

LEGAL STATUS OF AUTONOMOUS WEAPONS IN INTERNATIONAL HUMANITARIAN LAW

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Received : 13/01/2024 ; Accepted : 11/07/2024 ; Published : 05/09/2024

Abstract:

Autonomous weapons systems (AWS) are weapons that can select and engage targets without human intervention. They are a controversial topic, as there is no clear consensus on their legality under international humanitarian law (IHL). Some experts argue that they are prohibited because they violate the principle of human control over weapons. Others argue that they could be legal if they meet certain requirements, such as human oversight, distinction, proportionality, and precautions in attack.

There is currently no international treaty that specifically prohibits or regulates AWS, but the issue is under discussion between international community. Whatever, these kinds of weapons must respect international humanitarian law and its principles.

Keywords: *human oversight; distinction principle; international humanitarian law ;Autonomous weapons.*

INTRODUCTION:

In its 1996 Advisory Opinion on the Legality of Nuclear Weapons, the International Court of Justice affirmed the universality of the principles and rules of international humanitarian law to include all forms of war and all types of weapons, including future ones. This means that all parties to armed conflicts, regardless of the nature of the conflict or the type of weapons used, adhere to the rules of international humanitarian law. This includes taking all necessary precautions to reduce human suffering, protect civilians and civilian objects, and prohibit the use of weapons that cause unnecessary or indiscriminate suffering and weapons prohibited under international law, such as chemical and biological weapons. This affirmation is therefore an important step in promoting respect for international humanitarian law and the protection of civilians in time of war¹.

However, in the current situation, the world is witnessing a tremendous development in the field of military technology, which has led to the emergence of autonomous weapons or self-targeting weapons systems, which are characterized by their ability to identify and attack targets without direct human intervention, which raises complex issues unprecedented in the history of international conflicts. They can be used in information warfare, which can lead to complex international conflicts. In light of these challenges, autonomous weapons pose complex legal and ethical problems in the context of international humanitarian law. **To what extent do autonomous weapons comply with the principles of international humanitarian law? How can States ensure compliance with Article 36 of Additional Protocol I to the 1949 Geneva Conventions in light of recent technological developments?** This problematic will be answered through the following points.

I- The Concept of Autonomous Weapons in International Humanitarian Law

Self-governing weapons, (autonomous) also known as independent weapons or automatic weapons are weapons capable of selecting and targeting their targets and making decisions about the use of force without significant human intervention, in the sense that these weapons can operate independently of human operators, raising significant concerns about their accountability and the possibility of their unlawful use.

1. Definition of autonomous weapons in international humanitarian law

Independent weapons systems is a modern military technology that raises interconnected ethical and legal issues, as these systems are characterized by their ability to identify and attack targets without



direct human intervention, which raises questions about responsibility for decision-making and the use of force. These systems is classified into three main types that determine the level of human interaction with the system, for the first type is that the human is inside the loop, so that he controls all orders and decisions, while the machine helps in carrying out tasks, as this type is used in simple or high-risk tasks, where direct human control is preferred, for example, the unmanned Predator aircraft, whose path and objectives are controlled by a pilot on the ground.

As for the second type, the human is at the top of the loop (Human on the Loop) , where he monitors the actions of the system and intervenes when necessary, for example in cases of failure or danger, where this type is used in more complex tasks, through which the human can intervene to change the course of the process, for example, the Israeli Iron Dome system, which monitors enemy missiles and fires counter rockets when necessary, in addition to the third type, which is that the human is outside the loop (Human Out of the Loop), by virtue of the fact that this system works completely independently without any human intervention, as this type is used in high-risk tasks, where it is preferable to limit human intervention to avoid errors, such as the American Patriot missile systems, which automatically identify and attack enemy missiles².

However, there is no internationally agreed definition of autonomous weapons, but some definitions indicate that they are weapons systems capable of selecting and identifying their targets, such as the US Maveric system, which can identify and select targets without human intervention, as it can attack those targets with complete independence, and³ they are usually drones capable of carrying out combat missions without direct human orders, which are supposed to take into account the principle of distinction between civilians and combatants as well as between civilian and military targets⁴. In addition, it is equipped with systems to evaluate the results of the attack and modify its behavior accordingly, through systems capable of analyzing data and adjusting its path or weapons based on its evaluation of the results of the attack⁵.

