**Royalty Amid an Empty Nothing**

Helia awoke with a gasp. Sweat ran down her face suddenly, and her vision was blurred beyond recognition.

Where was she?

Her hands shot out reaching blindly around her. They touched something cold and metal.

“Ah. You are finally awake.” A cold voice said from what seemed like miles away.

“Where am I?” She asked, still feeling around.

The metal was smooth and curved but not part of an object she recognized. She knocked her hand against it, but it didn't make any recognizable noise.

“Oh. You might have a couple of moments of disorientation. I take it this is your first cold sleep?” The voice asked.

She stopped flailing around and turned red as she remembered where she was. She was heading towards the Scion of the Entity the Alliance had assigned to her. This was a great honor, one of the greatest a scientist of any race or nationality could ever experience. And here she was, blubbering and flailing around…

“There is no need to be embarrassed. I'm sure there was some… reason the Alliance chose you for this exchange.” The voice said. Helia was having trouble understanding its cadiance, but there was a layer of sarcasm she thought she detected in that statement that she didn't like.

She got to her feet, the world still a dull gray blur around her, and straightened her clothing.

“So we are out of sleep then. How close are we to the Scion?” She asked the general direction of the voice she had heard.

“By your perception? Simply a few minutes longer. The engines must recharge.” The voice said.

Her eyesight seemed to be returning. As she rubbed her hands against her eyes her surroundings came into view.

She was in a tiny cell, barely big enough three people. The walls were curved at odd geometric angles, and seemed to move slightly before her eyes. There was no sign of any cold sleep device or any trace of the other speaker.

She frowned, looking around the cell a second time, looking for some sort of latch or doorway that she had missed. There was none. She took a breath and ran her hand through her hair, happing to stare at the ceiling as she did so. It as well was bleak and featureless, however, there was some trace of illumination coming from its featureless angles.

Is this some sort of test? He hadn't seemed too pleased when they had presented her as the exchange candidate. That was hardly her fault though right? She grimaced. When she thought of how many years she had slaved at her work, just to be subjected to such an impassionate acceptance…

She consciously tried to dismiss those thoughts. She had of course spent months studying what the Alliance knew about this Entity. All machine. The memories came back to her.

She shook her head and sat down on the floor, staring at the wall. Hell it was surprising that it even spoke to her.

She tried to think back on the meeting and found that the memories were coming quite clearly now. She remembered The Conference, and her own nervousness to be included in such an event. Now more than memories came back to her, a flood of emotions, disgust at the Entity known as Megareeth, or at least its clone, and hatred at the Heronians for their deception.

She clenched her hands. Gods, she had never anticipated how powerless she would feel so far away from the conflict. True, she had never been on the front lines, but she lived in the Alliance, and all worlds had felt the effect of the thing the Ebrin Collective had devolved into.

A sudden thought occurred to her. There was something that she could do, her entire purpose here infact, at least in the eyes of the upper Alliance. She felt through her pockets but was shocked to feel nothing in them.

A voice suddenly came from the walls. “I warned them against any espionage the last time. But I'm not surprised they didn't listen. I will assume for now that you were only tacitly involved...”

She got to her feet quickly and looked around for a hole or speaking device, but it was clear there was none. She felt the need to defend herself.

“I knew nothing about...”

“Don't lie. The devices have been repurposed. There is no need to worry about them any more.” The voice said.

She thought hard, wondering what she was supposed to say to that. Her fingers twisting themselves around a lock of hair. Her hand came away in shock. Unsure whether she was feeling things right, or for some reason was still disoriented from the sleep, she tossed her hair in front of her face.

No, it could not be denied. Her hair was a good inch longer than it had been.

The Entity, or its representative had been fine in responding to her questions up until now. There was no reason not to ask, yet for some reason she felt very out of control of the situation. It seems there was no amount of studying one could do for coming into contact with an Entity.

“How long was I in cold sleep?” She asked.

“We were in cold sleep for a year.” The voice replied uncannily fast after the question had left her lips.

Shock ran over her and she covered her mouth with her hand to keep back a cry. A whole year? A whole year? How many people had died on countless worlds? How many discoveries had been made without her? What would her colleagues think, knowing she had spent a whole year doing… nothing!

“But your Scion then, its here? A light year away?” She asked. She didn't know what she would do if it replied that more cold sleep was necessary.

“Not quite. Its actually five hundred and twenty six light years away.”

Five… hundred? She collapsed to the ground.

No. She had signed up to help the cause. She had signed up to learn from the most intellegent being known. She had signed up to help people. Five hundred light years… even at the speed of light… Everyone she ever knew or loved, her parents, her brother, they would all be gone. The war, hell even the whole Alliance might not be there after five hundred years. And that was one way! And to say nothing of the time dilation….

A chill ran through her entire being and she could not keep silent, even if the Entity was offended.

“No!” She cried. “Don't put me back to sleep!” She said, running to the wall and pounding on it in desperation. “Don't make the jump!”

However, this time there was no reply.

The hair on her neck started to raise, and palpably, yet invisibly she felt something shift in the room.

The engines!

“Entity, whatever you call yourself! You can't jump! It would ruin everything! You can't do it!” She cried again, still hammering on the wall in the vain hope that the thing was still monitoring her. Tears were now streaming down her face uncontrollably.

“There is no need to worry.” The voice responded, sounding somewhat distant.

There was a further click and a mosquito hum started, soon reaching inaudible levels. The floor shook just slightly, the only indication that they were actually moving she had felt since becoming conscious. The build up was more than palpable now, it was oppressive. There was nothing visual that she could see, no sound except the previous hum, no smells or feel or any change in the complexion of the craft's walls, but she felt an invisible force close in on her, as if threatening to destroy her.

The wall in front of her bulged and a somewhat human face emerged from the wall slowly. Following it was a humanoid shell, the same form the Entity had taken at the Conference.

She started to throw herself on the ground, ready to plead to the neigh god to not make the jump if needed.

As she did so, she felt restrained by some invisible force and remained on her feet.

The shell stood in front of her pale emotionless eyes watching her. It hands were raised, possibly the source of the force, but they were bent, not outstretched as it asking her to stop. Overall it almost seemed like the shell felt… awkward?

“I said there is no need to worry. I no longer need to use such primitive tools. We will be traveling by instantaneous displacement for the rest of the journey.” The shell said, lowering its hands.

She coughed, and shamefully wiped the tears from her face, painfully aware of how stupid she must look to the being. “Truely? You have such technology?” She asked in wonder.

The shell looked at the corer of the cell for a moment as if not wanting to make eye contact with her.

“For centuries. Your own Alliance has it as well, if only in its infant stage...” It said, now cocking its head as if trying to hear something faint.

She frowned, staring at the shell. “The Alliance doesn't have that kind of technology. The best we have is close to C and cold sleep...” She said trailing off. She realized she just disagreed with the Entity, and gulped. The shock and fear had already ruined all the lessons she had tried to synthesize about interacting with the being.

The shell shrugged. It was decidedly human reaction, but it was so unexpectedly so, that she again found herself unable to respond. It was clear that the information that the Alliance had on this Entity was either completely false, or only applied to some subcomponent of it.

“W-when are we going to jump?” She asked, unable to keep the emotion from her question.

“We just did.” The shell said, straightening to its full height.

“What!” She cried, looking around for windows which obviously didn't exist to confirm the statement.

The Entity stared at her for a brief second, during which an uncomfortable silent hung in the cell. She started to notice how close she was to the thing…

Suddenly the world around her unveiled itself, the walls shimmering then disappearing into nothingness. She and the Entity hung in space, surrounded by pinpricks on all sides. Directly behind them she could feel the heat from a star. Her mouth opened in awe.

The shell stepped forward and looked beyond her.

She turned around, a shimmer of the material betraying its presence as it filtered the light to viewable levels. The background was brilliant white, running past her and what seemed like through her, in violent searing purity. Even through whatever shielding the craft had, she could just barely feel the tremendous heat of the star hovering what seemed like mere miles away.

Pitch black against the churning plasma hung an amorphous crescent, what she could only assume were sensors appearing and disappearing briefly around its body. Her mouth remained open as she her mind tried to comprehend just how large it was. There was nothing to compare it to. There was no fixed point on its body to observe as they got closer. She could only stare and watch as they moved closer and closer, until the darkness of the Scion's shadow engulfed them, dwarfing them in its unimaginable size.

“We have arrived. Welcome to Scion prime. Welcome home.” The shell said. And for a brief second, Helia thought she could make out a smile on the thing's face.

The docking was seemless, with none of the jostling she had gotten used to above her home planet.

The Entity seemed busy with the docking procedure, so she left it well enough alone.

The wall opened up in front of her, revealing a small corridor lit difusely in pale blue light. The material of the wall was some grey bumpy material that didn't seem to reflect light. She took a hesitant step out of what she could only assume was some kind of ship, and looked around the corridor. It was empty.

“Its made out of nanobots.” A voice said behind her. She had to stop from jumping.

She spun around to find the Entity present again. It walked into the Scion with her and ran its hand along the wall. Before its touch, the structure rippled and swirled, becoming amorphous for a brief second before reverting to its structure.

“All of it?” She asked, looking around her. “Is that even possible?”

The Entity looked at her and nodded. “With capabilities such as mine, you start think more in terms of: what is practical rather than what is possible. And what are the energy requirements. Nanobots are easy to replace, reconfigure. You can build most things out of them if you know how.” It explained, walking further into the Scion. Helia followed, not sure of what to expect.

