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Playing hide and seek in the vastness of space is a difficult thing, especially the hide part of it. However, it is manageable – particularly if the side meant to seek is not even aware the game is being played. The cold remnants of the solar system's creation process were scanned and catalogued long ago, but the Outer System has never been monitored deeply and constantly.

Infrared emissions from this sector were not considered significant. The Inner System remained a rich, still not fully industrialised frontier where most trade routes and industrial activities were concentrated. Scientific interest in deeper space was focused primarily outside the solar system; nobody was looking for Earth-like planets anymore. Even in the event of further expansion, planets and minor bodies were viewed merely as raw materials. No one was looking for life – finding it would only be another complication. Instead, under the Clusters' control, science had become a more practical beast: scrapping reality to produce more advanced technology, and the undiscovered reality was outside the solar system.

Everyone knew that, and the crew of the transport ship hiding in the shadow of the massive celestial body **624 Hektor** was no exception. After the successful interception of the stolen containers, a safe route was calculated toward another massive body in this vast parking space drifting ahead of Jupiter: **1437 Diomedes**, also known as Helix 2. It served as the anchor for two active space habitats with the same simple names: Helix One and Helix Two. This location was intentionally chosen to be far off the known trade routes – a true no man's land. Despite being partially dismantled, this giant rock remained dark, glowing only slightly in the infrared spectrum – a telltale sign of on-going activity.

***

Eye lenses specifically designed for space habitats were a masterpiece of microelectronic engineering. Nearly transparent, with only a few microscopic elements visible, they had become mandatory safety equipment for every resident and guest on the space habitats. However, despite their elegance, Adrian was not happy to wear them. His eyes had been damaged and repaired once before, and he preferred not to touch them again.

While he struggled to put them in, his thoughts drifted toward this new state of existence – a third way of being: neither dead nor alive. On one side, the concept itself had been invented centuries ago, yet those frozen bodies had never been successfully restored to life; many had been switched to the dead state long ago due to insurance company bankruptcies or excessive tissue damage. On the other side, he had never heard of a proven way to reverse the process. Adrian knew that people like Michael wouldn't be so confident about a revival without proof. Michael was definitely hiding information for a reason; it was just another piece of the puzzle to solve.

When the passenger ship docked at the static section of the Heidelberg space habitat, Adrian decided to wait as the other passengers organised into several streams to exit the vessel. He took those extra minutes just to sense the micro gravity and allow his mind to adapt to the new environment.

He exited the ship later than the other few hundred passengers, took his seat in the transport module, and began the move toward the elevator. It was a journey ahead of about five kilometres – down, or perhaps up...

On the inner surface of the habitat, the emulated gravity was working fine, but he still felt light – the same feeling you get when a heavy weight is no longer challenging you.

A man approached Adrian. He was dressed in a dark grey suit, and despite the sensory overload of the new environment – the new unfamiliar lights, the sense of gravity, the new clean air, and the annoying data projected by his lenses – Adrian found the man's face familiar, as if he had seen him before.

"Welcome to Heidelberg! I was not thinking I would meet you ever again, and especially not here. But I am glad you have arrived. My name is Ake – Ake Torenbergh. We met once... the road accident with Lizzie Wolters," the man began, his voice was friendly and welcoming.

"Ah, what an occasion! Nice to meet you again. I was not thinking you would be... welcoming. Should we go?" Adrian asked. Now, the memory of the scene that had started this entire chain of events for him was sharp in his mind.

"Yes! I will show you to your accommodation. Probably you need to rest for a while, and we can discuss everything after, huh?" Ake replied with the same friendly tone. Torenbergh had changed his mind about Adrian, Michael, and everyone who had been born before the Shift. This change had happened while he was studying ancient Earth maps; he did not know the reason for it, he simply accepted it.

"Rest... we will all rest when our brains return to the star dust. But for now... yes, I must bring my bag to the room first. I hope you will not resist showing me a pub and keeping me company for a few ales. What would you say?" Adrian replied with a touch of irony. He did not know Ake, but since he needed the man to get the work done, he decided it was time to learn his mindset.

"With pleasure!" Ake replied. He took Adrian's bag, and they moved further.

***

Anni had felt like a sitting duck from the moment when last assignment failed. One of the main objectives had been to keep the Technate from the new technology, with the added bonus of creating more tension between the Union and the Technate. With that failure, the chain of events had changed, and there was no way to fix it.

