

## JANUARY/FEBRUARY 2021

### **Resolved: States ought to ban lethal autonomous weapons.**

#### **DEFINITIONS:**

*States:* [Britannica Encyclopedia](#) defines a state as “a sovereign political entity” or a “political organization of society, or the body politic, or, more narrowly, the institutions of government.” Much of the conversation regarding Lethal Autonomous Weapons that has happened on an international level has revolved around whether there should be treaties or rules governing the development and use of LAWS. Because the resolution is not US specific, debaters should keep in mind that, while specific scenarios may be referenced, the contentions used on either side should be universally applicable.

*Ought:* As our friends at Merriam Webster remind us, [ought](#) is used to express duty or obligation. In this resolution, ought can be used to help justify the framework for each side by looking at the moral obligation states have to their citizens, or to the larger moral community. Ought also helps to shift the debate away from whether LAWS are inherently beneficial and, instead, focuses it on whether States have a moral obligation to ban them.

*Ban:* Speaking of *ban*, we can again consult the wisdom of [Webster](#) to see that ban is defined as, “to prohibit especially by legal means.” This resolution is not evaluating whether the use of LAWS should be reduced but instead whether they should be universally prohibited by States.

*Lethal Autonomous Weapons:* A [December 2020 Congressional Defense Primer](#) notes: “Lethal autonomous weapon systems (LAWS) are a special class of weapon systems that use sensor suites and computer algorithms to independently identify a target and employ an onboard weapon system to engage and destroy the target without manual human control of the system.” Though the general concept of a lethal autonomous weapon remains fairly consistent in the literature, it is worth mentioning that there is no one internationally agreed upon brightline for what constitutes a fully autonomous weapons system.

## BACKGROUND:

This topic may conjure images of dystopian wars and killer robots. It is important to note that much of the technology that is currently used by the military has autonomous features but is not fully autonomous. One of the only autonomous systems that is currently being used in a combat zone is Israel's [Harpy](#) System, which seeks out and destroys enemy radar systems within specific zones. Because of the relative infancy of this technology, many of the examples that may come up in evidence may be based on assumptions or hypothetical scenarios. Having a firm understanding of the technology that does exist and the different terms used to describe autonomous systems will give debaters the tools necessary to fully engage with this topic. Before we get into the individual arguments, it would be beneficial to dive into the background on this topic. For a comprehensive explanation about various components of LAWS, you can check out the [AI Alignment Podcast's](#) episode on LAWS from earlier this year. This interview with Paul Scharre unpacks several of the key assumptions made around this topic and gives a lot of useful analysis.

There are different degrees of "autonomy" within various weapons systems. Automation has existed, to some extent, within weapons systems for several decades. [This article](#) notes that, in order for a system to be considered fully autonomous, it must be able to "define, select and engage its targets with no external control." The terms that are frequently used when describing the amount of autonomy that weapons systems have are: Human In the Loop, Human On the Loop and Human Off (or Out) of the Loop. In the first system, [Human in the Loop](#), the system needs some sort of directive from a person in order to carry out the prescribed actions. While there might be some autonomous functions that are performed by the system, human confirmation is a necessary component of the feedback loop. According to [this article](#) in the second system, Human On the Loop, there is still "human oversight of an automated system, but the artificial intelligence would jump right into action, not needing human pre-approval as it would with a "human in the loop" design." This system is thought to be more efficient in situations where humans may be overwhelmed by the amount of data coming in or that may require a faster human response time than is feasible but still gives an option for a manual override.

The system that this resolution specifies is one that is fully autonomous, which is a Human Out Of (or Off) the Loop. According to the US Army in the article linked [here](#), these systems include "Robots that are capable of selecting targets and delivering force without any human input or interaction." Fully autonomous systems would still be created by humans and the parameters for action would be set by a human but, once they were deployed, they would select and engage their targets without human oversight. Within these three systems, there are many gradients. For example, "[Fire and Forget](#)" weapons systems are considered semi-autonomous

because they “deliver effects to human-identified targets using autonomous functions.” While this type of weapon uses some of the same autonomous technology, it may not fully be considered a true lethal autonomous weapon. Understanding the nuances of these definitions will be important to the depth of some potential arguments; however, the key pieces to note here are that the weapon systems being debated are intended to kill targets and do so through algorithms and without humans overseeing the decision process.

