



U.S.-China Economic and Security Review Commission

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NEW REPORT: China's Industrial and Military Robotics Development

Washington, DC - Today, the U.S.-China Economic and Security Review Commission released a [report](#), entitled *China's Industrial and Military Robotics Development*, which was prepared at the Commission's request by Defense Group, Inc.. The report examines the growth of China's robotics industries and its development of unmanned industrial, service, and military systems, such as drones and driverless cars. The report assesses the economic and national security implications of these trends for the United States.

Key Findings:

- China's military and commercial robotics industries are rapidly growing in size and quality to strengthen both its military capabilities and the competitiveness and quality of its manufacturing sector. New developments in artificial intelligence and nanotechnology will further expand the capabilities of unmanned commercial and military systems such as drones.
- China's rising demand for high-end robotic components and service robots as well as U.S.-China bilateral artificial intelligence research present potential markets and collaboration opportunities for the United States, although there is some risk associated with any collaboration.
- The inherently dual-use functions of industrial and service robotics strengthen China's commercial and military production and robotic capabilities, potentially improving China's defense industry and eroding U.S. military advantages. In addition, the application of artificial intelligence can enhance the learning capabilities and the military effectiveness of unmanned systems, which may undermine U.S. technological and military advantages.
- China's military is deploying ever more capable and numerous unmanned systems in the air, land, and sea, which may bolster its anti-access/area denial (A2/AD) capabilities and affect the U.S. military's ability to operate freely in the Western Pacific.
- China is striving to close the technological gap and develop countermeasures against foreign military systems through formal technology acquisitions and investments, industrial and cyber espionage, and informal technology and knowledge transfer.

In order for the United States to both enjoy the benefits of China's surging robotics industries and safeguard its own economic growth and national security, the report advocates that the U.S. government: (1) implement the recommendations of the [Advanced Manufacturing Partnership 2.0 Steering Committee Report](#) and expand the [National Network for Manufacturing Innovation](#); (2) monitor and account for Chinese advances in unmanned systems and electronic countermeasures; (3) conduct an interagency review with economic, scientific, and regional experts to assess U.S.-China cooperation and bilateral investments in artificial intelligence; (4) increase awareness among federal agencies, defense contractors, and research universities that Chinese research institutes actively collect their published materials, designs, specifications, and graphics; (5) fully implement the [Cybersecurity National Action Plan](#); (6) use China's state plans, procurement practices, defense plans, and other Chinese language materials to identify technologies that the PRC is seeking to acquire; (7) consider requirements to more thoroughly vet foreign participants for military or other undisclosed defense affiliations in academic exchanges and research in emerging technologies; and (8) monitor and, when necessary, investigate China's growing foreign investments in robotics and artificial intelligence companies.

The report was authored by Jonathan Ray, Katie Atha, Edward Francis, Caleb Dependahl, Dr. James Mulvenon, Daniel Alderman, and Leigh Ann Ragland-Luce.

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The U.S.-China Economic and Security Review Commission was created by Congress to report on the national security implications of the bilateral trade and economic relationship between the United States and the People's Republic of China. For more information, visit www.uscc.gov.

DISCLAIMER: This report was prepared at the request of the U.S.-China Economic and Security Review Commission to support its deliberations. Posting of the report to the Commission's website is intended to promote greater public understanding of the issues addressed by the Commission in its ongoing assessment of U.S.-China economic relations and their implications for U.S. security, as mandated by Public Law 110-161 and Public Law 113-291. However, it does not necessarily imply an endorsement by the Commission or any individual Commissioner of the views of conclusions expressed in this commissioned research report.