

# Shanghai center to showcase robots

Expo plans to feature machines for dull or complicated assignments

By HE WEI in Shanghai  
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The consumer robotics market is set to have a quick takeoff in China with the nation's first service robot exhibition center scheduled to open in Shanghai by the end of July.

The robots on display in the 110-square-meter hall, located in Shanghai's Putuo district, are designed to assist the young in their learning and give information to visitors at museums and galleries.

Service robots, as opposed to industrial robots that are used in manufacturing, belong to a new category developed for domestic use to carry out repetitive, dull or complex tasks, said Zhang Pen, sales manager at Shanghai Taijing Robot Co Ltd, which will run the center.

"An edutainment robot is endowed with the latest technology and can recognize external images through its sensors, respond to actions and react with body movements. It can be widely applied in education and commercial uses," Zhang told China Daily at the 2013 China International Robot Show, which opened on Tuesday.

With an average height of 31 centimeters and weighing 1.2

**6.5**  
**\$ billion**

The estimated value of the global consumer robotics market by 2017, according to New York-based consulting firm ABI Research

kilograms, robots developed by Taijing can dance, shoot hoops like a professional basketball player and complete other designated tasks.

The center, which encourages engineering technology and mathematics education, will feature an array of displays and presentations that include topics such as programming, electronics and electro-mechanical engineering, Zhang said.

The expo will be open to the public for 10 yuan (\$1.63) per visitor, and is expected to attract group visits from primary and middle schools, he added.

Incorporating robotics into education has been recognized as a useful tool to keep students interested and motivated while learning technology-related subjects, and to encourage young minds to embrace a career in science, said Wu Sung-he, assistant manager of Kunshan Gauchen Precision

Machinery and Electrical Co Ltd.

Gauchen manufactures robots that can speak, play music, give commands or change direction when they detect obstacles.

Wu's company has a mission to deliver "affordable" and real-world ready robots on the education front, where robotics with programmed curricula are sold to partner middle schools in Wuhan for 8,000 yuan each.

He said that application processors and the array of sensors used in smartphones and tablets have achieved great economies of scale for components, which consumer robotics will leverage.

"We see our robotics package as material for classroom use, for talented programs and club use for after-school programs. For example, our clients can use an accelerometer, a programmed sensor, to navigate a ball through a maze," said a sales representative from Kunshan Robotechn Intelligent Technology Co Ltd, whose teaching robots are priced at 4,800 yuan each.

Zhang said his company managed to achieve cost efficiency due to imported technologies that are widely applied in overseas markets.

"For instance, the cost for building a dancing robot is around 30,000 yuan. We leased



Visitors are attracted to a performance by intelligent robots during the four-day 2013 China International Robot Show, which opened on Tuesday in Shanghai.

out one robot for 1,200 yuan a day. But when you take into consideration research and development expenses, the figure amounts to 1 million yuan," he said.

In general, robots fall into two categories, industrial and service, according to a definition provided by the International Federation of Robotics

(IFR), an industry alliance based in Frankfurt, Germany.

A robot-led automation boom is taking place in China as more companies use industrial robots for manufacturing and equipment operation.

The market value of industrial robots in China surpassed 1 billion yuan in 2012, up 67 percent from the previous

year, said Zhao Xinmin, head of the statistics department at the China Machinery Industry Federation.

Service robots have long been a niche market, however, where overall revenue only reached 7 percent of that for industrial robots in 2011, IFR data showed.

According to New York-

based consulting firm ABI Research, the global consumer robotics market is poised to hit \$6.5 billion by 2017 from \$1.6 billion in 2012.

ABI also said Asian companies are fueling new momentum in the industry by delivering newer task-based products such as window-cleaning robots.

## 32 endangered birds released into the wild

By YANG YAO  
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Thirty-two crested ibises were released on Wednesday from a protected enclosure to their natural habitat in the northern reach of the Qinling Mountains in Shaanxi province.

After a two-year experiment in Yangxian county, the rare birds, including 14 adults, 10 subadults and eight juvenile birds, are now able to survive in the wild, said Chang Xiuyun, a senior scientist with the Wildlife Conservation Center under the Shaanxi Forestry Administration.