2. Controversy over the legality of autonomous weapons in international humanitarian law

Although modern weapons, including those based on information technology and robotics, are subject to the rules of international humanitarian law, there is debate about the adequacy of these rules in addressing accelerating developments in military technology. Some experts believe that IHL, having originated in the context of conventional warfare, may not cover all aspects of modern conflicts, suggesting that there are gaps in its rules. On the other hand, others argue that the basic principles of IHL, such as the distinction between combatants and civilians, and the prohibition of weapons causing unnecessary suffering, remain applicable to all forms of conflicts, regardless of the technology used, and as long as the state enjoys sovereignty, the origin is the freedom of states to express their will explicitly or express their will implicitly in the event of a lack of international law⁶. The two main views can be summarized in that the first opinion emphasizes the novelty of international humanitarian law and the possibility of gaps in its rules, and also calls for the development of international humanitarian law to keep pace with technological developments. The second view emphasizes the universality of the principles of international humanitarian law and their applicability to all types of conflicts. From this point of view, this view is opposed to amending international humanitarian law simply because of the emergence of new techniques⁷. The third view, represented by Professors Schwarz Zeppenberger and Luther Bacht, opposes the idea that there is a lack of rules of international humanitarian law, and argues that the resolution of any international dispute can be achieved by referring to all the original sources of international law, including international treaties, international norms, and the principles of public international law. According to this view, the task of an international judge is to provide a legal solution based on respect for the law, even in the absence of a specific legal rule applicable to the dispute in question⁸. This view can be summarized in the following points:

- There is no shortage of IHL rules.
- Any international dispute can be resolved by referring to all sources of international law.
- The international judge must provide a legal solution based on respect for the law.

This latter view emphasizes that IHL contains a set of rules that restrict the use of weapons by conflicting states. This view also rejects the idea that the right of states to use weapons is absolute



without any restrictions. Article 35 of Additional Protocol I of 1977 is a clear example of such restrictions, stating that Contracting States are obliged to take all precautions in the selection of targets and their strikes to avoid or minimize the loss of human life of civilians and civilian objects. This view can be summarized in the following points:

- International humanitarian law restricts the use of weapons by countries in conflict.

- The right of states to use weapons is not absolute.

- Article 35 of Additional Protocol I of 1977 exemplifies the rules for restricting the use of weapons⁹. The use of autonomous weapons also raises a great legal and moral controversy, as technological progress continuously leads to the emergence of new weapons that may raise new legal issues. States must apply the rules of international law on the legality of the use of force on these new weapons in all cases¹⁰. Some experts argue that they may pose a threat to human rights and human dignity, for several reasons, including the difficulty of ensuring their compliance with legal rules. States face difficulty in ensuring that independent weapons comply with legal rules, especially with their increasing complexity and artificial intelligence. In addition to the risk of serious mistakes that lead to the killing of civilians, some reports indicate that autonomous weapons may cause more collateral damage than conventional weapons, due to the difficulty of programming them to accurately distinguish between combatants and civilians¹¹.

The possibility of using them for illegal purposes is also one of the most important reasons for the non-compliance of this type of weapon with the law, as it is feared that autonomous weapons may be used for illegal purposes, such as assassinations or attacks on civilians, by non-state actors or rogue states. Therefore, it is important to take into account new technological developments when applying the rules of international law on the use of force. States must participate in a constructive international dialogue to deal with the legal challenges posed by these developments¹².

While autonomous weapons technology is undergoing rapid developments, efforts are being made by some countries to develop weapons systems with advanced capabilities in this field, for example, the United States of America has experimented with an autonomous weapons system called "Maveric" in 2018¹³, Russia is developing a similar system called "Kalashnikov-Automat" ¹⁴ and many other countries are engaged in research to develop autonomous weapons.

II- The Legality of Autonomous Weapons in International Humanitarian Law

International discussions on lethal autonomous weapons systems (laws) were launched in 2014 within the framework of the 1980 United Nations Convention, in order to address the ethical, legal and operational challenges posed by these systems. However, due to the absence of any international laws governing laws, the 1980 Convention, thanks to its expertise in international humanitarian law and security issues, is an appropriate platform for future discussions on the regulation of these weapons. A set of guiding principles has already been agreed to guide the development and use of laws, including an emphasis on the application of international humanitarian law, the responsibility of States to ensure the legitimacy of laws, and the ethical assessment of new laws before they are developed, acquired or even designed.

A declaration on laws was also made by France and Germany reaffirming these principles, and exemplifying ongoing efforts under the 1980 Convention. These international efforts demonstrate a commitment to responsibly regulating laws, taking into account the associated ethical, legal and operational concerns, in order to respect the relevant principles of IHL and Article 36 of Additional Protocol I as well as some complementary legal texts.

1. Legal Principles Applicable to Autonomous Weapons:

The humanitarian principles applicable during armed conflicts have a strong legal nature, as they constitute binding legal rules that apply to all parties to armed conflicts, regardless of the nature of the conflict or the identity of the warring parties. Their legal nature derives from international humanitarian law, which tries to strike a balance between military necessity during armed conflict and humanitarian considerations, thus reducing suffering by imposing respect for a set of principles. However, what concerns the legality of autonomous weapons is the principle of distinction, the principle of proportionality and the principle of military necessity, which will be clarified in the following points:



A- The feasibility of integrating the principle of distinction into autonomous weapon systems.

