



CAMPAIGN TO STOP KILLER ROBOTS

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Delivered by Mary Wareham, Human Rights Watch,
on behalf of the Campaign to Stop Killer Robots

Thank you for inviting me to address this conference on behalf of the Campaign to Stop Killer Robots, the global coalition of more than 60 non-governmental organizations in more than two dozen countries that I coordinate on behalf of Human Rights Watch.

In our view the many serious ethical, legal, military, proliferation, security, and other concerns raised by fully autonomous weapons pose such a threat to our humanity that a preemptive ban is warranted. Retaining human control over use of force is a moral imperative and essential to promote compliance with international law, and provide for accountability.

I would like to provide some remarks about our campaign and the international efforts to address fully autonomous weapons, including the call for a ban and what we mean by meaningful human control.

I. Defining autonomous weapons

We are often asked for our “definition” of a fully autonomous weapon or lethal autonomous weapons system as they are called at the Convention on Conventional Weapons (CCW). Definitions matter as they determine what is captured by a treaty and what is not, thereby they play a large part in determining how strong or how weak it will be.

This is why definitions are always agreed during the very final stage of negotiations and not from the outset. First, the goal of the instrument—to ban or restrict—must be established and then the specific legal definition that determines precisely which weapons are covered on the basis of the agreed upon goal.

A general concept of fully autonomous weapons is all that is needed at this stage, and that concept is clear to us. We consider fully autonomous weapons to be future weapons systems that once initiated, using sensors and artificial intelligence, will be able to operate without meaningful human control. They will be able to select and engage targets on their own, rather than requiring a human to make targeting and kill decisions for each individual attack.

There is naturally still some lack of clarity about some aspects of what a lethal autonomous weapon system might constitute and what it might not. But after more than three years of deliberations a solid understanding has emerged of the concept that has been clearly articulated by many.

Perhaps the campaign's lack of focus on a specific weapons system irritates critics, but we are not just trying to regulate or even ban a specific weapon. Rather we demand that governments swiftly deal with an emerging class of weapons that could potentially change the very nature of warfare by removing human control from the critical functions of weapons systems. Machines have long served as instruments of war, but historically humans have directed how they are used.

Today there are many examples of autonomy being used in weapons systems. In the first report that Human Rights Watch published on this topic in November 2012, we included a chapter providing examples of what we described as “precursors” to fully autonomous weapons, such as armed drones and autonomous fighter aircraft, armed stationary sentry robots, automated weapons defense systems, loitering munitions, and other weapons.¹ We identified six countries as pursuing the development of autonomous weapons: United States, China, Israel, South Korea, Russia, and United Kingdom.

Others have surveyed the state of research and development of autonomous weapons. A 2016 report by the International Committee of the Red Cross (ICRC) lists various weapons systems with a degree of autonomy in development or use by the countries listed above as well as Australia, France, Germany, India, the Netherlands, Norway, South Africa, Sweden, and Ukraine.²

This shows how more countries are getting involved in the development and acquisition of increasingly autonomous weapons systems. But the precursors listed by HRW and systems listed in the ICRC report should not be regarded as “fully” autonomous weapons or lethal autonomous weapons systems. This is because they still have a human in or on the decision-making loop when it comes to selecting targets and using force. With full autonomy the human is removed from or out of that loop.

States appear to agree that lethal autonomous weapons systems do not exist yet. Several made statements to that effect at the April 2016 meeting, including Russia.³ Most say they have “no plans” to develop them either, but policy promises are unlikely to withstand the argument that “if the other side acquires them then we had better do the same.”

We see an increasing disconnect between what states say is happening when it comes to autonomous weapons and what they're doing in practice as technology races ahead. For example,

¹ Human Rights Watch and Harvard Law School International Human Rights Clinic, *Losing Humanity: The Case against Killer Robots*, November 19, 2012. <https://www.hrw.org/news/2012/11/19/ban-killer-robots-its-too-late>

² Representatives from 20 states including Russia as well as a number of experts attended the second meeting convened by the ICRC on autonomous weapons. See Part III of ICRC, *Report on the Expert Meeting on Autonomous Weapons Systems and the Implications of Increasing Autonomy in the Critical Functions of Weapons*, Versoix, Switzerland, 15-16 March 2016. <https://shop.icrc.org/autonomous-weapon-systems.html?store=default>

³ Egypt, France, Germany, Israel, Japan, South Korea, Mexico, Poland, Russia, South Africa, Spain, Switzerland, Turkey, UK, and US. See Campaign to Ban Landmines, *Report on Activities at the Third CCW Meeting on Lethal Autonomous Weapons Systems*, Geneva, 11-15 April 2016. http://www.stopkillerrobots.org/wp-content/uploads/2013/03/KRC_CCWx2016_Jun27upld-1.pdf

this year has seen US defense officials vigorously promote the newly adopted “Third Offset Strategy” that focuses on ever-greater autonomy in weapons, including the possibility of fully autonomous weapons.

