Chapter 201 Market Woes

Before he called Marcella, he reminded himself that he had to get in touch with his other employees as well. He assigned both Calsie and Gavin on the important task of shaping public opinion.

"Hey boss! You're back!" Calsie perked up when she received his call.

"How is Cloudy Curtain's business climate these days?"

"It's not looking too well." She grimaced. "The war fever is dividing the population in two. You've got the younger generation who are all enthusiasts about mechs and the older folk who wants their planet to be left alone. The problem is that the latter group is holding the reins of power."

The Greens and the White Doves formulated an effective strategy to fight against the creeping push of mechs onto their world. They gave up on the young folk who had never experienced a war in their lifetime and focused on the jaded parents and grandparents who personally lived through the previous Bright-Vesia Wars.

Ves frowned at the news. "Is the Republican Commissioner letting them get away with it?"

"That geezer is deliberately acting obtuse when we met with him." Calsie said angrily. "He only offered vague platitudes and stuck to his opinion that he shouldn't involve himself in local politics. Hah! If I didn't know any better, the ruling coalition has him in their pockets. Too bad I don't have any proof."

That sounded highly disturbing because the Commissioner was supposed to keep the locals in check, not the other way around.

"Are there any worries in the short term?"

"Not at the moment. The tax bill has stalled due to a lack of overall support. Recently, the Pioneers took advantage of the situation and expanded their influence. They've been a great help in protecting the local businesses."

Ves sneered at the actions of the Pioneers. They only stepped in once Ves paved the way. Their shameless opportunism knew no limits.

They discussed a few matters but Ves wanted to return home before making any major decisions.

In truth, Ves had already taken measures to distract the Greens and the White Doves from pushing through their plans. If Dietrich did what he asked, the Consortiums pulling the strings behind the ruling coalition should find themselves in a spot of trouble with Walter's Whalers.

After remotely checking up his accounts and his administration, Ves decided to call Marcella. He had been out of the loop for a while and wanted to hear from her own mouth how the current market had developed these last few months.

His mech broker picked up his call after a minute. "Good to see you in one piece, Ves! I'm glad to see the frontier hasn't bit you in half!"

"I didn't get bit, but I also didn't come off unscathed." He responded with a rueful laugh. He briefly filled her in on what he experienced.

"I can see why you're concerned about the Fleet. You have to remember that they serve their own interests above anyone else's."

Once they moved on to business, Marcella filled him in on his latest sales. "Both your gold and silver label mechs are starting to appear in public. None of your Mark II's have seen any major action so far, but they are performing well enough in training exercises. The customers who bought your gold label mechs are especially satisfied with their comfort."

"That’s to be expected. I specifically fabricated them to fit their operators well." Ves replied with a nod. The X-Factor was one of his secret weapons and showed their true worth in the machines he fabricated himself by hand. "What about the silver label mechs?"

"Carlos is making them up to spec, more or less. Occasionally, minor defects pop up here and there, but as long as the machines pass certification, it’s not a big deal. Nevertheless, the current market for lastgen mechs is cratering pretty fast. I’ve already lowered the price from 30 million credits to 28 million credits."

In the meantime, the cost of raw materials had also gone up. Both trends had already started squeezing out the mech designers who had barely been hanging on. They simply couldn’t sell their products at a sustainable profit anymore.

Ves risked following in their footsteps if he waited too long on coming up with a new design.

"You should take a look at these when you can." Marcella sent him some reports over the communications channel. "They’re the latest projections on the current market trends in the Bright Republic and throughout the Komodo Star Sector. Sales are up, but they’re mainly driven by mass purchase orders of frontline mechs. The middle segment of the market in which your Mark II falls under is seeing a major slump in sales and interest."

He expected this to happen. During wartime, the side with the most mechs held a decisive advantage. People might scoff at a frontline mech that cost only 15 million credits or less, but you could easily field thousands of them at once as long as you can scrounge up enough mech pilots.

While he read through some of the reports, Ves asked another question. "I’m in need of a lot of cash, since I’m preparing to design an original mech. Do

you have any leads on when I can receive an order for my ruby label product line?"

Marcella grimaced at him over the projection. "Like your gold label mechs, the price premium for your ruby label line is too optimistic, especially considering the market’s current appetite for luxury mechs. You have to come up with a better value proposition."

The main problem with the ruby label product line was that Ves did not have the opportunity to demonstrate its strength. Without a real example for people to point at, no one would know of the mutually reinforcing aspect of the X-Factor.

Despite the lack of takers, Ves stuck to his original conditions. Any mech sold by the LMC that carried the ruby label should come with an exclusive status. Each batch would be uniquely customized to fit the customer’s demands. This took a lot of work and demanded him to exert his utmost. The seventy-five percent premium he charged for the ruby label was a matter of principle.

"There may be a way if you join some events. If you show up at a fair or exhibition, you’ll get the opportunity to make your case in front of an affluent audience."

"I’ll think about it." He responded, though he privately objected to the idea. He partnered up with Marcella so that she could handle all of his marketing and sales. "Once I’ve finished my business in Leemar, I’ll come by so we can hash it out."

Once she signed off, Ves slumped forward and held his head in his hands. While disaster hadn’t struck his business while he was gone, he faced increasingly dire circumstances.

The Barracuda spent a couple of weeks racing from the edge of the Komodo Star Sector. The closer she got to the center of the sector, the more traffic she

encountered. With the expert navigation of her pilot, the Barracuda never came close to other vessels while she transitioned into a star system.

During the quiet voyage to Leemar, Ves spent most of his time cooped up in his stateroom. Designing an original mech was never an easy project. The lack of existing boundaries provided mech designers with endless choices.

Mech designers had to possess a strong vision as well as solid skills to come up with a good design. Since Ves had some free time on his hands, he visited the Clifford Society’s Star Library and read as much free books as possible.

He mostly spent his time on deepening his foundation in Battle Mechantronics. The Skill provided him with an overarching perspective on designing melee mechs that he couldn’t easily get anywhere else.

While his Battle Mechatronics hadn’t advanced to Journeyman-level in these couple of weeks, he did gain a lot of benefits from his reading. His expanded range of knowledge counterbalanced his earlier infusion of knowledge that came tinged with Master Olson’s perspective.

"What do you think is better." Ves asked Melkor while they consumed their latest meal. "A mech that’s decent but will last forever or a mech that’s slightly better but breaks in twenty years?"

Melkor rubbed his visor. "That’s a difficult question. It’s an open question that depends on many variables. The Mech Corps is rather slow to adopt new designs, so they highly value mechs that can take a beating and keep going. Mercenaries on the other hand are used to the consumer culture of buying a mech and using it for a set amount of years before replacing them with a new one."

"I see. So the Mech Corps is taking the long view of things while the private market cares more about immediate performance."

With his current capabilities, Ves had no chance of taking part in the lucrative business of selling his mechs to the government. He had to stick within his means and focus on the mercenaries and corporations that made up his existing clientele.

"What kind of design do you have in mind?" Melkor asked. As a mech pilot, he knew how much the first original design reflected on the career of the mech designer. Anyone who had the guts to publish a deeply flawed design as his first product could never fully get rid of the stigma he accumulated on his debut.

Jason Kozlowski was a good example of this phenomenon. Releasing the bloated Caesar Augustus design at its current form gave him a reputation of having too much money but not enough sense.

"I’m designing a knight."

Of all the archetypes he designed so far, Ves achieved the most success with the knight. His Young Blood virtual design achieved the most sales out of his catalog of virtual mechs.

Additionally, his only real production designs consisted of hybrid knights. While the Marc Antony Mark I and IIs inherited some of the baggage from the base model, Ves also learned a lot of lessons on how to design a good knight.

"That’s a good type to start with." Melkor replied, though he also added some caveats. "You should be aware that there’s only a limited appetite for knights. Rifleman mechs sell the most, followed by the various types of light mechs such as scouts and skirmishers. A typical mercenary squad consists of one knight, three rifleman mechs and two other mechs."

"I’m aware of the differences in sales."

The reports Marcella sent to Ves largely echoed those figures. A knight played a limited role on the battlefield. The most common mech doctrines centered

around the flexible rifleman mech, which could fulfill a variety of roles even if they didn’t excel in any of them.

In comparison, a knight could only be employed as a defender or as the leading element of a charge.

Despite these limitations, Ves wanted to stick to what he knew best for his first original design. If he tried his hands on other archetypes, his lack of experience might result in leaving behind a huge flaw when he finally published his design.

"A knight is solid, simple and robust." Ves mused. "Its harder to go wrong with a knight as opposed to a rifleman mech. Then again, the market is stricter about knights because the mech pilots has to trust in his machine in order to absorb blows meant for others."

Occasionally, a few scandals erupted in the news about knights. Usually, a hardcore mech geek studied a knight design in detail and managed to find a small but critical vulnerability. Any opponent that applied pressure on this weak point could instantly cripple the unsuspecting knight.

Any mech designer that suffered from this scandal retired from the business in disgrace. Mech pilots trusted their products to guard their lives. To have them turn into death traps due to negligence and incompetence represented a profound betrayal of the mech designer’s creed.

Ves had to be very careful in this matter. Still, he possessed a decent amount of confidence that he could deliver a successful product. He already formed a vision on what his upcoming design should be.

Chapter 202: Vision

Ves had seen a lot of knight designs in his mech career. Besides studying the classics, he also had hands-on experience with a couple of different models.

The Caesar Augustus bore no introduction. The overstuffed hybrid knight tried to to everything at once and made a decent attempt at it by virtue of its

excellent armor system. Ves captured some of the majesty of this ambitious design with the Marc Antony, but the cheap HRF armor plating hobbled the core purpose of a knight, which was to be a defensive bulwark.

"It's rather decent design for its price range."

For a design that utilized uncompressed armor, the Marc Antony Mark II functioned well enough to those who couldn't afford anything better. Its cheap composition meant that replacing broken armor plating should be cheap and easy.

"The greatest strength of the Mark II is its cost-effectiveness."

That wasn't always a good thing. It basically meant that the Mark II had no other distinguishing features that allowed Ves to set a premium on his product. He had keep his prices low in order to sustain the handful of sales he made each month.

Competing on price always ended up as a race to the bottom.

The current circumstances in which he had to gradually decrease the price on his mech reflected this reality. Though some of the blame also lay on the generational gap, it couldn't be concealed that the Marc Antony series lacked a distinguishing feature that it excelled at. A jack of all trades was a master of none.

The second knight he had an intimate relationship with was the Hoplite and the Young Blood he derived from the classic model. The spear-wielding knight possessed a number of interesting innovations that he partially incorporated in his sword-wielding variant.

Both models emphasized the offensive nature of a knight. While they fulfilled the defensive role well, they excelled at keeping up with an offensive push as they possessed a bit more mobility than usual.

"An offensive knight is harder to design than a defensive knight."

Both had their own strengths, but an offensive knight had to fulfill multiple criteria. It had to maintain a high level of defense while simultaneously possess a higher level of mobility. Since mech designers usually had to decide between speed and armor, striking the right balance could be challenging.

"It's an interesting one, and one that fits my interests."

Ves had never aimed to design the fastest mech, nor the sturdiest one. He knew of mech designers who dedicated their entire lives to pursuing one extreme.

Raul Mendoza, known as 'The Armorer', had become an inspiration to every mech designer for relentlessly developing the best-protected mechs in the galaxy. Ves read his biography when he studied at Rittersberg and knew that while he faced many temptations to branch out in other paths, he stuck to his creed and continued to focus on armor and armor alone.

Another model that struck him deeply was the Ajax Olympian. The massive heavy knights possessed a boundless amount of strength and sturdiness that allowed them to resist the monstrous Kaius.

His intimate work on studying its design and tweaking it for greater performance gave him an inside look in the mind of a knight designer. Though he couldn't apply all the lessons he learned from a heavy knight to a medium knight design, some aspects remained common to every weight class.

However, there was one more knight that struck a very profound image to Ves. His ancestor's customized mech the Valiant had been through a lot and outlived the death of its pilot. Whenever Ves thought back on the ancient knight, he could practically taste the history radiating off its frame.

Of all the mechs he had seen in his life, only the Valiant showed him a possible way forward. Beyond its exquisite design and rugged durability, the knight developed an extremely potent X-Factor by virtue of its hallowed history.