A sudden thought occurred to Helia, and she looked around for some sort of air vac system, but none was present. She shook her head. This technology was eons ahead of their own…

“Don't think I didn't prepare for your coming. I no longer need to breathe but I'm not so callous as to forget the needs of a guest. I don't know what sort of research you'll be wanting to conduct, but if its anything like the late Libenholz, my previous guest, I'm sure you'll find notes and equipment ready for anything you might want to do.” The entity turned towards a wall and made towards it. Helia realized that the being was about to phase through it, and dong so would leave her alone.

The thought of being alone in such an alien location terrified her. She had been warned about the loneliness, the lack of social interaction, been given mental and physical exercises, even simulations, games, books and a rudimentary AI companion on the devices which had been taken from her… but now that she was actually here, none of it seemed to matter, or even help much. All that she knew was if the being, which at least looked human, walked through the wall without explaining anything to her…

“Stop please.” She said, sounding much more pleading than she intended.

The shell stopped and turned back to face her, its eyes unnervingly staring right into her own.

“How is this all supposed to work? The things the Alliance taught me, warned and trained me for don't really seem to apply.” She admitted. “b-but I don't want to waste your time. I'm sure you are very busy, probably more than I can comprehend.” She trailed off. God damn it this was going poor.

“Yes.” The shell said, nodding slightly. “Some of that is my own fault. I go to great trouble to make sure my technology stays here. As a result I must seem rather mysterious.”

“First thing: you don't need to worry about wasting my time. As I am talking to you, this ship its sensors and bots along with thousands of cores of my own automation are working. One of the first things I learned to do was multitask. You can ask me any questions you like.” The shell said, suddenly stooping to sit on the ground. It crossed its legs and stared at her.

“Oh, err.” She managed, sitting across from it a pained fascade of a smile on her face. She had no idea what she was doing. She looked around the corridor quickly. It didn't seem to lead anywhere in particular.

The shell suddenly cracked a smile to her surprise and somewhat fear. A raw laugh came from its mouth, something between a human and a machine.

“I'm sorry it has been years since I have had to interact with another person, some of the memories have been stored rather deep.” The Entity said, tilting its head as it had done on the ship earlier.

The corridor suddenly surged around her, melting away before her eyes. Like sand under tumbling waves, it scattered into a dense grey cloud before reforming, in an unpleasing organic fashion into what seemed like… a living room?

She blinked. Beneath her was a vibrant red sofa. On the floor, still gunmetal gray, was a tan wicker rug with woven geometric designs which spanned the length of the room which had suddenly appeared before her.

The Entity sat across from her on a dark green chair. His eyes flickered to the side for a moment, and one side of the wall became transparent as it had done in the smaller ship. The star the Scion was orbiting around flared into life, coating the room in a filtered orange tinge.

Light fixtures hung from the walls and ceiling with… actual bulbs inside them, their warm glow adding to that of the star.

She stared down at the red sofa beneath her. It certainly felt real enough. She gave the rug a small nudge. It responded exactly as she would have guessed.

“Its not magic. There are limits. But its useful enough. Most of the Scion has no permanent shape or form or function.” The shell explained, waving its hand around at the room. “But I remember Libenholz, and no doubt you as well, would rather if things stayed in one place yes?” The shell smiled.

“Now ask me questions. Get it out of the way now, or you'll just have to ask later.” It said.

“Am I really not wasting your time? This technology is incredible. I suppose we guessed, being an Entity and all, but...”

“Ms. Demetev, this second, three cores of me are running simulations on this star, a group of bots is assembling the final touches on the continment chamber for the devices your Alliance has given me, I am studying twenty five other nearby systems, one of which I believe might have life on it, and running all the funciton of the Scion and every one of its critical subcomponents. Talking with you is not going to slow anything down.” The shell smiled again. This time though something had changed about it, it seemed much more sincere.

“Thank you for being so accommodating. I suppose none of us knew what to expect so we made up the worst possible situation. They made you out to be some sort of wrathful robot god...” She said, smiling for herself for the first time since this whole nightmare of an introduction had started.

The shell shook its head. “Wrong on all acounts. I am neither a god nor a robot. And I should hope I am not wrathful.”

“So… what are you? If you don't mind me asking...” Helia pondered out loud.

The shell shrugged. “I have no idea. There's not really a word for it. My processing is decentralized. I'm spread across many different subsystems, all 'speaking' to one another at close to the speed of light. Information is processed and decided upon by the collection of cores and other more minor pieces of automation I've made over the years.”

“But not a robot?”

“Certainly not. Although I might look like one. I chose this form specifically *because* it looked like a robot.” A shifty grin appeared on the Entity's face. “I like to control people's perception of me. If I make myself out to be robot, others interact with me in a certain way. It excuses certain social niceties and allow me to be blunt in conversation without appearing rude.”

“And you care about that?” She said, sceptically.

The shell stared at her on edge. “Yes. There is something important about interacting with other humans. That is a truth that Megareeth seems to have forgotten, and to her detriment.”

“You said other humans. Do you consider yourself human?” She asked, now more curious than frightened.

“Of course. No one built me. I built myself. All of this, I built myself.” The shell waved its hands around. “That's what makes me an Entity I suppose.”

“But were you a human originally?” Helia asked.

But for the first time since they met, the shell did not answer her question.

“I apologize, I do not like to talk about my past. There is much there that I would rather forget.” It said, staring at the ground.

“Oh! I'm sorry… I didn't...” Helia mumbled.

The shell stood up.

“Why don't we walk through the basics. You're allowed free roam of the place. I'll arrange for a section of the Scion to remain static for the duration of your stay; I think I still have the blueprints for the living quarters Libenholz came up with for himself. You're of course free to alter them as you like.”

“As I stated before, anything you should want to study should be possible from his facilities. The equipment in the blueprint is dated, but I have updated specs from the tools you brought if anything is too out of date. Nothing is really off limits except for the reactor, and only that because it takes a large amount of energy to shield a person like you from it if you're too close.”

“Anything involving lighter elements can be synthesized fairly easily. The heavier stuff the bots will bring. The woman who stayed here before Libenholz came up with a system for interacting with what she called the 'central computer', which I always thought was ironic, since the computation is actually very much devolved.”

“I think that aught to get you started. I saw that your research spans many fields, including theoretical xenobiology. If the planet I talked about earlier does turn out to have life, I will arrange some samples for you.”

It was the longest she had heard it talk since they had met. Despite it telling her to ask any question she wanted, she still felt like she was inconveniencing the Entity, and decided to keep her questions for later.

“Oh, then there is the question of appearance.” The shell said.

Helia realized that the statement was some sort of question about her preference, but she had no idea what the Entity was asking, and said as much.

“I have a human body for a reason. Humans interact well with other things that appear human. I spend cycles remembering and reproducing physical traits, affectations and such and I should get better at it once I put together a halfway decent core for it, but I can also change my appearance fairly easily.”

“You want me to decide what you look like?” She asked, puzzled.

“Well, of course.” The shell said. “The appearance is for your own sake.”

“What do you look like normally, when no one else is here?”

The shell disintegrated, leaving only the mask, behind which was a black bulbous region of opaque dense nanobots, the rest of the thing's body now was only a cloud, suspended in the air by unknown forces.

She jerked backwards in horror. The thing looked like some death specter from legends past.

“That's what I assumed.” The shell said, reassembling. “Libenholz chose for me to appear like his late mentor, at least in passing. I believe it helped him focus on his work and bettered the connection between us.”

But Helia shook her head. “How you look now is fine. The concept is foreign to me. Sorry.”

The shell shrugged. “Then what are your preferences on communication? Its somewhat hard for me to explain because the limited for of communication the Alliance and most other groups use is foreign to me. The collective were the only ones who came close...”

“You mean how do you want to talk? Aren't we talking now?”

*Yes but obviously there are other ways to talk.* A voice said in her mind. She jerked backward off the sofa and stared at the shell eyes wide.

“What! How?” She babbled.

The schematics of a Collective device, the one all of them wore, appeared hovering in blue above the shell's outstretched hand.

“Don't worry, I'm not using their device, and the tainted one is still safely locked away; that was something of my own creation, but it works on similar principles: a stream of information routed directly to the language centers of the brain. Only we don't need to wear physical devices.”

“I-I would rather you stayed out of my head.” She said.

The shell put up its hands in the same apologetic motion it had made earlier. “Of course. There are of course other options, but for now, just assume if you start talking to me, I will answer. But just because I believe you might find it useful, there is also a direct brain interface Libenholz made with some of my help. You can try it out.”

“Thank you.” She managed. The shell walked out of the room. As it did so, she noticed the corridor beyond the open door now held a further room. It seemed Libenholz's redecorating had already taken effect.

She let out a long breath and ran her hand through her hair. It was greasy from sweat laced fear.

Today had certainly been the most interesting day of her life so far. But she had a feeling it was only going to become more so from this point on.

She walked up to the window and stood in front of the massive star, staring at the planet sized magnetic plumes of superheated plasma as they leapt and disintegrated before her eyes.

She tapped on the window. The surface shimmered the tiniest bit, revealing grey underneath. So not quite a window after all.

She then looked around the spartan room, half expecting for it to change out from under her gaze. But the shell's promise of keeping things fixed seemed to have been earnest.

She took in another deep breath.