II. Concerns raised by fully autonomous weapons

What is so objectionable about a weapon that can select and attack targets without further human intervention? Since 2012, Human Rights Watch has published reports showing how fully autonomous weapons would likely violate international humanitarian and human rights law as well create an accountability gap for the unlawful acts of a weapon.⁴

We have in addition found that fully autonomous weapons would lack the human capacity to feel empathy, which can act as a key check on killing. Ceding human control over decisions about who lives and who dies would also deprive people of their inherent dignity, as inanimate machines can neither truly comprehend the value of human life nor the significance of its loss.

Fully autonomous weapons run contrary to the principle of humanity and the dictates of public conscience as enshrined in the Martens Clause. Although there is no settled definition of public conscience, both public opinion and morality can play a role in shaping it. For many people the prospect of delegating life-and-death decisions to machines is profoundly disturbing and raises significant moral questions.

A 2013 report by Professor Christof Heyns, the UN Special Rapporteur on extrajudicial, summary or arbitrary executions, found that lethal autonomous weapons “raise far-reaching concerns about the protection of life during war and peace.” It said “their deployment may be unacceptable because no adequate system of legal accountability can be devised, and because robots should not have the power of life and death over human beings.”

During the Human Rights Council session, the Russian Federation [noted](#) the “complexity” of the issues covered by the report by Heyns and recommended that attention be paid to the special rapporteur’s conclusion that the use of this kind of weapon could have “serious implications for societal foundations, including the negating of human life.” It said, “in our view, in future, such machines could also significantly undermine the ability of the international legal system to maintain minimal legal order.”

III. Meaningful human control

By retaining meaningful human control over the use of lethal force in each individual attack we can in effect prohibit the use of fully autonomous weapons and thus achieve a preemptive ban.

⁴ Human Rights Watch and Harvard Law School International Human Rights Clinic, *Shaking the Foundations: The Human Rights Implications of Killer Robots*, 12 May 2014. <https://www.hrw.org/news/2014/05/12/keep-killer-robots-out-policing>; Human Rights Watch and Harvard Law School International Human Rights Clinic, *Mind the Gap: The Lack of Accountability for Killer Robots*, 8 April 2015. <https://www.hrw.org/news/2015/04/08/killer-robots-accountability-gap>

Mandating meaningful human control over the use of weapons would help protect human dignity in war and is consistent with and promotes compliance with the principles of international humanitarian law, notably distinction and proportionality.⁵

Human control is also crucial to upholding human rights law. As two UN special rapporteurs found in February: “Where advanced technology is employed, law enforcement officials must remain personally in control of the actual delivery of use of force.”⁶

Retaining meaningful human control would avoid the accountability gap that would be created by the use of fully autonomous weapons. It would ensure that someone could be punished for an unlawful act caused by the use of the weapon. With a legal requirement for human control, a commander could be held criminally liable for using any weapon without such control.

Meaningful human control of weapons would help avoid threats to the fundamental moral principles over the decision to use force.

Disarmament law has a long history of banning weapons because of concerns about lack of control, and provides direct precedent for banning weapons over which there is no human control. The international bans on biological and chemical weapons resulted in part from concern about the controllability of the weapons. After releasing such weapons, humans cannot control where they go or whom they kill, leading to unintended victims.

Similarly antipersonnel landmines and cluster munitions has been prohibited throughout the world due to concern over their indiscriminate nature and lack of control.

In some areas of the law, control is a positive obligation imposed on states, rather than a threshold that triggers liability. For example, international environmental law requires states to control pollution and other causes of environmental damage in order to prevent and minimize harm to the environment.

IV. Robot arms control

The three years since the launch of the Campaign to Stop Killer Robots in April 2013 has seen the killer robots challenge vigorously debated by governments as well as by ethical, legal, military, and technical communities. Academics who once paid no attention now regularly hold seminars and publish on the topic.

Talk helps to increase knowledge, transparency, and public awareness, but swift action is needed. States should start negotiating a preemptive ban on the development, production, and use of fully

⁵ Human Rights Watch and Harvard Law School International Human Rights Clinic, “Killer Robots and the Concept of Meaningful Human Control,” Memorandum to Convention on Conventional Weapons (CCW) Delegates, 11 April 2015. <https://www.hrw.org/news/2016/04/11/killer-robots-and-concept-meaningful-human-control>

⁶ Report on the proper management of assemblies by the UN Special Rapporteur on extrajudicial, summary or arbitrary executions and the Special Rapporteur on the rights to freedom of peaceful assembly and of association. <https://t.co/hpkjz7CfyV>

autonomous weapons systems. This can be done by affirming the positive obligation of meaningful human control over key combat functions, particularly targeting and kill decisions, in each individual attack.