"I want to design a mech like that."

He wanted to design a mech that became increasingly more compatible with its pilot. Those who bonded with such machines gained increasingly more substantial benefits the longer they used it. Ves hoped to embody the ideals of the Living Mech Corporation with such products.

"It's not going to be easy bringing this dream to life."

Ves activated his terminal and wrote a quick list of demands.

First, it had to be durable. Its internal architecture should be robust enough to keep going even under the most hellish circumstances.

More importantly, Ves had to invest in a good quality armor system composed of compressed alloys. A lot of different formulas and armor systems existed on the market, but only a few would be appropriate for his purposes. The

resources required to form the armor plating should be abundantly available in the Bright Republic.

Secondly, his mech had to possess a decent amount of mobility. Ves did not plan to experiment with gimmicks this time. Overcomplicated gadgets often introduced vulnerabilities in the core design, and with his skills he couldn't guarantee he'd catch them all.

No, Ves simply planned to balance the weight of the frame with a strong engine and efficient artificial musculature. Master Olson happened to be an expert in this field, so he hoped to pick up something good in Leemar.

"Offensive knights are characterized by their ability to leverage their aggression into shock attacks."

In that regard, his intended design should barely be able to meet that standard if Ves managed to get his hands on the right components. Besides getting his hands on a powerful engine model, he also had to trim the armor scheme to keep down its bulk.

"It's going to be hard to accomplish all of these wishes without breaking the bank."

Cheaper components generally performed worse than more expensive ones. However, the market only cared about how well the final design fulfilled its purpose at a given price level.

A good mech designer could take a crappy set of component licenses and easily cobble up a cheap but practical mech design.

A bad mech designer would always publish a deeply flawed mech design, even if he had access to the best components in the galaxy.

In fact, more expensive components always introduced a lot of complexity in the design. In addition, they required a higher proportion of rare and expensive exotics to deliver such extreme performance.

Still, Ves hoped to design a knight for the premium segment of the mech market. At the very least, it should be a knight that was able to compete in the same price class as the current Caesar Augustus.

Ves set his price target at 60 million credits for the most basic silver label variant. Such a price corresponded nicely with other premium knight models on the market. In order to ensure a stable profit, Ves should aim to keep the cost of production at around 30 to 40 million credits.

All of these criteria sounded fine and dandy, but they amounted to nothing as long as Ves failed to form a coherent vision of his future product.

Over the past few months, Ves mulled over how to elevate his design with a powerful vision.

"My mech isn't the fastest, nor the most indestructible one. It simply endures. It will keep going when you least expect it to. Even if it has suffered grievous injuries, it will grow stronger with every rebirth."

Ves named his first Mark I the Phoenix Cry. He did so because he already formed a hint of his ideal mech.

Central to the legend of the phoenix was its ability to be reborn after experiencing a nirvana. Similar to the phoenix, his first original mech design should become more powerful or at least more potent in its X-Factor each time it receives an overhaul.

If Ves could put this vision into reality, then he may be able to emulate the Valiant on a larger scale.

Such a bold ambition demanded not only a good design, but also a correspondingly powerful X-Factor.

"I'll have to test the limits of the X-Factor if I want it to acquire the properties I want. The X-Factor not only has to have room for growth, it also has to be tenacious enough so that others won't be able to wipe it away."

Until now, Ves formed a tentative theory that the X-Factor came into being if the mech, the mech designer and the mech pilot shared a common mindset.

He always feared that once other people such as Carlos or a mech technician started performing repairs, the mech would lose its X-Factor's potency.

Now those fears were gone. After he completed the Groening mission, Ves came away with more than an enhanced body. His mind also experienced a subtle transformation that Ves tentatively attributed to Jutland's heavenly flower. Though he hadn't tested his new strengths in an actual design process, he somehow knew that his ability to impart images had improved.

"Now that my mind is stronger, anything that I work on should have a more tenacious X-Factor. A random mech technician shouldn't be able to ruin my products if they replace a faulty screw or something."

Ves envisioned a hopeful future for his design where each of his mechs grew from infancy into unique machines. Each experience added to the history of

the mech in question. In addition, the longer a mech pilot stuck with the same machine, the more the mech took on the mech pilot's traits.

He felt as if he became the architect of something new and unknown. Though the risks were great, if he succeeded in this project, Ves expected he'd be able to take this concept and use it as the core of his nascent design philosophy.

Of course, the System also played a part in this process. While the System never taught him how work with the X-Factor directly, it was undeniable that it had put him onto this path.

His high mental attributes formed the key to empowering the X-Factor. Ves even suspected the reason why most mech designers still remained clueless about it was because their level of concentration hadn't reached the minimum threshold for it to become noticeable.

Even if they got their hands on the right theories and the correct techniques, without a correspondingly powerful mind, they'd simply be playing make-belief instead of accomplishing something real.

"My current concentration is higher than almost every other mech designer, but it's not enough for my purposes."

With an attribute score of 1.7, his concentration sufficiently enabled him to maintain three images at once, though they couldn't be too complex. Ves estimated that he required a much higher level of concentration in order to work with dynamic images that allowed for growth.

"I'll have to break the natural limit of the human mind in order to get to that point."

Ves already had a idea on what it meant to break the natural limit. Before the doctors of the CFA stabilized his body, he felt immensely powerful and healthy. Though he lost some of that potency, his body had already cracked open a slit into the realm of the superhuman.

He knew that if he wanted to raise his concentration to an even higher level, he had to accumulate a lot of design points. In between his busy schedule of acquiring all of the elements to form an original design, he also had to test out some of his ideas by designing a couple of virtual mechs.

"I can practice my design skills as well, so it won't be wasted time."

After a couple of hours of quiet musing, Captain Silvestra sent him an alert. "We're about to transition into the Leemar System. Your orders, sir?"

"Head towards the inner system. Leemar II is our final destination. Once the local authorities know of my purpose, I'm sure they'll ready an appropriate berth for the Barracuda."

Ves had contacted Horatio to let him know he'd be coming. Master Olson's assistant gave Ves a knowing look when he requested the help of a doctor. In any case, Horatio offered his sympathies and promised to inform their master.

"Hopefully, we won't stay for too long. Once I'm done with my shopping, it's time to go home."

He looked forward to turning his Phoenix project into reality.

Chapter 203 Oleg

Their arrival in the star system came with little fanfare. As the educational seat of the Carnegie Group, the Leemar System received billions of visitors each year. A single Apprentice Mech Designer raised no eyebrows, and Ves liked to keep it that way.

After a perfunctory inspection, the Barracuda zipped over towards the inner system and descended into the atmosphere of Leemar II. The slim corvette arrived at a private berth reserved for Leemar’s affiliates like Ves, who became an apprentice of a visiting master.

First, he visited the Leemar School of Life Sciences situated on the other side of the planet. Unlike the Leemar Institute of Technology, the Carnegie Group founded the LSLS in the middle of an artificial tropical forest. A vast amount of alien flora and fauna made their home in this dangerous forest.

The frequent injuries and even near-deaths provided students with plenty of practice.

Fortunately, Ves possessed a thick skin so the voracious mosquito-like bugs buzzed around helplessly around his body. Several other visitors deployed a small interference field that repelled the wildlife, but Ves didn’t bother with the gadget and strode towards the institute scheduled to receive him. Once he stepped inside the cool interior, a doctor whisked him away for checkups.

After several days of intensive and sometimes invasive tests, Ves finally received a verdict.

"How’s it look like, doctor?"

The doctor in charge of his case gave him a smile. "Your genetics are in a very interesting place right now. Though we would have loved to have samples of the hexapods and a copy of the research data, right now we can conclude that your body won’t develop in a malignant for the next five years. There is too much we don’t know about your acquired alien traits to be sure of anything more."

"What about the CFA’s treatment. Did they do what they promised to do?"

"It’s absolutely brilliant what they did!" The doctor beamed. "We can surmise that Doctor Jutland induced your genetics into a highly active and malleable phase. This allows him to apply extensive modifications to your physique to the extent that he broke past the natural limits of the human body."

"And this is a bad thing?"

"You may not know this, but humans are not meant to possess so much strength. Your body would have slowly disintegrated as it strained to keep up its hyperactive state."

While Ves got lost in the specifics, he understood the main point easily enough. Just like his tweaks to the Ajax Olympian, his body couldn’t handle the strain for an extended period of time.

The doctor also added in something interesting. "It’s not actually unheard of to induce a human body to perform past its limits, but it’s only relatively safe to do so for a few seconds at most. Any longer will result in severe repercussions."

The full results of the checkup showed that the CFA already remedied the repercussions that Ves had unwittingly accumulated. They also stabilized his genetics so that he wouldn’t be vulnerable to biological attacks that targeted his genetics.

"So they hadn’t sneaked in a back door or something?"

"No. Absolutely not!" The doctor shook his head. "We can trace their steps in your body. They’ve been very open about their procedures. It’s safe to say that unless they employed their most advanced techniques, there’s little chance your body is hiding something nefarious."

Ves knew his own worth. A pitiful junior like him didn’t warrant such a massive investment. If the Carnegie Group’s most premier medical institution hadn’t found any hidden bombs, then he probably had a clean bill of health.

After receiving some warnings about his new condition, Ves left the institute with a spring in his step. He boarded a long-distance aircar and flew towards the Leemar Institute of Technology on the other side of the planet.

This time, the LIT hosted no events, so its central campus appeared remarkable empty and tranquil.

He only brought Lucky along this time, having left out Melkor due the requirement that only Leemar’s own security personnel could pilot mechs. Instead, he allowed him to visit one of the mech academies elsewhere on the planet with some credits in his pocket. Hopefully he’d find something useful during his visit.

His aircar flew past the titanic juggernaut wreck, allowing him to get a good glimpse of the starship-sized mech.

Whoever came up with the concept of the juggernaut must have been off his rocker. Though its monolithic size allowed it to mount warship-grade weapons,

thereby circumventing the restrictions on weapons set by the MTA and the CFA, the drawbacks far outweighed the benefits.

"Only a first-rate superstate like the New Rubarth Empire can field this kind of boondoggle."

Even so, the Rubarthans largely phased out the juggernauts once everyone started developing counters for the giant brutes.

The story of the juggernauts proved that no single mech was perfect. Human ingenuity and adaptation always insured there was something better.

The aircar landed on a landing pad next to an exclusive housing area where most of the eminent professors resided. A young man greeted him once he left the aircar.

"Mr. Larkinson! Over here!" He called. When Ves walked over, the young man patted his body like he beheld a strange cow. "It’s great to meet you! Wow, your skin is so firm! All the stories about you must be true!"

"Have you been sent by Master Olson?"

"Carmin is not even in the system right now! She’s busy with another project. Horatio told me to accompany you and guide you around to where you need to go. Ah, where are my manners? I’m Oleg Vorn, Carmin’s youngest core disciple!"

Ves almost tripped when he heard those words. The boy looked far too young and casual to be a core disciple. Oleg probably hadn’t left his teens yet! Nothing about the core disciple hinted at any special traits that made a vaunted Master Mech Designer take him under her wing.

Oleg smiled teasingly at Ves. "Are you wondering why I caught Carmin’s eye? I don’t mind telling you if you tell me what you’ve experienced on the Groening mission."

As they walked towards Master Olson’s estate, Ves regaled Oleg with a brief rundown on his experiences. Throughout the retelling, he felt as if he was reading a bedtime story to a small boy.

"Wow! That Jutland sure was stupid! He actually left you alone in a cave full of tools and parts! It’s no wonder he died in the end!"

"So now that I’ve told you my story, how about yours?"

"Oh, it’s nothing interesting." Oleg responded shyly. "I grew up in a little planet in the territory of the Vermeer Group. Ever since I saw my first mech cartoon, I instantly fell in love with them. They’re so fascinating, right? I wanted to pilot them so badly that I hadn’t slept all night the day I turned ten!"

What followed after sounded familiar to almost every norm. Oleg’s neural aptitude didn’t qualify him to be one of the 3.5 percent.

"If I can’t pilot a mech, then I sure as hell do something else with them! When I found out about mech designers, I studied hard in school so that I can design the best mechs! It just so happens that I’m really good at it. So good, in fact, that the principal referred me to one of Carmin’s scouts, who eventually patted my head and told me that I’m really smart!"