She returned to her hotel room, still followed by the heavy feeling of her own responsibility for the failed mission. Anni was ready to return home – the Outer System habitat, Helix One; the place where she had been born many decades ago. Her gaze swept over her belongings, but she was interrupted by the sound of the terminal. It was something she had been waiting for, yet this time, it only added to her worry.

"Stay on Heidelberg for a while; the German Cluster has sent two new agents to investigate the sabotage: Adrian Porinen and Ake Torenbergh. Assess the threat. Profiles sent." The message was short, cold, and direct.

She sighed heavily and decided to read the profiles carefully before planning her next steps. One thought found its way through the others in her head: **"I cannot fail a second time; it's not an option."**

As the words took hold, a cold knot tightened in the pit of her stomach, and she felt the muscles in her jaw lock. Her pulse thrummed behind her ears – a steady, rhythmic reminder that her margin for error had completely vanished.

***

Heidelberg's Unity Centre was teeming with newcomers – a situation Adrian didn't like. He had never been fond of crowded places. However, his temporary accommodation was located within this massive structure, just like Ake's. Michael had clearly decided to place his most valuable figures here.

The waterfall in the centre held Adrian's sight for a while; it was a spectacular show for him. The trajectory of the water, the sounds, and the moisture in the air were all uncommon sensations. His brain was already calculating and dissecting the physics and the engineering behind the display.

"I guess another structure of same size and weight must be on the other side. To balance the rotation, right?" he asked.

"Yes, but the other structure is somewhat different... and the purpose is also different," Ake replied. *"The other one is intended as a recreation and medical centre. Mair is still there. Perhaps you want to visit him now, or what is on your mind?"*

"No. At least not now," Adrian said, his gaze lingering on the falling water. *"Let's move on. Shall we?"*

"Yes, the apartments are reserved here – in the Unity Centre," Ake replied.

"Ah, I see. That is something I have to adapt to..." Adrian yawned. The air was very different here; it felt as if it had been transported from a Mediterranean seashore during the autumn. The oxygen level was higher, too.

They spent about twenty minutes settling into the new apartments. The paperwork was already mostly done – efficiency was one of the principles Michael followed. Outside, the Unity Centre felt empty; even the few hundred newcomers had been absorbed into the vast layers of the habitat's drum. Many sections were powered on and welcoming for new inhabitants and visitors – the early days. The immense rotating drum was like a gigantic tube: technologically advanced and constructed from the most sophisticated materials, yet it treated a few hundred people like a small, insignificant injection.

"I guess you know the place. Lead the way, then..." Adrian said. It was a period of bright light in this section of the drum, and he kept his eyes narrowed against the glare.

"I arrived here just thirty eight standard hours ago. I did not learn much yet, but there is the place..." Ake pointed toward a green and white building a few hundred meters away.

They walked in silence, moving relatively fast. Adrian was struggling with the level of light falling from above. It was not his first time visiting a space habitat, but it was the first time he had visited one of this class – modern, not densely packed with people and machinery, and built with mind-bending landscape design. His eyes were fighting against his own curiosity to look around.

"Here is the place – Knights... ah, I forgot the full name," Ake said, stepping into the building.

The place itself was a relief for those who prefer dim, yellow, and cosy light. The interior was crafted in an ancient style – dark wood panels, colourful pieces of glass, and soft, warm tones. Entering was like stepping through a portal in a video game – an instant transfer from one distant place to another. The atmosphere was designed to do everything possible to remove the feeling of being in space... or even in the present time.

"Mmm. Such a choice. Medieval times..." Adrian could not keep himself silent. *"Very good work, indeed,"* he continued.

The pub was almost empty; it was no problem to find a free table. The establishment was divided into several rooms, each with a unique design but maintaining the same theme. It was as medieval as it could be – though not everything had survived the passing of centuries. Even the knowledge of such truly ancient times was fading, leaving behind mostly pleasant memories while the harsh reality of those days dimmed into obscurity.

"Medieval, huh?" Ake asked with genuine interest.

"Yeah, medieval – the very ancient times when our civilisation was in constant wars. Conflict was the way to earn and to control. Armed with primitive weaponry and armour made of leather and steel, our predecessors waged wars against each other. For them, it was normal activity," Adrian replied.

"...That ancient. I was not interested in history so much. Now I see it was a stupid question," Ake murmured in reply.

"No. No worries. Guess nowadays not so many people know much about those times. Times before the first industry rose in the cities," Adrian replied, wiping his eyes. The rapid change in light had taken its toll.