The birds, which were found in Japan, China, Russia and the Korean Peninsula, were believed to be extinct in

the early 20th century.

Great efforts have been put into protecting the birds since 1981, when seven crested ibises were accidentally found in Yangxian county.

Since then, the number of crested ibises in China has increased to more than 1,700, including more than 1,000 in the wild, and 700 in captivity, according to the State Forestry Administration.

"These artificially bred birds are all descendants of the seven that were found in 1981," said Chang. "Interbreeding of the birds can cause risks such as deformity or high mortality due to low genetic diversity, and these issues threaten the already small population."

"Our aim in sending them back to the wild is to help the

birds adapt to natural living conditions, improve their species and enlarge their habitat," she said.

With an average height of 80 centimeters and weighing 1.8 kilograms, the white-feathered, red-faced bird typically lives in rice fields and feeds on aquatic insects.

Scientists have used six wireless trackers to monitor the birds during their adaptation in the wild.

"We can see whether the work we've done in the past 32 years is a success or failure, and we will learn from the outcome," said Yan Xun, an official with the administration.

However, Yan's co-worker Chang is now concerned about the birds' habitat and whether it can be protected.



WU ANBIAN / FOR CHINA DAILY

Photographers focus on a crested ibis before forestry officials release 32 of the endangered birds into the wild in Tongchuan, Shaanxi province, on Wednesday.

"There is a natural conflict between economic development and ecological protection. As the government aims for economic growth, construction projects could have a negative effect on the birds' habitat," she said.

Hunting and massive use of pesticide is another concern.

According to Yan, the police have informed residents to not hunt the birds or use massive fertilizers and pesticides in grain farming.

To make up for their economic losses, farmers can benefit from the provincial ecological compensation that also started this year, he said.

## More cooperation on railway sought

By LUO WANGSHU  
and ZHOU WA in Chongqing

Chinese and European senior officials urged further cooperation through the Sino-Euro railway on Wednesday.

The 11,179-km Chongqing-Xinjiang-Europe railway connects Chongqing with Duisburg, Germany, via Kazakhstan, Russia, Belarus and Poland.

"I hope the Sino-Euro railway can extend to all 16 Central and Eastern European countries," said Huang Qifan, mayor of Southwest China's Chongqing municipality, at the Local Leaders' Meeting of China-Central and Eastern European Countries in Chongqing on Wednesday.

He said the customs departments of these countries should strengthen cooperation to shorten the time needed to process goods and thus save costs for transporting freight via the route.

Customs should work together and share information so freight owners can make only one declaration, have one inspection and one release, and avoid opening carriages at each customs stop, which is time-consuming, Huang suggested.

The current Chongqing-Xinjiang-Europe railway has helped some businesses shorten transportation times and save costs since it began operation in 2011, Huang said.

The rail link transports the city's goods from IT, auto, medical electronics and other sectors to European markets. The total value of import and export freight has reached \$3 billion, he said.

The complete trip takes 16 days, less by up to 20 days than the usual shipping time. The cost is one-fifth that of transporting cargo by air, Huang said.

Victor Ponta, prime minister of Romania, also spoke highly of the Sino-Euro railway, saying the line will contribute to the quality of people's lives along the way.

However, challenges still exist. Most freight from coastal cities to the Central and Eastern European countries is still transported by ship to Rotterdam, and then transferred by air or road to Russia and Central and

Eastern European countries, Huang said.

To achieve steady train transportation requires sufficient supplies for both imports and exports, but the Chongqing-Europe railway lacks exports from European countries, participants of the meeting said.

Germany, the final stop of the railway in Europe, has high demands for exporting to China by train.

"Germany's exports to China consist mainly of cars, machines

**16**  
**days**

The time needed to transport cargo from Chongqing to Duisburg, Germany on the Sino-Euro railway

and other heavy technological goods for which transport costs — which are cheaper on the sea route — generally are a more important factor than transport times," said Gerold Amelung, the German consul-general in Chongqing.

He said the majority of opportunities offered by the new transport route are used by Chinese exporters.