The way Oleg said those words sounded as if he hardly knew what a cherished chance he received. Billions of mech designers never had the chance to catch the eye of a master, while Oleg was born on the right planet and at the right time when Master Olson sought a few young seeds to nurture.

"So how far are you in your studies?"

"Oh, I know a lot about mech design!" Oleg boasted. "I even know how to design a mech engine!"

The young lucky bastard proceeded to explain his latest project. The amount of detail and depth in his descriptions almost overwhelmed Ves to the point of

growing numb. What Oleg knew about engines and mechanics had definitely reached the level of Journeyman!

"The heavens aren’t fair!" Ves muttered.

"What was that?"

"Oh nothing. I was just wondering about something. How old are you?"

"I’ll be nineteen in three months!"

If Ves still had his baseline human body, he would have received a hard attack by now. Good graces! Oleg was just eighteen years old, but he already surpassed what Ves had painstakingly built up with the help of the System!

Though Ves felt a momentary surge of jealousy, he quickly suppressed it. The boy was scarily intelligent and his naive facade might be hiding a perceptive mind. Ves did not wish to make an enemy out of someone Master Olson cherished.

Besides, despite Oleg’s natural endowments, Ves had high hopes he would surpass the boy one day with the help of the System. With such a heaven-defying tool in his possession, he had high hopes of reaching the pinnacle of mech design on his own terms.

"By the way, that’s a nice cat you have." Oleg pointed at Lucky who silently padded alongside Ves. "I don’t recognize its alloys. What’s it made of?"

"I’m not sure myself. My father got him for me from a first-rate state."

That peaked his interest for sure. "An actual mechanical pet from a first-rate state? You’re so lucky! I’ve also considered whether to get one myself, but the latest products takes years to ship to our star sector! By then, everyone will laugh at me for owning such an outdated pet!"

Ves refrained from shaking his head. A pet was not a fashion accessory. Such words betrayed Oleg’s perspective on mechs. He probably saw them as

nothing more than tools instead of creations that deserved to be treated with respect. On account of Oleg’s status, Ves refrained from mentioning any of his thoughts.

They walked for several more minutes until they came upon a highly guarded mansion. "Here we are! This is Carmin’s home away from home! It’s not the Titanium Garden, but it’s home, in a way. Let me show you all the cool stuff!"

Oleg ran him through the gates and led him past the finely furnished halls and pleasant study rooms. As they reached the interior of the mansion, they stopped in front of a heavily guarded gate. A pair of menacing-looking guards in hulking exoskeletons suits regarded the pair with eyes.

"Lemme in guys!"

"Not so fast, Oleg." One of them said with a curt tone. He obviously didn’t care to be respectful to the core disciple. "While you have permission to enter the basement, your new friend is not on the list."

"Oh, come on, do you know who he is? He’s Ves Larkinson, the guy Carmin apprenticed last year! Horatio even handed me a temporary pass for him!"

When Oleg showed the guard a specially produced pass, the guards eventually relented. Oleg handed Ves the pass once they entered an elevator.

As the cabin travelled downwards, Ves look at the pass with curiosity. "What can I do with this?"

"Oh lots! You basically have free access to all of the LIT’s facilities, though most of that place is boring. It’s also your access pass to the Clifford Society’s headquarters up in the mountains. There’s a lot of nifty security features integrated in the pass, so if you ever find yourself in trouble with the authorities, just flash the pass and they’ll learn you’re the real deal."

Ves did not expect to make use of that particular function. The Bright Republic and the Friday Coalition should already have a file on him so any random police officer shouldn’t be able to arrest him on a whim.

Once the elevator reached its destination, the doors slid open and revealed what could be considered a mech designer’s heaven.

"Welcome to Master Olson’s personal workshop." Oleg grinned as he swooped his arms at the impressive. "Look at these beauties. Can you imagine fabricating a mech with these toys?"

Ves recognized none of the specific models of the machines in the workshop, but their construction alone revealed how special they were. All of the machines were made with the highest quality alloys. They incorporated an entire fortune’s worth of exotics to push their speed and precision to their limits.

Besides the standard machines a mech designer utilized such as a 3D printer and an alloy compressor, Ves also spotted dozens of strange and even alien-looking machines that fulfilled unknown purposes. He didn’t dare touch any of them in case he ruined these unique equipment.

After letting Ves take in the sights, Oleg took his hand and dragged him towards a corner of the workshop where a set of smaller and less impressive machines rested.

"This is the Apprentice Workshop. All the other machines are locked out to anyone but Carmin and Horatio. I know, I’ve tried to hack them all." Oleg said with a sulk. "I still swear Horatio is laughing at me behind my back! Anyway, every apprentice is free to use these gear!"

Though the Apprentice Workshop obviously housed more disposable machines, Ves still envied all of the shiny gear. The high-speed 3D printers alone made his carefully reconstructed Dortmund look like a joke.

"Why did you take me here, Oleg?"

Oleg smirked at Ves. "Oh, I'm just curious about your ability, that's all. As one of Carmin's apprentice, you should be familiar with mech design duels. Wanna make a bet? I'll give you something nice if you put up your mechanical cat as a stake."

Chapter 204 Wager

"I'm not putting Lucky up for a bet!" Ves replied with alarm. "He's more than a pet to me. It's the last thing my father left me!"

That wasn't entirely true, but Ves really had a bad idea about this. A mere apprentice with the same status as a nominal disciple could never compete against a core disciple. Chances were high that Oleg would wipe the floor with him in every kind of mech design duel.

It appeared the core disciple didn't like his answer. He pouted cutely at Ves. "You haven't even listened me out! Horatio mentioned to me that you're planning on designing your first original mech. You're going to need some good component licenses to impress the mech industry. It just so happens that I've got a couple of really good engine designs under my belt. I can guarantee you that their performance will top anything in your price range!"

The mention of winning a component license of a high quality engine design aroused his interest. Despite his firm reluctance to engage in the bet, he couldn't help but hear Oleg out. "I'm planning on designing a knight for the premium segment of the market of a third-rate state. The engine shouldn't be made out of too many rare exotics."

"Oh, that's even better! I've got a slew of economic engine schematics I designed for practice."

When Oleg turned on a projector and showed him the designs in question, Ves became utterly entranced. Due to his master’s specialization, Ves knew a thing or two about mech engines.

From a brief glance, Ves could tell that Oleg’s designs performed remarkably well even though they didn’t incorporate too many exotics.

He estimated the market price of the worst engine license at 500 million bright credits. The value of most of the other engine licenses hovered around one to three billion bright credits.

To Ves, that sounded like an incredible fortune. To Oleg, that probably sounded like lunch money to him, especially when Ves took in the different price levels in the Coalition.

Still, the sheer talent and capability he showed off with these engine designs scared Ves from entertaining any ideas about winning a bet against Oleg. If his mech design skills was up to par with his engine design skills, then Ves had no hope of eking out a victory.

"I’m sorry, Oleg, but I’m merely a nominal disciple." He said as gently as possible. "Any duel between us will only end up in my defeat. A bet isn’t a bet if the outcome is certain before we’ve even started."

Oleg lost his perpetual grin when he heard his refusal. "Oh, that won’t do. I really want to see what you can do. Tell you what. If you’re so sure I’ll beat you in a standard design duel, let’s use a different format! You’re good at something, right? Something that gives you the confidence that you’re a better mech designer than anyone else at our level. Let’s use that as our score!"

His persistence made Ves uncomfortable, but his suggestion sounded a little more reasonable. Despite the risks, his long-dormant competitive streak flared in excitement.

Still, in order to compete, Ves had to show his strength. What was Ves good at?

He could think of nothing but the X-Factor.

He gazed at Oleg’s eager expression and considered how to phrase his challenge. Something as ephemeral as the X-Factor couldn’t be measured with any tool, which made it difficult to determine a winner.

"How about this." Ves said as he figured something out. "Why don’t we try to compete on comfort and personal preference? Let’s leave aside competing on specs, because I’m certain whatever you are going to design on a whim will beat my work handedly. Instead, we’ll design and fabricate a mech each and present it to a random mech pilot. We’ll let him play around with them and tell him to decide which one he finds more comfortable. Sounds good?"

Of all the criteria Ves could possibly choose, he selected something Oleg had never seen coming. He blinked at Ves with his mouth agape. "Comfort? Do you mean ergonomics and stuff?"

"It’s not only about a good seat. By comfort I mean that the overall piloting experience should be smooth and effortless. The mech pilot should enjoy the mech and mesh well with it regardless of its specs."

Oleg frowned a bit. "Huh. I never really thought about that. I’ve never heard of a mech design duel that competed specifically around comfort. It sounds kind of fun!"

Ves still showed a lot of reluctance to engage in the bet, so Oleg constantly raised the value of his offering until he offered one of his best designs.

"The Trailblazer will surely fit your needs for a cheap knight! This engine is more robust than anything a third-rate state will typically field, and I’ve really been sparing in the amount of exotics I incorporated in its core components.

I’ve accomplished this by applying some of Carmin’s special techniques. See here for example..."

As Oleg blabbed onwards while pointing at the schematic of his Trailblazer engine, Ves still hadn’t made up his mind.

Losing Lucky would deal a heavy blow to Ves. He had been his constant companion since the start of his mech design career.

Yet Ves found it hard to ignore Oleg’s offering. As a fairly recent design, the Trailblazer incorporated much of Oleg’s recent insights and innovations. Master Olson’s shadow loomed large in the schematic as well, so Ves already determined that the engine featured her characteristic endurance and longevity.

Engines with comparable performance featured a market price of around three billion bright credits for a standard ten-year license. As Ves continued to hold back his assent, Oleg even offered to waive the per-unit fabrication fee, which meant that Ves didn’t have to cough up additional credits when he fabricated an engine.

"That’s as far as I go. These licenses aren’t much, but they’re the crystallization of our master’s teachings."

"Alright, Oleg. I’ll take on your bet." Ves decided after letting out a deep breath. "But let’s make sure it’s fair by setting the ground rules. I don’t want the outcome to be in question."

Leemar was Oleg’s home ground, so Ves wanted to extract some assurances out of him. As Oleg worked with the machines in the Apprentice Workshop for years, he possessed an undeniable advantage in terms of fabrication. To make up for this disparity, Ves enjoyed two days of fabrication time compared to Oleg who only limited himself to a single day.

The boy appeared awfully confident despite his handicap, but Ves couldn’t push his privileges too far.

"Where can we get some neutral mech pilots to judge our designs?" Ves asked.

"Oh, we can call Horatio and he’ll take care of it. The LIT always borrows a couple of mech cadets from Abelard whenever we need a pilot to test out their toys."

Ves remembered that the mech pilots who participated in the Leemar Open Competition also came from Abelard Academy. He found that most of them were highly capable if a bit cocky and undisciplined. Some cadets even let their arrogance get ahead of them. Could they be honest and objective enough to prefer his design over Oleg’s?

"Let’s go with ten pilots. It won’t take too long to let them take our mechs for a spin."

"Okay."

In the end, they came to an agreement on the format of the mech design duel. They would design a knight based off a random selection of old components equivalent to 3-star mechs in Iron Spirit.

Ves had 48 hours to design his knight and fabricate it with the machines in the workshop, while Oleg made do with 24 hours. In the meantime, Horatio already received their request to provide a number of cadets to Master Olson’s estate so that they’d be able to test the finished products.

Horatio looked rather critically at Ves. "Are you certain you want to go through with this wager? Oleg is not a normal child. His talent in mech design is extremely frightening."

"With all the concessions he’s already made, I don’t have a reason to refuse anymore." Ves resolutely replied.

"Do take care, and don’t come crying if you lose."

In truth, Ves still felt apprehensive about this duel. However, his pride as a mech designer urged him to confront the direct disciple’s challenge head-on. He already stacked the deck in his favor.

When he considered the potential payoff, Ves became determined to succeed. He had to get his hands on Oleg’s precious license. With the powerful trailblazer as a central component to his original design, his phoenix would truly be able to embody the persistence and longevity he laid out in his vision.

In addition, if he won the license, he’d be able to spend his credits on other goodies. The mech engine and power reactor component licenses always cost the most due to their fiendishly high complexity. A good engine could make or break a mech design.