The distinction between civilian objects and military objectives is the cornerstone of international humanitarian law, and it obliges all parties to armed conflicts to respect it, as this principle represents one of the most important challenges facing the application of international humanitarian law, because of its difficulty in accurately defining what civilian objects and military objectives are. Many international conventions have sought to establish specific definitions of these terms, specifying when civilian objects become legitimate military targets.

One of the most important of these conventions is the 1907 Hague Regulations Relating to the Laws and Customs of War on Land, which define civilian objects as anything that is not a military objective, defining military objectives as objects that, by their nature, are used in war operations, or that can be used in such operations¹⁵. In addition to the 1954 Hague Convention for the Protection of Cultural Property, which defines cultural property as all property that, by virtue of its spiritual, artistic or historical value, is the cultural heritage of a people, or is of great importance to humanity. This Agreement prohibits the attack or destruction of such property.¹⁶

Additional Protocol I to the 1977 Geneva Conventions, which defines civilian objects as anything that is not a military objective. ” It defines military objectives as objects that by their nature are, or can be, used in military operations, or that contribute effectively to the war effort. These agreements also indicate that civilian objects lose their protection from attacks if they are used for military purposes, or if they contribute effectively to the war effort. However, the issue of distinguishing between civilian objects and military objectives remains complex, raising many legal and ethical questions. Therefore, this issue is one of the most important challenges facing the application of international humanitarian law in contemporary armed conflicts¹⁷.

The principle of distinction demands careful consideration during attacks. As outlined in international humanitarian law, attackers have a specific obligation to minimize civilian harm. This includes taking all feasible precautions when selecting methods and means of attack to limit, if not entirely avoid, civilian casualties and property damage¹⁸. The principle of distinction mandates a clear separation between military targets and civilian objects. This principle encompasses four categories: civilians and civilian objects, and combatants and military objectives, as detailed in Article 52, paragraph 2, of Additional Protocol I of 1977¹⁹.

Therefore, A target can only be considered a military objective if it meets two essential criteria. The first criterion is that the target must actively support the enemy’s military operations, which means that it must be used directly or indirectly in supporting or carrying out military operations. This includes but is not limited to military bases, factories that produce weapons, ammunition stores, and military transportation, infrastructure used to support military operations, such as bridges, roads and power plants.

The second criterion requires that the destruction, capture, or disruption of the target must result in a concrete and measurable military advantage for the attacking party. In other words, the target must be essential to the enemy’s military capabilities. It is not enough that the destruction of a target is merely a possibility or expectation of a military advantage, and the military advantage must be certain and realistic. In general, a military objective can only be considered legitimate for attack if it meets both of the above criteria²⁰. The Tallinn Manual, while not legally binding, provides guidance on applying the principle of distinction to cyberattacks. It states that civilian objects should not be targeted in such attacks. For instance, cyberattacks that could damage civilian systems and infrastructure are generally prohibited unless those objects qualify as military targets under the specific circumstances²¹.

More generally, Some experts suggest that the extent of civilian inconvenience could be a factor in distinguishing between cyber operations that constitute attacks and those that do not. This means that if a cyber operation causes significant disruptions to civilian life, it might be considered an attack. However, Cyber operations that are considered military activities but don’t necessarily qualify as attacks are still subject to the principle of distinction. This means that there is always an obligation to differentiate between civilians and civilian objects on one hand, and military targets on the other.



During military operations, all possible precautions must be taken to avoid harming civilians and civilian infrastructure²².

This principle must take into account the ethical issues that are one of the most important issues of international humanitarian law, which should be characterized by modern weapons. Autonomous weapons have difficulty in distinguishing between fighters who are injured or who have surrendered or have suffered from mental illness, so that the principle of discrimination is applied to them. Therefore, these weapons may lack the main components required to ensure compliance with the principle of discrimination, as they do not have enough senses or vision to distinguish between fighters and civilians, or even a mind that is just machines that have been designed and programmed²³.

In parallel, modern technology cannot decode between military and civilian targets. The principle of excellence is problematic for autonomous weapons, as two trends have emerged regarding their ability to distinguish. The first trend sees that they are incapable of distinguishing and lead to problems such as their inability to cancel an attack on a fighter who has been injured, or gave an explicit signal of peace. The second trend sees that they are able to comply as in large battles, where armies are clear, as well as battles that take place in remote environments or deserts²⁴.

Finally, the use of autonomous weapons must adhere to the general principles of international humanitarian law. This includes the fundamental requirement to distinguish between combatants and civilians. Autonomous weapons are prohibited from targeting civilians, and every effort must be made to ensure accurate identification before launching any attack²⁵. In addition to prohibiting attacks on civilians, autonomous weapons are prohibited from launching attacks that target civilians directly or indirectly²⁶. This principle must be considered throughout the development process, from initial weapon design to final programming.

B- The feasibility of integrating the proportionality principle into autonomous weapon systems.

