## Chapter 41: Sale

As the Fusion Cup came at an end, Ves and Charlotte stood at the side of the arena. Despite their exalted status as second-place winners, hardly anyone paid attention to the two. The climax of the evening was about to start, as the two most talented new mech pilots ascended the main arena.

The greatest show in the Bright Republic practically hammered in that the Fusion Cup was a side event in the end. No matter how impressive their winnings, they could expect to receive only one percent of the attention placed on the finalists of the main tournament.

As Ves was never a mech pilot, he was indifferent to chasing personal fame. He'd rather build up the reputation of his business in a more sustainable way.

"I've got some business to do."

"Oh?" Charlotte raised her eyebrow. "Bailing out on me, are you? I was planning to bring you out to a sweet place that makes the best spare ribs in town."

"I'm kind of in a time crunch. I've started an independent mech design studio and I'm practically buried in debt as a result. I was kind of hoping to canvas the audience and find a market for my product."

"Oh. I see. I heard you nerdy types like to pursue a career at the big companies. It's pretty brave of you to start out on your own."

"We all have different dreams." Ves smiled ruefully. "I know it's a tough road, but I don't regret stepping on it. I'm confident I can make it to the top someday."

"Wow. That's really impressive. Anyway, I won't distract you any further. Let's exchange comm contacts before you go."

After they added each other to their contact lists, they separated. Charlotte headed over to her fellow pilots who congratulated her on her excellent showing. Ves on the other hand made his way past the families and other regular people and headed up to the spectating area reserved for the first-class ticket holders who wanted to enjoy the exhibition without screaming children nearby.

Security let him in without a fuss, a perk for being a participant. Ves walked past an invisible screen that dampened most of the noise from the crowd down below. The dim lightning, luxurious upholstery and the plentiful private viewing rooms gave the first-class area a sense of exclusivity. The people who possessed the qualifications to enter this area all emanated an air of class or martial might. Those present in the public areas all congregated into small groups of close-minded associates as they paid attention to the spectacle unfolding in the central arena.

Ves took a deep breath and made sure the silver medallion he just won was visible on his chest. Then, with a pleasant smile, he approached the nearest group of people who looked like they wouldn’t totally shut out others.

A trio of what looked like industrialists and a couple of mid-ranking Mech Corps officers took their eyes away from the tense and slow-paced duel to focus their attention on Ves.

"Ah, you’re the second-place winner of that side contest, aren’t you? Are you related to the Larkinsons?"

Ves nodded politely at the officer. "My father’s been on border patrol for many years, though recently he went missing."

Everyone politely adopted a mourning expression, including Ves. "That’s a shame. Those who guard our borders against the aliens are performing the highest duty for our nation."

"I’m still hopeful he’ll live." Ves shrugged, but resumed smiling, not wanting to tread down on this topic any further. "In any case, I was hoping to interest you in a new mech variant I’ve recently developed for my startup business."

One of the businessmen laughed politely. "As a matter of fact, I’m here to do the same thing. I’m a representative of Jackson and Partners. We were just discussing the Mech Corps potential renewal of their oldest 400-unit fleet of scout flyers."

Well, that was awkward. They exchanged a little bit more before Ves was politely sent off like he was a toddler intruding upon adults doing serious business.

He hadn’t expected instant success, so his first rejection shouldn’t affect him so much. Still, he felt he was being disregarded by the people around him. His youth and lack of track record weighed him down more significantly than he thought.

"We only source our mechs from established suppliers. We signed fixed service contracts with our long-term partners so they can offer the best support for our mech needs."

"I have to admit, for a lastgen mech your Marc Antony variant belongs to the middle-upper tier. Nevertheless, my corps only runs currentgen models. We like getting our hands on the newest toys available in the market, you see. Your Marc Antony is only good for a decade or two at most before it becomes obsolete."

"I collect only the classics and only in their most original form. I have nothing against variants, but the base models are the best."

This suspicion grew stronger as Ves kept approaching different groups of people. Sometimes he got a chance to introduce his product before he was rejected, but most of the time they didn’t bother hearing him out. Perhaps

most of these people were genuinely unable or unauthorized to purchase a new mech, but for the rest it was simply a lack of confidence in his ability to deliver.

Still, he got close a couple of times. Some retired mech pilots or veteran mercenaries expressed some interest in ordering his mech. Only a few things held them back.

"Our mercenary corps mostly goes out on extended patrols. While the short-term battle performance of your variant is impressive, we can’t take it if it fails to keep up on our weeklong patrol routes."

"We’re actually in need of plugging a gap in our mech lineup, and if you offered us the original Caesar Augustus I’d be tempted. As it is, while your variant is affordable, even two of your mechs can’t fulfill the role of a single well-armored mech."

"Your mech’s offensive lineup is a little scattered. It inherits most of the disadvantages of the Caesar Augustus but comes without the base model’s excellent armor. I’d rather buy a specialized mech that does one single job perfectly than a machine that purports to cover every area only to fail at most of them."

He noticed that Carlos was off about his prediction that wealthy collectors were more likely to purchase his mechs. These collectors were highly discerning in their choice of mechs. They disdained cheap variants. Instead, they were more likely to chase after vintage base models or highly exclusive variants made with extraordinary materials.

Wealthy mercenaries expressed the most interest in his product so far. They were open to purchasing a functional mech, but poked holes at the Marc Antony’s weak points. The detriments outweighed the benefits even with the

favorable pricing. Compared to the 65 million credit price tag of an official Augustus, the 24 million credits Ves humbly asked for his product was a steal.

Still, not everyone was willing to accept that bargain bin price point. A flamboyant mercenary who behaved more like a pirate than a legitimate mercenary laughed in Ves' face when he quoted the price.

"Twenty-four million? Twenty-four fucking million?! I'd have to work my ass off for more than five years to earn back such an amount. How about giving me a break? Let's say, hm, twelve million?"

Ves was immune to awkward situations by now. He could maintain his smile even when the universe was ending. "For an advance payment of twelve million credits, I can produce and deliver the mech to you within half a month. You can pay the other half once the MTA certifies my mech."

Seeing that Ves wasn't willing to bargain, the rowdy mercenary turned away. "No thanks. I'm too short on cash."

Even as the final match ended in a rousing last act, Ves still hadn't achieved a single sale. He was beginning to grow a little nervous. This evening was the best and only opportunity he had to approach the rich and the strong. After this unofficial holiday ended, most of them would go back to their offices or mechs. By then, where could he find a buyer for his mech? Should he post an ad on the MTA's internal market and cross his fingers some chump picked up his offer out of the hundreds of thousands of alternative ones?

He began to despair a little. He was so desperate, he'd get on his knees and beg if it increased his chances. The more he interacted with the people around him, the more he realized the mech market was more insular than he thought. The vibrant market the MTA portrayed did not apply to the situation on the ground. The MTA's market communities mostly encompassed entire

star sectors. A single third-rate state such as the Bright Republic couldn’t support too many producers.

Ves realized that by setting up his mech boutique in Cloudy Curtain, he’d inadvertently isolated himself from his clientele. A quiet environment, lack of competitors and favorable taxes meant nothing if Ves was unable to earn any form of revenue in the coming weeks.

He lacked too many things. Though he had a tenuous connection to the Larkinson family, they wouldn’t go out on a limb to subsidize his business nor purchase his first mech. While they saved up a sizeable amount of credits over the years, most of them were reserved for emergencies. Using them to save a failed business was not in the family’s collective interests.

Without the support of any substantial influence, Ves was like a boat trapped in the middle of sea. Only a desolate expanse of water surrounded him in each direction. Where could he find an island to gain some respite?

"Hello there Ves."

"Whoa!" Ves almost jumped out of his skin from the abrupt greeting. He turned around to see the test pilot who piloted his mech during the qualifications. "Hans! I didn’t expect to see you here."

"I’m an active serviceman as well. Once I finished my duties, I thought I’d drop by and catch up to the finals. Sad to say I came too late. Anyway, what got you so down?"

Ves explained his circumstances and then elaborated on his difficulties in pushing his new design.

"I’m not surprised no one’s ever taken you on your offer. Besides the detriments you already mentioned, the most important reason why no one dares to accept an order is due to the untested nature of your design. Pilots like us, we don’t trust the spec sheet produced by the MTA. It’s been wrong

plenty of times before and will continue to do so until they get their asses kicked out of their monopoly in mech management. As I was saying we pilots like to look at the actual performance in the field instead of a bunch of abstract numbers that may have been fudged."

"The numbers are absolutely reliable. I've achieved a small amount of success selling virtual versions of my Marc Antony in Iron Spirit. So far, not a single customer returned to complain about any deviations from their mech's official performance."

"I advise you not to bring up these virtual games." Hans firmly advised. "At our level, no one takes Iron Spirit seriously. The inaccuracy and deviance from actual piloting is is more pronounced at the higher ranks of the game. It takes a lot of effort to adjust to two different environments, so most older mech pilots don't bother maintaining an active presence in Iron Spirit."

"What about you, then? You did a great job piloting my Drake through the gauntlet. Are you interested in a purchase?"

The test pilot shook his head. "I don't earn enough to afford a personal mech, and since I test out new designs as a job, I don't pilot a fixed mech when I'm at work."

Ves received another disappointment. If even a mech pilot as friendly as Hans refused to buy his mech, then his chances of convincing other pilots was practically nil.

"I might know someone who could be persuaded to take a leap at your design." Hans added as he saw the crushed response in the young man. "I'll do you a favor and introduce him to you. Whether you manage to close a deal with him will depend on your own efforts."

"A chance is all I ask for. I'm grateful for any assistance you provide."

Hans leisurely led Ves through the crowd of spectators paying attention to the elaborate award ceremony. The Young Tigers Exhibition was specifically organized by the Republic to glorify young heroes, so a lot of fanfare accompanied the awarding of prizes. Once they arrived at the door of a private room, Hans knocked at it with a peculiar rhythm. A beep sounded out as the lock disengaged.

As they entered the box, Ves saw that almost nobody occupied the chairs and couches. Only the grandest seat supported a person. The man who sat on the chair looked like an old, grey-haired veteran that emanated the same vibe as his grandfather. Even from the entrance, Ves could feel the man was more than just an average veteran.

"Ah, Captain Rodello, nice to see you again. I see you've brought a guest."

"Colonel, this is Ves Larkinson, the runner up of the Fusion Cup. Ves, this is Colonel Ares Huntington."

The retired colonel snorted at that. "So the brat won a medal and a couple of perks. That's not a big deal compared to the young warriors on stage right now."

"He's not a pilot and I'm not here to bring him into your club. I just thought that since you have so much free time on your hands, you might be interested in what Ves is selling."

"Oh?" The colonel took a closer look at Ves, actually taking him seriously this time. "So what is it that demands my attention? It better be good."

Knowing that he arrived at the best opportunity he could ever get this night, Ves adopted a professional tone and explained the capabilities of his mech. Huntington's expression remained carefully neutral as Ves elaborated on all the good and some of the not-so-good points of his mech. Perhaps revealing his own shortcomings wasn't the best idea, but he didn't want to risk getting

blamed by the old man if he somehow caught on. Nevertheless, the colonel let him speak until he came at the end where he quoted his price.

"...And so for the total package, with just twenty-four million bright credits, its yours. After paying an advance payment of half the price, I'll get to work on the mech as soon as I get back to my workshop. I'll have it ready for you within two weeks."

Ares grumbled a bit to himself as he stroked his chin. Ves could tell he was wavering, but he couldn't determine what held the old man back from making the jump. Was it the armor? The lack of specialties?

"No." The old man finally replied after several minutes of consideration. "You make for a compelling case, but it's not what I need right now."

Ves was devastated. He got so close to making a sale. Why did Ares turn away from his offer?

The colonel insensitively waved them away. "Captain Rodello, this was a nice distraction, but don't bring anyone irrelevant to me again. The two of you can go bother someone else now. I won't see you out. Goodbye."

## Chapter 42: Broker

Hans embarrassingly led Ves away from the private room. "Sorry about that. I thought he'd be more respectful."

"I've faced plenty of rejection before. It doesn't bother me to get turned away again." Although he said this, Ves sighed with disappointment. "I'm in an extremely difficult position if I can't find a customer for my mech."

They both stayed silent for a moment before Hans thought up another idea. "Why not enlist the services of a broker?"

"I've already thought of it." He replied. "But I need a large influx of cash within two weeks. If the broker takes his cut, I'm not sure I'm able to pay the bills that are due very soon."

"Oh relax. I know a woman who might cut a deal with you. Anything’s negotiable. You should really think about it since brokers know their clients best."

Hans had a point. Many small-scale mech designers often relied on specialized brokers and dealers to manage their sales and customer support. These crafty salespeople spent a lot of effort building up a network of customers and other contacts. They trained their bargaining and negotiation skills to a terrifying level.

To be fair, despite the substantial cut they took with each successful sale, they were an indispensable part of the mech industry. That was why Ves allowed Hans to lead him all the way to the center, where a large crowd of well-dressed men exchanged their opinions about their favorite pilots of today’s event.

"Marcella Bollinger! Over here!"

"Oh hey Hans." A pudgy, dark-haired woman greeted the test pilot with a hug. "How’s work?"

"Same old, same old. I’m not here to talk about my work. I’d like you to introduce you to an interesting fellow I met today."

The woman raised her eyebrow and took an appraising look at Ves. "You’re the Larkinson mech designer, aren’t you? My, my, you’re quite the big young man now. How’s fame treating you?"

"Not well since it isn’t of much use in my current situation." Ves shook his head. He found the woman to be more approachable than he thought. "Hans told me that you’re a mech broker. It happens that I have a new mech variant that I’d like to sell."

"Ah, so it’s business this time, eh?" Marcella’s smile turned a little predatory. "On account of Hans, I’ll hear you out. Let’s bring you somewhere quiet first."

As they entered an empty private room, Marcella took a seat at a couch and patted her side. "Take a seat young man. Don’t worry, I don’t bite."

Sitting so close to Marcella discomforted Ves. Marcella’s stocky frame underneath her prim and formal business suit hinted at a military or mercenary background. Though he couldn’t detect the killer vibes from her amiable smile, he was certain that this woman had been through a lot. With his extensive knowledge and experience in mechanics, he sniffed out the presence of prosthetics in her right arm.

"Let’s start from the beginning. What kind of business are you taking part in and why do you need my services?"

Ves gave her the same story he told Colonel Ares. Since he couldn’t hide things from a broker for long, he also mentioned his debt and interest payment situation. While giving out such sensitive information gave her a lot more negotiating power in any agreement they reached, it would prevent misunderstandings from happening in the beginning. Ves was willing to give up a few percentages of profit if it meant building up a solid relationship based on trust. Any broker recommended by Hans shouldn’t be too shady, he hoped.

"Okay, I see." Marcella tapped her manicured finger to her chin. "Lay down the cost structure for me. A mech armored with HRF plating shouldn’t carry an extravagant price."

"If I want to build the Marc Antony from the ground up, I need to use up 18 million credits worth of resources. The raw material cost of the HRF amounts to about 11 million, but I already received a stockpile of resources that’s more than ample enough to armor a single unit. I can scrounge up the rest for about 7 million from the open market."

"That doesn’t sound too bad, but you’ve left out your taxes, licensing costs, depreciation of your machines, and etc. Your real cost should be at least fifty percent higher."

Ves nodded to show his agreement at her remark. "Those costs aren’t relevant to me in the short-term. I don’t pay any further costs for my production licenses, and the taxes and other stuff can be taken care of at the end of the year. Right now I’m desperate for a quick infusion of cash so I can meet my impending interest payment on my massive debt."

"That’s business for you. At least ninety percent of all mech designers who start their own businesses don’t get to make it this far. Production licenses are ridiculously expensive to obtain if you don’t have any backing. It’s kind of impressive that you received two of them as grants. That puts you in the same starting point as designers with a fully original design in their hands. That alone makes it worthwhile for me to invest in you."

Ves looked hopeful at the positive remark. "So you’re willing to work with me?"

"Yup. But don’t get too cocky. I’m only in charge of the sales. I sell dozens of mechs each month so I have no time to hold your hands."

