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# World vision

Leader of China's robot technology dreams of introducing these helpers to every household

By **KARL WILSON** in Sydney  
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In many ways, James Zhou represents all that is today's modern China — drive and ambition to be the best.

Zhou, the founder and CEO of UBTECH Robotics, based in Shenzhen in South China's Guangdong province, is seen as an industry leader of China's robot technology. He said he is just happy to be contributing to China's push to become one of the world's leading centers for robot technology and artificial intelligence (AI).

UBTECH started operations five years ago. It became the first company to commercialize humanoid robots in China.

It has established strategic partnerships with global corporate giants such as Apple, Amazon, The Walt Disney Company, and even Manchester City Football Club.

Despite being a startup, Zhou said UBTECH "has had a global vision right from the very start".

UBTECH has positioned itself as a global high-tech enterprise that integrates the research and development (R&D) of AI and humanoid robots, as well as the development and application of software and product sales.

Zhou attributes the company's success to a number of factors, among them core technology, intellectual property (IP), marketing and R&D.

"We took nearly five years to develop our own robotic servomotor which not only features high torque, high precision and small size, but more importantly, cuts down the market price quite significantly," he said.

Although Zhou speaks enthusiastically about the future of robotic technology, not everyone shares his passion, especially when it comes to humanoids and AI. Professor Stephen Hawking, one of Britain's preeminent scientists, has said that efforts to create thinking machines pose a threat to "our very existence".

Zhou acknowledged that the rapid development of robotics has aroused some concerns. But he added that people need to "pay attention to and control the direction and ethics of robotics development".

Robots have already taken over from humans in assembly-line work, especially in the automobile-manufacturing sector. But Zhou said AI will also create a "great deal" of new jobs.

"Humankind should learn to teach robots in a better way, and utilize the advantages of robots to improve the quality of work.

"The future will be an era of human-robot collaboration, where robots can actually increase the intelligence of humans, with humans always taking the lead. Therefore, what we should be doing at the advent of the artificial intelligence era is to be thinking about how to embrace it and get prepared to tackle the issues that will accompany new technology, instead of worrying about or even rejecting technological innovation," he said.

Technology itself is neutral, and whether the result will be good or bad will be determined by how humankind applies it.

Zhou said UBTECH believes AI will improve our lives most of the time — and in the majority of areas, make the world a better place. As a practitioner in this field, UBTECH hopes to lead AI on the right path of development.

UBTECH took an active part recently in the voting of signatory countries for the United Nations Convention on Certain Conventional Weapons.

And in July, the State Council, China's cabinet, issued the Next Generation Artificial Intelligence Development Plan. "This indicates that the development of artificial intelligence has officially become a part of China's national strategy, which is undoubtedly an important step forward for artificial intelligence legislation," Zhou said.

Zhou's passion for robotics has never waned. It started when he was a child in Shanghai. Even when he relaxes, he is thinking about robots. His favorite film is *Transformers*, the 2007 blockbuster science-fiction thriller about a war between two races of robots.

"When I was young I had this fantasy that we would be surrounded by all kinds of robots someday, including humanoid robots, wheeled robots, tracked robots, and so on. Among these, humanoid robots are my favorite," he said.

Recalling a trip he made to Japan in 2008, Zhou said: "I happened to visit a robot exposition where I saw a large number of humanoid robots.

"This experience had a huge impact on me," he said. "I realized that if humanoid robots were brought into the household, a lot of people would experience great changes in their lives. Since then, I have been determined to develop



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and manufacture our own humanoid robots."

Zhou said two widespread issues in the Japanese robotics industry led him to a career in robotics.

"First, prices are too high. An ordinary robot usually costs several hundred thousand yuan. This causes great difficulties in bringing robots to the average household.

"Second, the robots' behaviors cannot be customized through programming. When I returned from Japan, I decided to set up my own humanoid robot R&D team, and started developing the core technology of humanoid robots — the servo actuator," he said.