If he could get that taken care of now, Ves could allocate more funds on procuring a decent power reactor license. The better his components, the likelier his original design attracted positive attention, though he also had to pull out their strengths in a splendid overarching design.

Throughout his musing, Lucky meowed indignantly at Ves.

"I’m sorry Lucky!" He apologized and picked up his cat and stroked his chin. "I know the bet is callous and all, but it’s for a good cause. You don’t expect me to lose, do you?"

Lucky hissed at Ves and forcibly jumped out of his embrace. Ves merely shrugged at the cat.

"Fine then! Just wait and see!"

Ves calmed his mind and tried to get into focus. They agreed to start the duel within minutes.

Oleg stood at the side and stretched his fingers, ready to employ his considerable talent and skill into designing a great knight mech.

In truth, Ves treated the mech design duel as a practice session for designing his original mech. Every duel forced the participants to form a complete design out of a handful of standalone components.

While the duel format made things easier by providing pre-designed limbs, torsos and heads, the concept essentially stayed the same. The mech designers had a lot of freedom to shape the form and content of their designs.

Want to design a three-legged mech? Sure! Want to design a ball-shaped mech that rolls around like a ball? Go ahead! A mech designer had the freedom to realize every possible idea no matter it was good or bad.

In this regard, Ves admitted his inferiority to Oleg. He expected any knight the boy wonder designed to be a high-quality machine despite spending half his time on its design and fabrication.

Even if they set their goal on designing and fabricating the most comfortable mech, strength provided its own way of comfort.

For example, any mech pilot would rather own a Caesar Augustus than a Marc Antony Mark II due to the former mech’s superior armor system. The two designs differed so drastically in performance that his homemade Mark II simply couldn’t close the gap with its trivial advantages.

That was the main reason why the Caesar Augustus still sold for around sixty million credits while the Mark II sold for half as much.

In order to sway the test pilots to his design, Ves not only had to excel in terms of shaping the X-Factor, he also couldn’t fall too far behind in terms of fundamental design skills.

"A sparrow can still compete with an eagle, but an ant can forget about it." Ves muttered to himself. "I’m still an Apprentice Mech Designer."

No matter how much knowledge Master Olson stuffed into Oleg’s head, he was still a teenager. The direct disciple only had so much time to devote on his studies. More importantly, he also cross-trained in engine design, which certainly stalled his progression in other areas.

Ves shook his head. Enough obsessing over the little freak. It was time he started coming up with a good design. He started focusing his mind on an appropriate set of myths. To maximize the power of the X-Factor, Ves decided to employ multiple powerful images.

The mere thought of how far he could push the X-Factor unleashed a sense of excitement within his bones.

Chapter 205 Triple Division

Considering the transient nature of his design, Ves skipped the growth element of the X-Factor. In order to win over the test pilots as quickly as possible, he decided to focus on immediate impact.

By now, Ves developed a standard procedure of sorts when trying to shape the X-Factor. At his current level of concentration, he’d be able to work with a maximum of three images, all of which served a different purpose that would synergise with each other when they came together.

The first image defined and enhanced the role of the design. The second image centered around a powerful totem animal that introduced the right mix of primal instincts into the design. The third image should be based around

the myth of a legendary human figure in order to strengthen his design's higher level cognition.

With this division of images, Ves established his first formal X-Factor technique. He called it the Triple Division for convenience.

The first image should be an idealized knight mech. To maximize the compatibility between his mech and the test pilots, Ves wanted to ground the experience with something familiar. By building up the foundation of his X-Factor on the knight mech itself, Ves insured that no matter how many individual touches he applied, the test pilots would still feel at home.

Sometimes it might not be a good idea to put the archetype central to the design in question. Too much familiarity bred contempt, or at least made the design appear a little boring.

In order to balance out the familiar, Ves counterbalanced it with a strong and invigorating totem animal.

"Let's go with a hexapod king."

Though he'd never seen a hexapod king in the flesh, he intimately studied the Kaius, which was based on its carcass. The sheer power and terror of them both made for a profound image that had long been seared into his mind.

Choosing the hexapod king as the totem animal for his design shifted its emphasis from defense to offense. Though his design would very likely lack the endless power supply of the beasts, it would still be able to inherit much of its primal ferocity.

Choosing such a savage totem animal risked getting out of hand, so Ves decided to temper it with a more rational human legend. What kind of mythical figure could he conjure up that fit well with the design without being too excessive?

Ves went with the image of a mounted knight called the Leading Edge, or Sir Edge for short. He'd been born in the saddle and had been brought up to serve as a professional knight since he first showed his aptitude for riding.

As a consummate cavalryman, Sir Edge had mastered fighting in both a mounted and dismounted state. On foot, he could hold a shield wall as any other shield bearer, but he truly came to being when he sat on the saddle. He knew how to keep an overview of the battle and choose the right timing to go in for a thundering charge.

In the heat of the battle, he tossed almost every consideration aside and fought with his heart's content, bellowing war cries all around!

As Ves became increasingly immersed in the backstory of the Leading Edge, his competition hadn't sit still. Oleg already sprinted towards a design terminal and drew up a basic schematic based on what he thought would be a 'comfortable' knight.

As a young and talented Apprentice Mech Designer, Oleg developed his own approach to mech design. He possessed a much deeper foundation in the nuts and bolts of mech design, so he hardly needed to pause in the process of picking out components.

Unlike Ves, Oleg decided to stick with the classics and design a fully defensive knight. While his design still stuck to the medium weight class, Oleg pretty much jacked up its armor budget to the maximum possible amount.

"A knight can never have too much armor." He thought as he rapidly refined his rough schematic into something presentable.

He utilized the full functions of the advanced design software in his terminal. A separate projector constantly subjected the latest version of the design to a barrage of standard simulations, which the hidden super processors buried underneath the workshop churned out in rapid tempo.

With the help of these powerful functions, Oleg rapidly eliminated the weak points in his design. His optimization-based approach to designing his mech made full use of the abundant amount of processing power at his disposal. Without the corresponding amount of resources, Oleg’s approach would never achieve results so quickly.

The only downside to this method was that Oleg exerted relatively little control over the direction of his simulations. It constantly spat out error-prone results that led him into dead-ends. This forced him to backtrack on his designs until he reached the point where he could take a different path.

His approach also let go of any attempts to adhere to a strong vision. Even Oleg didn’t know how his design ultimately looked like. Some designers couldn’t even image working without a definite goal in mind, but Oleg embraced the inherent uncertainty.

It didn’t matter how the end product looked like. As long as its specs surpassed the previous version, Oleg was happy.

In contrast, Ves let his vision guide his design choices. Once he split his focused and dipped it into the Triple Division, his mind became filled with the righteous purpose of shaping it into reality.

"Let’s see what I have to work with." He said and opened the catalog in his terminal’s design suite. The parts listed in the catalog came in different sizes and shapes. Even a minor deviation had a lot of implications to his ultimate design.

Instead of making calculative choices based on specs, Ves took a step back and viewed the parts in a holistic manner. Each time he saw a part, he asked himself whether they conformed to the images buzzing in his mind.

Most of the time, the images buzzed in disapproval. Only a couple of times did they show their approval. He slowly ticked off the necessary components until he ended up with a full set of components.

At first glance, they didn’t seem powerful. Ves ended up passing over the most powerful components in favor of those that harmonized well with his vision and each other. They all possessed an intrinsic underlying rule that Ves didn’t fully understand.

"Why these parts?"

At first glance, the frame and limbs didn’t fit with each other. The legs provided a lot of mobility when paired with a powerful engine, but were rather vulnerable to damage to the rear. The torso area on the other hand possessed a lot of bulk in order to accomodate a powerful engine and protect its internal components well.

Most notably, Ves picked an asymmetric set of arms. The shield arm was larger than the sword arm so that it could brace the heavy shield without breaking apart. Meanwhile, its sword arm might lack in brute strength, but its added speed and flexibility opened up a lot of movements that conventional knights would never be able to pull off.

The combination didn’t make sense at first glance, but Ves quickly figured out the rationale of this selection.

The strengthened legs optimized his mech’s charge. Its weaknesses were largely mitigated as long as the mech constantly faced the enemy.

The heavy torso and shield arm allowed it to remain standing under fire or use its bulk in an offensive capacity by bashing through its opposition.

Its flexible sword arm gave his mech the opportunity to outduel a melee opponent. The relative lack of strength in the sword arm didn’t matter because

the mech always possessed the option of bashing with its shield if it needed a power attack.

Overall, the mech possessed a good mix of offense and defense as long as it could dictate the terms of the engagement. Its entire rear portion would always remain vulnerable, though many other medium knights suffered from the same problem.

Only heavy knights featured all-around protection as they had the armor to spare.

Ves proceeded to bring his selection of parts together. After he fitted them into a single frame like a crude puzzle, he proceeded to refine his design by utilizing some of the simulations in the design speed.

That was when he finally found out about the immense amount of processing power hidden beneath the terminal. His eyes practically popped out of his eye sockets as a set of simulations that would have taken weeks to complete at home only took three seconds in the Apprentice Workshop.

What Ves found even more bizarre was that the terminal stated that his simulations only used up a fraction of the total amount of processing power assigned to the Apprentice Workshop. Ves could not even imagine the amount of calculations Master Olson routinely performed to require such an extravagant setup.

"This is a lot more processing power than I need."

No matter how many resources Ves had at his disposal, they were borrowed goods. It would take a very long time until he earned the funds to upgrade his workshop to this level. For now, Ves stuck with his own method and proceeded to refine his design in his own way.

Different from Oleg, Ves already had an endpoint in mind, so he constantly tweaked the schematic in accordance with the desires of his images.

Each time he found an elegant solution that harmonized with the concept of his vision, his images bonded ever closer with the design. Ves felt as if the design and the images became more intertwined. Their existences even started to blur a bit as Ves brought his considerable amount of mental power to bear.

His highly intense state of mind even shook Oleg from his routine. The boy looked over at Ves and thought he saw a monster in human skin.

"Damn, have my eyes gone bad? I better take a break. I even missed dinnertime!"

As Oleg quietly left the workshop to fill his stomach and refresh his mind, Ves continued to work without any signs of fatigue. His highly enhanced body had surpassed the strength of his mind, which allowed Ves to skip the usual process of eating and sleeping for a brief period of days.

Against a prodigy like Oleg, Ves never even considered taking a long break. Every second of his forty-eight hour time limit was inordinately precious to him because it was the only way he could catch up to his fellow Apprentice Mech Designer.

"I'll spend thirty-two hours on the design process and leave out sixteen hours to fabricate my design."

Ves carved out quite a bit of time for the fabrication and assembly phase due to the complexity of the armor system. It possessed just the right mix of protection without taking up a lot of mass.

As a downside, the end product varied a lot, making it an unsuitable formula for mass production. It required a skilled mech designer or fabricator to manually produce each piece of plating one at a time.

"Let's not get ahead of myself. First, I have to finish my design."

He went back to work after refocusing his mind. The hours slowly passed until it became night. Leemar II used to adhere to a wildly different rotation cycle, but its extensive terraforming process stabilized it until it became identical to Old Earth.

Thus, the night came and went without notice, the workshop was situated underground. Even Oleg pulled an all-nighter, having taken some special medicine that allowed his mind to work at peak capacity for an extended amount of hours. He'd pay for it later, but until then he also made good use of his available time.

Oleg must have wanted to get his hands on Lucky really bad for him to work so hard.

The boy finalized his design in the morning, and moved over to the 3D printer and fabricated his first new parts. Despite his handicaps, Oleg maintained a confident smile on his face as he adeptly churned out part after part.

In the meantime, Ves still hadn't come close to finishing his design. While he made some progress with optimizing his schematic, he stumbled across a dilemma that forced him to a halt.

Chapter 206 Discordan

Ves brought him images into reality by visualizing their life cycle. The more details he added, the more vivid they behaved.

At some point, they started thinking on their own. His creativity ran out of control and filled in some of the gaps that Ves had unconsciously left behind.

For example, the knight mech yearned to increase its defense. Even as an offensive-oriented mech, it expressed its dissatisfaction with the current design's inadequate armor cover. Ves skimmed off a bit more off its armor plating than usual in order to keep the weight down.