"That’s all I really need. I can take care of myself, don’t worry."

"First, lets talk about accounting. You need to get that in order as soon as you have the time. I saw you got awarded privileged status. Make use of that today and contact your planet’s tax office to get preferable rates applied to your business activities asap. Most tax offices tend to waver a bit and put up a couple of road blocks if you aren’t an actual veteran. Best get that out of the way first before you’re handed a much larger than expected tax at the end of the year."

Ves nodded in understanding. "Cloudy Curtain’s in the middle of nowhere so their taxes are already favorable to businesses. If I apply for preferable rates,

my tax burden will probably not improve that much compared to doing business here in Bentheim."

"For a startup like you, every credit counts. You don’t want to have a dispute with the planetary government this early in your career. If they want to, they can make your life hell."

While Ves was skeptical that such a thing would happen in Cloudy Curtain, he nevertheless took the advice seriously.

"Second, while it might be too early to talk about this, but you really should find a better supplier for your raw material needs. The MTA’s internal market is only a bulletin board for resource providers to dump their excess and for mech designers to fill up a gap in their regular shipments of resources. The ready availability of most resources in the market is only made possible by overcharging them by as much as 20%."

"It’s not easy for a startup to get suppliers to take you seriously."

"That’s why I said it’s something to consider later on. The open market should be fine for now, but keep in mind that you’re needlessly throwing away about two million credits for each Marc Antony you produce. That debt problem could be history if you solve your wasteful sourcing."

Marcella moved on as such a thorny problem couldn’t be solved at this moment. "As for your variant’s selling potential, I already have a handful of clients in mind. I’ll warn you that without a track record, your new variant won’t be able to demand much of a premium. Still, I can work some magic here. It helps that you designed your mech with some flair in mind. It looks almost as impressive as the genuine Caesar Augustus."

"What kind of price are you going to set?"

Marcella smirked at the question. "It’s not polite to pry too much into a broker’s secret. Suffice to say, you’ll earn your dues even after my commission is taken into account."

"I’m not going to like what I’m about to hear, am I right?"

She tapped her fingers on her comm and summoned a standard contract detailing a business relationship between a broker and an independent mech manufacturer. "While I like you and you’ve got Hans to back you up, that’s no reason for me to do charity. I run a business, you know. I have to little pipsqueaks back at home who I need to clothe and feed."

Ves turned on his comm and accepted the transfer. He opened the document and read over the details. His eyes practically popped out when he came across the sales commission Marcella demanded.

"Twenty percent of gross profit! That’s-"

"That’s a generous amount already if you consider how much work I have to put in to sell a niche lastgen mech with limited application."

"Is there any way you can give me a break? It’s a little much."

"While I’m open to negotiation, I’m not budging on the remuneration. I’m also taking into account your sales volume. A small-scale mech boutique like yours won’t be able to produce a lot of mechs annually. The scale of your business is really miniscule compared to my biggest clients. A one man show can only take you so far, and that means I’m perfectly justified to demand a bigger piece of your pie."

The huge amount of money Marcella skimmed off the top potentially dwarfed his debt burden.

If Marcella sold his variant at the bottom price of 24 million credits, then he’d earn 7 million credits in gross profit, which was the difference between the

sales price and the cost of goods to manufacture the mech. Twenty percent of 7 million credits amounted to 1.4 million credits. If Marcella sold three more mechs, then she'd earn more than the bank.

Hans, who stood quietly against the wall, gave out his opinion. "Twenty percent is harsh, but you can expect Marcella to treat you fairly. Unlike other brokers who represent as much as over a hundred different mech manufacturers, she makes sure to represent your mechs with actual effort."

Nodding, Marcella explained her stance. "You're looking at the costs while neglecting the benefits. Sure, you can approach a public broker who will offer ten or even five percent of gross profits, but what incentive do they have to raise their sales volume? If you sign a contract with me for twenty percent, you can be damn sure that I'll work my ass off to sell as much of your mechs as I can. Right now, you need to have a visible market presence and develop a reputation for your business more than you need to maximize profits."

Ves had to admit that Marcella sounded reasonable. Of course, maybe Hans and Marcella were conspiring together against him and took advantage of his desperation.

"Also, the commission you leave me is nothing compared to what you will get in return. I might not be the biggest name around town, but I have a lot of friends in high places. You'll be paying me for my extensive network that I've invested many millions in building up. A lot of other brokers might sell a hundred mechs a month, but ninety-nine percent of those mechs are bottom of the barrel. You can forget about earning the big bucks if you take your business to the budget brokers."

"The contract also states that you'll be my exclusive broker for ten years. I don't recall this being a standard clause."

"Our business relationship is a two-way street." Marcella pointed out, gesturing her hand to Ves and then to her. "If you are prepared to invest in me, I'll do the same to you. The contract applies for ten years because I don't want to do the hard work helping you build up a name in the market, only for you to bail out on me a couple of years from now and take your business elsewhere. As I said before, this isn't a bad thing. A ten-year exclusivity clause means that your interests align with mine. Think of how big your name will be ten years from now, and think of who can make this all possible."

In other words, helping Marcella was equivalent to helping himself down the road. Ves understood the rationale, even if it left a bad taste in his mouth. What if Marcella neglected his products one day? He had very little recourse to force her to work her ass off if she focused on a shinier product from a competitor.

Marcella's eyes sharpened as she noticed his wavering expression. "I'll sweeten the pot for you. If you sign the contract this night, I'll guarantee you that I'll find a customer no later than twenty-four standard hours from now. I'll even hand you an advance of 7 million credits so you can purchase and take back the raw materials you still need to start building your mech."

"What if you can't find a customer within that time?"

"Then it will take two days." Marcella shrugged nonchalantly. "Trust a lady to know what she's doing."

"And what if it takes more time? Even if I fabricate the Marc Antony and let the MTA certify it within two weeks, if I don't have a buyer to take my product away I'll be in big trouble with the bank. Could you help me out if they come knocking at my door?"

"Sorry Ves, but I already told you that you should take care of your own issues by yourself. I'm only responsible for sales. The advance payment is just a

one-time bonus. And frankly, I don’t mind seeing you sweat a bit. How else can I be assured you’ll have a mech ready for me to sell within two weeks?"

Ves suspected Marcella was fond of using monetary incentives to establish her business relationships.

"This is just the start of our partnership. If you don’t trust me to keep my promises and do my job, then it’s better if you look elsewhere."

"You have a point." Ves admitted with a resigned sigh. "

They spent an hour hammering out a basic contract. Ves even used some of his prize money to hire a legal expert on very short notice in order to make sure he wasn’t being bamboozled. Sure, Marcella already screwed him up front. He only wanted to make sure she didn’t screw him from behind at the same time.

After Ves, Marcella and their legal representatives all agreed the contract looked okay, they signed it and sent it off to be notarized. Marcella received the full blueprint of the Marc Antony along with detailed specifications, or at least as much as the simulations could determine. She even demanded the right to manage his Iron Spirit designer account.

"Why would you need something like that?"

"It helps if certain clients get to test drive your mech in the game. Don’t misunderstand, they’re not stupid or addicted to the game. While it’s not an accurate representation, if they feel good about piloting a virtual mech that’s about 90% similar to the real thing, they won’t care about the 10% Iron Spirit unable to simulate."

"I guess you can also create some good promotional material for my mech."

"A visual example is very effective in generating initial interest in your product. We humans are primarily visual creatures after all. Watching a reasonable

facsimile in action is a lot more visceral than extrapolating the performance of your mech from a dry spec sheet."

After they exchanged a few more words, they finally called it a night. Marcella Bollinger left the exhibition center with a new cash cow under her belt, while Ves still felt mixed about the contract he signed. He hardly bargained any additional benefits out of the bulldozer in action. He pretty much got run over during the entire conversation. He even felt it wasn't a bad thing getting taken advantage of. He reasoned that if Marcella wanted milked him dry, she'd have to put in an effort to squeeze a lot of value out of his work.

"Why am I imagining myself as a milk cow?"

## Chapter 43: Miss me, System?

When Ves returned to his hotel room, he faced two things. First, a cranky gem cat angrily yowled at him for neglecting his pet all day. Second, he received a notification from his bank account that Marcella sent him the seven million advance for his material needs.

"Sleep can wait." Ves said to himself as he activated a terminal and visited the Mech Trade Association's online market. He already took note of all the materials he required, so after a meticulous check he put all the items in his shopping list and confirmed his purchase. The seven million bright credits vanished from his account like it never existed.

"At least I paid for express shipping. The goods should arrive by my doorstep by the time I exit from the shuttle."

As he laid down on his bed, he reflected on the tumultuous events he experienced in his trip to Bentheim. In just two days, he put his name on the map by winning second place in a side tournament of the Young Tigers Exhibition. While not as prestigious as the main event, it was nonetheless one of the best prizes a young mech designer could win in the Republic.

Not only that, he enlisted the services of a well-established mech broker. With Marcella Bollinger taking care of selling his products here in Bentheim, Ves could devote his full attention to fabricating his mechs and coming up with new designs. Still, the ripoff twenty percent commission she took out of his gross profit hurt his bottom line. Still, if she could ensure a steady volume of customers, the amount of profit he made over time could be a lot higher than if he wasted time selling the mechs in person.

"Maybe Marcella has a point. If I hire my own people, I can do my own thing and let my employees take care of all the annoying stuff."

Naturally, that was something to consider once his business got up and going. For now, his mech boutique was so small scale that any employee he hired now would just be sitting on his thumbs.

After taking a long and deep sleep, Ves woke up a little late. It barely left him time to shower and pack up his luggage. He was barely able to grab a quick sandwich before Captain Gillian hustled him together with the other contestants to the spaceport.

This time, the crowd of mech pilots regarded him with a different attitude. Some looked impressed by his accomplishments. Others were puzzled why a talent like him settled down in the hinterlands of the Republic.

In any case, Ves knew he'd be stared at like this for quite a while. Of all the graduates who participated in the YTE, only he achieved the best results. The next best pilot only barely managed to scrape into the top fifty.

Ves wanted to focus on his upcoming fabrication project, so he fobbed off most attempts by the mech pilots to spark up a friendship. It wasn't that he appreciated new friends, but he simply didn't have the time.

Just after the shuttle flew up and escaped Bentheim's gravity, he was already pulling up his comm and making a detailed flowchart of his fabrication

process. His slapdash way of fabrication might work with Iron Spirit's modern 3D printer and assembler, but his equipment in the real universe faced a lot more constraints. It might take only one wrong setting to ruin a component worth a million credits. So it paid to be prudent.

He also applied for a production license of the festive cloud generator while he was at it. As one of the two only non-native components of the Marc Antony, Ves couldn't produce it with the MTA's approval if he hadn't applied. Fortunately, as the component was more of a joke than anything else, Ves only had to part with a hundred thousand credits to get a 10-year production license for the decorative part. His cash reserves instantly halved.

The space shuttle leisurely fell behind a spacious queue towards their designated Lagrange point. The heavy traffic to and from Bentheim caused these Lagrange points to be congested, though that was only a relative term considering the vastness of space. Still, only a limited amount of ships were able to depart at the same time without disturbing the local spacetime too much, so each ship had to queue up and wait in line.

When their turn finally came, everyone paused what they were doing and prepared for the FTL transition. The shuttle vibrated a little before the green light was given. No problems occurred when the passenger shuttle engaged its FTL drive.

The return trip took longer to arrive back at Cloudy Curtain. Bentheim's favorable gravity currents allowed all ships travelling towards the port system to cut back on their travelling time. It provided no advantages when ships departed the system and travelled to a non-port system. Thus, it took about one-and-a-half very precious days off his timetable when the shuttle finally arrived at the edge of Cloudy Curtain's star system.

The slow, in-system burn from the edge of the system to its interior took up some time as well. Everyone else just relaxed and ate their provided meals,

visited the toilets or leaned back their seats in order to take a nap. Only Ves was fidgeting while working on his planning. He went over the same scheme over and over until he forced himself to take a nap.

When the shuttle finally reached the surface, Ves thanked the heavens and disentangled himself from the others as fast as he could. With only a hasty goodbye to Captain Gillian, Ves ordered a priority taxi and zipped back to the outskirts where his workshop beckoned him home.

"Home sweet home." Ves said with relief. Lucky echoed his thoughts as he scurried all the way back to his favorite perch on his couch.

"Let’s see if they delivered the goods already."

Ves spent a substantial amount of credits fast-tracking his material goods shipments from Bentheim directly to Cloudy Curtain. When he exited into his backyard and entered the cordoned off area meant for aerial deliveries, he encountered five stacks of freshly containers. As he personally opened each container and confirmed its contents, he smiled for the first time in days.

"I’ve got everything I need now to begin fabrication."

Marcella even sent him a brief message when he was still on the shuttle. She believed she found a customer for his variant, but the negotiations dragged on. The customer wanted to squeeze as much benefits he could out of his order, so Marcella wanted to slow things down in order to make it appear they weren’t willing to go too low.

Glad that the marketing was taken care of, Ves was just about to start fabricating when he forgot about one very important detail.

"I haven’t started up the Mech Designer System in almost a week. I wonder what it thinks about what I’ve experienced. At least it should give me a reward for taking second place in the Fusion Cup, right?"

Though not entirely sure, Ves booted up the program resting peacefully in his comm. With trepidation, he waited as the loading screen filled up and a familiar menu popped up. The System was back in action.

"Hey System. Did you miss me?"

[Welcome User. You have two impending messages waiting for your perusal. Do you wish to display them?]

"Yes. Gimme my rewards." Ves already rubbed his hands thinking of all the goodies the System might reward him for his great performance.

[You have assembled an original mech design out of a selection of pre-prepared components.]

[Design Evaluation: Drake.]

Model name: Drake

Original Manufacturer: Ves Larkinson

Weight Classification: Medium

Recommended Role: Jump Trooper

Armor: B-

Carrying Capacity: C

Aesthetics: C+

Endurance: C

Energy Efficiency: E+

Flexibility: D

Firepower: B-

Integrity: F+

Mobility: B+

Spotting: C

X-Factor: E-

Cost efficiency: A

Project involvement: 75%

Original component composition: 0%

Overall evaluation: A shoddy mech compared to genuine models, it nevertheless fulfilled its purpose. Put together out of standard pre-assembled components, the Drake is a remarkably cost efficient if it is produced in a large scale. However, its lacking integrity and energy efficiency prevents this model from outperforming any other budget model.

[You have received 1000 Design Points for completing an original design that has no other equivalent.]

[You have received 100 Design Points for designing a mech with a trace of X-Factor.]

"A thousand points." Besides the welcome package, it was the most generous reward the System had ever given him for a single objective. It also indicated that the System appreciated original designs more than variants. "There isn’t anything else?"

[Your design does not fulfill the requirements to earn additional rewards. Please work more diligently in improving the core foundations of your next original design.]

In other words, the System disdained his cheap and trashy design. "You know I only had less than one day to whip up this mech, right? I did a decent job considering I was working with severely outdated parts."

The System acted a if his words were passing clouds and continued on with the updates.

[You have received an event mission. Please check the Missions page for the details.]

[Event Mission]

Mission: Fusion Cup

Difficulty: A-Rank

Prerequisites: Qualify for the Fusion Cup

Description

The Fusion Cup is your first public stage where you can exhibit your talents as a mech designer. Do not cower from the challenges you face, but instead embrace them! A mech designer must be bold under pressure and fearless when performing in public. Crush your rivals and achieve a supreme result by winning first place!

Reward: Variable depending on your final rank.

[Congratulations for partially completing the event mission. A competent mech designer must maintain absolute confidence whilst simultaneously possess the capacity to self-reflect. Never waver in the face of defeat. Face the universe with your back held straight!]

Ves chuckled as he realized the System gave this mission while he had just passed the qualifiers. Then he stopped his laugh when he realized the System kept tabs on him while he hadn’t even executed the program in days. How was it able to observe his every movement in such an electronically well-guarded environment?

The System quickly gave him the rewards for the mission he never knew he received before he completed it. Ves treated it like dessert after a sumptuous dinner.