Debaters should be able to find a plethora of recent research on both sides of this topic. An August 2020 article from [Human Rights Watch](#) details the positions that various countries have taken stances on LAWS. It furthers that, while several countries have called for a unilateral ban on this technology, “China, Israel, Russia, South Korea, the United Kingdom, and the United States are investing heavily in the development of various autonomous weapons systems, while Australia, Turkey, and other countries are also making investments.” It may be beneficial to look deeper into the positions that various countries have taken, as well as the published materials that exist to back up these stances, as debaters are doing their preliminary research. Debaters may also find it helpful to read up on [Just War Theory](#), as this is heavily cited in the research evaluating the ethical implications of Lethal Autonomous Weapon Systems.

[IRC: Autonomous Weapons Systems](#)

[Defense Primer: US Policy on Lethal Autonomous Weapon Systems](#)

[Army of None: Autonomous Weapons and the Future of War](#)

[Lethal Autonomous Weapons: Take the Human Out of the Loop](#)

[Taming Killer Robots: Giving Meaning to the “Meaningful Human Control” Standard for Lethal Autonomous Weapon Systems](#)

[Death by algorithm: the age of killer robots is closer than you think](#)

[Meet Israel’s “Suicide Squad” of Self Sacrificing Drones](#)

[Killer Robots Aren’t Regulated. Yet.](#)

[‘Machines set loose to slaughter’: the dangerous rise of military AI](#)

## AFFIRMATIVE ARGUMENTS:

### Overview

On the affirmative side of this debate, debaters may spend time diving into a variety of impact scenarios. When thinking about the framing of the round, it will be vital to think of the obligation that states have to the moral community. It will also be prudent to remember that this resolution is asking whether these weapons *ought* to be banned and so arguments about whether there is the political will to ban LAWS or if there are effective possible enforcement mechanisms are not topical. Debaters may find it helpful to look at the types of weapons that have been [successfully banned](#) (or significantly limited), such as chemical weapons. While the arguments for banning these weapons are not always cross-applicable, they can shed light on why, even when the objective in war is to win, there are some lines that countries have agreed not to cross. There is a ton of research to dig through but also a fair number of articles out there that are rooted in emotional appeals. It is important to focus on scenarios that have evidence supporting their likelihood.

### Sanitizing and Dehumanizing War

There are a lot of different arguments that come from this umbrella idea. By their very nature, LAWS dehumanize warfare by literally taking humans out of the loop. One significant concern present in the literature is that the human cost of war may act as a deterrent. Political leaders must weigh the cost before entering into war. If governments were able to use LAWS, they would be able to distance their country—physically and psychologically—from the conflicts occurring, making those conflicts [more politically palatable](#) and may make the carnage created by such weapons easier to isolate from the collective consciousness of a country at war. While this has some interesting implications for reducing PTSD and saving the lives of soldiers, it also opens the possibility of increasing the likelihood or duration of war and leading to more carnage for the country being invaded.

In addition, while machine learning has been growing in leaps and bounds, the general understanding is that, because they are inanimate objects, machines [cannot be held accountable](#) for their actions. This chain of accountability becomes somewhat more convoluted when the machines are selecting and engaging with targets without needing the authorization or oversight. In addition, there have been concerns raised about the ethics of having a machine determine whether or not a human life should be taken. [This article notes](#) the potential ethical concerns with whether LAWS would be capable of following International Humanitarian Law and

analyzes the work of [Asaro](#) to draw the conclusion that “the principles of distinction, proportionality and military necessity, imply a requirement for human judgement, and a duty not to delegate the capability to initiate the use of lethal force to unsupervised machines or automated processes.” Essentially, because machines do not have the human judgement, they cannot be tasked with making decisions in life or death situations.

[Autonomous weapons systems, killer robots and human dignity](#)

[The US Government Has Sanitized War](#)

[On banning autonomous weapon systems: human rights, automation, and the dehumanization of lethal decision-making](#)

[Anticipating the Human Costs of Great Power Conflict](#)

[The Ethics of Acquiring Disruptive Technologies: Artificial Intelligence, Autonomous Weapon and Decisions Support Systems](#)

[The human nature of international humanitarian law](#)

[Autonomous Weapons and the Problem of State Accountability](#)

## Miscalculation and Escalation

Another area that debaters can explore is the risks that LAWS pose because of miscalculation or malfunction. There are a few different offshoots of this argument. First, [This article](#) gives some insight into the ways that autonomous weapons may increase conflict by destabilizing the ability to manage crises. Because Lethal Autonomous Weapons allow for a “sudden potential attack”, it increases the likelihood that countries will feel threatened and will strike offensively. In addition, when autonomous systems are making decisions and engaging targets at speeds that surpass the ability for leaders to make decisions, it makes it [more difficult](#) for politicians to engage in diplomatic talks when conflict does occur. Debaters looking to run this type of argument should look into both how having Lethal Autonomous Weapons technology increases the perception that a country is a threat and that, when tensions are rising, they can actively increase tensions.

