Jackie and I did end up picking up lunch on the way home from Viks, snagging two pizzas from some random joint he knew. It only kind of smelled like melted plastic, so I guess that was better than normal. I convinced him not to put crickets on one of them as well, so I was expecting it to be edible in at least a loose sense of the word.

We arrived back at Rocky Ridge at about two PM, waving Kaytlyn over to eat lunch with us. I took a feedstock pill for my nanohive, just as Vik had told me, before eating a good two-thirds of the "cheese" pizza, as well as a bag of chips.

The less said about it, the better.

We quickly realized that none of us really wanted to hang around. I had work to do, Kaytlyn was technically on watch duty with Murtaugh, and Jackie had a shipment of cyberware to sell off.

"Good call with the Pizza!" Kaytlyn said when we were finished. "I'll be around the town if you need me!"

I waved as she left, turning to watch a MRVN unit help Jackie load up a box with everything that Vik wanted from our most recent loot. It was a good chunk of stuff, totaling around twenty thousand eddies. I would have told Jackie to give him a good deal if I didn't already know for sure that he already was.

Jackie left not long after that, a duffel bag of Cyberware strapped to the back of his <u>Nazaré ARCH</u> motorcycle. After waving him off, I sat down and examined the work that Samwise and his team had done while we were gone. In total, four MRVNs had been assembled, with a fifth on the way. One of them was painted green and had a more advanced connection for its AI core added paneling, and some better quality servos and sensors, which were on par with the updated version of Samwise's body, not including his extra hands. This would be the new foreman's body.

Thankfully, the molly maker had already finished making the advanced AI core, so all that was left was to program it.

I knuckled down and got to work, using Samwise architecture for the basis, with his permission, before growing and modifying it extensively. This AI would be his "younger brother," in the same way that Murtaugh and Riggs were "siblings," built with similar base programming but divergent extra layers. While this AI was still capable of working on small-scale stuff, its primary focus would be on larger projects, like an architect versus a mechanic. It would work alongside Samwise, and when large projects came along, like the addition to the garage, he would handle those.

The programming process only took a good two hours, thanks to Samwise's contribution, but I paused just before turning him on. I had been procrastinating getting the medical droid running, but it was technically completely ready to go. I just needed to feed it the medical information we had gotten from Chuck.

I had a pair of MRVNs come with me to the doctor's clinic we had set up in the small side room of the BD Shack. The building as a whole had been wholly repaired and stripped down, now functioning primarily as storage. With a quick set of instructions, both of the MRVN units worked together to carry the <u>doctor robot's</u> frame back to the garage. I then spent about an hour feeding it nearly two dozen medical books, cyberware maintenance books, doctors' journals, ripperdoc guides, and lesson books. Chuck had gotten quite a wide selection, including some that were surprisingly advanced. By the time I was done, I was confident that the medical AI was a solid stand-in for all but the most talented doctors or ripperdocs.

Once I was done, the MRVNs helped me bring both of the yet-to-be-activated AIs into the garage side room, setting them up on one of the room's couches. I activated them together, both of the robots powering up at the same rate. As they did, I sat beside Sam on the couch opposite them, waiting patiently. Once I saw their sensors flick on, I smiled at both of them.

"Hello, my name is Jackson," I explained before gesturing to my side. "This here is Samwise. Welcome to the community."

Both of them remained silent for a few seconds. Eventually, just before I started getting concerned, the modified MRVN spoke up.

"Greetings creator," He said simply. "Thank you for activating us. Should we begin our duties?"

"There will be plenty of time for that later," I assured them both. "For now, let's talk. I want you both to understand you are valued members of my team and that you are more than just the task I built you to assist with."

"Very well," they responded after another suitably long pause. "What is it we should discuss?"

We sat in the side room, chatting and talking about our circumstances, why I created each of them, and what their priorities would be. They were already starting to break a little free of their monotone voices as their conversation learning program adapted, their speech diverging. It was slow, but with all my experiences with their systems, I could just barely make it out.

