a taste for humans. They dwell in forests and caves.



Batton Bone type G:

- **HP:** 1
- **Damages:** 1 (contact)
- **Description:** Batton Bone like those of the previous production, upgraded with strengthened armor.



Batton M-501:

- **HP:** 2
- **Damages:** 1 (contact)
- **Description:** Bat type mechaniloid which the [Batton Bone](#) series is based on. It is a very unusual mechaniloid, made over 30 years ago.



Beetron:

- **HP:** 16
- **Damages:** 4 (contact)
- **Description:** Beetle type mechaniloid designed for work in the mines.

• Blady



Blecker:

- **HP:** 6

- **Damages:** 2 (orbs), 2 (contact)
- **Description:** Energy cannon which operates during an emergency. When not in operation, this mechaniroid is harmless.



Bomb Been:

- **HP:** 2
- **Damages:** 2 (contact), 1 (bomb)
- **Description:** Small bee-modeled helicopter used for land mines scattering. Able to infiltrate any area, it can set up land mines anywhere.



Cannon Driver:

- **HP:** 14
- **Damages:** 2 (contact), 4 (cannon)
- **Description:** 2-footed walker type interceptor tank. Powerful mechaniloid that fires using two 200 mm cannons and enemy-seeking pursuit missiles.
- Caterkiller
- [Carry Arm](#) (before completing Gravity Beetle's stage)
- Crabblaster



Crag Man:

- **HP:** 8
- **Damages:** 2 (contact), 2 (rock fall)
- **Description:** Crag Men were made to clear rock debris during landslides. They work actively with the aerial mechaniloid [Sky Claw](#).



Crash Roader:

- **HP:** 3
- **Damages:** 2 (contact)
- **Description:** Member of a gang rival of the [Road Attackers](#). Once they start rolling, they won't turn until they hit a wall



Creepers:

- **HP:** 1
- **Damages:** 1 (contact)

- **Description:** An insect-type mechaniloid. It's unknown what it was made for. It is pecked out from the insides of trees by the [Mad Pecker](#).



Croak Hopper:

- **HP:** 4
- **Damages:** 1 (shots), 3 (contact)
- **Description:** Once the mascots of the Weather Control Center, were later remodeled by the X-Hunters for attack.



Crusher:

- **HP:** 2
- **Damages:** 4
- **Description:** Construction mechaniloid used for knocking down buildings. It drops its steel-made weight to scrape down the highway.



Dig Labour:

- **HP:** 4
- **Damages:** 2(pickaxe), 3(contact)
- **Description:** The greatest pickaxe worker in the world. He is a diligent reploid who works in the robot factory.



Disk Boy 08:

- **HP:** 6
- **Damages:** 2 (disc), 2 (contact)
- **Description:** Reploid player of the combat sport “Snapper Disk”, model number 8.



Dodge Blaster:

- **HP:** 3
- **Damages:** 2 (contact), 2(shots)
- **Description:** Latest model of mobile cannon with “self-defense function”, which makes it possible to avoid energy attacks before they can even get near it.

• Drimole-W

- Earth Commander



Fishern:

- **HP:** 1
- **Damages:** 1 (contact)
- **Description:** Formerly a mechaniloid for feeding cultivated fish. After being remodeled, it breaks everything in sight.



Flamer:

- **HP:** 6
- **Damages:** 3 (contact), 2(fire)
- **Description:** High-temperature blaze-blowing flamethrower machine. A remodeled airport fire extinguisher mechaniloid, turned into a weapon which tries to spread fires.



Flammingle:

- **HP:** 8, 4 (saw)
- **Damages:** 3 (contact), 2(blade)
- **Description:** Flamingo-type mechaniloid taken from the robot zoo. It attacks by spinning its head and releasing the saw.