[For winning second place, you have received 500 Design Points.]

"...That’s it?"

[Please endeavor to work harder and never let yourself be overshadowed.]

Ves almost broke out with curses. The System sure asked a lot out of him. He only used the system for two-and-a-half months! How much could he improve in so little time? Even with the help of the System, Ves estimated he needed at least two or three years of active use of the System in order to catch up to the likes of Edwin McKinney. If he took into account that Edwin constantly improved as well, it might take five or seven years.

To become a star mech designer, Ves had a long way to go. He not only had to shore up his fundamentals, he also had to build up his business and design market-viable mechs that not only took into account the performance of the mech, but also its cost efficiency. Designing and fabricating the Marc Antony was just the first step. The System already hinted at him that producing an original design was the road to real prosperity.

"Well, to design an original blueprint from the ground up requires a boatload of skills. And to improve my skills, I need DP, lots of DP."

Eager to see how much DP he currently possessed, Ves called up his Status.

[Status]

Name: Ves Larkinson

Profession: Novice Mech Designer

Specializations: None

Design Points: 1632

Attributes

Strength: 0.7

Dexterity: 0.7

Endurance: 0.7

Intelligence: 1.2

Creativity: 1

Concentration: 1.2

Neural Aptitude: F

Skills

[Assembly]: Apprentice - [3D Printer Proficiency I] [Assembler Proficiency I]

[Business]: Apprentice

[Computer Science]: Incompetent

[Electrical Engineering]: Novice

[Mathematics]: Incompetent

[Mechanics]: Apprentice - [Jury Rigging II] [Speed Tuning I]

[Metallurgy]: Apprentice

[Metaphysics]: Incompetent

[Physics]: Novice - [Lightweight Armor Optimization I] [Mediumweight Armor Optimization I]

Evaluation: On the cusp of breaking out of pure stupidity.

The windfall of 1632 DP came as a timely surprise to Ves. With such a large amount of DP, he could complete his purchase of several sub-skill upgrades

that he had his eyes on that would help with his first fabrication project in the real universe. What also surprised him was that his endurance increased by 0.1 points.

"Well, it makes sense. I've been working my ass off for several long hours. I've learned to push my limits during the competition."

With a sack of DP in his metaphorical hands, Ves eagerly switched to the System's Skill Tree. A familiar holographic display lit up all around him, showing him thousands of all the possible skills and sub-skill he could acquire.

He regarded the Skill Tree as his most important weapon towards overtaking the likes of Edwin McKinney and Patricia Schneider. No matter how fast they improved, they eventually had to put in the hard work to learn new theories and become proficient in new techniques. All Ves had to do was earn a bunch of DP from designing and selling new mechs and invest them into the Skill Tree.

Aside from the ever-elusive X-Factor, Ves had access to an unprecedented variety of new and exotic skills. Some of the more notable entries even threw his entire conception of mechs upside down.

"Biomechanical fusion, quad-pilot connected neural interfacing, permanent consciousness imprisonment. What are those crazy scientists up to?"

The more he glanced at the names, the more he felt as if the space outside the Bright Republic was a scary place. His sanity might have worsened if the System hadn't blurred the more specialized skills down the skill trees.

For now, Ves had no interest in taking up these exotic skills. Not only wouldn't he be able to explain how he became proficient in these exotic and restricted technologies, he also plainly lacked the luxury to waste his points in needless side projects. If he wanted to close the gap to his rivals, then he had to invest in his foundation skills, no matter how boring they sounded.

"Since I’m getting ready to fabricate the Marc Antony, I should shore up my assembler sub-skills."

He purchased both Assembler Proficiency II and 3D Printer Proficiency II for 400 DP each. After halving his DP reserve, Ves received an influx of new information and knowledge from the depths of his brain. He realized he already knew most of the information coming to the front, he just hadn’t realized how important they were and how it connected directly to his performance when utilizing the machines. He learned so many new tricks to improve the quality of his fabrication and how to reduce the occurrence and severity of faults.

The flood of surfaced knowledge fully unfolded within his mind in a way that made it very difficult for him to forget it again. He advanced his proficiencies with the 3D printer and the assembler by at least a year of dedicated practice. This was valuable experience that already came into use as Ves called up his detailed planning of the fabrication process and made some adjustments to his steps. After spending half an hour correcting a lot of tiny details, his confidence of successfully fabricating the Marc Antony without any major defects increased from fifty percent to seventy percent.

"Too bad it’s not the 100% certainty that I wish for. My gear is just too bad."

His increased proficiency couldn’t overcome the limitations of his cheap, second-hand equipment. Though they cost several hundred million credits in total, Ves regretfully lamented his father hadn’t worked a little bit harder in procuring better quality equipment before he disappeared.

"Upgrading my gear is a priority for later, much like everything else on my plate."

## Chapter 44: Birth of a Mech

Remembering that Marcella hadn’t gotten back to him about a customer, he called up her number.

"Heya Ves. I know what you're calling for. The deal has just been completed." Marcella smirked as she said her next words. "Guess how much credits he threw at me to order your mech?"

"Did you manage to sell it at twenty-four million?"

"Hah! That's chump change. It's much higher!"

"Twenty-five? Twenty-six?"

"Nope." Marcella gestured with her hands to bring up an invoice in the projector. "Look for yourself what magic I achieved."

His eyes practically bulged out as he saw that Marcella's customer ordered his mech for a whopping twenty-eight million credits. The huge price figure amounted to a gross profit of eleven million credits if he delivered his mech in time and in good condition. It certainly raised his faith of Marcella's ability. Perhaps partnering with her was the best decision Ves ever made.

Marcella tapped her fingers onto her desk, snapping him out of his dreams. "Don't get too excited buddy. Running a mech business isn't a casual undertaking. You have to properly plan for your expenses. If you factor in your interest payments, your tax burden, your capital assets depreciation, then you'll find that your net profits is a lot smaller than you thought."

The excitement in his eyes died down. She was right, of course. "Well, my taxes will at least be lightened. The planetary government is already processing my preferable treatment status. I should be able to get my tax rate reduced to fifteen percent."

Such a low tax rate was very favorable to Ves already. If he setup his business in Bentheim, then he'd have to fork out thirty-five percent even with preferable treatment.

"Your expenses and other burdens are lower than most other mech designers, but don’t forget your business is a one-man show. Your scale can’t compared to most small-to-medium enterprises that have based themselves in Bentheim for years. The industry revolves around a minimum amount of scale production. If you want to improve your mechs, you need better machines, and that means you have to start saving money now."

Ves nodded, understanding the importance of what she said. His 3D printer and assembler were good for a decade, maybe two if he stretched it and installed some upgrades, but eventually he wanted to move up to using more capable machines worth billions of credits.

"I’ve got so many things to spend my money on." Ves lamented to himself. Earning a couple of billion credits was a pipedream for most people. Even seasoned mech designers often despaired at the costs their businesses demanded.

"In any case, just do your work. I’ll be expecting a satisfactory result within ten days if you want to ship your mech to the client in time. Will you be able to make it in that time?"

He nodded with confidence. His planning stretched out the fabrication process to nine days already, which was a lengthy time for an average mech. Considering it was his first time doing it for real, he wanted to slow down and produce each part with meticulous care.

"I’ll have the mech delivered to the local branch of the MTA within nine days for inspection if there’s no problems. I don’t expect any delays, but I doubt I’ll get slowed down more than a day at most."

"Good, because a lot is riding on this deal. This is your chance to break into the market, Ves, so nothing can go wrong."

After a bit of lecturing by Marcella, she finally hung up, leaving Ves free to begin his work. He pulled up his sleeves and checked his plans for the last time. Nothing appeared out of place. He had the materials, the equipment and the time he needed to fashion his first mech into existence.

Before he started, he took a deep breath and adjusted his mental state. He didn’t want to deliver an average product and call it a day. He wanted to wow the client. And the way to do that is by incorporating something unique only to him into the mech. Even if most of the pilots of his mechs couldn’t articulate the X-Factor, it would still help improve their impressions on his work.

He approached the 3D printer with reverence. He loaded up the files of the valiant-looking Marc Antony. From its vapor-generated crest to its adorned and sturdy tower shield, the mech already radiated a sense of valor in its appearance. Its entire purpose of existence was to act as a vanguard, a breaker of blockades and a workhorse that could take a beating for the team. Ves took inspiration of the mockup and immersed himself into bringing this design to life.

"I am not building a mech. I am birthing it to life."

Saying it mattered to Ves. It sounded nonsensical or meaningless, but to someone who took a peek through the door that hid the incredible might of the X-Factor, it was an important distinction that made all the difference in the end product. He was an artisan of mechs, not an industrialist who desired to pump out as many mechs as he wanted. To treat the mech as a living thing instead of a lifeless machine was the first step to realizing the X-Factor.

"Alright, I’ve got you fixed on my mind."

He tapped the projection to separate the hologram into thousands of individual components. He started with the easiest, but also the most important part: the internal frame.

The internal frame was mechanically simple to produce, but required high consistency in order to make it last for many years. Any hidden faults buried deep within its solid surface could lead to devastating consequences in the battlefield. The MTA posed strict requirements to the integrity of the internal frame, so Ves could absolutely not afford to slack off when fabricating these seemingly simple piece of alloys.

The 3D printer performed up to standard. Ves had already checked and calibrated all of the important machines in his workshop long ago, but it was pleasant to see the machine slowly churn out frame after frame. Ves took particular care when producing the sockets and joints that allowed the frame to move its limbs as natural as a human being. Only a couple of minor deviances emerged in their production, which was a sign the printer's precision was off, a particularly fatal flaw when producing tiny components like processors.

It was a good thing Ves left the entire day for further calibrations. With his enhanced knowledge of the 3D printer's workings, he dug into the advanced programming of the machine and ran a lot of tests and simulations. He narrowed down the source of the problem to a worn-down injector. Ves solved the problem by fabricating a replacement before opening up the machine to replace the component in question.

"There. Now it should work as advertised."

The rest of the internal frame components got produced without a hitch. Since night had already fallen, Ves took a break and took care of his personal needs.

The next day, he devoted his attention to crafting the HRF armor plating. It took three days to process the raw materials into a suitable form if Ves aimed for consistency and precision. While most of the work was tedious and repetitive, he was constantly on guard for any deviations from the norm. A

percentage less of a certain metal added to a process might ruin the entire batch.

He refined tons of materials together into different materials, which got processed even further for up to five times. Each step transformed the main alloys from a worthless piece of junk to a less worthless piece of junk. By the time several days had gone past, the mixed materials had already transformed into smooth pieces of shaped plating.

Ves knocked his knuckles against the surface of a thick chest plate. It rang with the delightful tone of a uniform piece of metal. He spent a lot of time fashioning these plates, each into the appropriate form to clad the Marc Antony's outer layer. They still looked greyish brown, the native color of HRF plating. He'd add some color later.

The next two days he produced the other parts of the mech. The most important of which were the power reactor and the engines. His 3D printer had some trouble producing the most unique sections of those components, but Ves was able to stave off any disasters due to his improved skills and his abundant experience in producing them already inside Iron Spirit. He only really paid attention to the challenging components, and produced the easier ones with a little bit more leisure, though he always made sure to double-check their integrity.

"Phew. They all came out okay."

He only replaced a few sections with newly fabricated copies when his checks revealed a couple of hidden faults. Such sub-optimal components wouldn't wreck a mech immediately, but it left the machine vulnerable to a cascade of malfunctions later on. Dealing with it now prevented the MTA from using it as a reason to disqualify his mech during their inspection.

Now that he finished producing all of the parts, he moved on to the assembler. It was the tallest machine by far, reaching as high as any small office building downtown. While the assembler was a single set, the system was actually composed of many different lifters and hefty arms. They allowed a single person or an AI routine to put together a mech without relying on any other manpower.

Modern assemblers formed the basis of today's boutique industries, allowing individual craftsmen to compete against giant mass producers economically. Though mass production always remained as the most cost and resource efficient mode of production, small-scale manufacturers could tailor their individual products much better to their customers. Naturally, the huge trans-galactic corporations hadn't sat still and incorporated assemblers in their own factories in order to offer the same customization capability, but it never really came close.

In any case, Ves owned a run-of-the-mill cheap assembler that wasn't in its prime condition anymore. Like his 3D printer, the assembler showed some signs of use and past repairs. Luckily, the assembler he possessed was not too advanced, so Ves wasn't worried those self-made repairs would screw up the system. His checks also made sure the assembler remained in working condition.

"Damn, six days have gone by already. I only have two days to put my mech together."

He could produce the entire Marc Antony inside Iron Spirit with that much time. Hopefully, once he got more familiar with his equipment, he'd speed up his production process to match his capabilities in the game. For now, slow and steady was the way to go.

From a haphazard pile of components, the mech slowly came to life. Ves started putting together its internal frame, which formed its skeleton. This was

the simplest part of the assembly process as the internal frame components were built as puzzle pieces that snapped into place with each other with natural ease.

Once the skeleton was fixed into place, Ves started to add the essential organs to the frame. The engines, power reactor, energy cells, sensors and most importantly the cockpit were put into place one by one. They fit into their assigned places like obedient soldiers falling into parade.

The trickiest segment of the assembly process came when Ves installed the cabling. Though not as difficult as doing it for the Caesar Augustus, he sometimes had to resort to pushing or hammering certain sections in place.

"This is not supposed to happen at all. I guess it was wishful thinking for my 3D printer to produce all of the parts within tolerance."

It might not be a big deal if part A came out of the printer half a millimeter thicker or so. But when parts C, F, J, Y and more all exhibited variations in their dimensions, then they could cause a chain reaction of misalignment when he assembled them all together into one machine. Fortunately for Ves, the deviations were within an acceptable range. Besides some squirming, he managed to fit the components decently together.

"Maybe it’s not a bad thing this mech is not a carbon copy of its blueprint. The variations makes it unique. Just like each and every human is different from each other."

Heartless fabricators detested deviations like this, but in the perspective of life, Ves thought it was not a completely bad thing to keep some eccentricities. Naturally, it was one thing to be a little strange, but if you were born full of defects then Ves would never be able to sell the mech.

After making sure the components still worked at peak efficiency, Ves moved on to the final touches. He placed the many pieces of armor in their

designated positions. Countless robotic arms picked up pieces of plating and carefully aligned them before placing them together. Special screws and adhesives kept them in place. He also put together the mech’s default armament, the mace and heavy tower shield. Assembling the latter was a tiresome ordeal due to the sheer amount of plates stacked into one single whole.

All the components came into place near the end of his two day marathon. Ves sighed in relief as he hit the button to let the painter module of the assembler go to work. He was way too tired to coat and paint the mech’s outer layer by himself. Screwing up the coating mattered very little to him anyway.

Once a few hours passed by, the advanced coating dried out rapidly, leaving the dark, intimidating form of a mech Ves had spent many hours imagining its appearance. Having spent more than eight days pouring his heart, focus and even love into its production, Ves felt an unprecedented surge of pride and satisfaction well up deep inside of him. His dreams had come true. He fabricated a mech of his own design with his own two hands. His eyes welled up in tears as he admired the tall and armored mech’s domineering contours. He refused to believe no one would remain unaffected when they came close to this mech for the first time.

"Since you’re my firstborn son, you deserve a name that fits with your pedigree. I will call you..."

"Phoenix Cry."

Naming the mech was a spur of the moment decision from the upswell of emotions. He broke a taboo by giving it a personal name as a mech designer. Usually, the pilots named their mechs after a period of getting accustomed to each other. He hoped the client wouldn’t mind too much and keep the name.

Though the mech was technically complete and fully functional in its operations, Ves wished to gift the mech one additional part. This extra addition was already in the blueprint, but he used a fake to substitute for the real deal. He used the assembler’s mobile lift to reach to the mech’s chest and opened up its cockpit. Lucky, who had been watching Ves closely during his work these days, also followed him up. Plain curiosity sparkled within his lively eyes.

The fresh and sterile interior of the cockpit unfolded in his sights. With a hop, he entered the cramped area and sat down on its specially-designed synthetic cushioned seat. For a moment, Ves imagined piloting the Phoenix Cry himself. With his head connected to the neural interface, he visualized screens coming to life around him as he piloted the mech through a fierce battle.

