

The Mech 5631

Chapter 5631 Project S2

Ves finally understood what Alexa was truly trying to make.

Procreation was just the starting point. It formed the basis that enabled the rise of potentially huge social structures among her living mechs.

As long as the first-generation copies of the Project S1 model came to life, they would naturally be able to grow and interact with each other.

Once they created their offspring, the second-generation living mechs would be able to learn how to fight as swordsman mechs or rifleman mechs.

In turn, the second-generation living mechs would be able to pass on their inheritance to third-generation living mechs.

As long as this cycle repeated enough times, the collective inheritance of future mech dynasties would become so great that every child mech should easily be able to defeat an ordinary mech that just rolled off a conventional production line!

Alexa's far-reaching vision showed that she held enormous ambitions. She did not let existing taboos stop her from attempting to revolutionize the mech community by enabling living mechs to form their families and civilizations!

Ves had the feeling that if his latest student was allowed to realize this ambitious vision, she would unleash a storm that would either turn living mechs into the greatest partners or the greatest enemies of red humanity!

He liked it. Alexa had learned from his example and did not hold back from aiming high. Her design philosophy added another major dimension to living mechs that Ves never thought about in the past.

To be honest, Ves felt a bit outclassed by her work and her design philosophy. He felt as if he was already being replaced by a more superior living mech specialist.

However, this thought only lingered briefly in his mind.

The reality was much more nuanced. While Alexa did indeed present a more elaborate framework of living mechs, there was no guarantee that she could realize her bold design philosophy.

Even if she succeeded, she did not take anything away from Ves. Both of them specialized in living mechs, so they could easily share and make use of each other's research results!

Whenever Ves developed a more powerful implementation of living mechs, his student could make use of the new template to improve her own mech designs.

Whenever Alexa improved the inheritance and procreation mechanisms of her living mechs further, Ves could easily borrow her best design solutions and apply them into his own mech designs!

This was the advantage of multiple mech designers working in the same field of specialization!

As Alexa completed her explanation of her Project S1 design, she awaited her mentor's judgment.

Ves smiled at her. "I cannot say whether your expansive dream can come true. Only you can make that happen. From what I can deduce, your starting point is viable. At the very least, I can see this inheritance mechanism working for at least one reproduction cycle. I cannot say how well it will hold up in subsequent reproduction cycles, let alone decades or centuries down the line. A lot can happen in the meantime. Perhaps the mech model cannot be updated anymore. Perhaps the Project S1 has lost a lot of popularity. Perhaps starfighters have risen up to replace mechs entirely. Whatever the case, it is not certain whether your oldest mech models will be able to keep up with the times and remain relevant a couple of centuries in the future."

"I have already taken these possibilities into consideration." Alexa responded. "This is why it is not enough to create a single family unit. The larger the social structure, the greater the diversity and learning ability. Living mechs do not have to abide by their original designs. The mech designer or maybe even the mechs themselves should have the power to adapt their templates in order to retain their relevance as warfare continues to evolve."

The part of how living mechs should have the power to improve their own designs sounded really scary.

That was a step too far for Ves. Mech designers should be in control. They were much better at this job than anyone else, no matter whether they were human or mech.

Philosophically, humans always needed to retain ultimate control over their living mechs. The latter was made to serve the former, not the other way around.

At most, Ves wished for humans and living mechs to maintain an equal relationship with each other. As long as both of them treated each other with respect, both of their interests would remain aligned.

It didn't matter if Alexa made a mistake. She had just begun to form her design philosophy. Plans could always change. There was plenty of time for her to learn and refine her more far-fetched notions.

"You are truly committed to taking living mechs to the next level." Ves observed.

Alexa raised her head in determination. "I am. I mean no disrespect to you or your work. You are the inventor of living mechs. Few if any mech designers would have developed the notion of making mechs alive. Even fewer have the ability to make mechs alive from nothing. Your design philosophy is entirely centered around the concepts of growth and creation. These are the fundamental pillars that make your living mechs possible. I have no intention to become your substitute. In my search to open up additional dimensions to living mechs, I have chosen to specialize in the concepts of inheritance and procreation."

Growth and creation.

Inheritance and procreation.

Both sets of concepts sounded very similar to each other, but they actually held substantially different meanings and expressions.

Ves designed his mechs that enabled them to come to life in the strongest possible form that they could attain from the start.

Once they were being put to use, they relied on continuous growth to come into their power and evolve to greater heights.

Yet once these older and more experienced mechs fell in battle, all of their growth and accumulation became irrevocably lost.

Ves had not implemented any measures that could preserve the power of all of these elder mechs.

This was where Alexa came in. While she had learned enough from Ves to design living mechs by herself, she had yet to master this process as extensively as her teacher.

For example, Ves easily managed to discern that Project S1 and Project S2 could lead to the initial production of first order living mechs.

Perhaps later generations of living mechs might collectively grow strong enough to produce offspring in the form of second order living mechs upon birth, but that was anything but certain.

Ves also wasn't sure whether Alexa was able to impart additional qualities to her living mechs. This could include, design spirits, mech-specific cultivation methods and Ascension Runes.

However, she added dimensions to living mechs that fleshed out their system and made them more 'complete'.

The concept of procreation explicitly centered around enabling mechs to reproduce offspring, either with the help of humans or on a completely independent basis.

Project S1 was clearly designed with the ability to reproduce without the need for human assistance. This was the advantage of mechs that were entirely made out of first-class smart metal. They were able to substitute the function of solid metallic components so well that they could spontaneously recreate entire power reactors and other complicated systems in the field!

In any case, as long as the nanomachines possessed the ability to independently produce copies of themselves, they could theoretically reproduce without any limit!

Of course, this also posed an extreme risk to red humanity. Ves did not think it was wise for Alexa to produce copies of her first true living mech design project because there were so many ways for the Project S1's to go out of control!

The mech design still served its purpose as a proof of concept. Alexa had definitely made a lot of gains in the process of designing this groundbreaking mech.

To be honest, Alexa would have already turned into an excellent Journeyman Mech Designer if she specialized in procreation alone. Her fixation on create a functional and robust chains of inheritance for her living mechs added a whole new layer of complexity to her design philosophy.

Was she biting more than she could chew?

"I can tell that the concept of inheritance is quite important to you." Ves mentioned. "Is there any particular reason why you are fixated on this subject?"

"Inheritance is the basis of a civilization. I may have renounced my ties to the Greater Terran United Confederation, but that does not change the fact that I grew up in one of the oldest and most continuous human states and cultures to exist. Terran society is steeped in millenia's worth of tradition and practices. The Terran Confederation itself is the direct successor of the Terran Empire, which in turn is the collective child of all of the old human nation states that existed before and

during the Age of Stars. The Terran civilization that I was born into had reached an unprecedented degree of enlightenment and sophistication due to all of the inheritances that the older generation of Terrans have built in the past."

Though Alexa possessed a remarkably open mind for a Terran, there were times when she couldn't help herself.

The Terrans were inordinately proud of their old heritage and their age-old traditions. The older the clan, the greater their heritage and therefore the more excellent its descendants!

This was why the oldest and most respected family lineages earned the designation of ancient clan. They needed their own category in order to emphasize their 'superiority' over their younger counterparts.

In Terran society, old equated to power. Alexa had grown up long enough as a Terran to inherit much of her society's values and biases.

Ves no longer wondered why Alexa found it so important to add inheritance as a core component to her design philosophy.

She essentially wanted to reproduce the phenomenon of ancient clans in the world of living mechs.

"Alright." He said. "I think I understand. Let's move on. I am pretty clear about Project S1. What about your second living mech design? Why did you feel the need to make it when your first one already does the job?"

Alexa reined herself in a bit and amplified the size of the second projection.

"Project S1 encapsulates all of my initial ideas for my design philosophy, but it is purely my work. It is only valid for smart metal mechs. This is not my intention as smart metal remains unaffordable to the vast majority of customers no matter their class. In order to prevent my work from being relegated to niche products, I needed to apply my design philosophy on more conventional and affordable mechs. My rule here was to apply the concept of procreation on a normal mech without resorting to nanomachines."

That was a difficult challenge, but Project S2 clearly showed that Alexa managed to complete this objective!

"So how does it work?"

"It is a normal first-class rifleman mech with the noticeable exception that there is a male and female variant. Just as with the Project S1, the Project S2 is meant to experience a period of growth in the field until it is ready to reproduce. A male and female unit is meant to come together and engage in an exchange of the mech equivalent of seed material."

Ves looked down at a very specific section of the male mech.

"Why doesn't it have a codpiece?"

Alexa awkwardly coughed. "Mechs do not have to conform to the secondary sex characteristics as humans. I find it more efficient for the male unit to pass on its seed material to the female unit by opening a hidden port and handing it over with its hand. The female unit is meant to integrate the seed material into a reproduction chamber that is attached to the mech as a detachable backpack module."

Ves had definitely noticed the obvious bulge on the lower back of the female variant of the Project S2 design.

"Why put it in the rear? Why not put it in front so that it can look more similar to a pregnant human female?"

"I tried, but I found that I had to make too many changes for it to be worthwhile at my current level. It is too inefficient to integrate this module in the belly of the female unit. The so-called reproduction chamber is not a technological marvel. It is basically an adapted self-repair and self-replication system that is typically mounted on support-oriented mechs. Instead of fabricating mech parts in the field, it is dedicated to producing a child mech in the form of a scaled-down version of a mature machine. If all goes well, it should not take too long to form the offspring, but that depends on how quickly the donated E energies of the two mechs are able to fuse together. I do not have a clear estimation of how much time must pass to complete this essential process."

"You have yet to fabricate either of these two living mechs?"

"I wanted to gather your feedback before I made the attempts." Alexa responded. "What is your opinion? Do you approve of either of my works?"

"Well..."

Chapter 5632 Unnatural Reproduction

Ves became thoroughly impressed by Alexa Streon's ideas.

She did not let him down at all. Alexa studied him carefully over the months, and clearly adopted a number of his best practices.

His design philosophy, his values, his work approach and above all his courage all became objects of study to her. This encouraged her to show less restraint in her work.

The Project S1 and the Project S2 both contained a lot of subversive elements as a result!

Though the two mech designs contained a lot of extremes that might cause a lot of mech pilots to be taken aback, Ves believed that there should definitely be people who appreciated the value that her design philosophy could bring to the table.

Adding procreation and inheritance to living mechs might not be everyone's cup of tea, but he believed that there was definitely a market for this sort of product.

The Terrans and many other groups that valued family, legacy and generational accumulation would likely embrace Alexa's specialty products as long as they had proven their worth.

Ves definitely became convinced that her work had a place in the Larkinson Clan! He had always been a strong adherent to investing in the long-term. Many of his early efforts had already begun to pay off, while others would probably take a few decades if not a century before delivering powerful results.

What mattered was that Ves had set up a lot of stuff in motion that would constantly provide benefits to him and his clan over time. This compounded their growth and prevented them from backsliding so long as the investments did not go awry.

Investing in living mech dynasties fit exactly in his calculus.

Alexa definitely had the Larkinsons as her first customers, as no one valued living mechs more than her fellow clansmen!

Unfortunately, not every group valued long-term interests over more immediate concerns, so Alexa was bound to have problems with pushing her products onto other audiences, especially if her design applications compromised the combat power of her work to an extent.

Ves just had to take a close look at the Project S2 to prove his point.

While the Project S1 was perfectly fine as it was able to procreate by changing its form and the configuration of its nanomachines, the Project S2 was a different story!

Ves definitely had a lot to say about the design choices that Alexa made when she cooked up the Project S2, but he first addressed the S1 as it represented her starting point.

"The Project S1 is likely the mech that embodies your concepts the best, but... I do not believe it is the most practical of products." He said. "How much does it cost? Even if this mech design is just a proof of concept that you do not intend to realize at all, I do not believe you have spent so much time on fleshing out your design philosophy without knowing how much this costs. I can tell this smart metal product is not cheap. It is too tough, flexible and fault-tolerant."