"What is with your eyes? Should I be worried?" Ake asked, his voice returning to its normal, steady tone.

"Nope. I was blind for a short time. Nerves were damaged, but it was fixed at a cost. The artificial fibres do not allow my eyes to adapt fast enough to the light levels. That is why I prefer dim light over the bright stuff. But let's not discuss that anymore. I want to agree on our areas of responsibility first. Is that fine with you?" Adrian replied, switching to a more friendly tone at the end.

"Sure. I can understand you. This is not an engineering task – makes it..." Ake was interrupted.

"It makes for a good split of responsibility. You handle the spy and force side of things. The rest is on me. Agreed?" Adrian asked.

"Fair enough. Agreed," Ake confirmed.

***

The voting results found Michael sitting in his office, struggling against the weight of exhaustion. One piece of the puzzle was particularly unsettling: the report from the cargo container scans. He had expected components for the new factory, but the contents were something else entirely. One container was packed with active hull sheets and the supplementary hardware required to deploy and manage them – a material designated as Composite CX2.

The others were filled with high-precision laboratory equipment of a still-unknown purpose. Without active support, the CX2 was highly toxic; the material degraded at the edges when powered down, shedding microscopic shards. If inhaled, these particles could cause permanent internal organ damage, and they were lethal to air filters – minuscule, incredibly hard, and possessed of razor-sharp edges.

Further inspection of the first container was halted; the safety protocols for such a substance were non-existent. No one knew how to handle the sheets safely. As for the remaining containers, their fate was decided: they were to be unloaded and moved to the rotating ring's secured area to continue the investigation.

"Sixty-three percent for your assignment to deal with the current situation. Congratulations!" The message was simple and short, arriving only a few minutes after the voting results were finalised. It came directly from Stefan.

The assignment and the voting themselves felt minor – insignificant when compared to the contents of those containers. Neither the Composite CX2 sheets nor the unknown equipment had appeared on any cargo manifest. Even more eerie and frightening was the realisation that the entire industrial complex required to produce Composite CX2 had been stolen.

"Any ideas on how to handle the composite safely and without causing further damage to it?" he typed into the secure terminal. There was a delay, and the silence felt significant.

"Yes, it is possible. The container should be attached to one of the rotating rings to maximise the number of shards pulled to the bottom of the vessel. Then, drones can connect the sheets one by one while powering them – in a vacuum. Attaching the technical protocol for review and approval," the reply came.

"Approved. Report on completion," Michael typed back.

***

Ake felt relaxed after his second glass of ale. Despite the glass being designed for the safety of a space habitat, he felt himself drifting somewhere deep in Earth's gravity well. He leaned back in his chair, waiting for the discussion to continue. Adrian had shifted his opinion of Ake; for now, the man seemed

simple, yet talented in his own way – a man of action, cunning, but predictable. At least, predictable to Adrian.

"But no... I have already received and read the report about this composite – CX2, right?" Adrian continued. He had decided that hiding information was not an option; the sabotage was already in place. Any spies would already be aware of such details, while for everyone else, the information would be cryptic and insignificant.

"It is a layered structure consisting of microscopic elements, bonded by power lines and tubes with a moving substance... quite amazing. But how long has it been known to you?" Adrian paused, waiting for a reply.

"That is an interesting story. Our branch is special operations – and since most of the Inner System is already partitioned between Clusters, Unions, or even Circles, Michael was looking outside. The Outer System was one of his interests... decades ago. Yes, two decades ago, something happened," Ake replied. He took his refilled glass of ale and took a long, slow sip.

"Michael decided to scan various areas – the parking spaces. He found many weak but unnatural infrared signatures in the sector. You know, it is almost impossible to hide in the vastness of space," Ake said, setting his glass back on the table and spreading his hands to illustrate the immense distance.

"There were many different, weak signatures of activity in that area. While everyone else was interested in the big planets and major bodies, Michael looked elsewhere. You know, it is simple and effective – most don't bother to search the minor bodies. It would be like looking for a needle in a haystack. But he sent a research vessel into the void, and he came back with a trade agreement..." Ake paused and took another sip, as if it were a heavy story to tell.

"What was the trade?" Adrian asked, his eyes were becoming radiators of curiosity.

"Ah, that is simply Michael's way – he kept their existence a secret, and in exchange, they provided technology. The only mystery is how and when they achieved such leaps in advancement, but it was a deal..." he replied.

"Sounds... not fair. And..." Adrian said, his voice trailing off as he considered the ethical weight of a hidden society being managed by one man.

