

Mech 4081

Chapter 4081 Bronze Paradiso

"Okay." Ves said as he hugged a sleeping Aurelia in his arms. The little girl looked exceptionally cute as she wore unicorn-themed pajamas. "I understand the benefits of basing the C-Man around smart metal. However, second-class smart metal systems are nowhere near as strong and effective as their first-class versions. It is supposed to be an expert mech that ought to be at least as powerful as the First Sword if not more in melee combat. Smart metal is not only extremely costly, but also comes with numerous well-known downsides."

"That is why I don't intend to make use of ordinary smart metal systems." Gloriana smirked. Smart metal mechs are not that popular at the second-class level, but developers are constantly innovating and developing new products. There is no better location to look for new and experimental products than in the Red Ocean. Many of the most ambitious and the most brilliant equipment developers have moved to this dwarf galaxy. I am certain we will be able to find a viable alternative in this region or maybe even on this planet."

Her words were not empty. While Davute VII had not yet reached the splendor of the port systems of the old galaxy, it had already attracted a lot of research and development firms due to the increasing presence of mech manufacturers and other producers.

Davute was one of the many star systems that took advantage of the networking effect to accelerate its growth and become one of the powerhouses of the Krakatoa Middle Zone.

The networking effect simply described the phenomenon where goods, services and even locations became more valuable as more people became involved. A trading hub that only attracted 100 companies was incomparable to one that attracted 1 million companies!

Davute was well on its way of becoming the latter at this rate, and many other entrepreneurs and inventors had taken note of that. They relocated to the port system and began to offer more diverse goods and services to the growing number of customers in the area.

A larger concentration of businesses not only increased the supply of common goods such as bulk alloys and starship parts, but also introduced rarer and more niche products that could not be found on smaller planets.

Though Gloriana had not yet searched whether a company that specialized in the development of smart metal systems had settled in the Davute System, she was certain that such businesses had already arrived.

She only needed to seek them out and inquire whether they recently invented a new smart metal system that took advantage of the new materials and possibilities of the Red Ocean.

"I think there is a good chance that there may be hidden gems in Davute." Gloriana told her husband. "If not now, then they will surely arrive in the future. Our vision is currently limited by our limited use of smart metal systems. If we approach the companies that are engaged with developing new products based on nanotechnology, we might be able to find a solution that is much more appropriate for the C-Man."

Ves hesitated for a bit before he acquiesced. "Alright. You captured my interest just enough to give you a chance. I don't mind paying more for a cutting-edge implementation that is far more powerful than ASMAS, but it needs to keep up with the growth of Venerable Vincent."

"I know. I don't want the C-Man to grow outdated too quickly either." Gloriana replied in an understanding tone. "No matter what smart metal system we employ for the C-Man, it will be easier to update and strengthen it since much of it is so malleable. We may be able to use it as a test platform to test other technological innovations. This will help with justifying its higher development and production expenses."

Ves shrugged. To him, the greatest value of the C-Man was how much this technological puzzle could advance their design philosophies. He fully agreed with his wife that working on an odd and unusual design project produced a lot more stimulation than a more standard design project.

Therefore, even if the C-man Project sucked up thousands of MTA credits with little to show for it, the endeavor would still be worthwhile if Ves and Gloriana learned a lot of lessons and came a few steps closer to advancing to Senior.

The next day, Gloriana pampered and played with Aurelia for a few hours before deciding to leave her cute daughter in the care of Ves and Shannon Maris.

"Mama!" Aurelia tearfully cried and reached out with her arms while her nanny Shannon held her back. "I want mama!"

"Oh, honey." Gloriana leaned in and planted a kiss on Aurelia's forehead. "Mama needs to head out into the city to conduct business. I would love to take you along, but I can't bring you into some of the facilities. Will you be a good girl and stay with your father?"

Aurelia reluctantly nodded though she clearly wanted to spend time with her mother today.

Both of her parents exchanged a helpless glance with each other. It wasn't as if Gloriana would be gone forever.

She finally managed to get away and board a shuttle that departed from the Cat Nest.

The vehicle flew straight from Industrial District 2 to the center of Kotor City.

Gloriana was not a stranger to the ironically-named Austere District. She begged Ves multiple times to buy a luxurious estate in the most exclusive and expensive city district on Davute VII, but he refused due to security considerations.

She pouted when she looked through the window and gazed at all of the opulent residences. Not only did she miss out on living in an area that broadcasted her success, she also missed an opportunity to socialize with neighbors who reigned at the top of Davute's growing society!

"Stupid Ves." The young mother grumbled. "How can you be blind to the opportunities of this district? It would have been much easier for Aurelia to make friends with the future rulers of Davute!"

Fortunately, the clan at least decided to settle in Davute as opposed to an isolated rural star system that was far away from anything important.

Gloriana could still make contact with notable residents and expand her network by attending social gatherings and visiting certain venues.

Her first destination of the day happened to be her new favorite hangout.

The Bronze Paradiso was a floating private club that deliberately adopted an anachronistic neo-hellenistic theme.

Hard materials that emulated the look and feel of marble and bronze dominated the floating estate. Even the gardens and plants were designed to imitate the ancient mediterranean environment of Old Earth.

Amidst the statues and murals of ancient Greek gods and heroes, the decorators of the Bronze Paradiso also blended in depictions of different mechs.

This made for an unusual but natural-looking fusion of mythology and science. Ancient titans were struck down by modern ace mechs while the legendary city of Troy was being sieged by a mech regiment of heavy artillery mechs.

The obvious mech theme of the Bronze Paradiso already declared the kind of clientele it attracted and serviced. Many of the notable mech pilots, mech designers, researchers, engineers and other specialists had already applied for membership to the semi-exclusive establishment.

In order to maintain its standards and prevent the riff raff from lowering the atmosphere, the Bronze Paradiso implemented a lot of rules that made it harder for ordinary people to get inside.

This was exactly how Gloriana liked it. While many of the Bronze Paradiso's gardens and courtyards were hardly occupied, she was certain that this would change in future.

"I already prefer this club over the one I visited back in Chance Bay." Gloriana smiled as she admired the excellent craftsmanship of the various murals and bronze sculptures. "As expected of the Mech Supremacists!"

Just like the Well-Oiled Machine based in Chance Bay, the Bronze Paradiso was a mech community-oriented club that the MTA Supremacist Faction discreetly founded in Davute.

While this connection wasn't obvious, it was pretty much an open secret among the more powerful and accomplished mech insiders.

It was exactly because of this connection that Gloriana thought of starting her search in this place. No one understood the local mech scene better than the executives presiding over this new but growing establishment!

She entered a large but open structure and ascended up a stairs that led to an open lounge.

Different projections displaying exquisite masterwork mechs that had earned a lot of renown from the mech community gave the visitors plenty of conversation material. A few of the guests preferred to settle down and admire the rotating depictions while sipping their expensive drinks.

Though Gloriana was tempted to sit down and study the interesting variety of masterwork mechs to see if she could derive any insights from them, she already made an appointment for today.

She approached a middle-aged man who was dressed in a relaxed green suit.

"Madame Gloriana Wodin-Larkinson, it is an honor to welcome you to our fine establishment. You and your husband are certainly the talk of the town among the local Journeymen. There are no two mech designers who have accomplished more and created so many masterwork mechs at your early age. A number of our guests would love to sit down with you and discuss how the two of you have succeeded in defying convention."

"Good morning, Director Aperson. I am afraid I will have to pass on that. I am here on business."

"Of course. We will accommodate you as best as possible. Come. Let us sit down and discuss what you seek to know."

Managing Director Levi Aperson was not only the man in charge of the Bronze Paradiso, but was also a mecher who was related to a notable member of the Mech Supremacist Faction.

Only an individual with connections could become a spokesperson and monitor of this strong, powerful and influential faction. Gloriana had already learned about this arrangement back when she visited the Well-Oiled Machine so she already knew that she would likely be able to obtain her answers from Director Aperson.

Despite Gloriana's impatience, they did not immediately discuss her request. A human servant brought in a pot of tea while the two chatted about shallow topics.

Director Aperson described what it was like to live and work in the Austere District while Gloriana shared a few of her thoughts on the Larkinson's future plans in Davute.

"My husband is so fixated on keeping his clan mobile that he doesn't want us to permanently settle in Davute." Gloriana exasperatingly complained. "How can we possibly enjoy a good life and give our children the childhoods they deserve if we turn ourselves into vagabonds again? At least Ves has acquiesced to the establishment of a branch on this planet. Hopefully he will see sense over the years and treat this 'branch' as our main home and workplace in the coming years."

The director nodded. "Humans are emotional creatures. The main problem with your husband is that he overwhelmingly associates planets with death, loss of freedom and other trauma. If you want him to change his mind, then you need to focus on rebuilding his positive associations with landbound life. As long as his positive associations are recent and abundant enough, they will be strong enough to crowd out his negative associations that will slowly fade from his mind as long as they are not repeated."

"That is a good approach! I will apply it as best as possible and see whether Ves can finally see sense again!"

The two talked a bit more about other topics before Gloriana brought up her reason to visit the Bronze Paradiso.

"Our clan has started a new design project for a melee expert mech. Due to several reasons, I am not satisfied with designing a conventional expert mech this time. Instead, I want to strengthen my upcoming design by incorporating advanced smart metal technology into its frame."

"That... is an unusual and expensive choice, madame."

"I agree, but our clan is not short on funding. We are willing to explore this idea, but the premise is that we can make use of a high-quality smart metal system that is newer and stronger than the products on the market. What I want to ask is whether you know of any developers in Davute that can present me with interesting options?"

Director Aperson paused for a few seconds before he made a single nod. "There are... a handful of researchers and developers on this planet that may be of interest to you. Let me give you their contact information."

Chapter 4082 EVSAS

The advantage of asking for information from the managing director of a private club was that he could provide exactly what Gloriana needed.

The list of names that Director Aperson supplied to Gloriana were not only relevant, but also approachable to someone with her identity.

For example, most of the developers were either members of independent institutions or belonged to neutral groups.

There were doubtlessly more developers in Davute that worked on smart metal products as well, but they might not be willing to engage with the Larkinson Clan due to political or business reasons.

Director Levi Aperson was keenly aware of such relations. Even if few if any of this information was available in the public, his position and his resources allowed him to maintain a constant pulse on what went on at this layer of Davute's society.

Gloriana did not doubt that the contacts he provided would refuse to work with the Larkinson Clan. The only question was whether the developers could offer solutions that met her requirements.

She quickly contacted the first name on the list. In her experience, a lot of developers were quite willing to put down their work if a large or well-paying client inquired about their products.

This time was no different. The man reacted with enthusiasm and invited her over to his R&D center.

"That is not necessary." Gloriana replied over the comm. "I would like you to present your work to me at the Bronze Paradiso if possible. There are plenty of private rooms where you can explain your offerings and potentially demonstrate a sample of your work."

The reason why she declined to visit the developer's facility was because it was located in a city on the other hemisphere of the planet.

Once she ended the call, she contacted the next name on the list. She made a similar request as before and scheduled a meeting with the second developer at a different time slot.

Soon enough, Gloriana filled up her entire afternoon schedule with numerous appointments. She planned to listen to the sales pitches of all of the people she contacted before she was willing to make any further decisions.

She didn't really care whether the developers stumbled upon each other and discovered that they weren't the only ones that Gloriana approached.

"It will be better if they are aware of the competition." She smirked.

Smart metal systems were famously expensive. This largely reduced their appeal and made it difficult for developers to obtain more funding. Without enough money, how could these developers afford all of the expensive materials and lab equipment to invent better products?

It was for this reason that many of the people that Gloriana contacted earlier eagerly dropped what they were doing so that they could prepare for their upcoming sales pitch. They did not mind at all that they needed to meet their client at the Bronze Paradiso rather than welcoming her to their own workplaces.

