Agenda: The Implications and Use of the Development of Lethal Autonomous Weapons
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Welcome Letter

Dear participant,

We are pleased to present the present study guide, whose goal is to give you an overview of Lethal Autonomous Weapon Systems (LAWS). As the representative of your assigned country, your research must not end with reading this study guide, but rather should start there, as this document aims to give you the necessary tools to research and understand your country’s position on this complex issue.

At the end of this document, you will find a list of suggested readings that may help you prepare for the conference. You are under no obligation to read them all – feel free to simply skim through them for any information that may back your arguments. If you struggle to find those sources online, please email us and we will help you to the best of our ability.

Please contact the Chairs if you have any questions!

Kind regards,
Sophie and Erin

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1. Introduction of the Committee

The Disarmament and International Security Committee (DISEC) is also called the First Committee of the United Nations General Assembly and it was created as the first Main Committee in the General Assembly in 1945 when the UN Charter was signed.


One of the fundamental aims of the United Nations (UN) is to promote international security, peace and stability in relations among nations. Governments are no longer the only players on the international scene however, which has become a multistakeholder field with industry, startups, academia and civil society being increasingly involved. To this end, the UN maintains a security framework consisting of the Security Council, the Conference on Disarmament, and the First Committee of the General Assembly: Disarmament and International Security (DISEC). This committee is dedicated to the principles of international peace and security. The powers of DISEC are restricted to those specifically enumerated by the UN Charter in Chapter V, and the committee has the added distinction of including representatives from all 192 member states, in addition to certain observer groups.

“It considers all disarmament and international security matters within the scope of the Charter or relating to the powers and functions of any other organ of the United Nations; the general principles of cooperation in the maintenance of international peace and security, as well as principles governing disarmament and the regulation of armaments; promotion of cooperative arrangements and measures aimed at strengthening stability through lower levels of armaments.”

The United Nations Disarmament and International Security Committee works in close cooperation with the United Nations Disarmament Commission (UNDC) and the Conference on Disarmament that is based in Geneva.

1.1. Mandate

The mandate on the First committee of the General Assembly is composed by seven main thematic clusters: nuclear weapons, other weapons of mass destruction, outer space (disarmament aspects), conventional weapons, regional disarmament and

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2 Bis.
3 Bis.
security, other disarmament measures and international security, and the disarmament machinery.4

1.2. Functions

One of the key functions of the UN First Committee (DISEC) is disarmament. The committee discusses and makes recommendations on measures to achieve disarmament, including nuclear disarmament, conventional weapons, and small arms. This is an essential part of the UN’s broader goal of maintaining international peace and security.

Another critical area of focus for the committee is international security. DISEC addresses concerns about international security and the proliferation of weapons of mass destruction, including nuclear, biological, and chemical weapons. The committee works to identify threats to global peace and recommends actions to mitigate these threats. In addition to these areas, the UN First Committee (DISEC) also addresses the issues related to the peaceful use of outer space, and the topic of terrorism.5 Today, the discussions surrounding the increase in Lethal Autonomous Weapons (LAWs) are being brought up more and more as concerns surrounding their use are raised.

2. Technical Aspects

While there is no internationally agreed definition of autonomous weapons systems (AWS), one example of a working definition is that AWS are weapons that, once activated, can identify, select and apply force (lethal or non-lethal) to targets without human intervention. As such, any weapon with autonomy in its critical function, meaning a weapon system that can select (i.e. search for or detect, identify, track, select) and attack (i.e. use force against, neutralize, damage or destroy) targets without human intervention may be understood as an AWS6.

When it comes to automatic and autonomous functions, one may differentiate between automatic defensive systems and autonomous offensive systems.

Firstly, one needs to highlight the difference between automatic and autonomous systems: a system following a predetermined set of rules to provide a predictable outcome is automatic. A system deciding and acting to accomplish desired goals, within defined parameters, based on acquired knowledge and an evolving situational awareness, following an optimal but potentially unpredictable course of action is autonomous.

