Killer military robots pose latest threat to humanity

February 27 2008

A robotics expert at the University of Sheffield will today (27 February 2008) issue stark warnings over the threat posed to humanity by new robot weapons being developed by powers worldwide.

In a keynote address to the Royal United Services Institute (RUSI), Professor Noel Sharkey, from the University's Department of Computer Science, will express his concerns that we are beginning to see the first steps towards an international robot arms race. He will warn that it may not be long before robots become a standard terrorist weapon to replace the suicide bomber.

Many nations are now involved in developing the technology for robot weapons, with the US Department of Defence (DoD) being the most significant player. According to the Unmanned Systems Roadmap 2007-2013 (published in December 2007), the US propose to spend an estimated $4 billion by 2010 on unmanned systems technology. The total spending is expected to rise above $24 billion.

Over 4,000 robots are currently deployed on the ground in Iraq and by October 2006 unmanned aircraft had flown 400,000 flight hours. Currently there is always a human in the loop to decide on the use of lethal force. However, this is set to change with the US giving priority to autonomous weapons - robots that will decide on where, when and who to kill.

Others are now embarking on robot weapons programmes in Europe and

other allied countries such as Canada, South Korea, South Africa, Singapore and Israel. China, Russia and India are also embarking on the development of unmanned aerial combat vehicle. The US DoD report is unsure about the activity in China but admits that they have strong infrastructure capability for parallel developments in robot weapons.

Professor Sharkey, who is famously known for his roles as chief judge on the TV series Robot Wars and as onscreen expert for the BBC´s TechnoGames, said: "The trouble is that we can't really put the genie back in the bottle. Once the new weapons are out there, they will be fairly easy to copy. How long is it going to be before the terrorists get in on the act"""

"With the current prices of robot construction falling dramatically and the availability of ready-made components for the amateur market, it wouldn't require a lot of skill to make autonomous robot weapons."

Professor Sharkey is reluctant to explain how such robots could be made but he points out that a small GPS guided drone with autopilot could be made for around £250.

The robotics expert is also concerned with a number of ethical issues that arise from the use of autonomous weapons. He added: "Current robots are dumb machines with very limited sensing capability. What this means is that it is not possible to guarantee discrimination between combatants and innocents or a proportional use of force as required by the current Laws of War.

"It seems clear that there is an urgent need for the international community to assess the risks of these new weapons now rather than after they have crept their way into common use."

Professor Sharkey's talk will be at a one-day conference at RUSI in

Whitehall on 27 February 2008.

Source: University of Sheffield

Citation: Killer military robots pose latest threat to humanity (2008, February 27) retrieved 20 April 2024 from https://phys.org/news/2008-02-killer-military-robots-pose-latest.html