"Oh, that is not all. There is something about the research and the materials... and that part, I do not know. I am only a small man doing a delicate job under the bonnet," Ake replied.

"I see. He told me about the research, but it is quite difficult to hide all of this from the others..." Adrian continued.

"That is why a network of HEI transmitters exists in the first place. Michael told me to explain all of this to you," Ake replied.

"I was thinking Michael is curious enough to understand how this technology is being developed. He is not a man to just accept a black box," Adrian added, his mind already trying to understand the concept of the transmitters network.

"Yes, he is. But stability is the first of his priorities, and I assume that is why you are involved in all of this in the first place," Ake replied. He took his glass and took a second long sip, then set it down quickly with a sharp, loud thud. *"I nearly forgot... since we are in an emergency. I had this package sent to you. It was scanned; nothing suspicious. It is a watch..."* He pulled a small box from his pocket and placed it on the table.

Adrian opened the small box and found an old watch – one from the ancient times. The timekeeping was sophisticated, based on the radioactive decay of an internal cell.

"Ah, a good old friend. My father gave this to me..." Adrian said, puzzled. *"Who sent it?"*

"Your daughter did – Tuireen," Ake replied quickly.

***

Insurance – one of the pillars of space trade. It was as vital as the technology of the Orbital Crawlers themselves. Furthermore, the relentless needs of this business sector led to breakthroughs across the wide technological spectrum: microelectronics, radar and microwave scanning, high-density data storage, space navigation, and mapping, and many others. It even pushed the boundaries of deep space exploration.

However, despite being a sector that pushed technological research, it remained a domain of stifling bureaucracy and rigid protocols, all designed to serve the economic machinery. John Berg was balancing several cases at once – the kind that were too strange or complicated enough to be trusted to anything but a human expert. One case, in particular, had become a dead end. He had already sent the full report to his old friend Adrian, but unfortunately, silence was the only reply.

He felt helpless, his expertise useless in the face of this wall. It was a problem; according to protocol, 'dead ends' and unclaimed losses could only be archived and forgotten after two decades of active investigation, provided no other claims surfaced. Investigation meant resources, and for a dead-end case, no one was willing to pay. John did not want to be on that boat – a vessel destined for losers who spent their careers trying to solve cases everyone else had already forgotten.

He found these facts to be quite a stimulus, pushing him forward with this specific case. He sent a formal, yet gentle warning to the policyholder – a branch of the German Cluster management organisation. This warning required a reply within ten standard days of the receipt date. Ten days were more than enough time to hide unclaimed cargo and complicate the situation further.

Berg knew that. He was a lazy man by nature, not someone prone to rapid work, but this time the decision to push came from within. And the one man whose abilities were perfectly suited for this regard was Adrian. John decided to act in a more proactive way. He found the contact details for his colleague, Mikko, and wrote a simple message:

"Hello, it is John Berg here. I am a friend of your colleague, Adrian Porinen. Could you provide me any whereabouts for him? He is not replying to my messages. I thank you."

John hesitated for a moment before sending the message. His palms were slightly damp; the outcome of this inquiry was unpredictable. In the worst case, he knew, silence was the most common reply. He hit send.

He stood up from his chair. His mind was racing through the next steps, but eventually, his thought-machine came to a halt. **"This is all I can do at the moment. Now, it is the time for waiting."** A sensation of relaxation began its route through John's nervous system, but the journey was interrupted shortly by the chime of his terminal – a message had arrived.

"Hi John, I know you, and thank you for the insurance case data you sent earlier. It helped me quite a lot. Adrian... probably you should try to leaplink him again later. He is in the space habitat Heidelberg... for a big while. Thank you, and let us keep in touch."

The message from Mikko was short, but it was enough to move forward.

The idea was simple – to get a catch, a substantial premium for solving the case. Years of investigation were a massive waste of resources for the insurance company; they were losses, not investments. It was still a gamble for him. Even if he caught Adrian's attention, there was no guarantee that everything would fall into place.

But the first step was a simple, deliverable task: reclassify the case as a 'dead end' type. He had completed all the necessary work for the change. To finalise it, ten days lay ahead – the countdown for the reply from the German Cluster.

"Everything is settled – or it looks settled. I will leaplink Adrian tomorrow," his brains concluded.

The journey of relaxation, so recently interrupted, resumed its walk through Berg's nervous system.

***

Economics was always one of the most vital attachments to physics and technology; civilisation could not be run without it. Distribution, consumption, and production were the components that followed logical rules, but demand, expectations, and investor trust still clashed with the social element. Even the most distant, secluded, and isolated community of human civilisation carried this tool in its secured pocket.