He snapped out of it after a minute. "I’m not a potentate. I’m never fated to battle in the frontlines."

The sorrow in his heart threatened to overcome his jubilation, but he managed to keep his negative emotions in check. His lack of piloting aptitude was an old regret.

Instead, he put a hand in his pocket and retrieved a dark red carnelian. The gemstone’s subtle gradient alluded to a lifelike drop of blood. It inspired a sense of vitality and passion. He could think of no better gem to crown his first creation. Lucky meowed at the sight of its old excretion, pawing at it with the playfulness of a child stirring around his plate of food.

"Do you recognize it? You crapped this out while you stayed in the hotel. If the cleaning staff hadn’t alerted me to its presence, I might have missed this out."

Ves accumulated a nice stockpile of gems, but most of them provided marginal benefits at a very obscure magnitude. The gem Lucky excreted in

Bentheim clearly outshined his previous droppings for reasons he wasn’t sure. He hadn’t fed Lucky with any notable minerals except what the hotel provided as an additional service. Perhaps the crowded, tech-filled environment excited the gem cat.

In any case, the gem’s attribute stood out in more than one way, and the color also matched the mech. With a couple of hand-sized tools, Ves extracted the generic red stone in the middle of the dashboard that represented the mech’s power button and placed the carnelian in its place, making sure to affix it securely in its fitting. After he finished, Ves leaned back in the chair and admired how the lustrous gem attracted the eye. He inspected it yet again.

[Carnelian of Focus]

Increases the pilot’s concentration by 0.1 when installed on a mech.

The attribute was very special. Unlike the other gemstones Lucky dropped, this one improved the attributes of the pilot rather than the mech. How that worked, Ves had no idea, but he knew the value of such a boost. Though not a game changer by any standard, it served to improve the pilot’s impression of the Phoenix Cry while also giving him a minor edge which could prove useful in a tough battle.

Furthermore, the gemstone’s pilot-focused attribute also allowed Ves to hide its benefits from the MTA. Ves had no good way to explain how a mech was able to move 0.5% faster or could withstand lasers 1% better than the HRF plating was designed to take on. Before Ves could acquire better skills that could camouflage such benefits, Ves found it prudent to stick to subtle gemstones and keep the ones with material benefits for later use.

"Enough dreaming. It’s time to ready this mech for sale. First up, I’ll have to certify the Phoenix Cry."

## Chapter 45: Mech Trade Association

If anyone first heard the words Mech Trade Association, they'd assume it was a nonprofit trade organization. They weren't wrong, but it deeply understates what a massive influence the trans-galactic behemoth exerted in every corner of human space. They regulated the development, licensing, production, sale and disposal of mechs. Pretty much the entire life-cycle of a mech was in their purview, and they sometimes came to blows in order to enforce their self-proclaimed rights.

Even a small, tranquil planet like Cloudy Curtain possessed a local branch of the MTA. As even the Greater United Terran Confederation and the New Rubarth Empire acknowledged the powerful organization's supervisory powers, a small third-rate state like the Bright Republic had nothing to say about the MTA's forceful presence within its borders.

The association founded branches wherever there was a sizable population of people. Lots of people meant that at least a handful of them piloted mechs. If left alone, they could get up to trouble, so the MTA always made it a policy to supervise potentates even if they didn't own a mech.

Frankly, the idea that an organisation outside the control of any government entity was allowed to meddle in the mech industry shouldn't have existed. Countless conspiracy theories flew around in the galactic net that purported to be the truth.

One popular notion suggested that the divisions in human space was all a sham. Every nation, from the lowest third-rate backwater to the grandest first-rate superpower, were actually different branches from the same tree. A so-called Shadow Council ruled humanity from behind the throne, and the MTA was merely its most visible arm.

Another less radical theory suggested that the MTA was not as independent as everyone thought. Instead, it began as a secret joint venture by both the

Terrans and the Rubarthans. Despite their intense rivalry towards each other, they shared enough common interests to regulate the mech industry and founded the MTA to bend the military strength of other nations to their will.

The MTA’s existence and its stringent enforcement of its principles brought the wild west of the mech trade to its heel. They prevented the incorporation of weapons of mass destruction into the arsenal of mechs. They curbed widespread corporate espionage and gave smaller mech businesses a chance to thrive by encouraging the practice of licensing out non-cutting edge designs. They brought so many benefits that not many people thought badly of the organisation.

What mattered the most to Ves right now was the MTA’s strict standards of public mech sales. Any mech traded in an open transaction was required to be certified by the MTA before they received a stamp of approval. Without this approval, a mech designer was deprived of an independent, trustworthy assessment of their product, which meant that basically no one dared to buy his mech.

Naturally, such a practice was voluntary, and companies were free to sell their mechs without involving the MTA if they made their transactions private. This most often happened with nextgen cutting-edge designs between top enterprises and government entities. Ves was too small a player to engage in such a high-level transaction, so he meekly submitted his mech to the MTA for their standard certification.

Bringing Lucky over his shoulder, Ves exited the transit shuttle and landed his feet onto the paved landing pad next to the MTA. He met the local supervisor of Cloudy Curtain’s branch of the association at the steps leading up to the complex.

"Ves Larkinson."

"Ryan Baldwin." A dark-skinned man with a robust posture returned his handshake. "Welcome to the MTA. When I heard a designer wanted to submit a newly fabricated mech in our branch, I had to admit we were at a loss for a moment."

Ves chuckled amiably at the remark. "I'm the only mech manufacturer on this planet, right?"

"Yup. The most we do is bust heads and lend a hand against pirates. We hardly have any mech technicians on site that are qualified to certify your mech."

"My apologies for inconveniencing you. Can the certification process still proceed? I'm kind of pressed for time."

"No worries, son. As long as we're not in the middle of nowhere, we always have a senior technician on hand."

They entered the quiet and spacious building complex and went down the halls to a large workshop area. A cranky-looking middle-aged lady in coveralls greeted them with a stinky eye.

"Ves, let me introduce you to Gertrude Samuelson."

The woman in question crossed her arms. "So you're the brat messing up my maintenance schedule. I had a system in place, you know. Now I have to waste precious hours off my schedule in order to knock your little toy around. Well, you better not think it's a done deal, because I'll be doing my best to dig up its flaws!"

He could only smile awkwardly at that. Fortunately, Ves spent an excessive amount of time building up the Phoenix Cry. He was confident his mech could pass all but the most stringent of tests. Those top-level tests would never be applied to a regular commercial mech, so Ves should be in the clear. He hoped.

The three entered the cavernous workshop where a handful of mechs underwent routine maintenance. At the end of the stables rested the Phoenix Cry, freshly transported from his workshop. A couple of junior technicians already crawled around its chassis with several handheld instruments.

"Seeing as you're as young as shit, this must be your first certification, right?"

"Yes, but I'm familiar with the steps."

"Good, then you know that you'll just have to stand there and do squat while I pick apart its flaws." Gertrude stated as she stepped behind a console and activated a thick, mechanical arm.

Ves recognized the device as an advanced sensor that was capable of penetrating through almost any material. The woman gently operated the arm and brought it over to the bottom foot of the mech. The projection in front of her changed into a cutout image of the section along with multiple technical readouts that Ves barely understood.

"Hm, looks fine so far. You haven't screwed up the proportions when you made the HRF armor plating. Lots of newbies trip themselves over when they work with such a highly refined material. A deviance of 0.1% at the start could get amplified by as much as 10% by the time the HRF is off the fabricators."

"I didn't rush the process. I'm confident the rest of my mech is equally as sturdy."

"We'll see about that."

Gertrude diligently scanned over the mech, from bottom to top and back to bottom. She also swiveled the sensor from the sides and the rear of the mech as well, but to no avail. Ves understood enough from the readouts that none of the armor or internal components showed any significant deviations from the blueprint. All of the flaws she detected so far was within tolerance

according to the MTA’s official guidelines. Only the most nitpicky of technicians would choose to make an issue out of those tiny problems.

To her credit, Getrude said nothing even if her frown grew deeper. "Well, let’s see if your internals perform as advertised."

This was an area Ves was less confident in. It was fairly easy to spot damage, but harder to determine if the components he fabricated performed on spec. As the technicians crawled away from the chassis, a young pilot entered the cockpit. Ves, Ryan and Gertrude watched at a healthy distance as the pilot activated the mech.

"The neural interface is starting up without a hitch. No issues encountered so far." The pilot reported, and Getrude confirmed his observations through the readings that scrolled down her terminal.

"Startup finished. The mech is in standby mode. The power reactor is spinning. No leaks detected. Temperature is normal."

"Do you hear any weird noises?"

"It’s quiet so far. Want me to engage the engines?"

"Hold up, I still want to test out its power management. Go run some power through the wrist-mounted laser cannons. Charge up its capacitors. Make sure the weapons remain safed before you do that though."

Ves watched on with Lucky as they both witnesses Getrude trying to dig up faults. No matter how much she stressed the power system, she failed to make the mech squeal. Ves increasingly grinned wider as he realized he had nothing to fear in this aspect. His mech was mechanically sound.

Despite spending two hours testing out the internals, the MTA came up empty with regards to things to complain about. The engines purred like a kitten

while its sensors were able to capture objects from kilometers away with razor accuracy.

"Let’s move on to the active tests." The senior technician grumbled.

The pilot took out the mech outside to a large and spacious range and obstacle course. Both weren’t much to look at since the Cloudy Curtain branch only included them as an afterthought. Still, the minimum certification only required some basic tests for the Phoenix Cry.

The first test involved testing the mech’s limbs, in particular its articulation. Under the watchful eyes of several hovering sensors, the pilot stretched the limbs of the mech to the maximum angles possible. Nothing broke even when the arms almost bent straight backwards, which was a good sign for Ves. The MTA then tested the mech’s carrying capacity by picking up and carrying a variety of weights, which also went without a hitch.

With these tests done, the pilot put the mech through its paces by jogging and then full-on sprinting on a race course. The medium mech pushed to its maximum projected speed and maintained it with only minor difficulties. The pilot then repeated the same track but this time carrying the mace and tower shield. The mech ran a lot slower this time, but the extra weights failed to topple the mech over or cause any other catastrophes.

They then moved on to the trickiest part, the ranged weapons testing. Getrude grinned savagely as she rubbed her palms. While she held little hope in finding fault with the shoulder-mounted missiles, the lasers should be another story. Laser weapons contained plenty of tiny, delicate components, so they were also the weapons most prone to malfunction.

They first tested the missile launchers, but everyone knew it was just a formality. The launchers were fairly low-tech to begin with as most of the advances in missile technology lay in the missiles themselves. The launchers

only stored the missiles and kept them from exploding when they got bumped or something. Both the long-range and short-ranged missiles flew from the launchers without a hitch, and detonated against a cratered hill exactly as expected.

The mech then moved on to a range, where it began to test out its wrist-mounted weapons at a variety of power levels. From the lowest setting, the pilot fired the weapon so rapidly that the beams appeared to be stuttering from an unstable power supply. Despite its shaky appearance, the lasers fired with the right amount of power and accuracy.

The pilot then cranked up the power supplied to the cannons. The lasers increased in size and intensity. The beams flickered less but their burn duration increased. The maximum setting practically turned the laser cannons into bringers of doom. Thick beams that looked like flowing suns escaped from the barrel and bore a set of holes right through the targets on the range.

At the end of the round of testing, Gertrude came out of the process with a list full of passed criteria. Without more stringent stress testing, she could not find any other opportunity to disqualify the mech.

The pilot exited from the mech and jumped straight down, relying on the anti-gravity boosters in his mech suit to land as light as a feather. When the pilot reached the trio, he removed his helmet, revealing a face and skin tone almost the same as Ryan’s.

"How’s the mech?"

"It’s an incredible mech, and I’m not talking about first-timers." The pilot enthusiastically replied. "I feel like I’m piloting a giant instead of a machine. The mech responds so smoothly I can’t even believe it’s possible for mechs to move that way."

Ryan snorted at that. "That’s the advanced internals of the mech at work. You’ve never piloted anything other than standard budget models, so I specifically brought you here to experience this new mech. Even with the difference of a generation, an advanced mech is still in a different league compared to the cheaper currentgen models. You should try to get a chance to pilot the base model. The Caesar Augustus is a real beauty besides its impracticalities."

"So Getrude, do I get your stamp of approval?" Ves asked while the father and son pair talked about the details.

"It’s kind of suspicious how this mech held up so well during testing. Did you even produce this mech yourself?" Getrude asked suspiciously.

As if already expecting the question, Ves shook his head and activated his comm. He sent over his logs. "You can look for yourself to see I worked on it with no one else around to assist."

She didn’t even look at the logs. If Ves was confident enough to send them over without a problem, then they really hid nothing of note.

"Very well. It is in my professional judgement that your Marc Antony variant mech has broken no rules and met all the criteria our organisation has set for all publically traded mechs. Your mech will be stamped with our seal of approval and you should receive the certificate in your mail in the next hour while I finalize my report."

The resignation in the lady’s tone barely registered to Ves. He only felt an incredible amount of satisfaction and relief for surviving this ordeal. Now that the MTA officially certified his mech, no obstacle remained in the long road to selling his first mech.

He immediately brought up his comm and called Marcella. "Good news, M. My mech has just passed the MTA's certification. I'll send you the files as soon as they arrive."

"That's very good news!" Marcella responded with a little more surprise than Ves expected. Perhaps she hadn't been very confident in his first work. "I'll arrange the express shipping on my end. The mech will arrive at Bentheim in one-and-a-half days."

"That's good. Can you transfer the payment over as soon as its there? I feel as if the bank is already looming over my shoulder, ready to repossess all my assets."

"The credit transfer is already pending. As soon as my client receives the mech, the transfer will be approved."

A heavy weight almost lifted off his shoulders. While the bank still gave him nightmares, Ves at least breathed a little easier now that the deal was essentially done.

"So what's next on my plate. Have you found another client for the Marc Antony yet?"

Marcella shook her head. "I've got a lot of other things on my plate, and I like to see if your first sale goes right before I find another buyer. I'd like to keep an eye on your current client for a couple of weeks to see if he has any complaints. If he finds no defects even after weeks of regular use, then I can confidently start pushing your product to my other clients."

"That's... good. Still, after I pay my annual interest payment, I don't have enough capital left to produce another mech. I need another advance payment in order to start producing the next batch."

"That's not a bad thing for you." She said with a smile. "You deserve a holiday, and more importantly, you need some time to get your books in order.

I’ve seen way too many startups get into trouble with the tax office due to improper accounting. Don’t rely on a random AI routine downloaded from the galactic net to do your numbers. Do it yourself or hire an accountant to do so."

"Alright, I’ll do it myself. My business is tiny and I only have one sale so my books are very thin."

"Secondly, you should shore up your skills. I’ve seen what you did in Iron Spirit and I’m fairly impressed by the progression of your work. You’ve clearly improved in the short months since you first started designing mechs. Use some of the extra money you earned to get a bunch of virtual licenses and get to work expanding your repertoire. The only way a mech designer is able to advance is by pumping out new designs. I’ve never seen a mech designer improve by continuing to fabricate an old design."

Ves nodded in agreement. "I already planned to sharpen my skills in the game when I’m not busy producing a real mech. It’s a shame I won’t be able to afford any production licenses. The Marc Antony will remain my sole product for quite some while."

"That’s okay. You’re still in your first year. Just by owning the licenses you already have, your way ahead to almost any other mech designer without any backing. If your product pans out, you can expect plenty of sales from my end, more than enough to pay off your debts and upgrade your assets. That’s the power of a good product."

"And what if the market doesn’t catch on?"

"Then go back to the drawing board. Don’t get too attached to your first design. It’s merely your first and most primitive work. If it’s not a winner, then improve your skills and design a new mech that fulfills the demands of the market."

"Alright, I've got a good idea on my coming schedule. I'll be waiting for the money."

