



N©VEL WEAPONS AGAINST ETH CS AND PE©PLE

Armed Drones and Autonomous Drones

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EXECUTIVE SUMMARY

Military and "security" actions with military robotic and armed systems have radically changed the war scenarios, which have evolved from concentrating on military and strategic targets to performing attacks that can seriously affect uninvolved civilian population. Attacks with armed drones often do not appear in newspapers, but they show a steady growth rate in recent years. They are attacks that end up killing civilians, as well as perpetrating summary and extrajudicial executions of supposedly terrorist people. Lately, in addition, the military drones are evolving to incorporate autonomous systems of decision. This escalation towards autonomous armed systems is ethically and legally unacceptable, because delegating in a machine the decision to kill is something that goes against the human dignity and the rights of people.

The New Weaponry Business

Robotic military systems, and in particular the drones, have managed to drastically reduce military operations while significantly increasing the **business volume of the military industrial sector.** The sector of companies that manufacture and export military drones and the high-tech instrument used in modern wars is expanding rapidly.

Border surveillance systems are other types of systems that have been designed specifically to monitor (and, if necessary, attack) civilians. Monitoring and control systems armed with drones are being used, among other countries, in Israel, South Korea, the United States and Europe (the Frontex Agency).

The Geography of the Military Drones

Military drones are manufactured mainly in the United States, Israel, Russia, China and Europe. The United States is clearly the world leader in the creation and manufacture of robotic military systems, military drones and armed drones. The Report tables show the current state of these military systems. The United States, Israel, Russia and China are actively working in the development of weapon systems that allow a significant degree of autonomy, especially in the case of loitering drones and drone swarms. The big exporting companies are located in the United States, Israel, Russia and China. This report opens the way to know who are the big players (countries and companies) in this field and who can be the leaders in drone autonomy.

The first wave of drones came from the United States, followed by Israel, Russia and China. After that, research and production started on some other countries, including **Turkey and Iran**, who decided to successfully promote domestic research and production, forced by the international context - complicated relations of Turkey with NATO, or the embargo in Iran -. These two countries are using drones internally or in various conflicts in the Middle East.





The **manufacturing countries** include Germany, Austria, Belarus, Brazil, Colombia, South Korea, Spain, the United States, France, Hungary, India, Iran, Israel, Italy, Latvia, Mexico, Nigeria, Pakistan, Poland, United Kingdom, Russia, Serbia, Sweden, Norway, Turkey, China, and Ukraine. The **user countries** include these countries and in addition Canada, Azerbaijan, Chile, Brazil, Greece, Thailand, Philippines, Vietnam, Zambia, Ukraine, Kazakhstan, Qatar, Lebanon, Australia, Afghanistan, Indonesia, Egypt, Latvia, Holland, Czech Republic, Japan, Belgium, Uzbekistan, Jordan, Arab Emirates, Algeria, Saudi Arabia and Iraq among others.

Wars Without Risk

Double use is a feature inherent in military technologies, and of course, the drones, which refers to the convertibility of civilian applications, products or components to the military. Dual use complicates the regulation or prohibition of drones, which, combined with its advantages for states and non-state groups, have facilitated **proliferation**. Many states have official positions that are still not defined, but in practice they have decided to opt for the use of military robotic systems and military drones for reasons of competitiveness: "if the others do it, we must do it, not to be left behind".

The perception of **the possibility of starting wars without risk** can make military solutions prevail over those based on diplomacy, **lowering thresholds to**

initiate military actions. Artificial intelligence will make it easier to think on more abstract distance wars, which can lead to more military actions and an **uncontrolled escalation of conflicts**.

Fallacies and false messages

Over the last decade a false narrative has been built on the goodness of artificial intelligence that has a tendency to ignore all those aspects that experts and academics are expressing. In fact, robotic military systems with constructive autonomy have unexplained behaviours, with a guaranteed probability of error that is significant and not small. This makes them essentially unsuitable in situations where errors will be human lives and where accountability will be difficult.

The Danger of Emerging Autonomy

Loitering drones and drone swarms can easily incorporate autonomous decision-making systems. They are economical, being within reach of a large number of countries, and can therefore change the geopolitical map of armed conflicts. **The incorporation of constructive autonomy in robotic military systems and loitering drones**, and the development of new **drone swarms** is something that will most likely change war scenarios.

Autonomous weapons place us in a dehumanization scenario. To delegate the decision to kill on a machine goes against human dignity and the rights of the people. The ethical problem appears when military systems are not operated by people and perform their tasks with autonomy of use, without human intervention in the decision and attack processes.

Proportionality, Distinction, Responsibility, and Precaution

Autonomous weapons systems should respect **the legal principle of proportionality**, which analyses whether the damages caused are proportional to the military gains obtained or if the damages (to civilians) are excessive. On the other hand, it is necessary to respect **the legal principle of distinction** that forces to distinguish between combatants and non-combatants. The question is whether these weapons systems can understand the context; distinguishing between a civilian with fear and a threatening enemy, and if they can understand the intentions behind a human face expression. Finally, these weapon systems must respect **the principle of responsibility**: if there is an error or a war crime, which is responsible? The soldier, the one who gives the order, the politician, the manufacturer, the programmer... In the context of this dilution of responsibilities, it is necessary to expect that all those involved will try to evade responsibility, so that impunity will prevail.

Bearing in mind the debate on nuclear weapons and the lack of consensus to reach agreements to outlaw them, the question of considering autonomous weapon systems as illegal should be considered. As is foreseeable, this is a



question about which there is no consensus, but in which common sense invites us to act by applying **the precautionary principle**, acting before they are developed. Applying the precautionary prevention principle involves stopping any development before autonomous weapons are created. We already have the nuclear threat. **The threat of autonomous armed drones is unacceptable.**

Weapon Systems Without Significant Human Control Must be banned

It is necessary, therefore, to have a legally binding instrument that prohibits the lack of significant human control over the selection and attack of the objectives, and which therefore prohibits robotic military systems with autonomy of use.

These warnings have been growing, leading to the creation of an **international coalition called Campaign to Stop Killer Robots** that involves civil society organizations, and the world of disarmament and human rights. Calls made from Private companies, technological workers and founders of companies in the sector are also opposing to what could be the beginning of a new arms race that could lead not only to military escalation but that could also endanger the survival of our species.

Thanks to this effort, conversations are currently taking place in the CCW (Convention for Certain Conventional Weapons of the United Nations), with the aim of creating a binding legal framework that prohibits weapons without meaningful human control. Although this international effort has not yet been able to bear fruit due to the pressure exerted by the military superpowers that act as a suppressor of world politics with the support of countries aligned with their interests, there is a need for an increased pressure from citizenship if one wants to avoid a scenario that can destabilize the fragile international balances and the precarious current peace.





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