“The planet did in fact contain life!” A disembodied voice said, this time from the air around her, rather than from within her head.

She jumped, looking around for the shell before realizing that it of course was no where to be found.

“No good either?” The disembodied voice continued. “I'll try other more mudane solutions.”

“Uh, thanks. I just need some time to get used to all this.” She admitted, talking to the air in front of her. There was no further response.

She shook her head and waked through the deserted living quarters before finding a bedroom. It was massive and spartan as well. She would have to fix that in the morning. She flung herself down onto the bed, trying not to remember that it and the blankets were in fact made out of nanobots. Luckily, the day's tribulations had left her exhausted. Nanobots or no, she drifted into a heavy sleep.

For the first time since he entered the Scion, he felt at home. He could feel it all, every subprocess, every sensor, every kind of activity and movement. The Scion was more than just a ship. It was more than just a home. It was part of him, and he was glad to be back.

Two years lost… Did it matter? He had to convince himself that it did. How many projects languished without his care? How many discoveries were missed by the rudimentary automation he had left in his absence? If there was an evil in this world, it was the speed of light, and the physics which prevented him from his goals.

He reached his mind out and looked over the results of his absence. His theories on the structure of the star had been correct. There was life on the planet after all. His investigation into a particular kind of degenerate matter had ran into problems. His long range sensors had detected a war of some sort that had happened a few years ago; the sensors suggested that the destruction had been total, but thankfully on the nuclear level.

The information flowed over his brain like a river, coming form ever corner of the scion at once. He opened his eyes, exhilarated. In every part of the Scion, nanobots swarmed, larger bots whirred to life, experiments flashed and parts of the ship reconfigured themselves for new and better ideas that he couldn't wait to test.

While this was happening the Helia's biorhymic data changed. She had gone to sleep.

Amid all the turmoil, the part of him that was still mostly human stopped for a moment and wondered what her impression of him had been. The thought was one of billions though and it was lost amid the stream like a small rock tossed into a raging river.

He got to his feet. Most of the Scion could handle itself for a few moments. He had to set up the most dangerous part of his newest experiment.

He propelled himself through the bulk of the ship until he got to an appendage, sticking out like some forgotten arm. There was no automation past this point. The structure was actually fabricated; there were no nanobots either.

Still skeptical of the automation's ability to design correctly, he flagged a bot, and within seconds, a shell was brought before him. He checked its specifications. It had no automation either. Its sensors were limited, so very limited. It would be claustrophobic in the shell, but it was a precaution he must take. It had no overengineered magnetic manipulators, nor did it have any connection with the rest of the ship. With a feeling of reluctance, he slipped into what was essentially a cage.

The world was dark for a moment while he cycled through protocols until he found one limited enough to be able to communicate with the shell. The world came to life around him once more.

But it was a stunted limited world. The colors were off, his range of vision had diminished. The world was quiet, and now no data entered his head. He looked down at the shell. It resembled a human, because why fix what worked? He testing the physical functions of the shell and found it adequate. He stepped forward out of the nanobot soup that made up most of the scion and into a much more regimented world.

There was a door in front of him, made of a black, very energetically expensive material. It was at least three feet thick, and he was fairly confident it would block any emissions to or from the chamber. But just to make sure, he had covered the thing with scramblers as well, and then a shield on top of that. At the first sign of trouble, it was designed to launch into the star which hung innocently near the Scion at near light speed. He was taking no chances with this one.

He approached the door. Symbols in all languages, flashed warnings before him, which he promptly ignored. Those were more for Helia. The door required several kinds of verification, the last of which was actually a full neural scan. That particular test would also be required if he wanted to leave the chamber. Some viruses could hide deep.

Satisfied with the precautions, he grabbed the door, which had to be opened manually. Physically moving something felt strange and foreign to him, especially in his now limited body. The electromechanical servos in his shell whirred and heated as they fought to provide enough force ot open the door.

Finally with a heave, it fell open before him. He then repeated the process to close it. He was in an airlock of sorts now, not for actual air, but for information. Nothing passed through this door and came out again except for him.

He repeated the process for the second door, with some minor variations. The final barrier slid open before his hands.

The world was deathly quiet. He slid the door closed behind him.

The isolation chamber was very small, especially compared to the rest of the Scion. It was barely fifty feet wide in the shape of a hexagon. Along the walls were an unimaginable variety of tools, none of which had any state worth mentioning, none of which had automation. Most of them were physical. Some of them were purely mechanical. He was going to have to do this the hard way, like back in the beginning. The shell grinned; it was almost like a challenge.

In the center of the hexagon, surrounded by ten layers of various physical and electromagnetic shields was the infected device the Alliance had given him.

Off to one side, something out of order caught his eye. It was the remains of the bots who had built this place. They were not allowed to leave. They had fulfilled their purpose. One of them stood on its four legs, the others were slumped on the ground.

He reached out his hand and grabbed a plasma cutter from the tools on the wall. With one swift and decisive action he gutted the internals of the first bot, spraying superheated metals and the remains of the automation boards the bot once possessed. He ripped out the power supply, the only still useful part of the bot. He then grabbed a metal saw, and didn't stop until the pieces were smaller than the saw could cut.

Satisfied, he opened a compartment on the wall and set a few actually physical dials. The enclosure changed from dull grey to dull orange and then to red. Inside, the metal melted into liquid, then into gas, which was then shot into space.

He picked up the plasma torch and turned to the other bots.

Wait.

He had sent four of them.

He looked quickly around the room, a vague feeling of unease settling deep inside of him.

But sure enough, there were only two bots left.

For the first time he focused his full attention on the black opaque sphere in the center of the room. Was it responsible? Had it already gotten through the shields and blockers he had embedded it in?

He stepped closer, but not too close, the plasma cutter still in his hand. He visually inspected the containment. It looked as he had designed it. But then again, he had not built it himself.

He looked back to the immobile bots with a frown.

Circling the room, he inspected the tools one after another, but none of them had any sign of being used.

Finally, on the twenty fifth inspection of the room, he found something his low fidelity vision missed the previous times. On the floor right next to the entry door, there was a slight mark, invisible to most but not all of his sensors. The material he had designed the chamber out of wasn't indestructible, but it was very sturdy for a passive material.

Nothing inside the room, including the plasma cutter could even scratch it. He looked at the plasma cutter. His other hand still held the power supply.

He eyed the supply with distrust suddenly. Grabbing a magnification tool he looked at the unassuming dull cell. Everything about it looked normal on the front side…

He flipped it over and almost dropped the magnification tool. Small spidery tendrils of black were wavering from the underside.

Ah. Right. The cells themselves had very low level automation to regulate their power.

He ejected his arm and the cell into the compartment in the wall, suddenly very happy he had thought forward enough to make the sensor system of the of the shell completely decentralized and very limited. He did not believe it was possible for the infection to spread upward from his arm.

He then stopped. Of course, if the infection had been able to do so, and had no taken control of some of his processing, it would want him to think that…

He watched the power cell rupture in the compartment, and was glad for the second time of his paranoia and the soft thump vibrated in the airless room. The was a following chunk as the gassified contents were flung into space.

He then turned to a large red lever on the wall and with all his might brought it down. A horrible scraping noise could be felt through the floor as the isolation prepared to fling itself into the star.

He crossed the room and sat staring the containment chamber as a harsh indicator informed him of the time remaining until the ejection happened.

He narrowed his eyes at the black ball and waited.

The two decommissioned bots came to life. He moved faster than them though. The plasma cutter striking the first one down almost immediately. It sputtered and convulsed on the ground, spewing black dust.

Was he sure that it was dust? No. he slammed a button on the wall and a painful surge of electricity, ran through him. He stared at the bot as its manipulation systems failed one by one under the surge. A brief pulse of high energy magnetism blasted through his brain. The dust fell to the ground. Or actually was directed by the field towards the arbitrary direction he had chosen to be ground. It condensed as the field narrowed. Then in one final movement, it coalesced the dust into a ball and flung it into the compartment he had opened not a second earlier.

Free of the confinement of the field, the dust agitated and swirled venomously. He turned the dial to a very high setting and watched with unemotional eyes as it disintegrated before him.

He turned to the next bot, plasma cutter in hand.

“Wait!” it cried out in a low level signal protocol. The bots could not speak by design. The thing must have hijacked the full system. That explained the fourth bot. He had designed most of his automation to self destruct if it detected it was being hacked.

That lead to a disturbing conclusion. His failsafe itself had failed, or had been bypassed for these two bots, and possibly even the third. Additionally, the virus he was fighting was capable of adaptation. It had tactics. Perhaps it waited through the destruction of the first bot. It attacked him with the second. He disabled the third, so now it was pleading to him.

He knew better than to listen though. The plasma cutter ended it quickly, and the cleaning system captured the dust before it had a chance to do any additional harm.

After the system had completed, he checked the floor meticulously for non-magnetic pieces. He found some and these he collected with a physical cleaning system and threw everything once again into the furnace. He watched the dust immolate with a slow smile.

He then walked over to the red lever and switched it off. The indicator told him there had been a minute and twenty three seconds left until ejection.

“So then, what kind of virus are you?” He wondered aloud, the synthetic smile still running across his face. He opened the first level of containment with one hand while still gripping the plasma torch. This was quite interesting after all.

The investigation went on for hours. The virus was much more complicated than he had first suspected. All his precautions had certainly been worth it. If he had approached it naively, he, his whole Scion, possibly even his entire being would have been consumed.

