

Korea Develops Running Robot

By Kim Tae-gyu



Humanoid robot RX

Staff Reporter

South Korea has developed a robot that is capable of running. The feat is the second in the world after Japan and was accomplished by a local venture start-up working on a small budget.

Robotis Thursday took the wraps off the network-based humanoid, tentatively named RX, which can run roughly 500 meters an hour empowered by outsourced software.

`` This robot is built up with modulated blocks, which means it can be transformed easily to other types because it is made like Lego building blocks," Robotis chief executive Kim Byoung-soo said.

`` Another strength is that this 60-centimeter-tall machine works via

software upgraded from outside network, the features our Japanese rivals do not have," Kim said.

In developing sophisticated robots, Japan has been in the driver's seat over the past several years and that is the case to the running humanoids.

Sony stunned the world in late 2003 by unveiling QRIO, the first-ever running robot, and its ferocious competitor Honda countered with ASIMO that can run about 3 kilometers per hour.

The mechanical units also show compelling features such as voice and face recognition, a key to remembering people, including their likes and dislikes.

But the costs to produce the fancy models are prohibitively high as all of their necessary software were crammed into the small-sized machine.

Korea jumped to the global bandwagon of researching robots only of late but the country has fast caught up with Japan despite small amount of funds.

Honda, the Tokyo-headquartered firm famous for its leading-edge motorcycles, is estimated to have poured \$300 million in the past two decades for the ASIMO walker.

By contrast, a domestic team headed by Prof. Oh Jun-ho at Korea Advanced

Institute of Science and Technology created a prototype bipedal worker in 2002 with three students and a budget of \$80,000.

Oh's team continues experiments to upgrade the two-legged robot, today known as HUBO, just like ASIMO that can move smoothly and climb stairs with a humanlike gait.

Robotis also channeled some \$1 million to complete the running robot RX in a year through a joint project with Samsung Electronics, sponsored by the Ministry of Information and Communication.

Oh Sang-rok, projector manager at the ministry, claims the Korean robots have brighter commercial outlooks compared to its Japanese counterparts since the formers cheaply gain software by outsourcing it instead of using expensive embedded one.

``Japanese robots are all-in-one models outfitted with all software for sensing and processing capabilities. But our robots are designed to download programs for such features from outside servers with casual updates," Oh said.

``Because of that we can offer robots at prices that will not scare off average users while Japanese players cannot. You can guess the difference from Sony's abandoning of QRIO," he added.

Indeed, Sony announced late last month that it will stop development of QRIO apparently due to the low commercial viability of the pricey humanoid.

Meanwhile, the MIC plans to commercially launch several types of network robots priced between \$1,000 and \$2,000 late this year under business alliance with private makers.

They will be wheeled robots but will be eventually upgraded to bipedal models thanks to ceaseless advances in the robotic hardware, which are now underway here at a fast pace, according to Oh.