

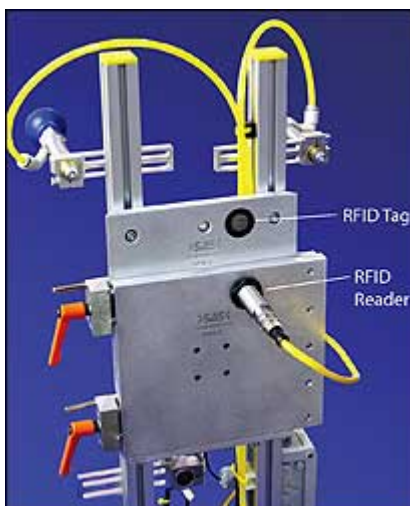
Robots No Longer Face an Identity Crisis

Thanks to RFID, these mechanical helpers have a better sense of their roles, allowing them to be more productive.

by Jill Gambon

From *Lost in Space's* Robot B-9 to *Star Wars'* R2-D2 and the mechanical races that populate the film *Transformers*, robots have long captured the human imagination and inspired creativity. And not just for entertainment. In the real world, robots have been developed to liberate people from tedious, repetitive or dangerous tasks in factories, and even to clean home floors. Now researchers are combining the automation features of robotics with the identification capabilities of RFID—a tandem that promises to improve productivity and safety in a number of sectors, including health care, manufacturing and public safety.

Already, Homers from Aethon are working in hospitals, locating and delivering supplies, such as IV pumps and wheelchairs, identified with active ultrahigh-frequency tags from Identec Solutions. Homer, which was introduced last year by the Pittsburgh-based robot manufacturer, is equipped with an Identec RFID reader and uses a map saved to its memory to find its way to different departments or areas in a hospital. The RFID applications "are going beyond just identifying an asset," says Joe Costa, VP of marketing for Aethon. "It allows you to have the right piece of equipment at the right place at the right time.



SAS Automation added RFID to its robots with end-of-arm tooling [EOAT], to reduce costly errors in manufacturing facilities.

The ability to locate and deliver supplies is the key to improving inventory management at hospitals, where cost-reduction pressures are intense, says Barry Skirble, Aethon's CIO. "Hospitals are trying to lower the amount of inventory that they have to purchase," he says. By knowing the precise location of pumps, wheelchairs and other supplies, hospitals can avoid buying materials they don't need. In addition, he says, robots can free up hospital staff for patient care and other tasks.