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6 International Committee of the Red Cross 2016, 1
Automatic defensive systems include both passive defensive systems such as mines, and active systems such as radar-guided close-in weapon systems (CIWS) as they may select and engage targets without further human input once activated. Similarly, the Iron Dome is capable of intercepting and destroying short-range rockets and artillery shells within its range once deployed without direct human intervention. Certain types of automatic sentry guns also belong to this category.

These systems benefit from being autonomous as their response time is much quicker than that of a human, providing a fast and efficient defence.

Autonomous offensive systems require a higher degree of autonomy as they are not activated by any attack but rather execute their mission independently. Such systems include combat drones, unmanned vehicles, ships, and military robots. Combat drones have also been used as part of a swarm since 2021. Certain combat drones are also exceptionally precise and may select specific targets based on a pre-programmed profile.

Autonomous weapon systems (AWS) come in many shapes and forms. However, at their core, they share several distinctive sociotechnical characteristics:

1. AWS functions based on preprogrammed target profiles and technical indicators that AWS can recognize through their sensors and software.
2. Since AWS is triggered to apply force partly by their environment of use (rather than a user’s input), aspects of a decision to apply force can be made further in advance than with traditional weapons.
3. A human operator may supervise and retain the possibility of overriding the system.

However, the system’s default function is that human input is not required to identify and select targets or apply force against them. These characteristics entail that those who configure and deploy an AWS will not necessarily know the exact targets, location, timing, or circumstances of the resulting use of force.

The development of the use of LAWS in armed conflict and in domestic law enforcement has led to calls for greater regulation and control to ensure that they are developed and used in a manner that is consistent with international law, human rights, and ethical principles. The main forum discussing this topic, the Group of Governmental Experts (GGE) on LAWS, focuses on situations under the scope of international humanitarian law (IHL) and the Convention on Certain Conventional Weapons (CCW). However, calls for a holistic discussion of LAWS (meaning in domestic law enforcement and counter-terrorism operations as well as international conflict) have been put forward in various places.
3. The Legal Framework

3.1. Defining LAWS

Agreeing on a common definition of LAWS is a crucial prerequisite for any efficient normative action. At this time, there is no legal definition of LAWS. While they are generally understood as a type of autonomous military system capable of independently seeking and engaging targets via artificial intelligence, as stated previously, the scope of these criteria may differ.

**Autonomy**

The criteria of autonomy is an important aspect of the qualification of LAWS. According to UNIDIR, it is “not a binary characteristic and is not to be confused with ‘intelligence’, which is a system’s ability to determine the best course of action to achieve its goals.”

As such, there are three main approaches to defining an “autonomous” weapon system:

- A technology-centric approach focused on systems’ technical attributes;
- A human-centric approach that defines levels of system autonomy according to the human’s role in its operations;
- A task/function approach based on identifying those actions which the system can execute autonomously

These approaches are not mutually exclusive.

States at the GGE disagree upon whether a definition of LAWS should be holistic or not. According to some countries, a holistic definition is needed as such systems include not only an artificial intelligence component but also sensors, control interfaces and many other elements influencing their concrete behaviour. However, others claim that we do not need to characterise them exhaustively in order to be able to prohibit or regulate LAWS.

In the end, the definition of LAWS should be modulated depending on the intended effect of the ban. If the ban only concerns the effects of the system, then a characterization may not be necessary. Rather, delegates should then focus on the specific effects they wish to ban, such as indiscriminate killing or engaging human targets.

**Lethality**

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https://unidir.org/publication/unidir-lethal-autonomous-weapons
Much technology used for LAWS also appears for civilian applications and any regulation of such technologies should take this factor into account. Differentiating between military and civilian use is especially challenging in the case of AI.

Certain states such as Switzerland have stressed that lethality should not be a prerequisite in the limitation of autonomous weapons systems\textsuperscript{10}.

### 3.2. Past UN actions and Resolutions

UNESCO has provided extensive regulations on the use of artificial intelligence. However, these rules only refer to civilian applications, not military ones. The efficient development of AI has made it challenging to differentiate between civilian and military potential, especially due to the rapid dissemination of AI software.