The totem animal on the other hand didn’t care so much about the armor. Instead, it yearned for a much more effective offensive kit. Hexapod kings proved their strength not by acting like a turtle, but by threatening its rivals with overwhelming might.

The human myth component of the Triple Division also grew more discordant. The Leading Edge’s objection to the design mainly revolved around the staying power of the design. Ves chose to go for a high-impact operation mode in order to make the piloting experience as exhilarating as possible. However, choosing this road obviously used up more energy.

Compounding the problem was that the totem animal showed signs of overpowering the other two images. Ves had unconsciously inflated the hexapod king’s tyrannical greed and cruelty to the point where the image almost became capable of contending against the other two images.

While making his images come to life had always been a goal to Ves, their unexpected conflict left him with a dilemma.

Should he stay detached and let them battle it out? Should he forcibly stop the struggle by separating the images? Or would it be best to maintain a tentative equilibrium by manipulating the images behind the scenes?

Ves began his design process with a vision. To allow his images to evolve in an unknown direction meant that he’d be abandoning his initial goals in favor of an uncertain outcome. The X-Factor would transform in a direction that might have a beneficial or detrimental effect to the design.

As much as he wanted to experiment with this new development, Ves decided to stifle it as best he could. His current circumstances didn’t allow for too many unexpected surprises.

"It’s fine if this happens when I design a virtual mech, but right now I can’t risk ruining this design."

Ves proceeded to turn his substantial amount of mental power to bear on his images. Since he lacked the time to figure out a way to solve the problem with finesse, he utilized brute force instead.

He forcibly separated the images until clear barriers came into being between the three. This forced the integration of the images in the design to take a step back, but at least they didn’t argue with each other anymore.

Next, he adjusted the traits of his totem animal in order to rein in its exaggerated behavior. He lessened the ferocity of the beast and granted it a small amount of cunning.

When Ves finished his adjustments, he took a mental step backwards and regarded his images again. He succeeded in stabilizing the images, though he failed to preserve their strengths.

In essence, his crude intervention solved nothing but prevented the situation from devolving into an unstable mess. Ves had in fact robbed his images of some of their life. This was especially the case with his totem animal.

He learned some very important lessons after this ordeal. Images that had been granted with life developed in an unpredictable direction, sometimes going against his intended vision.

"This is life."

True life embraced the limitless potential of chaos. Life was never comfortable if it behaved according to a predetermined plan. A life shackled down by too many rules and restrictions lost much of the vivid traits that made it precious.

Even though Ves applied the wrong solution, the overall X-Factor shouldn’t have suffered too much from his previous norm. He simply missed a small opportunity to evolve his current application of the X-Factor.

"Now that this is done with, let’s go back to designing."

While Ves spent precious minutes suppressing the unrest in his mind, Oleg started assembling his mech from the pieces he fabricated in record time. He easily slotted the components in their places, which proved that all of his components had come into existence without any noticeable deviations.

The amount of precision he was able to maintain when he swiftly printed out the parts would have astounded a crowd of mech designers. Hardly anyone could insure their components were without flaws if they adopted the same speed. While much of the miracle could be attributed to the excellent machines in the Apprentice Workshop, Oleg’s comprehensive mastery over the fabrication process also played a decisive role.

Ves felt the pinch as Oleg comfortably moved to the last phase of his design process. He required a lot more time to refine his design due to his desire to adhere to his vision. Many times, his tweaks lowered the performance of his design, or introduced new flaws that only became apparent when Ves made further changes.

Normally, this happened all the time. Ves could easily draw back his changes and puzzle out a better solution over many iterations. However, Ves had already spent a day on this repetitive process. His snail-like progress could never match the efficiency of Oleg’s own approach.

In the end, Ves stuck to his method and accepted that he’d never be able to optimize his design as well as Oleg. He focused mainly on eliminating the flaws that already existed in his design while leaving aside the many tricks he could use to enhance its performance.

At the end of his thirty-two hour design phase, Ves smiled in satisfaction. Regardless of the many optimizations that he had yet to perform, his design had come together in a way that all of his images found acceptable, if barely.

"It’s time to move on to fabrication."

Most of his knight’s components required little effort to produce. Ves left much of the heavy lifting to the incredibly capable 3D printer fabricating his parts.

Unlike Oleg, Ves took his time with the process, as he didn’t possess much familiarity with these specific machines.

When the printer spat out all of the easier parts, Ves paid more attention to the next part. The fabrication process of the armor plating required his personal supervision and intervention if he wanted to finish it within his time limit.

By nature, exotic materials all possessed unstable structures. Given time, they broke apart and turned into mundane elements or disappeared into nothing.

This made them hard to work with. While automated production processes made a lot of strides in reducing the error rate, sometimes they spasmed when they faced an unanticipated situation.

The armor system selected by Ves incorporated a lot of different exotics. Some of them didn’t react to well when put together, so the difficulty of fabricating the armor plating without any flaws was extremely high.

Fortunately, Ves possessed enough skill to keep the problem in check. The extra time allotted to him for this duel proved to be a life saver for him as the lack of haste allowed him to maintain just enough control to prevent most flaws.

Even his relative unfamiliarity with the chemical treatment machine and the alloy compressor didn’t stop him from making good time. The System demanded a lot of DP before Ves could master the alloy compressor, but the price had obviously been worth it as he never fumbled more than once when he came across something new.

With a couple more hours to go, Ves assembled his parts in rapid time. Ves considered this phase to be the easiest one as long as he fabricated his parts

within tolerance. The facts proved his case, as Ves hardly encountered a hitch.

His knight design came into being as his time began to ran out. Oleg had long completed his own design and observed Ves from a distance with a yawn. To him, the knight designed by Ves didn’t seem all that special. He completely understood its components and their approximate performance in a single glance.

"What’s the use of comfort in a mech?" He sneered. "A mech is not a cruise ship! Compared to absolute strength, no amount of luxury can compete."

Mech designers competed mainly on performance. The design with the better numbers always commanded a higher appreciation by the mech pilots who entrusted their lives to them. Oleg possessed absolute confidence that his hasty creation could beat the one being assembled by his fellow apprentice.

Once Ves finished checking over his mech, he breathed deeply and fell onto the floor. Even with his enhanced physical endurance, his mental strength couldn’t quite keep up. Ves had strained focus these last few hours in order to keep his images as vivid and lifelike as possible.

All of that hard work paid off. In his formative sixth sense, Ves clearly sensed a powerful aura emanating from the frame. He largely succeeded in shaping his new creation’s X-Factor into a powerful force that had become inextricably attached to the mech’s existence.

While he hadn’t pulled off something new this time, the newly-formed knight seemed to come alive in his eyes. The X-Factor gained more substance this time due to the sheer amount of mental energy Ves directed to its design and fabrication.

To put it in another way, while the quality of the X-Factor stayed the same, its quantity increased by at least three or four times. With this abundant strength,

the X-Factor permeated even deeper into the frame. This in turn enhanced the connection between the mech and its pilot.

A clapping sound approached Ves from behind. "Splendid work, Ves! Your performance improved a lot since you took park in the Leemar Open Competition. You didn’t let Carmin down. What’s the name of your design?"

"The Tyrant." Ves replied simply. It fit with his overall vision for the design. He was too tired to think of anything better. "I could use some rest first. Where can I get some food?"

"Hah, we’ve got some of the best cooks on this planet! Let me bring you up to the dining room. I’ve already taken the liberty of preparing some dinner."

While some authorized workers shipped the Tyrant to the surface through a cargo elevator, Ves and Oleg took some time to relax. Neither of them mentioned their work or the highly anticipated test. Instead, they chatted about Oleg’s career.

"To be honest, I’m not sure whether I want to follow Carmin back to the Vermeer Group." Oleg revealed as he munched on the barbecued ribs of a native animal. "I’m still a citizen of the Carnegie Group. The bigwigs at Leemar promised they’d keep their doors open if I decide to stay."

Master Olson had only recently ascended to her exalted rank. As a relatively junior Master Mech Designer, she still had a long way to go before she mastered every other major field of knowledge. Her exchange with the local masters would only last another couple of years before she felt she had nothing more to gain.

"Do you have a lot of family back home?"

"Oh yeah, but I hardly ever visit them these days. I’m grown-up now so it’s a little awkward to face my parents. They’re just average working folk, you

know. Even if I send them a lot of cols, they don’t know what to do with it. I won’t be missing out on much if I go to the Vermeer Group."

"You should follow your heart. It’s not like your parents and your friends are stuck in the Carnegie Group. You’ve got more than enough money to bring them with you."

Ves didn’t dare urge Oleg more. To be frank, if Ves received the same offer, he’d still stick with the Bright Republic. His love for his home outweighed the possible benefits he’d enjoy if he relocated somewhere wealthier.

They finished their meals and agreed to take some time to rest. Oleg was still dealing with the repercussions of the stimulants he took at the start of the duel while Ves wanted to rest his wrung-out mind.

Maintaining the Triple Division technique for forty-eight hours while taking only minor breaks proved very stressful to him. Fortunately, the previous phenomenon where he’d suffer from increasingly crippling headaches hadn’t occurred this time.

"Tomorrow, we’ll see who’s mech will win."

Chapter 207 Accomodate

On a large and extensive training field, two mechs stood like giant statues. For this event, Horatio took some time off his busy schedule to mediate the mech design duel in person.

Ves had already met Horatio in person, but he never presented himself to the man in person. Horatio appeared very dignified in front of the two apprentices. He cast a very long look at the both of them before turning his attention to their mechs.

"Both of you have set a very subjective winning condition to your duel." He spoke. "Ten young mech cadets from the Abelard Academy will be visiting us here today. After spending thirty minutes with each of your mechs, the cadets

will deliver their verdict on which mech they prefer in terms of comfort. Do note that these pilots might have a different understanding of the term than yours."

"Will we be able to explain the meaning in greater detail?"

"That won't be necessary." Horatio said. "It's best not to predispose the mech pilots into favoring one design over the other through the use of wordplay. Let them experience the mechs with their own biases.

A shuttle arrived soon after and delivered ten random mech cadets. Some of them were elites who ranked close to the top, while others hadn't found a way to excel in the academy. The only thing they had in common was that all of them had taken advanced training in piloting knight mechs. They wouldn't be clueless when faced with the creations of Oleg and Ves.

Horatio left the two designers on a closed platform and greeted the cadets after they arrived. As he explained the rules to them, Ves took a seat on a nearby bench and watched at the test pilots. He counted seven men and three women, not that gender mattered all that much.

Oleg grinned at Ves. "Now that we've finished our parts, let's share our design schematics!"

"Sure."

When Ves received Oleg's design, he took a long time to parse the blueprint. Oleg decided to form a quintessential defensive knight, piling up its armor while leaving barely enough mobility to qualify as a medium mech.

The concept sounded simple, but Oleg brought his design to an unprecedented level. He possessed transcendent skill in the field of battle mechatronics and mechanics, having taken the basic preconfigured parts and tweaked them in ways that optimized their endurance and defense.

To be frank, the extreme level of optimization scared Ves a bit. Oleg managed to raise the overall performance of his parts by a third through updating their outdated design and optimizing them so that they performed at their best. In comparison, Ves would be lucky if he reached an overall improvement of twenty percent due to lack of time.

That ten percent difference sounded small, but mech pilots and mech designers could easily tell the difference.

The mech cadets began to rotate among the two mechs. Each of the pilots spent thirty minutes on each mech. They tested the machines and put them through their paces on the training ground.

The yard even featured a sophisticated semi-virtual training simulator. Advanced programming and the clever use of bots and projectors allowed the knights to spar against imaginary opponents with some physical feedback. While it couldn’t replicate a true battle experience, the pilots at least experienced a taste of their mechs in combat.

As the mechs moved through obstacles or light combat simulations, their differences became more pronounced.

His Tyrant moved rather nimbly for a knight mech. Its mobility allowed it to run around the obstacle course with greater speed and control than Oleg’s lumbering machine. It excelled in frontal charges when it brought its considerable weight to bear upon a single opponent. Ves paid a lot of attention on its shock-absorbing capacity so that it wouldn’t suffer too much damage when it collided against another mech.

White its armor couldn’t quite deliver the same performance, none of the pilots paid too much attention to it. They weren’t allowed the wreck the mechs they piloted. In essense, the Tyrant displayed all of its strengths while being able to hide its only major weakness.