• Ganseki Carrier



Garakuta Robot:

- **HP:** 8 (can regenerate broken parts, Silk Shot instantly kill)
- **Damages:** 1 (contact)
- **Description:** Ghastly mechaniloids made from broken [Metall](#), [Dig Labours](#), [Gulpfers](#) and [Spikys](#)



Gulpfer:

- **HP:** 10
- **Damages:** 2 (contact), 2-32 (eating)
- **Description:** Once the ornamental mascot mechaniloid of a seaside Chaya teahouse, it escaped and was converted for catching ocean fish. It was originally based on an old children's toy.



Gun Volt:

- **HP:** 16
- **Damages:** 3 (contact), 2(sparks), 2(missiles)
- **Description:** Mechaniloid developed for military use. A tank made for terrestrial combat, it attacks with missiles and high voltage bullets.

- **Hamma Hamma**



Hanged Reploid:

- **HP:** 1(head), 3(Body)
- **Damages:** 2 (fireballs), 2(contact)
- **Description:** Pitiful reploid left in the scrap processing yards. Will attack and try to cling to anything that approaches.

- Hangerter
- Head Gunner customer
- Head Gunner masspro

Helit



Hoganmer:

- **HP:** 8
- **Damages:** 3 (contact), 2(spike ball)
- **Description:** Fighter in the future grappling show “Robot Coliseum.” It blocks the attacks of enemies with its shield, and attacks by swinging its iron ball and chain.



Hotarion:

- **HP:** 1
- **Damages:** 2 (contact)
- **Description:** A mechaniloid for nighttime patrol, it was made to save the firefly appearance from extinction. Shining, it flies through the sky.



Installer:

- **HP:** 7
- **Damages:** Insta-kill (crush)
- **Description:** Large mobile equipment which perform maintenance in the Computer Center.



Jamminger:

- **HP:** 2
- **Damages:** 1 (contact)
- **Description:** Mechaniloid that attacks any enemies who enter a forbidden area. An odd robot who laughs after attacking.



Jelly Seeker:

- **HP:** 2
- **Damages:** 2 (contact)
- **Description:** Mechaniloid for deep sea exploration. In order to withstand the water pressure, it has an outer jelly-like layer. It also has a function to generate electricity on its own.



Ladder Yadder:

- **HP:** 3
- **Damages:** 2 (contact)
- **Description:** Originally a mechaniloid supervisor of the forest regions. It would locate any poachers, and report the forest's temperature and humidity to the woodland protection center.



Lift Cannon:

- **HP:** 2
- **Damages:** 3(contact), 2(shot)
- **Description:** Rotary-type cannon attached to a tube-like stand. Originally, a fire-fighting robot for control towers and any other high places in the airport.



Mad Pecker:

- **HP:** 6
- **Damages:** 2 (contact)

- **Description:** Woodpecker-type repliroid who chops trees in the forest. Tries to follow [Planty](#), without success.



Mecha-Arm:

- **HP:** -
- **Damages:** -
- **Description:** Robot installed in the automation system in the mechaniloid factory.



Mega Tortoise:

- **HP:** 16
- **Damages:** 4(contact),3 (bombs)
- **Description:** A turtle-type mechaniloid originally meant for rescuing humans from maritime disasters. From its back, it now produces bombs in place of floating devices.

• Meta Capsule



Metal Wing:

- **HP:** 1
- **Damages:** 3 (contact)
- **Description:** A reconnaissance mechaniloid. When it spots dangers, it raises its flying speed in a great rush to get news to its master.



Metall C-15:

- **HP:** 2
- **Damages:** 2 (contact), 1(bullet)
- **Description:** Reploid who watches factories. From the former series that worked in factories, now they are advanced enough to be placed as chiefs.



Morgun:

- **HP:** 1
- **Damages:** 1 (contact), 3 (fireballs)
- **Description:** Mechaniloid for geological surveying, its body is designed to withstand the heat and pressure of hot magma

- Notor Banger



Pararoid R-5:

- **HP:** 2
- **Damages:** 2 (contact)
- **Description:** Pararoid model improved with the ability of flight. It can approach suddenly by dashing at super speed.