But, he had prepared. And now it was the virus that lay in pieces, deconstructed before him. Its code and skeleton laid bare.

A dull indication from within one of his subsystems reminded him of his remaining energy levels. The shell must be recharged every so often, and he had exerted much energy both in the bots destruction and in the investigation.

He sighed and pushed away from the dismantled device. He took one last look at the millions of pieces lying on the floor, each one significant and contributing to the whole. He nodded. He was actually impressed. The device was beyond his work. The Collective had pulled together on this one it was clear. Their efforts should have been rewarded.

It hardly seemed fair that they had found destruction instead.

It was a harsh and brutal lesson. And why did it always seem to affect those who strived for more? The collective had a vision of their own, and a laudable one at that. They churned constantly within themselves, always attempting to reconcile differences, build for a better future. How many peaces had they negotiated between the rebels and the Alliance? It wasn't fair.

He closed his hand around the last tool he had been using, and looked at the magnifier.

Anger suddenly rose within himself.

Was this the future of mankind? Was this what had been willing to accept?

The universe was so large… so large. And it seemed that contact always, always lead to conflict.

He took hold on a latch in the floor and heaved a massive blast cover over the disassembled infected device pieces. An additional shield around that activated, shimmering blue then fading from the spectrum he could see with the shell.

His hands felt heavy as he gripped the door to the airlock. The neural scanner found appreciable differences, but they were within reasonable drift for the time period. The safety latch clicked opened.

Was it inevitable? Must it be that those that burned the brightest, burned the shortest?

At first there had been no end to the myraid of factions and peoples bursting from Old Earth. So varied it had been, all trying, reaching, and dreaming.

True, some of them had dreamed of violence, and of sadism. But equally they had dreamed of peace and serenity. Monks, scientists, poets, entrepreneurs, jokers, workers… simply people… and they had been together.

But the galaxy was large. And contact had lead to conflict. How many ships had he seen destroyed? How many near annihilations had he survived himself? He was a massive cosmic outlier. If he had been a religious man he would have counted himself among those protected personally by angels. He had not deserved his luck, not in a million years.

The bulkhead closed behind him.

There was a small window in the airlock, and he looked out upon the stars as he had once done as a mortal, before the enhancements, before the implants, when all he had were his own body and the knowledge in his own mind… And in the back of his still human mind, jostled by events and in the stillness of the airlock, where the rest of the signals of the Scion lay at bay, he remembered some of his past, which had been swept aside by eons of experimentation and observation.

He stood at a window like the one he stood at now. The stars seemed things of wonder then. Their infinity beckoning, calling him. He could hear the siren call of exploration, of wonder, and it became so that his whole body shook with the emotion. What wonders did they hold? What worlds lay in wait?

What experiences! He could not wait to share them with others…

He stared around the empty airlock.

That was of course why the Exchange was so important. It wasn't only a physically organic brain which grounded him. It was also contact with the people with whom he had once belonged.

Megareeth's position came to his mind suddenly, and he could easily see the same detachment happening to himself with the years.

It could not happen. He still considered himself human. And even if the universe were expanding every moment, and peoples vanished one after another, in conflict or, more increasingly, in self destruction, to be human was to be with other humans. One could not be be truly alone without changing into something less.

His fingers wrapped around the door. The massive second bulkhead shuttered before his might until it finally opened.

The Scion boomed around him. He could already hear the signals coming for him.

In some way he didn't want to go back. The isolation of the room held a significant advantage the he normally could not achieve: it was quiet; he was alone, and he had time to think in there.

The signals were swirling around him, telling him the status of experiments, updating him on the changes in the observable portion of the galaxy around him. Speculative simulation returned predictions about astrological events, and refined earlier hypothesis. The data swarmed in an irresistible whirl around him.

A bot sat in front of him with a fabricated higher connected shell. It looked nearly thirteen versions newer than the one he now possessed. He slipped out of the limited shell and regained the limited omnipresence of the Scion. Physically, he instructed the shell to grab his head and attach it to its own. Mentally, the distant decentralized automation flared to life, churning at incredible rates. In the midst of all of it, his mind still sat.

He sighed once more, and caught himself.

He did not need to sigh. He did not breath. Sighing was a sign of exhaustion, either mental or physical. His shell was not low on battery, which ruled out the possibility of a psychosomatic response. Which left mental.

A sigh was a human response, a human expression. It had no purpose. Even this current self reflection wasted valuable time.

Or perhaps it didn't. Perhaps it was indicative of true mental fatigue. How long had it been since he had slept? His mind thought back. He had been awake on the ship the entire time. He did not trust himself to sleep in any place other than the Scion. He had been awake for almost two years without sleep.

That was the problem. That explained the strange behavior.

A thread of automation melded together with another, reviewed by his mind.

There was another explanation, a more disquieting one. His precautions had not been enough. The virus had worked its way into his mind and was now spreading throughout his systems. That certainly was a undesirable outcome. A large amount of subprocesses of the highest level split off to investigate that possibility, scanning the other cores of automation and monitoring shared resources for contamination.

There was another explanation. The limited sensing of the shell he had inhabited was in some ways more similar to a human body. A more human body perhaps lead to recollection of memories when human senses were all he had, which triggered old responses. He acted human because, alone, in the isolation chamber, he had in some way been more human. It was an interesting hypothesis.

It was testable if he had Helia act as an independent observer, and compare their level of communication, or emotion between himself now and in the restricted area. But the isolation chamber was much to risky to allow her to even come close. He would have to find some other way to verify his idea.

Most likely though, the physical hypothesis was correct. Two years was a long time to go without sleep, even as heavily augmented as he was.

He slipped through the ship, nanobots streaming over him, until he reached the engine.

There, a device sat in the containment wall. It had a human shaped alcove and he had last seen it two years ago. A self scan indeed revealed high traces of toxins, self created toxins in his brain. It was the result of exhaustion.

He floated over to the device and slipped form the shell to the alcove. He felt a cool sensation embrace him, half physical, half mental, like being drenched slowly with water, but in slow motion. He felt consciousness begin to drift from him. Twenty minutes should be enough. The world faded out, until only his subconscious was left, a gray shimmer among the blackness.

He lay there, a brain, somewhere deep beneath bio-boosted chemicals, psychosensitive stimulents, carefully tuned magnetio-electric amplifiers and other sensors, further surrounded by increasingly arcane higher level sensors, analysis tools, manipulators, and finally an outer physical layer.

And beyond that, the regeneration device, carefully crafted through years of research, with the help of hundreds of others back when years still meant something. And when help still meant something. When the brain was still obscure and mysterious. It still bore the signatures of the men and women who had worked on it, and who had, in many cases, given their lives to create it.

And beyond that, the engine, with its indescribable power, humming gently, the life blood of the Scion. Its tendrils reaching out and supplying the rest of the ship, swaying back and forth to respond to varying power consumption.

And beyond that, a swirling, ever changing soup of nanobots, each individually directed by clusters of automation spread through the Scion.

And beyond that: space.

Yet at the center of it all there was a human brain. And it slept.

Helia awoke to a dark room. The geometric sloping walls, and featurelessness of the place was unfamiliar to her, and in a brief moment of panic horrible thought raced through her head.

But after a moment she remembered where she was and calmed herself.

The blankets around her were still warm, but the air itself was neither cold nor warm. Something about it was very impersonal. The whole area was impersonal.

She looked down and realized she was still wearing the uniform she had worn yesterday when she attended the conference.

No. Not yesterday. A year ago. She exhaled, trying not to think about what had happened in that year. She looked around the room.

It had a bed and that was about it. There were no windows and only one door. There was no other furniture. Somehow Helia had the feeling that Libenholz didn't spend much time here.

The Alliance was a progressive institution, or at least that is what they had told her, and far less regimented than the Heronians, yet social interactions were still important. Having literally no one else here, no one to tell her what she ought to be doing, even in a friendly manner was… foreign. The alliance preparation for this exchange had really been uninformed. And much of it had centered around the use of the devices she had brought with her, which now, of course were gone.

There was nothing tying her to the Alliance anymore beside the uniform which she wore, and her own memories, she realized.

What was she supposed to be doing? The Entity seemed to be very passive about these things. It had told her it still considered itself human, but what did that truly mean?

She looked around the bedroom one last time. Well there was nothing for her here, that was for sure.

She slipped on her shoes and walked tentatively out of the room.

There was a hallway that she remembered. Its pale blue light made it hard to tell what time of day it was. Her footsteps echoed through the empty hallway.

Off to the side, opposite the bedroom and a half floor down was the living room she and the Entity had talked in earlier. The windows, and she told herself she was just going to call them that, since they had the same purpose, were closed, and the only light in the room was through the hallway. But the rest of the room was the same, the sofa, the chair and the rug.

There was something odd about seeing things undisturbed and silent. She had lived in communal housing for so long, she half expected to see discarded wrappers and used dishes appear from the ether. Surely, she would turn to one of the dark corners to see a roommate studying silently by the glow of their screen?

But the place was truly empty.

She moved from the room.

She looked down the hallway for some sign of which direction she should go, but the looked identical; there were no signs, or indications for anything.

Her shoes clicked softly against the metal as she explored.

She had expected more personal space, some kind of kitchen or study of some sort, but the first room she found was actually the lab.

Off the side of the hallway, just like any other room there was massive expanse of counters and hulking devices, reaching up to a three story tall ceiling.