Alexa's prideful smile dropped a bit. "You are correct. The target audience for his mech design is exceedingly small as a result. The estimated production cost of the S1 is at 150 million MTA credits if it consists entirely of the strongest and most difficult to produce first-generation nanomachines, but its effective performance in the field is only equivalent to a first-class mech that costs at around 30 million MTA credits."

In other words, as long as Ves ignored all of the fancy smart metal gimmicks, the S1 was overpriced by at least 5 times!

Was the capacity to alter its configuration and regenerate its battle damage in the field in a matter of seconds worth the enormous price premium?

The answer wasn't as clear-cut as it seemed. Smart metal mechs generally tended to outperform their regular counterparts so long as they did not fight against mechs with overwhelming offensive power.

Smart metal mechs tended to fare well in battles of attrition!

However, their extravagant upfront expenses made it so that they were more of a luxury product that only the wealthiest customers considered them to be a viable addition to their mech rosters.

"Your design philosophy is highly geared towards mass production models." Ves remarked as he gazed at the smart metal mech with a more critical eye. "The performance of the S1 does not appear to be remarkable. It does not possess any pronounced strengths compared to similar products on the market. Few people with the money to spare will want to invest in a mech that will only really begin to 'pay' off decades from the time of purchase, especially if the upfront costs are so high. It will be very difficult to purchase or produce enough copies of these expensive models to form an actual living mech dynasty. Even I cannot bear the thought of committing my clan to such an action."

Though Alexa already deduced this rationale, it was still hard for a creator to hear one of her babies being disparaged, especially from an authority figure she respected.

"The S1 has already served its purpose as far as I am concerned." She said. "It would be fantastic if I can gain the opportunity to fabricate it, but I cannot justify the expenditure. This is also one of the reasons why I had already begun the development of the S2 before I completed its predecessor."

There was nothing much for Ves to comment on. The S1 had plenty of good points. He believed that its offensive and defensive capabilities could easily be upgraded with the help and cooperation of several lead designers, but it was all moot. All of the tweaks in performance would not change the fundamental flaw that it was too damn expensive to be utilized on a wider scale!

The Project S2 was a more practical mech. Ves did not possess a full understanding of how first-class multipurpose mechs worked, but the S2 was configured as a simple rifleman mech, so its complexity was much reduced.

Alexa possessed solid fundamentals, so the S2's design was pretty clean and devoid of any unnecessary frills. Though its combat parameters were relatively balanced and unexceptional as a result, the resulting stability provided a better platform for her to add the optional 'reproduction modules' to the mech.

In both variants of the S2, Alexa had chosen to treat many of the additional elements as optional modules that any crew of mech technicians could easily attach and dismount from the machines.

"When you designed the S2, you chose to prioritize function over form, is that correct?" Ves asked.

Alexa nodded. "I think that most customers will not be able to stomach the idea that they have to pilot a weakened and less combat capable mech just so that they can produce a child mech that promises better performance in the future. I am not ignorant of the fact that most ordinary customers do not want to be bothered by all of these vague long-term promises when they are living on the edge in battle. The male variant of the S2 is the simplest. Its contribution to the reproduction process is minimal. It is enough to reserve a small pocket on the mech that can hold the instruments that are needed to produce a physical seed that will serve as the carrier of the mech's equivalent of 'genetic material'."

"What will this seed be made of?" Ves asked.

"It has to be at least partially made out of hyper materials." Alexa immediately replied. "The physical aspect of the seed material is not as important as its spiritual aspect. It is the latter that contains much of the spiritual strength and teachings that the male living mech wants to pass on to its child. The only point of uncertainty is that I do not know how long it will take for the male S2 to create a proper seed material once it has started this process. It may take an hour, a day or even a month. There is a distinct possibility that the male S2 may be forced to engage in battle while it is still forming its seed material."

Ves gained more interest when he heard that. "This might not be a bad development. Whatever the male S2 experiences in battle can be directly passed on to the unfinished seed material."

"We will have to see." His student replied in a noncommittal tone. "Once the male S2 has completed its process, it must pass on its seed material to the female S2. This handover process can be done in many ways, but for the sake of simplicity, it is enough to transfer the seed material in the same manner as installing a spare part on the recipient. As you can see, the main reproduction

chamber of the female S2 is designed as an external module that is largely mounted on the lower back. This will impose minimal hindrance to the first-

class multipurpose mech as it fits. If it ever receives any battle damage, its developing child mech is less likely to incur damage."

"What if the female S2 turns around and attempts to flee a powerful opponent?"

"Then I suppose the reproduction chamber can serve as a makeshift physical barrier that can help the fleeing mech resist more attacks." Alexa said in a resigned tone. "This is only assuming that the formation of a new living mech baby takes an extended period of time. Until I have fabricated the prototypes of both variants of the S2 and put them through an extended testing period, I will not have the necessary empirical data to determine how long it takes for my machines to complete all of these theoretical processes."

In other words, everything she conceived so far still remained a fantasy. The lack of proof generated so much uncertainty that Alexa probably wouldn't be able to advance to Journeyman until she had actually solved this essential requirement.

Ves continued to observe the female S2 design with an odd expression. He just couldn't get over the unusually inhuman appearance of this machine.

"From a cursory look, the technical design appears to be in order." He commented. "The design choices that you have made are both logical and rational enough that I can hardly fault them. It is just... neither mechs look like they are supposed to. Most humanoid mechs are designed to imitate human physiology to varying degrees. It looks extremely jarring to see a male mech without a codpiece and a female mech whose baby bump is located on the back rather than the front. Don't you think it looks... ugly?"

The young woman gazed at her mentor with a puzzled expression. "I cannot deny that it does not conform to human aesthetic standards, but is this truly a legitimate concern when the more natural-looking alternatives impose heavier burdens on performance?"

"It's really important, Alexa! Your designs are fine when your target audience is a bunch of unfeeling bots, but if you want to market your product to actual people, then you need to make them more comfortable with your work by conforming to their tastes! If there is one major fault to your work that I have to mention, it is that you have completely neglected the role of the human mech pilots in your equation!"

That caused Alexa to be taken aback. "How so? The mech pilots of the S2 are not meant to play an active role in the reproduction process."

Ves shook his head when he heard that. "You are treating mechs as standalone products when you talk like that. This is wrong! Mechs are only complete when they are interfaced with a human mech pilot. When these machines procreate, do you expect them to do everything while letting their pilots remain bystanders?"

"Yes..."

"That is too short-sighted! These mechs are not independent entities. They are assets owned by humans. The least you can do is mandate their involvement in the procreation process, if only so that they can supervise and control this potentially dangerous activity. Also, do not underestimate

how much the mech pilot can contribute to the child mech. I think the next generations of living mechs can become even more attuned to humans if actual mech pilots have contributed to their formation."

"That is an unsubstantiated theory, sir. You are adding a large amount of complexity to my framework."

"I know, but this is a necessary measure in my opinion. Do not forget about the original purpose of mechs. They exist to serve mech pilots. If you leave them out of consideration, then your living mechs will begin to deviate from the norms and values of the mech community. Do you really want to go this far, Alexa?"

That caused the woman to fall silent.

Ves crossed his arms. "Besides, there is another major fault to your mech design. It is too cold and inhuman! I highly suggest that it should mimic the human process of procreation more closely!"

His words sounded baffling to Alexa. Did he not realize how extensively his suggestion would impact the combat performance of her works?

"Why?"

Chapter 5633 The Romance of Mechs!

"The act of procreation should not be treated as a clinical procedure." Ves explained his thoughts. "It should be a sacred process where the acts will result in a miracle that comes in the form of a precious new life. You do not have to follow my advice, but I strongly believe that there should be a strong sense of ritual to your reproduction process. The love and other strong emotions evoked by two living mechs that are deeply enamored with each other should enable them to impart much more strength in the product of their union, thereby resulting in a stronger overall result."

Alexa tried to process her mentor's arguments as best as possible.

His words accused her of focusing too much of her work on the living mechs themselves, thereby causing her to neglect the feelings of her mech pilots.

She did not entirely agree with this assessment.

"I think I have put sufficient effort into serving the needs of the owners and users of my products. The Project S2 is meant to fight with little to no obstruction from its reproductive modules during ordinary times. Once the male and female variants are ready to produce a child mech, the deed should be completed in the least cumbersome fashion as possible. The more the reproduction process reduces the combat effectiveness of my mechs, the more the human mech pilots will become adversely affected by the added complications. Even if a mech force is able to set the 'pregnant' S2's aside, that still puts a number of combat assets out of commission for a time."

"I do not disagree that adding more burdens to the reproduction process will result in greater limitations, but the same can be said for humans as well." Ves retorted. "When human females decide to have children the traditional way, they are often afforded both pregnancy leave and maternity leave. These are accepted forms of accommodation because we humans find it important to give parents the time to nurture their babies."

As a woman, Alexa understood quite well how valuable this was for humans. That did not mean that this dynamic should be the same for living mechs.

"With all do respect, sir, I think you are going too far in anthropomorphising your living mechs. Previously, you have always treated them with a balanced approach. You treat them as living beings when appropriate, but you never lose sight of the fact that they are combat machines that are built for purpose. This suggestion of yours crosses the line that you have previously set. You are asking me to make unnecessary changes that directly reduce the performance of my mechs in order to satisfy human whims. You suggest that these additional measures will improve human sentiments and lead to better output, but you have no proof to back up your assertions. It is a great risk to implement these changes."

She had a point. Just as Alexa had no real data to back up her many assumptions, Ves also did not have any proof he could pull out to convince her that his opinion carried actual weight.

However, Ves designed living mechs for many years. He created a lot of design spirits and other living products as well. He possessed a much greater insight and comprehension of life and creation than an Apprentice Mech Designer who had only recently dipped her toes in a field that he had single-

handedly pioneered.

Even if he did not have any direct data related to the procreation of living mechs, he could still make a lot of inferences based on his existing understanding.

Ves waved at the projection that showed off both variants of the S2.

"Your academic understanding of mechs and related technologies is impressive, but I feel that you are a bit deficient when it comes to understanding the mech pilots who entrust their lives to them. Ever since you joined my clan, you have rarely interacted with the mech pilots of our clan. That is partially my fault, as we have spent much of our time in the design lab as opposed to the expeditionary fleet where many of our mech pilots are grappling with my products every day."

The woman frowned. "What is your point, sir?"

"I think your work lacks flavor and personality." Ves bluntly said. "Don't get me wrong. They are fine on a technical level, but mechs are far more than just the sum of their parts. Where is the romance in your mech design? Your works lack a certain soul that makes it more difficult for them to raise their potential. Basing your design choices on practical and technical concerns is not wrong, but leaving aside the emotional components is a huge mistake in my opinion."

"How so, sir? I still do not understand your insistence on placing irrational considerations over rational considerations." Alexa helplessly said.

"Think about the basics of mechs. They are machines that are never meant to fight on their own. They borrow the strengths of mech pilots because only humans can add qualities that can elevate their performance. What you should know is that the various advantages of mech pilots are mostly irrational in nature. I am a firm believer in the assumption that human potential is unlimited. They can start from ordinary mech pilots and continually break their own limits until they ascend to the rank of god pilot. What is important is that out of all high-ranking mech pilots, none of them are rational! Each of them derive their superhuman power from values such as love, pride, sacrifice and

other noble concepts. This is the romance of mechs! This is the source of growth and evolution of mechs and mech pilots! Why are you overlooking this powerful force when designing your mechs?"

Ves had not taught that many lessons to Alexa, but that was because she was so damn educated that she already figured out a lot of stuff by herself.

Even if she did not understand a theory or an instruction right away, she only needed a small hint in order to set her on the right path.