After talking for a while, I left to get started on my next project while Samwise continued to speak with his new half-siblings. Eventually, he would introduce them to the internet for their own research and naming.

With the AIs up and adjusting to being alive, I moved back out to the workshop. It was time to finally solve something we were sorely lacking.

## Communication.

For a while, I had put off setting up our own communications because doing so would mean opening us up to avenues of hacking. So far, almost all of the tech being used at Rocky Ridge was secure simply because people had no way of accessing their systems. I *still* really

didn't have the best idea how powerful the AI I had made were compared to some of the native systems here, nor did I know how well they would stand up to the hacking tech popular in this world.

In my mind, it was better to suffer through not being able to remotely connect to things or link them into a network, than it was to worry about someone subverting or damaging said network. Of course, I had missed a few critical pieces in that assumption. One, communication was important, especially when our group was starting to take on more challenging jobs.

Two, if our communications were on a single loop, it didn't matter if they could be compromised. Sure, losing operational security would suck if someone tapped into our comms, but if everyone had a radio clipped to their belts, then that's all any prospective hackers would get access to. No way to use the radio to hack a computer if they were not connected.

That said, I wasn't about to let everyone use unprotected comms that any two-bit netrunner wannabe could crack open and use to compromise our missions and plans. With all of the powerful Als out there, there is no doubt in my mind that one of them could mimic one of our voices.

...Okay, I was maybe being a bit paranoid, but in a world like Cyberpunk, there wasn't much wrong with that. Either way, once I had settled on using radios, I got Chuck to buy a decent model in bulk. Rather than start from scratch, I would modify an existing model until I was satisfied.

I started by cracking open the handheld unit and inspecting the interior parts. This particular model could cover several miles, had decent enough quality speakers, and was robust enough that I wasn't overly concerned about dropping it. That meant all I needed to focus on for modifications was security.

Riggs, who had stopped by to check in, puzzled over how to best secure the radios with me for a while, until eventually we came up with a three-part solution.

The first was a scrambler. This would be connected to the radio's speaker and microphone and would take samples of incoming and outgoing sounds. It would then turn them into variables to use in selecting new radio frequencies a few dozen times a minute. It would do this according to a specific stored equation, one that all scramblers would share. That way, as long as the radios were encountering the same messages or background static, all of them would shift together to the same new channels.

Of course, there were inherent flaws to this design, meaning there was considerable drift in the channels. Depending on interference, distance, and usage, the channel frequency for each radio would deviate to the point of failure over ten and fifteen hours. So, we included two ways to fix this. The first was an internal, short-range sensor. Basically, by pressing a button and tapping two or more radios together, they would sync back to the median frequency, extending the connection for several hours. There would also be the base. The base would be kept here, at Rocky Ridge. On the base would be two stages of radios, in use and reformatting. The base would charge the radios, since there was no way I would be using an E-node on something like that, but it would also change the variables and equations that the scramblers used. Once every twenty-four hours, we would switch one radio batch for the other to keep the equation from being predictable.

It was *serious* overkill, and when I showed the concept to Kaytlyn she snorted and shook her head.

"You don't do things by half, do you smart boy?" She asked. "Well, it should will work to keep our communications unpredictable. Better than calling each other during a mission, at least."

I got the medium maker going on the radio base, then got the small maker going on the scrambler chips. After that, I basically washed my hands of the project. Any MRVN unit could handle the assembly and modification process, so there was no reason for me to do it. Besides, I was still tired from being under anesthesia for the bone lace. Rather than push myself unnecessarily, I decided to relax for the rest of the day. I only had one day left before I got my new expertise, and I wanted to be ready and rested.

About an hour into my break, sitting on the roof of the garage and watching the sunset with a cold glass of water, both of my newest Als called me down. I smiled and quickly made my way down to them, greeting them with a smile.

"Whats up, guys?" I asked.

"Sir, we have reached a conclusion for our names," The green MRVN unit stated. "I wish to go by the name Noah."

"And I wish to be called Frank," The medical droid stated, its hand neatly folded over its "stomach."