Although it was a lot easier for Gloriana to examine some of the latest and most interesting smart metal products that the developers were working on, this was merely an initial exploration. It was already enough for her to learn the basics.

If none of the smart metal systems available in Davute satisfied her requirements, then she wouldn't waste any further time with the local developers. She would rather reach out to other parties who were located in another star system or zone.

Her first appointment was scheduled to start in several hours, so Gloriana passed the rest of the morning by socializing and befriending the other club members who had visited the Bronze Paradiso at this early time.

She met and talked about various matters with dozens of mech designers, researchers and industrialists.

There were little to no mech pilots present at this moment as they typically trained and performed their duties at this time.

She finally bid goodbye to a fellow mother and mech designer and entered a private room where a man in a lab coat already awaited her arrival.

The developer perked up when she arrived and eagerly shook her hands.

"Hello, madame. I am grateful that you have taken an interest in my work. Let me introduce myself to you. I am Rezen Makeorim, an associate professor at the Davute University of Technology. I am also a developer operating under the umbrella of Seifer Microtechnologies."

"What do you mean by the latter, exactly?" Gloriana asked. "It does not exactly sound as if you are working for the latter company."

"That is correct." Professor Makeorim replied. "Seifer Microtechnologies is an independent research institution that offers support and conveniences to independent researchers and developers such as myself. We still retain full ownership of everything we create, but Seifer is entitled to receive a share of the earnings should we succeed in monetizing our work."

"That sounds like a useful arrangement to smaller developers such as yourself. However, since you possess the qualifications of a professor, it should not be difficult for you to found your own company. Why not do that instead?"

Professor Makeorim sighed. "It is complicated. It is difficult to become truly independent in an environment like this. I am already satisfied with my current arrangement. Seifer Microtechnologies is affiliated with the Davute University of Technology and therefore carries enough weight for me to pursue my research and development projects without too many hindrances."

"Let us move on to exploring your products." Gloriana said as she recalled that she also had other appointments. "I have already informed you of my purpose and what I am looking for. I have heard that you have recently succeeded in developing a variation of smart metal that can be strengthened by supplying it with additional energy."

"That is correct." The professor smiled as he activated a projection that showed the partial design of a new nanomachine. "My Electra-Vizmar Smart Armor System is an enhanced take on the concept of smart armor. Different from ordinary smart armor that is either made entirely of nanomachines or use them to form solid armor plating on demand, the protection that my EVSAS can be amplified by up to 347 percent if you supply it with maximum power!"

Normal smart metal systems always needed a supply of energy in order to remain operational. It was not unusual for them to become a bit stronger and more useful when fed with additional energy, but there were always limits to this effect.

Nanomachines were extremely tiny and could never handle a high amount of current running through their relatively fragile structures.

However, Professor Makeorim defied this convention by spending his time on developing a new type of nanomachine that could tolerate a lot more energy than before!

"By combining the wonderful properties of a new form of exotic that is native to the Red Ocean with the technologies that I have mastered, I have successfully incorporated the new exotic in stronger nanomachines that can not only strengthen the linkages between them, but also resist electromagnetic attacks to a considerably greater degree. Powerful electric shocks will no longer damage it as badly as other smart metal mechs!"

Gloriana's eyes twinkled with interest. This feature alone already sounded a lot more useful than many other market offerings!

"Does your new EVSAS also offer improved resistance against directed energy attacks such as laser beams and positron beams?"

The associate professor shook her head. "They do, but their improvement in this area is relatively limited. Directed energy weapon attacks are too concentrated and it is challenging to spread out the damaging energies over a larger volume."

"How much heat does your EVSAS produce and how much can it tolerate before it reaches a limit?"

"The heat tolerance and capacity of my smart armor system are quite high." The professor confidently stated. "However, I must also mention that the efficiency of my first-generation EVSAS is not substantially better than other smart armor systems. As long as you supply maximum power to this system, its nanomachines will rapidly heat up and speed up their decay. You will have to replace and replenish the worn-out nanomachines on a regular basis if you make frequent use of this feature."

That did not sound ideal to Gloriana.

"Are there any special resources or equipment requirements to replenish any lost nanomachines?"

"It is not that difficult to renew the EVSAS. It can cannibalize any older nanomachines and reuse much of the materials to build new nanomachines. However, if the mech that utilizes my smart armor has lost a limb or suffered so much battle damage that it lost half of its frame, then you will need to supply a large amount of fresh resources to fully restore the EVSAS. It also needs to be supplied with an abundant amount of energy to produce the new nanomachines."

Gloriana continued to ask more questions about Professor Makeorim's new smart armor system. She gained a good understanding of the upsides and downsides of the EVSAS.

Of course, all of this was based on the premise that Professor Makeorim told Gloriana the truth without any omissions or distortions.

It was impossible to determine how much of his story was accurate, but Gloriana did not believe that anyone would hoodwink her. She not only knew her craft well, but also possessed her own means of determining the sincerity of other people.

The meeting finally ended after an hour had passed. Gloriana was reasonably satisfied with what she learned and finished making mental notes with her implant.

Both Gloriana and Professor Makeorim shook hands once again before the latter returned to Seifer Microtechnologies.

"I will analyze and discuss what I have learned about your EVSAS with my fellow mech designers before deciding whether it is a good fit for my expert mech design project. I will notify you of our decision within a week."

"I eagerly await your response."

In truth, Gloriana already crossed out the EVSAS. While it indeed offered a lot of strengthening, any expert mech that was based on this technology would be heavily burdened in terms of heat and energy management.

If Venerable Vincent made liberal use of the smart armor's powered mode, his C-Man would not only grow extremely hot, but also run out of steam after a short amount of time!

This was not necessarily a reason to reject the EVSAS right away. Gloriana could accept these limitations as long as the C-Man turned into an invincible powerhouse for the short time it was dueling against a more powerful expert mech.

What Gloriana couldn't accept was that EVSAS was much more geared to resist energy attacks.

While EVSAS was still capable of resisting a lot of gauss rounds or blows inflicted by melee weapons, it did not possess an inherent bonus in this aspect.

This was a shame because the C-Man was a melee expert mech that would most likely get challenged the most when fighting against other expert melee mechs!

While ranged expert mechs also posed a considerable threat against the C-Man, as long as Venerable Vincent's machine got close, there was no way that the vulnerable ranged machines could put up a serious fight at this range!

"Maybe EVSAS can still be useful in other situations."

Gloriana imagined the C-Man carrying a shield formed out of EVSAS that could help the expert mech survive a barrage of ranged attacks.

Once the C-Man no longer needed to rely on the EVSAS shield's enhanced protection against energy attacks, the nanomachines could break apart and turn into an additional layer of armor that allowed the mech to resist more attacks without significantly impacting its movements.

"Hmmm, I will think about it later after I have heard every pitch."

There may be a developer who created a better implementation of the same concept. If one smart metal specialist had access to an exotic that possessed special interactions with energy, then there were bound to be others who explored the same possibilities!

"Next!"

A woman wearing a smart red business suit strode into the room. It was time for the next smart metal developer to present her work!

Chapter 4083 TESMAS

Gloriana yawned as she waited for her last appointment to begin.

Originally, she was supposed to listen to the sales pitch of the previous developer, but that meeting quickly went from bad to worse.

"Hello, beautiful." Dr. Remind grasped and kissed the back of her hand.

"I am starting up a brand-new company that is based on exploiting my brilliant new high-tier smart metal system. I believe you can see as well as I that my new Pritchard-Fovon Smart Metal System is destined to become the ultimate standard of second-class smart metal systems in the Red Ocean. As my first and most attractive investor, I will give you a preferential deal. If you invest just 100,000 MTA credits into my new enterprise, you can obtain 20 percent of its ownership! If you invest today, I will give you an additional 2 percent on top of that! Decide quickly or you will miss this unforgettable deal!"

"Sorry, my lovely lady, I cannot tell you the full specifications of my Pritchard-Fovon Smart Metal System. It is still in active development so I have not finalized its specifications at this time. I also have to practice good information security and prevent my competitors from learning what I have done and try to develop their own versions. However, I can absolutely guarantee that my PFSMS is fully capable of keeping up with the rigors of combat between high-tier expert mechs. You can trust my word!"

Suffice to say, Gloriana could not make it past half of the man's presentation before she subsequently shouted him out of the room!

She not only drove the scammer away, she also requested Director Aperson to blacklist the developer from the Bronze Paradiso!

For his part, Director Aperson showed enough contrition for his bad recommendation.

"My apologies, Madame Wodin. Doctor Ermind previously comported himself in a more proper manner." The man briefly bowed. "He was charming and polite without crossing any boundaries. It appears that the reason why his behavior has worsened is because he is under a great degree of financial pressure."

"His funding has run out?" Gloriana guessed.

"That is the most likely explanation. As you can imagine, conducting any research and development activities on smart metal applications can burn through hundreds of not thousands of MTA credits. This may not sound like a great amount to a woman of your stature, but it is a fortune that many product developers cannot attain through their own efforts. The only opportunity they can realize their dreams is to attract outside investment."

"If Dr. Ermind has achieved at least partial progress with his Pritchard-Fovon Smart Metal System, then he should have attracted the attention of at least one investor."

"That may be true at the beginning, but I can imagine that the investor's interest in the PFSMS has soured when Dr. Ermind presented his latest results. His new smart metal system may not offer as much improvement as the investor hoped. It can also be prohibitively expensive to the point that it is impossible to earn a profit from commercializing it. A typical investor who bets on volatile investments such as this will know when it is time to stop and focus on other promising opportunities."

"I see."

The tech industry was just as competitive as the mech industry. There were lots of scientists and engineers who were working on developing new tech and applications.

As long as these ambitious inventors succeeded in developing an attractive new mech component or system, they could sell the rights to use their product to many different mech designers and mech companies!

"Well, the next developer you are about to meet should offer a much more interesting solution to you." Director Aperson promised. "She is absolutely more credible than the clown who attempted to deceive you. She can probably obtain the investment that she needs from other sources. It will just take a longer time to secure what she needs if she fails to secure an agreement with you. In my personal opinion, she might just possess what you need to give your ambitious expert mech design a powerful advantage."

"I shall see for myself."

The final developer who arrived at the Bronze Paradiso and entered the room held herself with much more confidence and grace than the previous individuals.

The reason for that was that the final guest was in a league of her own! There was a much greater gap in age, academic accomplishments and business success compared to the previous four inventors.

"Madame Wodin." The older woman with dignified gray hair greeted the host. "You have expressed interest in one of my active research and development projects, is that correct?"

Gloriana walked up and shook the newcomer's hand as if it was an honor for her to do so. "That is correct, Professor Almar. When Director Aperson told me about your TESMAS, I believe it is the most powerful smart armor system that is currently in development in Davute."

"That is not an inaccurate assessment. It is curious that Director Aperson had chosen to leak the existence of my Appelar Project to a Journeyman such as yourself. The TESMAS that I am developing is supposed to be confidential. I was about to refuse your request and nearly did so if I did not research your clan. Fortunately for you, the clan you belong to has the capital to transact with me and my development institution."

Gloriana respectfully nodded. The professor was right. It was difficult for a Journeyman to gain the attention of a researcher with so many accomplishments.

Neihy Almar built up a formidable list of accomplishments in the 150 years she was alive.

Back in the old galaxy, she became involved in the research and development processes of dozens of applications based on high technology.

When she grew knowledgeable and experienced enough, she transitioned into a lead developer who received the right to start her own research projects!

She eventually chose to depart from the old galaxy and continue her work in the new frontier. She subsequently arrived in Davute and assumed the position of a senior professor at the University of Kotor City.