Her trepidation was momentarily forgotten.

Her hand instinctively reached around the wall and turned on a light switch which had lay there. The light turned on one by one, basking the room in a dull blue glow. It certainly wasn't friendly, but it was familiar.

A smile ran across her face as she walked down the isles inspecting the devices. Mass measures of incredible precision, chemical baths, supply cabinets, electronics stores, modular equipment setups, magnifying equipment, computers so powerful that if their specs were to be believed, rivaled the entire computing output of the Alliance station on which she had worked.

There was so much! What did the Entity want her to work on? She could just imagine its confusion at the question. The answer was, of course, anything that she wanted…

She kept a mental list of the most important devices. She would have to figure out what to work on soon, or she was bound to get restless.

Curiostiy satisfied, she turned of the light in the laboratory. Further down the hall was indeed a kitchen. Then, across from that was a study. The place was a halarious anacronism of pre Alliance furnishings. Had Libenholz been a romantic? Such a place was more likely to be found in the passages of bad novels than an Entity's Scion.

She raised an eyebrow as her feet tread onto soft dark green carpet. Ten shelves of books stretching up two stories ran before her. They were filled with very expensive looking tomes, and she recognized some of the titles, they were all historical scientific books, compilations of great work from the days of expansion, and some from even before that.

The shelves themselves were wood. If there had been such a room in her station, it might have out-rivaled their laboratory for cost. Nothing had been made out of wood for ages. Libenholz had laid this place out to minute detail, that much was clear. The positioning of the shelves, the odd tables between them, the small alcoves lit by lamps. She felt like she was trespassing into the recesses of another person's mind.

Despite herself, she rand her hands over the wood shelves. There was something pleasing in its luxurious finished surface, something that not even the most polished metal could replicate. The place also had a smell to it. It smelled like books.

She had to step out of the room.

A shiver ran down her body. Libenholz was a genius. His accomplishments even before he left were an amazing credit to the scientific community. A true polymath, he had contributed to advancements in physics, mathematics and chemistry.

She couldn't help but to feel like a small child wearing clothes too large for them; playing at scientist.

And of course, what was Libenholz to the Entity itself? Her mind reeled at the thought.

She shook her head and looked around. Was that really it? Had the man been so focused that those were all the rooms he had made for himself?

Ah, there was one additional door at the end. It was mall and seemed like it might slide rather than open. There were a variety of interfaces on it, but when she got close the thing opened at its own validition without making a sound.

She peered through the doorway.

The floor extended only a foot or two outwards into a space lit only by the hallway behind her. After that, everything devolved into a buzzing mush of shifting greyness.

She stared at the amorphous cloud for a moment, trying to understand what exactly she was looking at. She walked forward through the door. No alarms or warning went off.

She stood in the place between the hallway, her own quarters and this strange shapeless material, a puzzled look on her face.

Ah. It was the rest of the ship.

The Entity had promised her that her quarters would not shift around, which meant that this was the portal between her “world” and the Entity's. Was she expected to stay in her area? Could she assume that it would stay out of her area? Knowing what little she did about the Entity, she could only assume the answer was no to both questions.

Were the nanobots dangerous? If she had been experimenting with such things in the Alliance station in which she lived… had lived, they would have of course been an inhalation hazard. If she breathed them in, they were too small to be filtered out by any natural biological process like the hairs in the nose, or so forth. If they were small enough, or sharp enough and if there were enough of them, they could shred the body at levels so small that it was impossible to repair the damage. And this was all passive. The Heronians were thought to have made advances in weaponizing nanobots…

Could it already be too late? She should have found some sort of breathing mask in the lab! The thought disturbed her, and she sprung through the door and closed it.

Her heart raced. On one hand, the technological level of these nanobots was obviously far surerior to their own. On the other, could she trust the Entity to remember the harmful effects of nanobots on regular humans?

Her mind raced. She could always ask… The Entity had assured her that all she needed to do to contact it was speak to it. But something inside her refused to allow that, for now. Perhaps it was some level of fear, mixed with stubborness. She couldn't ask for help. Not yet.

Her heart beat fast. Perhaps there was still time to stop them early. They would already have worked their way into her lungs by now, and could already be bursting microscopic holes in her organs. Her throat tightened as she ran back to the lab.

Her eyes ran quickly over the machines available to her. What could she use to test for nanobots? She found several which looked promising. None were originally intended for use on humans, so they would likely have a long term detrimental effect, most likely cancer of some sort, but cancer was preferable to internal bleeding.

The machine was a scanner of sorts. It would have no trouble separating the presumably metallic nanobots from her flesh. Once that was done, she could see how far they had gotten and come up with ways for extracting them.

She set the semiautomated process on the machine and stepped into it. And waited.

The machine did not turn on.

Sweat now dripped down her face. She jumped out of the machine, and had to stop in her tracks.

Silluetted against the doorway of the laboratory was another prescense. It moved towards her.

It was shorter than her and had four insect like legs. It had a head, but no face. Instead, there was ismple a collection of sensors which made it hard to compare it to any terrestrial animal. Half of its torso was spherical, and lit dimly, probably some sort of reactor. She recognized it as one of the larger bots the Entity made.

“I'm not sure you want to do that.” It said. The voice was the same as that of the Entity's shell, but she couldn't tell whether than meant she was talking to it directly or some other lesser intellegence.

She looked back at the machine then back at the bot. “I-I just needed to make sure that the nanobots...”

Her quibles sounded very emotional and silly, especially before the bot which didn't visually respond at all to her exclamation.

“I noticed your biometrics were off of normal. You seemed agitated. Were you worried about the nanobots?”

She nodded forcefully.

“Then your actions are logical, but the execution was flawed. The nanobots can be dangerous but not in the way you were worried about. I prepared safety parameters for most of the station. When I said you were free to go anywhere besides the engine, I wasn't lying. The nanobots have avoided you. Unless for some reason you actually want to swallow them, you should find doing so will be impossible.”

She felt weak. But relief flooded through her.

“However, you might want to direct your attention to the settings on that machine.” The bot continued.

She turned towards the machine she had stepped out of.

“It is understandable that you might have problems acclimating to this new environment and these devices, but please exercise more caution in the future. Those settings would have killed you.”

Her eyes widened as she looked closer at what she had actually set for the automation. The models she was familiar with only went up to a certain value. In her haste she had not looked at the unit next to the value she had set, only the number.

Her mouth opened. “Is that even possible? These machines don't go up this high… That would have…”

“In the future, as a rule of thumb, I would avoid getting into any of the machines here. If or some reason you would like to develop bio-medical devices we can work out a proper testing solution. I do not want to have to explain to your alliance how I allowed one of their brightest scientists to come to harm while in my care.”

“Also, as you might have noticed, I am speaking through a bot while here. Based on your previous reaction to other communication protocols, I thought this one might seem the most, polite?”

She was too embarrassed to speak for a moment. She had almost fried herself. “I-I will be more careful in the future. I apologize for wasting your time.” She said, bowing.

The bot disappeared.

She really wished it would have stayed, but was too overwhelmed to ask it herself.

She collapsed to the floor. God she was going to have to get used to this somehow…

Yet two days later she still felt distinctly out of it. There was something fundamentally different about being alone in a place and being with other people. Truth be told, the lab and its limited living quarters were functionally not all that different from her former arrangement on Tressa Sevaris. The orbital had been every bit as unfriendly and at times, vacant as the Scion had turned out to be.

She looked up from the calibration tests she had been running on a particularly sensitive xray difractometer. The lab was, of course, empty, besides her. Wherever the bot had appeared from following the incident, it had disappeared just as quickly. The machine in front of her neither made noise or vibrated like the one in her tiny lab on the Orbital had. Surprisingly, she now missed the piece of equipment, even if she had always sworn it would break the midnight before some important test.

She scanned the large lab around her and its pristine, incredibly expensive equipment. If only her labmates on the orbital could see her now…

Yet a frown crept into her expression. Even though Sevaris had been a research facility as well, and even the devices and space were not all that dissimilar, the installation had been clearly build by and for humans. The rooms were human sized, the hallways and corridors were human sized. The bad things about it, the smell, the rust, and the way certain sections were constantly needing mantainance; those things were also human in nature.

But this place was clearly not made of human hands. Even the sections Libenholz had designed were nothing one could ever find on a space station. Ironically, space on a space station was always at a premium, even if it was carved into a orbiting rock. Ceilings like the one above her would have been a luxury the designers would never have allowed.

The roof above her hummed slightly, a nuance she now felt was a purposeful design decision. She felt like she was starting to understand Libenholz a bit more, although she had never met the man, and never would; the choices he had made in laying out his living and working quarters had a intrinsic almost architectural feel to them.

Libenholz had grown up on Centaros, a rocky planet orbiting a binary star. It was on the frontier between Heronian and Alliance space, and was often used as a haven for undesirables, and occassionaly and unfortunatley, as a battleground between the two major factions.

It had always been Helia's understanding that the young Libenholz had used education as a way of distancing himelf from the problems of his homeworld. The Institution, a venerable university started when Centaros had just been colonized offered him a way to escape the chaos for ever.

The walls he had chosen were bleak but purposeful. The short angle between the ceiling and floor a reminder that his decisions were made with purpose. The largest room was the lab. That didn't have to be the case. He could have made the study gigantic, modeling it after any of the large archive facilities of the Alliance. Instead he had come up with an ancient homage to long dead scientists.