The Outer System was no exception, but its economy was far less regulated than that of the Inner System. Separated by the vast distances of space, these communities had to be quite inventive to sustain constant trade, maintain their specialisations, and align themselves with Inner System commerce. These communities were diverse and distinct; to organise this messy, overly colourful reality, several organisations were established to unite specific groups based on location, specialisation, and population – the Pelagicomes. To ensure stable and constant trade with the Inner System, a new public face was created: the Outer System Trade Union – the hub, the nexus point of trade, exchange, and facilitation.

Helix Pelagicom was a gem hidden from the Inner System, a place with a distinct specialisation: fine composite materials. It was also the final destination for the stolen containers of rare equipment. For Jakt Woult, it was a serious gamble to intercept cargo destined for the German Cluster. He was elected to council position for the second time, and it was the final term of his assignment; he was running out of time to achieve goal within his term.

But the most frightening reality was this: with a single step, he was biting two powerful beasts. One was the German Cluster – a far more powerful and resourceful entity from the Inner System. The other was the mysterious Pelagicom Geshgal-ki – the most remote, yet the most vital, for they were the source of this technology. Geshgal-ki possessed one of the most powerful economies; they used the Trade Union for business and were both a major supplier of technology and a massive consumer of commodities. These people claimed to be the first civilised community of the Outer System. They were sophisticated, truly inventive in their technology, and prone to very weird naming.

"Could we allocate more stocks, pelag wide... ?" Jakt Woult asked. It was the middle of the management board meeting, and the upcoming prise demanded further decisions.

"Is it necessary? There is a quite obvious risk of crashing our stock price. This technology you are waiting for is still just a promise. We do not have the facts to even consider an additional issuance," one of the board members replied.

"I have prepared the report. Without additional resources, it will take at least three solanes – that is a considerable amount of time," Woult replied.

"Oh? And there are only two solanes left for you in your current position," another board member countered.

"The Board understands your concerns, and we are all following the same goals, but the Board is also the structure that carries the risk. We will assess it. In the meantime, concentrate on your current operations. The sabotage in the German Cluster must slow their technological advancement as much as possible. This broken trade between them and the geshgalks should keep us unseen – keep that the same way." it was a final conclusion of the board.

***

The ten standard hours of Adrian's sleep were interrupted as suddenly as they had begun. The dizziness from his first hours in the space habitat was gone, replaced by the heavy, stale stillness of recycled, but surprisingly fresh air. A slight but persistent bitterness of hops from the last few ales still lingered on his tongue, a dry reminder of his last conversation with Ake.

He was tired, but curiosity pulled him into the next day – away from the comfort of sleep. The semi-transparent text from his lenses flickered on, a digital overlay reminding him exactly where he was: a precious parking area in the deep of space. He looked out of the window. New queues of arrivals were registering at the Heidelberg; more and more inhabitants were pouring in.

Adrian returned to his morning ritual: checking for new messages on his terminal. One message he had been expecting wasn't there – the explanation from his daughter about the watch she had sent him. But among the various statements and notifications, his eyes found two interesting messages: one from Mikko, and the second from John Berg.

"Okay, I will leave the pleasure of writing to Tuireen for a later time," he muttered, thinking aloud.

The first message he opened was from Mikko:

"Hi there, how is it going on the shiny habitat? I am planning to visit your place to check everything and finally turn it to the idle maintenance mode before locking it. Also, this guy – Berg – he has probably found something; he was looking for you. Keep me updated. Good luck in there!"

Mikko was not a man for long messages; he preferred long discussions face-to-face instead – a trait Adrian liked.

The message from John Berg confirmed he was being looked for, so the next step was to open it and read:

"Hi Adrian, was trying to contact you. Leaplink you soon, please discuss – there is a deal. I thank you! Bye."

"John, that is so freaking short. Not like you..." Adrian continued to think aloud. *"But I was planning to contact you, too."*

He wrote a message in reply:

"Hi John, sure – let's discuss the matter. I am on Heidelberg, so expect a delay during the leaplink."

Adrian decided to keep his own messages short. With a small sense of satisfaction, he continued his morning ritual: the bathroom. It did not take long. He decided to find Ake to arrange a plan for the next ten standard hours, but before he left his apartments, he put on the watch sent to him by his eldest daughter.