This was the first time since she joined the Larkinson Clan where her vaunted cleverness failed to put her in sync with her teacher!

This was because the lesson this time did not revolve around logical and falsifiable theories.

Ves' arguments were largely based on metaphysical theories and assumptions!

That made it difficult for him to convince Alexa that he was right.

He let out a sigh.

"Only you are in control of your design philosophy. It is not my intention to impose my style on you, but I think you should put serious consideration in how your works affect your target audience on an emotional level. Designing the S2 in a more human fashion is not a counterproductive act in my opinion. It will cause your products to resemble humans even more, which will subsequently promote greater emotional attachment and commitment from mech pilots. It would be even better if the initial process of conception is much closer to the human method. Every living mech interfaces with a mech pilot for so many hours that the former learns a lot about the latter. More than that, a living mech will begin to develop the same desires as its human partner. I think that your products will derive a much greater sense of dedication and fulfillment if they can engage in a more relatable form of love-

making."

His words caused Alexa to look at him with a flat stare. Did he know how ridiculous his suggestion sounded?

"Are you being serious about designing living mechs with the express intention of allowing them to make love with each other as if they are humans?! Such acts only take place in the most lurid places of the galactic net!"

Ves innocently raised his palms. "Don't misunderstand me, Alexa! I am not making this suggestion because I want to indulge in my fantasies or anything! What I am trying to convey is that you need to consider the feelings of everyone involved. It is not just the mech pilots that you should please, but also the living mechs themselves. Each of them are alive, which means that each of them have their own wants and needs. Don't you think it is a dream come true if living mechs are able to imitate their human partners in the act of creating a new life?"

His words were finally beginning to affect his student. Alexa did not look as confused as before.

Though she did not have a lot of experience interacting with living mechs, she knew them well enough that the smarter and more developed among them had become remarkable human in nature.

Ves grinned when he saw that he had breached past her wall.

"Let me give you a suggestion before you go through with fabricating the S2's. You should try and make contact with existing living mechs and solicit their opinions. What do they think? Are you sure they are willing to procreate in the clinical manner that you have originally proposed, or are they much more interested in imitating the humans that they care about the most? Your design philosophy introduces a massive factor in their lives, so the least you can do is inquire whether existing living mechs welcome your contribution."

The young Apprentice's expression softened. "Mhmm. This is a good suggestion. I should have done this in advance."

"You can use our channels to contact the third order living mechs that are currently stationed in the expeditionary fleet. They are smart, old and expressive enough to provide comprehensive answers to your questions. Better yet, if you can do so, try and contact your grandfather as well. Let us see what the Ouroboros thinks about your design philosophy."

Alexa clearly thought that these were excellent suggestions!

"I will do so at the first possible opportunity."

"Maybe you should wait until you have designed an alternative version of the S2. Try to design the male and female variant in a way that causes them to resemble the human form a bit more." Ves suggested. "You don't have to copy every human secondary sexual characteristic in your mech designs, but your works should at least share a much closer resemblance to the humans who are supposed to pilot them. Living mechs do not just want to become strong. They also want to experience the fullness of what life can offer to them. They have been living vicariously through their mech pilots each time they are interfacing with each other. I think it is time to give mechs a more direct way to experience one of the wonders of life."

Perhaps Ves might have crossed a line and imposed too many of his own values and opinions on his student, but he felt it would be a serious shortcoming if Alexa just proceeded with her current interpretation of her design philosophy.

His student ultimately sighed. "I suppose I will have to delay my advancement to Journeyman by a couple of weeks if not months. It will take time to design the alternative forms of the Project S2. It will take even more time to fabricate them and put them to the test."

"It is worth it." Ves said. "You do not want to start off as a high-ranking mech designer on a flawed footing. It is best to take your time and make absolutely sure that you have formulated the right design philosophy for yourself and your target audience. Even if my advice turns out to be incorrect, you at least managed to confirm this by conducting your own investigation."

Neither of the two minded the additional delay.

Alexa had taken years to search for a potential solution for the Ouroboros. She could have advanced a long time ago if she settled for a more accessible design philosophy.

Besides, she truly grew curious about Ves' theories and assumptions. Was there any truth behind the romance of mechs? She felt compelled to find her own answer to this question!

Chapter 5634 Deviating From A Template

Hours later, Ves reunited with his wife.

Alexa had already left Diandi Base so that she could visit a branch office of the Streon Ancient Clan.

That was one of the few places in the New Constantinople System where she could establish a fairly secure communication link with her grandfather.

Ves meanwhile summarized Alexa's work to Gloriana. His wife listened to his retelling with a critical attitude.

"Your protege has definitely taken after you, for good and for ill." Was her first remark. "I did not expect a former Terran such as herself to go so far in her attempt to transform the framework of living mechs. As a mech designer, my first doubt is whether her design solutions will earn enough traction from her clients and customers. Her design philosophy makes a lot of promises, but many of them will not truly pay off until decades later. You know that ordinary mech forces would have long replaced their outdated mechs with new ones, correct? Upgrading existing stock is only done in a few cases as the expense and hassle of doing so is not worth it for most groups."

Ves nodded. "I agree with you, but I am sure that there are people who will appreciate what she brings to the table. At the very least, I am already convinced by her concept of inheritance. I think it is an excellent way for the existing generation of living mechs to pass on a part of their strength to the next generation. This way, if the Larkinson Army ever suffers a terrible loss, we will have a sizable batch of replacement mechs in reserve that can fill in the shoes of their 'parents'. In other words, it is like an insurance policy."

"I can see what you mean. I do not want this to happen. I put so much effort into designing my expert mechs. Ideally, I would like to see all of them transform into god mechs step by step, but... too much can happen that can derail their ascension to godhood."

What would happen if a lot of old and powerful living mechs fell in battle at once?

Ves and Venerable Jannzi already suffered a huge setback when the original Shield of Samar experienced total defeat at the hands of a high-tier expert mech.

If the Larkinsons confronted a much more powerful opponent, then the odds were likely that a lot of unique and precious third order living mechs such as the Dark Zephyr, the First Sword, the Everchanger and the Minerva may get lost without the chance to piece them back together!

These were all priceless mechs as far as Ves was concerned, but even he could not guarantee that they could survive all of the trials and tribulations ahead of them. The only way to preserve them was to stuff them in a vault and keep them protected from every external threat.

Suffice to say, that was not a valid solution at all. Living mechs needed to be actively used in order to grow as optimally as possible.

Death and loss were intrinsic to every conflict. Mechs were born to experience a lifetime of danger. They even had to be ready to sacrifice their own lives in order to save their mech pilots.

Given all of these risks and dangers, the lives of mechs were actually rather bleak. Ves grew more emotional when he thought about how little of them might be left by the time their struggles came to an end.

"What I value the most about Alexa's work is that it gives an opportunity for living mechs to leave a lasting legacy behind." Ves spoke. "Everyone wants to be immortal, but few if any entities can attain this goal. The majority of humans and mechs will still have to confront their mortality when they reach the end of their lifespans. Once they are on the verge of leaving their lives behind, I hope they will not leave too many regrets behind. Humans can still leave a legacy behind by accomplishing lasting feats that will be remembered throughout the ages. They can also leave a more physical trace of their existence behind by having offspring. Living mechs deserve the same opportunities to distinguish their lives. They should not be treated like faceless commodities whose absence will not be noticed."

All of this started to get very philosophical. Ves might care a lot about these issues, but this discussion was starting to get too abstract.

Not even Gloriana had the patience to indulge in her husband's fantasies.

Both of them had a lot of work on their plates.

"How are the new Journeymen settling in?" Ves asked.

"They are adequate." His wife responded. "I like them, actually. They are clever, obedient and respectful. I feared that at least half of them may try to challenge my authority seeing as we are all Journeymen who are not too far apart in age, but Alexa has done well in setting the right expectations."

Even Gloriana could not deny Alexa's usefulness. The former Terran was just too competent at her job.

"Have any of the Journeymen caught your eye so far? Do you have any favorites that you hold greater expectations than the other?"

"I did manage to identify a handful of Journeymen that may prove to be especially helpful for us once they have developed their design philosophies further, but it is too early to tell. All 25 recruits have good potential."

Ves nodded in agreement. They spent a bit of time on swapping their observations of the Journeymen that managed to attract their attention.

"Viktor MacMillan and Harry Kaikkonen are the most immediately helpful additions to the Design Department." He said. "That is not to say that the other 23 Journeymen are not as useful, but we have spent too much time on completing our projects without benefiting from the help of an energy weapon specialist and energy shield specialist. This time is different. Our mechs will no longer have as many shortcomings in these areas."

Both Ves and Gloriana smiled. The additional specialists truly addressed one of the lingering shortcomings of the Design Department.

"I am more confident in designing the next iteration of the Dark Zephyr than before." Gloriana said with satisfaction. "This is the only update that Venerable Tusa will receive before he is ready to advance to the next rank. He has already passed on an extensive list of complaints to me that he hopes that I can address."

"Oh? What are his demands? Does he want to implement any notable changes to the design that we haven't already thought about?"

Gloriana nodded. "The greatest shortcoming of the Dark Zephyr is his relatively weak attack power. This has never been much of an issue during the Age of Mechs, but now that the Red Ocean is in the grip of the prevailing war, the expert light skirmisher is more often tasked with fighting against alien warships. It is not that the Dark Zephyr is unable to inflict damage to enemy warships once he has bypassed the transphasic energy shield. The real problem is that it takes too many minutes for the mech to disable the vessel in question. The fact that Tusa has become overly dependent on expensive and wasteful transphasic grenades to inflict mass damage is an indication that the Dark Zephyr is struggling on this front."

This was definitely a serious issue plaguing the Dark Zephyr, but Ves was not sure whether it was possible to completely solve it in the next update.

"Light skirmishers are like this." He said. "They are typically armed with double knives because these weapons are light and flexible enough to impose the lowest possible burden onto the machine. It is possible to arm them with heavier weapons such as swords and axes, but that will negatively impact their mobility. Even if we can upgrade the Dark Zephyr into a much more powerful quasi-first-class high-tier hyper transphasic expert mech, is it truly a good idea to deviate from the established pattern that both Tusa and his battle partner have become accustomed to? I am afraid that a radical deviation may cause them to lose touch."

His wife shook her head in disagreement.

"I think you are seriously underestimating their capacity for adaptation. Both Tusa and his expert mech have been suffering from numerous inadequacies that have remained unaddressed for months if not years. They are more than eager to embrace change. Besides, do you think a mech that is projected to become at least as powerful as our most recent Lionheart and Blood Ember Mark II will struggle to wield weapons that are larger and heavier than a pair of knives?"

The early combat reports of both the Lionheart and the Blood Ember Mark II were astonishing.

When paired with experienced and highly competent high-tier expert pilots, their enormous power completely overwhelmed every other expert mech designed by the Larkinson Clan!

The gap between oldest and newest Larkinson expert mechs was so vast that Venerable Tusa really couldn't bear the difference anymore!

"Maybe you have a point." Ves reluctantly said. "Since you have brought up this topic, you should already have an idea on the weapons that the Dark Zephyr should bear. What are your suggestions?"

Gloriana had been waiting for this. She activated a projection that displayed two different weapon systems.

"Since the Dark Zephyr must remain light and small, it is not advisable to install any integrated weapon systems into its mech frame. I think that it is still useful to mount a pair of luminar crystal guns onto its shoulder. They should ideally be designed to be as light and combat as possible. What is particularly important is that their output must be high but their weapon barrels must be short. Is it possible for you to meet these requirements?"

"Hmmm... it's doable, but... the Dark Zephyr's limited energy reserves will drain faster if these luminar crystal weapons are put to use. The accuracy and precision of the shoulder-mounted weapons will also be fairly poor. A light mech moves way too quickly and erratically to serve as a

stable firing platform. Both these factors will severely limit the effectiveness of this weapon system."