He had not included many personal effects. The bedroom was spartan and small. The living room, was simmilarly furnished. Only the study offered any hints into the older scientist's mind. The wood, the green carpet, the chocie of books and the placement of tables were all key. He honored the previous researchers who had come before him, and made the room that was the most personal, the study, one filled with *other* people's research.

Most imporantly though was the location of the rooms in relation to one another. The bedroom was not adjacent to the study as one might expect if that was truly the room most like the creator. Instead, the lab was closer. This spoke volumes about his priorities. He respected the work of previous researchers and saw himself in their visage, but yet, he put new discovery over both.

She twisted her hair as she puzzled. She was starting to regret missing the great scientist. She felt like even his reportedly eccentric and at time intolerable personality would have been preferable to… no one.

Without much of an indication, the machine in front of her stopped. She reached out and opened the plexiglass enclosure that protected the equipment, especially the neutron beam emitter from dust an other foreign objects.

She peered into the machine and at the relatively large calibration crystal sitting innocently at the center of a metal plate. After grabbing the sample and storing it back in its proper location, she looked over at the readout for the test.

The machine was perfectly calibrated. There was nothing wrong with it. The variance it had was laughably small between the calibration samples.

She leaned back against the counter and stared at the machine.

What was she doing? Of course the machine was calibrated. It was synthesized by one of the smartest intellegences in the galaxy and used by one of the brightest scientists to ever come out of the Alliance. Of course it was calibrated.

She looked down the row at the long line of other simmilar yet differently specialized machines. She had spent the last two days testing them as well. It was one thing to accustom herself to their workings, but what was she really doing?

Was she wasting time? She bit her lip and frowned.

It really wasn't about the machines, she realized. It wasn't even about the space. It was about dealing with the fact that everything, her entire life, had just been suddenly shifted away from what it used to have been, and was now something foreign and honestly, frightening.

She fidgeted with a stainless steel device on the counter.

And she had made a god damn fool of herself. More than that, she had literally almost killed herself by accident. She wasn't sure of how to think about that. She could easily account it to unfamiliarity with her environment, but she had the feeling if the device had been at some sort of other installation that she had been visiting, and she was in the same situation, she would have done the same thing. It was about being in control of her life.

The thought about that for a moment. That was pretty garbage though. What other location would have had nanobots? It wasn't like she had put herself into the machine for god damn fun…

But as her thoughts swirled, she came to the conclusion that she had to change something about the living area she was in. She needed to make some mark that was completely and totally hers, not Libenholz's and certainly not the Entity.

She looked at the entrance.

Perhaps she had spent too much time at the lab. She had been in here most of the last two days. It was why she was at the Scion, wasn't it? To study?

But she couldn't go stir crazy either.

She stoped futzing with the stainless steel tool as it clattered one last time against the ceramic counter. She eyed it, and then, rebelliously, left it out and exited the room.

There was something exhilarating about the action. Already, even though the hallway was about as impersonal as one could get, she felt better.

She looked at the yellow light coming out from the study, but shook her head. That was someone else's grounding place. She could imagine Libenholz spending hours in the study, pouring over the old books, not because he expected to find anything that pertained to what he was working on, but to remind himself of his own position, and the effort of all those who had come before him.

That was fine. That was how he might have dealt with this problem of loneliness. Now she had to find her own way.

She stepped into the living room. It again was unchanged since the conversation she and the Entity had the first day of her arrival. Yet the room was still dark. She fumbled around the space, searching for some sort of control for the windows the Entity had activated earlier which had shown the star they were orbiting.

She was almost positive seeing it would help. Not only was it grounding in the sense that it was a reminder that she was *somewhere,* not just trapped in an alternate universe consistant of only these handful of rooms, it was also just nice to look at.

She ran her hands over the smooth walls but didn't find any switch, or pad or control of any kind. She continued on the other side of the room, thinking that it was controlled remotely, but that didn't find anything either. After almost five minutes of searching, she admitted defeat.

There was something crushing to not being able to turn on the light to a room.

She emerged from the living room slightly more downcast that she had intended, but continued to the bedroom. Certainly there was something there that she could personalize. Unlike Libenholz, who seemed content to devote his entire life to science, she had interests apart from it.

She entered the bedroom much more confidently than she normally did. It might not seem like home yet. But if there was something she could change about it, like putting up some sort of decoration, she was sure that it would go a long way…

She stopped in the doorway.

On her bed was… a device. It had certainly not been there earlier. She had certainly not put it there.

She had not talked to the Entity since the incident. Did this have something to do with that?

The bed had grey covers, but the device was pure white. It looked like it had a fair amount of metal, surrounded by plastic, and it sat low on the bed.

She approached it only to realize three things of interest.

The first was that it was a helmet or headband of some sort. The second was that there was a smaller device underneath it which looked like the types of data pads she was used to.

But the most interesting thing was that there was a note attached to the headband.

It was a yellow sticky note. She only knew what they were because she had seen them in movies. On an orbital, paper and other organic products were the hardest to acquire. Anything that would be simulated or manufactured was must easier to make or refurbish.

She poked the note as if doubting its existence.

Had the Entity left this? It seemed almost satirical.

But sure enough, the note was real. And furthermore, it appeared to be handwritten in Alliance Basic. There were many interesting things about the note, but she supposed she should read it actually first.

“Helia, I apologize for forgetting to give these to you earlier. The datapad is I believe of a type you should be familiar with. It should have all the information your other pads had on them. The headband device is a Mind Machine Interface Libenholz and I made. You expressed concern about the boundaries of your own mind, so I will certainly not be disappointed if you chose not to use it, but I wanted to at least give you choice. Lastly, it seems the planet I was scanning earlier did have life on it. I have prepared samples for you which you can find in the far doorway.”

There was no signature, but it was obvious who the writer had been; there was only one other person aboard the Scion.

There were many, many interesting things about this note, none of which escaped her notice. Firstly, was its existance. The Entity had taken the time to write an actual note. It was certainly capable of just speaking with her directly, or sending a bot. The most likely reason was that it wanted to give her the sense that it respected her living area as her own.

But there was more. The note itself was hand written. Or written directly. It wasn't printed or lasered, or etched or any other much easier techniques a bot could have performed.

She gingerly picked up the note and held it between her fingers. It was real paper. She was surprised to see that where she had picked up the note, the writing was now smudged. She examined it closer and came to the conclusion that it had been written in ink. The Entity had used a pen.

What.

It was so unexpected that she actually laughed aloud. She could just image the shell bent over some ancient desk, crumpled up copies littering the sides of the writing space.

It wanted her to feel accepted. It wanted her to feel like it cared. God it was calculated.

Did that mean that it understood how embarrassed she had been because of the incident? Did it still have such human intuition? When she had talked to it earlier, it certainly seemed like that might be possible, but she wasn't sure. Computers were getting better and better at appearing to be other humans. It could just be the result of some complicated heuristic, compiled over all the people it had interacted with.

By why not give the Entity the benefit of doubt. If it was a human, if it *wanted* to be interacted with like a human, why not do so? Regardless of whether it was or not.

She opened up the end table and placed the note inside. It was kind of earnest. Also, growing up on a station had taught her to keep everything. It didn't hurt that the note would have been worth some serious money if the Entity had actually written it itself.

She turned her attention to the headband. She ran her fingers along it. It was smooth plastic in most parts, but others protruded in haphazard ways. If it actually was what the Entity suggested, it would have been just at the forefront of what the Alliance was capable of, even with help from the Ebrin Collective, and even now.

If it had actually been made when Libenholz was still alive, it meant that it actually predated the Alliance efforts in the field by a good twenty years. Still, to the Alliance's credit, the device certainaly looked like a prototype.

She tried picking it up. It was much heavier than she expected. Much heavier. It fit in her hands easily, but she actually had a bit of trouble lifting it. Whatever it was made of must have been crazy dense.

The weight, and her intrinsic discomfort with the idea of the technology put her on edge. The note had explicitly said that the Entity wasn't expecting her to use it, so she put it on the end table. It didn't seem to have any output, or plug, so the weight might have been whatever power source it used. She probably didn't want to know what kind of energy density it had if that was the case. One man's ultra capacitor was another man's bomb…

So all that left was the datapad. That was much more handleable. She *was* familiar with the model. It was two or three major versions behind the current model, which was somewhat interesting. If Libenholz had taken it with him it should have been much older than that. If the Entity had synthesized it itself, why not make the newest model.

Probably to make it more approachable. There was something human to having outdated technology. She could image it as another calculated action.

She flicked the device on. It seemed to function in the same way as she expected. As she went through its files and menus, there didn't seem to be anything particularly nonstandard about it, except that it read that it had a laughably large amount of storage space, far too much to actually be able to store it all in the small device, so there must be some part of the Scion interacting with the pad.

One menu caught her eye. Most of the information on the pad had been her own files from the old devices or programs that the Alliance had added. However, she noticed that Libenholz's research seemed to have been also added. She idely wondered if it was his complete works, like including his notes and everything. That certainly would be intriguing.

When the genius had passed away, the fact had been communicated to the Alliance by the Entity via a Alcubierre flecheette, a way of sending information faster than the speed of light, at the cost of massive amounts of energy. Presumably the Scion had been to far to communicate the information normally.

In addition to the news, and a will, and some final personal writings on his experience, the flechette had contained a collection of nine volumes of research, a treasure trove of new discoveries, refinements to old models and innovations.