She also became the founder and lead developer of Melmen Advanced Systems with the help of all of the money and resources she had earned up to this point. She successfully recruited numerous accomplished academics and researchers to kickstart her R&D activities.

In short, Professor Almar was bound to become a stalwart in the region's tech industry and mech industry!

The future scientists and engineers that she would teach and the high tech products that her development company would release onto the market both ensured that she would have a significant influence in Davute's technological scene!

Now, Professor Almar was about to present one of her most advanced R&D projects to a Journeyman who was over a century younger than herself!

A projection silently appeared next to the professor. It displayed a typical nanomachine that could form the base of a smart armor system.

"I believe you are already familiar with this. A mech that makes use of smart armor technology can come in at least two basic forms. The first form is a mech with an armor system that completely consists of smart metal. The second form is a mech with an armor system where the smart metal only exists beneath the surface. My Appelar Project is centered around an advanced version of the first form."

She silently changed the projection so that it displayed a beefed up version of the previous nanomachine.

Gloriana leaned closer and eagerly studied all of the changes and additions that strengthened nanomachine design.

Even though the nanomachine was tiny in size, its technological sophistication exceeded her understanding!

However, she still recognized a few superficial similarities with some of the previous product presentations.

One particular element reminded Gloriana of Professor Makeorim's EVSAR.

"Is this a high-powered smart armor system?" She guessed.

"Correct." The professor highlighted a portion of the nanomachine. "These sub-components here can receive energy and convert it into a short-ranged energy field that is relatively powerful at this scale. When trillions and trillions of identical nanomachines produce the same field at the same time, the overlapping and mutual reinforcement of all of these fields will produce an unheard-of degree of strengthening at this level of technological sophistication."

"What is the strengthening factor?" Gloriana asked the most crucial question.

"My preliminary estimation of the strengthening factor of the first generation of our TESMAS is that powering it at maximum capacity will strengthen its overall damage resistance by 1200 percent."

1200 percent.

The numbers slowly sank into Gloriana's mind.

This meant that supplying TESMAS with energy would make it 12 times more difficult to destroy a mech with this high tech system!

Compared to the measly 347 percent strengthening of the previously-mentioned EVSAR, there was no way that Professor Makeorim could compete!

However, nothing came for free. Aside from demanding an even greater amount of energy to sustain its exceptionally powerful state, TESMAS was also reliant on another crucial condition in order to realize its insanely high strengthening factor!

Professor Neihy Almar had no intentions to deceive Gloriana on this matter.

"TESMAS stands for Transphasic Energized Smart Metal Armor System." The old woman stated with deliberate words. "You should be intelligent enough to understand what the latter five words stand for. It is the first word that truly defines and weighs down this research project. The reason why my TESMAS possesses transphasic properties is because a small proportion of the nanomachines are different from the others. They differ in the fact that they contain a microscopic amount of phasewater."

The projection changed yet again. The new nanomachine looked similar to the previous one at first glance.

However, Gloriana keenly noticed that the third nanomachine had replaced some of the subcomponents of the previous version in order to make room for a tiny container along with several tiny parts that helped with stabilizing the machine.

"Phasewater." Gloriana whispered with awe. "You actually found a way to develop a nanomachine that can not only carry phasewater without falling apart, but also leverage the power of this exotic to produce beneficial effects!"

"Exactly." Professor Almar proudly smiled. "You cannot imagine the enormous amount of technical challenges my team and I have overcome in order to progress our Appelar Project up to this point so soon. TESMAS will be one of the most powerful and advanced specialty solutions of Davute in the near future. It is our ambition that some of the most powerful expert mechs and ace mechs will at least partially carry a version of our TESMAS."

The senior professor and researcher did not raise her voice, but there was no way to deny her passion and ambition.

Mech designers weren't the only innovators who dreamed about changing society through their inventions!

Gloriana had full confidence that Professor Almar was able to fulfill her ambitious goal.

However, despite the fact that Melmen Advanced Systems already attracted enough investors, the progress of the Appelar Project had slowed due to a crucial shortcoming.

"How much phasewater is needed to equip a typical medium expert mech with full TESMAS coverage?" Gloriana asked as she braced herself for the answer.

"...Roughly 5 kilograms, give or take 800 grams depending on the exact design of the expert mech. The amount of phasewater needed to equip a machine with TESMAS can be cut by half or more if you are satisfied with partial coverage, but that will also reduce the benefits."

5 kilograms was an astronomical sum to put into a single mech!

A typical shipbuilder only needed a fraction of that amount to equip a starship with a powerful superdrive!

Even minidrives did not require such a huge amount of phasewater in order to work!

However, despite TESMAS's extravagant resource requirements, its effects encompassed far more than physical strengthening!

"The transphasic properties of my smart armor system can impart many simultaneous advantages to a mech." Professor Almar calmly explained. "First, the TESMAS mech will gain a large degree of resistance against spatial effects and attacks. Second, the mech can partially go out of phase, thereby reducing its susceptibility to attacks and other effects. Third, by partially phasing out of the material dimensions, it can cut itself off from incoming sensor and communication signals, which effectively means it becomes considerably more difficult to detect. Fourth, it can anchor itself in space, allowing it to manipulate its flight in unexpected ways or leverage force as if it was standing on land. Fifth, TESMAS's fully energized state should strengthen the performance of a minidrive, allowing a mech to speed up its warp travel or FTL travel by two or three times..."

Chapter 4084 Industry Standard

Ves experienced a time of pure bliss as he readied himself for bed.

His cute little daughter snuggled in the middle of the queen-sized bed of his shared bedroom with Gloriana.

His wife was lying on the other side of the bed. She softly kissed and cooed Aurelia in order to help her fall asleep faster.

It was tiny moments like these that Ves felt more happy and satisfied than ever. Even though he couldn't direct as much attention to Aurelia as he wished, he still cherished every little moment of his offspring's childhood.

Fatherhood was both stressful and magical to him. He started to understand his own father Ryncol a lot more now that he had a kid of his own. There were times where Ves would literally wish to sacrifice everything in his life just to ensure Aurelia's happiness.

As Ves thought about taking his daughter on another excursion, his wife finally broke the pleasant silence.

"I interviewed a number of smart armor developers today."

Ves raised his eyebrow. "Oh? That quickly?"

"Their R&D projects are all promising but demand a high amount of investment." Gloriana explained. "There is a great need to stress test different iterations of smart metal implementations. This leads to a high rate of wear and tear. While most of the nanomachines are able to produce newer copies of themselves if any of them get worn out or destroyed, there is always a loss of materials with each renewal cycle. This raises the barrier to developing a successful new application of smart metal to a large degree. All of the developers that I have spoken to today are short on money or resources, sometimes both."

"The conditions to perform R&D in the new frontier are much more challenging than in the old galaxy. If these smart metal developers are all struggling to complete their projects, then maybe they shouldn't have moved to a difficult place like Davute. Almost everyone in Krakatoa is short on money and resources. I don't think that there is much interest in investing in an expensive and extremely cost-inefficient technological application like smart metal. These guys are better off conducting their research in a more prosperous and resource-rich region."

"That's the thing, Ves. The places you are talking about are already saturated with better competitors. There are those who can produce better results or enjoy better funding and connections. By moving to a brand-new hub like Davute, developers can start out fresh without needing to compete against regional powerhouses that have already cornered much of the market."

Ves adopted a skeptical expression. "It sounds as if they are losers who can't make it in the big city, so they opt to ply their trade in a rural backwater instead."

"That's not an entirely accurate description." Gloriana shook her head as she held her sleeping daughter closer. "While you are partially correct that these developers cannot stand out in their home regions, they are exploring new possibilities by researching methods to enhance existing technologies by making use of the new and unique exotics that are only available in the Red Ocean. We didn't notice it before, but the tech industry in Davute is booming. A lot of small-to-medium research institutions and development companies have emerged in recent times."

"Hmmm. That is interesting. I will look forward to their results, if they succeed that is. Now that I think about it, the Cross Clan has also begun to expand in the tech development industry. Professor Benedict's ambitions are not small."

The ambitious Senior Mech Designer already intended to branch out in this sector, but the immense spoils that the Golden Skull Alliance brought back from the Garimel System supercharged his plans!

It didn't matter if the Cross Clan did not have a strong foundation in this industry. With a large amount of MTA merits and phasewater in his pocket, Professor Benedict could buy out entire groups of development companies and recruit some of the most brilliant researchers and developers available for hire.

Although it took a huge amount of effort to integrate and harmonize all of these puzzle pieces, once they fit together, the Cross Clan had a high chance of becoming one of the stalwarts in the region's tech industry!

Ves briefly thought about using his clan's prosperity to start a large development company himself, but quickly threw this idea out of his head.

His clan already expanded in plenty of side businesses for now. The Larkinson Biotech Institute, The T Institute, the Open Consortium, the Creation Association and most recently the First Star Mech Academy already demanded a lot of resources and attention.

He was always a believer in the notion that people and organizations should stick with what they were good at and leave the rest to others.

While he was willing to make compromises in order to reduce his clan's dependency on unstable and exploitative suppliers, he had to make sure he did not get ahead of himself and stretch his clan thin across too many different businesses.

"I have already chosen a smart armor system for the C-Man Project." Gloriana announced.

"Oh? That quickly? Didn't you intend to spend more time on weighing the pros and cons of each offering before you decide which one to adopt?"

"That's not necessary. Many of the products that the developers have presented to me are not that attractive to me. They are either too early in development or do not perform as well as I hoped relative to how much investment they require. There is only one stand-out invention that offers everything I need and more."

That aroused Ves' interest. It was not easy to please a woman as demanding as Gloriana. Whatever caught her eye must be truly fantastic if she sounded so satisfied.

"What makes this smart armor different from the other ones?"

"For starters, it is an energized system that can be fed with additional power to strengthen its internal cohesion as well as its overall resistance against damage. The strengthening factor may reach as much as 1200 percent!"

"12 times!?" Ves softly gasped.

Even he knew how rare and difficult it was to achieve such an insanely high result!

"That isn't all. There are also other useful features. You see, the Transphasic Energized Smart Armor System can also produce a host of other useful effects. Think of anchoring the physical form of a mech in space, partially phasing it out of the material dimensions, making it invisible to conventional detection methods, allowing it to resist spatial attacks and improving its speed when engaging in warp travel. In short, this is the perfect smart armor system for an ambitious expert mech design, especially one which can equip a combat drive in the future!"

As soon as Gloriana started to talk about phasing, Ves immediately developed a suspicion on how this amazing armor system was able to produce all of those effects.

"Let me guess. This transphasic armor system makes use of phasewater, right?"

"Yup! Isn't this what you wanted to obtain all this time? We finally have access to another good application for all of the phasewater we acquired during our last expedition! We no longer have to keep so many of our reserves in storage all the time!"

Her positive outlook only made Ves even more suspicious. It became clearer and clearer to him that she was hiding an important aspect about the new transphasic product.

He coughed a bit. "Honey, can you tell me how much phasewater it takes to make this smart armor system work?"

"Well... Professor Almar claimed that it should take an average of 5 kilograms of phasewater to outfit a medium expert mech with full coverage of TESMAS. The requirements are lower if we only make partial use of this smart metal system."

"..."

"Hey, look on the bright side, Ves. TESMAS is absolutely powerful and can turn our C-Man Project into one of the hardest and most versatile expert melee mech in our clan! TESMAS opens up so many new possibilities to us that we can implement many new and innovative design solutions that completely reinvents the concept of an expert mech!"

"...What do we have to pay in order to gain access to this product?"