"Sure, that works for me," I agreed with a smile. "Any particular reason?"

"I was designed to orchestrate large construction projects, similar to how Noah built an ark," He stated, surprising me with his statement.

"Biblical names are usually solid choices," I said with a smile, reaching out to shake his hand. "It's good to meet you, Noah."

The AI nodded, and I focused on the medical bot. His hands were still clasped in front of him, and his head bobbed as he spoke.

"I have chosen my designation because of a famous experimental doctor that made interesting progress on human most accursed disease," He explained, though he failed to explain who exactly that was. "Though his creations were not viewed in the best light and would eventually lead to his death." For a moment, I tried to puzzle out who exactly he was talking about, worried that he might have selected some infamous doctor. After a moment, a creeping suspicion took hold, and I frowned.

"Do you mean Doctor Frankenstein?" I asked, giving the bot an unimpressed look.

"Indeed I do," He stated, almost proudly. "I have determined that, while unorthodox and eccentric, Dr. Frankenstein is a noble role model. His struggle to beat death and create artificial biological life is admirable, even with his eccentricities."

"I... I'm not sure I agree with that, but I won't tell you who you can and can't name yourself after," I eventually managed to get out. "That said, there will be no unethical experimenting here. On willing or unwilling subjects."

"Of course, Sir," He responded, a faint hint of offense leaking out into his voice. "I am bound by the Hippocratic Oath to do no harm. I would never be so crude."

"Good, that's good. Noah, I would like you to let Samwise brief you on the progress he has made with designing the garage addition," I said, the foreman nodding. "Then you can take over from him. You have five MRVNs to work with and the large molly-maker at your disposal."

"Sir, if we begin construction within the next day, we will quickly burn through our resources," He explained, a frowny face appearing on his screen.

"I know. I'm waiting for the money to come in from our latest gig to buy the rest of the land around the town," I explained. "Once I do, any MRVN that's free is on scrapping duty. I want to save a few more of the trailers that are in good condition, but everything else is scrap."

"And beyond that?"

Noah was designed as a foreman, meaning the projects he would be working on could potentially take weeks or months, even years. While Samwise and I needed to focus on the moment to take advantage of my tech trees, Noah was much more long-term oriented. He was programmed to worry not just about the current project but also about the project after that. It wasn't surprising that he was a bit heavy-handed in doing that at this point in his development.

"I want to set up some way to start dragging scrap from nearby trash piles," I explained. "The easiest way would be a truck or trailer with a couple of MRVNs, which we could do in a pinch, but I have some ideas for more independent systems. But considering just how much scrap and trash is around town, we have quite a while before we need that."

"With all due respect, Sir, I believe you may be thinking in terms of small builds" He warned. "Attempting to make larger projects will most likely result in a serious resource deficit."

I frowned and considered his words. The area that I already owned was largely cleaned up of trash, but there was still quite a bit of junk, from vending machines and fences, all the way up to junk cars and trailers to be scrapped. There were also a lot of polymer junk cubes stacked up by the mass recycler shack since trash seemed to skew pretty heavily toward plastics. It *looked* like there were still a handful of large scrap sources, but we had only been building smaller stuff so far. After looking around for a moment longer, I turned back to the pair.

"Frank, you're free to head back to the clinic and familiarize yourself with the room," I said, giving the AI doctor a nod. "I know it's not much, but we will build you a proper medical space soon."

"Thank you, sir," He responded with a rescpectful bow. "I am sure the room will be adequate for now."

With that, Frank turned and walked away, heading to the BD shack. Meanwhile, I turned to Noah and gestured for him to follow me back into the garage.

"I'm assuming you've done some fancy math to back up your estimation?" I asked, sitting down on my workstation chair.

"I did, Sir."

"Right, well. What kind of material deficits are you anticipating?"

"We currently have the materials, mostly in the form of scrap, for a decent-sized addition to the garage workshop," He answered. "And purchasing the remaining land would give us enough to complete a few small structures. But beyond that, we will not be able to keep up without significant material infusion."