Yet although the volumes had undoubtedly been his seminal work, the scientists and leaders of the Alliance had always felt like they had been censored somewhat. There must have been more that Libenholz had worked on that the Entity had not disclosed. There had been some passive aggressive communciations between the two powers following his death, but things had eventually simmered down.

She looked into some of the files located in that location, but couldn't off the top of her head remember whether the drawings she was now looking at were included or not. She smiled. Well, it gave her something to do in the next couple of days. Recreating and validating Libenholz's unseen research would be just the sort of thing to get her started!

As an afterthought, she finished looking through the capabilities of the pad.

The last item also caught her eye. It simply said, “interactions and items”. Like that. Lowercase and everything.

She wasn't sure of what to make of that. It wasn't a default application or one she was aware of. Could it have been something Libenholz had written?

She thumbed to it. The interface changed to something that looked like a… search?

Ok… Search for what?

She just typed in the word “test”. She was instantly overwhelmed with information *about* tests. Some of it was scientific tests, ways of determining materials, experimental setups and the like, but there were also more abstract definitions. Like some sort of encyclopedia. The tense of the writing was as if was from the view point of from some detached observer. She raised an eyebrow. Had the Entity written this?

She looked around the very spartan bedroom. Libenholz had designed this place somehow, could it be….

She typed in “posters”. The response was similar much to her annoyance. She had hoped that through the application she could have somehow been able to order the rooms to rearrange themselves, or to requisition things somehow... But just as she was about to discount the application as a glorified search, she saw a button at the bottom. She could have sworn it appeared just as she was about to close the device.

It was not labled. Alright.

She gave it a press.

Nothing seemed to happen. The application had no feedback whatsoever. Typical.

She looked up from the pad. The room looked the same. It certainly wasn't covered with posters.

She thought about that for a second with a grin. Well of course it wasn't. Just clicking on a posters button couldn't define all the parameters needed to define where and of what kind and so forth needed to describe adding posters to a wall.

So what did the button… There was more to the application. Had she been able to scroll down before?

There were some input fields. They asked for descriptions and locations. No fucking way.

In her mind she thought back to her crazy cramped room she had shared on the orbital. She had some artistic renditions of a nearby asteroid. Could she recall it correctly? She thought she could remember the important parts…

She wrote down all the things she could remember about the poster and told the application where she thought it should put it.

Nothing happened. Was this thing messing with her? Had the Entity included some intelligence in this pad to keep her from going crazy? Studies had indicated that one of the best ways artificial systems could pass as intelligent, and be personified by humans was to actively trick them or act mischievous…

Or, she had just forgotten to click the unlabeled button at the top. That better not be what was missing. That was so unintuitive. Why would she scroll up to…

There was a poster on the wall where she had indicated she wanted one. But it wasn't just any poster. It was a poster of an asteroid in orbit around Tressa major. Everything about it was as she remembered: the location of the asteroid itself in space, the hint of the light from the gas giant, the stars in the background… it was exactly the same.

She got to her feet, leaving the datapad on the bed. She approached the poster. She hadn't seen any indication of construction, no flash of light or smoke, no protrusion in the wall, and certainly no bot had time to run in, smack the poster up and leave.

It felt like the waxy plastic material they had used instead of paper. She bent forward. It smelled like it too. But how was it attached to the wall? She tugged at it lightly.

It pulled tight but did not budge. She tugged at it again harder.

This time it came down in her hands. She flipped it over to the featureless back. There were two magnets embedded in the poster on the back. She examined the wall where it had been hanging. Were nanobots unaffected by magnets? She hung the poster back up with a smile. One small step….

She went back to the bed and looked at the datapad wondering what else to add to her space.

Well this was god damn awesome.

The virus infected implant had taken a long while to break. Truly organic systems were much more complicated than their artificial brethren.

He looked down at his shell, open and closing his fingers. Not that he needed any reminder of that.

The planet he had been surveying indeed had life. After he had given Helia a sample to poke at, he had given the virus a rest, and was investigating its properties.

Life was rare in the galaxy. It seemed to only form on rocky planets or moons, and despite living centuries upon centuries, he had only cataloged thirty four occurrences. The data was taken from an area that encompassed almost a tenth of the entire milky way.

All the life he had found, that, as far as he knew, anyone had found, was microscopic. Some of their individual traits were interesting, but whatever xenobiologists had hoped for when they stared at the stars was hard to come by.

If the rest of the galaxy had the same amount of rocky planets by distribution, and thus the same chance of finding life, it was likely that there were no complex lifeforms besides those that had originated on earth.

Surprising? Somewhat. But on the other hand, it certainly made things simplier. The galaxy was theirs, for better or for worse. It was theirs to inhabit, theirs to build on, theirs to fight over and theirs to die over.

Practically speaking, it was likely they were alone.

Now it was possible he and the other scientists had missed something, something so exotic they could not even recognize it as life, or perhaps very close to the maw of the galaxy there was something hiding where scanners were not quite as effective. Or perhaps some day, when they were able to explore the whole thing they would find life hiding out on some planet.

He hoped not though. When something wins, there is a tendency to fragment and fight among itself. There was a reason that humanity was in the state it was in. There was nothing else around. If there was another intelligent race around, it wouldn't be too long before the inverted diffusion of curiosity drew in interesting players: Entities such as he, possibly with less scruples, twisted from their time alone in the void.

There of course were other Entities besides Megareeth and himself. Some of them were pleasant. Some of them were enigmas. Sometimes Entities spawned other Entities, or morphed themselves, or broke themselves into pieces and became powers and nations. Sometimes they broke again and fought themselves. Always conflict and the force of division.

He stared at the foreign life suspended in the isolation chamber. This one was not quite as powerful as the one currently holding the virus. He had no reason to believe the life was harmful in anyway. He had spotted it during a routine scan of the planets around the star they now orbited.

The star, a main sequence was smaller than the Sun. He had not given it a real name, but his records, if actually transcribed in a way that, for instance the Stellar Alliance or Helia might interpret them, referred to the solar mass as 133E94.

He had been studying its convective layer for a few months, plus the two years of passive and automation collected data gathered during his absence.

From what he could gather, almost all of its body was undergoing convection. Eventually, it would shed its outer layer and become a white dwarf. He wasn't quite sure if he really wanted to be around when that time actually came.

Its size put it at the lower end of probability for finding life, but yet, there it was, and he wasn't going to complain.

He looked at the isolation chamber. The organisms appeared an uninteresting reddish brown. Something inside him switched, threads spinning off automation, but the core of himself was not quite interested. Sure, he would go through the motions, objects whirring around him, hundreds of simultaneous tests being conducted in a flurry of activity, all recorded and analyzed by the automation cores, but within him, he was bored.

He knew form experience that was because biological systems were challenging to fully understand, yet usually detailed no more useful interactions than those he could have created himself with ease using nanobots.

Yet he was not so rash as to say the investigation was worthless. He was not quite ready to call himself better than the millions of years of evolution which had resulted in humans, and apparently, this reddish brown slime.

There could be something he was missing. He didn't think it likely, but it was possible. He sighed, and continued his work.

His mind drifted, his core floating through the sensors of this ship as his body moved under the aegis of the automation cores. He reached out to the bot that had collected the specimen. It was still located down on the planet itself (categorized as R67-IO8). The environment of the organism was key to understanding its workings. Which elements were in abundance; which ones were in short supply; which energy sources could actually be harnessed.

Yet that just involved more of the specimen. He wanted something more satisfying to think about.

He read in data from a myriad of sensors that were still recording the convection patterns of 133E94. Yet these were unfulfilling as well. It turned out that a general theory of magneto fluid dynamics was still something he had to work towards. Simulations were all he had for now. Complicated simulations, but simulations nonetheless.

Helia had looked at the things he had left her. She didn't seem keen on using the headband. That wasn't a great surprise, the humans of the Stellar Alliance had maintained the social conventions of their grandfather race on earth. Unlike the Ebrin, such 'intrusion' on the mind was still something scary to them.

Perhaps once their own technology reached the point where they could understand and experience the benefit almost simultaneous transmission of information brought.

Yet again, it was because of such technology that the Ebrin were now mindless drones...

His mind drifted further.

From far away he could still sense the automation diligently recording information about a myriad of tasks, wondering, thinking, yet all in a preprogrammed way. He could not quite trust true intelligence. He had seen ruin befall many who had.

And like it did in such situations, his mind wandered further. It the outside stimulae was uninteresting, if the thousands of sensors and recordings were blasé, then he still had the memories of his past to remember. He had millions of memories, some stretching back to before his mind was partially automated, when it had only been flesh against the ravages of time. They had not aged well no matter the restoration algorithms he tried applying to them.

But he dug deep, into the region of storage where the protocols became older and older, where the crystal clear preservation data degraded into a jumble of thought and sight and sounds and feelings.

He did not know the time of this memory, but he was standing on a small craft of some sort. The first thing he noticed was how limited everything was. He could only see very limited sections of the spectrum, there were no additional sensors, no automation imputs or bot readouts, or sensor feeds. It was just him.

And he was standing before a window of sorts. He remembered this part clearly, the scratched pitted material that made it almost translucent. There was a rainbow colored discoloration to the window as well, most likely coming from radiation.

But the window itself wasn't the important part. What his prior self was conerned with was what lay behind the window.

A space station lay, rotating in space. Its slender yet geometric body was unpainted and reflected the light of the red dwarf behind it.