Ves hadn’t deliberately set out to achieve this condition, but it certainly helped his case.

Oleg’s mech on the other hand moved with solid deliberation. While it possessed enough speed to sprint short distances, the mech hadn’t received any optimizations in this area. Instead, it presented itself as a quintessential medium knight, with all of the pros and cons that went along this archetype.

From the schematics Oleg showed off, Ves knew that his design lacked any gimmicks. The younger mech designer probably lacked the time to implement something unique that could wow the test pilots.

Instead, Oleg mainly stuck to the basics, deviating only when it came to his specialty. The engine in particular provided his knight with a lot of force and endurance. The mechanical layout of his knight incorporated many innovative design choices that enhanced the knight’s ability to exert force.

"Your knight hits slow, but hard."

"A knight isn’t supposed to outduel an opponent." Oleg replied with a smile. "You’ve made an interesting choice with your mech, but I don’t know if it will help your case. Your own design isn’t able to throw its weight around once its forced to a stop."

The boy had a point. The Tyrant performed at its best when it kept moving, but sometimes it needed to stay put in order to perform its defensive role.

Time went by as the testing period dragged on. At the end of the session, all ten mech cadets spent at least an hour in the cockpits. Once they finished their testing, they passed on their evaluation to Horatio who subsequently tallied the score.

Ves and Oleg left the observation room and joined Horatio and the pilots standing next to their mechs. While Oleg maintained his confident, sunny smile, Ves nervously awaited the outcome.

Had the Tyrant made a good impression? Had the X-Factor succeeded in charming the mech cadets?

Many questions swirled in his mind as he stood somewhat at attention. Everyone eagerly awaited the results of the duel.

Horatio faced the mech designers with a nod. "Both of you have accomplished much in the limited amount of time at your disposal. I'm especially impressed with Oleg. Your ability to maintain the quality of your product despite the time limit shows you haven't slacked off in your practice."

"Thanks!"

The older man turned to Ves. "As for you, don't take your advantages to heart. Your master has invested a large amount of time and resources in his upbringing. We've been grooming him to compete at the most prestigious competitions this side of the galaxy such as the Rimward Games."

Ves remembered that Miss Barakovski once competed at the Junior Rimward Games. The Junior Games offered an appropriate stage for young but talented mech designers to display their strengths in front of the entire galactic rim.

That Horatio alluded to Oleg's future entry in the adult version of the Rimward Games meant that the boy held a lot of promise. Master Olson must be very eager to build up her organization's prestige by planning to show him off at such a major event.

"I understand." Ves nodded simply.

He didn't really wish to think too much about Oleg's current superiority. In a few years, his skills might have developed to the point where he'd be qualified to compete in the Rimward Games on his own merits.

Horatio proceeded to turn the conversation back to the duel. "At a glance, the two of you employed different strategies in order to win over the mech pilots. I've noticed that Ves has kept to the spirit of the due. You've focused more on harmony and compatibility when designing your mech, haven't you?"

"I want my pilots to bond with my mech. While achieving higher performance is important, if the pilot can't mesh well with his machine, he won't be able to bring out its full strength."

"That's a bold statement." Horatio responded neutrally. He carefully refrained from expressing his opinion on the matter. "Oleg doesn't seem to agree. I see you didn't even pay much attention to ergonomics when designing your mech. You focused purely on maximizing your mech's performance parameters."

"Who cares about comfy seats! A mech pilot ought to know what's best for him. Battles are usually won by the side with better performing mechs. That's an absolute truth."

"As you've alluded to, a mech is mainly built for war. When our mech cadets here graduate from Abelard, they'll be sent to fight at various parts of Coalition space. They're expected to endure extremely challenging circumstances while they pilot their mechs. If their mechs are not up to the task, they are piloting the wrong mechs."

Ves took those words as an oblique warning to his approach to mech design. Sometimes, his obsession with the X-Factor led to decisions that missed out on increasing the performance of his machines. What his images sometimes urged him to stray away from the most optimal design choices.

"I'm sure you're impatient to hear who has won." Horatio finally said as he finished his brief lecture. "Without further ado, here are the scores!"

A small projector sprung into existence that showed a short tally for each of the duelists. The final results astounded them both.

Ves: 5 votes

Oleg: 5 votes

"It’s a.. Tie?"

When the mech designers swept passed the tally and studied the breakdown of the votes, the division became more evident. The higher ranking mech cadets leaned on the side of Oleg’s knight while the lower ranking cadets preferred the Tyrant.

Oleg didn’t understand the result. "Why hasn’t my mech won over the rest?"

"Can you make a guess?"

The younger mech designer paused to think through a reason. "Perhaps those who are more skilled don’t require as much accomodation as those who need more practice. The best mech pilots can adapt to any machine in an instant."

"What do you think, Ves?"

"I think the higher ranking pilots know they’re destined to pilot the best machines." He replied with his own understanding of the voting pattern. "Every mech pilot wishes to pilot the most elite mechs, but not everyone gets their wish. I think the more average mech pilots have a better affinity with lower performing machines that do their best at accommodating their level of skill."

Again, Horatio declined to express an opinion on both of their judgements. He simply acknowledged their answers and let them think about it by themselves.

"There are many reasons why this pattern has emerged. The best mechs are not always the most appropriate mechs for the situation. You must never forget that your role as a mech designer is to accommodate the mech pilots who you are serving. Understand your market and tailor your products to their

wishes. Don’t expect to succeed if you attempt to force feed your products to your clients."

That sounded great and all, but both of the duellists stood awkwardly as none of them were able to determine a winner for the duel.

"A tie doesn’t reflect the truth! I should win the duel!" Oleg suddenly said.

Ves became alarmed at his insistence. While normally he’d be willing to concede to Oleg’s admittedly justified excuse, Lucky’s ownership was at stake this time.

Ves couldn’t afford to lose!

"We agreed to the conditions of the bet beforehand. While we haven’t anticipated a tie, that doesn’t change the fact that you willingly agreed to all of them! The design duel wouldn’t be fair otherwise!"

"That just proves I’m the better mech designer!"

The two couldn’t come to an agreement, so they turned to Horatio, who looked on with some amusement.

"Do you really wish to move away from a tie and force a winner out of this duel?"

"I do! I should be the winner!"

While Oleg expressed his confidence, Ves stayed silent. The situation didn’t look too favorable to him, but if he expressed his dissatisfaction, he’d reveal his lack of assurance. In a situation like this where a mech designer had to stand by their products, Ves had to maintain some level of confidence in his work.

"Very well. Then, I declare the winner to be Ves!"

"What?!" Oleg screamed. "That’s not possible!"

Even Ves didn’t expect Horatio’s answer. Privately, he already started scheming of a way to get Lucky back from Oleg’s clutches. He never thought that Horatio thought higher of the Tyrant than Oleg’s excellent design.

"Why did he win!?"

Chapter 208 Reasons

Even Ves hadn’t understood why Horatio favored him over Oleg. His design looked decent, but paled in comparison to Oleg’s hasty creation. The younger mech designer managed to create a miracle in only half the time.

"I know you’re confused. You shouldn’t be." Horatio said and swept his arm towards the mech cadets who stood silently at attention all this time. "First, let’s hear our test pilots out. What are your thoughts on the mech designed by Oleg?"

The pilots gave out a smattering of opinions.

"It’s powerful. I can feel the difference in performance. Most of the training mechs don’t feel as powerful as this frame."

"Slow but protective. I feel I can take on the entire galaxy with the amount of armor it carries."

"It corresponds to what a knight should be. I don’t mind the lack of speed since it’s supposed to be a defensive mech anyway."

"I can do anything with this machine! In the right hands, I can overpower anyone who dares to get close."

"I can’t get used to its sluggishness. It’s as if my body is moving under water. It’s too slow."

When Horatio asked them what they thought of the design made by Ves, they gave out a distinctly different opinion.

"It feels like home. The mech just clicked for me."

"It’s one of the few mechs I’ve piloted that actually worked together with me."

"The performance is a little lackluster compared to the other one, but when I’m in the cockpit I don’t feel that way."

"It’s very responsive. I don’t have to fight against the controls to make it do what I want. There’s hardly any learning curve with this mech."

After the pilots gave out their opinions, Horatio clapped and attracted everyone’s attention. "You can see that the first thing that pops in the minds of the pilots differs drastically between the two mechs. Oleg, considering the terms of your mech design duel, do you truly believe you’ve overcome Ves in this regard?"

"I still have five votes." Oleg stubbornly replied. "Even if I hadn’t focused much on comfort, does it even matter?"

"You’ve chosen a crooked path to compete on comfort. Whether it’s important or not, the fact of the matter is that you’ve agreed to compete against Ves on the matter of designing the most comfortable mech. Ves is the only participant who worked earnestly on this area and the comments made by the test pilots makes this clear."

"The mech pilots haven’t received a lot of clarity when they were asked to evaluate our mechs." Ves spoke up. "If they had a clearer idea on what they should be judging, then I might have received more votes."

"Maybe, maybe not." Horatio said. "Oleg’s viewpoint can’t be discounted. A superior mech will always be valued more than a lesser mech. However, the rules for this design duel explicitly leaves out any comparison on performance. In this regard, none of the mech cadets have praised Oleg’s mech for its level of accomodation."

Oleg wowed half of the mech cadets through delivering a better mech despite performing worse in the aspect of comfort. He might have missed the point on

the duel, but he still succeeded in forcing a tie. That couldn’t easily be changed.

"Don’t set your eyes on the present. Think of the future. After a couple of years, the both of you will be developing in different directions. If you hold the same duel at that time, who will prove to be more superior in the aspect of comfort?"

By that time, Ves would have probably accomplished a breakthrough in the X-Factor. In addition, he’d also advance much further than anyone here expected. After all, they couldn’t have known about the heaven-defying nature of the System.

Still, if he hadn’t advanced his other skills through the System, then Ves would still win on the matter of comfort. Only he possessed the requirements to work with the X-Factor.

"If you put it that way, you have a point." Oleg reluctantly admitted. "But that’s in the future. We’re still in the present."

"Yes, we’re still in the present. Therefore, I believe that you should demonstrate your magnanimity and offer a concession to Ves. Don’t forget that you are one of Carmin’s direct disciple. With regards to age, you’re junior to Ves, but with regards to seniority you enjoy a vastly higher position than him. To employ all your gifts to bully a junior who only received a few pointers from Carmin is not good form."

Even Ves forgot about this point. Oleg behaved like a teenager but as a mech designer he enjoyed a very privileged status. Many older mech designers had to make way for the direct disciple if they met him on the street.

"Besides, look at the stakes for this duel. If Ves loses the bet, he’ll have to give up a precious companion of his. Don’t think that Ves won’t start to resent you. They are lifelike creatures meant to bond with their owners."

"On the other hand, if I lose the bet, I won’t lose anything substantial. A license is very valuable to Ves, but it’s nothing special to me."

Licenses only held value to those who lacked the capability that it offered. It cost Oleg nothing but a potential loss in earnings if he gave one away without demanding anything in return. That was because licenses only granted the mech designer who received it the right to use a design.

This was the nature of intellectual property. If someone wrote a virtual book, he could easily give it away to his friends for free. A couple of handouts didn’t really impact his sales in any meaningful way. However, if he became a bit too liberal with his generosity, then he’d be shooting himself in the foot by missing out on a lot of sales.

Did Oleg look like someone who cared about giving away a free design? As a direct disciple, he enjoyed almost unlimited resources! A single engine license worth billions of bright credits was actually worth only a couple tens of millions of cols in Coalition space. For such a small amount of cols, Oleg would be too embarrassed to quibble about this sum of money.

In the end, Oleg conceded the match to Ves. Though he still felt unresigned, he felt that as a senior he had to show off his good side to Master Olson’s latest apprentice. They both signed a couple of contracts on the spot that officially granted Ves the right to incorporate the Trailblazer engine model in any of his designs for a period of ten years.

"It’s a really good engine." Oleg boasted as he swiftly recovered from his loss. "The Trailblazer is ideal for mechs focused on endurance and efficiency. Just take care not to push it too hard. It doesn’t handle peak loads very well."