"Well... Professor Almar has made it clear that her development company already has a sufficient number of investors, so she does not require any further funding. The problem is that her investors aren't able to supply enough phasewater to further her R&D. If we can supply her with a batch of phasewater, she can accelerate her research project and finish it within this year. She has promised that she will supply us with a full batch of TESMAS when her product is complete."

Ves frowned deeper. "You haven't mentioned any numbers, Gloriana. How. Much. Phasewater?"

"...We need to supply twice as much phasewater than Professor Almar needs to produce a batch of TESMAS. If the C-Man Project requires 5 kilograms of phasewater to equip it with TESMAS, then we need to pay 5 additional kilograms as remuneration to Melmen Advanced Systems."

"No."

"No what?"

"I'm not going to hand over 10 kilograms of phasewater to obtain a horribly overpriced smart metal system!" Ves hissed.

"Why not?! I told you that it is perfect for the C-Man Project!" Gloriana hissed back!

Even though the argument got heated, the two parents made sure not to raise their voices too much for fear of waking up their dozing daughter.

"This developer is ripping you off, Gloriana!"

"She's not! She's a brilliant woman and a respectable senior professor at the UKC! She is much more credible than the other developers I have spoken to! Besides, you know as well as I do that the rate I've mentioned is industry standard."

Ves frowned deeper. "Just because something is 'industry standard' doesn't mean that we should mindlessly follow it. This is 5 kilograms we are talking about! It might not sound like much to us anymore since we have a couple of hundred kilograms of phasewater in our vault, but that stash is supposed to last us decades!"

"It's better to use it all up in a way that can strengthen our clan and further our design philosophies than let all of that phasewater rot in our vaults!"

"I don't disagree with you on that, Gloriana, but there are good ways and bad ways to spend our phasewater! If you wanted to invest 10 kilograms of phasewater to equip a high-tier expert mech with TESMAS, then I might say yes, but this is way out of

proportion for the C-Man Project! Not only is it supposed to be a mid-tier expert mech at best, it is also an expert mech designed for Venerable Vincent Ricklin, who is arguably one of our most useless and expendable expert pilots!"

"Vincent is not useless!" Gloriana hissed back. "He just needs the right mech to exert his full potential. The C-Man equipped with TESMAS is the best way for him to compete and overpower enemy expert mechs in battle!"

Ves crossed his arms. "If you give me a billion MTA merits, I am confident that I can promote to a first-class mech designer and advance to master in a couple of decades, but we don't live in a reality where we can afford to squander so many resources while getting so little in return. You know what? Give me Professor Almar's contact details."

"Why?"

"So I can talk to her myself! I will do what you have clearly neglected to do in your initial conversation with this developer."

"And what is that?"

"Negotiate a better deal with her." Ves responded. "There is no way that I will give her 5 kilograms of phasewater for nothing. Professor Almar's negotiating position is not that strong and we aren't obliged to make use of her TESMAS. I don't believe she is the only smart metal developer in the Red Ocean who has come across the notion of incorporating phasewater into nanomachines! As long as we shop around for a bit, I'm sure we can find a more favorable deal!"

Chapter 4085 A New Business Arrangement

"Here."

"Pardon?" Gloriana looked up from her design terminal.

"You wanted to incorporate TESMAS into the C-Man, right?" Ves spoke and tapped the data pad that he had placed onto her desk. "Here you go. Our clan has just concluded a new partnership and business deal with Melmen Advanced Systems. It took a few days to hash out our differences, but there are enough reasons for Professor Neihy Almar to concede to some of our demands and sign a mutually-beneficial agreement."

His wife grew puzzled. She picked up the secure data pad and skimmed through the lengthy contract.

She quickly read through the most important terms and became increasingly more impressed and astounded by the extent of the new agreement!

Gloriana never expected Ves to cooperate so deeply and extensively with Professor Almar and her development company!

A few minutes passed by as she took in as much as she could from the contract. She eventually placed it on her desk and directed a questioning look at her husband.

"Explain."

"What do I need to explain? I think it is quite clear what has happened if you think about what we have put into the contract."

"I'm not that stupid, Ves. I just want to hear the full story."

He shrugged and sat down next to his wife. "It's quite simple. When you initially made contact with Professor Almar, the relationship between the two of you was quite shallow. The developer treated you like a client while you treated Almar as a vendor."

"That's true." Gloriana said. "I see nothing wrong with this approach."

"Something went wrong from the moment Professor Almar demanded 5 kilograms of phasewater as payment for her services! You can outfit an entire fleet with superdrives with this amount! The value of 5 kilograms of phasewater absolutely exceeds the value of getting a single development company to provide a first-generation smart armor system that requires us sacrifice another 5 kilograms of phasewater!"

"So you decided to act like a cheapskate and tried to bargain down this service fee?"

Ves slapped his palm against the desk. "I tried to get my money's worth, that is what I have done! I took a more sensible course of action and brought up this matter to Minister Shederin Purnesse. Together, we analyzed the situation and researched the provider. We came up with several new ideas that we thought were worth pursuing. Once we came up with a negotiating strategy, we opened up a dialogue with Melmen Advanced Systems."

"What did you try to achieve through this dialogue?"

"We tried to come up with a more reasonable bargain." Ves told her. "The negotiations that Minister Shederin and I conducted with Professor Almar and her R&D company enabled us to find out what we wanted and what we had to offer to each other. Our goal throughout these talks was to seek out ways to lower our concessions and obtain more value out of a potential deal. Did you know what we found out during our mutual exploration sessions?"

Gloriana looked curious.

He grinned. "We found out that our clan can offer more than phasewater to Melmen Advanced Systems. Do you remember the Phase King? I retrieved his damaged spirituality a while ago and only recently turned him into a design spirit. While I am not completely sure what he can do in this new form, let me say that he has an insane affinity with phasewater. He is over a million years old and he has spent much of that time learning how to make better use of this substance. The insights he possesses along with the techniques he has developed may be of great value even if much of his applications require access to fish-whale organs."

"Is that why this contract contains terms related to conducting shared research on phasewater and its applications?"

"Yes. Did you think it was a joke? It's not. Alongside the Phase King, our clan managed to plunder a lot of phasewater and fish-whale organs from Purgatory. These are extremely valuable alien assets but the problem is that we don't know what to do with them. Our exobiologists are completely stumped because none of our researchers possess a deep understanding of phasewater."

"Don't you have the Phase King for that?"

"The Phase King isn't a human researcher." Ves replied. "We can ask him to explain how phasewater works and how to make use of the valuable exotic, but that doesn't help us develop any solid and reliable applications that we can use alongside other human tech. For better or worse, we need the services of highly knowledgeable and competent researchers and developers who systematically understand phasewater. Professor Almar and her R&D teams are exactly who need to convert our spoils from the Purgatory Campaign into powerful and useful applications for the Larkinson Army."

"So by using the Phase King and the fish-whale organs as bargaining chips, you managed to convince Professor Almar to get the Larkinson Clan involved in her high-level research projects?"

"Yup."

His wife fell speechless for a moment.

This was a brilliant arrangement! Both sides got what they needed from each other. The Larkinsons not only became involved in advanced research related to phasewater, but also gained priority access to any of the products that Melmen Advanced Systems managed to develop.

On the other hand, Professor Almar obtained access to a lot of unique and interesting phasewater-related assets. Whether it was the Phase King, the fish-whale organs or the data that the Larkinson Clan managed to retrieve from the ancient phase whale pocket space, all of this provided the senior professor with a competitive advantage over her rivals that was hard to beat!

"If you think about the value of what we can offer to Professor Almar, we should gain far more than what I've already mentioned." Ves stated. "This is why we demanded equity from her. If she wants access to our unique fish-whale loot, then she needs to give us a share of the profits that she can generate with our assistance. After all, our clan can easily offer a similar deal to another R&D company that is working with phasewater."

"Is this why Melmen Advanced Systems has obtained exclusive access to our fish-whale assets?"

Ves nodded. "Yes. Considering what we get out of it, I think it is worthwhile to give Professor Almar assurances that we won't offer the same benefits to any of her competitors. However, she needs to provide enough research results to keep us happy. If she and her research teams start to slack off, then we might need to reconsider this relationship."

Through these negotiations, Ves and his fellow Larkinsons had turned a simple one-off transaction into an extensive research and development-oriented partnership!

The biggest implications of this new business deal was that the Larkinson Clan would continually gain access to some of the most advanced and powerful phasewater applications that Melmen Advanced Systems intended to develop in the coming decades!

Ves had high hopes for Melmen. Led by a senior professor who not only made a lot of research accomplishments in the old galaxy but also invested a lot of time and effort into understanding the properties of phasewater, she was well on her way of becoming one of the most notable authorities of phasewater in Davute!

While there were many scientists who possessed an even greater mastery phasewater, they weren't as accessible and open to cooperation as Professor Almar.

Ves was more than happy to work with someone who was competent and reasonable enough to cooperate with. Anyone with better qualifications would either look down on the Larkinsons or demand way too much to make a partnership worthwhile.

Meanwhile, his wife still found it difficult to wrap her mind around the magnitude of this beneficial arrangement!

This was like obtaining insider access to top secret research projects!

Gloriana resumed reading through the contract and noted a few more important clauses.

"You still agreed to hand over 3.5 kilograms of phasewater to Melmen anyway." She remarked.

"That is true. Professor Almar truly needs more phasewater. I agreed to give her at least this much because she can speed up the completion of her Appelar Project and start a bunch of new research projects related to our fish-whale assets with the help of our phasewater. However, I am not giving all of this for free. The phasewater along with the other research assistance that we are ready to provide to her is enough to allow our clan to receive a 7.75 percent stake in Melmen Advanced Systems."

In other words, as soon as this contract went into effect, the Larkinson Clan would become a minority shareholder of Professor Almar's company!

This was the biggest concession that the Larkinsons obtained out of the negotiations! It was a prize that Gloriana would have never thought about if she was in charge of the negotiations!

This was because Gloriana had remained stuck on conducting a transaction while Ves and the other Larkinsons saw an opportunity to exchange many more benefits with the other party.

In the end, she had nothing else to say to her husband. His results completely exceeded her expectations, and that was not a bad development.

Gloriana got what she wanted and more. Not only would she be able to proceed with her original plan and turn TESMAS into a key component of her ambitious C-Man Project, she could also increase the scope of her future mech designs!

This was because the Larkinson Clan's new and ongoing partnership with Melmen Advanced Systems granted her the possibility to make use of other advanced phasewater products in other design projects.

She could even approach Professor Almar and request that they develop a specific phasewater component that might add powerful new functionality to certain mech designs!

After the couple finally went to sleep, they woke up the next morning and met with Professor Neihy Almar once again.

This time, Ves had invited the senior professor to the Cat Nest in order to complete a few bureaucratic procedures and discuss the start of their cooperation.

"What do you think, professor?" Ves asked.

He, his wife and Professor Almar stood in front of a display window that separated them from a frozen chamber that held one of the many fish-whale organs that the Larkinson Clan had plundered from a battlefield during the Purgatory Campaign.

The older woman looked fascinated. "It is incredible. While it is a pity that you have not managed to obtain a genuine phase whale organ, this is not necessarily any worse. A true phase whale organ is too advanced for second-raters. From what little I have learned so far, these fish-whales which are derived from phase whale DNA are much simpler."

"Will you be able to study these organs and understand how they work?"

"Not alone." Professor Almar shook her head. "I do not have any biotech specialists in my research teams. I will either need to hire them or work together with another biotech company in order to decipher the principles and mechanisms of these alien organs."

"You can cooperate with Larkinson Biotech Institute. While it is relatively new and doesn't have a lot of scientific accumulation, we employ plenty of talented and knowledgeable exobiologists and so on. They have already spent months studying fish-whales and their organs so they can give you a head-start on this research direction."

While the professor did not have much confidence in the Larkinson Biotech Institute, she was willing to give it a chance.

