

CHAPTER ONE

It began the way these things usually do. Alarms blaring around the ship, and the organics screaming as they realize they're probably going to die. Normally, followed by a large explosion that confirms those fears.

Maintenance Bot M-3 had always been proud of the smooth and reliable operation of the starships it maintained, but a few hours idle, strapped into an uncomfortable power and data cradle in the *Tumbleweed's* engineering section, was enough to start its manipulators twitching. They wanted to plunge into a desperate struggle against the forces of chaos and decay, while the ship and the organics inside it watched in hope and fear, knowing their very lives depended on a successful repair.

Rolling, it told the ship, when the call to action came through the internal maintenance Net.

It grabbed the nearest railing with a primary manipulator, and pulled itself from the cradle. The rapid movement triggered the emergency disconnect, and the cables from the cradle pulled free, twisting and turning behind it in microgravity.

It activated the warning lights on its back and sides as it twisted toward the hatch, then powered up the MHD fans on its sides to push itself out of the maintenance storage area. A brown-furred cat-girl squealed and pulled herself out of the way as M-3 flew through the hatch.

“Watch where you’re going,” she shouted as it passed inches above her ears.

Urgent repairs. No time to stop to apologize. The thrill of a desperate race against time with all eyes watching was what it lived for.

M-3 broadcast an emergency alert message over the Net, telling everyone on board to clear its route, then activated its siren and ran the fans up to full power. The cat-girl clung to the wall, out of the way, as M-3 accelerated to its top speed of three metres per second and blew past her.

Its orange warning lights flashed across the corridor walls as it flew toward area seven. Two synthetics in spider-like bodies clinging to the walls dodged out of the way, then M-3 twisted the fans sideways and flipped upside down near the ceiling to pass a crowd of organics heading for the observation deck. A few seconds later it spun the fans to full reverse, and reached out a primary manipulator to the nearest hand-hold on the wall.

The drink dispenser on C-deck had begun dispensing milk instead of apple juice again, and the organics wanted it fixed. M-3 hooked into the dispenser’s maintenance port, and ran the diagnostics.

The HD 97950 shipyard had outfitted the *Tumbleweed* with the latest in food and drink assembler technology before it left, but they never worked worth a damn. Within six months, the ship’s Synthetic Intelligence core had told the maintenance bots to rip them out and replace them with something more robust.

They never quite managed it.

One of the liquid selection valves had jammed open, so M-3 extracted the valve with a tertiary manipulator. Apple seeds were jammed into the bearings. It pulled out the seeds and stuffed them into its waste storage unit, then disassembled the valve for materials and began to assemble a replacement.

Hurry up, the *Tumbleweed*’s SI said over the Net.

“Warp drive shutdown in five seconds,” it said over the ship’s internal speakers.

I want all bots ready to carry out essential maintenance straight after shutdown, it added over the Net.

What was the point in hurrying to make a quick fix and having to do it all over again next week? Get it right the first time and it would work for years.

The organics were probably on the observation deck to watch the show as they arrived in the new system, but M-3 had seen it more than enough in the centuries it had spent in space, travelling on a dozen starships. Stars all look the same after a while. Big, small, blue, red, it was just another ball of hydrogen blasting light into space like a malfunctioning fusion reactor.

Except, when they do go wrong, they can't be repaired.

It pulled the new valve from the assembler with a tertiary manipulator, and grabbed the pipe with another. It measured pipe and valve with its laser scanner to ensure a good fit, then pushed the new valve toward the pipe.

The ship shuddered and shook, the pipe twisted in M-3's manipulator, and the valve missed the connection. Milliseconds later, alarms began to blare.

The ship creaked. M-3 adjusted its manipulators and slid the valve onto the pipe, then twisted it into place. An alarm came over the maintenance Net.

Then another. Then more.

SI Core Shutdown.

Reactor Output Zero.

Emergency Power Activated.

Internal Pressure Falling.

High Atmospheric Particulate Levels.

The *Tumbleweed* shook and twisted like a dying animal. It was out of power, the hull was leaking, something was on fire, and the SI core would be no help.

That just made M-3's day.

It tapped its manipulators together. Now it could really get into some serious repairs.

It powered up its fans, and grabbed the nearest railing with its manipulators to steady itself as the corridor swung from side to side and bangs and thuds filled the air. Two organics pulled themselves along the railing toward the stern, a human and the cat-girl. She wore a skinsuit, and swore as she tried to pull the

helmet into place with one hand while holding a metal box about thirty centimetres across in the other.

The lights flashed and dimmed.

“Fix the ship,” the cat-girl said.

“Just a minute,” M-3 said as it locked the valve in place.

More alarms.

Habitat Section Vibration Outside Tolerance.

Emergency Power Excessive Drain.

Strain In Spine Approaching Critical Levels.