The Ottawa Treaty (1997) banning the use of anti-personnel mines may come to mind as a \textit{lex specialis} on autonomous weapons systems, but its application is strictly limited to anti-personnel mines. Furthermore, this convention has not yet been ratified by the United States of America, Russia, and most of Asia including the Middle-East.

Thus far, the United Nations General Assembly has failed to come to a consensus on LAWS and hence has produced no resolution on this topic.

The United Nations Institute for Disarmament Research (UNIDIR) has published several papers on the topic of LAWS, many of which include findings of intergovernmental groups of experts. You will find some of them in the following suggested reading.

Outside the UN system, \textbf{regional bodies} such as the EU Group of Governmental Experts\textsuperscript{11} and very recently the Latin American and Caribbean conference on the Social and Humanitarian Impact of Autonomous Weapons\textsuperscript{12} discussing the application of existing regulations to LAWS and the concrete impacts of such technologies.

As of now, lack of diplomatic consensus at the UN means a legal vacuum in which only general dispossession of international law apply.

**General public international law**

**Applicability of International Humanitarian Law (IHL)**

International Humanitarian Law (IHL) refers to the law of armed conflict. It is mainly composed of the Geneva Conventions of 1949, which are now recognized to be customary international law. This means that they are applicable to all states taking

\textsuperscript{10} Switzerland’s food for thought as requested by the Chair of the Group of Governmental Experts (GGE) on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems (LAWS) within the Convention on Certain Conventional Weapons (CCW), 2021, p. 1
\textsuperscript{11} https://www.eeas.europa.eu/node/43045_en
\textsuperscript{12} https://conferenciaawscostarica2023.com/?lang=en
part in international conflicts, regardless of their ratification of these legal instruments.

Although this study guide will focus on IHL as the main source of international law regarding armed conflicts, further dispositions may be found in international human rights law and criminal law.

Regarding non-international conflicts, the application of IHL is limited as states are reticent to letting external influences dictate their policies in internal affairs. Nonetheless, states who ratified the Second Protocol to the Geneva Conventions must apply the main principles of IHL, outlined below. This Second Protocol, or Protocol II, is not regarded as customary international law.

The simple fact that LAWS are not explicitly mentioned in any body of IHL does not exclude them from its application. Under the Martens Clause, both civilians and combatants remain under the protection of the principles of international law including in cases not yet covered by any legal instrument.

The Geneva Conventions include the following core principles:
- **Distinction**: Distinction must at all times be made between civilians and combatants and civilian objects and military objectives. This principle obliges parties to an armed conflict to distinguish between the civilian population and combatants, between militarily active combatants and those hors de combat (e.g. those expressing an intention to surrender or who are wounded or sick) and between civilian objects and military objectives, and accordingly to direct attacks only against military objectives. The principle of distinction prohibits making a civilian population, as well as individual civilians, the object of attack.  
  
  - **Proportionality**: The principle of proportionality prohibits the conduct of an attack that may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, that is excessive in relation to the concrete and direct military advantage anticipated.
  - **Precaution**: The requirement to take precautions in attack requires taking constant care in military operations to spare the civilian population, civilians and civilian objects. Those who plan or decide on an attack must:
  (a) do everything feasible to verify that the objectives to be attacked are neither civilians nor civilian objects and are not subject to special protection but are military objectives,
  (b) take all feasible precautions in the choice of means and methods of attack with a view to avoiding, or at least minimizing, incidental loss of civilian life, injury to civilians and damage to civilian objects, and
  (c) refrain from deciding to launch any attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian

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13 IHL source: AP I, Arts 41, 48, 51(2), 51(4), 51(5); CIHL, Rules 1, 6, 7, 13, 47
objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated. Moreover, an attack must be cancelled or suspended if it becomes apparent that the objective is not a military one or is subject to special protection, or that the attack may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated.

- **Necessity** or **Military necessity**: This principle requires states to limit themselves to only the degree of force required to achieve their objectives.
- **Humanity**: IHL forbids states to engage in any harm not necessary to achieve the legitimate purpose of a conflict.