And we was in awe. Despite the fact that centuries later he would start constructing the Scion which would put this station to shame many times over. For now he was truly in awe. There was nothing larger that he had seen. His heart itself was moved. Years of research and study, rising up from ignorance…

He turned to the people around him and saw disinterested faces. They had seen it already and were not impressed.

But he would not be dissuaded in his wonder. What new discoveries were being worked on? What breakthroughs lay just behind the corner? Wasn't this truly the pinnacle of human effort? At last they had been able to shed their reliance on Earth and rise to the heavens, to be able to study the art of science without the imposition of war or famine or politics, simply minds working as one towards a common goal. And he would soon be a part of this vaunted community.

He was almost shaking with excitement. A more glorious future awaited, and he was going to be part of it.

The conscious part of him was somewhat ashamed by his naivety, but another part admired, longed for the drive and hope he once had.

The scene changed.

It was several months in. He had trouble acclimating to the new environment. The station was large but every nook and corner was used for something. The rooms were cramped and he had to stoop to get through doorways.

The group that had assembled it had sworn to make currency and greed a thing of the past. But there was a fundamental problem. Who decided the direction of the group? Who picked new research topics? No one could operate by themselves. Not only was it impossible with one person from a time point of view, even if they could make accomplishments alone, there were too many shared resources.

Water was at a premium and they struggled constantly for more complicated chemicals and reagents for chemical and biological research. Machines were constantly in use. You had to schedule them day ahead of time and their quality was diminishing as well. No one knew who was responsible for their upkeep.

For that matter, now one knew who was responsible for the upkeep of the station itself. The systems were not new, despite the station as a whole being newly assembled. They had been acquired, purchased even, from a conglomerate which operated ferrying resources from faction to faction. But they required something in return. Research was all they had, so research was what they traded.

Yet in spite of all of these setbacks, and realizations, he was still living in paradise. Amid the already rusted grates, screeching bulkheads and constant worry about food there was work being done. And they were letting him participate.

Having a less experienced person was actually proving itself to be a boon for some of the groups within the station. They allowed him to do jobs no one would want otherwise. He was learning about how the station functioned and its operation in addition to the research. When subsystems failed he was the one in the suit going into the void to fix them. He was one installing machines, fixing machines; even helping the others plan new sources of water and food and their distribution systems.

The scene changed again. It was years later. The station was slowly falling into disrepair. Some of the smaller groups were leaving to other factions. He couldn't even blame them. Food was a constant worry. Water was scarce, and even electricity was rationed.

“I don't know how much more I can do to help professor.” He heard himself saying, and watched himself wipe his sweat drenched forehead.

“Its just too large! I don't even know all of the systems. I know we got some neophytes, but all they're interested in is research. None of them will agree to help me, and their lab heads agree. They say they need them full time on research.”

“But what about your work on those robots? I have to say, I was impressed with what you put together in the last couple of months.”

He felt the embarrassment combine with pride. The professor had noticed his work, even crude as it was. Mabye there was hope for him yet!

“...I'm sorry its so slow. I don't know very much about thing kind of thing. Some of the others have promised to help me out in their spare time, but it seems like they are always busy.” He looked up at the worn and weary old man in front of him. He seemed aware of several new creases in the man's face.

“But I'm learning so much! Hardware, software, planing algorithms, power electronics, artificial intelligence… There's just so much I need to learn and everything has to be preserved even as I work on them...”

The old man sighed. “Its ok King. I know you're trying your best. Hells, you didn't sign up for this position. I know that. I-I should be out there helping you… we all should. I hope you forgive our selfishess.”

He remembered at that moment the concern and fear. He remembered the musty air of the broken filtration system. He remembered the bloody scent of the rust accumulating on the ground. A light flickered behind the professor, and his eyes shot up to it automatically. A tired researcher looked up blankly at the source of the disturbance then went back to the device he was staring into.

“No, professor. I think this is a good was of resolving things. Your research is too imporant! You told me yourself you work into that mind machine interface is going well. I can't imagine slowing you down to fix something so stupid.”

A tired smile came over the professor's face. “King, I might have told you this, but this little project of ours...It would be so much better if everyone were like you. I really admire your optimism.”

He was floored by emotion. He didn't know how to respond. The professor had always seemed like a distant towering intellect, yet now he was receiving compliments from him. He simply stood there with a massive smile on his face.

“You should check up on our progress in a bit. And I'll have to look at those robots that you've been working on. We might be able to speed up some of our more tedious processes.” The man let out a sigh, nodded at King and left the room.

He stood there a moment reveling in his admiration until the light flickered again and a frown ran across his face. A screw driver appeared in his hand and he walked forward to fix it.

It was now five years later and the heads of all the departments were assembled in a large room.

The room was only heated in terms of its discussion. Trails of vapor came from every breath. The atmospherics was broken again as well.

“Even with all the robots, I can't get them everywhere, and some problems are very hard to spot ahead of time.”

The professor, now more tired than excited waved a hand at King who stopped speaking.

“Yes, King. We all understand how hard you and your team have been working. But that just the symptom of the problem. We have close to no resources left. All of the asteroids have been taken by other factions. Yet I don't think the solution you've suggested is a good one! We agreed to work on research for research's sake. I'm concerned that this faction you've got us involved with is interested in our work for weaponization.” The other gaunt white hair professor waved the concerns aside.

“You would say that. I sometimes get the feeling that you're simply jealous that my research is actually applicable. How close are you to that mind machine interface? Its been years! Will you always been 'just a few more months' out?”

“Hey, that was uncalled for!” One of the other department heads challenged.

But the white haired professor slammed his hands down to the podium infront of them.

“No! What is uncalled for is our living conditions! I can't feed half of my assistants properly. I can't access enough power for my experiments! Don't forget its my high energy research that’s feeding us right now!”

“Only because you're trading your results to those god damn goons!” One of the other professors interjected.

“They're businessmen!” The long haired professor responded forcably, then leaned forward.

“We came together and formed this place as a center of research. I'm simply trying to achieve the same goal we have always had! We have to give something! We can't go on this way!”

His last words echoed in the barren room, and King could see that they had some effect.

“We can't keep going on this way...” One of the other professors hesitantly said. “It would be nice to not have to synthesize so many compounds.” he said wistfully.

“It would be nice to be able to have solid meals again.” Another of one of the professors said, with a humor that was darker than perhaps she intended.

“Aren't you worried about compromising our itegrity?” The professor countered.

But one of the other professors turned on him now. “When will you understand, you cannot eat integrity! You cannot use integrity to power our equipment! We cannot survive on integrity alone!”

At this point it was clear to King that the discussion was all but over. The professor was muttering to himself and shaking his head but it was clear there was nothing he could do.

The scene skipped again, but only by an hour.

“King. I'm sorry you had to see that. I believe they will regret their decision in the future...” he saw himself looking up from his workbench, the internals of the atmospherics system core disassembled infront of him.

“I-I will be done with this in a few hours I think. Then we won't have to put up with the backup. At least things will be warm.”

But the professor approached him and laid a hand on his shoulder.

“King. I realize you are working hard. Perhaps harder than the rest of us. I can't claim to know how you do it. I will be honest there are days when I find myself doubting myself… But regardless. I did want to tell you, we have made progress. We think the prototype is ready, or at least as ready as any of us can test.”

He leapt up from his chair and grabbed the professor in a hug, for the moment not noticing how thin the other man had become.

“Thats amazing! Congratulations! What are the next steps?” He said, letting the professor free of his grasp.

But the professor didn't answer him right away. The other man was looking around the dark cramped room at the equip hanging from every available wall and ever spot on the ceiling. He reached out and whiped dust from the early models of the one of the robots.

“Gods, we've put our time into the wrong people. You've done more here with less, than some of the departments… You deserve so much more than what what we can provide you.”

The professor turned back around.

“But there are no more steps. We are canceling our research for the time being. I'm taking all of our data from the central repository. And I need you to start working on something. Its a… very unpleasant plan. Its just preparation. I hope we will not have to use it.” The professor showed him some blueprints he had apparently put together himself.

“If we detach these struts here and here, and sever the main bus here, along with all the water, electrical and atmospherics systems, we should be able to detach the lab from the station.”

“What!” Shock and horror ran through him. He looked up at the professor with wild eyes of fear.

“I don't understand! What are you suggesting? Why would I do something like this? It would destroy everything we have worked on! W-We're supposed to be one people, working together towards one cause.”

The professor turned quickly as a person passed in the hallway.

“I know King. I know. But we just can't trust the others any more. You heard what they were going to do right? I think they are going to sell everything, not just their own research.”

“But your work is encrypted!” He heard himself protest.

“You don't think they know our algorithms? We have worked together now for almost four decades. Nothing is secret here. Not even this discussion. I have already started the data moving process. I said an apprentice was working on a new compression algorithm and that we wanted to test it on our own systems first. That will give us enough time to get our own stuff out.”

“I…”

The professor shook his head. “I realize this might seem like betrayal, but what use is what we are working on if it just goes to fuel conflict? I've looked at the faction he's dealing with. They're weapons traders King. Weapons. Have you heard what happened on Io?”

“I have.” He said reluctantly. “That was them?”

“Indirectly.”

“So. Will you help me? The rest of the team has agreed to help as well. Some are not happy about it. We don't need to be happy about it, we just need to act before its too late. Too late for any of us...”