"Noah, we don't have much demand for buildings at the moment, so that amount of materials is fine," I explained. "That said, I don't like cutting it close..."

For a moment, I considered the predicament. I liked the idea of us always having a surplus of materials, especially when I could get a good chunk of those materials for free. I turned to look around the garage and spotted my assistant.

"Hey, Samwise. Did you get a chance to take a look at the new truck we brought in?"

My assistant looked up from his current project, which seemed like some parts for a specter unit. He tilted his head for a moment before nodding in confirmation.

"I did. The vehicle is in good condition. Its engine is sturdy with no signs of rust on the undercarriage," He responded. "I believe you were quite lucky in your selection."

I frowned and nodded, running over a potential idea in my head. Having a solid source of materials could only be a good thing, and while sacrificing one of the trucks would be unfortunate, I had no doubt I would be able to snag something else pretty easily.

"What if we converted one of our trucks into a mobile scrapping vehicle?" I asked out loud, spinning in my chair. "We could disguise it, use a holoprojector to hide that a MRVN unit is driving it, and send it out at night to the trash fields to gather and refine scrap into materials. Then, we could build up a surplus for now. When we run out of scrap around here, the vehicle can serve as a template for multiple vehicles to make up for it." "... a constant new source, even if the amount is low, would ensure a more stable resource cycle," Noah admitted. "I believe that is a serviceable solution."

"Good. Alright, I'll get to work on that, and you and Samwise can talk about the addition," I explained. "Once I'm done with the design, we can go over it."

Both he and Samwise nodded, Noah heading over to Samwise's workstation. They began to discuss the new Al's first project, while I got to work.

The project was actually deceptively simple. The hardest part was finding a way to keep the truck from looking suspicious. Every bit of unwanted attention made its discovery more and more likely.

I hopped into the <u>Thorton</u> and pulled it into the garage, climbing inside the back to start taking measurements and plotting out the vehicle's frame, so I didn't cut anything that would ruin the structural integrity. When I had a better grasp of its numbers and its structure, I started cutting.

A fusion knife made quick work of the back seats, from the swerve handles down to the upholstery and everything in between. I cut the divide between the truck bed and the back seat out before carving out everything else I could. When I was done, I was left with a pretty decent space that went from right behind the driver and passenger seats all the way to the tailgate.

By then, it was starting to get late, and since I really didn't want to build up any sleep debt before my new tech tree came in, I decided to call it a night. Luckily, Samwise was done talking to Noah about Noah's plans for the addition. I gave him the task of reinforcing the truck's frame, neatening up the removal work that I did, and giving the engine and systems a once over, just to make sure the truck would last once we started using it.

He assured me the truck was already as well maintained as they could get it at this point, but that he would strive to complete his assignment. I thanked him before heading off to bed.

I woke up early the next morning, opening my eyes to look at the ceiling of my trailer. I only had around seventeen hours before my next tech tree slotted into place, my timer slowly ticking down, getting lower and lower. As I laid there, I wondered what I would get, and if it would be as much of a mad dash as Titanfall had been.

Eventually, I couldn't delay the day any longer, so I went about my morning routine, before heading out to the garage.

The truck was still in the side bay, though it had been moved forward a bit to give Samwise room to work on a specter frame. I assumed that meant he was done with the truck, and as I walked around to see how it turned out, I was proven correct. The interior frame of the large vehicle was considerably reinforced, and the once rough transition from cleared out space and the front end was cleaned up. He even put up a polymer wall to separate the two sections.

"Great work, Sam," I said, giving him a thumbs up as I sat down at my computer. "That should work great."

"It was nothing difficult," He responded. "The MRVN units did most of the work once I had a design in place."

I nodded in understanding before diving into the next step. I had no interest in hauling scrap and trash around anywhere, especially not back to Rocky Ridge, so I was going to build a large mass recycler into the back of the truck. I was then going to take the internal storage system from that recycler, and extend it to fill the rest of the truck space. That way, the driver and the unit outside could spend all night stuffing the truck with scrap, and return with sorted, usable materials.