"However, almost half of all Chinese imports from Europe originate in Germany. For the long-term success of this project — and to fully mobilize its economic potential — it is crucial that the capacity of this route is used fully in both directions," he added.

Boleslaw Kosciukiewicz, the minister counselor of the embassy of the Republic of Poland in Beijing, said Poland is very interested in increasing trade with China via the railway. "Our imports from China are 10 times larger than our exports to China," he said.

Kosciukiewicz said that increasing exports to China is his country's main interest, as it exports leather goods, jewelry and food products, including pork and chicken.

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## Support group's activities help cancer patients

By WANG QINGYUN  
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Since undergoing treatment for breast cancer in 2011, Ma Guifang has been singing her way to better health.

"It's a good way to vent my feelings," said the 68-year-old retired music teacher, who runs a choir for fellow patients in Beijing.

"It keeps me busy, so I don't have time to worry too much about my health. I also get to know lots of people like me, and make good friends."

The choir was the brainchild of Wang Pilin, director of breast surgery at Tiantan Hospital and Ma's doctor, and is just one of the activities organized by a support group set up in 2006 to help about 1,000 people diagnosed with breast cancer.

According to the National Health and Family Planning Commission, 126,000 people are diagnosed with breast cancer every year.

"Breast cancer is the most-prevalent cancer among women in China," Wang said, but only about 80 percent of patients survive for more

**"We've seen many patients deny psychological treatment, as they don't want to be labeled with a mental problem."**

TANG LILI  
HEAD OF THE RECOVERY DEPARTMENT AT BEIJING CANCER HOSPITAL

than five years after treatment. "Some may well fear a relapse, while the obvious change in appearance caused by the surgery puts many under enormous stress."

In Wang's unit, doctors are asked to help patients build confidence with regular conversations and counseling.

Liu Lan is among those who have benefited from their support.

"Doctor Wang was always upbeat, and she helped my husband and I to see the bright side," said the 55-year-old, who was diagnosed with breast cancer five years ago. "If my doctor had talked nothing but technical terms, I'd have been very depressed."

Wang's unit is devising a professional pattern of psychological intervention for breast cancer patients and

studying its effects on recovery.

### Mental health

Yet although more hospitals are realizing the importance of emotional support for cancer patients, few are actually receiving it.

"Many patients can't deal with the uncertainty of what the future holds and suffer problems such as insomnia, anxiety, depression and even nausea at just the thought of cancer treatment," said Tang Lili, head of the recovery department at Beijing Cancer Hospital. "The pressure can also often disrupt their families."

She said her team focuses on identifying mental health issues among cancer patients or their relatives, and using drugs and counseling to allevi-

ate them, as well as providing palliative care to ease physical pain.

A study that included 4,815 patients admitted to Beijing Cancer Hospital between September 2007 and January 2008 found 24 percent had a psychological issue, including depression and anxiety.

However, even working at one of the few hospitals in China with targeted psychological treatment for cancer patients, Tang said not all patients or medics agree with the methods.

"We've seen many patients deny psychological treatment, as they don't want to be labeled with a mental problem," she said.

She also complained of inconsistency among the clinicians who evaluate a patient's mental state, which dictates whether intervention is necessary, and said some had even asked her why hospitals need to provide psychological care to people beyond medical help.

Although it remains unclear what effect intervention can have on recovery, Tang's colleague, Li Jinjiang, explained that the goal is to help people

"let go" of the negative and to live a happy life.

Many patients feel scared because they are not kept informed about their progress, "yet clinicians say they already have a heavy workload, so don't have the time or energy to pay attention to a patient's mental health," said Li, who is studying for a master's degree in psychology. "Some regard it as being outside of the main treatment."

In a group session with four lung cancer patients on Friday, he gave each a raisin and asked them to talk about how it looks, feels and tastes. It is an anti-anxiety exercise, he said.

"A raisin is small, but there are many details you may not have noticed," he told them. "Life is also filled with details. Whenever you feel anxious or find it hard to concentrate, try observing something."

Bian Yuanzhen, 64, was one of the recovering patients. He said the class helped him to see his condition differently.

"Being able to talk to the doctor and hear his advice helps alleviate the fear," he said. "I feel we're not alone now. There are people who care about us."