Although the legality of these principles is indisputable in the international community, their interpretation may differ from state to state. For example, a country which often engages in military operations abroad but seldom sees conflict on their own territory will have a broader understanding of “military advantage” than a country in the opposite situation.

A resolution should thus aim to concretise these principles in regard to LAWS in order to offer concrete solutions to the issue, and answer the following questions:

- How can LAWS respect the core principles of IHL?
- Should LAWS be banned fully or partially according to IHL?
- In what ways can or should they be restricted?

**The Convention on Certain Conventional Weapons (CCW)**
Also known as the “Inhumane Weapons Convention”, this treaty has been ratified by most countries and aims to “ban or restrict the use of specific types of weapons that are considered to cause unnecessary or unjustifiable suffering to combatants or to affect civilians indiscriminately” according to the website of the UN Office for Disarmament Affairs.

The Convention achieves flexibility in dealing with new developments in weapons by proposing a framework convention detailing general provisions as well as several annexed protocols containing substantive prohibitions and restrictions on certain types of weapons.

**The Human Element**
While LAWS are, by definition, autonomous, the presence of a **human element** is essential to ensure **accountability** as well as **attribution of responsibility** in case of a violation of international law. In some cases, violating the Geneva Conventions may constitute a war crime under the Rome Statute of the International Criminal Court or certain domestic regulations.

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14 IHL source: AP I, Art. 57; CIHL, Rules 15–19
The required scope of human control over LAWS to comply with IHL is a debated topic. Any resolution aiming to regulate LAWS should make sure to address it.

4. Current Debates on Lethal Autonomous Weapons

4.1. The Beneficial Aspects of the use of LAWS

While most parties agree that an increase in the development and use of Lethal Autonomous Weapons could be dangerous for the continuation of peace and security, proponents of the use of LAWS would argue that they bring about some important advantages.

Revolutionise Warfare
One of the main arguments in favour of the development of LAWS is that they can revolutionise warfare - they are designed to be highly precise and accurate, which could reduce concerns about collateral damage and limit harm to civilians. Unlike human soldiers, LAWs would not be subject to fatigue or emotional stress that can impact their ability to make accurate judgments. Instead, they would be able to more accurately choose their targets in all situations, and limit unnecessary deaths or damage.

Reduce harm
Not only could deploying LAWs reduce collateral damage and harm to citizens, but it could also reduce the risk of harm to human soldiers in combat situations. Some LAWS are able to perform dangerous missions such as clearing minefields and entering hazardous areas without the same type of risk to human life that would occur while deploying human soldiers. Of course, not all autonomous robots used for support missions are LAWS, they would only be considered such if they were fitted with autonomous targeting and striking capabilities. This could potentially improve the safety of soldiers while also reducing the political risks associated with military interventions.

Additionally, LAWs can react much faster than human soldiers in certain situations. They can process data and make decisions in a matter of milliseconds, which could potentially give them an advantage over human operators in combat situations. This could potentially provide tactical advantages to militaries in conflicts, which could lead to more successful missions and potentially fewer casualties.

Cost Savings
Another potential benefit of LAWS is cost savings. Proponents argue that since these weapons do not require human operators, they may be less expensive to produce and maintain over time. This could potentially save money for military budgets and allow for more resources to be directed towards other areas such as education and healthcare.

However, it is important to note that these potential benefits must be balanced against the potential risks and drawbacks of lethal autonomous weapons. Critics
argue that such weapons could lead to unintended harm to civilians, given their limited ability to make moral judgments. There is also a lack of transparency surrounding the development and deployment of LAWs, which could lead to complications. These concerns highlight the need for regulation and control of LAWs to ensure that they are developed and used in a manner that is consistent with international law, human rights, and ethical principles.

4.2. Fears Surrounding the use of LAWs

As mentioned previously, LAWs could bring about a multitude of potential changes and positives to the military and tactical field. However, these potential benefits of lethal autonomous weapons must be balanced against their potential risks and drawbacks. While they could provide certain tactical advantages and improve the safety of soldiers, their development and use must be subject to strict regulation and control to ensure that they do not violate international laws, ethical principles or cause unintended harm to civilians.