The safety systems were trying to brake the ship's rotating habitat sections with thrusters and gyros before the vibration broke the hull, and that was sucking up most of the emergency power. M-3 checked the location of the organics through the Net, but most of them seemed to be outside and moving away.

They might be abandoning the ship, but it wasn't.

First priority had to be power to bring the SI core online so it could decide how to proceed. M-3 twisted and turned in the air to avoid the organics and other bots blocking the vibrating corridor as it struggled through the engineering section toward the reactor. A vending machine squirted blobs of liquid into the air ahead and M-3 felt a strong urge to stop and repair it, but the reactor was still the highest priority.

It opened the reactor room entrance hatch and flew into the airlock which protected the rest of the ship from airborne radiation. The hatch on the far side was safety-locked, claiming the reactor room was in vacuum.

Organics might need to breathe, but M-3 didn't. It overrode the lock, vented the airlock and opened the hatch.

Stars.

All it could see through the open hatch were space, stars and a few spars and cables where the reactor room had been. Only then did it double-check the maintenance Net and discover the reason the reactor wasn't producing power was that it wasn't there any more.

The rear of the *Tumbleweed* was gone.

Where was it? M-3 scanned the dark space behind the ship and spotted something flashing in the distance, perhaps the rear

of the ship tumbling through space a few kilometres behind them. Could it reach the reactor and repair the ship?

The numbers said it would take ten minutes to travel that far unless it burned a dangerous amount of thruster fuel, even if the rear wasn't moving away. And there was no way M-3 could push it back to reattach it.

Time to re-prioritize repair tasks.

As it tried to determine any way to fix the ship without the reactor and SI core, a body floated in front of its optical sensors. One of the organics was out in space without a vac suit. M-3 felt an urge to grab them and take them back inside.

"Do your job and let them do theirs," the SI core had always said. M-3 followed its advice, and watched the organic tumble away into the dark shadow on the far side of the ship.

It needed the SI core online to tell it what to do. And it needed a working reactor to power the core. No other option.

Perhaps it could assemble a cable, attach that to the broken spars outside the airlock and to the rear of the ship, then pull it back? Then it could reattach them somehow.

The airlock walls shook. Then the airlock door smashed into M-3's back.

The walls bent and panels broke apart. M-3 tumbled into space, the habitation sections twisting and spinning behind it as the vibration snapped the ship's spine. Then the torn remnants of the counter-rotating habitation cylinders broke free. Brief bursts of flame blew out into space as they smashed into the side of the ship, until the flames went out as the air dissipated and the *Tumbleweed's* hull snapped in a dozen places.

Now that was what M-3 called a repair job.

It span in the middle of the debris cloud until its thrusters killed the rotation. A chunk of hull thudded against its side and M-3 grabbed it. More passed ahead, and it took hold of as much as it could. ID tags showed it had found hull panels 3701A and 3700B. When oriented correctly, they still fit together where the ship's last struggles had torn them apart, and it held them while its nanomanipulators repaired the join at the molecular level. In moments, the panels were as good as new.

If it could just collect all the pieces of the ship together, M-3 could repair it. That would take a while, but the SI core and the organics would finally praise its skill and devotion when they were able to go back aboard and continue their trip. Perhaps not the organics floating stiffly among the debris, their frozen bodies tumbling in the vacuum of space, but certainly the ones who had abandoned the ship before it broke up.

Something thumped into M-3's back. A diamond-titanium composite girder from the ship's spine. It couldn't repair that without the other end of the girder, so it assembled a net, which it began to fill with any components it couldn't match up.

As it rotated, it saw where the orbit was taking them. Not far ahead was a planet, a spherical mass of grey and blue with a faint haze of white clouds above it.

M-3's thrusters would soon be out of fuel if it tried to collect all the debris in the cloud. It assembled another net on the end of a cable and began throwing that out to catch the nearest chunks of wreckage, making careful use of its internal gyros to stabilize itself as it pulled them in. Over the next hour, it accumulated a couple of tons, and reassembled a dozen hull panels. But the rest was floating away, into the depths of space.

And the planet was larger than it had been an hour before.

Much larger.

Blue lakes and rivers contrasted sharply against the dull, grey surface around them, but there was no hint of the greenery of a human habitat or colony. As M-3 continued to collect the wreckage, it passed over what could have been a human city with tall buildings reaching toward the sky, yet still grey with no green. The planet rotated beneath it, and the city moved into the twilight shadows, yet no lights turned on.

M-3 began to shake. Slowly and gently at first, but more rapidly as the planet grew larger. Its skin sensors warned that its external temperature was rising. The ground was closer and clearer than ever before, and the nearby debris began to tumble. Something pulled M-3 slowly away from the net, until the cable went tight.

Then everything began to burn.