The principle of proportionality mandates that the anticipated civilian harm of an attack must be weighed against the expected military advantage. This is outlined in Article 51 of Additional Protocol I, reinforced in Article 57, and further confirmed in Additional Protocol II of 1977 and the Statute of the International Criminal Court²⁷. Articles 51 and 57 of Additional Protocol I to the Geneva Conventions establish proportionality as the key principle when unintended civilian harm is unavoidable. Under this principle, military planners and commanders must either call off or suspend an attack if the anticipated civilian casualties and damage are significantly greater than the direct military advantage expected. In simpler terms, incidental civilian harm must be justified by a clear and substantial military benefit. If not, the attack cannot proceed. This rule is a cornerstone of international humanitarian law, aiming to minimize civilian suffering during armed conflict²⁸.

Therefore, as an embodiment of their commitment to international humanitarian law, many countries have adopted legislation criminalizing attacks that violate the principle of proportionality, as this principle may raise some difficulties on cyber attacks. Accidental damage is noticeable because there is often no separation between the cyberspace used by civilians and that used by armed forces and groups and civilians participating in the hostile action. However, The Tallinn Manual emphasizes the importance of adhering to the principle of proportionality in cyberattacks, particularly when considering the potential for civilian harm. This principle requires that the anticipated civilian damage must be balanced against the expected military advantage [1]. Numerous military manuals also underscore the significance of proportionality in applying Additional Protocol II to the Geneva Conventions, a modern legal framework that mandates respect for this principle in both international and non-international armed conflicts²⁹.

The principle of proportionality is a cornerstone of international humanitarian law, requiring parties to armed conflicts to target solely military objectives, while making every effort to avoid harming civilians and civilian objects. It also aims to achieve a balance between military necessities and respect for humanitarian principles. This includes evaluating the expected consequences of the attack and comparing the expected military benefits to the incidental losses that may be inflicted on civilians. If these incidental losses significantly exceed the expected military benefits, the attack may not be carried out here. The principle of proportionality extends to all stages of military attack



planning and execution. Parties to armed conflicts must implement all feasible measures to minimize the risk to civilians. These measures include using accurate weapons³⁰, selectively targeting military targets and avoiding civilian areas as much as possible. Any violation of the principle of proportionality is a war crime, and those responsible can be held accountable for their actions³¹

With reference to autonomous weapons, to analyze the principle of proportionality with regard to their use, Combatants must assess the potential collateral damage to civilians and civilian objects before launching any attack on a military target. If there are no civilians, there is no need to analyze this principle, which is called the reasonable commander criterion or the reasonableness of the military commander, that is requires a commander to assess a situation based on all available information at the time³². Michael Schmitt has highlighted the complexity of this principle in international humanitarian law, noting that it is unlikely that lethal autonomous weapons systems will be programmed to deal with all situations and scenarios that may occur during the course of battles. Sharkey also stressed that throwing these systems into the battlefields can cause chaotic robotic behavior with deadly consequences. The International Committee of the Red Cross has commented on this principle as being objective and rational in evaluation, which is a matter of good sense and good faith by the military commander³³.

On the one hand, programming an autonomous weapon to comply with the principle of proportionality requires complex algorithms capable of accurately assessing the potential civilian harm and military advantage of an attack, an autonomous weapon can be programmed to comply with this principle by programming the algorithms of this weapon. It automatically analyzes the principle of proportionality, but in practice, if humans are sometimes unable to estimate the attack if it is appropriate or not, how can programmers prepare autonomous weapons that on their own estimate the principle of proportionality³⁴. That is, attacks must be proportional to military objectives, as attacks carried out by autonomous weapons must be limited by military necessity, and must not cause excessive collateral damage to civilians, in addition to reducing collateral damage. States must take all possible precautions to reduce collateral damage that may be caused by autonomous weapons³⁵.

C- The possibility of applying the principle of military necessity to autonomous weapons:

By necessity is generally meant the urgent need and what man has been forced to do, so that he has no room to choose between action and abandonment due to his necessity. As for international humanitarian law, the latter has the possibility of using armed force in certain circumstances, it does so within the framework of the principle of military necessity. However, this principle does not grant parties to a conflict unlimited discretion. Military necessity generally is subject to defined as doing what is necessary to achieve the legitimate objectives of war, which means that military actions during armed conflict are not absolute, but subject to the restriction of necessity. No means or method may be used to achieve victory, unless this is necessary to achieve specific objectives. The pursuit of military necessity, while a legitimate goal within the laws of war, must be balanced against the need to defeat the enemy and achieve ultimate victory. This means that military leaders must prioritize actions that are both necessary for achieving military objectives and conducive to overall success in the conflict³⁶.