They said goodbye to each other before terminating the comm. Ves already felt liberating from his concerns. Once he received the money, he could pay off his debt and leave enough of a surplus to leave him swimming in cash. He could do so many things with such an amount of money. Should he go back to Iron Spirit and use the cash to buy some new licenses to play with? How much should he spend? Ves already looked forward to playing with some new toys.

## Chapter 46: New Perspective

Ves personally watched on as the shipping company Marcella contracted brought the Phoenix Cry away. The loaders and bots carefully loaded the dark and red coated mech into a sealed and padded mech container. They carried it back to the spaceport and loaded it onto the next transport out to Bentheim.

With that out of the way, Ves returned to his workshop with Lucky. The cat enjoyed the time out, but now appeared to laze away for the rest of the day.

"You're such a lazy bones."

The cat drowsily meowed at him, not really paying attention to his words. Ves scratched the gem cat's chin before sinking down into his couch.

Before Ves got back to work, he wanted to rest a bit and recover from his high-intensity fabrication spree. He found it exhausting to constantly pay attention to his emotional mood when he shaped the Phoenix Cry. While he thought his mech successfully radiated the kind of aura similar to the best mechs he saw in Bentheim, it still remained to be seen if it generated more sales. The X-Factor couldn't be measured after all, so on paper his mech appeared worse than it actually performed.

"I can still do it once in a while, but not if I’m fabricating mechs each and every day." Even with the System, Ves remained a mortal. Unless he spent a shipload of DP on his concentration and endurance attributes, he doubted the exhaustion would go away.

"It’s more important to shore up my skills instead of spending them on my attributes."

While Ves recognized that both options had their merits, the skills provided immediate tangible benefits. In this early stage where he was still on the brink of bankruptcy after one bad spell, he needed

"Oh well, I’ll think about it tomorrow."

He took the rest of the day off. He avoided all activities pertaining mechs. Considering that he spent most of his life with mechs one way or another, he found it difficult to find something else to do. He ended up watching broadcasts until he slept through the night.

In the meantime, at a mech yard in the outskirts of Dorum, Marcella stood by with another person as they watched a drone drop off a mech container. Both of them looked proper and energetic. While Marcella wore her customary green formal clothes, the man besides her dressed a bit more flamboyantly.

"There it is, Captain Caruthers. Your new mech. The Phoenix Cry, the very first model of its kind in production."

The man grunted with anticipation. "When you told me you were prepared to sell me a mech with my criteria, I couldn’t believe it. There’s not a lot of advanced mechs available in the local market that’s viable at range and up close, especially within my price range."

"The wholesale armor replacement my boy has done to your mech is the reason why it’s so affordable. Don’t get carried away thinking you’re piloting a real Caesar Augustus."

"I’m confident in my skills. I’ve taken the model out for a spin plenty of times in the simulations. I know how far I can push this mech. As long as I don’t hunt after the most notorious pirates, I’ll be fine."

"The alternative armor is also cheaper to replace. You won’t be breaking the bank with this mech as long as you don’t let its core be damaged."

Some of Marcella’s drones flew up to unseal the container and check if its contents matched the manifest. When everything checked out, the container opened to reveal a formidable-looking mech. The drones started removing the seals that kept the mech inert and its weapons cold.

"Wow. Playing around with virtual toys is one thing, seeing the real deal is another."

Even Marcella looked impressed. Both of them spent hours pouring over the spec sheet and the simulations of the Marc Antony. While recognizing the model’s inherent flaws, they both admired its decent build quality and plethora of options. Marcella saw the potential in Ves with this polished design, so she made sure to get her hooks in early before some other competitor got their claws on him. Despite her good impressions of Ves’ first work, she only regarded it as a transient design, something to get the mech designer’s business running.

Even Captain Caruthers reserved some of his judgement on his new purchase. His bounty hunting outfit needed a frontliner, but not something that was helpless at range. While durability was important, he valued greater choice in offensive options more as he cross-trained in both melee and ranged weaponry. Finding a model in the market that paid equal attention to both was not difficult, but finding one that could take a beating and not cost a fortune was a challenge. He only settled on the Marc Antony due to a lack of alternatives.

When the pair both came closer, their awe increased. The mech managed to put out a pressure that was not inferior to the hand-built Caesar Augustus that Bosworth’s proudly put on display. The dark tones of the mech darkened the bright day somehow. Its gold accents gave the mech a sense of class, while the red highlights along with its dark red tower shield gave it a martial presence. The mech practically exuded battle lust despite its deactivated state.

"I see what everyone means when they say that handmade mechs have their charm. I can see why the mech designer couldn’t resist giving it a name. The Phoenix Cry... it’s not bad, and it certainly fits."

"The mech designer won second place in this year’s YTE. he might be young, but he has already shown he’s a cut above the rest. You can’t find a design with this much drive from an established mech manufacturer."

The captain whistled in appreciation. The more he looked at the Phoenix Cry, the more he felt he lucked out. "Before we arrived, I found myself doubting whether I should have bought a reliable mass produced model instead, but not anymore. This doesn’t look like it came from the hands of a new mech designer."

Marcella brought up the mech’s certificate and passed it to her client. "The MTA agrees as well. They put in hardly any complaints, and what they did note is well within limits. The mech designer took his time, but he delivered a solid product."

"I’m itching to take this mech for a spin."

"Be my guest. Here’s the keys and codes."

The captain took a lifter that took him up to the cockpit. He pressed a button on his key device that signalled the cockpit’s locking mechanism. After receiving a valid signal, the mech’s chest parted just enough to allow the

cockpit to open up a hatch. The captain squeezed through the tight fit and took a seat with practiced ease.

He admired the cockpit for a moment, still giddy at the thought of owning such an impressive-looking mech. The interior of the cockpit matched the grandeur befitting of a Caesar Augustus, though instead of majestic white the interior was mostly dyed in dark grey and gold. The only splash of red in the cockpit was the prominent button that booted up the mech.

Caruthers hovered a finger over the lustrous gem. He took in the luxury of it all, impressed the designer kept up the luxury even as he charged half the price of the authentic base model. It didn't quite fit, but that hardly mattered to him. It gave him some bragging rights when he showed the mech off to his friends.

The sheen of a gold plate shone just beneath the front console. Caruthers bent down in order to read the engraved words.

CA-1C MARC ANTONY

DESIGNED SOLELY BY VES LARKINSON

HAND-FABRICATED SOLELY BY VES LARKINSON

MADE IN THE BRIGHT REPUBLIC

PRODUCTION #1

The plate added to the handmade feel of the mech. Caruthers chuckled at the sight. He got too used to seeing cheaply stamped plates recycled out of scrap in his previous mechs. The cheap mass-produced mechs he piloted so far all tried to cut whatever corners they could in order to save costs. Forget about gold, sometimes the plates were made out of the cheapest synthetics.

Caruthers stopped fooling around and pressed his fingers softly at the matte but eye-catching gem. The mech hummed as its power reactor and engines

came to life. The cockpit’s illumination turned to life even as the neural interface engaged a connection with the occupant’s brains.

The transition from a human body to a mech’s stature should be highly familiar to the bounty hunter. Yet as he felt his mind sink into the mech, he encountered a depth that was deeper than any other machine he connected to before. The Phoenix Cry eagerly sucked in his mental awareness and gave it access to its deepest corners.

A wash of sensations flowed over his mind as he became accustomed to the new perspective. Piloting the mech in the virtual simulations only impressed him mildly. But from how deep and rich he established his connection just now, he became aware that the Phoenix Cry

"It’s almost as if I’m connecting with a kindred mind instead of a soulless machine."

He discarded the notion as soon as it popped up. Mechs couldn’t think, let alone influence his thoughts. The spec sheet clearly stated the mech hosted no AIs in its memory banks. The neural interface also passed the MTA’s stringent tests, so his observations were not clouded by contamination.

Caruthers threw away all superfluous thoughts and finished up the booting process. He then took his mech out of the container.

Each step thundered the ground, enough that Marcella found herself forced back. The mech turned around and took up the mace and shield hanging on a rack. The heavy tower shield felt solid to him. It would serve him well as disposable protective cover.

The mace on the other hand was clearly subpar. Made out of HRF, the only thing the weapon had going for it was its weighty head and its low cost if he broke it. Nevertheless, he decided to replace it with one of his spare swords as soon as possible.

"Marcella, you don’t mind me using the yard for a bit, right?" He asked over his comm.

"Feel free to push your mech!"

Caruthers eagerly moved around with his mech. He tested the Phoenix Cry by running and testing out its weapons. The laser cannons worked like a charm, and though he hadn’t filled his shoulder launchers with missiles, he was certain nothing could go wrong with them. As for the mace, it functioned fine as a blunt force weapon, but since he was going to discard it anyway, he spent most of his time elsewhere.

What impressed him the most was the shield. Thick, heavy but incredibly solid and durable, wielding the tower shield gave him a sense of valor. He could already imagine himself wielding this shield on the battlefield, charging forward to meet the enemy head-on. While the HRF plating that made up the shield would peel fairly easily, he could easily commission a replacement if necessary.

"This is a mech made with the wallet in mind."

The cost-effectiveness of the Marc Antony made it into one of the cheaper advanced mechs available on the market today. Though the mech’s advanced components were decades old, they still performed competitively against the models out today. In any case, the bounty hunting business had a tendency to wreck mechs long before they got too old to remain viable on the battlefield.

The bounty hunter exited the cockpit with a lingering desire to hang around longer. Still, he had some paperwork to go through before he could officially take up ownership of the mech.

"So how is it? Does it meet your expectations?" Marcella asked him with a smile.

"That, and more. The only thing it misses is my coat of arms on its chest."

"I’m sure you will become the envy of your social circle when you show off your new purchase."

"We’ll see. I’m itching to test this baby out in the field."

As both sides noted no problems, they went through with the formalities. After signing a bunch of documents, Captain Caruthers officially owned the first mech produced by a young talent. He certainly knew that more than a couple of people might take interest in the mech’s performance.

"Let them peek. I’ll be sure to bring out the full strength of my Phoenix Cry."

Just as Marcella sent out her approval for the money transfer, Ves sat behind his terminal going over his numbers. His comm beeped loudly, interrupting him from filling out his ledger. He looked his comm and it stated that he received a notification from his bank. He stared at the message for a solid minute.

His account gained about 19 million bright credits from the latest transfer.

"I’m.. I’M RICH!" Ves burst out as he laughed at the sky. "Marcella actually did it! My mech sold for 28 million credits!"

He received an advance of 7 million credits when he contracted Marcella to be his broker, which he spent on buying the raw materials to fabricate his internals. As for the armor, Ves used the stockpile gifted to him by the System for completing the fourth tutorial. This allowed him to skip the 11 million credits required to buy all the goods necessary to refine the HRF armor plating.

His monetary gain therefore amounted to 19 million bright credits this time. For his subsequent productions, he had to put in 18 million credits to fabricate a new mech, which cut down on his profits. No more freebies from the System this time.

In any case, as Ves was already working on his accounting, he inputted his latest earnings and put his balance sheet in order. The mech cost 18 million to produce but sold for 28 million, which amounted to a gross profit of 10 million credits. Marcella skimmed 2 million credits from that figure already, so that left Ves with 19 million credits in cash.

The first thing he did was to transfer away 5 million credits to the bank. With only little more than two days left for the deadline to pass, Ves finally breathed easier once the enormous pressure from the bank disappeared. As soon as the bank returned a message to him that his obligations for the year had been met, he whooped again, waking Lucky from his nap.

"Haha, this is good news Lucky. We're not going to be kicked out on the streets!"

Lucky meowed disinterestedly.

"I'll also be able to afford shinier minerals for you to snack on!"

That caught the gem cat's attention. Lucky immediately jumped from the couch and acted cute by rubbing its body against his legs. After a short hug, Ves went back to his financial statement. Unfortunately, not all of the numbers he got resulted in good news.

From the 14 million credits that remained, Ves lacked the necessary funds required to produce another Marc Antony independently. He still remained dependent on Marcella's services, specifically her ability to demand a downpayment from her buyers to fund the production of their new mechs.

"I hope she won't have too much trouble with this condition."

Furthermore, if Ves wanted to budget his money responsibly, he should reserve some of his cash and put it into his piggy bank for future needs. Considering his looming financial burden, paying back the 350 million credits he owed the bank was a minor priority.

His perspectives already changed after his first transaction. Now that he showed off his ability to run a viable business, the bank should be easing off on him as well. The debt his father took on his behalf was not an entirely bad thing for the bank. They earned an easy amount of interest from his business each year, and as long as Ves didn't screw up, the money loaned was put to good use in the bank's perspective.

Considering that he could earn an average profit of 8 million credits each time Marcella sold his mech, the threat the annual interest payments posed to Ves diminished greatly.

The problem essentially changed from an angry elephant into a harmless mouse. He could squash the mouse whenever he wanted, but it was a bit troublesome to do so and required a bit of effort on his part. Rather than waste his time stomping the floor or setting up traps, he could let the mouse scurry around his pantry and steal a bit of his cheese from time to time.

What Ves was more concerned about was something that plagued every single business in the tech sector.

Planned obsolescence.

## Chapter 47: March of Progress

The inevitable advance of science and technology rendered today's machines worthless and turned tomorrow's miracles into everyday goods.

One of humanity's better characteristics was the race's insatiable curiosity of the unknown. Nothing better expressed the rise of humanity better than to track its technological advances. From fire and sticks, the race took a scant blink before it mastered more advanced technologies such as agriculture and forging. A few thousand years after that, humanity escaped the limits of their home planet and spread their presence into the greater galaxy. Each time humanity advanced, it was due to a new scientific breakthrough.

This dynamic process of introducing new technologies to the market was not an entirely positive experience to everyone. To the people involved in the mech industry, many companies might lose all of their customers if they progressed one step slower than other firms.

The earlier years of the mech renaissance was a wild west, with new inventions haphazardly being introduced into the market as soon as they turned economically viable. This led to bizarre situations where there was once just nine years in between one generation to the next. All the businesses that invested heavily in designing and fabricating the mechs of the old generation were left with a huge pile of underperforming junk.

Those who hadn’t yet made the jump got lucky and invested in the new technologies, thereby massively gaining an edge over the producers burdened by old ballast. The financial crash that resulted from the imbalance was the largest since humanity spread out into the stars. So much wealth had been lost that some economists calculated that it set the humans back as much as thirty years.

Losses valued in trillions of credits could potentially continue if this chaotic advance was left unchecked. Fortunately for everyone on the supply side of the industry, the MTA’s restrictive certification and sales procedures imposed some semblance of order in this process of renewal and destruction. The mech industry now adhered to a semi-fixed schedule of grouping technological advances into generations, each lasting about thirty to fifty years.

Commercial mechs that incorporated modern technologies available to be licensed in the open market were regarded as the era’s so-called current generation, or currentgen for short. The generation that preceded it was called the last generation, or lastgen. Generally, the differences in performance between the two was distinct, but not overpowering. As an offhand rule, it took

four lastgen mechs to beat three currentgen mechs. This left producers stuck with lastgen designs a period of time to accumulate savings in order to invest in new technologies.

Ves was currently in this boat, except he had much less time to renew his aging assets.

Most analysts plying their opinion in the talk shows warned their audience that the current generation was going to be a short one. As about twenty years had passed since the first currentgen mechs were put on sale, that meant Ves had ten to fifteen years to invest in a new production line.

In practice, his time was shorter as at the last three years, hardly any pilot could be fooled into buying a lastgen mech on the verge of turning obsolete. From now until the generations shifted, the prices of lastgen mechs would continue to decline.

First, he had to come up with a new design. If he chose to produce variants, then he'd have to license a decently good base model, and those often cost a fortune to license. At a minimum Ves expected to fork out a billion credits for a basic currentgen mech. If he wanted anything fancier, then the cost might rise to as much as two to four billion credits.

Then he had to find replacements for his rusty 3D printer and assembler as well. If Ves wanted to fully exercise his growing skills, then he'd have to acquire a more robust assembler system, which amounted to about 300 million credits. He also couldn't leave out the vital 3D printer. Without renewing his old model, it was impossible to fabricate all of the latest gadgets by himself. A small but premium model could set Ves back by 700 million credits at a minimum.