Gloriana smiled. "These are acceptable shortcomings. The Dark Zephyr is not meant to employ the shoulder-mounted luminar crystal guns on a general basis. It is a waste to employ them against alien starfighters or breaching powerful transphasic shields. They need to be loaded with an attack phase crystal that is highly effective at quickly breaching through thick layers of hull plating. The sooner the Dark Zephyr is able to reach the engineering bays of a large warship, the sooner Venerable Tusa is able to neutralize the enemy vessel."

"If that is the case, then I have a couple of promising attack phase crystals in mind that should facilitate this purpose. If the shoulder-mounted luminar crystal guns are solely reserved for sieging purposes, then their lack of accuracy is not important as they will only be used to melt a hole on the side of an enemy warship at close range. However, I am not too sure about how long the Dark Zephyr can keep these weapons firing."

"A quasi-first-class expert mech should be able to bear it as long as the pilot is not too trigger happy, Ves. This is only a temporary state. As long as Venerable Tusa manages to advance to ace pilot, the Dark Zephyr can undergo a more powerful transformation. We will be able to replace its power reactor and energy cells with much more superior versions. Even if the luminar crystal guns remain relatively underpowered, the amplification provided by the Saint Kingdom of an ace mech will raise their effective firepower to an astounding level!"

Even a pair of knives could turn into a deadly ship killer under the same circumstances!

"Alright. You sold me. If you think it is a good idea to mount energy weapons onto the shoulders of the Dark Zephyr, then let's try it out. Just make sure that Tusa can choose to detach them and leave them behind when he wants."

"Mechs at this level are rarely confined to the original mech archetypes that are used to classify lesser machines." Gloriana said. "The closer they come to approaching the power of a first-class multipurpose mech, the less they conform to their previous templates. It is not a sin to equip ranged weapons onto a light skirmisher. We only need to be certain that this addition will not set back the overall performance of Tusa's expert mech."

Chapter 5635 Dark Zephyr Mark III Project

The Dark Zephyr was the ultimate light skirmisher of the Larkinson Clan.

Ves still took pride in his oldest expert mech. Designed with the support of Master Moira Willix, Venerable Tusa Billingsley-Larkinson received the first proper living expert mech.

Over the years, Tusa and his expert mech partnered up and fought many battles together. The two had become as thick as thieves. Even when the Dark Zephyr had begun to hold his mech pilot back as of late, the two still worked together to get around their limitations and ensure that they could eliminate enemy warships as effectively as possible!

To Ves, the pair was one of the ideal results that he strove for when he embarked on his design philosophy. He wanted to do them justice by making the Dark Zephyr better in any way, but not to

the extent of breaking the living machine's identity and ruining the perfect harmony between the two battle partners.

It was quite difficult to fulfill all of these requirements when Ves and his wife completely transformed every single aspect of the Dark Zephyr.

They did not hold back when it came to the design budget of the machine. Venerable Joshua might be the fastest to grow into a high-tier expert pilot, but the other heroes of the Larkinson Clan were not too far behind.

Once Tusa reached the limit of what the general cultivation elixir could do, he would become a genuine ace pilot candidate that only needed a bit of polishing and a hearty battle to break through.

Once Tusa became an ace pilot, everything would change!

Ves had every intention of bringing him and his battle partner over to the Premier Branch and preparing the pair for the tougher battles ahead.

Naturally, the Dark Zephyr would have to undergo yet another thorough redesign and rebuild process. Only a proper ace mech would enable Tusa to channel his full power at that point.

This was an enormous hassle. If Ves and Gloriana wanted to make this transition period as short and convenient as possible, they had to design the Dark Zephyr as a preparatory ace mech.

It was similar to the recent refit of the Spirit of Bentheim. Back then, Ves wanted to completely reform much of the structure of the factory ship so that the hull already met first-class standards more or less. That meant that removing the word 'quasi' from her designation was as simple as replacing the power generators and other easily swappable ship parts.

Though Ves and his wife had a clear goal in mind, the design challenges they needed to overcome were great.

It would have been much easier if they designed a high-tier expert light skirmisher from scratch!

Yet because of the need to upgrade an existing low-tier expert mech, they had to limit their deviations in order to retain the overall spirit of the Dark Zephyr as best as possible.

However, neither Ves nor Gloriana were as limited as the Journeymen as they used to be back when they started to design their very first Larkinson expert mech under the supervision of Master Willix.

They had improved by leaps and bounds. Ves had already become a Senior Mech Designer and learned all of the necessary methods and techniques to integrate exotics into high-ranking mechs.

Both Ves and his wife had spent many years developing a vastly improved repertoire of design applications.

They not only built up much larger toolboxes for themselves, but they also added in a lot of higher-end tools into their personal arsenals, allowing them to keep up with the rising specs and tech level of their design projects.

More importantly than that, Ves and Gloriana's productivity had skyrocketed to a level that they could have never imagined just a few years prior!

The primordial planet inside the Blinkyverse was slowly getting covered by more and more E-computers. The tech and design of the primitive transistors and circuit boards might be horribly

outdated compared to contemporary processors, but that did not matter so long as the quantity was large enough!

Gloriana's new Arachne 01 implant set was even more ridiculous. Augmented with broken up pieces of a mysterious Mentalist Crystal, the cutting-edge hyper augmentation began to demonstrate its formidable power.

Hundreds of specialized software programs efficiently utilized the miniaturized processors and supplied a lot of answers in record time.

Even though Ves and his wife were still in the process of forming a draft design, the pair had become so meticulous in their work that they managed to produce a much better overview of what the upgrade project entailed!

This was incredibly valuable as a more detailed and correct draft design could provide a lot of correct guidance in advance. This would help the participants in the upgrade project avoid any unnecessary detours and engage in a lot of work that ultimately ended up redundant.

By the time they came to the end of their planning session, both husband and wife became more than satisfied with the results they produced in so little time.

The vastly increased complexity of the high-tier version of the Dark Zephyr did not hinder them as much as they feared. Both of them were fully capable of designing such a powerful and complex mech in considerably less time it took to design the Lionheart!

"If neither of us get distracted by too many other design projects, we should be able to complete the Dark Zephyr Mark III Project in four months." Gloriana optimistically estimated. "This should make your cousin Tusa more than happy. I do not think he is willing to be as patient as your grandfather and uncle."

Four months was a difficult target to meet, especially when the upcoming version of the Dark Zephyr required them to redesign virtually everything!

Ves did not offer any objections, though. The Dark Zephyr was still a light mech, which meant that it was smaller and contained less design elements in total.

"Mark III? Shouldn't it be called the Mark II?"

"We already upgraded the Dark Zephyr once before, Ves. We upgraded much of its old tech to second-class heartland-level standards. We also mounted it with grenade holsters."

"Oh, that. I don't consider that to be a proper revision. At best, it is just a mid-generation upgrade. It should be regarded as Version 1.5 rather than 2.0."

"I disagree."

The two argued for a bit before Gloriana finally managed to get her way.

"Dark Zephyr Mark III it is." She said with an upturned chin and a satisfied expression. "I shall be leading this project. Juliet, Ketis and you have worked on the original, and I would like the three of you to contribute to the design again."

"Juliet has gone off to EdNet training." Ves reminded her. "It will take at least three years before she gets back to us again. The same applies to most of our other established lead designers."

Gloriana was well aware of this. "A mech as important as the Dark Zephyr must receive the attention of a full high-level design team. I do not want to squeeze Juliet's design philosophy out of the picture, but we may not have an option."

If they wanted to do a proper job, then it was best if they waited until Juliet came back from EdNet training with a lot of design experience and theoretical knowledge in her head.

Yet how could they possibly wait so long? Venerable Tusa would probably grow mad during the long wait!

The needs of the Larkinson Clan necessitated that the Design Department moved quickly to fulfill this long-awaited upgrade demand.

For this reason, Ves and Gloriana both agreed to push Juliet Stameross out of the Dark Zephyr.

This was a weighty decision as that effectively meant they would have to remove the influence of her design philosophy from the expert light skirmisher, all without being able to notify her because she was currently studying inside an accelerated virtual reality setting!

Ves felt rather guilty about that, but his wife looked nonchalant.

"She had made her choice when she chose to accept this opportunity. This is on her, not you." Gloriana mercilessly said. "Besides, it is actually fairly normal for the main design team of a high-ranking mech to rotate after every revision."

She was right. Expert mechs and ace mechs that had been in development for decades rarely tended to maintain the same design team.

Anything could happen that caused the team composition to change.

Contributors may have become too busy and swamped with other responsibilities to go back to their old work.

Other mech designers might have been able to squeeze out the older ones by virtue of their superior ability or connections.

The original mech designers may have died or defected to another organization.

Whatever the case, it was common practice for older expert mechs to come under the care of a different set of mech designers after a long time.

This was why Ves did not get too hung up over this change. He ultimately reminded himself that they needed to serve the interests of Venerable Tusa Billingsley-Larkinson and the Dark Zephyr as best as possible. The feelings of the mech designers involved in this project ultimately did not matter.

The more important consideration now was to choose the mech designers to fill up the two vacant spots previously occupied by Juliet Stameross and Master Moira Willix.

"I think it would be fun to invite Jovy Armalon. He previously told me that he doesn't want to bother with second-class mech designs, but this expert mech is so powerful that I am sure he will make an exception." Ves proposed. "His design philosophy is very interesting. I think it is an excellent fit for the Dark Zephyr. This is a mech that likes to play tricks and refuses to get pinned down. What better way to complement it than to add the Reality Trickster to our design team?"

His wife immediately frowned. "No. The Dark Zephyr is one of our clan's exclusive works. Do you want to leak all of the proprietary secrets of our high-end mechs? The mechers will know everything if one of their own is involved!"

"That is pretty much already the case no matter what we do, honey."

"We still have to stand by our principles! We can upgrade the Dark Zephyr without outside assistance!"

"If that is the case, then we have no choice but to turn to the new recruits." Ves concluded. "If we want to complete the upgrade project quickly, then we will have to suspend the acclimation program for the selected Journeymen."

"That should not be an issue as long as I am in charge. I will supervise their work more closely to ensure that they will not deviate from the demands made by Tusa. I am much more equipped to do this with the help of Alexandria."

She was right. Ves no longer had any concerns about this issue.

"Who do you want to add to the design team?" Ves asked.

"We need a mobility specialist, so it is essential for us to bring in Adrien Marceau. He is the youngest of the 25 Journeymen, but he has formulated his design philosophy during the heyday of the short-lived Phasewater Generation."

A few of the talented Journeymen that came up during the previous mech generation were quite remarkable.

They had centered their design philosophies around the use of phasewater, which meant that they were much more capable of designing transphasic mechs than their older counterparts!

Adrien Marceau was a part of this fairly recent wave of Journeymen. He developed a Class IV Design Philosophy that was classified as Instant Combat Warping.

His work and design philosophy were best suited for highly mobile transphasic mechs!

Being able to work on the Dark Zephyr would definitely be a dream come true for this new recruit!

Ves had no objections to this choice. "Okay. What about the remaining slot?"

"That depends on what else we would like to add to the Dark Zephyr..."

Chapter 5636 Combat Warp System

It went without saying that the composition of the main design team could have an enormous influence on the outcome of a design project.

Right now, Ves and Gloriana were more than cognizant about the fact that the current design team of the Dark Zephyr III was a bit... unorthodox to say the least.

Ves and Gloriana's design philosophies both improved the expert mech in unusual and holistic ways. Neither of them focused on improving any basic properties, so there was a lot of room for mech designers with Class II-IV design philosophies.

They already chose to keep Ketis in the mix in order to upgrade the familiar double knives of the expert light skirmisher.

They thought about equipping the Dark Zephyr with an axe in order to help the machine break through obstacles faster, but they eventually chose to improve its original armaments instead.