While many militaries insist that this technology is here to stay, a significant portion of the community has called for a ban and a full stop to developing this technology. In [an open letter to the UN](#), nearly 100 robotics experts endorsed the idea that: “(Lethal Autonomous Weapons) can be weapons of terror, weapons that despots and terrorists use against innocent populations, and weapons hacked to behave in undesirable ways. We do not have long to act. Once this Pandora’s box is opened, it will be hard to close.” If the technology malfunctions or is hacked, there could be potentially devastating consequences. Because the nature of LAWS is that there is no human oversight, the amount of damage that could be done before

intervention occurred would likely be massive. The goal behind lethal autonomous weapons is to engage and destroy targets. Unfortunately, when operating in a combat zone, these weapons systems would be subject to potential hacking or being manipulated by opposing forces.

From a tactical perspective, the accountability gap also creates a gap in the [chain of command](#), which some suggest would create an inherent strategic disadvantage. Though humans would set the parameters that they would like the weapons system to follow, situations on the battlefield are constantly changing. What distinguishes a fully autonomous system from a “human on the loop” system is that there is no one continuously monitoring what is happening with the system. By its design, there is a less continuous flow of information between the humans making decisions and the machines carrying out actions, which leaves more room for error.

[Tech leaders: Killer robots would be ‘dangerously destabilizing’ force in the world](#)

[Should 'Killer Robots' Be Banned?](#)

[Legal regulation of AI weapons under international humanitarian law: A Chinese perspective](#)

[Friend or frenemy? The role of trust in human-machine teaming and lethal autonomous weapons systems](#)

[Crisis management: The interaction of political and military considerations](#)

[Autonomous Weaponry: Are Killer Robots in Our Future?](#)

[The Weaponization of Increasingly Autonomous Technologies](#)

## Spillover to Civilian Use

One area that debaters can explore on this side is the seeming inevitability that, once lethal autonomous weapon systems are a regular component of military arsenals, they will likely become available for more domestic uses. Recently, there has been a lot of scrutiny in the United States about how [police use military equipment](#). You can get a rundown on different ways that police forces function across the world [in this article](#). There is [plenty of research](#) that notes the harms that comes from when domestic police forces use military tactics.

There have been [instances](#) over the last few years where police forces have used technology, such as drones, to disperse protesters or patrol borders. As the technology continues to evolve, it is possible that LAWS may be adopted by domestic forces to help authoritarian governments to maintain control. Because of their ability to identify targets through algorithms, there is a possibility that this technology can be co-opted for the [purpose of committing genocides](#).

Debaters looking to run this argument should explore how this technology, in the wrong hands, could have devastating consequences for humanity, particularly for marginalized populations.

[Proposed Rules to Determine the Legal Use of Autonomous ...](#)

[UN: Ban killer robots before their use in policing puts lives at risk](#)

[Algorithms of Violence: Critical Social Perspectives on Autonomous Weapons](#)

[The Case Against Police Militarization](#)

[Militarization of police fails to enhance safety, may harm police reputation](#)

[Technological Innovations in Crime Prevention and Policing. A Review of the Research on Implementation and Impact](#)

[International Consequences of the Militarization of US Policing](#)

[Militarization fails to enhance police safety or reduce crime but may harm police reputation](#)

[Police Militarization and the War on Citizens](#)

## Additional Affirmative Articles

[Autonomous Weapons Systems and the Laws of War](#)

[FLI Podcast: Why Ban Lethal Autonomous Weapons?](#)

[The world must ban robot weapons that kill without human guidance](#)

[Why the World Must Ban Autonomous Weapons Like Drone Swarms](#)

[The Case against Killer Robots | HRW](#)

[Lethal Autonomous Robotics: Rethinking the Dehumanization of Warfare](#)

[The Ethics & Morality of Robotic Warfare: Assessing the Debate over Autonomous Weapons](#)

[Lethal Autonomous Weapons: An Open Letter from the Global Health Community](#)

[Autonomous Weapons Systems: Five key human rights issues for consideration](#)

## NEGATIVE ARGUMENTS:

### Overview

When exploring arguments on the negative side of this resolution, debaters should remember to differentiate between impacts of lethal autonomous weapons and those that are general to war as a whole. Because the technology around autonomous weapons is evolving, it is incumbent upon the negative to make sure that the ground that is being debated about what a ban would do in a practical sense remains clear. It is likely that the negative will need to answer arguments that are built upon hyperbolic descriptions of the technology that currently exists. Having a firm understanding of what the experts are saying about this technology and the trajectory of how it will likely be developed will be extremely beneficial. In addition, as debaters are cutting evidence, it is always best practice to look into the sources that information is coming from and to evaluate what specific lens that party may have.