Some interpret this principle as emphasizing the use of all necessary measures to defeat the enemy as soon as possible, and with an efficiency not attended by the law of war. This principle is specific in international humanitarian law because resorting to force is not an end in itself, but a means to subdue the enemy³⁷, not to eliminate it. The principle of necessity is subject to humanitarian restrictions, which are reflected in the need to observe humanitarian and moral Regulations in warfare, such as avoiding methods that inflict unnecessary suffering on the wounded, or inflict heavy damage on non-combatants. In case of necessity, it does not require bombing innocent civilians or attacking civilian targets³⁸ or inflicting unnecessary suffering on the wounded, parties to a conflict must adhere to the fundamental principles of international humanitarian law, which aim to protect civilians and reduce suffering. As a result, military commanders cannot use the principle of military necessity as a pretext to escape accountability for Breaches of international humanitarian law.

The principle of military necessity has been acknowledged in numerous international agreements, beginning with the preamble to the St. Petersburg Declaration of 1868. This declaration stated that



the demands of war must yield to the imperative of humanity. Similarly, the preamble to the Fourth Hague Convention of 1907 on the Laws and Customs of War on Land emphasized that contracting parties, including all United Nations member states, should prioritize the interests of humanity and the growing needs of civilians³⁹. All actions of military commanders must be subject to scrutiny and analysis to ensure their compliance with the law and it is necessary to interpret this principle narrowly and accurately to ensure that it is not used arbitrarily or to justify violations of international humanitarian law⁴⁰.

Human Rights Watch was correct to warn that once developed, autonomous weapons could pose a significant threat due to their availability and military capabilities. The potential for these weapons to violate international humanitarian law should not be seen as a justification for their use on military necessity⁴¹. In this regard, Additional Protocol not acknowledges the potential necessity of scorched-earth tactics in certain circumstances⁴² in occupied territories and when protecting civilian defense agencies and their personnel. The principle of military necessity is not meant as a precautionary rule in international humanitarian law. Conversely, if autonomous weapons are better than humans, for example in taking precautions and they are available to a state and there is no need to keep them for military tasks, in this case they must be used⁴³.

War is an exceptional situation that contradicts the state of peace, and states resort to it only in the presence of extreme necessity. The principle of military necessity is a means to an end, not an end in itself. As the St. Petersburg Declaration of 1868 affirmed, the sole legitimate goal of war is to weaken the enemy's military forces. Annihilate as many military personnel as possible is sufficient to achieve this goal, without the need to target civilians or use prohibited methods of combat⁴⁴. What if the means of fighting is an independent weapon?

When applying this principle, the commander should ask whether the total or partial destruction, capture, or neutralization would provide a clear military advantage under the prevailing circumstances⁴⁵. Wherefore, the troops must take Every conceivable action to reduce the risk to civilians and civilian objects when launching military attacks using accurate weapons and selectively targeting military targets while avoiding civilian areas as much as possible. Any violation of this is a violation of international humanitarian law and therefore considered a war crime, for which everyone responsible can be held accountable⁴⁶.

The possibility of using technologically advanced weapons due to military necessity is linked to the availability of conditions before carrying out the resulting attacks, One area of focus is the study of cyber weapons' potential impact on both military and civilian infrastructure, comprising the sharing of common physical infrastructure such as dams, water and electricity networks, in addition to studying the potential physical damage such as death, and studying the potential effects on civilian targets that are not military targets but are linked to computers, are themselves military objectives, as well as the state's evaluation of their weapons so that they are not prohibited and do not contradict international humanitarian law⁴⁷. Therefore, autonomous weapons may be linked to computers that program them, and from this point of view they are also considered a military target, as they can be destroyed in whole or in part, which may damage them in programming, so that algorithms do not control the issue of their observance of the principle of necessity and then these autonomous weapons become a threat to non-military targets.

2. The legality of autonomous weapons under Protocol I of 1977 (Article 36)

Even states that have not ratified Additional Protocol I to the Geneva Conventions are bound by customary international law to conduct a legal review of new weapons. The International Committee of the Red Cross' 2006 Manual on the Legal Review of New Weapons and Methods provides a valuable framework for this assessment. This review is a complex process that requires a costly political and legal structure, especially as transparency becomes increasingly opaque with the development of lethal autonomous weapons, in contrast to their relative clarity with Traditional weapons⁴⁸.

The 2019 meeting of the Group of Governmental Experts on Emerging Technologies in Autonomous Weapon Systems emphasized the critical importance of addressing the humanitarian, security, and global challenges associated with this technology. The Group noted that the CCW and its purposes represent an appropriate framework for dealing with these Armaments⁴⁹.



Article 36 of Additional Protocol I to the Geneva Conventions mandates that states periodically assess military equipment to ensure its compliance with international law. These reviews should be conducted rigorously, drawing on a wide range of evidence⁵⁰. The obligation to conduct a legal review of new weapons applies to all states, regardless of their status as signatories to Additional Protocol I to the Geneva Conventions. International law, including customary law, requires states to ensure that these weapons comply with humanitarian principles and minimize civilian harm.