"I think Ketis might find it interesting to apply stormblade technology to the Dark Zephyr Mark III Project." Ves shared his opinion. "This should not only increase its effectiveness against transphasic energy shields that Tusa isn't willing or able to bypass, but it can also produce an EMP effect that can speed up the process of disabling large warships."

The recently recruited Adrien Marceau had the capacity to upgrade the mobility of the Dark Zephyr. His design philosophy centered around granting mechs the capacity to engage in warp travel in the middle of combat.

The few mechs that he had managed to design so far all exhibit extreme maneuverability over short distances. The light mechs were equipped with remarkable transphasic flight systems that were fairly bad at travel over long distances but excelled at short-range maneuvering!

"Adrien Marceau's prior work is interesting," Gloriana said. "His co-developed Combat Warp System has plenty of shortcomings. It is energy-

hungry, inefficient and has a low warp factor. More generic transphasic flight systems can allow mechs to traverse longer distances considerably faster at a lower cost. Is it truly a wise choice to sacrifice the Dark Zephyr's long-range traversal ability in exchange for superior performance at shorter distances?"

Ves shrugged his shoulders. "There are pros and cons to both options. I believe that integrating the Adrien's Combat Warp System into the Dark Zephyr leads to a better fit. Don't forget that a light skirmisher is already really fast in general. The already high acceleration of the Dark Zephyr will partially compensate for the limited warp factor, thereby making it so that Tusa doesn't have to wait for an eternity to reach the opposite side of the battlefield."

Gloriana frowned. "The Dark Zephyr will have to spend considerably more time to close the distance to the enemy. This can give the opposing side up to a few more minutes of grace. That is more time for them to attack our mechs without being assailed by a powerful expert mech at close range."

"That is true, but I think the benefits more than make up for this shortcoming. The Combat Warp System promises to generate warp bubbles almost instantly, allowing the Dark Zephyr to quickly change direction and transverse short distances in an unpredictable manner. The warp bubbles are also stronger and a bit more resistant against warp interdictors and space suppressors."

Ves liked this combat-oriented design application a lot because it enabled the Dark Zephyr to strengthen its best qualities even further!

The Dark Zephyr had made a name for being the most elusive and difficult-

to-hit mech in the Larkinson Army. Combined with the living expert mech's resonance abilities, a lot of enemies had wasted their firepower in vain when they sought to wear down the defenses of this untouchable machine!

However, the Dark Zephyr was not completely able to ignore the vast amount of gun batteries that a bunch of enemy warships could bring to bear.

The expert light skirmisher's ability to fool the sensor systems of enemy vessels became a lot less effective at closer ranges.

In addition, the greater the concentration of fire, the harder it became for the Dark Zephyr to dodge every attack!

The Combat Warp System promised to make it a lot easier for Tusa's expert mech to counteract saturation fire by drastically increasing the living mech's maximum evasion range!

"The Dark Zephyr will become the ultimate duelist and guerrilla fighter if we go through with this adaptation." Ves eagerly said. "He can outmaneuver any high-ranking mech or phasefighter in a dogfight, and he can also approach heavily-armed warships with greater confidence. So far, there is only one expert mech in our clan that can pursue ultimate maneuverability. I think this capacity perfectly matches the current character of Tusa's mech."

Gloriana did not disagree with that assessment, but this was not a choice that they could make lightly.

"I hope that Venerable Tusa will be able to advance to ace pilot soon, because the Mark III will not be able to supply enough energy to maintain the activity of the Combat Warp System for long. Each fast displacement attempt will consume a large amount of energy. It is still difficult for us to expand the energy reserves of a light mech since there is so little space for additional energy cells."

"We should just trust Venerable Tusa to manage his energy reserves. He's not an idiot. Every light mech specialist is proficient in managing the limited resources at his or her disposal. The Combat Warp System doesn't have to be used to its full potential all of the time."

After they figured out how Adrien Marceau's contribution would alter the characteristics of the Dark Zephyr, they needed to find another candidate to fill the fifth and last slot in the main design team.

This was a difficult consideration.

"We can choose to amplify the Dark Zephyr's strengths or mitigate the expert mech's obvious vulnerabilities." Gloriana said. "The Mark III's defenses will not be high if we proceed according to our current plan. I would have been inclined to add Sara Voiken or Beatrice Hendrix to the design team if they were still available."

That was not the case, so their options had become a lot more limited as a result.

"Viktor MacMillan is a notable defensive specialist, but his specialization is mainly centered around energy shields. He definitely knows a thing or two about designing armor systems, but don't expect any miracles."

"I have already taken Mr. MacMillan into consideration. He is not a good choice for this design project. The addition of a pair of shoulder-mounted luminar crystal guns along with a Combat Warp System will already strain the limited energy output of the Dark Zephyr. If we add stormblade technology as well, then the expert light skirmisher will be even more constrained so long as it remains a quasi-first-class expert mech. We cannot justify the addition of a powerful azure energy shield generator. Evasion is the best form of defense for this machine."

His wife was right. Stronger defenses only increased the fault tolerance of the Dark Zephyr.

The addition of the Combat Warp System already increased the survival chances of the light mech, so there was no compelling reason to upgrade the expert mech's defenses in another way.

The Dark Zephyr was an offensive mech.

With that thought in mind, Ves and Gloriana ran through the other names on the list.

Ves quickly settled on a specific individual.

"Ariana Roux."

"The ECM specialist?"

Ves nodded. "Yes. The Dark Zephyr already utilizes ECM systems to make it harder for enemies to hit the expert mech. Its resonance abilities can produce related effects. I think we can complement this further by adding the work of Ariana Roux."

"Her design philosophy suggests that she is more suited to apply her work to dedicated auxiliary mechs as opposed to combat mechs."

"That is true, but I see no reason why her specialized ECM solutions are a poor fit for the Dark Zephyr. Tusa's expert mech is often the first machine to get close to an enemy fleet. Since the living machine is already there, he might as well help the rest of our forces by producing even greater interference at close range. Think of Saint Marissa Lewandowski."

Saint Marissa Lewandowski was one of the two ace pilots that continued to accompany the expeditionary fleet as part of the Golden Skull Alliance.

Her Jedda Sandivar was a powerful ace light skirmisher, but it truly showed its value when the ace pilot activated her Saint Kingdom and generated an obscuring and disruptive 'smoke' cloud that could blind any enemy in range!

The example set by the Adelaide Mercenary Company's ace pilot showed that light mechs could partially compensate for their lack of hard power with greater utility.

This made Ariana Roux an interesting choice. As a Journeyman selected by Alexa Streon, the new recruit's design philosophy was quite interesting to say the least.

Her Class VIII Design Philosophy was officially labeled as Automated Mass Computing Systems Exploitation.

In other words, mass hacking.

Ves had no idea why a talented mech designer chose to specialize in hacking of all fields.

The Larkinson Clan employed plenty of hackers and computer security experts. They were a necessity in an age where humans relied so much on advanced technology to get stuff done.

"Ariana Roux is good at designing auxiliary mechs." Gloriana analyzed as she recalled her previous works. "Her ECM modules can be quite effective, but only when they are large and extensive enough to take effect against enemies that have taken proper precautions against hacking. Only auxiliary mechs are able to dedicate enough energy and processor capacity to this demanding task. It will be a challenge to fit a more reduced version of her ECM systems into the Dark Zephyr without turning her contribution useless."

Ves nodded. "That is true, but we'll just have to buy the most advanced and efficient first-class processor chips to make up for this shortcoming as best we can. In any case, it takes less effort for the Dark Zephyr to transmit signals through heavy jamming at closer ranges. Additionally, it is well-known that alien computing systems are not as technologically advanced as modern human computing systems, so it takes less effort to compromise them as long as Ariana Roux knows how to hack the computers developed by different alien species."

"You do know that if the Dark Zephyr starts to engage in mass hacking, the expert mech will transmit a large quantity of signals to the surrounding enemy units, correct? This will counteract the mech's other ECM measures that are meant to make it harder for targeting systems to lock onto the machine."

"I haven't forgotten about that, but that is why Ariana Roux is such a good fit for this upgrade project. The Dark Zephyr Mark III is really fast and maneuverable, so what does it matter if enemies are able to track the expert mech's coordinates a lot better? It won't necessarily increase their hit rate! Aside from that, the transmission of signals will not compromise the effectiveness of the Untouchable resonance ability. The latter distorts perception, and the detection of electromagnetic waves falls in this scope."

"The two are not a good fit with each other, Ves. The resonance ability is mainly effective at longer ranges. Ariana Roux's hacking modules are primarily employed at closer ranges."

She was right, but that did not change Ves' considerations. "Once we can upgrade the Dark Zephyr into an ace mech, Venerable Tusa may be able to incapacitate an entire enemy fleet at once. Granted, this will only happen when he is fighting against the warships hailing from the lesser alien races, but there is always room for improvement."

There was a chance that Ariana Roux's contributions might not live up to its promise. If that was the case, then they could always boot her off the design team and put another lead designer in her place.

The total picture became clear now that they had settled on the initial design team for the Dark Zephyr Mark III Project.

Ves looked forward to upgrading his oldest expert mech into a highly maneuverable and highly disruptive mechanical terror!

Chapter 5637 Talk with Tusa

Just as Ves and Gloriana anticipated, Venerable Tusa became ecstatic once he learned about the Dark Zephyr Mark III Project!

Though he did not anticipate the addition of the Combat Warp System and a dedicated mass hacking module to his expert mech, Tusa was open-minded enough to understand the implications of these additions.

"I can see how better maneuvering and strong hacking abilities can increase my survivability and impact in battle, but are you sure the Dark Zephyr can keep all of this fancy tech running?" The expert pilot questioned.

"To be honest, you will have to make a lot of judgment calls on how much power you want to allocate to these high-tech systems." Ves honestly replied. "I highly advise against running all of

them at full power all of the time. You will have to get accustomed to entering into battle with the mindset of only using the right tools for the right job. If the opposing units are not that good at tracking your mech with their weapons, then it is better to keep the Combat Warp System at low power. If you are fighting against puelmer warships that are known for their relatively powerful computing systems, then it isn't worth the effort to hack the alien modules."

Tusa's projection nodded. "Understood. I can deal with that. I have been fighting for too long without enough options at my disposal. It would hardly make sense for me to complain about having too many ways to fight against our enemies."

"It will get even better if you manage to advance to ace pilot in the near future." Ves grinned. "My wife and I will try to stuff as much powerful tech into the updated design as possible, but we cannot go too far. Those considerations will go away as soon as you break through. Not only will you be able to control much more powerful technologies, but once we start to integrate proper first-class tech into your new ace mech, we can put a much more potent power reactor inside your machine, especially now that budgets have become less of a constraint than before. You will go from wandering through a withering desert to relaxing in a nice oasis."

The overall message was that the Dark Zephyr Mark III would not just be an high-tier expert mech, but also a precursor to a much more powerful ace mech.

This added a considerable amount of pressure onto Tusa's shoulders. His expression grew a little more strained as he realized that he needed to work even harder in order to live up to the expectations of his battle partner and the Design Department!

The more time he spent as an expert pilot, the longer everyone else had to wait for the Dark Zephyr to unlock his greater potential.

Given the kind of opponents that the Larkinson Clan were fighting against these days, Tusa felt more and more that only ace mechs possessed the individual agency to fight against huge alien battleships.

Seeing the Jedda Sandivar and the Royal Jeem defeat one powerful enemy asset after another had made Tusa feel more inadequate than ever!

After Ves had conveyed a summary of all of the important design characteristics of the upcoming version of the Dark Zephyr, he began to inquire about other matters.

"How is your battle partner doing these days? Is he happy?"

"Not really, but you know why. I am sure you can make him happy again by applying your promised upgrade."