In total, Ves had to accumulate 2 billion credits in savings in order to survive after ten years. It was a daunting amount of money, and anything could

happen within that time that could force Ves to lose his savings or force him to spend it on something else.

With such a colossal spending plan, Ves felt the shadow over his shoulder returning with a vengeance. Though it loomed a bit further away, its shadow nonetheless dwarfed the previous worries in his mind when only his interest payment threatened his business. He'd have to churn out hundreds or even thousands of mechs to accumulate such a sum.

"Do I really have to save up 2 billion credits?" Ves asked himself as he scratched his head.

Replacing the 3D printer and the assembler remained a priority. His current equipment limited his options too much. As for the licenses, Ves thought up an alternative.

"I don't necessarily need to license a complete mech design. I already had a taste of designing an original mech when I cobbled up the Drake together out of spare parts in the qualifiers for the Fusion Cup."

If Ves was generous in his description, then mech design was simply a process whereby the designer puzzled different components together. Nowhere did it state that the mech designer had to reinvent the wheel and design all of the parts by himself. With the widespread availability of component licenses in the open market, the only thing a mech designer needed to do was to grab a couple of existing parts and stuff them together into a single frame and voila, a new design emerged from his hands!

The benefits of designing an original blueprint were numerous. First, he saved out on licensing costs. The money Ves coughed up to license a full set of components was as much as a quarter to half the amount required to license a complete design. If Ves picked his parts from the lower-end segment of the market, then his total costs would not amount more than 300 million credits.

"The System will also be happy at me for stepping up to original designs."

This was the second benefit of choosing to go this route. The System considered designing variants of existing models to be a low-class occupation. It only offered grains of DP for each new design and sale of a variant mech.

The System in fact awarded him with 28 DP for his first real mech sale. It seemed the System treated real mech sales differently, chopping off six digits from credit price of the sale to determine the amount of DP Ves earned. It sounded like a minor windfall, but considering that the prices of the items in the Skill Tree and Store increased dramatically to purchase the better stuff, then 28 DP per sale might not sustain him for long.

Ves already drooled at the potential amount of DP he could earn from selling his own designs. "The System can’t be that generous, right?"

Original designs also gave Ves an advantage in another way. If the quality of his design surpassed the average of the market, then Ves could potentially enjoy a final benefit. If his mech proved to be a radically popular product, then he could take the opportunity to license out his own design. Needless to say, the amount of money he could potentially earn from such an arrangement was astronomical, and the best thing about it was that he didn’t even have to lift a finger.

"If others produce my design through a license, will the sale of their mechs still earn me DP?"

The System unfortunately kept its mouth shut. This left Ves helpless in determining the answer. Still, from the way the System worked so far, Ves guessed it might not be too stingy. It treated virtual mech sales as a source of DP even if Ves left the production to the game operator’s servers.

Naturally, all of these possibilities were fanciful daydreams. Ves was nowhere close to designing and fabricating an original design, let alone come up with

something that could win awards and attract licensing requests. He had to build up both his monetary reserves and his personal skills before he revisited the issue.

"Alright, at least I've set a long-term goal for myself. In ten years time, I want to replace my equipment and come up with at least one viable original design."

It was a lofty goal that very few mech designers could fulfill if they stepped into his shoes. In order to create a viable or popular design, it needed to outperform the basic currentgen models in the market while possessing a unique feature that Ves could tout as its main selling point.

Take the Caesar Augustus for example. Despite its many detriments, the mech attracted a small but devoted fanbase. The old design achieved this success by relying on its unique points, that being the merging of outstanding defense with flexible offense.

Coming up with a design that performed marginally better than the mainstream models wasn't enough. If Ves wanted to stand out with a design just like Jason Kozlowski had all those years ago, then he had to incorporate something unique only to him in his work.

He had to specialize.

His consideration in this area excluded the X-Factor. Not only was such an elusive concept difficult to perceive, Ves also lacked the means to advance his skills in this area with his Design Points. Rather than throw himself against a wall trying to make something invisible as his selling point, he'd rather focus on improving something that his customer could touch and see.

"The question is, what will my specialization look like?"

Ves already considered this question once before. He chose to focus on developing his ability to design light and medium mechs. But that still included

too much possibilities. He risked scattering his focus if he cast too wide a net. He had to narrow down his future aspirations in order to come up with a realistic spending plan for his DP.

Looking at the massive Skill Tree wouldn’t help due to the plethora of choices it offered. No, Ves had to decide from his heart. Only by pursuing a path he fully invested into could he take it to the end.

"Let’s leave out the options that I won’t be pursuing."

First off, he flatly ruled out the exotic developments. He lacked the background to start messing around with building a mech from organic materials or experimenting with juggernauts.

Next, he ruled out heavy mechs. While developing such a hugely expensive mech might offer great returns, the amount of investment required to master all of its systems took too long. Usually teams of mech designers pooled their respective specialties in order to develop a viable heavy mech design.

Now that he was left with the basics, Ves further narrowed down his scope by leaving out weapon systems. The development of lasers, cannons, missiles and sophisticated melee weapons was a discipline in itself. As the technologies behind these weapons were already quite mature, it took an exorbitant amount of effort to squeeze out a few drops of improvement. He risked neglecting his foundational skills if he diverted too much effort in improving his weapons development.

It was better to leave this area to the professionals and rely on licensing. Only an extraordinary genius like the ’Polymath’ could keep up with all the developments and even advance the field with her own efforts. People almost couldn’t count how many patents Claire Gramza registered. Everyone was convinced she earned more money from licensing out her technology than selling her mechs.

Ves took inspiration from another star designer instead. The Armorer brilliantly carved a spot at the very top by developing the best armor for his mechs. Tons of enthusiastic mech pilots with a bit of money to spare flocked to his products. While his mechs might not excel too much in other areas, the mere fact that a mech designed by Raul Mendoza cut back on casualties by as much as fifty percent was a miracle in itself. Pilots always valued their lives.

"Focusing on just armor might not be good enough."

His starting point was lower than anyone else. To achieve measurable success in the field, he had to develop his skills pretty deeply in order to compete against geniuses who specialized in armor at the start of their education. Ves already had a taste of the immense disparity when he competed against Edwin McKinney in the finals of the Fusion Cup.

Instead, Ves took his idea on another track. Working with the Fantasia models and well as the Caesar Augustus allowed him to glean certain insights into the challenge of balancing protection with speed. His interests ignited when he considered the beautiful way Jason employed the armor on the Augustus. Ves already played around with the armor scheme when he redesigned the mech to be built with the HRF armor plating.

"I think I’d enjoy the process of developing my own armor schemes. Trying to achieve the greatest amount of protection without sacrificing speed is an eternal dilemma every mech designer faced."

Instead of taking the route the Armorer took and try to achieve the absolute best protection, Ves only needed to develop something good enough while allowing the mech to maintain most of its speed. This fit in the quintessential design scheme that underpinned medium mechs, so Ves decidedly left out light mechs in his future plans.

Many designers with a better foundation than Ves have tried to make advanced in both speed and armor. Most of them failed miserably, while the rest eked out mediocre earnings with designs that marginally performed better than the competition. While he could also fall flat, he still possessed one thing many others lacked. The System.

Only up to this moment did he open his Skill Tree. He first glanced at the skills involved with developing medium armor. It was a broad and intricate tree that offered paths that specialized in either weight reduction or maximum protection, along with many other choices such as signals absorption and self-repair alloys. Ves was spoiled for choice.

"Hm, it will scatter my focus a bit if I want to walk down multiple branches of this tree, but the benefits will be remarkable once I build up my basic competencies in my specialization."

The first step in his plan started with producing a more faithful rendition of Caesar Augustus. The Marc Antony might be a good mech for its price, it nonetheless bastardized the original intentions of the mech. If he applied good quality armor instead of the cheap stuff, then he would be able to design more expensive mechs.

"I'll be able to charge a much higher price with my premium designs. The pilots that fall into this segment don't care as much about saving every penny. My profit margins will swell as a result."

Higher profits resulted in higher investment. He'd be able to acquire new licenses and replace his old gear much faster as a result. Ves needed to work briskly in order to stay ahead of the transition into the next generation of mechs.

Ves already formed a bold medium-term plan to make this dream into a reality. He could invest in a dedicated armor fabrication machine.

While the 3D printer was an incredibly advanced piece of technology, it remained a product borne out of compromises. It had to focus its capabilities on producing uniform slabs of armor plating as well as tiny, delicate parts. By acquiring a machine dedicated solely in producing armor, Ves could achieve much better results with much less effort.

At a conservative estimate, such a machine could cost 600 million credits, but that could be halved as the next generation loomed closer. As such specialized machines were usually capable enough to produce most nextgen armor, Ves did not have to worry too much about acquiring something obsolete.

"With a modern armor fabricator, I can modernize the Caesar Augustus and earn some time and money for my next steps."

The complexity of his 10-year plan grew deeper. Though diverting his attention into acquiring an armor fabricator might seem like a needless distraction, as long as it improved his earning potential within the next couple of years, then it could pay off very soon.

After formulating his future direction, Ves quickly finished his financial report. Of the fourteen million credits that remained of his profit, he reserved about eighty percent towards his taxes and the piggy bank. That left him with about 2.8 million credits in readily available cash for him to spend on whatever he liked.

Any future earnings would of course be less extravagant. With an average profit of 8 million credits per sale, he’d have to reserve 6.4 million credits off that sum, leaving him with only 1.6 million credits as play money.

While that might sound like an incredible amount of wealth to a commoner, a mech designer always had more things to spend his money on. The cost of virtual licenses in Iron Spirit ran up pretty fast as the star rating increased.

Furthermore, Ves also had to keep his workshop's safety in mind. The security measures in place paled in comparison to what real manufacturers boasted. He'd cry until his eyes ran dry if some hooligan crashed his mech into his workshop one day.

Ves also considered doing something unimaginable to him when he was still burdened by his debt.

He wanted to hire an employee. Specifically, he wanted to employ a full-time fabricator that supplied the mechs to Marcella.

"But if I do so, how will I hide the System from my new hire?"

## Chapter 48: 2-star Designs

Ves considered hiring a fabricator in order to ease the pressure on his time. If he wanted to advance his skills, he had to kept pumping out designs. If he wanted to earn lots of money, then he had to fabricate lots of mechs for Marcella to sell. He lacked the time to invest in both activities if his sales volume grew to more than three mechs a month.

The only problem with hiring someone was that keeping the System secret might be difficult. As much as the System appeared harmless, it was actually a miraculous invention that straight-up defied the laws of reality as Ves knew it. Such a precious treasure attracted covetous intentions, many of whom had the power to squash him like a bug. Letting the System's existence leak to anyone else was just asking for trouble.

Another problem which concerned Ves was that hiring someone else to do his fabrication would lead to sub-standard products. A full-time fabricator might be a wizard when it came to working with the 3D printer and assembler, but if he was ignorant of the X-Factor then the mechs he made would be devoid of life. Selling cheap products under his name only dragged him down just when he wanted to build up his brand.

As Ves couldn’t figure out the solution to this dilemma, he called up Marcella.

"Heya Ves, I’m kind of busy right now, so keep it short."

"I’m having a bit of an issue here." Ves said, then explained his thoughts regarding his potential hire.

Marcella smiled at him as if the problem was trivial. "Well, it’s too early to hire a mech technician, so you have plenty of time to think it over. If you want my opinion, why not do both? You can sell the mechs produced by your personnel at the standard price and charge a premium if the client wants a mech handmade by the designer. Just set the price point high enough so you don’t get too burdened."

That was actually a great idea. It kept Ves busy without leaving the fabricator with nothing to do. He’d essentially leave the grunt work to his employee and only come out and fabricate in person if the money was worth it. Still, it depended on whether the clients were willing to fork out the extra cash.

"Don’t worry about generating sales for your premium variant. I’ll take care to pace you with such requests so you don’t spend too much time on it. There are always at least some clients who make some requests to modify the design a bit. Sometimes they want the mech to be flashier. Other times they want the mech to bear a customized emblem in its armor pattern. I think the going rate for such customizations is 2 million credits."

Earning an additional two million credits per sale was a generous amount. Naturally he’d charge more if the client requested more drastic changes.

Marcella hung up in order to get back to her work. Before she left, she warned him to expect another prospective sale in about four weeks or so. That was enough time for their first client to provide feedback on the Phoenix Cry’s performance in the field.

Ves considered the issue of hiring a fabricator later when he got a good idea of how many sales Marcella achieved. Instead, he turned to a much more interesting activity.

He was ready to go back to designing virtual mechs. He recalled the experience of designing different variants of the Fantasia and the Caesar Augustus and how much experience he gained in applying his growing skills. If Ves wanted to grow to the point of designing a viable original mech, then he'd have to become as good as the seasoned mech producers with a couple of successful designs under their belt.

With 2.8 million credits in his spending account, his scope had widened. Though he could easily login to Iron Spirit's market and purchase a huge amount of 1-star designs, what would be the point? He'd earn only scraps of DP with each successful design and sale.

"Hey System, can I ask you something? Since I can earn 1 DP when I design a 1-star mech and 50 DP when I design a 5-star mech, what are the rewards for designing 2, 3 and 4-star mechs?"

[The base rewards for designing a 2-star mech is 5 Design Points. The rewards go up to 10 Design Points for 3-star mechs. The reward further increases to 25 Design Points for 4-star mechs. Do note that these rewards are lower when selling a mech based on your designs. Please work diligently in improving your designs so that you may work proficiently with more advanced models.]

In other words, the System told him to get off his butt and start designing higher starred mechs.

Though he owned a pair of 5-star virtual licenses, his skills were too insufficient. The Marc Antony generated only a piddling amount of sales, and Ves doubted that would ever change since he hadn't really brought anything

unique to the design other than the X-Factor. And even that last feature got diminished when Ves relied on the game server to produce new copies of his mechs.

"I shouldn’t bite off more than I can chew. Obsessing over the Caesar Augustus will just warp me into Kozlowski’s design philosophy. I should keep an open mind and develop my own principles."

Considering his generous budget, he felt it was a good idea to start upgrading to 2-star designs. To be honest, he could skip a grade and purchase a few ultra-discounted budget 3-star virtual licenses, but he still had plenty of time to reach this grade with a proper reserve of cash. For now, he preferred to make a gradual progression through the generations of mechs. By experiencing each major generational group, Ves could increase his insights into the history of mechs and their major developments.

As soon as he made up his mind, Ves eagerly logged into the game for the first time in weeks. He happily sauntered over to the location in the virtual city where they sold the virtual licenses. As he stepped inside a shop featuring endless 2-star licenses of any kind, Ves felt as if he stepped into a candy store.

The 2-star mechs represented the age where the most viable ideas from the previous generations got refined. The simple division of light, medium and heavy mechs solidified and the designers of the time started to incorporate components that only worked in their weight-class. For example, a laser rifle meant to be wielded by a heavy mech would burden a light mech excessively as both its weight and power draw were too much to handle.

"Since I’m only going to work on medium mechs from now on, I can filter out all the outer crap."

The projection of mechs and components on sale lost much of its clutter.

"That’s better."

The crowded view thinned out again when he removed the variants. He wasn’t going to produce a variant of a variant, that was just stupid.

Ves started to browse the mech designs first. If he wanted to design a new variant, then the choice of the base model was of utmost importance. The previous times, he got handed out a model from the System. This was the first time he actually had a choice in determining his future direction.

He considered getting his hands on an animal-shaped mechs. The bird and mammal-shaped mechs that started to feature in the 2-star generations incorporated design philosophies that largely extended to today. If he wanted to branch out his mech range to something other than bipedal mechs, then right now was the perfect opportunity to do so.

"Hm, animal mechs are much less popular than their humanoid counterparts. While I don’t face as much competition, my clientele also won’t be as diverse."

Going by the potential sales he could generate, then Ves was not optimistic in excelling at designing animal mechs. The mech designers who worked with such abnormal mechs usually put their whole careers into optimizing such designs. As someone who only intended to dabble with the unusual designs, he could never make a living out of it by half-assing his efforts.