"I shall try and see if we have a basis for cooperation."

"Good. Please bear with my researchers. They might not be as brilliant as you, but they have their strong points."

"We shall see."

With Professor Almar's active cooperation, Gloriana had much higher hopes that she would be able to turn the C-Man into a fantastic expert mech.

With the new level of cooperation between the Larkinson Clan and Melmen Advanced Systems, she could actively work together with Professor Almar to develop a more specialized and customized version of TESMAS for the C-Man Project!

Chapter 4086 Stretchy Mech

Now that the Larkinson Clan secured the most essential requirement to design a powerful and versatile expert brawler mech, Gloriana could finally work on the C-Man Project in earnest!

Venerable Vincent initially reacted with confusion when Gloriana met with him to inform him of the latest developments.

The expert pilot scratched his head. "I'm happy that my mech gets to be stronger and better, but how exactly am I supposed to make use of this smart metal stuff?"

Gloriana already anticipated that her client wouldn't be able to understand the full benefits of utilizing TESMAS, so she prepared a simple presentation to convey the most important principles.

She summoned a projection that displayed one of her draft designs of the C-Man. She then activated a command that commanded the rough model of the C-Man to spar against a generic melee expert mech.

"Imagine this is your mech. As you can see, the expert swordsman mech is doing a good job preventing your C-Man from getting too close by leveraging the advantage of reach."

The simulated battle was nowhere as real as an actual duel between melee expert mechs. This was because the mechs and mech pilots were both capable of performing extraordinarily powerful feats with the help of their resonance abilities.

However, the depiction was sufficient for demonstration purposes. An actual battle between an expert brawler mech and an expert swordsman mech might fall into the same rhythm.

Vincent scoffed. "I can do much better than this. I won't allow this expert swordsman mech to keep my C-Man at bay."

"That will almost assuredly require you to take great risks and let your mech incur great damage in the process." Gloriana pointed out. "This is why we intend to incorporate Transphasic Energized Smart Metal Armor System to your expert mech. Let me show you a handful of the benefits you can obtain if you make use of TESMAS' capabilities."

The simulated battle changed with the C-Man suddenly activated a function that caused its exterior armor to glow and become more active. While the expert mech radiated a significant amount of heat due to this change, it also became a lot bolder!

Different from before, the C-Man no longer tried to evade or block the opposing machine's sharp sword strikes.

Instead, the C-Man threw all caution to the wind and went on the offensive!

When the expert swordsman mech attempted to take advantage of this change in strategy, its sword struck the surface of C-Man only to bounce away without inflicting any meaningful damage!

Due to this, the C-Man did not suffer any loss of strength and smoothly managed to get close enough to press and wrestle the expert swordsman mech into submission!

Gloriana grinned at the sight. "The primary advantage of TESMAS is that it can make your mech a lot more resilient against damage. It can resist attacks that are up to twelve times stronger than normal."

"Twelve times?!"

"In truth, this is not the most efficient approach to defeat the opposing expert mech. You should only energize the smart armor of your C-Man when you are under imminent attack. You will quickly drain energy reserves if you keep it fully energized for a longer period of time. I will try to mitigate this weakness by adding additional energy reserves to the design, but there are limits to how much I can improve this parameter."

"Oh."

Gloriana reset the ongoing animation and showed off a different simulation.

The starting condition was the same but the C-Man utilized a different approach to defeat its opponent.

Instead of charging the swordsman mech head-on which would expose it to a devastating attack, the C-Man remained just outside the opposing machine's range.

That didn't mean the C-Man was unable to threaten the expert swordsman mech at all. Instead, it began to use its limbs to launch unusual attacks.

In one instance, it launched a punch that magically stretched out the arm so that it was able to smack the expert swordsman mech from a longer range!

In another instance, it launched a kick that turned its leg into an elongated metal whip that struck a solid blow against the expert swordsman mech's side!

These were just the basic applications of TESMAS in a duel. Soon enough, the simulated C-Man mech began to employ more advanced applications of smart metal technology.

For example, the C-Man launched a punch that actually detached its fist and caused it to strike the expert swordsman mech as if it was a projectile!

What was even more astounding was that the detached fist suddenly melted and turned into an amorphous substance. The 'living metal' crawled across the enemy mech's surface and drilled through the weak points of the enemy machine.

As long as the detached nanomachines managed to get inside an enemy mech, it could inflict a considerable amount of internal damage!

Of course, Gloriana knew that it was not that simple to make this attack succeed. Every expert mech was protected by both a resonance shield and other powerful defenses. The C-Man had to weaken or exhaust the energy of an enemy machine beforehand before it could make this infiltration attack work.

Vincent already became impressed, though, and that was what mattered!

The simulated C-Man displayed additional tricks.

It approached and partially melted its body on an expert mech to bind it tighter than ever.

It redirected much of its available nanomachines to reinforce its frontal armor when it was under bombardment.

It shot off all of its arms and legs at once in order to fight against four different opponents at once!

While not all of these scenarios were as practical in reality as they looked, the possibilities intrigued Venerable Vincent. His imagination started to run wild as he tried to come up with other ways to take advantage of the various properties of TESMAS!

"Okay, I'm sold." Vincent said. "I think I can make good use of this nanomachine stuff. It gives me exactly what I need to overpower other expert mechs and show them who's boss. What do I need to do in order to make this work?"

"Nothing much for now. I suggest you research smart metal mechs and expert mechs and learn how they fight. The more you know about them, the faster you can get started with your new C-Man. Later on I will require your input in order to configure the TESMAS and the rest of the design to your fighting style and preferences. The C-Man will become a much more complex mech after this addition so we will need to work together to ensure that you can maximize its strengths."

Work on the C-Man Project proceeded quickly after that. Even though working with advanced and unfinished tech introduced a host of challenges, Gloriana never became bothered by them as her expectations remained high.

Designing a smart metal mech was different from a conventional one in many ways. For one, she did not have to commit to a single form. If she wanted, she could program the TESMAS to adopt numerous different shapes and configurations.

In the most extreme example, she could change the very type and nature of the expert mech! The most complete application of TESMAS allowed the C-Man to turn from a brawler mech into a tiger mech or an avian mech. It could even adopt a completely different shape that did not look resemble a mech in the slightest!

However, this was too excessive in her opinion. She was conscious of how much it cost to make and maintain TESMAS. She only planned to use it as the base of the C-Man's armor system.

That meant that the internal architecture of the expert mech would resemble that of a more conventional machine like the Everchanger.

"So in other words, it is only the skin and armor that is made of nanomachines?" Venerable Vincent asked.

"Yes. That is correct. Whatever lies beneath the surface of the torso are all made out of normal alloy components that you are already familiar with." Gloriana patiently explained to her client. "This means that you cannot turn your mech into a flat square or convert it into another extreme shape. It is not necessary for you to morph the C-Man to this extent."

"I get it. It's only the armor and the limbs that are made out of TESMAS, is that right?"

"That is mostly correct. While you can transform the C-Man's limbs much more extensively than the torso, it still retains the shape and properties of a humanoid mech for the most part. The idea is to expand the C-Man's options and turn it into a better brawler mech. It is not meant to grant you the ability to fight like a tiger mech or other mech types."

Even with this limitation, the C-Man was shaping up to be a formidable expert mech. Melmen Advanced Systems constantly iterated on TESMAS and steadily refined its capabilities.

Gloriana regularly corresponded with Professor Almar in order to gain a better understanding of this new tech.

If she was feeling bold, the mech designer also requested the smart metal developer to add new functions or apply other specific changes to the smart metal system!

Over the span of several months, she and fellow Larkinson mech designers such as Sara Voiken and Tifi Coslone requested so many tweaks that Melmen Advanced Systems simply created a variant version of TESMAS that was optimized for the C-Man!

There were many minor differences between the base version and the variant specific to the C-Man.

Gloriana placed a lot of emphasis on it. She not only wanted it to fit the mission of the C-Man as best as possible, but also wanted it to be a carrier of her design philosophy.

She initially struggled to harness the properties of smart metal beyond a basic level. She was accustomed to working with conventional materials and components, so she lacked the knowledge and experience to add value to smart metal implementations.

The problems she experienced over the course of her design project even caused her to pause and think about her relationship with smart metal.

"How relevant is smart metal to my work?"

"Does the perfect vessel have room for nanomachines?"

"Is it possible to fabricate a masterwork mech when its shape can be changed at will?"

All of these questions and more caused her to fall into a period of doubt and confusion.

Though there was no need for her to find the right answers to all of these questions, she recognized that it was important for her to clear her doubts and clarify her design philosophy.

If not, she might never be able to harness smart metal technology properly in her future works!

She knew that if she ever was promoted to a first-class mech designer, it became far more likely for her to encounter smart metal technology in future design projects. It was better for her to master this tech in advance.

"What does smart metal mean to me? Is it just an easy way to correct mistakes or is it something that can change the definition of mechs?"

Days went by as Gloriana hardly managed to achieve any progress in the C-Man Project.

While she was still able to remain productive by diverting her attention to her other ongoing expert mech design projects, she still felt bothered by the issues that the C-Man Project had evoked.

Ves noticed her struggles and eventually gave her a piece of advice.

"If you want to resolve this matter, it's not enough for you to brainstorm yourself into a circle. You need to go out and gain inspiration. Visit different places. Exchange with different mech designers. Gather more input so that you can expand your perspective and develop notions that you ordinarily wouldn't come up with if you stay in your design lab all day."

Her eyes lit up. "You know what? That is a fantastic idea! Let us go on a vacation, Ves! Our daughter would love to go on a trip as well!"

Chapter 4087 Makairo System

"New planet!" Aurelia cheered!

"Yes, my dear. We've arrived at a new planet. It is an entirely different globe than Davute VII. Doesn't that sound interesting?"

The little girl clung only to her mother as usual as the most important family of the Larkinson Clan exited the shuttle while being surrounded by a group of honor guards.

As a pioneer and a person of means, Ves could not be treated as an average tourist to the host planet.

Though Ves initially felt reluctant about leaving the Davute System and the safety of his entire clan, he eventually agreed to go on a short trip to a nearby star system after taking along the Wild Torch and a bunch of combat carriers.

The Larkinson carrier vessels were still in orbit at the moment. Their presence alone exerted a considerable amount of pressure towards the local administration. This would hopefully keep everyone honest while Ves enjoyed his holiday.

No one held any great concerns as their current destination was quite safe.

The region around Davute had developed quite a lot.

On one hand, a lot of pioneers saw the potential of Davute and sought to occupy any star system of value in the surrounding light-years so that they could become a part of the same colonial state in the future.

On the other hand, the explosive build-up of industry and trade at the port system also made it easier for the surrounding colonies to acquire the goods and services necessary to accelerate their development.

The growth of all of these colonies subsequently fed back to Davute as the colonies excavated valuable resources from their environment and sold them to the many industries of the port system in order to pay their bills.

In short, a virtuous cycle had formed between Davute and its satellite star systems. Not only did they grow closer in terms of trade and industry, they also held cultural exchanges that paved the way for deeper political entanglements.

This was the natural process of building a state in a frontier region. Everyone could see that Davute was well on its way to pull the surrounding star systems into a political union that unified the surrounding region.

The same went for other notable port systems. Karlach, one of Davute's chief rivals in the Krakatoa Middle Zone, expanded just as fast!

The main power blocs in charge of these states went all-out to collect as many star systems and groups as possible. The Larkinson Clan could reluctantly be included in the camp of Davute.

For these reasons and more, Ves did not worry too much that anything would go wrong during his family's short vacation to the Makairo System.

The star system was an interesting one. Most of the colonies around Davute were founded by colonists that all chose to rely on solid profit-generating activities in order to pay their bills and make themselves useful to a future colonial state.