Another concern is the unequal access to these technologies. On one hand, the world is seeing a rising trend of non-armed international conflicts (NIAC) opposing a state actor and an armed group. Unlike states, armed groups seldom have the capacity to develop such weapons. States with internal dissent may then be more likely to support the free use of LAWS to ensure their authority over their territories, while states supporting dissenting armed groups may consider the regulation of these technologies.

On the other hand, international armed conflicts (IAC) have unfortunately not vanished from the international landscape. An IAC opposing a state using LAWS and a state not using LAWS gives the more technologically advanced state a strong advantage. States experiencing tensions with more powerful neighbours may support a partial or full ban of LAWS to ensure an equal battleground, and vice versa.

4.2.1. Risk to World Security

While these weapons may seem like a technological marvel, they pose a serious threat to world security for several reasons, mostly on the topic of proliferation of weapons as well as lack of transparency.

Proliferation of Weapons
One reason for the concern of proliferation of weapons is the potential ease of replicating and producing autonomous weapons. Unlike traditional weapons that require specialised manufacturing and expertise, autonomous weapons could be built using off-the-shelf technology and relatively simple programming. This could make it easier for countries or non-state actors to develop and deploy these weapons, potentially leading to a proliferation of lethal autonomous systems.

Moreover, if one country develops and deploys lethal autonomous weapons, it could trigger a security dilemma among other countries, leading to an arms race and further
proliferation of these weapons. This could increase the risk of conflict and instability, as countries and non-state actors seek to develop and acquire these weapons to stay ahead of their rivals.

Lower Threshold of Military Use
Another concern is that the deployment of lethal autonomous weapons could reduce the threshold for using military force. The ability to deploy autonomous weapons without risking human lives could make it easier for decision-makers to resort to the use of force, even in situations where diplomacy or other non-military options may be more appropriate.

In addition, lethal autonomous weapons have the potential to escalate conflicts. Because these weapons could be programmed to respond with force to any perceived threat or aggression, they could lead to a spiralling cycle of violence that could be difficult to control or contain. This escalation of conflict could have serious consequences as it could lead to larger conflicts or even war in situations where it could have been prevented.

Overall, there is the risk that the development and deployment of lethal autonomous weapons could lead to a proliferation of these weapons, which could have serious implications for global security.

Lack of Human Oversight and Malfunctions
Another major concern with lethal autonomous weapons is the lack of human oversight. These weapons are designed to operate without direct human control, which means they can make decisions on their own without any human input or intervention. This lack of human involvement could lead to errors or unintended consequences, as the machines may not be able to distinguish between combatants and civilians or accurately assess the situation.

There is also the potential issue of malfunction or hacking. Like any technology, these weapons can malfunction or be hacked, which could lead to unintended consequences or even catastrophic events. Malfunctions could lead to innocent people being targeted or infrastructure being destroyed, which would be a serious threat to world security if humans were then unable to safely regain control of the machine.

Accountability

A lack of accountability is also a concern with lethal autonomous weapons. If something goes wrong with a machine, it may be difficult to hold anyone accountable for its actions. Will the manufacturers be deemed accountable for the war crimes? The countries who utilised them? This lack of clear accountability could make it easier for countries or organisations to use these weapons without fear of consequences, which could be a serious threat to world security.

4.2.2. Moral Issues

There are increases in groups and associations fighting against the development of LAWs for more human-based and ethical reasons, such as the “Stop Killer Robots”\textsuperscript{17} coalition. This group advocates on the issue of LAWs by focusing on the dehumanisation of persons through the use of LAWs.

Digital Dehumanisation
They argue that the main moral problem with these autonomous weapons is that they dehumanise the victim. By removing human soldiers from the decision-making process in combat, there is a risk that warfare could become an abstract, sanitised concept rather than a violent, deadly reality. This could lead to a lack of empathy for those affected by war, and make it easier for decision-makers to justify their actions, and reiterating what was previously said, could cause war to become a more readily chosen method of intervention.