Thus, Ves filtered out anything other than humanoid mechs, leaving him with plenty of choices but without any distractions.

"What would be the best mech to work on first?"

If he wanted to work on balancing armor and speed, it was best to start with an extreme. Mechs that already featured a pretty good compromise between the two were hard to improve and easy to screw up. He’d rather get his hands on a medium mech that was fast but lightly armored or a mech that was well-armored but slow.

"Since I already worked on the Caesar Augustus, I already have some experience working with heavier mechs."

Ves removed the mechs above a certain tonnage from his display. This finally produced a much more general overview of available designs. He guessed that he had a couple of hundred mechs to choose from, which was daunting but not too overwhelming.

The choice of mechs didn’t matter except for price. Most 1-star mech licenses cost about 100,000 credits to acquire. The virtual licenses for 2-star mechs jumped up to an average of 1 million credits already! And the 3-star mech licences could only be acquired if you were prepared to cough up at least 5 million credits.

The prices the game demanded for its virtual licenses reflected the actual value of acquiring them. If a mech designer possessed some talent, he could earn back the money from his designs. The low amount of upfront investment was ideal for impoverished mech designers to earn a decent living with their skills.

As someone who already owned his own workshop and sold an actual mech, Ves wasn’t in it for the money. While the extra income might be nice, he was more interested in earning DP. By pricing his designs low, he could ensure a higher volume of sales compared to those who relied on their designs to earn a living.

"Why bother trying to milk some credits in game when I can earn a couple of millions with each mech I sell?"

Discounting mechs worked best when the base price of the model was high. Ves cut out the economy and mainstream models and was left with only the premium mech designs. The prices of these mechs were all fairly high, which

made them less popular to the older teenagers and untrained potentates who muddled in the 2-star range.

After browsing through the fifty or so models that were left, Ves stopped narrowing his criteria and instead just looked at the images scrolling past his eyes. His attention caught a glimpse of a reflection. He zoomed in on the mech.

A shiny chrome mech came into view. The Globe-Elstar Corporation’s Octagon O-225C. Its reflective surface caught the eye, but not in a good way. Such a metallic surface offered no additional protection against any damage types and only influenced enemies to target the mechs first.

Perhaps aware of this tendency, the original designer of the mech focused on making the mech as agile as possible. Though he cut down on a lot of armor near the joints and other weak points, it made the mech exceptionally limber and could even perform some acrobatic stunts pilots would never even dare on a regular medium mech.

"Interesting. It’s going to be fairly tough to upgrade this mech’s armor without negatively influencing its range of motion."

The challenge of designing an improved variant of this base model intrigued Ves. While he always focused a bit on speed in his other models, he applied it mainly on movement speed. How fast a mech could get from point A to point B.

Agility was a different concept entirely. It involved combining wide range of motion with fast-moving limb reactions to turn a mech into a dodging champion.

Thinly armored simian mechs often specialized in these kinds of designs. The hunched-over posture and their strengthened arms afforded these ape-like

mechs exceptional stability even when they jumped and crawled around forests and complex urban environments.

As for agility-focused humanoid mechs, they relied on sophisticated internals instead of mechanical design in order to stay upright. The Octagon featured the most advanced gyroscope of its generation to maintain its balance even as it dodged left and right. That was the main reason the mech got such a high price tag.

As for its other specs, the mech performed fairly average. Its speed was respectable, but not as good as dedicated sprinters. The armor was nothing to get excited for, but it did the job except when it came to the joints. The Octagon came with a standard loadout of two heated knives and a spear that could also be thrown in an emergency. Most pilots who bought this mech also added in a pistol or a submachine gun in order to turn the mech into a good close-ranged skirmisher.

All in all, the Octagon possessed plenty of character. Ves liked whoever designed this mech, as he was not afraid to break some rules in order to achieve a unique result.

He added the virtual license of this mech to his shopping cart. "That’s 650,000 credits down the rain. Now I should add some components to complement this design."

The shiny chrome job defined this base model. While it did not entirely fit with modern aesthetics, Ves preferred to keep its shiny exterior. That didn’t mean his choice of replacement armor was restricted. He merely had to add an extra step to his production process by painting his mechs with a reflective coating.

His choice of armor had to meet certain criteria. First, it had to offer more protection at the same amount of weight. Second, it should be effective

without stacking too many layers. Some armor systems only worked properly if they surpassed a minimum amount of thickness. The Octagon's main feature was its agility and putting on too much weight negated that advantage.

His search turned up some intriguing results. First up was the Grayson Inc. Flexiplate Alpha Mark III. He found one experimental armor composite that featured a certain amount of flexibility in its plating. It was as bendable as a thick piece of rubber and excelled in absorbing shocks from kinetic impacts. It sounded perfect for developing better armor around vulnerable joints, and was in fact often employed in such a manner.

To complement the other portions of armor, he looked up the Grayson Inc. SquarePlate Mark I, a modular armor system of the same company. These types of armors were often employed on lighter mechs, but the system he looked at was specifically designed for medium mechs. It was a pain to mold such such an armor system on a mech due to the demands it imposed on the positioning of its plating. However, it gave a significant advantage to a mech if well-designed.

Conventional armor plating used form-fitting plates to cover up a mech's internal frame. If implemented well, they offered close to the maximum theoretical amount of protection to that section for its weight and thickness. However, if a piece of plating suffered damage, it may still be adhered to the mech while turning out to be functionally useless. If a mech suffered moderate damage throughout its entire frame, such deadweight only slowed the mech down while leaving its internals vulnerable.

Modular armor systems aimed to counteract this situation by designing their plating around uniform shapes of squares or hexagons. It made the mech look a little angular or bumpy, but offered a great amount of freedom in shedding its damaged layers. The more damage a mech sustained, the more plates it

shed thus the less weight it had to haul everywhere. This provided mechs with modular armor a distinct advantage in the later stages of a battle.

Naturally, such a system came with its own tradeoffs, or else it would have been much more popular today. The fixed shapes of its plating were only partially variable in size. The SquarePlate only featured three different sizes. One big plate for chest armor and the like, one medium plate for arms and limbs, and one smaller plate for tricky angles and fingers. Working with these three shapes made any mech variant lose their most optimal armor scheme. That and other factors caused modular armor systems to be able to absorb less damage than their conventional equivalent.

"It has a pretty good performance anyway despite that point." Ves concluded. He hadn’t worked with modular armor before, but was highly intrigued by its possibilities. Modular armor was one of the best solutions out today that attempted to marry together armor with speed. If Ves was serious about developing his specialization in this area, then he couldn’t avoid working with this nifty invention.

Adding both the FlexiPlate and the SquarePlate to his shopping list increased his bill by 150,000 credits. Ves had enough for one session now. He wanted to exercise is mind right away and was unwilling to consider replacing other components before he learned more about the Octagon mech.

A total of 800,000 credits disappeared from his bank account by the time Ves acquired the three virtual licenses. The difference in costs compared to 1-star mechs daunted any novice mech designer. He was working in a whole other stage now, and the consequences of screwups rose by a significant fraction. Luckily he already possessed real experience working with the equivalent of a 5-star mech, so Ves maintained his confidence.

## Chapter 49: Modular Armor

Working with modular armor posed unique challenges to the mech designer.

To visualize the problems the designer faced, imagine being handed a square or rectangular piece of paper. If you were told to make a cylinder out of the paper, you could easily bend it in a a way so that one end of the paper touched the other end. What resulted was a pretty good cylinder with a cutout in the same of a circle.

What if instead of a big piece of paper, you got handed some cardboard instead. And not just one piece, but many smaller pieces that you weren't allowed to bend. With a bit of tape, you could approach the shape of a cylinder with square pieces of cardboard, but the cross section wouldn't look as smooth as a circle anymore. It would look like a many-sided shape that only approximated a circle.

The same concept applied to working with modular armor as opposed to conventional armor. Modern 3D printers and armor fabricators could miraculously produce armor plates in virtually any complex shape. It could mold something as thick as an entire chest plate to something as delicate as the armor around a mech's fingers. A lot of this flexibility was lost when working with modular armor. Even the most masterful designs always left out gaps and other inefficiencies.

Having purchased the Octagon medium mech together with the FlexiPlate and the SquarePlate, Ves left the game and loaded the designs into the Mech Designer System. Though Iron Spirit or his own terminal's design interface featured plenty of tools and aids, the System offered the best assistance by far.

If Ves had to guess, the Designer module of the System was at least two hundred years ahead of the most advanced design software on the market. He possessed a devastating advantage against his competitors and he'd be a fool to neglect its many tools.

"Oh wait, before I start designing, its best if I spend all my remaining DP." Ves reminded himself as he remembered he still possessed around 900 DP.

What he found perplexing was that he earned more DP from selling his virtual mechs than his real mechs. The virtual version of his Marc Antony rewarded him with a fixed amount of 25 DP, while the real version was dependent on the total sales volume, which meant an average of 28 DP. However, it was a lot easier to sell a virtual mech than a real mech. Ves foresaw that he would be selling a lot more virtual mechs while his real mech sales volume remained in the double digits.

Did the System burp when it calculated the DP rewards for his virtual mechs? Whatever was the case, Ves eagerly planned to make use of its generosity.

He opened the Skill Tree again with glee. As he could expect an uptick of DP once he put up a couple of new designs for sale, he wasn’t stingy with his current reserve. He looked down the list and found a sub-skill he had been eyeing for a while.

[Mediumweight Armor Optimization II]: 600 DP

As he bought it, the influx of knowledge he received blacked him out for a moment. This time the knowledge dealt more with details and nuances, which caused Ves to forcefully memorize a whole bag of new tricks. It definitely paid off already, as by the time he woke up he became a lot more confident in working with his new armor licenses.

Curious about his current state, Ves called up his Status again.

[Status]

Name: Ves Larkinson

Profession: Novice Mech Designer

Specializations: None

Design Points: 304

Attributes

Strength: 0.7

Dexterity: 0.7

Endurance: 0.7

Intelligence: 1.2

Creativity: 1

Concentration: 1.2

Neural Aptitude: F

Skills

[Assembly]: Apprentice - [3D Printer Proficiency II] [Assembler Proficiency II]

[Business]: Apprentice

[Computer Science]: Incompetent

[Electrical Engineering]: Novice

[Mathematics]: Incompetent

[Mechanics]: Apprentice - [Jury Rigging II] [Speed Tuning I]

[Metallurgy]: Apprentice

[Metaphysics]: Incompetent

[Physics]: Novice - [Lightweight Armor Optimization I] [Mediumweight Armor Optimization II]

Evaluation: An ugly carp about to leap the retarded dragon gate.

Despite the System’s harsh standards, Ves recognized he was approaching the upper limit of a novice mech designer. The System hadn’t told him the

criteria for promotion, but from his own knowledge of how mech designers were ranked, he'd probably break through if he raised a main skill from Apprentice to Journeyman level.

"It's a bit too early for me to advance my rank." Ves remarked as he still planned to allocate his upcoming DP on other skills. Picking up Speed Tuning II was inexpensive at 400 DP. Apprentice level Physics was a bit more expensive at 1000 DP, but it shored up his foundation nicely and could help him out a lot when designing armor schemes.

After that, he'd have save 2000 DP and pick a main skill to upgrade. Ves leaned towards mechanics as that was his main strength, but considering his recent shift in focus perhaps Physics or Metallurgy might be a better choice.

In any case, Ves could revisit the decision later when he actually had DP to spend.

Ves missed the System's Designer suite. When Ves worked on the mechs in the Young Tigers Exhibition, he was forced to use regular software to design the Drake in the qualifiers. He felt cramped and handicapped and felt certain he made far more mistakes than he ought to. The System's interface provided many more advantages. Perhaps too much.

"I'm getting dependent on the System." Ves admitted to himself in a tone that spoke of no regrets. "I'm short on time and even more lacking in money. I'd rather hug this thick thigh than to crawl in the mud trying to find the exit to hell on my own."

With the manner in which he upgraded his many skills, it wasn't easy for him to forget what the System forced in his mind. If Ves somehow got separated from the System, he still had his upgraded skills to rely on. He'd get the hang of designing mechs without the extra aids.

In any case, Ves shoved away all distractions and focused on his upcoming design. He loaded the quirky mech designed by the Globe-Elstar Corporation and sat back to view its intricate design before doing anything else. He wanted to get into the head of the original designer and figure out why he designed this risky model.

"This mech excels in urban combat. The denser the streets, the better it’s able to run circles around its opponent."

Ves looked up the history of the Globe-Elstar Corporation and guessed right. When the company was still in operation, its headquarters was based in one of the Greater United Terran Confederation’s major port Systems. Designing a mech suited for urban combat was an acute priority at the time.

Though the historical files was short on details regarding the developers of the Octagon, Ves nonetheless inferred that the mech was a job commissioned directly by the Terrans as part of a broad push to develop new specialized mechs. The Octagon enjoyed limited success but never really caught on. The concept was too radical and few mech pilots accepted the innovation. Agility-focused mechs started to really gain their stride in later generations, in part because the Octagon and a few other models paved the way beforehand.

Ves then looked at the mech’s combat footage in both historical recordings and replays from the game. The pilots in the historical recordings piloted the mech conservatively, making calculated risks only after they meticulously positioned themselves.

As for the players who chose this particular 2-star mech to enter the arena, they behaved much more aggressively, leveraging their superior mobility to actively seek out enemies to hunt as long as the map featured complex environmental obstacles.

"The Octagon is a hunter." He concluded after several hours of spectating.

The mech fared better when being jumped on than others, but it excelled when it took the initiative. Pilots who cared about their lives behaved like ambush predators, while pilots who had nothing to lose acted as pursuit predators. The pilots could switch between the two whenever the situation called for a change.

As a pioneering urban combat mech, the Octagon distinguished itself in several ways.

Besides its amazing agility and flexibility, it possessed outstanding endurance. Urban combat was gruelling, and could drag on for weeks if the commanders in the field avoided collateral damage. The mech cleverly incorporated a bevy of fuel type energy cells on its back that fed the mech’s robust power reactor that in turn spun the over-engineered engines.

These engines provided plenty of power to the Octagon’s limbs with minimal latency. That meant that the usual sluggishness and delays inherent in any other mech movements were minimized to the point of being nonexistent. At the time, that was fairly impressive and not that easy to achieve. However, the experimental engine was also sensitive to shock damage, which made the mech easy to disable if it endured excessive force in its waist area.

"That should be the main reason why this mech hadn’t caught on. It kind of negates the point of making a mech for urban combat if it can’t last the whole campaign."

The other major downside to the Octagon was that its carrying capacity was light and limited. Balance and weight issues limited the mech from wielding most two-handed weapons. Even a shield affected the mech in a dramatic fashion. This forced the mech to choose from one-handed weapons like knives, pistols and submachine guns.

Laser rifles might provide a viable alternative if it wasn’t for one thing. Though certain laser rifle models kept down their weight, the energy these rifles guzzled in a short amount of time surpassed the Octagon’s power reactor’s output. This highlighted the disadvantage of incorporating fuel injected power reactors. They provided a lot more energy over a longer period, but were incapable of generating high amounts of power at a snapshot.

"The Octagon’s weapon loadout is already pretty thin. I have to be careful not to pile on too much weight."

With the information at hand, Ves developed a pretty good picture of the Octagon. Now was the point where he came up with his own vision of the mech.

Ves pictured a ruined city. Smoke rose from the tallest wrecks while fires burned from the hulks of fallen mechs. With streets chock full of debris from vehicles and nearby buildings, the darkened silhouette of the Octagon straggled between two molten piles of slag that used to be a pair of mechs. It scrambled behind a pile of garbage and waited for its pursuers to arrive.

A light skirmisher passed by the Octagon’s hiding spot, oblivious of the dangers nearby in its haste. The Octagon jumped forward and thrust its spear at the unprotected back of the skirmisher. The incredible momentum behind the blow shattered through the thin armor and pierced the cockpit.