Although some States have not formally acceded to the Protocol, their legal and moral obligations remain to protect human lives and dignity in armed conflicts. Article 36 obliges parties to⁵¹ armed conflict to conduct a comprehensive legal review of all methods and means of warfare before using them. This article is the first international step towards reviewing the legality of the use of weapons. It obliges States to analyze methods and means of warfare from a legal perspective, in addition to their compatibility with international standards related to armed conflicts.

A- The establishment of Article 36 of Protocol I of 1977:

Article 36 above originated from:

- Discussions on the two Additional Protocols to the four Geneva Conventions: where certain types of conventional weapons were discussed.
- Conferences organized by the ICRC: in Lugano (1974) and Lucerne (1976)
- The need for new laws banning certain types of weapons: but these laws may not have an effect without a mechanism to control modern weapons.

The solution was found in the proposal that led to the emergence of Article 36, by virtue of the fact that the state monitors the development of weapons by referring to its obligations under international humanitarian law. Therefore, this article is the cornerstone of the legal review system for weapons, as it contributes to ensuring the compliance of weapons with international humanitarian law and protecting civilians from the dangers of illegal weapons, in addition to strengthening international humanitarian law in general⁵². This legal article plays an important role in evaluating the legality of autonomous weapons, for the following reasons:

- States are obliged to conduct a comprehensive legal review of any new weapon, means or method of warfare prior to its development, acquisition or adoption.
- This includes autonomous weapons.
- Article 36 directs states to focus on the extent to which a weapon complies with international humanitarian law as well as the potential impact of the weapon on civilians, in addition to the precautions that can be taken to minimize the loss of human life to civilians.

The importance of this legal text in the context of autonomous weapons was also emphasized through the CCW Expert Meetings on Autonomous Weapons (2014-2016), where the potential challenges to international humanitarian law posed by these weapons were discussed, as well as the emphasis by States on the need to assess the legality of autonomous weapons before developing or deploying them⁵³.

B- Obligations of States to the restrictions contained in the text of Article 36 of Protocol I of 1977 and the auxiliary texts:

Article 36 of Additional Protocol I to the 1977 Geneva Conventions obliges states to conduct a thorough legal review of any new technology before adapting it as a weapon of war or a means or method of warfare. This review includes verifying the legality of the use of new technology in accordance with the rules of the Protocol, ensuring that the technology complies with international humanitarian law in general, assessing the potential impact of the technology on civilians, and taking all feasible precautions to minimize the loss of civilian life.

Article 82 of Additional Protocol I complements the aforementioned Article 36 by requiring States to provide legal advisers to military commanders at all times, to advise military commanders on international humanitarian law, and to assist military commanders in formulating appropriate instructions for armed forces. In general, Articles 36 and 82 contribute to ensuring that the use of new technology complies with international humanitarian law and the protection of civilians from the dangers of new weapons, as well as the promotion of international humanitarian law in general. There are two mandatory legal reviews of autonomous weapons, by virtue of the fact that the legal



text obliges States to conduct a comprehensive legal review of any new weapon, means or method of warfare before developing, acquiring or adopting it, to ensure that these weapons comply with international humanitarian law and protect civilians from their dangers. In this, at least two legal reviews must⁵⁴ be conducted in relation to autonomous weapons:

- **The first review:** Before making the decision to start the development of the autonomous weapon. Article 36 of Protocol I of 1977 specified the obligations of States to study new weapons, means or methods of warfare before deciding to start developing them. These obligations include conducting a study to determine whether a new weapon causes unnecessary or indiscriminate suffering to civilians. This study must take into account a range of factors, the most important of which is the nature of the damage that the weapon can cause, the weapon's ability to distinguish between combatants and civilians, and the long-term effects of the weapon on the environment.

The second obligation is to consult experts in the fields of international and humanitarian law and weapons technology, with regard to the third obligation to provide the public with the opportunity to make observations on the new weapon, in addition to the third obligation, which revolves around not developing, acquiring or adopting any new weapon that proves to cause unnecessary or indiscriminate suffering to civilians.

- **Second review:** Before sending the self-armed weapon to the field.

In addition to the aforementioned obligations, Article 36 also imposes additional obligations on states before sending an autonomous weapon to the field, as these obligations include issuing clear instructions to their forces on how to use the autonomous weapon, as well as taking all necessary measures to prevent the use of the autonomous weapon in a way that causes unnecessary or indiscriminate suffering to civilians, in addition to investigating any allegations of violations related to the use of the autonomous weapon and taking appropriate action. The aim of these provisions is to ensure that autonomous weapons are used in a responsible and ethical manner, and that the risk of civilian casualties is reduced.