Zhou believes it will take at least 30 years to fully commercialize life-like robots. "In the short term, say five to 10 years, it is possible that some human-looking robots will begin to enter our homes, adapt to a human living environment, and become an active interaction center," he said.

When he left university, Zhou landed a well-paid job with the Weing Group, a German company specializing in wood-processing machines and systems. He eventually became their youngest China regional manager due to his extraordinary ability and outstanding performance.

However, he decided to leave it all behind to pursue his dream of starting his own robotics business, and in 2012 he sold everything he had and borrowed what he could from family and friends to get UBTECH up and running. Soon he was attracting international interest, and investment.

As a startup company, UBTECH's biggest challenge has been commercialization.

"Humanoid robotics is a highly

complicated industry," Zhou said. "For a product going to the market, the key is performance stability and cost management."

As to what separates his company from its competitors, besides price, Zhou said: "The most distinctive characteristic of all UBTECH robots is the motion feature."

Based on its in-house developed robotic servomotor, UBTECH in just a few short years has introduced many products, including the Alpha series of consumer humanoid robots; the STEM-friendly (science, technology, engineering and math) Jimu robots programmed for children's learning; Cruzr cloud-based intelligent commercial service robots; and the First Order Stormtrooper robot (a *Star Wars* product made in cooperation with media and entertainment giant Disney).

Entertainment has been an important entry point for UBTECH.

"We closely integrate the humanoid design and motion features of our products with IP images. Apart from the First Order Stormtrooper robots, UBTECH will continue cooperating with Disney in the future to introduce more licensed products," Zhou said.

In the future, he sees robots and AI playing a significant role in many fields, from transportation, to public health, education and security.

Zhou believes that within the next three to five years, UBTECH will become the leading player among China's intelligent robot enterprises, and in the next five to 10 years "we will build UBTECH into a premium global brand of intelligent service robots".

"At some point in the future, UBTECH will realize the dream of bringing robots into every household."

## Bio

### James Zhou

Founder and CEO,  
UBTECH Robotics Corp

#### Education:

1999: Bachelor's degree in automation, Nanjing Forestry University

#### Career milestones:

2010-present: Founder and CEO, UBTECH Robotics Corp, China

2008-present: Founder, UBTECH Machinery (Shenzhen) Co

2007-present: Founder, director and CEO, UBTECH (China) Co

2007-2010: Chairman and founder, Union Brothers Holdings, China

2003-2007: Founder and chairman, Weimeng International Machinery Group, Germany

1999-2003: Regional manager in China for the German company Michael Weing.

#### Awards:

2017: CB Insights includes UBTECH in a list of the world's 100 most noteworthy AI companies

2017: *Fortune* magazine selects UBTECH as one of the top 50 global companies leading the AI revolution

2016: CB Insights rates UBTECH as a global service robotics unicorn (a unicorn being a startup valued at \$1 billion plus)

#### Quick takes:

##### Where do you see robot technology taking us?

The founder of SoftBank, Masayoshi Son, once said that humans will be living together with 10 billion robots within the next 30 years. I couldn't agree more. We can expect a world where humans and robots coexist in the near future.

##### Did your family encourage you to go into this field?

From an early age my family knew I loved robots, so they provided me tremendous encouragement to enter this field.

##### Who has been your biggest inspiration in the robotics field?

I have to say my father has been the biggest inspiration for me getting into the field of robotics. He is a man of great manual dexterity. When I was young, many of our home appliances, including our TV set, were assembled by my father using parts bought from shops.

##### Would you recommend robotics as a career for young people?

Absolutely. Not only robotics but artificial intelligence as well, because both will pervade all aspects of human life in the future.

##### Do you find time to relax?

Entrepreneurship is an arduous journey. Real relaxation is very hard to achieve. But you can enjoy yourself and embrace the pain if you take entrepreneurship itself as a lifestyle.

**Date of birth:** October 1976