Pararoid V-1:

- **HP:** 2
- **Damages:** 2 (contact, can attach to X's head and force him to continuously dash, shoot or jump. Can be de-attached by mashing buttons)
- **Description:** Mechaniloid with the ability to short-circuit scrapped mechaniloids and reploids and turn them into mavericks. It can also attach to living reploids and temporarily corrupt their motion circuits.



Planty&Iworms:

- **HP:** 2 (Planty), 1 (Iworm)
- **Damages:** 3 (contact-Planty), 1(contact-Iworm)
- **Description:** Planty is from the Mettool family and watches over the forest. From its head, it can manufacture the earthworm-type, soil cultivation reploid, Iworm.



Ray Bit:

- **HP:** 2
- **Damages:** 4 (contact), 3 (laser)
- **Description:** Rabbit-type mechaniloid taken from the robot zoo. It skips and jumps, using the laser cannon in its ears to attack.



Ray Trap:

- **HP:** -
- **Damages:** -
- **Description:** Mechaniloid devices which await the false steps of intruders.



Refleczer:

- **HP:** 2
- **Damages:** 1 (bullets), 2 (contact)
- **Description:** Defensive artillery. Its laser is refracted by the crystal, so that it can attack enemies in several directions.



Rideroid G:

- **HP:** 1 (on foot), 16 (with armor)
- **Damages:** 3 (contact), 4 (punch)
- **Description:** Reploid soldier in training to use the RABBIT Ride Armor. Still undergoing training, it is not very strong.



Rightod:

- **HP:** 1
- **Damages:** 4 (lightning)
- **Description:** Hatched from the capsule weapon number one dropped by Sky Farmers. They fly and attach to the enemy, then attack by calling upon thunder.



Road Attackers:

- **HP:** 12(total), at 7/12 the pilot dies; at 3/12 the engine explodes
- **Damages:** 2 (contact), 1 (shot)
- **Description:** A destructive reploid gang of hot-rodders, riding for Sigma's rebellion. Large beam cannons have been attached to the bonnets of their sports cars.



Road Riders:

- **HP:** 3
- **Damages:** 2 (contact), 3 (bombs)
- **Description:** Members of a Robot gang of hot-rodders. Formerly, they blasted the town during the night and ran off. They love to drive the Ride Chaser.



Rolling Gabyoall:

- **HP:** 1 (Immune to all but Rolling Shield)
- **Damages:** 3 (contact)

- **Description:** Intruder repulsion robot. It Appears to be a simple mechaniloid, but truthfully, it possesses the human-like mind of a reploid.



Rush Roader:

- **HP:** 6
- **Damages:** 2 (contact)
- **Description:** Leaders of the robot gang of hot-rodgers. To get revenge on the Maverick Hunters who once chased them down, they became Sigma's subordinate.



Sabottein:

- **HP:** 7
- **Damages:** 2 (contact)
- **Description:** Capsule weapon number 2, it was designed as a mecha for aiding in affecting the atmosphere in the Weather Control Center.



Scrambler:

- **HP:** 1
- **Damages:** 1 (contact)
- **Description:** Flying battle mechaniloid which attacks by extending its cutter arms. Its thin armor helps to guarantee mobility, but it is also its weakness



Scrap Robo:

- **HP:** 4
- **Damages:** 3 (contact), 2(laser))
- **Description:** A pathetic upper body of a robot, made to become a car driver. Although it passed part of the humans' expectations, without a driver's license, it has been turned into scrap.



Scriver:

- **HP:** 2
- **Damages:** 2 (contact)
- **Description:** Originally an assembly worker mechaniloid for manufacturing jobs in the factory, but was later remodeled for attack.



Sea Attacker:

- **HP:** 2
- **Damages:** 2 (contact)
- **Description:** Seahorse-type mechaniloid created as a novelty for humans' homes. Its body somersaults as it charges.



Sine Faller:

- **HP:** 1
- **Damages:** 2 (contact)
- **Description:** Aerial mechaniloid made with the idea “Quality from quantity”. It flies and turns, acting as a hindrance.