Discrimination is another concern with lethal autonomous weapons. These weapons could be programmed to discriminate against certain groups or individuals, based on their ethnicity, race, religion, or other factors. This could happen both purposefully and unintentionally through the limited information given to Artificial Intelligence which may even reinforce stereotypes.\textsuperscript{18} This could lead to serious human rights violations and undermine the principles of fairness and equality.

The use of lethal autonomous weapons also raises questions about informed consent. Do individuals or communities have the right to be informed about the deployment of these weapons in their area, and to have a say in whether they are used? This is an important ethical issue that must be considered before deploying autonomous weapons in combat situations.

Theory of Just War
Finally, the use of lethal autonomous weapons may raise questions about the principles of Just War theory. According to this theory, wars must be fought only for just reasons and combatants must act with proportionality and discrimination. The use of lethal autonomous weapons could violate these principles if they are used inappropriately or indiscriminately.

\textsuperscript{17} https://www.stopkillerrobots.org/
\textsuperscript{18} https://www.stopkillerrobots.org/stop-killer-robots/digital-dehumanisation/
5. Bloc Positions

Countries currently actively developing Lethal Autonomous Weapons include:

- China
- Israel
- Russia
- South Korea
- Türkiye
- United Kingdom
- United State of America

Joint Statement on Lethal Autonomous Weapons Systems

The countries in the hereunder list have delivered a joint statement on the humanitarian concerns of the use of LAWs at the UN General Assembly.

70 states deliver joint statement on autonomous weapons systems at UN General Assembly - Stop Killer Robots
6. Proposed Readings and Suggestions

For the purpose of the debate, we recommend delegates to look into the “two-tier approach” to LAWs, which focuses on both prohibition and regulation. Prohibition would be for acts that are inherently unlawful, while still regulating the rest. This approach has recently gained much traction in the last year. Feel free to read more about current proposals and the two-tier approach at the following link:


For the MUN Debate, here are some questions that can be used to organise the flow of conversation:
- How should international law define LAWS?
- Is the development of lethal autonomous weapons a threat to global security?
- What ethical considerations need to be addressed before deploying lethal autonomous weapons?
- Should nations be allowed to develop and deploy lethal autonomous weapons without international consensus?
- Is there a need for a global regulatory framework on lethal autonomous weapons?
- Should lethal autonomous weapons be banned completely?
- Can lethal autonomous weapons comply with the principles of the laws of war?
- Should humans be held responsible for the actions of lethal autonomous weapons?
- Would lethal autonomous weapons make warfare more or less humane?
- What role should artificial intelligence experts and ethicists play in the development of lethal autonomous weapons?

Suggested Reading

Regarding the definition of LAWS and their technical aspects
UNIDIR, UNIDIR on Lethal Autonomous Weapons: Mapping our Research to the Discussions of the Group of Governmental Experts (GGE) on LAWS (2021)

Regarding the application of IHL to LAWS

UNIDIR, *Proposals Related to Emerging Technologies in the Area of Lethal Autonomous Weapons Systems* (2022)


**On current proposals for regulation of LAWS**
In general: meeting notes of the Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons System (on the UN Office on Disarmament Affairs website)

Link:
https://meetings.unoda.org/ccw-/convention-on-certain-conventional-weapons-group-of-governmental-experts-on-lethal-autonomous-weapons-systems-2023

Especially: GGE on Emerging Technologies in the Area of LAWS, Geneva, 6-10 March, and 15-19 May 2023 (ref.: CCW/GGE.1/2023/CRP1)

**On IHL in general**
The Geneva Conventions and Protocols

Commentaries of the Convention on the website of the International Committee of the Red Cross


**Regarding current challenges of LAWS**
In general: publications on LAWS found on the website of the UN Office on Disarmament Affairs (UNODA)


NASU et al., “Stop the “Stop the Killer Robot” Debate: Why We Need Artificial Intelligence in Future Battlefields”, *Council on Foreign Relations*, 21 June 2022 [retrieved in April 2023]