Usually, this entailed the mining of valuable exotics and rare resources. Everyone in the Red Ocean needed raw materials to build up their settlements, starships and mech forces, so it was easy for most colonies to generate revenue as long as they chose the right star systems.

It took years or decades for these colonies to expand and diversify their exports. Many larger colonies relied on more advanced offerings such as industrial products, high tech goods and sophisticated services to remain relevant in the long run, but it was extremely rare for them to emerge in this early colonial period.

The Makairo System was an exception to this rule.

When the House of Meringo planted their flag in the star system, they opted not to terraform the only alien life-bearing planet.

Instead, they preserved it and built up numerous different settlements and facilities that were designed to take advantage of the native flora and fauna!

The noble house that emigrated from a feudal state in the galactic heartland of the Milky Way also invested a considerable amount of wealth to terraform additional planets!

Makairo III and Maikairo VI originally bore no life. They both acquired two completely different ecosystems under the arrangement of the Meringos. The planets subsequently welcomed a lot of exobeasts and exoplants that had been brought over from many different untamed planets throughout Krakatoa.

The House of Meringo was active in biotechnology so its many exobiologists and other specialists had modified all of the imported species so they could survive in their new environments.

The noble house's concerted efforts had turned the Makairo System into a unique location that already attracted a lot of attention from Davute.

By concentrating three different life-bearing planets with separate ecologies in a single star system, the House of Meringo established a special role in the region.

Tourism and biotechnology had become the main drivers of the local economy.

A lot of biotech firms chose to establish a presence in one of the few settlements in the star system. They took advantage of the rich biodiversity in order to engage in many forms of research and development activities.

Tourism also became more popular as an increasing number of people wanted to explore the new and unfamiliar alien environments and wildlife that the Red Ocean had to offer.

In order to get the most authentic safari experience, it was best to travel to far-flung star systems that still retained their alien habitats.

However, traveling so far away through space that was poorly controlled was far too risky to most people!

This was why the Makairo System became a popular alternative to many people living in the Davute Region. It was a nature preserve that was safe and easy to reach. Many tourists were able to satisfy their cravings for exploration by visiting its diverse alien ecosystems.

For now, Ves and Gloriana decided to go on a short trip to Makairo IV which was the most authentic of the three life-bearing planets.

Even though the environment was not friendly towards human life, the House of Meringo had barely touched and interfered with the local ecology at all. Aside from clearing a few islands in order to build its settlements, the main continents of the planets were completely preserved.

"Woooo! I feel funny, mama!" Aurelia exclaimed as she flopped her little limbs.

She looked especially cute as she came to grips with the alien environment of Makairo IV.

As an alien planet that had never been terraformed, Makairo IV was not adapted towards human life. The local gravity measured at 0.84 g and there were numerous gasses that could poison a person to death within minutes!

Therefore, every guest needed to wear a protective suit in order to walk around in the open. Ves, Gloriana, Aurelia and their entourage all wore one protective suit or another.

Since Ves and his immediate family had come to relax, they all wore light but surprisingly strong protective suits. The thin, flexible material was able to harden in an

instant if it ever got struck, but this shouldn't happen in the first place due to the presence of shield generators.

Even though wearing these suits made it harder to get a feel of the new environment, there were still plenty of novelties on the planet that aroused their curiosity.

"Hihihi! Clixie jump!"

"Miaow!"

The suited form of Clixie repeatedly jumped and somersaulted in the air. The lighter gravity allowed her to jump higher and spin more times than back in Davute.

When Gloriana carefully set her suited daughter onto the ground, Aurelia curiously stepped forward and started to skip and jump as well.

However, her control over her limbs was not that good, so it did not surprise anyone that the little girl quickly tripped on her feet!

Fortunately, her protective suit prevented her from colliding her helmet against the ground. Time seemed to go backwards as Aurelia's body spun back up onto her feet.

The young girl was already accustomed to this safety feature and did not feel bothered by it at all. She continued to giggle as she ran around to explore the curious new plants and other sights.

The settlement of Rozentan looked completely different from Kotor City. As the main arrival and departure point for tourists on Makairo IV, it adopted a distinctly different vibe from normal city environments.

For one, Rozentan adopted a deliberate low-tech vibe. There was a large absence of metal structures, advanced vehicles and so on. The structures were mostly made out of stone, though Ves was convinced that they were secretly reinforced on the insides.

Combined with the heavy use of beige and pastel colors, Rozentan presented itself as a holiday resort where many people could completely forget about their busy lives in order to party!

Aurelia was already having the time of her life as they ventured deeper into the resort town. She poked at the alien plants that were green but adopted completely different shapes from the ones derived from Old Earth.

She gazed curiously at the bars and clubs where unsuited guests were singing karaoke and engaged in all sorts of other activities within shielded environments.

"What is that, mama? There is a man on top!"

"That is a flying exobeast. The Meringos have managed to tame it so that they can ride on it like a horse. Do you remember horses, Aurelia?"

"I wanna ride a horse! I wanna ride an exobeast!"

"You're too young for that, Aurelia. Wait until you have grown a few years older. It's not safe for you to go on wilder adventures."

Aurelia immediately teared up inside her pink suit. "I WANNA RIDE AN EXOBEAST!"

Gloriana had to pick up her daughter and soothe the crybaby again. Regardless of Aurelia's demands, she wasn't allowed to ride a flying exobeast or any dangerous creature for that matter.

Fortunately, the young lady forgot all about her disappointment. She was back to laughing and giggling as Clixie and Lucky presented her with colorful rocks and other trinkets that they had picked up from the environment.

As the family finished checking in a local hotel, Ves and Gloriana examined their itinerary. They already scheduled a week of excursions. They arranged tours ranging from deep sea diving expeditions to flight above cold and freezing mountain ranges.

"I hope I will be able to gain the inspiration I need for the C-Man Project and my other design projects." Gloriana spoke in a hopeful tone.

Ves patted her hand in reassurance. "Don't force yourself too hard. It's important to relax and enjoy yourself. This is not a work trip. The best way to expand your horizons is to immerse yourself in the different locales. Forget about your work and let go of your existing paradigms. It is only when you open yourself up to what is different that you will be able to enrich your experiences."

"I will try your approach and do my best to let go. I can't let this vacation go to waste."

The pair subsequently started their initial tour by exploring the settlement of Rozentan. They visited various attractions such as museums, parks, beaches and other curiosities.

It was only after they spent the night at the hotel that they were ready to go on their first true excursion.

The group all boarded a luxurious submersible vessel that the Larkinson Clan had booked for the occasion.

Soon enough, the submersible began to sail out into the vast ocean while accompanied by an escort of aquatic mechs.

The Larkinsons did not field any aquatic mechs so they hired a local mercenary outfit to provide security instead.

The protection might not be necessary, but it was prudent to have them around. The House of Meringo had left the oceans of Makairo IV untouched, which meant that there were numerous apex predators lurking in the waters that could pose a sizable threat to human vessels!

"It's been a long time since I went on a deep sea tour." Ves smiled as he stood in front of the thick and transparent hull surface that provided him an excellent view of the underwater surroundings. "I hope we'll be able to see some whale creatures today. They always seem to have good stuff."

Chapter 4088 Hydrothermal Vents

The aquatic ecosystems of Makairo IV were almost just as diverse as the ones on the surface.

Different depths, temperatures, ocean currents, soil environments, tectonic activity and other variables generated a diverse amount of life that each evolved in many different ways.

Ves thoroughly enjoyed the opportunity to get close to some of these aquatic exobeasts and examine the unique conditions they adapted to. Life always found a way and the endless variety of alien species throughout the cosmos showed that it was quite persistent and resilient.

Although the submersible vessel was not exceptionally fast or possessed a huge range, the aquatic territories close to Rozentan still offered plenty of attractive sites.

They first visited a diverse and colorful coral region that was not too far away from the island settlement.

Many different submersible vessels had already arrived at the sites to allow the groups of tourists to observe the alien corals and aquatic creatures that were trying to make a living in this underwater jungle.

"Wow! So ugly!"

Aurelia had never seen anything like it before and delighted in all of the new and exotic sights. Her eyes remained wide as she looked at the amplified views that highlighted the different interactions between the native creatures.

Due to convergent evolution, most fish on the planet vaguely resembled the ones from Old Earth, but the different chemicals and other environmental circumstances still produced noticeable differences.

The fish were considerably larger on average, with many of them growing as big as horses if not more.

The creepy and disgusting-looking invertebrates looked less familiar to humans. There were no ordinary crabs, shrimps or clams in sight.

Instead, there was a host of other weird-looking aquatic exobeasts. They ranged from mollusks that extended a thousand tentacles from their shell to a school of fish that protected itself by generating a cloud of toxins that did not disperse due to the presence of a weak electromagnetic field.

It was incredibly interesting to see how so many alien species evolved in so many interesting and unique ways in order to carve out a living in their habitats.

"Are you enjoying yourself so far?" Ves asked his wife as she kept staring out at the different creatures living in this coral environment.

"The sea creatures are indeed interesting, but I haven't been able to grasp any of the inspiration that you've talked about."

"We have only started our vacation, honey. Don't be in such a hurry and expect to get struck by an epiphany right away. You need to get into tune with the foreign environment and continue to absorb new and unfamiliar experiences."

"I will try to do so, but I'm not too impressed at the moment."

Though Gloriana was still looking for inspiration, Ves and Aurelia had no trouble enjoying the sights.

Ves was sensitive towards all forms of life so he experienced biodiversity on a completely different level. His other senses could detect life all around him, but especially captured the rich and intertwined relationships that kept the alien coral region alive and stable.

Aurelia had inherited a part of her father's affinity towards life, so she was also capable of seeing beneath the surface of all of the pretty and not-so-pretty aquatic life.

As a father, Ves took his doll-like daughter in her arms and explained his thoughts on what they were able to observe.

"Can we go out and touch the pretty fish?"

"No, baby. That is too dangerous. Humans like us aren't meant to swim in these waters. There is bad stuff in this alien ocean that will poison your body and make you feel really painful."

"Pretty fish! Can I take them home, papa?"

"Sure, but let's wait until you have grown a little older. We can build a big aquarium back at home so you can look and take care of your own collection of fish. It will be fun!"

The Larkinsons did not stay at this coral region too long. After sailing over a few of the richest and most biodiverse areas, the submersible and its escort moved away and dove towards the deeper regions of the alien ocean.

Half a day went by as the submersible visited other interesting underwater regions.

They dropped by a fissure that was covered with active vents that constantly spewed hot gasses. They existed so long that entire aquatic animal kingdoms had evolved around them to take advantage of the energy and substances that were constantly being dumped into the environment.

"These sea creatures are so different from anything else we've seen so far." Gloriana observed. "I might not be an exobiologist, but I can see that these species can only exist in this resource-rich environment. Those hydrothermal vents won't last forever. Sooner or later, they will stop supplying the ecosystem with heat and nutrients. What will happen to the sea creatures if that happens?"

Ves shrugged. "They go extinct. There are little other prospects for these species to survive in a post-vent environment seeing as they evolved to such an extent that their survival ability in other environments have atrophied. It is quite ironic as these fish, worms and other weird creatures have adapted extremely well to the energy-rich environment to the point where they managed to crowd out weaker species that were much more frugal with regards to taking advantage of the current conditions."

"So the strongest species in a specific environment always die first if the ecology has changed, is that it?" Gloriana questioned.

"Yup. The biggest winners of an era always seem to collapse first because of their overspecialization. It's actually the weaker exobeasts that were forced to adapt to more diverse and difficult environments that eventually survive these sorts of calamities. They are no strangers to hardship as competition from the more dominant species has left them unable to live comfortable lives."

