Autonomous Weapons Systems: key issues & the path to a treaty

Policy Brief

April 2025

Introduction and overview

On 12 and 13 May, open informal consultations on the issue of autonomous weapons systems, mandated by UN General Assembly Resolution 79/62, will be held at the UN in New York. These consultations will examine the topics raised in the UN Secretary-General's 2024 report. This report gathered states' and other stakeholders' views, and called again on states to adopt a legal treaty to prohibit and regulate autonomous weapons systems by 2026.

The purpose of the consultations is to consider autonomous weapons systems comprehensively and inclusively, concentrating on issues that have received less attention so far at the Convention on Conventional Weapons meetings in Geneva (e.g. human rights, ethics, and security).

Stop Killer Robots encourages all states to:

- **Attend the New York informal consultations** on autonomous weapons systems: this global governance challenge will affect all states, and all must be part of the solution.
- **Welcome progress made so far** on this topic in all forums, and the opportunity to consider the wide range of issues comprehensively and inclusively in New York.
- **Express the urgency of moving forward,** building on this progress, to conclude a legally binding instrument with prohibitions and regulations on autonomous weapons systems that rejects the automation of killing and maintains meaningful human control in the use of force.

This briefing paper provides more in-depth background information on autonomous weapons systems, international discussions so far, and some key challenges and considerations they raise.

What are autonomous weapons systems?

For Stop Killer Robots, 'autonomous weapons systems' are the range of weapons systems that detect and apply force to a target based on sensor inputs, rather than an immediate human command. This means that after decision-making and activation by a person, there is a period when the weapon system can apply force to people or objects without any additional human approval: the specific object to be attacked, and the exact time and place of the attack, are determined by sensor processing, not by humans. Concerns with autonomous weapons systems arise from this characteristic. They are not a 'class' of weapons systems, like landmines or drones, but could be any system that, when it is used, is set to function in this way.

In international discussions, states and other key actors including the International Committee of the Red Cross now generally agree that this, broadly, is what the term means.

International discussions on autonomous weapons systems: progress so far

Since the issue of 'Lethal autonomous robotics' was first debated at the **Human Rights Council** in Geneva in 2013, following a report by the Special Rapporteur on extrajudicial, summary or arbitrary executions, Christof Heyns, states have raised the problem of increasing autonomy in weapons systems in various forums.

Nevertheless, despite the call from the UN Secretary-General and the International Committee of the Red Cross to negotiate a legally binding instrument by 2026, the support of over 120 states for such an instrument, and the wide support expressed by experts in AI, faith communities, and civil society more broadly, **states have not yet agreed a mandate to negotiate a legally binding instrument in any forum.** For Stop Killer Robots, this must change, urgently.

Currently, the **Convention on Conventional Weapons (CCW)** has a mandate for a **Group of Governmental Experts (GGE) in Geneva** to "formulate, by consensus, a set of elements of an instrument, without prejudging its nature" on autonomous weapons systems. This work should be completed "preferably before the end of 2025" and report to the 2026 Review Conference.

These discussions concentrate on how challenges to the application of international humanitarian law and the importance of preserving meaningful human control over weapons systems might be addressed through specific rules. They have been helpful in building common ground amongst states: this work done by the GGE can help provide a basis for negotiating a legally binding instrument. However, because the CCW operates by consensus, it is unlikely states parties will be able to agree a mandate to negotiate an additional Protocol on autonomous weapons systems in the future.

International discussions on autonomous weapons systems: progress so far (cont.)

Concerted attention to autonomous weapons systems at the **UN General Assembly First Committee** started in 2022 with a joint statement by a broad group of states. It was followed by a General Assembly Resolution in 2023 mandating a UN Secretary-General's report, and a second Resolution in 2024 calling for informal consultations during which all UN member states can discuss this issue on an equal basis at the UN for the first time.

Apart from UN forums, growing international concern and momentum to act has been building through regional conferences on autonomous weapons systems convened in Costa Rica, Luxembourg, the Philippines, Sierra Leone and Trinidad and Tobago, and a landmark international conference convened by Austria in 2024, 'Humanity at the Crossroads.'

Current discussions of the GGE are not covering in-depth the **full range of ethical, legal and humanitarian concerns that are reflected in the UN Secretary-General's report** on this issue. The informal consultation days in New York are important because they provide a forum both substantively discussing these concerns, and building global recognition of the urgent need to negotiate new law.

Major challenges raised by autonomous weapons systems

Humanitarian and International Humanitarian Law considerations

Increasing autonomy in weapons systems risks the **erosion of meaningful human control** in the use of force. The ability of decision-makers and operators to understand and limit the effects of their systems, and be **responsible and accountable** for these consequences, will be diminished without effective rules to maintain control.

The loss of meaningful human control would be deeply concerning from a humanitarian perspective: increasing autonomy could further displace the impacts of conflict from militaries onto civilian populations and objects and undermine norms of civilian protection, resulting in unnecessary and avoidable civilian harm.

Autonomous weapons systems that select and engage targets without meaningful human control also raise concerns about compliance with international humanitarian law. Such control requires operators to be able to **adequately understand** the system and how it interacts with its context and to **sufficiently limit the operation of a system** (e.g. in time, space, and type of target) so that it fulfills the operators' lawful intentions.

Major challenges raised by autonomous weapons systems (cont.)

Humanitarian and International Humanitarian Law considerations (cont.)