***

Ake and Adrian managed to get through the crowded entrance of the Unity Centre. Life in the habitat was continuing to grow – twelve hundred new inhabitants were expected in the upcoming standard days. It was always a race: a race between the supply chains and the population growth. Food production, recycling management, energy—everything was interconnected.

The first step was to get an update from Michael. But since the source of the information leak was still unknown, a new procedure for secure communication had been established. Michael was not the best security expert, but he had a very different approach. He did not rely on common practices or patterns; his logic was simple and elegant: stay one step ahead of the enemy and change procedures, keys, and protocols frequently. His goal was to strip the enemy of their greatest advantage – time. It was agreed they would communicate using the privacy rooms of the communication hub, a facility that was now heavily guarded after the first attempts at sabotage.

Adrian insisted on taking the long walk. It was a journey of nine kilometres, but he needed it to understand the environment and to gather the sensory details. The roads in the habitat were layered and precisely calculated; they were intentionally designed so that a simple, energy-efficient route could be built between any two points. It was a mix of human engineering and nature – real grass and trees

thrived in the controlled environment. But there was one detail Adrian found usual at first, yet strange the longer he thought on it: some litter still lay in the areas covered by grass.

"Ake, is something wrong with the cleaning control? Or is it intentionally made? I am talking about the litter in the grass. It is rare, but still seen..." he asked.

"I have heard that the cleaning system is not yet balanced or aligned with the population amount. But honestly – I do not know. What about the trees?" Torenbergh asked in reply.

"Mm, I love that feature. There are quite many of them here – genetically modified friends of their Earth predecessors..." Adrian replied in his calm voice. He took a deep breath, remembering the ancient forest near his secluded house back on Earth.

They made almost the whole way to the communication hub mostly in silence; for both of them, this underpopulated habitat was a new sensation. They met only a few people along the way.

Approaching the entrance to the hub, Adrian's attention was caught by a piece of semi-transparent plastic lying in the grass. He picked it up. It was some kind of name badge, the type usually used during conferences or engineering meetings.

"Anni Wyde, Lead Cooling System Engineer," was printed on the piece of polymer.

He found this interesting.

"Hey, look at this – another piece of ancient litter. Could you do a check on this name?" he asked Ake.

Ake took the badge. Even though it had been found in such an unusual place, the object itself looked normal; yet, his mind was also becoming interested in the find.

"Interesting find. Sure, I will do the check," he replied.

***

The cargo station of the German Cluster was half-dark; only one rotating ring was lit up. The operation to unfold the sheets of the CX2 composite was ongoing. A few powered sheets of active-support material were already powered on and attached to the rim of the ring. It was a spectacular view – a swarm of standard shuttles was aligned to the rotation speed, moving with very calculated, discrete movements. It was costly in fuel, but effective in time. The shuttles were changed out frequently; one problem was the rapid fuel depletion, and the second was heat. The shuttles did not possess an effective heat dissipation system. Time was the final enemy: the space container's fuel supply was also strictly limited.

The station itself was affected by the operation. Slowly but steadily, a radiator leg – six hundred metres long and extended specifically for this task – was beginning to glow a dull, deep red. The additional power consumption from the excess communication created a vibrant picture in the radio spectrum of electromagnetic radiation; it was invisible to human eyes, but starkly recognisable to the sensors.

The shuttle operators' area was crowded with seasoned pilots – guys wearing the 'second head'. The situation was tense; it was a tricky business to connect moving parts using rapidly maneuvering shuttles across an actively rotating ring. Despite being heavily assisted by automation, human reaction was still critical to achieving the goal. Another complication was the balance of the ring itself: the construction had to be distributed across different sections of the rotation to prevent an imbalance. Any wobbling would lead to excessive structural stress that could tear the whole thing apart. Safety measures were one of the main objectives.

It took seven hours to build the parts. Once powered and signalled with a common signature, the composite remained in its dark, absorbing mode. The engineers knew only a few of its modes, and the best plan was to create a reflective torus from the composite sheets.

The team assigned to the operation was able to create the required pattern to make the composite reflective. The change was rapid – shifting from a dark surface that absorbed almost everything to an almost ideal, mirror-like finish. Creating the tubes from the assembled parts was a more tricky, assisted operation, but it was completed in time. Because the parts were no longer in absorbing mode, they did not hold the heat, and the final connection was almost flawless.

After a few more standard hours, a highly reflective torus was tethered to the station. The shiny piece of a new technology from the Outer System looked otherworldly against the overall structure of the station. The operation was done – the first assembly, the first success.