Both mech designers fell silent for a time. They both recognized that this phenomena could be applied to more than the sea creatures of Makairo IV.

"Do you think that mechs are much like the aquatic wildlife here?" Gloriana asked as she waved her hand at the surrounding sea area. "After the end of the Age of Conquest, humanity has entered a period where the Big Two forcefully took away everyone's warships and weapons of mass destruction. Mechs were able to rise up in the void that emerged. To me, these mechs are just like the sea creatures before us. They have both

emerged due to special circumstances. Both are prone to getting extinct once the environments they have adapted to have changed."

Ves slowly nodded. "This is not an unfair comparison. However, I still believe that life can be surprisingly resilient. The Age of Mechs may have created an artificial environment that allowed mechs to flourish, but this is also a critical incubation period that allows mech designers like you and I to develop and improve the tech that forms the basis of our work. As long as we work hard enough and increase the power and versatility of mechs, I believe that they can still justify their existence even after warships have made a comeback."

"I've heard rumors that the current status quo might not last much longer."

"I've heard those rumors as well, Gloriana. I don't know how accurate they are. I can't see the MTA ever agreeing to such a change though the CFA might think differently about this matter. What I do know is that if this change comes to pass, it won't necessarily be the most dominant mech models that will survive the transition, but the ones that are versatile and have already shown they can still serve their purpose in other areas."

"Like the law enforcement mech you have been working on. That is a product that no warship can replace."

Ves smiled and nodded. "That's a good example. There are also industrial mechs and landbound mechs that can still perform many useful functions even if warships reign in space again."

"Do you think that spaceborn combat mechs will go extinct as a result?"

"That's a big and open question. No one can say with certainty what will happen. It really depends on how extensively the Big Two are willing to relax the rules. If they only take baby steps and won't allow private parties to field warships bigger than a destroyer, then there should still be room for combat mechs in space. They will have to get accustomed to fighting at longer distances, I think. It will be too difficult for melee mechs to remain relevant as most of them will just get shredded on approach."

Gloriana frowned. "The C-Man will be a melee mech. An expert melee mech, but one that is still hampered by its inability to retaliate at range. Do you think such a mech can remain useful as well?"

"High-ranking mechs are special existences." Ves told her. "While you are right to feel concerned about ordinary melee mechs, I think that expert pilots such as Venerable Dise and Venerable Vincent will be fine. Their machines are fast and resilient enough to resist massed firepower while they get close due to the powerful properties of their resonance shields. Once they reach their targets, they are absolutely capable of carving

warships apart as these big and lumbering vessels cannot bring their most powerful weapons to bear anymore."

He was right to an extent. While larger and more powerful warships probably possessed enough offensive firepower to overwhelm resonance shields by relying on brute force, the smaller ones would find it much more difficult to achieve this outcome.

For a moment, Gloriana let her thoughts wander. Could she take something from this discussion and apply it to her C-Man Project?

As a pure expert brawler mech, the C-Man was a creation that quintessentially fit with the Age of Mechs.

She explicitly designed it for the purpose of achieving absolute superiority in high-level expert mech duels.

While she was confident that her work would be able to put up a good fight against opposing expert mechs, what of the other enemies that they might encounter in the future?

There were terrible alien beasts and unfathomably powerful alien warships lurking in the deeper and less explored regions of the Red Ocean.

How could the C-Man put up a fight and remain relevant when it was out of its element?

Gloriana belatedly discovered that her expert mech design might not have developed in the right direction.

It was just like the alien species that had grown around the hydrothermal vents. The C-Man was strong against a single specific opponent but could easily be abused as soon as it confronted other kinds of powerful enemies!

"How would you make a smart metal mech more useful in a battle against an alien warfleet?"

Ves shrugged again. "I don't know. Our clan doesn't have much experience with that. Our only experience with fighting against genuine alien warships was when we attacked the pakklaton refugee fleet. However, that doesn't really count because the vessels were all suffering from voribug infestations. I don't know if we can even survive a confrontation against a proper alien warfleet. The major races of the Red Ocean are all strong and are capable of unleashing devastating firepower. A mech must either be extremely fast or extremely sturdy in order to be of use. Do you think your C-Man fares well in either of these areas?"

"I... think so." Gloriana reluctantly replied. "We plan to pair the C-Man with a combat drive, so it can traverse larger distances at superluminal speeds. This is an excellent

way for the expert mech to approach a dangerous enemy. The C-Man can also endure a lot of firepower by energizing its TESMAS. As long as its surface is receiving full power, the expert mech can survive nearly anything an enemy fleet can dish out, at least for a time."

"Both of the functions you've mentioned are extremely expensive. What you have described is an unsustainable way to make a mech relevant in a time where warships have made a comeback. I think you should find a different angle to focus on. There ought to be a way to make the C-Man useful against alien opponents."

Gloriana still felt lost.

Chapter 4089 Survival Pressure

The discussion that Gloriana held with Ves stuck in her mind throughout the rest of the excursion.

She remained distracted and in thought even when the submersible approached a pod of whales.

"It's kind of funny how there are whales on every aquatic planet." Ves mirthfully said as he and his daughter eagerly looked and studied the whale-like exobeasts.

While they shared a great resemblance to Old Earth's whales, the biologies of the local species were substantially different. They weren't mammals who had gone back to living underwater so they did not have to swim to the surface in order to breathe in the local air.

However, their large bodies and their graceful lines were highly similar to that of many large aquatic races such as the phase whales.

If not for the fact that the House of Meringo had performed detailed genetic studies on the whale species of Makairo IV, Ves would have thought that these beasts were the genetic off-shoots of the phase whales.

Ves became disappointed at the whales after a time. While they possessed plenty of interesting biological properties, none of them possessed any extraordinary qualities.

They merely relied on their bulky body mass to fend off predators and stay alive in these waters.

Aurelia enjoyed the fact that there were juveniles among the pod of alien whales.

"Look! Look! Little whales!"

"Yup. These are whale calves. They're like you but in the form of a whale."

"Huh?"

"Do you see the big whale that the little one over there is following around? That must be the calf's mother."

"Whales have mama's?"

"Every human and creature has mothers, Aurelia. That is the magic of life. Of course, all of those mothers are different from your own mama. She is much more special to you than any other mama."

Aurelia continued to enjoy the sight of the whale calves swimming around and interacting with the bigger ones of the pod.

Though the whales undoubtedly detected the presence of the human vessels and mechs, they barely paid attention for some reason. They acted completely natural and at home in the waters, which granted the tourists a glimpse of life in the Red Ocean that was free from most concerns.

Of course, no one could guarantee that these native whales would be able to relax in the future. For example, the House of Meringo might abandon its current development strategy.

What if the whales had no use to the current rulers of Makairo IV? They would literally turn into fish on the chopping block once the people in charge of the planet wanted to make room for other species!

Both Ves and Gloriana continued to think about different topics as they continued to enjoy their vacation.

They visited a jungle the next day where they could observe both large and smaller exobeasts trying to survive every day.

The smaller creatures had to scurry around carefully because there were too many larger and stronger predators that could easily pounce on them in a second.

On the other hand, the larger exobeasts weren't comfortable either. In exchange for growing big enough to fend off many predators and gain extra power in their fights, they needed to ingest more food and conserve their energy whenever they didn't need to do anything.

It was interesting to observe their niches, their survival pressure and their ability to thrive under adverse circumstances.

From eight-legged mammals that lived their entire lives on tree branches to giant tunneling insects that sneakily fed on the leftovers of other creatures, there were so

many new and unusual survival strategies that they sometimes became the source of inspiration for a potential new mech design.

Both Ves and Gloriana regularly entertained themselves by exchanging their ideas on possible future mechs.

"Those wasp-like insects are really interesting." Ves noted as their shuttle flew over a clearing. "The ordinary worker insects look quite weak and dimwitted when they are caught on their own, but as long as they group around their leader insect, they suddenly turn into a coordinated army. It's quite frightening to see how the presence of a single leader figure can completely transform this weak race into a formidable swarm that can devour larger and more dangerous predators."

Due to Makairo VI's relatively low gravity and richer natural resources, a lot of species developed sizable statures.

These exoinsects were no exception. The commander was the size of a human hand and could pose a serious threat to a human on its own. The worker insects were not as impressive, but their lethality was absolutely high if they grouped up into a swarm!

The insects showed what they were capable of by descending on a vigilant mammalian octapod.

The eight-legged creature bleated in alarm and darted away as soon as the giant alien wasps descended upon its vulnerable form.

Yet despite the mammal's impressive speed, the wasp commander already anticipated this reaction and had already spread out different squads.

Two of those wasp squads happened to be in a position to intercept the fleeing mammal. Dozens of worker insects dove and bit at the fur and skin of the panicking mammal as their species did not come with any stingers.

It did not matter. The wasps were strong in other ways and soon inflicted so much damage onto the mammal that it had slowed down.

Soon, the creature stopped entirely once it turned into a bloody mess. The rest of the wasp swarm arrived a moment later and began to gorge on the fresh meat in different batches.

With at least two-thirds of the wasp swarm on guard at all times, none of the carnivores in the vicinity wished to try their luck and snatch the prey from the deadly insects!

"Ewww..." Aurelia's face scrunched in disgust.

She leaned over and pressed her face into Clixie's lovely fur in order to scrub the sight of the awful spectacle from her innocent eyes.

Ves did not look as disgusted as his daughter. In fact, he looked quite intrigued. According to a quick search on the galactic net, the local wasp species had actually evolved a long time ago but managed to survive through several major ecological shifts.

No matter whether the climate turned hot, cold, dry or wet, the relatively small but deadly wasps managed to endure long enough to adapt to the changes and maintain the same ecological niche for millions of years.

"Their survival formula is better than that of most species." Ves remarked. "They're neither the largest, the strongest or the scariest predators in the environment. However, their strategy of grouping up and relying on the directions of a single leader insect turns out to be a great approach."

Gloriana nodded in agreement. "The exoinsects rely on organization to achieve feats that they are unable to accomplish by themselves. While we have seen other packs and swarms of creatures that have adopted the same strategy to overcome greater odds, few are as effective as these giant wasps. Why is this the case?"

Both of them spent a few moments in thought before Ves brought up a guess.

"The leader makes all of the difference. The worker wasps are practically incompetent by themselves but they can still be of use when properly directed. I think this species shows how much a good leader figure can act as a powerful force multiplier."

"Similar to command mechs."

"Maybe." Ves said. "The situation is much different with mechs. Their pilots are much smarter and more competent than the worker insects. A mech officer also doesn't have to pilot a command mech in order to coordinate his unit in battle. A command mech just makes it more convenient."

That said, both Ves and Gloriana believed that commander mechs could play a more useful role than that. The Minerva had already proven that this mech type could make everyone significantly stronger when properly utilized.

"How would you visualize an ordinary mech version of the Minerva, Ves?"

"Hmmm. I don't know. I think it needs to possess excellent command and coordination functions. We have access to solutions that can open up a few more possibilities than anyone else, but we need to go beyond the usual and find ways that can qualitatively strengthen a mech force. Do you recall the works of Master Huron?"

"How could I not? Your loathsome cousin Ghanso and that harlot who attempted to steal you both worked with the mechs developed by this Master."

"What is harlot?" Aurelia cutely asked as she looked up at her mother.

"Oh, you don't need to know that, my dear. That is a grown-up word. Go back to playing with Clixie."

Ves rubbed his smooth-shaven chin. "Enemy or not, I don't think that Master Huron is wrong for pursuing this avenue of mech development. His work has certainly inspired some of my greatest and most effective solutions. Mechs are inherently weaker and smaller than warships and giant beasts. If we want our machines to remain effective in a time and place where encounters against warships become more common, then we need to seek ways for them to cooperate on a deeper level."