As Horatio left for another appointment, Ves had a suspicion he’d been used. Horatio obviously didn’t need to mediate the design duel in person. He must have used the opportunity as a teaching moment for Oleg. He not only

learned to be generous, he also opened his eyes to another perspective on mech design.

Ves shrugged. As the ’winner’ of this duel, he benefited from this moment as well. Besides his material rewards, this event also taught him about a hidden danger inherent in his design method.

"Pursuing harmony at the cost of performance is not always the right solution." He concluded.

In the Age of Mechs, an endless number of mech designs came into existence. While the market for mechs ensured that plenty saw sales, most models failed to attract any sales due to poor design choices.

An optimized mech delivered much greater performance than a similar mech at the same cost.

"I’ve been focusing too much on harmony at the cost of synergy."

Harmony and synergy sounded the same, but they were actually very different concepts.

As Ves understood it, harmony represented how well the design and its components agreed with the images he held in his mind. A good harmony ensured he’d be able to impart a strong and life-like X-Factor to his mechs. Few designers should be able to match his prowess in this area.

On the other hand, most mech designers focused on maximizing synergy. This had nothing to do with metaphysics. Instead, it required both art and science to bring out the best performance out of every part.

"Harmony and synergy doesn’t necessarily have to conflict with each other."

Once his capabilities grew, his selection of design choices should also grow with him. More choices allowed him to make more optimal decisions without adversely affecting the overall harmony of the design.

In any case, Ves got away with a massive win. After the end of the duel, Ves decided to wrap up his trip with a visit to the Clifford Society.

Oleg begged off accompanying Ves. Ever since Horatio declared him the loser, the air between them grew a little awkward. Both of them needed some time away from each other.

"I'll be going now." Ves said as he held Lucky in his arms and left the estate.

He took an aircar that brought him from the center of the archipelago to the northern region of the planet. Like the virtual version, the real version of the Clifford Society's headquarters had been built on top of a mountain range.

Naturally, real humans weren't gods, so the Society hadn't gone overboard in spreading their structures out. Most of the core buildings had been built around a cluster of twenty mountains. Man-sized floating 'eggs' granted visitors a convenient way to traverse from one mountain to the other.

His first destination was the marketplace. While most members sold their wares through the Society's virtual portal, Ves wanted to take a look at some real examples. He visited the small town built at the foot of the mountains and browsed the largest shop that sold equipment.

"Welcome customer." A floating bot said as it hovered over to Ves. "May I be of assistance?"

"Take me to the alloy compressor and chemical treatment machines. I'd like to purchase a set."

A set basically consisted of a compressor and a CTM that had been designed to work together. Usually, mech manufacturers preferred to link the two machines together with a compatible 3D printer. This allowed them to automate the process of fabricating compressed armor plating as much as possible, though the more complicated formulas still required human supervision.

"Our shop offers thirty-two different sets. Please refer to the projections if you wish to view their specifications."

Ves took a good look at the selection offered by the shop. The prices for the sets ranged from fifty merits to ten thousand merits. He only set aside two-hundred merits for his budget, so he excluded every other set that exceeded his price range.

That left him with thirteen different pairings. As Ves studied their specs in greater detail, he determined that the differences in price directly corresponded to what they brought to the table.

Some compressors and CTMs finished their processes faster than others. Other sets guaranteed higher precision. The newer sets offered automation to a wider range of formulas, while the older sets sold at a discount.

Ves pulled back from his inspection before he got lost in the maze.

"I should determine what I need before I start my selection."

The Living Mech Corporation mainly aimed to for the higher segments of the mech market, so he didn’t place too much importance on speed and automation.

However, if he wanted to enable his fabricators such as Carlos to work with compressed armor, some form of automation was necessary. The silver label mechs didn’t have to be perfect, but the sets had to offer some conveniences in order to allow his other employees to work with the machines.

Several sets of alloy compressors and CTMs fit hit requirements. He eventually settled on a pair of systems that cost a hundred-and-ninety merits. They didn’t offer much in terms of automation, but a decent fabricator specialised in alloy compression should be able to handle the process without problem.

"Even if Carlos can’t do it, I can hire someone else who can."

Still, before he decided on the purchase, Ves visited some other stores in order to find out if he could pick a bargain.

While most of the shops offered a similar selection of machines, he did find the same set at twenty merits off.

"Why is this set so cheap here?"

"It’s a refurbished set of machines." The cheaper store’s bot replied in a dutiful tone. "Their previous owner unfortunately perished on a mission for the Society. Due to his debts, this store has laid claim to his fabrication equipment. Do you wish to view the previous owner’s other machines? We offer discounts up to thirty percent depending on their condition!"

The answer momentarily chilled Ves. He could have been one of the poor chumps as well. His trip to Groening might have showered him with merits, but he escaped from death by a narrow margin.

Still, the set hadn’t seen much use. Ves checked their condition as well as their production logs and found them to be good enough that he wouldn’t get much better if he bought them factory new.

"I’ll take this set."

Chapter 209 Keltrex

Ves decided to pick up a second-hand assembly system as well for the low price of twenty merits. Thus, he spent a total of a hundred-and-ninety merits on three machines that had seen a moderate amount of use.

He also enlisted the services of a hacker who could unlock the restrictions set on the processors for the Dortmund printer. After some haggling, Ves agreed to hand over three merits to the bot that represented the hacker. Ves handed over the processor chips that had been stored in the Barracuda over the past few months and heard that they’d be ready within a few days.

"Every problem appears trivial once you have a lot of wealth." He noted with a rueful smile as he exited the latest store. "Problems that keep me up at night can be solved with a single snap of the finger."

His shopping spree showcased the power of a few hundred merits. He successfully acquired a number of high-quality machines that delivered slightly better performance than most machines available in the Bright Republic.

"Together with the Dortmund, I've acquired a full ensemble of industrial gear."

What did that mean? It meant that from now on, his physical assets ceased to be a hindrance. If he wanted to, he could even fabricate the original Caesar Augustus with his newly purchased equipment.

Now, he had over two-hundred merits remaining in his account. While that sounded a lot, he also had to acquire a lot of component licenses. While some of the smaller components sold for only a couple of merits, the large amount of components added up to a frightening sum. Ves obviously had to set priorities.

"The three things I need the most to design a high quality knight is an armor system, a power reactor and artificial musculature. Together with Oleg's engine license, I'll have all my bases covered."

If he had any merits left after making those purchases, he'd settle on acquiring some decent licenses for some peripheral components such as ECM, energy cells and a cockpit.

As for the really minor parts such as gyroscopes, sensors and a transceiver, he'd settle for acquiring cheaper ones with credits. Hopefully he'd be able to save as much merits as possible in case he wanted to borrow some exclusive books from the Moon Library.

Ves found his shopping experience to be exhilarating. While the pricier products remained out of his reach, the product standard in Leemar ensured that even the cheaper offerings in the store could compete with what the Bright Republic regularly used.

The only problem he faced was that a lot of the parts for licensing required a large amount of exotics to work. Ves couldn't help the fact that the Friday Coalition ruled over the most resource-abundant territory in the Komodo Star Sector. Resources that were extremely scarce in the Bright Republic could be acquired for a reasonable sum in the Coalition.

In fact, many of the cheapest licenses consisted of badly optimized components. They only reached a reasonable level of performance by virtue of their extravagant use of resources.

Thus, even with an upfront price tag of a dozen merits or so, Ves would still lose a fortune over time as the production cost per unit racked up to a terrifying digit.

Thus, Ves had to ignore most of the deceptively cheap offerings and turn his attention to the more expensive licenses offered by the real experts.

This was where the strength of the LIT came through. As a major technological center for education and research, the Leemar Institute of Technology possessed connections to a vast network of scientists and engineers. Many of its alumni that went on to become successful component developers made some of their best licenses available to their alma mater at preferential prices.

Despite the discounts, the prices for the more decent-looking armor systems quickly ran up in the thousands of merits. The prices were so disgustingly high that it became obvious that they only catered to a breed of mech designers.

The products within a more affordable price range all came with various issues such as the problem mentioned earlier. It became very difficult for Ves to seek out a decent armor system that didn’t break the bank.

"I can’t go on like this. I have to give something up."

Some armor systems could be licensed on the cheap, but racked up many millions of credits in production costs.

Other systems offered reasonable prices in both areas but delivered mediocre performance.

Those that performed slightly better were so difficult to fabricate that his error rate would balloon to twenty-five percent.

Obtaining a perfect armor system that checked all the boxes was out of the question. Ves had to make a careful consideration on what he’d be willing to sacrifice.

"I’ll be marketing my product to the Bright Republic, not to Friday Coalition, so I don’t have to adhere to the prevailing standard of a second-rate state."

It pained him to lower his standard, but Ves concluded he made the right decision. As a young entrant in the mech business, Ves hadn’t built up his brand to the point where the local market believed he’d be able to participate at the top segments of the market. A design that’s too high-end would end up as another white elephant akin to the original Caesar Augustus.

The catalog looked a lot better now that he let go of his unrealistic standards. In order to future-proof his designs once the next generation arrived, Ves focused his attention on armor plating that withstood directed energy weapons a little better than usual.

Apparently, many other mech designers had the same idea. The prices for these valuable systems averaged around twenty percent over armors that specialized against absorbing shocks and kinetic impacts.

Against this scam-like market behavior, Ves could only grit his teeth in response.

The list of products that met his criteria still consisted of several hundred products. Ves spent an entire day pouring over the specs of each viable armor system. His decision had far-reaching effects for the immediate future of his mech career, so it was of utmost importance for him to make the best decision possible.

He settled for a rather boring choice. He chose a decently successful armor system that had been developed a decade or so ago. Though it was on the old side, plenty of mech designers who purchased the same system had nothing but praise for the armor.

"Thank you for purchasing the Burgens and Sons Co. Keltrex Avi E-33 armor system!" The cheerful sales bot exclaimed in a weirdly feminine tone. "A sales representative will be with you in a moment to establish a licensing contract! Please be patient!"

A few minutes later, a man emerged from the air. His antigrav clothes brought him straight to Ves. After shaking hands, the sales representative offered him three different variations of the licensing contract. The variations gave Ves more favorable terms depending on his production pattern.

If he intended to engage in high-volume production, it was worth it to spend some extra merits to lower his per-unit fees.

On the other hand, if he only intended to sell a dozen or so mechs a year, then he could take a discounted contract that put hard limits on how many times he could fabricate the Keltrex.

While Ves didn’t plan on establishing a huge production plant, he did aim to achieve a sales figure of at least a thousand mechs a year. With his new and refurbished equipment, his workshop should be able to reach this ambitious goal.

"I’d like to sign the standard contract, please. I don’t want any restrictions and I don’t need any additional privileges."

"A good choice, Mr. Larkinson. The upfront fee for the standard contract amounts to seventy-five merits."

Ves transferred the painfully high price tag with his comm. This was only the beginning. Since they signed a contract in Coalition space, Ves had to transfer his production fees in cols instead of bright credits. The cost per copy amounted to 30,000 cols or around 3 million bright credits.

He winced at the thought of throwing away so much credits whenever he fabricated a copy of the Keltrex system. The much cheaper HRF armor system that he currently used for the Mark II only demanded a modest fee of around 100,000 bright credits per copy.

Still, he didn’t regret his choice. Among the cheaper armors available in the shops, the Keltrex system happened to require exotics that were relatively abundant in the Bright Republic. Ves didn’t have to import rare resources from far-flung states in order to meet his production needs.

In this regard, the higher-than-average per-unit fee was a worthwhile sacrifice to make.

"I still have to pay a fortune for the raw materials alone. It gets worse if I have to fabricate a set of armor for a knight."

Knights piled up on a lot of armor, more than any other archetype. Ves already calculated that he had to spend a whopping twenty million credits just

to fabricate a standard set of knight armor. Worse, the cost might reach even greater heights if the cost of raw materials continued to rise.

Since Ves set a target sales price at around 60 million credits for his original design, the ludicrous expense was still somewhat bearable.

Fortunately, the Keltrex system brought a lot to the table. Burgens and Sons Co. developed several variations of its Keltrex series. While the Keltrex Avi E-33 was one of its cheapest offerings, it still enjoyed some of the advantages of its more expensive cousins.