"How many Ascension Runes has he accrued?"

"He has 12 of them now." Tusa said with a smile. "We have put all of the new ones into the Path of the Wind Dancer. Together with Trisk and Blackwing, we managed to streamline my ability to bypass transphasic energy shields. It is not as exhausting to pull off this move than before. I can sabotage more alien vessels in a single battle now. If the Mark III can make it easier for me to free myself from the shackles of reality, then that would be great."

"I already have a few ideas on how I can facilitate this process. Your ability is absolutely powerful, and I have no intention of neglecting it. I want to make it so that no obstacle can bar your passage."

From what Ves could ascertain, Tusa's iconic Leap of True Freedom was based on the concept of freedom.

Freedom happened to share a certain relation to the wind element. As long as Ves integrated strong wind-attributed hypers into the Dark Zephyr, the mech should not only become a lot faster, but also make it a lot less strenuous for Tusa to activate his strongest ability.

"What is the mood among the fleet?"

"We're doing pretty well. When you left the expeditionary fleet, more than a few people thought that you had chosen to abandon us, but not many Larkinsons feel that way anymore. We are continually amazed whenever we hear about your new successes. Our mech pilots have just begun to try out the Fey Fianna and they have already started to fall in love with them. If your other hyper mechs are just as good, then the troops really cannot wait to upgrade their old machines so that they can finally enjoy the benefits of hyper technology."

"They won't have to wait too long. My wife and I have already set a new plan after we have expanded the Design Department. If everything goes as planned, it should only take about 2 years to completely update our entire mech roster." Ves promised.

"We will hold you to that. I heard that you have already completed an upgrade to the Transcendent Punishers. When will Ylvaine's Eye be able to pilot the upgraded mechs? Their firepower is not bad, don't get me wrong, but more and more forces are starting to deploy hyper versions of their heavy artillery mechs."

"Tell the Ylvainans that they don't have to wait long at all." Ves quickly replied. "I plan to fabricate the initial copy of the Transcendent Punisher Mark III very soon. Once I have confirmed that the new mech has properly integrated its additional design spirit, I will clear the Spirit of Bentheim to begin the exhaustive upgrade process. Given how much work it takes to upgrade a single machine, it will probably take a while to complete this process. Our manufacturing complex in Davute will try to pitch in as well."

"Commander Melin will be happy to hear that. He's been waiting for this for a long time. I heard that once the updated Transcendent Punishers becomes available, he will resign from his position as a legion commander and fully turn his attention to piloting mechs."

Ves raised his eyebrow when he heard this piece of gossip. "Is Taon Melin struggling to fulfill his duties as a legion commander and an expert candidate?"

"He is. He has learned a lot about the bigger picture and what it takes to run a mech legion, but... it's clear that he isn't really suited to lead anything. I think he will finally undergo apotheosis if he can go back to basics. He expressly spent the last year on recruiting more command personnel and expanding the staff of his mech legion. He also put a lot of effort into bringing up Commander Derrick Kronon, who currently serves as his deputy."

"What do you know about Derrick Kronon?"

"Not much. He's a former citizen of the Ylvaine Protectorate, just like Commander Melin, so they are alike in many ways. It doesn't really matter because the Eye of Ylvaine has a lot more personal than before. It is already able to run on its own at this point."

"I see."

Ves personally felt it was a shame that Taon was unable to maintain his leadership position, but maybe it was for the best. He just hoped that the poor expert candidate did not feel as if he had wasted the years he spent as a leader.

"How is your wife Ranya faring?"

"She's busy. A lot has been happening since the start of the Age of Dawn. She is spending so much time aboard the Dragon's Den that I have been seeing her less and less. She's a lot happier than before, though. The Larkinson Biotech Institute is making so many interesting discoveries that a party takes place over there every week."

Director Ranya-Wodin Larkinson kept Ves regularly apprised with her reports.

Due to the unique capabilities of the Larkinson Clan, the LBI adapted particularly well to changes wrought by exotic radiation.

It should not take too much time for the LBI to complete enough innovations to run a profitable business.

The hope was to turn the Larkinson Biotech Institute into the second or third economic pillar of the Larkinson Clan!

Ves talked a bit more with Tusa about the state of the expeditionary fleet.

The more Ves heard about what went on over there, the more he grew nostalgic about the time he spent among the Larkinsons.

Though there were certainly advantages to living in the New Constantinople System, Ves possessed a restless heart. He still craved adventure.

"I need to go now, Tusa. It has been nice talking to you. Rest assured that we will try to complete the upgrade project as soon as possible. You should be prepared to take a trip to New Constantinople in order to initiate the actual upgrade process. I can't come to you, so you will have to come to me instead."

The expert pilot nodded. "I already had a feeling that would be the case. I won't mind a vacation."

Once the call came to an end, Ves went back to performing his other duties.

Gloriana invested most of her attention on supervising the new recruits and laying the groundwork for the Dark Zephyr Mark III Project.

She had also begun to explore the upgrade possibilities for the other expert mechs of the Larkinson Clan.

Fortunately for the likes of Venerable Dise and Venerable Joshua, Unending alloy was a form of hyper material, so the First Sword and the Everchanger were already technically hyper mechs.

The problem was that the expert mechs clad with Unending alloy did not fully utilize its potential.

After all, back when Ves still regarded Unending alloy as a prime material, he did not have access to an entire civilization's worth of study and technological accumulation on hyper technology.

This example taught Ves once again that the power of a civilization was much stronger and more encompassing than the efforts of any single individual!

Still, the fact that many of the early expert mechs of the Larkinson Clan were basically precursors to hyper mechs meant that their performance did not fall too far behind.

The Amaranto was just as capable of launching powerful precision attacks from long range as before. It had grown even more powerful due to the gradual strengthening effect of exotic radiation.

Ves knew that his wife was eager to launch more upgrade projects, but she did not want to apply too many untested technologies at the same time.

The Dark Zephyr could serve as a useful testbed for new technologies that the Larkinson mech designers hadn't been able to integrate in the Lionheart and the Blood Ember Mark II.

Gloriana had a big invention in the works, and Ves wanted to refine the E-technology aspects of the Dark Zephyr.

As an older and more developed third order living mech, the Dark Zephyr was capable of utilizing its strong spiritual foundation for many more purposes than before!

Ves did not have a clear idea in mind yet, but he was ready to explore numerous different directions to find out how to exploit a third order living mech.

For example, he could impart the Dark Zephyr with a special cultivation technique that enabled the machine to accelerate his movement by producing extraordinary winds.

He also wanted to find a way to make Trisk play a bigger role as a design spirit. He needed to flesh out all of these ideas in order to make sure he was ready to implement them once the upgrade project started in earnest.

Chapter 5638 Your Shipment Has Arrived

Ves spent the week after his return to New Constantinople on resuming his regular duties.

From managing his growing clan's affairs to resuming his lectures at the Eden Institute of Business & Technology, there was always a priority that needed to be addressed.

Multiple major developments took place at the same time. The Larkinson Clan and the Devos Ancient Clan had already explored each other's demands and came close to forming multiple lucrative agreements.

The Eternal Vulcan Empire had already dispatched a batch of 10 talented Novice Mech Designers, but they would still take a bit of time to arrive due to long traversal distance.

However, the primary reason why Ves did not engage in any intensive or important work was because he wanted to save up his energy.

Each day, he waited for a progress report that conveyed the status of a number of important shipments.

Ves had no way of speeding up the travel time of the vessels that carried his important cargo, but he could still track the passages and make sure he reached the peak of his condition by the time he finally received his first shipment.

"Papa! Papa! Can I borrow your flute again?" Aurelia asked shortly after she returned from another day at the Joan Devos Elementary School.

"Sure. Remember to treat it with care and respect."

"I know, papa. The flute is just as alive as Lucky."

"Meow?"

The recovering gem cat raised his head for a moment before he went back to nuzzling his head onto Marvaine, causing the little boy to giggle.

Despite his busy schedule, Ves always made sure to spend at least a few hours every day with his family. His recent absence from his children along with everything he had experienced during his trip to Bortele made him value his time with his family even more.

His kids were so innocent and energetic that Ves wanted to enjoy these moments forever. Yet it was exactly because they would grow up sooner or later that he cherished this pleasure while it lasted.

Sooner or later, Aurelia, Andraste and Marvaine would all grow up and start their own families.

Ves looked forward to those days as well, but he would definitely miss the times where he could play with his children without too many concerns on his mind.

As the kids continued to play and run around in a private forest that fell within the expansive territory around Diandi Base, Ves began to think about how he should utilize the resources that he had recently accumulated.

He had built up a small stockpile of Lucky's gems, the harvested spiritualities of different powerful entities, all manner of strange and useful hyper materials and more.

In addition to that, the expeditionary fleet also accrued way more alien plunder than the Golden Skull Alliance knew what to do with it all. If nobody was able to make good use of all of the salvage, then the only way to profit from these goods was to sell them in a place like Bortele.

He sighed. "There is too little time."

The current state of calm was illusionary. The Red War continued to intensify and the transformation of the greater beyonder gate remained on track.

Further away from the Red Ocean, an unknowable extra-galactic threat steadily moved closer at an astounding pace.

How could Ves possibly relax under the circumstances?

If he wanted to protect the lives of his children and everyone he cared about in the Red Ocean, he needed to step up and speed up his progress!

At the very least, he needed to make use of much of the resources that were currently sitting around and doing nothing. Their potential remained untapped so long as they continued to languish inside his vault and other facilities.

For example, he saved up a lot of gems produced by Lucky. A few of them were years old. Ves had almost completely forgotten about them as there never appeared to be a good opportunity for them to play a useful role.

Ves originally intended to save them in case he needed their power in a critical moment, but now that he had separated himself from the expeditionary fleet, he no longer valued this contingency option as much as before.

He may as well let go of his restraint and make more proactive use of them. The pilots of mechs that he had blessed would definitely appreciate the additional boosts. His resource utilization might even save a lot of lives down the line!

As the days went by, the first major shipment finally arrived!

One of the Red Association's courier vessels had devoted much of her cargo space to carrying a large container.

When the mechers finally teleported the large and heavy container in one of the mech hangars of Diandi Base, Ves went down as soon as possible.

His wife curiously followed suit.

"You have been waiting all week for this shipment." Gloriana said as she wore yet another expensive first-class outfit that complemented her appearance nicely. "Will you start right away?"

Ves nodded as he eagerly approached and transmitted the codes that would unlock the container.

"I will. I especially rearranged my teaching schedule and worked with Gavin to address or postpone every other obligation in the next few days."

After the locked container verified and accepted the codes, it soon began to unfold and completely flatten itself onto the floor.

A large mech came into view.

Both Ves and Gloriana took in the living mech that had traveled a long way from the deep frontier.

"This is..."

"He is called the Zeal." Ves said with a touch of appreciation in his tone. "He is one of the original Transcendent Punishers and has partnered up with Commander Taon Melin for a long time. He has already lived so long that he has already evolved into a third order living mech. He should have gained the qualifications to develop Ascension Runes by that time, but his current version model doesn't contain this innovation. Upgrading him to Mark III should address this shortcoming as well as many others."

Gloriana looked impressed. "So this is why you insisted on delaying the completion of the Transcendent Punisher Mark III Project. Rather than fabricate a fresh new copy of your updated work, you wanted to upgrade an existing old stalwart instead."

"That's right. I already had the intention of giving Taon's mech my personal attention. The information that I have recently obtained from numerous sources has only strengthened my intentions of doing the legion commander a favor."

"Commander Melin is one of the expert candidates who has remained stalled for many years, is that correct?"

"Yes, but unlike with the case of Lanie Larkinson who wants to strengthen her foundation and wants to attain a more powerful ability, Taon Melin has remained muddle-headed for far too long to

make any progress. There are indications that he may have matured enough to find his way and take a step forward, but I want to give him an extra boost by transforming his machine into a powerful masterwork mech just to be sure."

