<u>MAX 9K</u>

The little girl climbed into bed and pulled the covers up to her chin. With a hopeful gleam in her eyes she asked "Daddy. Will you tell me a story?"

"A story? Sure" said her father. "What kind of story; one about puppies?"

"No." She responded, shaking her head.

"Princesses." He countered.

"No."

"Well what then?" He asked with a broad smile.

"Robots."

"Robots..... Ah.... Well, you know how robots are made up of wires and circuits and gears and motors and pulleys? Jam-packed with pistons, servos, lights, bells and computer processors? How the tangled mess of wires is as complicated as... as a college level calculus problem."

"What's calculus?" She asked as she screwed up her nose.

"Very complicated math" her father commented.

"Oh."

"Well you know how robots are that complicated?"

"Yes...."

All that complication tends to make them fairly boring and single-minded. Their ability to work well relies on them being methodical and predictable. They are set in their ways, each robot focusing on one or two basic tasks while another robot would pick up where hat robot left off and perform it's one or two basic tasks. Day in and day out the robots

will plod along steadily performing their duties only stopping for occasional maintenance and to recharge their batteries.

One day, on the McNulty farm, where there were several robots being used to run the daily duties of the farm, a new robot was brought on line. It was a Multi-Action eXecuting robot model 9000 (or MAX Ninekay as they all called him). As the name implies MAX was designed to do more then one task, programmed with knowledge and abilities to do all sorts of things. The problem is that MAX was a young robot, fresh off the assembly line and also a new model (eight models came before his). He was a little slow and unsure of his abilities but constantly learning.

The McNultys tried putting him on the egg-collecting job. A job the entailed assisting a senior robot in the collection and sorting the eggs from all the chickens. Max watched the senior robot for a time as he rolled down the aisles of the chicken coop, gently lifting the chickens and gathering the eggs in a built in basket. As each egg got placed into the basket a little arm would measure each egg and place it to one side or the other of the basket. It looked like a very simple job and MAX was excited to give it a try. He rolled up to the coop door, collecting a basket waiting on a peg, and entered the aisle. As he approached the first chicken he stopped to look at her.

"How should I lift her so as not to hurt her?" he thought. He gazed back at the senior robot and noticed how he lifted each chicken. Years of repetitive action and familiarity with each chicken guided his robot hands, each chicken slightly different then the last. Max was only on the farm for a few hours now and had only been activated for a days.

While it is true that robots are preprogrammed with all the calculations and job requirements to enter the work force a M.A.X. 9K is very different. They are designed to be problem solvers and need to have experiences to fill in the gaps in their programming. Because of this they are very curious.

MAX lifted his first chicken, gently scooping underneath her and holding her by her legs until she was upside down. He paused to look at the chicken, flapping her wings. As he watched the chicken he became mesmerized by the way the light played off of the dust stirred by the chicken's wings. He tried to reach for the eggs without turning his attention from the flapping chicken and dropped one. Immediately the senior robot rolled over. A series of squeaks and squawks issued from him as lights on his head blinked red and white, on and off.

As swift as a summer breeze a series of small cleaner bots (tiny machines barely big enough or complex enough to be called robots) came in the collect the broken shell, wipe up the spreading egg and zip back off out of the coop. Because of his failure MAX was partnered with a different senior robot in the chicken coop. This robot was a much older model and only performed one task, collecting the eggs. He didn't have a basket and didn't sort the eggs so MAX was designated as the carrier/ sorter until he could learn how to handle the eggs properly.

The first day progressed well from then on. MAX followed dutifully behind the older robot placing eggs in the basket by size. The two robots worked well together but Max yearned for a more complicated task. That night as he plugged in and went into low power mode to recharge his batteries his processors began to organize the day's occurrences so that he could better his performance, thereby proving he would be worthy of far complex duties.

MAX was an advanced problem solving robot so he tried to devise faster, more efficient ways to do his work. While the night passed he devised a more efficient way of measuring the eggs, using a bright light rather then calipers. As the sun came up and the robots went to work MAX was eager to try his new technique.

The robotic duo rolled into the coop, Rusty (as the old robot was called) in the lead and MAX close behind. The morning went by very quickly, MAX's system of using light to measure the eggs worked very well and it had the added benefit of allowing MAX to see inside the egg somewhat, there by being able to organize the eggs into even more distinct variations. The basket was quite full by mid day as the pair rolled into the far reaches of the coop. Using his light Max discovered an egg that looked very different then all the others.

Instead of seeing the yolk, like he had all morning, there was a strange shape on the inside. It somewhat resembled a miniature chicken inside the shell, all curled up. MAX focused closer and closer on the egg and the odd shadow within. He focused so closely on the egg, marveling at it and taking in every detail, that he had not notice Rusty had stopped as a pair of chickens ran in front of him. MAX ran right into the back of Rusty, spilling all but a few of the eggs and covering the old robot in egg yolk.