When they operate without meaningful human control, autonomous weapons systems have the capacity to apply force without human restrictions or guidance. The systems will likely face challenges distinguishing between combatants and civilians or persons hors de combat, at least in the near future, and even if improvements in technology facilitated distinction, the systems would lack human judgment to weigh the proportionality of an attack on a case-by-basis in complex, ever-changing situations.

Anti-personnel autonomous weapons systems - those triggered by signifiers of the presence of any person, a particular individual, or a group - are additional particular humanitarian and legal concerns. According to the ICRC, it is "difficult to envisage" combat situations where anti-personnel systems would not "pose a significant risk of IHL violations," given the risk to protected civilians in any area of use as well as people hors de combat. Measures to limit areas of use and exclude civilians (e.g. through marking and fencing) will not fully eliminate these issues.

Anti-personnel systems also raise insurmountable issues when it comes to human dignity and digital dehumanisation. There are significant ethical and moral issues raised by the autonomous targeting of people by machines, which would reduce people to data points, and could result in injury or death. Delegating life-or-death decisions to machines is an affront to human dignity. No machine, computer, or algorithm is capable of recognizing a human as a human being, nor can it respect humans as inherent bearers of rights and dignity, understand what it means to be in a state of war, much less what it means to have, or to end, a human life. Decisions to end human life must be made by humans in order to be morally justifiable.

Stop Killer Robots, the ICRC and many states now support a legally binding instrument that contains both prohibitions and regulations to ensure meaningful human control over autonomous weapons systems: for us, this must include prohibitions on systems that cannot be subject to meaningful human control, and positive obligations to ensure all other systems remain under such control. The treaty on autonomous weapons systems should also include a specific prohibition on anti-personnel systems.

International Human Rights Law considerations

Autonomous weapons systems, which would be used in law enforcement operations as well as on the battlefield, have the potential to infringe on numerous foundational human rights. A forthcoming April 2025 report by Human Rights Watch and Harvard Law School's International Human Rights Clinic entitled "A Hazard to Human Rights: Autonomous Weapons Systems and Digital Decision-Making" highlights concerns under six such rights.

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Major challenges raised by autonomous weapons systems (cont.)

International Human Rights Law considerations (cont.)

Two of those rights apply to the use of force by autonomous weapons systems. Under the right to life, killing is only lawful when it is necessary, proportionate, and a last resort. Autonomous weapons systems would lack the human qualities, notably judgment and empathy, required to make such context-specific determinations in unforeseen and complex situations. Similarly, the use of autonomous weapons systems could infringe on the right to peaceful assembly. The use of force to protect or disperse assemblies is rarely permissible, and autonomous weapons systems would be unlikely to have the capability to accurately assess when and how much force is appropriate.

Autonomous weapons systems also raise concerns under two fundamental principles of international human rights law. Delegating life-and-death decisions to machines undermines the principle of human dignity. Autonomous weapons systems do not have the uniquely human capacity to respect the true value of a human life or the significance of its loss, and the systems would dehumanize people by determining whom to kill based on algorithms. In addition, while the principle of non-discrimination protects the human rights of all people, autonomous weapons systems operating with AI would likely be affected by algorithmic bias, putting groups at disproportionate risk based on their race, sex, gender, ability, or other status under the law.

Autonomous weapons systems implicate international human rights law from the time of their development to after their use. The systems' development, testing, training, and use could violate the right to privacy because they would likely require mass surveillance. Mass surveillance fails the requirement that data gathering be necessary and proportionate. Finally, victims of the use of autonomous weapons systems would face difficulties in exercising their right to a remedy. It is unclear who could be held individually accountable if an autonomous weapons system acted in violation of international human rights law.

The way forward: a legally binding instrument on autonomous weapons systems

Stop Killer Robots calls on states to support negotiations on a legally binding instrument that contains both prohibitions and positive obligations:

- Prohibitions on systems that would target people, and
- Prohibitions on systems that do not allow for meaningful human control.
- Positive obligations to ensure that all other systems will be effectively controlled, including sufficiently understanding systems and limiting area and duration of their use.

The way forward: a legally binding instrument on autonomous weapons systems (cont.)

Developments in weapons technology, current geopolitical tensions and conflicts around the world are already showing the urgent need for action. It is vital that states demonstrate political leadership and start drawing clear lines on the development and use of autonomous weapons systems to safeguard our humanity.

All states and stakeholders that are committed to achieving this must now work together in a spirit of genuine, cross-regional partnership and start negotiations, based on progress and momentum they have already built. A treaty must be reached in a forum that is inclusive of all states, civil society groups, and international organizations, and where progress cannot be blocked through veto, consensus rules, or their misuse.

The upcoming informal consultation days in New York are a crucial opportunity for all states - not just those party to the CCW - to engage positively and strengthen the discussions on autonomous weapons systems.

A Humanitarian Disarmament Approach

Humanitarian disarmament, which has produced several other weapons treaties, provides a useful framework to guide work on autonomous weapons systems. Humanitarian disarmament seeks to address arms-inflicted human suffering through the establishment and implementation of norms. Viewing the issue of autonomous weapons systems through this lens, which is human centered rather than national security focused, makes it easier to find common ground for states to build on at the upcoming informal consultations and others. Humanitarian disarmament allows for consideration of the full range of the threats posed by autonomous weapons systems and is not limited to concerns related to international humanitarian law and use on the battlefield. Humanitarian disarmament is also a process that emphasizes inclusion of and cooperation among a wide variety of stakeholders. As precedent shows, the approach, which has sometimes been used under the General Assembly's auspices, can lead to effective and efficient treaty negotiations.

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