



Robots in Warfare

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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.

Source: IE