



Robots in Warfare

Why in News

Recently, **Israel Aerospace Industries** unveiled a remote-controlled **armed robot 'REX MKII'**, which can patrol battle zones, track infiltrators and open fire.

- The use of robots in the war involves dealing with **ethical dilemmas**.
- The **proponents** say that such semi-autonomous machines **allow armies to protect their soldiers**, while **critics** fear this marks another **dangerous step toward robots making life-or-death decisions**.

Key Points

▪ About the REX MKII:

- The robot can gather **intelligence for ground troops, carry injured soldiers** and **supplies in and out of battle**, and **strike nearby targets**.
- The Israeli military is currently using a smaller but **similar vehicle called the Jaguar** to patrol the border with the [Gaza Strip](#).
- Unmanned ground vehicles are being increasingly used by other armies, including those of the United States, Britain and Russia.
 - Their tasks include logistical support, the removal of mines and firing weapons.
 - An alternative [Smart Wall](#) has been proposed to replace the physical and armed patrolling with advanced surveillance technology at the USA-Mexico border.

▪ Arguments in Favour of Use of Robots in War:

- **No Physiological Limitations:** Autonomous robots, because they are not physiologically limited, can operate without sleep or food, perceive things that people do not, and move in ways that humans cannot.
 - The use of a broad range of robotic sensors is better equipped for battlefield observations than human sensory abilities.
- **Operational Benefits to the Military:** The robots provide following benefits: faster, cheaper, better mission accomplishment; longer range, greater persistence, longer endurance, higher precision; faster target engagement; and immunity to chemical and biological weapons.
- **Ability to Act Conservatively:** Robots do not need to protect themselves in cases of low certainty of target identification.
 - Autonomous armed robotic vehicles do not need to have self-preservation as a foremost drive, if at all.
 - They can be used in a self-sacrificing manner if needed and appropriate, without reservation by a commanding officer.
- **Minimising Loss of Human Life:** Reducing loss of human lives forms one of the core principles of ethics of war, which can be accomplished by the use of the robots.

▪ Arguments Against the Use of Robots in War:

- **Lowering Threshold of Entry into War:** The use of robot soldiers will cheapen the cost of war, making future wars more likely.
 - The threshold of entry into warfare may be lowered as we will now be risking machines and fewer human soldiers.
 - This could violate the conditions of just warfare.
- **Errors in Targeting:** Such weapons are worrisome because they can't be trusted to distinguish between combatants and civilians or make proper calls about the harm attacks may do to nearby civilians.
- **Ignoring Conventions of War:** Machines cannot understand the value of human life, which in essence undermines human dignity and violates human rights laws.
 - Therefore, machines are likely to commit atrocities and violate the basic rules of war like the Hague Conventions, and other declarations delimiting how a war should be fought.
- **Persistent Risks:** There will always be risks like proliferation of the technology to other nations and terrorists.
 - Also, the robotic machines are prone to cyber-security attacks or hacking and they can be used against their own people.
- **Security Management in India:**
 - **CIBMS Project:** The Indian government has been pushing for technological solutions through the **Comprehensive Integrated Border Management System (CIBMS)** project. The purpose is to integrate technology with the existing systems to facilitate better detection and interception by the man behind the machine.
 - **National Counter Rogue Drones Guidelines 2019:** To deal with possible security challenges from rogue drones to key installations like nuclear power plants and military bases.

Way Forward

- Technological revolution propelled by **Artificial Intelligence, Machine learning**, etc, is the need of the hour to enhance efficiency, productivity and optimization across industries and sectors.
- However, before deployment of robotics into warfare, thorough research needs to be done, so that opportunities can be maximized while keeping the humanitarian loss at the minimum.

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