



China Seeks Global Domination By Replacing Millions Of Its Workers With Robots

TN Note: China is the best global model for Technocracy in action. Given its 1.4 billion population, you would think that they would find ways to put people to work. Instead, they are seeking ways to put them *out of work!* China is right in line with the United Nations goal if implementing its so-called 'Green Economy' or Sustainable Development. The green economy seeks to decouple resource use from economic growth, which is oxymoronic to a traditional economic theory. The largest resource in Free Enterprise and Capitalism has always been human activity, so decoupling people from the whole economic process makes perfect sense to a Technocrat.

Inside a large, windowless room in an electronics factory in south Shanghai, about 15 workers are eyeing a small robot arm with frustration. Near the end of the production line where optical

networking equipment is being packed into boxes for shipping, the robot sits motionless.

“The system is down,” explains Nie Juan, a woman in her early 20s who is responsible for quality control. Her team has been testing the robot for the past week. The machine is meant to place stickers on the boxes containing new routers, and it seemed to have mastered the task quite nicely. But then it suddenly stopped working. “The robot does save labor,” Nie tells me, her brow furrowed, “but it is difficult to maintain.”

The hitch reflects a much bigger technological challenge facing China’s manufacturers today. Wages in Shanghai have more than doubled in the past seven years, and the company that owns the factory, Cambridge Industries Group, faces fierce competition from increasingly high-tech operations in Germany, Japan, and the United States. To address both of these problems, CIG wants to replace two-thirds of its 3,000 workers with machines this year. Within a few more years, it wants the operation to be almost entirely automated, creating a so-called “dark factory.” The idea is that with so few people around, you could switch the lights off and leave the place to the machines.

But as the idle robot arm on CIG’s packaging line suggests, replacing humans with machines is not an easy task. Most industrial robots have to be extensively programmed, and they will perform a job properly only if everything is positioned just so. Much of the production work done in Chinese factories requires dexterity, flexibility, and common sense. If a box comes down the line at an odd angle, for instance, a worker has to adjust his or her hand before affixing the label. A few hours later, the same worker might be tasked with affixing a new label to a different kind of box. And the following day he or she might be moved to another part of the line entirely.

Despite the huge challenges, countless manufacturers in China are planning to transform their production processes using robotics and automation at an unprecedented scale. In some ways, they don’t really have a choice. Human labor in China is no longer as cheap as it once was, especially compared with labor in rival manufacturing hubs growing quickly in Asia. In Vietnam, Thailand, and Indonesia, factory

wages can be less than a third of what they are in the urban centers of China. One solution, many manufacturers—and government officials—believe, is to replace human workers with machines.

Gerald Wong, CEO of CIG, is developing an automated electronics factory.

The results of this effort will be felt globally. Almost a quarter of the world's products are made in China today. If China can use robots and other advanced technologies to retool types of production never before automated, that might turn the country, now the world's sweatshop, into a hub of high-tech innovation. Less clear, however, is how that would affect the millions of workers recruited to China's booming factories.

There are still plenty of workers around now as I tour CIG's factory with the company's CEO, Gerald Wong, a compact man who earned degrees from MIT in the 1980s. We watch a team of people performing delicate soldering on circuit boards, and another group clicking circuit boards into plastic casings. Wong stops to demonstrate a task that is proving especially hard to automate: attaching a flexible wire to a circuit board. "It's always curled differently," he says with annoyance.

But there are some impressive examples of automation creeping through Wong's factory, too. As we walk by a row of machines that stamp chips into circuit boards, a wheeled robot roughly the size of a mini-fridge rolls by ferrying components in the other direction. Wong steps in front of the machine to show me how it will detect him and stop. In another part of the factory, we watch a robot arm grab finished circuit boards from a conveyor belt and place them into a machine that automatically checks their software. Wong explains that his company is testing a robot that does the soldering work we saw earlier more quickly and reliably than a person.

After we finish the tour, he says, "It is very clear in China: people will either go into automation or they will go out of the manufacturing business."

Automate or bust

China's economic miracle is directly attributable to its manufacturing industry. Approximately 100 million people are employed in

manufacturing in China (in the U.S., the number is around 12 million), and the sector accounts for almost 36 percent of China's gross domestic product. During the last few decades, manufacturing empires were forged around the Yangtze River Delta, Bohai Bay outside Beijing, and the Pearl River Delta in the south. Millions of low-skilled migrant workers found employment in gigantic factories, producing an unimaginable range of products, from socks to servers. China accounted for just 3 percent of global manufacturing output in 1990. Today it produces almost a quarter, including 80 percent of all air conditioners, 71 percent of all mobile phones, and 63 percent of the world's shoes. For consumers around the world, this manufacturing boom has meant many low-cost products, from affordable iPhones to flat-screen televisions.

[Read full story here...](#)