Sky Claw:

- **HP:** 2
- **Damages:** 2 (contact), 3(self-destruct)
- **Description:** A robot who removes obstacles, originally designed for the “Crane Game” which was popular in Japan during the later half of the twentieth century.



Sky Farmer:

- **HP:** 2
- **Damages:** 1 (capsule weapon), 2 (contact)
- **Description:** Mechaniloid made for sowing seeds from the air, re-modeled to drop capsule weapons.



Slidame:

- **HP:** 2
- **Damages:** 2 (contact), close walls for insta-kill
- **Description:** Flying patrol mechaniloid which closes the shutter when an enemy gets close.



Slide Cannon:

- **HP:** 3
- **Damages:** 2 (contact), 2(shot)

- **Description:** Defensive artillery, set up to attack aerial enemies. Designed after the German anti-aircraft cannons of the 1940s.



Snow Shooter:

- **HP:** 4
- **Damages:** 3 (contact), 2(snowball)
- **Description:** Bad-natured mechaniloid who toss balls of white iron as if they were snowballs. They are Chill Penguin's guardians.



Sole Solar:

- **HP:** 3
- **Damages:** 2 (missiles), 5 (laser)
- **Description:** Artillery robots of the Weather Control Center, which runs off sunlight. There are 2 types. The L type fire lasers, while the M type are equipped with pursuit missiles



Spiky:

- **HP:** 2
- **Damages:** 2 (contact)
- **Description:** Monocycle which bears sharp spikes in its tire. Very dangerous, its main attack technique is to slide over and self-destruct.



Tiranos:

- **HP:** 3
- **Damages:** 2 (cannon), 2(contact)
- **Description:** A small-sized tank for guarding restricted areas. Originally an exhibit at the dinosaur robot museum.



Tombot:

- **HP:** 1
- **Damages:** 2 (contact)
- **Description:** A dragonfly-type glider. When taking off, it cuts and releases the jet propulsion units. Then, slowly riding the wind, it flies through the sky.

• Tombort



Tubamail Generator:

- **HP:** 8
- **Damages:** 2 (contact)
- **Description:** Platform which constructs and releases Tubamail-S.



Tubamail-S

- **HP:** 2
- **Damages:** 1 (contact)
- **Description:** High speed mechaniloid originally designed for carrying the mail, now remodeled as suicidal missile attackers.



Turn Cannon:

- **HP:** 5
- **Damages:**
- **Description:** Robot once designed as a sprinkler for domestic use, but was defective until the water was replaced with cannon shells.
- Victoroid
- Victoroid customer
- Walk Blaster



Weather Crystal:

- **HP:** 22
- **Damages:** -
- **Description:** Device which creates and maintains the artificial weather inside the Weather Control Center. Because it is such a precision instrument, it has a fault which makes it easily affected by outside stimulus.