He had witnessed many instances where the power of cooperation was able to achieve drastic effects on the battlefield.

From Master Huron's neural networks to his own battle formations, there were many possibilities that were just begging to be explored. Each of them could become as potent as the wasp species that were hunting down larger and more deadlier prey with relative ease.

Unfortunately, too many mech designers had become obsessed with designing the strongest individual battle machines without thinking too much about cooperation.

The products of these mech designers were akin to the larger creatures that roamed the jungle below his shuttle. They were all powerful in their own ways, but suffered a decisive disadvantage as soon as they were confronted by an enemy that they were not meant to confront!

As the tour continued, they soon ended another day of sight-seeing.

Gloriana had not yet come closer to figuring out a complete approach for her C-Man design, but she did succeed in gathering a lot of food for thought.

Witnessing how the native wildlife of Makairo IV struggled to survive in their native environments presented her with a lot of interesting questions and notions that might be useful in future design projects.

However, none of the insights she gained during her holiday was relevant to her expert mech design project. At least, not for the moment.

She sighed as she leaned against the balcony of her hotel room and looked out at the city that came to life at night.

Ves joined her a moment later.

"Are you still stuck at the same junction?"

"Yes."

"Didn't you learn anything from our previous excursions?"

"I did, but maybe we have been looking in the wrong direction."

"Oh? How so, Gloriana?"

"The C-Man is not a beast mech or an aquatic mech. It is a humanoid mech. More than that, it is a mech that inherently interacts with other humans due to the hope and bravery it can inspire among friendly mech pilots. Maybe we should have spent more time on touring these settlements so we could see how different people interact with others."

"Hmmm... maybe you have a point. The C-Man is a flashy mech and has a powerful effect on morale. However, is that relevant to your current problem? It is not as if you can weaponize morale and turn it into a strengthening factor for the C-Man Project."

Gloriana suddenly stiffened and widened her eyes. "What if it is possible?"

"Huh?"

"Think about it! What if we can turn the C-Man into an expert mech that actively grows stronger when it becomes the center of attention? This is a great way to turn it into a unique and powerful force on the battlefield!"

"Whoa whoa whoa. Not so fast, Gloriana. While I admit your idea sounds attractive, how are we supposed to make this happen? TESMAS may be powerful, but I am pretty sure it isn't capable of doing what you have described."

"You're right for now, but what if we can do something about it? What if we can work together with Professor Almar to create a product that goes beyond TESMAS?"

"Uhh... you've lost me there, Gloriana."

Chapter 4090 Transcending the Physical

As Ves and his family ended their vacation on Makairo IV and returned to Davute without incident, both he and his wife came away with a lot of new ideas.

Seeing how different creatures evolve and adapt to environmental pressures generated a lot of philosophical discussions and formed the inspiration of numerous new design concepts.

In addition to the immediate benefits, the entire vacation had also put the two Journeymen into a different mood and state of mind.

By removing themselves from their familiar environment and placing them in a completely different one, they could look back at their work from a distance.

This new and detached perspective allowed them to evaluate their work and judge what they were doing from a different and less involved angle. Both Ves and Gloriana benefited a lot from this as it was akin to developing a second opinion on everything they had done up to this point.

Gloriana obtained a lot of new ideas and insights through all of this introspection. By the time she returned to their Royal Mansion and put her satisfied daughter to bed, she almost couldn't wait to revise and reorient her contributions to her ongoing expert mech design projects!

Though she developed ambitious plans for expert mechs such as the Blade Claser Mark II and the much-anticipated Mars Project, she decided that the C-Man would be the first to bear her radical new design solution!

It was not easy for her to describe her new and potentially revolutionary design solution. The details were still fuzzy to her, but she felt she had found a lighthouse in the dark.

"This is a potential evolution of my design philosophy." Gloriana's eyes lit up with fire! "I have developed so many new design solutions and absorbed so much knowledge that my design capabilities are several times better than when I initially advanced, but I haven't been able to tie it all together. It's different now. The new design doctrine that I just came up with has the potential to evolve my theoretical framework to a new height!"

Her new idea was not so much a specific design solution but rather an improvement of the original premise of her design philosophy.

For years and years, Gloriana invested herself in her work and passion in order to realize her ultimate ambition, which was to be able to design the perfect vessel for any specific mech pilot!

She had always believed that mech pilots were always being hampered in their ability to fight by piloting imperfect mechs that were flawed and limited in too many ways to count.

Previously, she focused on the physical aspects of a mech design. She believed that the perfect vessel solely entailed an optimal and flawless configuration of physical components that perfectly complemented and synergized with each other.

"This is too simple of an approach." Gloriana frowned.

Now that she looked back on her initial ideas, she felt that her old self was too narrow-minded and limited in perspective.

It wasn't until she started to collaborate with Ves that she had expanded her vision of what was possible in mech design!

The biggest reason why mechs stood out compared to other combat platforms such as warships was because the former exceeded the boundaries of conventional science!

When mech pilots broke through to expert pilots, their willpower transformed on a metaphysical level to become a force that could interfere with reality.

However, expert pilots had difficulty achieving this effect without a medium for them to leverage their strength.

Expert mechs were the most appropriate vessels for them to do so, yet to Gloriana, most of these machines were still inadequate for the purpose!

She thought back on the expert mechs she had worked on. Machines such as the Dark Zephyr and the Riot were adequate, but she knew she could have served Venerable Tusa and Venerable Orfan much better if she reached more of her targets.

The masterwork mechs she was proud of such as the Amaranto and the Shield of Samar were much better. Their physical qualities were on another level and they were amazing creations on a conceptual level.

"However, they are still far from reaching the ultimate state that can maximize the performance of a pilot."

Many mech designers thought that being able to fabricate a masterwork mech was the ultimate achievement and validation of their careers.

Yet to someone who already collected a heap of masterwork certificates, Gloriana was no longer completely satisfied with producing mechs that met this difficult standard.

Sure, she would be happy if she was able to receive another masterwork certificate, but how could she relax and rest on her laurels when she knew when there were higher rungs of Senfovon's Ladder of Craftsmanship?

Gloriana had not even come close to designing a grand work and whatever came afterwards!

"I have no capital to be arrogant just because I managed to get a step ahead. I am far from reaching the end of the ladder!"

Though she did not know what a grand work was like and how it was stronger than a masterwork, she knew for certain that being able to make one was an essential step to getting closer to realizing her ambition.

There were good reasons for her to focus on improving her work along this aspect.

"A normal mech that is merely designed and produced according to their physical properties will never come close to the perfect vessel that I have envisioned. If I want to do this properly, I need to take their intangible properties into account as well!"

The most valuable and helpful gifts that her husband bestowed on her was the realization that there was another side to mechs that she previously neglected. Becoming exposed to his unique insights on spirituality, obtaining his spiritual fragment and receiving a companion spirit had all opened her vision to the more esoteric properties of mechs and mech designs.

She knew that if she wanted to create a work that was beyond the norm, it was essential for her to master this aspect of mech design as well!

Gloriana had made a bit of progress so far by adapting a few of the techniques that Ves had come up with. By applying her own interpretation of living mechs on her personal projects, she had been able to make custom mechs such as the B-Man and the Blade Chaser into machines that more closely acted as the second skins to their respective pilots.

However, this was a rather half-hearted attempt at developing a new and original design solution. The second skin approach was too closely related to Ves' signature living mechs to stand out as a separate solution.

It was also incomplete in that it did not substantially move a mech closer to becoming the perfect vessel she envisioned.

All of that had changed now that she had returned from Makairo IV.

One of the more important observations she made during the holiday tours was how there were so many different exobeasts who struggled to survive every day.

Each of them had evolved their bodies in ways that were meant to cope with both predation and environmental pressures.

Some were more successful than others, allowing the species to become the dominant organisms in their respective habitats.

Others were not as successful at first glance, but their versatility and adaptability allowed them to cope with ecological shifts much better, thereby causing their species to survive much longer across different eras.

"Yet no matter how much they try to out-evolve each other, they are still mortal creatures who cannot cope with threats that are far beyond their imagination."

For example, the arrival of humanity threatened every exobeast who resided on Makairo IV.

It didn't matter if they grew to immense proportions.

It didn't matter if their claws were sharp enough to cut through rocks.

It didn't matter if they could run faster than other predators.

Against an out-of-context problem like humanity, not a single native creature was able to resist annihilation and extinction!

"To these exobeasts, humans might as well be gods."

This was a gap in power that was hard for any creature to bridge. If any exobeast wanted to move beyond their mortal and physiological weaknesses, then they could improve in at least two different ways.

First, they could try to evolve into an intelligent species and master technologies that were stronger than that of humanity.

Second, they could try to ascend their mortal limitations and become gods whose strength and powers exceeded that of the human race!

Gloriana honed in on this idea. Wasn't it her dream to turn living mechs into gods that were on par with the strongest mech pilots?

This was exactly the approach that she should be exploring in order to get closer to her ultimate goals!

In the past, this could only remain a dream that she could never fulfill because she lacked the knowledge and methods to make mechs that were akin to gods.

However, it was different now. She had become exposed to enough of Ves' work to possess at least some of the tools she needed to design a different kind of mech!

"I call it... the god body!"

To Gloriana, the god body was an interpretation of a perfect vessel that was specific to high-ranking mech pilots.

Just as mech pilots who passed the extraordinary threshold continually transcended their mortal limits and came close to attaining godhood, Gloriana realized that her mission was to enable mechs to achieve a similar sort of ascension process!

Though she recognized that Ves' living mechs were already capable of doing so, Gloriana believed she could do it better and more comprehensively!

"Ves just makes living mechs for the sake of making them alive. I make living mechs for the specific purpose of preparing them to become the perfect god bodies that high-ranking mech pilots need to attain the ultimate form of godhood!"

A god body was the perfect vessel for a mech pilot that aspired to become a god pilot!

Gloriana realized that this might be the direction she was looking for! This was the turning point that could bring her closer to advancing to the rank of Senior Mech Designer!

Her expression turned serious.

"It is all well and good to come up with the idea of a god body, but how can a mech that truly embodies this new paradigm?"

The mechanics of the concept of a god body had to be deep and intricate in order to do it justice.

"How can I design and fabricate a mech that is transcendent and beyond the norm when I am limited in too many aspects?"

Similar to exobeasts, mechs were limited by their materials, components and physical designs.

If Gloriana wanted to strengthen her work beyond what she could accomplish with conventional technology, then she needed to incorporate the mechanics of godhood into her designs!

One of the key lessons she learned after working with many different proto-gods was that each of them were able to grow stronger and become more remarkable by absorbing strength from others.

If she could design the C-Man in a way that facilitated this process for both the mech and its pilot, then she would truly succeed in making a god body that served her client in the best possible fashion!

The question was how she could design such a mech.

She frowned. "I can't figure this out by myself."

Her inability to move further was because her understanding of gods and how they derived power from worship was far too shallow. Not even her companion spirit could help her in this regard.

Fortunately, Gloriana knew that she did not have to figure this out alone. She had access to many possible sources of help.

There was no better way for her to learn what she needed to know than to approach an actual god!

Not even Ves fully understood the nature of them even though he worked with them the most!

Gloriana briefly considered her options.

Though she initially wanted to approach Gaia or the Superior Mother, she settled for a friendlier and more approachable god.

She searched around her room and retrieved a totem of a certain death goddess.

"Helena! Are you there?"

A grey shape emerged from the totem and appeared in front of the mech designer.

"Gloriana! How is my favorite sister-in-law doing? Is Aurelia doing okay right now?"

"We are both fine, Helena. I called you for a different matter. Can you spare me your attention?"

"Why certainly! Oh, I'm sure this will be fun!" The gray lady grinned.