In addition to Article 96 of Additional Protocol I to the Geneva Conventions of 1949, which obliges States Parties to take all necessary steps to respect the provisions of this Protocol, which explains the obligation of States to ensure that members of their armed forces do not use autonomous weapons that violate international humanitarian law, as well as the obligation to prevent the development, manufacture or deployment of autonomous weapons that violate international humanitarian law, in addition to the challenge of preventing their proliferation among irresponsible States, which must make efforts to prevent the proliferation of autonomous weapons between these States or even non-State actors, under the United Nations Convention on Certain Conventional Weapons Which May Produce Excessive or Indiscriminate Effects, in accordance with Article 9 thereof, which stipulates the prohibition of the use of weapons that by their nature may cause excessive or indiscriminate effects on civilians.

These weapons include anti-personnel mines and cluster bombs, and although this article does not explicitly refer to autonomous weapons, it can be interpreted to include these weapons, by virtue of the fact that the latter may be able to target civilians indiscriminately without human intervention. Article 09 also obliges States Parties to take all feasible precautions to avoid harming civilians when using weapons covered by the Convention, in addition to ensuring that these weapons are used against military targets only and do not cause excessive harm to civilians. This means that this obligation imposes on States Parties to take steps to prevent the proliferation of autonomous weapons, because they are difficult to control and pose a great danger to civilians.

CONCLUSION:

The legal status of autonomous weapons within international humanitarian law remains a complex and evolving issue. States and the international community face significant challenges in developing clear legal and ethical frameworks to regulate their use. Establishing international standards for the use of autonomous weapons, including mechanisms for state accountability, is a pressing matter to prevent violations of humanitarian law. This will be explained in the findings and recommendations below.



RESULTS:

- No Explicit Ban: International humanitarian law doesn't have a specific rule that outright bans autonomous weapons.
- IHL Applicability: The existing rules of IHL apply to all weapons, including autonomous ones.
- Ethical and Legal Concerns: There are significant ethical and legal concerns surrounding the use of autonomous weapons, especially those that can operate without human intervention.
- Responsibility and Decision-Making: Autonomous weapons raise questions about who is responsible for the decisions made by these weapons and the consequences of their actions.
- Need for International Standards: There is a growing need for clear international standards to regulate the development, production, and use of autonomous weapons.

RECOMMENDATIONS:

- States should avoid developing or using such weapons.
- Binding international standards for autonomous weapons are necessary.
- These standards must ensure compliance with international humanitarian law.
- Responsibility for damage caused by autonomous weapons must be clearly established.
- International dialogue and cooperation on autonomous weapons are essential.
- States, civil society, and international organizations must work together for ethical and responsible development and use of autonomous weapons.

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- [3] ³- Ben Watson and Bradley Peniston, electronic article published on June 26, 2024 available online : <https://www.defenseone.com/threats/2024/06/the-d-brief-june-26-2024/397666>
- [4] ⁴- Article 48 of Additional Protocol II to the Geneva Conventions of 1949.
- [5] ⁵- However, the advisory opinion of the International Court of Justice on the legality of the threat or use of nuclear weapons issued on 08/07/1996, although it did not explicitly refer to autonomous weapons, emphasized the principle of the law of war, which prohibits the use of weapons that do not distinguish between combatants and civilians, and since autonomous weapons may not adequately distinguish between military and civilian targets, this principle may also apply to them.
- [6] ⁶- Abdul Ali Muhammad Sawadi, Shaimaa Taram Lifta Al-Nawfali, The Martens Doctrine and the Problem of the International Regulation of New Weapons, *Journal of the Message of Law*, University of Karbala, 10th year, Third Issue, 2018, p . 12 .
- [7] ⁷- International sovereignty is no longer an absolute concept as it was before, but is subject to a process of gradual restriction in favor of universal human values. In light of international developments, States have become aware of the need for international cooperation and the promotion of human solidarity, which leads them to give up some of their powers through international treaties. However, this concession is not a derogation from the sovereignty of the state, but rather an expression of its responsible exercise of its sovereignty, in accordance with its international obligations and its pursuit of its interests in a framework of global security and stability. - Abdul Rahman Munir, The Principle of State Sovereignty under the Concept of Humanitarian Intervention, *Journal of the Voice of Law*, Khamis Meliana University, Volume V, Issue 02, 2018, p. 67.