Gloriana understood her husband's plan.

"I see. You want to force his breakthrough by equipping him with a masterwork mech that is more easily able to drag him upwards. Is it not more convenient to subject him to your transcendence glow?"

"That is true. I haven't forgotten about it. I already asked Venerable Joshua to give Taon Melin a powerful dash of the transcendence glow in the next major engagement of the expeditionary fleet. Now that we have entered a relatively stable development period, we have time to design multiple new expert mechs, especially now that our productivity has skyrocketed."

His wife frowned. "Do not be too liberal with the transcendent glow. I am not too certain whether we can handle the increased workload. Do not forget that we have to keep up with our studies as well. It is better to become a first-class mech designer sooner rather than later."

"Don't worry about that. Even if I am not actively studying, then my cyborg leg is making sure to engage in continuous self-study."

In fact, Ves had access to more incarnations that could help him study a lot of stuff. Vulcan actually mastered a lot of advanced and diverse knowledge, but the problem with his method of learning was that it was not directly transferable.

He was still able to consult with his external incarnation and master the principles of high technologies a lot faster. It was like having a private tutor that understood him the best.

The two soon turned their attention back to the Zeal. The mech looked as if it was completely dormant, but Ves was not fooled. Every third order living mech was able to maintain a considerable degree of awareness even when all of their systems were shutdown.

"Zeal! Are you ready to receive your long-awaited upgrade?"

The heavy and imposing six-legged mech began to exhibit a bit of activity. Its large three eyes flashed in pure white.

[THE GREAT PROPHET HAS FORESEEN THE RESULT. I SHALL BE REBORN AS A MASTERWORK MECH UNDER THE HANDS OF THE PROGENITOR. ONCE I RETURN TO THE FLEET AND REUNITE WITH MY BATTLE PARTNER, THE PERSISTENCE OF HIS FAITH SHALL BAPTIZE HIM IN THE FLAMES OF WAR.]

"...Okay. I guess that means you're eager and happy."

[YES.]

Gloriana stared at the Zeal for a few seconds before she suddenly frowned.

"Wait. Ylvaine has already foreseen that you have turned it into a masterwork mech?"

Ves nodded with a smile. "Don't you know what my level of craftsmanship has reached these days? As long as the fabrication run is important enough, I am very confident that I can reach the second rung of Senfovon's Ladder of Craftsmanship. One of the other reasons why I have waited for so long is because I care a lot about Commander Melin. The stakes of his upcoming run are rather

high, so I have enough pressure to push me to this result. It is better than fabricating a brand-new copy of the Transcendent Punisher Mark III that will eventually be handed over to a faceless clansman."

"I see! That is rather thoughtful of you, Ves. I will help you in order to make sure that you will not disappoint the legion commander. You only have one real chance of succeeding in this attempt."

"Good. Your help will certainly help me finish this fabrication run faster. Upgrade attempts are quite troublesome and a heavy mech always imposes a greater workload. Just remember that I am in charge this time. The Transcendent Punisher line has always been one of my babies. I adapted many of the design solutions of the Supremo Project to the Transcendent Punisher Mark III. No one else understands this iteration better than myself."

Though his wife did not entirely like it, she could not argue against her husband's logic.

"Very well. I shall follow your lead, but do not expect me to remain silent the moment you start to lose control and give in to your worst urges. I do not want you to ruin this potentially great mech just because your 'inspiration' compelled you to go crazy in improvising this mech."

Ves raised his palms in innocence. "Hey, I am not that stupid! As I have said before, I have already learned my lesson. I have actually spent the last few days on developing a custom variant of the Transcendent Punisher Mark III. I need to make sure that the mechers won't get their greedy hands on the machine as soon as I have completed it. I also want it to cooperate with Taon Melin even better."

"What? You customized a mech by yourself?! Are you stupid? I am a specialist in this field! I am much more proficient in this task than an amateur such as yourself!"

"There is no need to go all out for a glorified standard mech!" Ves retorted. "It is better to wait until Taon Melin finally breaks through. Once he becomes an expert pilot, that is when you can design a proper expert mech for him. Until then, it is best to retain the original character of the Zeal as much as possible."

Chapter 5639 The Adaptations of the Transcendent Punisher Mark III

Upgrading the Zeal to a customized variant of the Transcendent Punisher Mark III should not be a difficult task.

Ves did not intend to make anything close as powerful or ambitious as the Elemental Lord.

Although the Transcendent Punisher Mark III was a powerful quasi-first-

class transphasic hyper heavy artillery mech that contained a range of complicated technologies, its complexity was not that concerning for his current level.

The Lionheart was a lot more complicated and difficult to design and make in comparison!

The Transcendent Punisher Mark III may be one of the most important mech models of the Larkinson Clan, but it still had to conform to the same requirements as any other mass production machine. Ves was not able to indulge in his desires as much as when he designed one of his high-end expert mechs.

Regardless, a heavy mech that not only pushed the limits of second class could still fit a lot of nice goodies!

Compared to the recently completed and submitted Supremo Project, the Transcendent Punisher Mark III benefited from even more extensive applications of phasewater technology and hyper technology!

The design budget of the Transcendent Punisher Mark III was around 220 MTA credits, which was 55 times higher than the Supremo Project and more than twice as much as the Elite Edition of the Fey Fianna!

This showed how much the two mech designs diverged so much from each other. They were designed with different target audiences in mind.

The recently completed heavy artillery mech that Ves originally designed for Davute had to be affordable for the second-rate state.

Not only that, the Davutans were also a lot more reluctant to invest their precious phasewater into construction mass production models, so Ves had to limit the usage of this strategic resource to the specialized shells of the super-heavy gauss cannon that exemplified the Supremo Project.

Ves had no reason to abide by all of these limitations when he designed the Transcendent Punisher Mark III.

He solely designed it according to the existing template of the mech line as well as the current circumstances of the Larkinson Clan.

Ves boldly assumed that his clan would not only be short on funding, but also have sufficient access to phasewater to support the construction of thousands of costly transphasic mechs.

This was why the true cost of producing the Transcendent Punisher Mark III was way higher than 220 MTA credits. The value of phasewater was so high that it was mostly bartered rather than sold for money these days.

In truth, Ves previously thought that he had set the production cost of a single copy a little too high.

Even if the expeditionary fleet occasionally returned from the frontlines with a huge amount of plunder that could be sold for a lot of money, the Larkinson Clan usually spent much of the earnings into other useful investments.

The money and resources needed to upgrade all of the older versions of the Transcendent Punisher to the Mark III iteration would wipe out the entire profit gained from a single battle!

However, Ves and many other people believed this investment was more than worth the hefty price.

In a time where the expeditionary fleet was only able to field one small warship at most, heavy artillery mechs served as the closest substitute to warship gun batteries.

Starships could only accommodate a limited number of bunker mechs based on their designs. There was no way to increase them without making huge sacrifices, so the defensive firepower from these vessels was always limited.

The newer ship classes that had been developed rather recently tended to fit a lot more bunkers onto their hulls. That did not help all of the older hulls that were mostly built well before the Phasewater Generation.

All of these constraints meant that if the Larkinson Clan could not increase the quantity of Transcendent Punishers protecting its crucial main fleet, then Ves could only focus on improving the quality of each individual machine!

He believed he had done a good job at that. The Transcendent Punisher not only encapsulated much of the advice and lessons from Master Decimus Horst, but it also contained a few adaptations that addressed a lot of long-

standing complaints.

Every major revision and update was another opportunity for a mech designer to revisit his old work and make corrections.

As Ves and Gloriana headed down to the workshop and got ready to embark on their fabrication run, both of them studied the design schematics one more time.

The female half the pair looked critical as she directed her attention to the elaborate weapon system.

The previous iteration of the Transcendent Punisher line made use of a balanced configuration of two second generation luminar crystal cannons, two gauss cannons and two rapid-fire pulse cannons.

The mix of armaments had long served the Eye of Ylvaine well.

The luminar crystal cannons excelled at long-range precision bombardment.

The gauss cannons struck considerably harder but were predominantly effective at medium range.

The pulse cannons were much smaller and lighter, but that made them extremely suitable for intercepting incoming ordinance as well as highly maneuverable small craft at closer ranges.

All-in-all, when Ves originally conceived of his first heavy artillery mech model, he wanted to bring a well-rounded bunker mech to life.

"One of the strengths of the Transcendent Punisher is that it is able to play a useful role in nearly any space battle." Ves explained to his wife as he gestured at the armaments of one of his latest designs. "Yet the old configuration is so balanced that it is also unable to bring most of its strength to bear in any specific combat scenario. The heavy artillery mechs are lacking in flexibility. For example, their pulse cannons have long remained unused as they are completely useless in a typical battle against an alien raiding fleet."

His wife nodded in understanding. "That is true. The aliens do not rely as much on small craft as us, and unless they rely heavily on missile armaments, there is nothing for the Transcendent Punishers to intercept."

"Since the typical battles of the Red War have made these pulse cannons a lot less relevant, I decided that I might as well remove them from the Mark III. The Supremo Project doesn't have any rapid-fire cannons either."

"That is because the latter is designed to fit in a larger mech force that can compensate for its shortcomings." Gloriana astutely mentioned. "The same rationale applies to the Transcendent Punisher Mark III, but we do not have an alternative bunker mech that can cover for its weaknesses. It is not a wise choice to remove pulse cannons entirely. There may come a time where you will

regret the decision to remove the Mark III's ability to efficiently intercept a lot of fast-moving ordnance."

"That is true." Ves sighed. "Normally, we should design a second heavy artillery mech that can function well in a different capacity, but I chose a different solution. I turned the Mark III into a semi-modular weapon platform. Instead of having a single fixed weapon loadout, I redesigned its frame so that its naked form starts off with 8 empty weapon hardpoints across its frame. Each of them can be slotted with different armaments depending on the need."

He changed the projection so that all of the large weapon modules got removed from the central mech frame. He had specifically designed the armaments so that they shared a lot of common dimensions and such.

Gloriana looked intrigued as Ves proceeded to slot in different weapon configurations. From a full loadout of 8 gauss cannons to a more balanced configuration that highly resembled the previous iteration of the Transcendent Punisher.

"Every hardpoint is able to fit one heavy cannon or two smaller cannons. I have also made a special adaptations where the Transcendent Punisher can use up 4 hardpoints to mount the ultra-heavy Devora Cannon that is similar to the Onyx Cannon of the Supremo Project."

The main cannon of the Supremo Project was so good at sieging enemy warships in space or on land that Ves had to implement it in the Transcendent Punisher Mark III as well!

However, Ves did not want to sacrifice the Transcendent Punisher's ability to fight against other opponents as well.

He basically wanted to have it all, but a single mech could only enter into battle with a single weapon loadout at a time.

This dilemma drove him even harder into turning the Mark III into a semi-modular weapon platform!

This way, Ves and the other Larkinsons no longer had to abide by a single rigid pattern anymore. They could easily change the modular weapon configuration of every Mark III based on the most up-to-date circumstances in the field!

Gloriana appreciated this approach. Ves did not turn this mech model into a complicated and expensive semi-modular weapon platform on impulse. He chose this design because of multiple legitimate reasons.

"You have done a fine job as far as I can tell. The cost is higher and the mech has become more cumbersome as a result, but these are acceptable tradeoffs in our cause. A mech such as this does not conform to the demands of more general clients. You have truly turned this into a mech that can be adapted to fight under many different circumstances and opponents. The premise is that there is enough time to switch their configurations and enough manpower and facilities to complete this process in a timely manner."

The Transcendent Punisher Mark III was very unfriendly towards smaller and poorer forces!

If the Larkinson Clan hadn't grown so quickly, Ves would have never dared to design such a demanding but powerful machine!

