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China's Humanoid Combatant Technology Development

Future Prospects of Embodied Intelligence in War



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Executive Summary

The development of embodied intelligence in humanoid robotics has rapidly accelerated within the Chinese research and development community. Beyond commercial applications, the People's Liberation Army (PLA) is exploring how these technologies may be deployed in military operations, but not without concern and curiosity from the international policy and intelligence community alike as it considers how embedded intelligence will interact with the evolving character of warfare. The PLA, as a state authority, is exceedingly well-resourced, suggesting that funding or institutional access will not constrain the pace of research and testing of humanoid combat systems.

Key Facts

- In August 2026, the World Humanoid Robot Games were held in Beijing, where researchers in humanoid robotics showcased robot designs, notably their ability to navigate diverse environments, in a series of athletic sporting events.
- Once the games concluded, the People's Liberation Army official newspaper evaluated that researchers in the People's Republic of China (PRC) ought to accelerate the development of emerging technologies for application in humanoid robot combatants.
- The field of humanoid robotics includes specialties in engineering, mechanics, computer science, artificial intelligence (AI), and advanced sensing. Recent studies in biomimetic structures, biological information-processing, and “brain-inspired intelligent control” have demonstrated extensive potential for humanoid robots in a variety of applications, including industry, search and rescue, education, assistance, and notably, military operations.

Background and Context

Humanoid robotics are not necessarily novel, where the race to gain a stronghold in biomimetics—the study of natural models and systems to solve problems in human engineering—has already begun between the US and the PRC. As an increasingly powerful lever in geostrategic competition, the deployment of humanoid technologies in commercial or military capacities is not yet viable—however, the PRC possesses a stronghold in the mass production of these technologies. At present, Chinese manufacturers of humanoid robots comprise more than 97% of global shipments in the industry, where state support has largely determined this upward trajectory.

Current Trends and Status

From a review of more than 100 sources affiliated with the PRC’s defence establishment, including military procurement records, academic studies, patents, official publications and bulletins, and documents from various defence companies, Reuters evaluated that the PRC is planning for the eventual deployment of humanoid robots in war. Further testing against battlefield requirements is reportedly ongoing, where key policy documents in Beijing have prioritized research on robot perception, manipulation, and training data. Despite fiscal restraints, the world of embodied intelligence continues to attract “substantial financial support”, primarily from the PRC itself.

Presently, there is no evidence which suggests that the PRC has deployed humanoid robots in combat, primarily due to concerns around the unpredictability and energy-inefficiency of the platforms. Nevertheless, the pace of innovation continues to accelerate as the National University for Defence and Technology (NUDT), the primary research institution affiliated with the PLA, continues research in the areas of advanced robotics and embodied intelligence.

This greater integration of military, academia, and industry across the PRC has contributed to further accelerating the development of humanoid robots, demonstrating how uncrewed and autonomous combatants may alter the character of kinetic warfare in the near future. With the well-resourced PLA and research institutions at the leading edge of innovation, Chinese humanoid robotics will very likely remain a key feature of its long-term modernization agenda.

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