Appendix C

Timeline

Appendix D

Damage Tables

Bibliography

- [1] The Megaman Knowledge Base. Mega Man X (video game). [Online]. Available: [https://megaman.fandom.com/wiki/Mega_Man_X_\(video_game\)](https://megaman.fandom.com/wiki/Mega_Man_X_(video_game))
- [2] Megaman X Gallery. Megaman X legacy collection 1.
- [3] Wikipedia. Mega Man X2. [Online]. Available: [https://megaman.fandom.com/wiki/Mega_Man_X_\(video_game\)/Script](https://megaman.fandom.com/wiki/Mega_Man_X_(video_game)/Script)
- [4] The Megaman Knowledge Base. Mega Man Maverick Hunter X. [Online]. Available: https://megaman.fandom.com/wiki/Mega_Man_Maverick_Hunter_X
- [5] _tim_mmn_. Mega Man Maverick Hunter X – Game Script (X). [Online]. Available: [https://megaman.fandom.com/wiki/Mega_Man_Maverick_Hunter_X_Script_\(X%27s_story\)](https://megaman.fandom.com/wiki/Mega_Man_Maverick_Hunter_X_Script_(X%27s_story))
- [6] Nintendo, Capcom. Mega Man X Instruction Booklet. [Online]. Available: <https://www.nintendo.co.jp/clvs/manuals/common/pdf/CLV-P-SABCE.pdf>
- [7] The Megaman Knowledge Base. The Journal of Dr. Cain. [Online]. Available: https://megaman.fandom.com/wiki/The_Journal_of_Dr._Cain
- [8] ——. Mega Man X (character)/Maverick Hunter X. [Online]. Available: [https://megaman.fandom.com/wiki/Mega_Man_X_\(character\)/Maverick_Hunter_X](https://megaman.fandom.com/wiki/Mega_Man_X_(character)/Maverick_Hunter_X)
- [9] Wikipedia, The Free Enciclopedia. Mega Man X (video game). [Online]. Available: [https://en.wikipedia.org/wiki/Mega_Man_X_\(video_game\)](https://en.wikipedia.org/wiki/Mega_Man_X_(video_game))
- [10] StrategyWiki. Mega Man X/Heart Tanks. [Online]. Available: https://strategywiki.org/wiki/Mega_Man_X/Heart_Tanks
- [11] Capcom. Mega Man Maverick Hunter X user manual. [Online]. Available: <https://usermanual.wiki/Capcom/CapcomVideoGamesPlaystationportableUsersManual536674.877059048.pdf>

- [12] The Megaman Knowledge Base. X's weaponry. [Online]. Available: https://megaman.fandom.com/wiki/X%27s_weaponry
- [13] ——. Homing Torpedo. [Online]. Available: https://megaman.fandom.com/wiki/Homing_Torpedo
- [14] ——. Chameleon Sting. [Online]. Available: https://megaman.fandom.com/wiki/Chameleon_Sting
- [15] ——. Rolling Shield. [Online]. Available: https://megaman.fandom.com/wiki/Rolling_Shield
- [16] ——. Storm Tornado. [Online]. Available: https://megaman.fandom.com/wiki/Storm_Tornado
- [17] ——. Boomerang Cutter. [Online]. Available: https://megaman.fandom.com/wiki/Boomerang_Cutter
- [18] ——. Armor Parts (Mega Man X). [Online]. Available: [https://megaman.fandom.com/wiki/Armor_Parts_\(Mega_Man_X\)](https://megaman.fandom.com/wiki/Armor_Parts_(Mega_Man_X))
- [19] Mega Man RTA Wiki. Mega Man X. [Online]. Available: https://megamanrtawiki.fandom.com/wiki/Mega_Man_X
- [20] The Megaman Knowledge Base. Hadoken. [Online]. Available: <https://megaman.fandom.com/wiki/Hadoken>
- [21] StrategyWiki. Mega Man X/Highway Stage. [Online]. Available: https://strategywiki.org/wiki/Mega_Man_X/Highway_Stage
- [22] The Megaman Knowledge Base. Highway Stage. [Online]. Available: https://megaman.fandom.com/wiki/Highway_Stage
- [23] StrategyWiki. Mega Man X/Launch Octopus. [Online]. Available: https://strategywiki.org/wiki/Mega_Man_X/Launch_Octopus
- [24] The Megaman Knowledge Base. Utuboros. [Online]. Available: <https://megaman.fandom.com/wiki/Utuboros>
- [25] ——. Ocean Stage. [Online]. Available: https://megaman.fandom.com/wiki/Ocean_Stage
- [26] Capcom, *Megaman X Official Complete Artwork*. Udon Entertainment Corp., 2018.
- [27] Wayback Machine. Rockman X Collected Sourcebook Information. [Online]. Available: <http://web.archive.org/web/20040603090322/http://megaman.retrofaction.com/mmxa/resources/x1sb1.txt>
- [28] The Megaman Knowledge Base. Launch Octopus. [Online]. Available: https://megaman.fandom.com/wiki/Launch_Octopus