After brutally pulling out the blooded spear, the Octagon swept sideways as it dodged a couple of rapid ballistic rifle shots. The Octagon spun like a top and used the terrain to its advantage. Though it received plenty of hits, only a couple of square armor plating fell of its frame. Even though the exhausted Octagon’s armor looked half-empty with lots of square holes in it, the speed in which it burst through the bullet barrage allowed the nimble mech to stab its spear against the rifle, destroying it with one firm blow.

The rifleman mech didn’t panic and let go, drawing a short sword from its hips with its other hand. The Octagon, having put most of its forward momentum in that spear thrust, let go of its weapon as well and entered the rifleman’s reach without even withdrawing its own backup weapons.

Instead, in a feat of amazing piloting, it ducked when the sword swiped at it and reached the rifleman’s side. With the flank wide open, the rifleman could only allow the Octagon to kick to the side, dealing critical damage to its knee joint. The loss of balance that resulted from the blow left it unable to leverage its sword. This gave the Octagon enough time to retrieve a heated knife who stabbed it in the back.

The two mechs fell, both pilots downed within a minute. The Octagon left the battlefield without a word and dived deeper into the fallen city, hunting and seeking more prey to devour.

Ves emerged from the vision with a bright light in his eyes. With the information he gathered so far, he envisioned an idea how to shape his own variant. His first spin on the Octagon would be an overall enhancement of the base model. He wanted to retain the savage nature of the Octagon and preserve its hunting instincts. While the mech excellent in energy efficiency, its armor could not keep up. Therefore Ves needed to redesign the Octagon’s armor scheme and somehow make a comprehensive improvement while not impacting the mech’s speed and agility too much.

Ves stripped the Octagon’s standard armor and started from scratch. The mech’s internals looked skinny and lighter than a normal medium mech. It bordered the weight class of a light mech. With his upgraded Medium Armor Optimization II, Ves developed several prospective armor schemes in which to clad the naked Octagon frame.

If he maximized the number of larger plates, Ves was able to offer a great amount of protection. However, use of too many oversized plates also increased the gaps in the armor as he was forced to make it less form-fitting.

Using smaller plates allowed Ves to conform the armor closer to the internal frame. While this increased the variant's mobility, a bunch of smaller plates plainly offered less overall protection than a single large plate.

He therefore spent roughly a day to draft an armor scheme that fell in between. Using his enhanced skill, he cleverly employed the SquarePlate at subtle angles, never letting a single surface lay completely flat. This introduced a slightly disorienting pattern to the mech. The different angles allowed the mech to ablate incoming damage a little better. However, it risked pooling damage towards the troughs of the armor surface.

To solve this hidden problem, Ves added extra armor underneath the SquarePlate layers. He enhanced critical portions of the square-like wireframe that held the plates together with FlexiPlate. The bendable armor could be formed in such a way to squeeze between any contours, making it trivially easy to design airtight fits that added a layer of protection between the top armor and the internals. The FlexiPlate's amazing shock absorption also gave the new variant more resistance to damage that resulted from employing tight turns and risky falls.

The System's tools helped ease the delicate design work, but since it involved making on-the-spot judgements, Ves had his share of heavy lifting. It took two days to come up with a two-layered structure where thin layers of FlexiPlate cushioned the heavier layers of SquarePlate. It took longer than he thought due to the added challenge in maintaining a single vision for his new variant.

Without enhancing his concentration and endurance, it remained a chore for him to keep his intent sharp. As the X-Factor was his only real specialty so far, Ves could not skip such a small but useful advantage. He wanted to improve

his ability to impart the X-Factor in his mechs. What would a mech look like if it achieved an A+ rating for the X-Factor?

"The galaxy will shift when that happens." Ves jokingly thought. "It would be the birth of a god."

Still, Ves thought it was unlikely for such a fantasy to come to life. Despite being half-convinced that mechs do possess the capability to exhibit signs of life, he doubted it reached the extent imagined in apocalyptic scenarios.

His best result achieved a C- score. The budding designer hoped he could break past his record with his new Octagon variant. After affirming his motivation, Ves dove into his work once more and refined the armor scheme again. The armor he produced so far was a little on the heavy side and he hadn’t even designed the fittings for the joints.

Step by step, the shape of a prowler came into existence.

## Chapter 50: Hunter

Ves looked at the fifth iteration of the Octagon’s radically redesigned armor scheme. He spent a week to come this far. The main changes he made involved setting plates in certain oblique angles that made it easier to deflect damage instead of taking it head-on. The use of subtle angles and a ribbed pattern made the mech appear as if it wore a crocodile’s skin.

Incorporating such an unusual armor scheme came with a major disadvantage. By stacking the armor plates at an angle, Ves needed to incorporate more armor in the same surface area than if he stacked the plates at a flat angle.

It was like using a pack of cards to make a house of cards instead of just placing them side by side. One method maximized the surface area, while the other method increased the density. In order to keep down the Octagon’s

weight, Ves was required to shave off the amount of SquarePlate armor layers and skimp down on the FlexiPlate.

"After all this work, I don’t think the mech’s armor has improved very much." Ves sighed. The dramatic improvements he anticipated hadn’t come true. Physical limitations simply couldn’t be bypassed no matter how many tricks he employed.

"Still, it’s impressive enough that its ability to absorb damage is improved by 5% or so without impacting its agility."

It came at a significant cost. The SquarePlate armor that he liberally used was more expensive than the Octagon’s stock armor while actually providing a slightly lesser amount of protection. If Ves wasn’t insistent on using a modular armor system, he could have made much higher gains with alternative armoring.

Through his work, Ves felt he was missing an ingredient to make his ideas work. An invisible wall stopped his efforts in completely harmonizing the armor with improved protection while avoiding too many speed reductions.

"This is a more complex problem than I thought." He concluded, and admitted that he underestimated the difficulties in conjuring up a magical solution that no one had ever thought about. "I’m too burned out to work any further on this design."

He noticed a difference when he worked on the Octagon. When he worked on his two best products, the Fantasia 2R Seraphim and the CA-C1 Marc Anthony, he worked on them with a great amount of passion to the point of ignoring difficult-to-solve defects in their design.

That was especially the case concerning the Seraphim, which he whipped up in record time very early in his career. If Ves revisited the Seraphim, he might just die from embarrassment from all the faults he left in the design. Yet Ves

felt none of his pride for the design diminishing. The Seraphim was a successful product, and a handful of young Bronze League players enjoyed their time with it. The design possessed a spark of life.

Could he say the same for his latest project? Ves estimated if he forcefully grinded out a new variant off the Octagon, he'd end up with a pile of junk. He learned something new today. No matter how much you focus your mind on a single intent, it didn't replace real capability. His skills needed to keep up with the image in his mind.

He revisited the image he kept in his mind. He wanted to design a hunter, a predator of the streets, one that could match the range of motion of apes while being able to fight like a human. He eluded all pursuit and instead chose to pursue his enemies. None could survive a blow they couldn't see coming.

"It's missing a stealth option." Ves realized, then scratched his head.

The 2-star generation of mechs offered more mature options for stealth, but they still had their flaws. It cost a lot of credits to purchase a license that was only effective in a very small range. He couldn't justify the expenditure in a pure cost to benefit judgement.

"But my feelings say it needs this option."

The original Octagon made due without stealth. In highly urbanized environments, metal was everywhere, from the structures to the vehicles and even the pipes running underneath the streets. All these obstacles severely hindered certain sensors but not all of them. If an Octagon managed its heat and footsteps well, it could sneak up behind its prey or let them pass its hiding spot without detection.

"It's too slow though." Ves noticed the hole in such a tactic. "There's no way the Octagon can jump on an alert opponent."

In real life situations, mech pilots never knew how many opponents were on the battlefield. That wasn’t the case with arena-style matches, as the game always gave a team an equal amount of opponents. With such information in hand, the pilots would never let their guard down if they haven’t killed the expected number of adversaries.

"There’s no way I am getting out of this without buying a stealth module."

Ves let out a resigned sigh and followed his instincts. It kept nagging at him to plug this hole. He exited the Designer and turned to his desk terminal. He booted up Iron Spirit and visited the 2-star section of the market. He skipped all of the other goodies in his sight and focused solely on the stealth components.

When it came to hiding mechs from the senses of others, the market offered many options. None of them were perfect but all of them cost a fortune.

The particle ejector was the cheapest option. It worked by throwing a bunch of specialized particles in the air and let it spread wide in other to overwhelm his opponents with false readings. Specialized anchoring incorporated in the minute particles allowed them to hover in the air for an extended amount of time.

The problem with such an approach was that it did not distinguish between friend or foe. You were likely to blind yourself and your allies if you pumped a lot of junk in the air. It also pretty much announced to the enemy that you lurked nearby and wished to come close and jump at them. Furthermore, the particles followed the wind and could be blown away easily in certain situations despite their anchoring.

Another option involved employing active sensor countermeasures such as ECM. They came in many flavors and sometimes could do a lot of things at once. They could pump out noise that disabled certain long-ranged sensors.

They could project a fake mech a distance away or they could produce many identical mechs in a small area to make it seem a single mech came in a big group.

Ves wasn’t entirely unfamiliar with ECM systems. He used such a thing before in the Seraphim and the Phantasm and it supplemented the evasion of those mechs. It could benefit the Octagon as well as this model relied heavily on evasion when under fire.

ECM came with its own downsides though. The more powerful modules slurped plenty of energy, could not fool all types of sensors and the act of turning it on full blast already radiated signals that could alert an unsuspecting opponent. It also couldn’t fool exotic sensors such as those that measured ground vibration. Lastly, the enemy pilot could simply cease relying on his machine and used his human senses to observe the battlefield.

The last type of stealth measure was the use of specialized coating or armor. By cladding the mech with an outer layer that suppressed signals from bouncing back to the opponent’s sensors, it could quietly sneak around without getting detected by the enemy.

However, same as the other options, such a trick was unable to suppress other signals such as sound and vibration. Opting for stealth coating or armor also meant missing out on more damage resistant options. For example, a popular add-on mech pilots like to buy was a special reflective coating that slightly negated incoming damage from lasers.

The three options of chaff, ECM and stealth coating represented the limited progress of stealth technology at the time. More sophisticated solutions started to pop up in the following decades, but Ves had no access to them due to their higher star ratings.

"The Octagon isn’t a saboteur, even though it can work as one."

There was an important distinction in role. Saboteurs generally avoided seeking out conflicts and operated mainly behind enemy lines to attack critical infrastructure nodes. The Octagon on the other hand specialized in pure combat in dense, complex environments. What it needed was an aid to help it kill its enemies better, not a way to elude detection entirely.

"Seems like the particle ejector is the most appropriate out of the bunch."

The particle ejector might be limited in the amount of particles a single mech could carry, but the ejector was relatively low-tech and could be mounted pretty much anywhere. Besides the payload canisters, it weighed very little and drew very little energy as well, allowing for minimal disruption to the performance of the mech. Much like missile launchers, the real technology was in its payload and not its launching method. The particles one could launch varied in their density, longevity, wind sensitivity and more.

Out of all the choices Ves had available, he picked a module that didn’t last very long but was highly effective in a larger area. His spending account shrank by 300,000 credits once he acquired the famed Relix Systems Valhalla Particle Ejection Module 1st Edition. Many other virtual mechs who sought out battlefield disruption methods chose the same particle ejectors. Its features were taylor-made for short duration but high intensity arena matches.

With a new goodie in hand, Ves read the manual and familiarized himself as best he could with the new technology. The main issue he faced was to decide where to mount it and how many canisters he added to the mech.

"At least the good thing about the canisters is that they can be ejected once they’re used up, much like the modular armor."

Ves decided to be generous and added four refills alongside the canister in the ejector’s chambers. While such an amount was excessive for 1v1s, the

pilot could always change his loadout beforehand in the lobby or discard the canisters at the start of the match.

He went to work adding the ejector and canisters to the back of the mech. Adding them there disrupted the balance of the mech but preserved its full range of motion. Still, Ves found the addition to be troublesome. It was like adding a backpack to an athlete. No matter how little stuff was put in the pack, it still dragged down the person’s peak performance.

"Wait a minute. The particle ejector isn’t very complicated. Why do I even need to make a fixed attachment?"

There was nothing stopping him from improvising an external shell around the module. The component drew little power and only required a single data cable to communicate with the mech’s processors.

Using the Designer, Ves rapidly constructed a cage that held the projector and four additional canisters. He then added a couple of fixtures that attached the cage to the back of the mech who carried the contraption.

He then turned back to his unfinished mech and modified the back to accommodate these fixtures. It was a little tricky designing slots that allowed mechs to attach and detach something from behind, but the Octagon’s impressive range of motion for its arm helped make it viable. It actually took a day of tweaking to refine the design.

After accomplishing all that work, Ves smiled at his work. The variant’s capabilities had increased without negatively impacting its mobility. If the mech was on the hunt, it could engage its particle ejector beforehand and detach it from its back once it did its job. After stowing it in a corner, the mech could fight to its heart’s content. It could return to re-attach the particle ejector if it successfully survived the battle.

"The only problem emerges if the mech is attacked from behind."

In order to accommodate the attaching system, Ves was forced to poke some holes in the rear armor. While not very large, these gaps provided enemy sharpshooters a small chance to disable the modified Octagon in one shot depending on its damage type and caliber.

Everything had its tradeoffs. Ves chose to go down this path because it fit his variant's hunter mentality. "Let's add to the flair."

As Ves had incorporated the Festive Cloud Generator in pretty much all his mechs, the new Octagon was no exception. He added a high capacity version of the module to the particle ejector cage. Ves set its color profile to be a psychedelic mish mash of bright colors, though he also added in the usual white, grey or black presets to its settings so that pilots could pick whatever they preferred.

Ves programmed the Cloud Generator to go off just as the particle ejector launched its own payload. The colorful mist and the disruptive particles would then mix together and drown the local area with both sensor dampening particles and disorienting rainbow mist.

Naturally, mechs possessed alternative sensor modes to make the latter useless, but it was a nice psychological trick to force enemies to switch anyway. He even tweaked the Octagon's viewing mode to switch automatically once it activated the particle ejector.

"Hm, the Octagon's sensors aren't very exceptional either."

The main problem with throwing crap in the air was that it affected everyone indiscriminately, including the Octagon. With the level of technology back then, Ves had no good solutions to mitigate this problem. Incorporating high-powered sensors not only drew more energy than he was comfortable with, they also acted as a lighthouse in the middle of the dark, practically exposing the mech's location.

"It’s up to the pilot to make the best out of the equipment. I can’t do anything else to help."

Ves refined the mech’s armor scheme once again in order to properly accommodate the cage on its back. With its spear and knives, the mech looked more menacing than the base model. He spent two more days on refining its angles and perfecting its balance so that the mech wouldn’t lean too forward or backwards whether it carried the cage or not. After a final polishment, the variant came near to its final form.

The last step involved adding the coating. Ves chose to mimic the base model and gave the mech in a highly reflective chrome exterior. Such a choice made the mech difficult to hide from optical sensors, but it might provide an interesting appearance when it fought in the middle of its particle cloud.

Once he fully completed his design, Ves gave the mech a name. "Let’s call you the Mist Prowler. Well System, how did I do?"

[Design Evaluation: Mist Prowler.]

Variant name: O-225CM Mist Prowler

Base model: Octagon O-225C

Original Manufacturer: Globe-Elstar Corporation

Weight Classification: Medium-Light

Recommended Role: Guerilla Fighter

Armor: C+

Carrying Capacity: E-

Aesthetics: B

Endurance: B+

Energy Efficiency: A

Flexibility: A

Firepower: F+

Integrity: C

Mobility: B+

Spotting: D+

X-Factor: E

Deviance: 37%

Performance improvement: 14%

Cost efficiency: -50%

Overall evaluation: The Mist Prowler is a reimagining of the base model that performs slightly better at a much higher cost. The mech features a redesigned armor scheme that has marginally improved its damage absorption capacity but provides increased mobility in battles of attrition. The added particle ejection system gives the mech an advantage in shorter battles if the pilot is skilled enough to make the best out of the opportunity.

[You have received 75 Design Points for completing an original design with a performance improvement of over 10%.]

[You have received 100 Design Points for designing a mech with a trace of X-Factor.]