Many constituencies have endorsed this goal since 2012, including more than 20 Nobel Peace Prize Laureates, more than 150 faith leaders, and more than 3,000 artificial intelligence experts. In June we saw the latest example of the scientific community supporting a ban, when Google DeepMind called for a preemptive ban on fully autonomous weapons in testimony to the UK Parliament.⁷

In May 2013, governments addressed this matter for the first time in a multilateral forum after the UN Special Rapporteur on Extrajudicial Killings released a report which recommended that states adopt a national moratorium on fully autonomous weapons.⁸ In the interactive dialogue that followed the report's presentation to the Human Rights Council, 20 nations expressed interest and concern in the challenges posed by fully autonomous weapons. None opposed discussing the issue further and several suggested that the Convention on Conventional Weapons would be an appropriate venue to consider it further.

In November 2013, high contracting parties to the Convention on Conventional Weapons or "CCW" agreed to add the matter of what they called "lethal autonomous weapons systems" to the CCW's program of work by holding a four-day meeting on the topic in May 2014 at the United Nations in Geneva.

The turn-out for this informal meeting of experts was phenomenal and unprecedented. Representatives from 87 countries participated as well as UN agencies, the ICRC, and campaigners, as well as 18 expert presenters. Countries contributed substantively throughout the meeting. Five countries called for a ban on fully autonomous weapons and many more highlighted the importance of always maintaining meaningful human control over targeting and attack decisions.⁹

Since 2014, the CCW has held two week-long meetings on lethal autonomous weapons systems, most recently this April. The number of countries supporting the call for a preemptive ban has risen to 14.¹⁰ There is now much greater understanding of the legal questions, accountability gap, proliferation aspects, human rights challenges, security concerns, and ethical considerations.

Yet we see little ambition from states in picking up the pace of the deliberations, identifying the desired outcome, and setting aside sufficient time for future talks.

⁷ Written evidence submitted by Google DeepMind (ROB0062), June 2016.

<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/science-and-technology-committee/robotics-and-artificial-intelligence/written/33005.html>

⁸ Report by the UN Special Rapporteur on extrajudicial, summary or arbitrary executions, Christof Heyns, A/HRC/23/47, 9 April 2013. http://www.ohchr.org/Documents/HRBodies/HRCouncil/RegularSession/Session23/A-HRC-23-47_en.pdf

⁹ Cuba, Ecuador, Egypt, Holy See, and Pakistan.

¹⁰ Algeria, Bolivia, Chile, Costa Rica, Cuba, Ecuador, Egypt, Ghana, Holy See, Mexico, Nicaragua, Pakistan, State of Palestine, and Zimbabwe

The Campaign to Stop Killer Robots supports the recommendations to the CCW Review Conference that states agreed in April 2016, particularly the proposal the Review Conference create an open-ended Group of Governmental Experts to continue the work on lethal autonomous weapons systems. We however wish that the Group of Governmental Experts could be instructed to start drafting a new CCW protocol on fully autonomous weapons, rather than look at “options” going forward.

The CCW is a framework treaty with five separate protocols prohibiting or restricting certain conventional weapons deemed to be excessively injurious or to have indiscriminate effects. If states agree to establish a Group of Governmental Experts on 16 December then they could move quickly to begin negotiations on a new protocol. Past CCW protocols were negotiated swiftly – the preemptive ban on blinding lasers took less than two years.

We agree on the recommendations’ finding on the “critical importance” of the Group of Governmental Experts hearing “views on appropriate human involvement with regard to lethal force and the issue of delegation of its use.”¹¹ For us, “appropriate human involvement” relates to the concept of meaningful human control, and for us, is a key topic which can help guide the deliberations.

The Campaign to Stop Killer Robots believes that the CCW process could lead to a new protocol and supports continued talks, but not at any cost. A long, drawn-out process that achieves a weak or no result must be avoided.

The recommendations describe the need to continue deliberations on lethal autonomous weapons systems as one of the CCW’s “priorities ... while not prejudging discussions in other fora.” If the Fifth Review Conference fails to continue the CCW deliberations on lethal autonomous weapons systems in a substantial way, another route to conclude a ban would be to take the matter outside the CCW and into another forum or process.

At a preparatory meeting for the Fifth Review Conference in August, more than thirty states expressed support for creating a Group of Governmental Experts, but Russia cast a shadow over the apparent consensus by describing such a step as “premature.”

We understand the concern that moving to the next level could raise expectations of an outcome, but see no harm and many benefits in this modest step forward.

The CCW provides states with an opportunity to make real progress in global disarmament and have a real impact in protecting civilians from future harm. States at the CCW have never tackled an issue with such potentially far-reaching consequences.

Thank you.

¹¹ “Advanced Version Recommendations to the 2016 Review Conference Submitted by the Chairperson of the Informal Meeting of Experts.” Available at: [http://www.unog.ch/80256EDD006B8954/\(httpAssets\)/6BB8A498B0A12A03C1257FDB00382863/\\$file/Recommendations_LAWS_2016_AdvancedVersion+\(4+paras\)+.pdf](http://www.unog.ch/80256EDD006B8954/(httpAssets)/6BB8A498B0A12A03C1257FDB00382863/$file/Recommendations_LAWS_2016_AdvancedVersion+(4+paras)+.pdf)