- [29] StrategyWiki. Mega Man X/Chill Penguin. [Online]. Available: https://strategywiki.org/wiki/Mega_Man_X/Chill_Penguin
- [30] The Megaman Knowledge Base. Snow Mountain Stage. [Online]. Available: https://megaman.fandom.com/wiki/Snow_Mountain_Stage
- [31] ——. Chill Penguin. [Online]. Available: https://megaman.fandom.com/wiki/Chill_Penguin
- [32] ——. Gallery Stage. [Online]. Available: https://megaman.fandom.com/wiki/Gallery_Stage
- [33] keekiyasan, “Rockman X1,” *Hondoori Game Center*, 2014. [Online]. Available: <https://hondoori.wordpress.com/scripts-and-localizations/rockman-series/rockman-x1/>
- [34] The Megaman Knowledge Base. Armored Armadillo. [Online]. Available: https://megaman.fandom.com/wiki/Armored_Armadillo
- [35] ——. Factory Stage. [Online]. Available: https://megaman.fandom.com/wiki/Factory_Stage
- [36] ——. Flame Mammoth. [Online]. Available: https://megaman.fandom.com/wiki/Flame_Mammoth
- [37] ——. Airport Stage. [Online]. Available: https://megaman.fandom.com/wiki/Airport_Stage
- [38] ——. Storm Eagle. [Online]. Available: https://megaman.fandom.com/wiki/Storm_Eagle
- [39] ——. Tower Stage. [Online]. Available: https://megaman.fandom.com/wiki/Tower_Stage
- [40] D. Oxford and N. Oxford, *Megaman X Maverick Haunter Field Guide*. Udon Entertainement, 2021.
- [41] The Megaman Knowledge Base. Boomer Kuwanger. [Online]. Available: https://megaman.fandom.com/wiki/Boomer_Kuwanger
- [42] ——. Power Plant Stage. [Online]. Available: https://megaman.fandom.com/wiki/Power_Plant_Stage
- [43] ——. Spark Mandrill. [Online]. Available: https://megaman.fandom.com/wiki/Spark_Mandrill
- [44] ——. Forest Stage. [Online]. Available: https://megaman.fandom.com/wiki/Forest_Stage
- [45] ——. RT-55J. [Online]. Available: <https://megaman.fandom.com/wiki/RT-55J>

- [46] ——. Sting Chameleon. [Online]. Available: https://megaman.fandom.com/wiki/Sting_Chameleon
- [47] ——. Sigma's Hideout (Mega Man X). [Online]. Available: [https://megaman.fandom.com/wiki/Sigma%27s_Hideout_\(Mega_Man_X\)](https://megaman.fandom.com/wiki/Sigma%27s_Hideout_(Mega_Man_X))
- [48] ——. Vile. [Online]. Available: <https://megaman.fandom.com/wiki/Vile>
- [49] ——. Bospider. [Online]. Available: <https://megaman.fandom.com/wiki/Bospider>
- [50] ——. Rangda Bangda. [Online]. Available: https://megaman.fandom.com/wiki/Rangda_Bangda
- [51] StrategyWiki. Mega Man X/Sigma Stage 2. [Online]. Available: https://strategywiki.org/wiki/Mega_Man_X/Sigma_Stage_2
- [52] The Megaman Knowledge Base. D-Rex. [Online]. Available: <https://megaman.fandom.com/wiki/D-Rex>
- [53] ——. Velguarder. [Online]. Available: <https://megaman.fandom.com/wiki/Velguarder>
- [54] ——. The Day of Σ Script. [Online]. Available: <https://megaman.fandom.com/wiki/...>
- [55] ——. Sigma. [Online]. Available: <https://megaman.fandom.com/wiki/Velguarder>
- [56] Mega Man X RTA Wiki. Basics. [Online]. Available: <https://mmxrta.fandom.com/wiki/Basics>
- [57] The Megaman Knowledge Base. Mega Man X (video game). [Online]. Available: https://en.wikipedia.org/wiki/Mega_Man_X2
- [58] keekiyasan, “Rockman X2,” *Hondoori Game Center*, 2014. [Online]. Available: <https://hondoori.wordpress.com/scripts-and-localizations/rockman-series/rockman-x2/>
- [59] Boco the Chokobo, Reeve, “Mega Man X2 / Rockman X2 Script,” *GamesFAQs*, 2002. [Online]. Available: <https://gamefaqs.gamespot.com/snes/588480-mega-man-x2/faqs/18452>
- [60] Megaman X2 Gallery. Megaman X legacy collection 1.
- [61] Wayback Machine. Rockman X2 Collected Sourcebook Information. [Online]. Available: <http://web.archive.org/web/20031009010437/http://megaman.retrofaction.com/mmxf/resources/x2sb1.txt>
- [62] The Megaman Knowledge Base. Bubble Spalsh. [Online]. Available: https://megaman.fandom.com/wiki/Bubble_Splash

