

Fukuoka's robot zone breeding ground for innovation

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FUKUOKA--Joint efforts by the government, the private sector and universities are making Fukuoka Prefecture a hub for the robot industry.

Industry officials hope to create in the near future robots that play useful roles in society as helpers in nursing care, security services and everyday chores such as grocery shopping.

Tourists who arrive at the New Kitakyushu Airport, which opened in March, are greeted by a robot modeled after Maetel, the female character from "Galaxy Express 999," a science-fiction anime created by Leiji Matsumoto.

In response to a tourist who asked for directions to go to Hakata, the robot said: "The quickest way to get there is to use Shinkansen from Kokura."

The robot is so popular with visitors that on weekends, it draws crowds.

But there is still much room for improvement as it often misunderstands the questions.

For example, when Matsumoto, who created the character, addressed her, "Maetel, I want to go to a hot spring," expecting her to give him the names of nice hot spring resorts in the area, the robot replied somewhat indignantly: "How dare you ask a lady how old she is?"

The robot was made under the initiative of the Kitakyushu Foundation for the Advancement of Industry, Science and Technology, which promotes

cooperation between businesses and academic institutions.

"We made the robot as a sort of pastime," said an official who took part in the project. "We don't want people to think this is all Fukuoka can do."

Engineers in Fukuoka are intent on catching up with and overtaking their counterparts in the Kanto and Kansai regions in robotic research and development.

At the foundation, researchers from Iran are conducting experiments to use robots to inspect sewage pipes.

A Kyushu Institute of Technology team is developing robots that can shoot underwater photographs and others that can do somersaults and possibly perform in robot circuses.

The team is led by Kazuo Ishii, an associate professor in brain science and engineering at the institute.

The robot industry in Fukuoka Prefecture became increasingly active in 2002, the year Japan and South Korea co-hosted World Cup soccer.

That year, the prefecture hosted RoboCup 2002, in which teams of engineers from a total of 30 countries and areas competed against each other in robotic soccer games and other events.

With Yaskawa Electric Corp., one of the world's top industrial robot manufacturers, in Kita-Kyushu, Fukuoka Prefecture had the potential of becoming a robotics center.

In 2003, the Robotics Industry Development Council was established under the joint initiative of businesses, universities and the government.

In November that year, an application jointly filed by the prefecture and the cities of Fukuoka and Kita-Kyushu was approved, and the two cities were collectively designated as a "special deregulatory zone" to lead the nation in robot testing, research and development.

In the special zone, researchers can obtain development data by conducting tests on thoroughfares and street corners where there are steps and crowds.

Without such designation, researchers face many barriers in letting robots walk on crowded streets.

The Road Traffic Law does not take into account situations in which power-driven machines other than cars and motorcycles would use roads, and police might require them to suspend such experiments.

In the special zone, however, administrative measures have been clarified to eliminate red tape and allow robots to use roads.

There are four special zones that received similar approval across Japan, but in those other than Fukuoka and Kita-Kyushu, only one to two experiments have been conducted on the street.

There have been 65 such experiments in Fukuoka and 21 in Kita-Kyushu.

In those two cities, robots have been used for shopping and patrolling residential areas.

Although consumers have few opportunities to see industrial robots at work, they are being used in factories around the world for such purposes as welding and painting.

Yaskawa is stepping up production of industrial robots in Kita-Kyushu.

In January, its new factory Motoman Station went into full operation. Robots are used to make robots in some parts of the assembly process.

"We want to turn this area into a 'robot village' by sending out and receiving robot production technology and accepting trainees from around the world," President Koji Toshima said.

Its industrial robot Motoman even appeared in the movie "The Terminator."

Tmsuk Co., a venture business based in Kita-Kyushu, has been engaged in many experimental projects on public roads, featuring next-generation robots, including a shopping robot.

Last summer, the company began marketing Roborior, a small house-sitting robot that watches for intruders while the owner is away.

The product is sold at department stores across Japan and is attracting the attention of industry officials who are watching whether home-use robots can be turned into a profitable business.

The Roborior, which is priced at about 300,000 yen, can be remotely controlled.

Tmsuk hopes to meet its sales target of 3,000 units by the end of June.

After developing the market for small robots for home use, President Yoichi Takamoto plans for the company to develop large rescue robots that can plow through rubble to save survivors at disaster sites.

He said Tmsuk has received many inquiries on large robots from foreign companies.

Several other robot manufacturers besides Yaskawa and Tmsuk are based in

Fukuoka Prefecture, and municipal governments are promoting further development of the local industry.

The city of Fukuoka is trying to attract semiconductor and software development businesses under the slogan "Fukuoka, the place to meet robots" and appeal to citizens at the same time with experiments that show how the automatons can be put to practical use.

Kita-Kyushu, which has traditionally relied on the steel industry, aims to change its industrial structure to develop auto-related businesses and stress its advantages as a manufacturing center with robot technology provided by Yaskawa and other makers based there. (IHT/Asahi: June 7, 2006)