The biggest attraction to Ves was that it didn’t weigh too much. While other systems relied on large amounts of conventional alloys to make up for their disappointing formulas, the Keltrex used an ingenious formula that brought out the full strength of their special alloys.

"It’s not only great for knights. I can use the same armor system for other types of medium mechs."

Its versatility allowed Ves to use the same production license in multiple different designs. This allowed him to save a lot of money in the long run.

The same went for Oleg’s Trailblazer engine, though it did shoehorn Ves into designing mechs that fit its traits.

Ves shopped for other component licenses with the same thought in mind. With thirty-five merits remaining in his budget, he quickly acquired a relatively boring set of component licenses for the ECM, energy cells and cockpit.

With his most important purchase behind him, Ves relaxed and took his time browsing for a decent power reactor and artificial musculature license. After another day of contemplation, he handed over thirty-five merits for a satisfactory pair of component licenses.

While their specs fell fell a little short of the Trailblazer engine, the one area they excelled in was endurance. They'd be able to withstand a decent amount of damage and keep running.

"I only have a hundred merits left."

He considered spending them on other component licenses, but eventually stuck to his original decision of holding back a reserve. "If I can't acquire the rest with credits, I can still spend my merits later."

At this stage, Ves hadn't even drafted up a preliminary sketch of his original design. If he purchased a complete set of component licenses before he even drew up a draft design, he'd be liable to shoot himself in the foot.

"What I have now is enough."

Ves acquired the most essential components to start his draft. With the Trailblazer engine and Keltrex armor system at the core, he acquired all the essential ingredients to bake a great cake. It was up to a great cook to process these ingredients and incorporate them into a well-designed dish to bring out all of their qualities.

Now that he completed his shopping, it was time to return to Cloudy Curtain. Ves held Lucky in his arms and hailed an aircar that brought him back to the Barracuda.

Chapter 210 4-star Designs

The Barracuda slipped into FTL in a blink.

Having left the Leemar System, Ves felt as if he left the paradise for the wasteland. He became enchanted by Leemar's high level of development. The products that second-rate states like the Friday Coalition took for granted could hardly be found in the poorer states.

It wasn't as if the Bright Republic had no means of getting access to high technology. However, the higher tiers incorporated a lot of exotics or exclusive

research that made them too expensive for the poorer states to adopt at a wide scale. Only the upper echelon enjoyed a couple of gadgets at a ruinous cost.

The distribution of wealth in the galaxy came down to resource endowment. Even if the poorer states acquired a couple of pieces of high technology, they'd be bankrupting themselves in the long run if they went overboard.

Even if Ves acquired some fantastic component licenses from Leemar, he'd be pricing himself out of the market due to the ridiculous cost of his products.

That didn't mean that Ves had resigned himself to this remote corner of the galaxy. In his burning ambition to reach the pinnacle of mech design, he intended to use the Bright Republic's market as an incubation ground for his nascent business.

"At my current level, I won't be able to make a splash in the Coalition."

Too many geniuses like Oleg already occupy the entire market for innovative mechs designed by newcomers in the industry. In addition, Ves also had to contend with his rivals who emigrated from the surrounding third-rate states in order to seek out a better future.

To someone like Ves who possessed no innate advantages but a very high growth rate, the Republic's mech market provided him with enough demand to meet his needs.

For now, Ves had some free time in his hands as it took his corvette several weeks to return to Cloudy Curtain.

"What shall I do?"

He could study some textbooks in order to broaden his perspective, or he could design a virtual mech so that he earned some much-needed DP.

Currently, Ves hadn’t checked in with the virtual economy for a while, so he turned on his terminal and checked his Iron Spirit account.

Surprisingly, in the past few months, his mech sales experienced a continuing surge of sales. While the market in Cloudy Curtain had pretty much been tapped out, his two principal models started gaining a tiny amount of traction on Bentheim.

"It’s not only the Young Blood and the Old Soul that are doing well. Even the Mark Antony Mark II has sold over a thousand times."

That explained much of the growth in DP during his time on Groening IV. Without this persistent trend of sales, he would never been able to spend so much DP on acquiring the essential skills and gadgets to get out of Doctor Jutland’s clutches.

Ves poured into the comments that his Bentheim customers left behind. He found out that nothing in particular had been driving his sales except for his budding reputation for selling mechs that did well with fussy mech pilots.

"This one feels like a cold beer in a warm evening! Thumbs up for this mech!"

"I have a neural condition that makes me allergic to almost every kind of mech. My brain just spasms out if I force myself to pilot them! I thought I had to abandon my hobby of piloting mechs, but thankfully I found out about this AMAZING model! Please design more mechs!"

"I bought the famous Mark II. It’s everything my buddies promised. There are no words to describe how deep your mind can meld with this model. Don’t pilot this mech if you want to compete. Buy it when you want to relax."

Ves found a common strain among the comments. In the virtual community of Bentheim, he started making a name for himself as a niche designer who specialized in so-called ’recreational’ mechs.

He didn’t feel flattered. As a serious mech designer, Ves aimed to build up a reputation for designing battlefield-viable mechs. If he started acquiring a reputation that his mechs were no good except for a couple of rounds of fun, then he’d face an uphill battle trying to persuade the market to purchase his mechs for their primary purpose. That is, to deploy them in battle.

Fortunately, the phenomenon hadn’t reached the point of no return. To the larger community, Ves and the Living Mech Corporation remained largely unknown.

He’d be able to shape his reputation once he released his first original design. That day came closer and closer now that he fulfilled most of the prerequisites for doing so. The road ahead had been paved. All he had to do was step forward.

"It’s still not time."

His intuition told him that he had to wait before he embarked on this ambitious project.

Somehow, he lacked something vital that could elevate his original design into something great. He didn’t know what he currently missed. Could it be an obscure skill, or a unique component?

In any case, if he designed his original mech at his current state, he’d be introducing an average and unremarkable design in an already bloated mech market. The LMC might not even be able to meet his current goal achieving at least a thousand sales a year if he published a boring design.

He shook his head and turned his attention back to designing a virtual mech. Despite his worries, the galaxy still moved on. "Earning more DP is never wrong."

Ves wanted to break the mold this time by designing something very different. In truth, he began resenting the act of designing variants.

It was as if he took an existing piece of art and fiddled around with its appearance. Even if he improved upon the original work, most people would think he borrowed from someone else’s efforts.

There was actually an element of truth in that statement. Modifying an existing mech skipped several vital processes in the art of mech design. Many mech designers tend to rely too much on these crutches and slowly became unable to transition to designing an original mech.

"That said, I’m still not ready to design an original mech myself."

As long as he kept this problem in mind, he wouldn’t fall into this trap.

Before he embarked on designing a mech, Ves studied the market trend in the game for inspiration.

This time he decided on designing a 4-star variant. Different from the lower starred virtual mechs, the 4-star designs usually catered to a more mature audience in the Gold League. They consisted of senior potentates who decided not to pursue a career in mech piloting and young adults who started their advanced training at an academy like Abelard.

"If I want to correct my reputation, then it’s better to aim for the young professionals rather than the leisurely elderly."

Most of the older potentates who got stuck in the Gold League only played the game in order to meet the minimum proficiency standard to qualify as a reserve pilot. Those with the potential to pilot had the obligation to keep their skills somewhat sharp. Those who acted lazy started to lose their much-cherished privileges.

Ves knew the crowd. They were the old geezers and has-been pretenders who cared more about getting their hand-outs from the state than actually contributing something to society. They usually ended up squealing when the

war erupted and progressed to a frightening degree. That was when the Mech Corps came knocking at their doors.

Rather than aim for that group of leeches, Ves would rather design a mech for the likes of the young pilots he knew. "Like Charlotte, or Lovejoy, or even Melkor."

He wondered how they were doing these days. Charlotte must be having a great time at the Republic’s branch of the MTA, while Lovejoy still underwent rigorous training in order to make the breakthrough from advanced pilot to expert pilot.

"If I want to design a mech that calls out to advanced pilots like them, I’ll have to design something challenging."

Ves excluded the basic archetypes such as the knight and rifleman mechs from his consideration. He wanted something with a lot more nuance, though it also had to fall within his skill range.

Each increase in stars came with a lot of added complexity. For example, Ves easily designed a flying light mech like the 1-star Seraphim due to that era’s primitive technology standard. Such a slapdash attitude to mech design couldn’t be applied so easily with several hundred years of progress in the picture.

After leaving aside the more exotic categories such as aerial mechs or heavy mechs, Ves began to consider his remaining options.

"A striker mech is too similar to knights, while skirmishers and ambushers are a bit too similar to my previous virtual designs."

He started to consider some of the less commonly produced designs such as medium scouts or medium artillery mechs.

"Hmm. What about an assassin mech?"

It sounded like an interesting challenge. As ridiculous as it sounded, assassin mechs actually existed in recent times. They saw a lot of use in the first-rate superstates as a way to take out highly valuable cutting-edge mechs before they showed their strengths.

While active cloaking technology had slowly diffused from the first-rate states to the rest of the galaxy, it remained fairly expensive, so the rim rarely used these types of mechs.

Fortunately, the game made everything more convenient. While Ves would probably have to pay a higher price to get access to the right virtual licenses, he'd still be able to play around with cloaking technology.

Ves browsed the catalogs of the game and saw that assassin mechs could be divided into several ways. Light assassins usually excelled in stealth while their medium cousins packed more punch. Some assassins came equipped with a powerful ranged weapons while others relied on a good melee weapon.

Naturally, this was just a general trend. Plenty of exceptions still existed.

Considering his specialties and his interests, he narrowed down his choice to a medium melee mech. It presented more of a challenge and benefited him more. The act of exploring a way to maximize the assassin mech's ability to deliver a fatal blow in a single strike would advance his understanding of Master Olson's teachings.

He didn't spend too much time on selecting a good base model. Due to the pricy nature of the technology, the virtual licenses of the cheapest models started selling at a staggering price of 2 million bright credits!

Still, Ves had money to spare, with well over six-hundred million credits in the bank. The higher investment would also pay off, for the Mech Designer System capped the limit of his DP earnings for 4-star mechs at a much higher bar.

"If I can succeed in designing this variant, I'll be able to earn up to 100,000 DP in total from its virtual sales."

What did 100,000 DP represent? It was one of the most difficult prerequisites to upgrade one of his Journeyman-level Skills to Senior-level. While Ves didn't plan on upgrading any of his skills just yet, he could sure use the DP on other goodies, such as upgrading his mental attributes or acquiring the next tier of stealth augments from the Shop.

After a couple of hours of casual browsing, Ves settled for a fast and silent model from some obscure company called Carrera Designs.

Rather than a traditional mech business, Carrera Designs made their living by selling their designs instead of mechs. These design studios pumped out hundreds of designs a year. Most of them ended up forgotten in some shelf, but savvy mech manufacturers snapped up some of their more successful designs for quite a bit of money.

The DarkSilver FFL-25 happened to be one of their unsold designs. One of the mech designers under the employ of Carrera Designs had been tasked with exploring the relatively new phenomenon of active cloaking.

As its code number suggested, the FFL-25 represented the twenty-fifth iteration of their exploration. Due to the poor track record of the previous versions of the DarkSilver line, Carrera Designs never managed to sell the FFL-25 despite its high level refinement.

Unknowingly, they slept on a hidden treasure. It only came into prominence several generations later.

It possessed a short-lived but highly effective cloaking system for a medium mech. For about three minutes, they remained undetectable to the most commonly employed sensors that measured light, sound and various other kinds of signals.

As long as the unsuspecting targets weren’t actively scanning for cloaked mechs, the DarkSilver model had a high chance of sneaking up to their backs.

In comparison to its excellent but quirky stealth system, the FFL-25 happened to be slightly lackluster in making the kill. Its extreme devotion to stealth left little room for actual combat capability. The model had a lot of trouble trying to pierce through thick sections of armor.

It also possessed paperthin armor that solely existed to enhance its stealth. Actual protection from enemy attacks remained a distant second priority.

Many mech designers today used the excellent base provided by the DarkSilver design and worked to mitigate its flaws. Overall, they achieved mixed success as the base model truly left little room for enhancements. If they went too far, its supreme stealth system started to suffer.

"It’s an interesting puzzle. I like it."

Ves forked over the two million credit fee for the virtual license. He already looked forward to putting his own spin on this design.