- [63] ——. Silk Shot. [Online]. Available: https://megaman.fandom.com/wiki/Silk_Shot
- [64] Kodansha, “Saishinban rockman daihyakka,” *Comic BomBom Special 96*, p. 6, 1994.
- [65] The Megaman Knowledge Base. Maverick Factory Stage. [Online]. Available: https://megaman.fandom.com/wiki/Maverick_Factory_Stage
- [66] ——. Weather Crystal. [Online]. Available: https://megaman.fandom.com/wiki/Weather_Crystal
- [67] ——. Weather Control Stage. [Online]. Available: https://megaman.fandom.com/wiki/Weather_Control_Stage
- [68] ——. Wire Sponge. [Online]. Available: https://megaman.fandom.com/wiki/Wire_Sponge
- [69] Mega Man RTA Wiki. Mega Man X2. [Online]. Available: https://megamanrtawiki.fandom.com/wiki/Mega_Man_X2
- [70] The Megaman Knowledge Base. Robot Junkyard Stage. [Online]. Available: https://megaman.fandom.com/wiki/Robot_Junkyard_Stage
- [71] ——. Morph Moth. [Online]. Available: https://megaman.fandom.com/wiki/Morph_Moth
- [72] Capcom, *Rokkuman X Daizensho*. Futabasha, 2005.
- [73] StrategyWiki. Mega Man X2/Volcanic Zone. [Online]. Available: https://strategywiki.org/wiki/Mega_Man_X2/Volcanic_Zone
- [74] The Megaman Knowledge Base. Volcanic Zone Stage. [Online]. Available: https://megaman.fandom.com/wiki/Volcanic_Zone_Stage
- [75] ——. Flame Stag. [Online]. Available: https://megaman.fandom.com/wiki/Flame_Stag
- [76] ——. Central Computer Stage. [Online]. Available: https://megaman.fandom.com/wiki/Central_Computer_Stage
- [77] ——. Magna Centipede. [Online]. Available: https://megaman.fandom.com/wiki/Magna_Centipede
- [78] ——. Desert Base Stage. [Online]. Available: https://megaman.fandom.com/wiki/Desert_Base_Stage
- [79] ——. Overdrive Ostrich. [Online]. Available: https://megaman.fandom.com/wiki/Overdrive_Ostrich
- [80] ——. Sea Canthller. [Online]. Available: https://megaman.fandom.com/wiki/Sea_Canthller