- [8] ⁸- Abdul Ali Mohammed Sawadi, Shaimaa Taram Lifta Al-Nawfali, op. Cit., P. 12
- [9] ⁹- Article 35 of Protocol I of 1977 to the Geneva Conventions of 12 August 1949, relating to the protection of victims of international armed conflicts stipulates that: "The right of the parties to an armed conflict to choose methods and means of warfare is not a right that is not restricted by restrictions." This rule is a peremptory norm that obliges the parties to the conflict to abide by it.
- [10] ¹⁰- Reference is made to paragraph 31 of the aforementioned 1996 Advisory Opinion of the International Court of Justice.
- [11] ¹¹- The United Nations and the International Committee of the Red Cross (ICRC) called on political leaders to urgently establish new international rules on autonomous weapons systems. The two organizations said that those weapons that choose targets and use force without human intervention raise serious concerns. The two officials appealed to States to impose specific bans and restrictions on autonomous weapons systems to protect current and future generations from the consequences of their use. In the current global security landscape, clear international red lines would benefit all countries, they noted. ICRC report on autonomous weapons, paragraph 23. See also Article 1 of the 1980 UN Convention on Certain Conventional Weapons that may produce excessive or indiscriminate effects. Signed at Geneva on October 10, 1983, and entered into force in December 1983.
- [12] ¹²- Reference is made to paragraph 31 of the aforementioned 1996 Advisory Opinion of the International Court of Justice.
- [13] ¹³- Ben Watson and Audrey Decker, [The D Brief: More US aid to Ukraine; Kyiv strikes Russian drone warehouse; Air Force's CCA costs rise; World of GPS, visualized; And a bit more.](https://www.defenseone.com/topic/drones/) Published on July 3, 2024, available online: <https://www.defenseone.com/topic/drones/>
- [14] ¹⁴- For more details about the Russian leadership's view in international arms control and disarmament discussions. See , Anna Nadibaidze, Great power identity in Russia's position on autonomous weapons systems, continuity security policy, , vol. 43, No. 3, Routledge, Taylor & Francis, U K , 2022, available online on :
- [15] <https://www.tandfonline.com/doi/epdf/10.1080/13523260.2022.2075665?needAccess=true>
- [16] ¹⁵- Article 52 of the 1907 Hague Convention Concerning the Laws and Customs of War on Land, signed on 18 October 1907 in the Netherlands by 36 States.
- [17] ¹⁶- Article 01, and Article 02 of the 1954 Hague Convention on the Protection of Cultural Property, signed on May 14, 1954. The number of countries signed in 2024 reached 83.
- [18] ¹⁷- Mohamed Belkacem, Basic Principles for the Conduct of Hostilities during Armed Conflicts, Master's Memorandum, University of Algiers, Ben Youssef Ben Khedda, Algeria, Faculty of Law, 2010/2009, p. 30. See also Articles 52 to 55 of Additional Protocol I to the 1977 Geneva Conventions Relating to the Protection of Victims of International Armed Conflicts, signed on 8 June 1977 in Geneva, Switzerland, where the number of signatories in 2024 reached 120, which entered into force on 03 December 1978.
- [19] ¹⁸- Report on international humanitarian law and the challenges of contemporary armed conflicts, Thirty-First Conference of the Red Cross and Red Crescent, Geneva, Switzerland, November 28-December 1, 2011, p. 43. Available at the following link:

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- [22] ²⁰⁻ Melzer Niels, International Humanitarian Law, A Comprehensive Introduction, International Committee of the Red Cross, Geneva, 2016, p. 90.
- [23] ²¹⁻ Yahya Yassin Saud, Cyber War in Light of the Rules of International Humanitarian Law, Legal Journal, Cairo University, Volume 4, Issue 2018, p. 94.
- [24] ²²⁻ Report on International Humanitarian Law and the Challenges of Contemporary Armed Conflicts, 32nd International Conference of the Red Cross and Red Crescent, op. Cit., P. 6.
- [25] ²³⁻ Abdelkader Mahmoud Mohamed Al-Aqraa, op. Cit., P. 949.
- [26] ²⁴⁻ Doaa Jalil Hatem, op. Cit., P. 286, 287.
- [27] ²⁵⁻ Article 48 of Additional Protocol II to the Geneva Conventions of 1949.
- [28] ²⁶⁻ Article 51 of Additional Protocol I to the Geneva Conventions of 1949.
- [29] ²⁷⁻ Abdelkader Mahmoud Mohamed Al-Aqraa, op. Cit., P. 949.
- [30] ²⁸⁻ Additional Protocol I to the Geneva Conventions of 12 August 1949, Articles 51(5)(b) and 57(3)(a) and (b).
- [31] ²⁹⁻ John Marie Henckertes and Louise Duzwald-Beck, Customary International Humanitarian Law, Volume I, Rules, International Committee of the Red Cross, Cairo, 2007, pp. 41, 42.
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- [34] ³²⁻ Doaa Jalil Hatem, op. Cit., P. 295.
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- [47] ⁴⁴⁻ Melzer Niels, *op. Cit.*, P. 17, P. 19.
- [48] ⁴⁵⁻ Salem Anwar Ahmed Al-Obaidi, *The Legality of Targeted Killings by Drones within the Framework of International Humanitarian Law*, *Journal of Tikrit University of Legal Sciences*, No. 222, Year 6, June 2014, p. 337.
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- [51] ⁴⁸⁻ Doaa Jalil Hatem, *op cit*, p 294.
- [52] ⁴⁹⁻ Abdelkader Mahmoud Mohamed Al-Aqraa, *op cit*, p 948.
- [53] ⁵⁰⁻ Justin Mike Cleland, *Review of Weapons in Accordance with Article 36 of Additional Protocol I*, *International Review of the Red Cross*, No. 850, 2003, p. 20.
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