The most complicated part of the design process was the ability to eject materials, like the plastic blocks, when the corresponding storage was filled. The bots in charge of running the process would have to return three, maybe even four times a night just to unload the plastic alone if it built up too fast without a way to eject surplus.

Using the new measurements provided by Samwise, I modified the dimensions of the mass recycler and began printing out the pieces immediately, before moving onto the internal sorting system. I also added the design for a hidden panel along the side of the vehicle to control and eject the refined materials through a series of ejection ports. The truck would return after a night of scrapping from nearby trash and scrap heaps and offload its payload into various containers.

Between the printing, design, and installation processes, the project was completed by three PM. Of course, for most of that, I wasn't really involved, only really checking to make sure progress was going well. For most of the time, I was working on other stuff, like the designs for a <u>DMR</u> option. I didn't end up printing one out, since we didn't have anyone who wanted one, and the few specters walking around with sniper rifles could cover that gap well enough for now.

At that point, I would have called Jackie over so I could work on his pistols, but he was busy wheeling and dealing our latest loot, driving around to ripperdocs to sell our wares. So far, including what we got from Vik, by that afternoon, we had sold forty-two thousand eddies worth of our loot. By Jackie's estimate, we had another forty or fifty left to go.

Between my cut of that and the money I was making from the gadgets I had sold to Padre, plus the fact that I wasn't buying nearly as many materials, I had a sizable chunk of eddies to burn. Unfortunately, I knew exactly where the vast majproty of it was going to go already.

As Samwise and his helpers contiued to work on the scrapper truck, I called the remaining landowners of Rocky Ridge. Most of them were just as eager to sell their land as the first few, but a few were a struggle. The third person I tried to contact was dead, which led to an hour-long game of phone tag, trying to contact her remaining beneficiaries. Two more had heard I was buying up the land and tried to take me for a ride. I couldn't exactly blame them, if the situation was reversed I would bump up the price as well.

In the end, I was unfortunately forced to accept Riggs' offer to give me his cut of our most recent gig. I would only take the ten grand from Padre, and only because I didn't like the

idea of going almost broke buying the land. I promised to make him something special, but he shook his head in denial.

"You just finished upgrading me," He correctly pointed out. "Work on Murtaugh."

After confirming he was sure, I sent him away, a proud smile on my face. Riggs' personality was developing nicely, the large 'bot turning out to be a surprisingly thoughtful guy of very few words.

A quick check in with Samwise confirmed the scrapper truck still wasn't complete, so I went out to find Murtaugh and make good on my agreement to Riggs. Or that was the plan, at least.

"I don't need anything, sir," the AI assured me, after giving me a salute. "I am a commander and a strategist. My strengths does not come from myself, but the assets and people I command. If you wish to upgrade my abilities, then upgrade those."

"That... yeah, okay, That makes sense," I said, nodding in agreement. "As long as you promise to let me know if that changes and you want something specific."

## "I will, Sir."

We talked for a few about an hour about what sort of upgrades to the town he would like to make it easier for him to protect. It turns out that what he really wanted for the town were some hardened, defensible spots, preferably with some heavy weapons stationed at each. I really couldn't disagree with how much more secure that would make us, so I saw his point pretty quickly.

I promised to get Noah on the task of designing some proper defensible structures, assuring the AI his new sibling would consult him before even considering starting production. I also warned him with my rapidly approaching new tech tree, there was a very real chance his project would get delayed. I did agree that some hardened structures would be a good investment, but I couldn't hold back on important developments in a new tree to pour concrete or let the molly-makers print out large weapons, which I also promised to design when I had the chance.

He was right, though. Rocky Ridge was criminally under defend. We had twenty-five specters at this point, armed with a variety of weapons, though we only had eight or nine of them active at once to keep the actual number hidden. I needed to imporve the towns defenses as soon as we got the chance. Preferably before I regret not doing it sooner.

When I was done talking to Murtaugh, I returned to the garage, eager to see how the modifications to the Thorton had turned out.