Ves briefly explained the available weapon systems that he had designed to be compatible with the standardized weapon hardpoints of the Mark III.

"The fourth generation transphasic hyper heavy luminar crystal cannons are easily many times more powerful than the much older second generation versions of the Zeal and other older machines. They are probably the most powerful luminar crystal cannons that I have designed to date. The guns utilized by the Larkinson Edition of the Fey Fianna simply cannot compare against the firepower of a genuine heavy artillery mech. As long as our fleet can bring thousands of these cannons to bear against an alien warship, I can assure you that the enemy vessel will not be able to last too long!"

His wife gazed at the design of the big luminar crystal cannon with appreciation. "Our expeditionary fleet can confront much more powerful enemies once all of its existing heavy artillery mechs have completed their costly upgrades."

"The transphasic hyper heavy gauss cannons are not as big of a performance improvement compared to the previous version. However, their firepower is highly dependent on the rounds they are loaded with. They work especially well with the newly introduced design spirit of the Mark III."

If the expeditionary fleet ever faced a much more threatening opponent, then the Transcendent Punishers could switch to more expensive transphasic ammunition and defeat the fearsome foe by effectively throwing a lot of money away!

This was a capacity that energy weapons did not possess, so Ves never discounted the usefulness of kinetic weapons.

"These rapid-fire energy cannons are completely new." Gloriana remarked as she looked at the smallest modular weapon system. "You have completely abandoned the use of licensed pulse cannons and instead designed a new rapid-fire luminar crystal weapon system from the ground up. That must have taken you a considerable amount of time to design."

"Not really. Luminar crystal weapons can actually fire at much higher frequencies, but I normally don't bother with that because it is much more important to maximize their punch. This happens to be an exception. Just because I have yet to design a true rapid-fire luminar crystal cannon in the past doesn't mean I am incapable of doing so. I just had to change stuff around so that it fires a lot of weak pulsed laser beams at high frequencies. I reduced the overall power behind the attacks in order to prevent them from overheating and overburdening the various weapon parts. Compared to the old pulse cannons, the new rapid-fire luminar crystal cannons are not only a lot more accurate at longer distances, but they also happen to be more efficient!"

Chapter 5640 Devora Cannon

The Transcendent Punisher Mark III truly represented an evolution of its original concept. It did the same job a lot better due to its many expensive upgrades and advancements.

A lot of people thought that Ves had spent much of the last year on perfecting the Fey Fianna design to the point that it had become the most powerful mass production mech that he completed in recent times.

They were very wrong.

A select group of Rubarthans thought that they had gained a treasure in their possession by gaining the rights to produce and distribute the Supremo Project.

The second-class hyper heavy artillery mech truly conformed to the Hyper Generation and could overpower its direct competitors on the market, especially with the help of Emma!

Yet not even the Impresario Prince knew that Ves had invested a lot more effort and dedication into designing the latest iteration of the successful Transcendent Punisher formula.

It still retained the iconic ability to guide the aim of its mech pilots, but its firepower and other aspects had become vastly more powerful than before!

The difference in performance between the old second-class heavy artillery mech and the new quasi-first-class transphasic hyper Mark III was so vast that the latter could easily beat 10 of the former!

Ves almost shook his body when he imagined the devastation that the Mark III's could wreak upon their foes once they were fielded in larger numbers.

So what if combat carriers and fleet carriers were not allowed to mount any warship-grade gun batteries?

As long as the weapon systems of his bunker mechs were powerful enough, they could do much to close the gap in performance!

While the large and imposing main gun batteries of alien warships still possessed an absolute firepower advantage, they were also slow, clumsy and much more difficult to upgrade to the next generation.

The amount of time, resources and effort it took to upgrade a batch of Transcendent Punishers was much less than doing the same on a huge warship cannon turret!

Red humanity needed to take advantage of this difference and make full use of its advantages in order to keep the enemy forces at bay for a time.

Out of the four modular weapon systems that Ves had designed for the Mark III, three of them were straightforward substitutes of the existing armaments of the previous iteration.

The only standout that was completely novel happened to be the excessively large Devora Cannon.

A normal heavy cannon only occupied a single hardpoint on the mech frame of the Transcendent Punisher Mark III.

The Devora Cannon took up four whole hardpoints!

Not only that, but this single addition also imposed additional parts and reinforcements in order to make sure that the Transcendent Punisher Mark III could bear the pressure of utilizing this super-heavy gauss cannon!

Gloriana could see a lot of parallels between the Devora Cannon of the Mark III and the Onyx Cannon of the Supremo Project.

"While you worked to turn the Supremo Project into an excellent siege machine, you did not want your Transcendent Punisher Mark III to be outclassed, is that correct?"

Ves crossed his arms. "You got me. I admit that I just wanted to install the biggest possible gun on one of our own Larkinson mechs. I have upscaled and increased the specs of the original Onyx Cannon in order to push the very limit of what the upgraded Transcendent Punisher can handle. I wanted its performance to approximate the firepower of a small warship gun as much as possible. I think I managed to get awfully close to that. While the caliber of the Devora Cannon is still pitifully small in naval terms, as long as hundreds of these cannons are brought to bear against a single large target, their quantity will definitely surpass the total firepower of a real warship!"

He was not exaggerating. Ves might not be a specialist in kinetic weapon systems, but he did not have to be in order to mix first-class materials, phasewater technology and hyper technology together to produce a much more powerful result!

Gloriana could definitely see that the combination of all of these extravagant factors in an enormous weapon could single-handedly raise the threat level of the expeditionary fleet!

This was without considering the additional amplification that could be produced by borrowing the power of Emma!

"The firepower of the Devora Cannon is more than satisfactory, but its firing rate should be much slower as a consequence."

Ves nodded. "The Devora Cannon is primarily designed to siege alien warships at the longest possible range. Muzzle velocity is extremely crucial as the hit rate drops dramatically if the launched projectiles get any slower. It takes a lot more energy to accelerate the super-heavy slugs at an acceptable speed. It takes a considerable amount of time to charge up the capacitors of this weapon system. I don't have access to more specialized technologies that can speed up the charging process."

"You have done the best you can under the circumstances. I am sure that many Larkinsons will thank you for designing such a powerful weapon system. It will do much to close the firepower gap between our mech forces and alien fleets."

Both of them knew that the Devora Cannon would become a near-permanent fixture to the Mark III.

The 'smaller' cannons designed for the Transcendent Punisher Mark III all had their strong points, but they were originally weapons designed to be utilized during the Age of Mechs.

They were more than powerful enough to diminish swarms of small craft and whittle down the defenses of typical starships, but they were not the best choice in a real unrestricted war against entire alien civilizations.

Fortunately for the Larkinsons, they could always dismount the cumbersome Devora Cannon and slot smaller cannons in its place.

After Gloriana gained a good overview of the outstanding offensive power of the Transcendent Punisher Mark III, she shifted her attention to the other properties of the powerful heavy artillery mech.

"I see that the Mark III's defenses are even thicker and heavier than the previous versions." She noted.

"Yes. Sara Voiken did a good job at applying a new transphasic hyper armor system. I can't promise that it can survive a direct strike from the primary gun battery of a warship, but it should be able to resist the onslaught of a secondary gun battery long enough for the mech pilot to eject."

"The defense of a bunker mech primarily relies on the bunkers rather than their own defenses, Ves. The best way to keep the mechs intact longer is to upgrade our carriers directly."

"I know, but we don't have the shipyards to upgrade all of our hulls fast enough. Mechs are our greatest strength, so it is not a bad idea to focus on them first. Don't underestimate the capacity for the Mark III to resist damage. It is not only packed with armor, but it is also equipped with a large azure shield generator."

That should help a lot. It at least gave the heavy artillery mech a better chance of saving its mech pilot when struck by a direct attack from a powerful warship.

Seeing that the defensive properties of the Mark III were more than satisfactory, Gloriana turned to the mobility of the machine.

"The only aspect about the Transcendent Punisher Mark III that has regressed is its mobility. All of the heavy armor and heavy weapon systems have taken an enormous toll on the mech frame. I wouldn't be surprised if it moves as slow as a turtle under standard gravity. Is it still suitable to be deployed on land?"

Ves grinned. "Yes. Don't worry about that. It can even fly in space or in the air if necessary."

"What?! How?!"

"With the help of an optional heavy-duty flight system." He explained as he switched the projection so that it showed a 'winged' version of the Transcendent Punisher Mark III. "I don't anticipate that it is necessary to employ this measure under ordinary circumstances, but it is better to have it around as a contingency option. The Spirit of Bentheim can quickly produce batches of this modular flight system if necessary."

Gloriana calmed down when she saw that this additional feature was actually quite reasonable.

This was because the modular flight system occupied 2 weapon hardpoints!

"I see. The Transcendent Punisher Mark III can exhibit limited flight capabilities by reducing its weapon configuration. The mech's flight characteristics are probably terrible when it is mounted with a Devora Cannon and two gauss cannons, but they should be much more adequate when the machine is mounted with a set of relatively light-weight luminar crystal cannons and rapid-fire pulse luminar crystal cannons."

Ves nodded. "Yup. No matter whether the Mark III is mounted with a flight system or not, it is never supposed to move during active combat when it is equipped with a Devora Cannon. It can only function as a bunker mech or a stationary artillery platform on land. If it has to move at all, it is better if it can do so with external assistance. It is just that heavy and sluggish, especially if the other hardpoints are utilized as well. In contrast, an all-

energy weapon loadout is a lot lighter. Of course, the Mark III's mobility is at its highest when it has no weapons at all. The difference in mass between the two extremes is enormous."

If properly used, there was no reason for the Mark III to move by itself during combat. It should never rely on its most awful aspect to survive or contribute in a battle.

Ves was aware of the existence of more maneuverable artillery mechs that pursued the opposite concept.

Most often used for offensive actions and counter-battery fire, mobile artillery mechs possessed enough firepower to pose a threat but also moved quickly enough to evade a lot of retaliation.

Of course, this dynamic mainly applied to landbound combat, which didn't concern Ves in the slightest.

After Gloriana understood just how awful the Mark III moved, she examined the remaining traits of the heavy artillery mech.

"The spiritual design of this mech is much more powerful than the previous version." She said. "It is actually on par with the Larkinson Edition of the Fey Fianna. Does that mean..."

"It's a Larkinson-exclusive mech. Of course it is equipped with the new Energy Weaver Mech Ecosystem." Ves smiled at her. "It has yet to see much use as the Larkinson Edition of the Fey Fiannas has not seen much action yet, but I think our troops will eventually fall in love with it. The mech ecosystem is especially strong when a powerful pilot takes charge. I really hope that Taon Melin can break through with the help of the upgraded Zeal. He will be able to make use of the features of the Energy Weaver Mech Ecosystem a lot better."

The Energy Weaver Mech Ecosystem had a few parallels with battle networks and was highly dependent on the people and living mechs to draw out its potential. The learning curve was enormous, so Ves did not expect to see any quick results.

There was nothing much for Gloriana to comment on as the innovative new mech ecosystem only existed in theory at the moment.

"Did you add any other surprises to our new heavy artillery mech?"

"Yes. I'm not surprised that you have overlooked it. Did you notice that the neural interface is a lot larger than normal? I asked Cormaunt Hempkamp to design a special neural interface that is not only a lot more suited for this mech archetype, but can also strengthen the connection between the mech pilot and Ylvaine. In theory, as long as the mech pilot employs the Guided Aim embedded ability and receives targeting guidance from Ylvaine, the new Divine Foresight can put the mech pilot into a temporary hyperactive state where he can take action with significantly better precision and much lower delay. That last part is crucial as the lag time between receiving information and pulling the trigger is often the cause for missed shots."

While all of this sounded impressive, Gloriana immediately grew concerned about how it might affect the mech pilot!

"Is this hyperactive state healthy for the mech pilot?"

"Not entirely..."