- [81] ——. Deep-Sea Base Stage. [Online]. Available: https://megaman.fandom.com/wiki/Deep-Sea_Base_Stage
- [82] ——. Bubble Crab. [Online]. Available: https://megaman.fandom.com/wiki/Bubble_Crab
- [83] ——. Dinosaur Tank Stage. [Online]. Available: https://megaman.fandom.com/wiki/Dinosaur_Tank_Stage
- [84] ——. Wheel Gator. [Online]. Available: https://megaman.fandom.com/wiki/Wheel_Gator
- [85] ——. Magna Quartz. [Online]. Available: https://megaman.fandom.com/wiki/Magna_Quartz
- [86] ——. Energen Crystal Stage. [Online]. Available: https://megaman.fandom.com/wiki/Energen_Crystal_Stage
- [87] ——. Crystal Snail. [Online]. Available: https://megaman.fandom.com/wiki/Crystal_Snail
- [88] ——. Violen. [Online]. Available: <https://megaman.fandom.com/wiki/Violen>
- [89] ——. Serges. [Online]. Available: <https://megaman.fandom.com/wiki/Serges>
- [90] ——. Agile. [Online]. Available: <https://megaman.fandom.com/wiki/Agile>
- [91] ——. Zero/Mega Man X2. [Online]. Available: https://megaman.fandom.com/wiki/Zero/Mega_Man_X2
- [92] ——. Sigma/Mega Man X2. [Online]. Available: https://megaman.fandom.com/wiki/Sigma/Mega_Man_X2
- [93] Justin-credible. Mega Man X2 Speedrun Tutorial - Magna Centipede (Stag 3rd + Tailspin Glitch) . [Online]. Available: <https://www.youtube.com/watch?v=xoHa8t83vQ8>
- [94] Sharivan X. Mega Man X2 - Magna Centipede Tail Spin Glitch. [Online]. Available: <https://www.youtube.com/watch?v=qE2ozDjXxvI>
- [95] Gustavo Escobedo. Megaman X2 - Triple Neon Glitch (Magna Centipede Concept Fight) . [Online]. Available: <https://www.youtube.com/watch?v=hQD9RGYrbno>
- [96] “Rockman & Rockman X Daizukan,” *Kodansha Manga Hyakka*, vol. 6, 1994.
- [97] Sidier, “X schematics.” [Online]. Available: <https://docs.google.com/document/d/1yNRYZxW0v8FFADDUJPKjPcQoRt-Yr8pv7EIjQjcAoWc>

- [98] lonely_hunter, “Second page of compendium’s x profile,” Feb 2008. [Online]. Available: https://asylums.insanejournal.com/rockman_elysium/8446.html#cutid1
- [99] LanceHeart, “Does the rockman zero collection storyline explain everything?” Apr 2010. [Online]. Available: <http://www.themmnetwork.com/2010/04/09/does-the-rockman-zero-collection-storyline-explain-everything/>
- [100] Protodude, “dr. light’s research journal’ now available in english!” Feb 2019. [Online]. Available: <https://www.rockman-corner.com/2019/02/dr-lights-research-journal-now.html>
- [101] lonely_hunter, “Third page of compendium’s x profile, part one,” Feb 2008. [Online]. Available: https://asylums.insanejournal.com/rockman_elysium/9080.html
- [102] ——, “Third page of compendium’s x profile, part two,” Feb 2008. [Online]. Available: https://asylums.insanejournal.com/rockman_elysium/9930.html
- [103] Capcom, *Rockman Zero Official Complete Works*. Capcom, 2006.
- [104] The Megaman Knowledge Base. Zero). [Online]. Available: <https://megaman.fandom.com/wiki/Zero>
- [105] LBD “Nytetrayn”, “There Were Originally 24 Maverick Hunter Units, and Other Mega Man X Tidbits (Updated),” February 2018. [Online]. Available: <https://themmnnetwork.com/2018/02/12/there-were-originally-24-maverick-hunter-units-and-other-mega-man-x-tidbits/>
- [106] _tim_mmn_. Mega Man Maverick Hunter X – Game Script (Vile). [Online]. Available: <https://gamefaqs.gamespot.com/psp/929705-mega-man-maverick-hunter-x/faqs/41430>
- [107] Zan Sidera, “Serges and isoc - the wily connection,” May 2020. [Online]. Available: https://www.rockman-corner.com/2020/05/serges-and-isoc-wily-connection_31.html
- [108] The Megaman Knowledge Base. List of Mega Man X enemies. [Online]. Available: https://megaman.fandom.com/wiki/List_of_Mega_Man_X_enemies
- [109] ——. List of Mega Man X enemies. [Online]. Available: https://megaman.fandom.com/wiki/List_of_Mega_Man_X2_enemies