

29 May 2006

By: Vlad Tarko, Senior Editor, Sci-Tech News



Japan Implements Asimov's First Law of Robotics

Or at least the first part of it - Do not harm a human

The industry of robotics is growing fast in Japan and the the Ministry of Economy, Trade and Industry plans to create a complete set of guidelines by the end of the year. The robots will have to be safe - they will have to be made of softer materials, have numerous sensors so they would not bump into people and they will have to have an emergency 'stop' button. The ministry will also consider establishing an independent organization to conduct safety tests on robots and legal systems to provide insurance in case of accidents. Among the recent advances in robotics, which are targeted by the guidelines, the most interesting seem to be the iRobi (designed to play with children and that can take and edit photos, combine nursery rhymes with robot dances, provide fairy tale-based tutoring and even accept your custom programming), RI-man (the robot that takes care of the elderly) and the medical rounding robot (that allows a personal doctor to visit various patients in various hospitals). RI-man is relatively tall humanoid robot that can see and follow movement, it can hear and process commands - it can even smell odors that might be relevant to health care. In one demonstration, a researcher orders RI-MAN to pick up a woman. "The woman on the bed?" asks the robot. "Yes," says the researcher. The robot comes closer and gently picks up the woman (actually a life-like doll weighing 11 kg) by carefully supporting the back and legs. "I succeeded in holding her," the robot says at the conclusion of the exercise. The medical rounding robot allows patients to see their own doctor and speak with him or her in real time; the physicians can also see and hear their patients. Research has shown that many patients are more comfortable with the robot that with a visit from an unknown doctor. Moves to set up safety guidelines for advanced robots are currently being undertaken in countries such as the United States, Europe and South Korea.