### Bans are Unnecessary

When considering what states “ought” to do, debaters should be evaluating the moral and ethical obligation that these States have. There are very few technologies that have been subject to a comprehensive ban. While there has been an international ban on [chemical and biological](#) weapons, debaters should evaluate what bright line would need to be crossed in order for a State to decide that the risks of the technology outweigh the strategic advantage of that technology in a time of war. One argument that debaters can consider on the negative side of this resolution would be to break down to prove why a ban is not necessary.

One of the fears associated with LAWS is that it will evolve beyond human control. It is important for debaters to be able to distinguish between autonomous weapons, which exist, and sentient ones, which do not. Some have argued that the phrase “Humans Out of the Loop” is a bit of a misnomer. The [TX Hammes](#) of the Institute for National Strategic Studies further:

“Autonomous systems do not deliver force ‘without any human input or interaction.’ In fact, autonomous weapons require humans to set engagement parameters in the form of algorithms programmed into the system before employment. And they will not function until a human activates them or “starts the loop.” Thus, even fully “autonomous” systems include a great deal of human input, it is just done before the weapon is employed.”



With a better understanding of the boundaries that autonomous weapons have, it becomes easier to break down the argument that this technology will spiral out of control and needs to be completely barred.

Another reason why a ban would not be justified is that any conceivable misuse of lethal autonomous weapons technology is already illegal under the [Geneva Convention](#) and other laws of war. Though no war comes without suffering or casualties, [International Humanitarian Law](#) outlines specific guidelines for countries to use when engaged in armed conflict. Debaters can argue that, as long as LAWS can be programmed to adhere to the principles in the IHL, they should be regulated or guided but ought not to be banned.

[Banning Autonomous Weapons Is Not the Answer](#)

[Autonomous Weapons and International Humanitarian Law: Advantages, Open Technical Questions and Legal Issues to be Clarified](#)

[Ethics - War: What is a Just War?](#)

[Ethics Explainer: Just War Theory](#)

## Bans are Not Effective

This line of argumentation will potentially tread a little close to counterplan territory. For those who are competing in circuits that are open to counter plans, there are a number of different options available that would allow States to mitigate the potential dangers of Lethal Autonomous Weapons Systems without a full scale ban. Whether or not debaters choose to specify a plan, there is an argument to be made that the ethical and legal concerns posed by LAWS cannot be effectively addressed by [simply banning](#) the technology. Debaters looking to run this argument must be able to show why a ban on autonomous systems would likely be different than one on chemical or biological weapons.

Debaters running this argument may argue that the trajectory towards autonomous weapons systems are already set. Technology—[especially weapons technology](#)—has become steadily more automated throughout history. Some may argue that development of more autonomous systems is an inevitable outcome as machine learning continues to advance. With no internationally recognized definition for a lethal autonomous weapon, it will be hard for countries to be able to know what technology should be banned. Countries cannot be obligated to ban technology without a clear brightline for what that technology is. Instead, debaters can argue that it is more important for States to define “[meaningful human control](#)” and regulate how and when this technology can be used.

[In Defense Of Autonomous Weapons](#)

[Elements of and Models for a Treaty on Killer Robots](#)

[Autonomous Weapons Systems and Meaningful Human Control](#)

[With no laws to stop them, defense firms are on track to make killer robots a reality](#)

[In AI, Russia Is Hustling to Catch Up](#)

[Future Rear View Mirror: How We Learned to Love Lethal Autonomous Systems](#)

## State's Obligation to Its People

One argument that debaters can use when evaluating this resolution is that, first and foremost, States must make decisions that [benefit its own citizens](#). If banning lethal autonomous weapons systems would do not serve the best interest of the people that the State is charged with protecting, they ought not to be banned. There are a number of different ways debaters can evaluate the value of Autonomous Weapons Systems. [Reducing the number](#) of soldiers that are sent to a conflict would help to save lives. It is important to distinguish that Lethal Autonomous Weapons are not exactly the same as Artificial Intelligence; however, they share the ability to take humans off of the battlefield and protect the lives of citizens.

Even if they are never used in combat, lethal autonomous weapons systems may [act as a deterrent](#) that helps countries to avoid conflict. Having the capability to swiftly deploy a quick and lethal response can make countries less vulnerable to attack. Debaters running this argument should be aware of how LAWS may make de-escalation more challenging; however, the crux of this argument is that the technology would make conflict less likely to happen in the first place. Debaters may benefit from looking more deeply into how autonomous weapons may [help to increase stability](#) through greater reliability and more immediate response times. If debaters can prove that these systems will prevent war from occurring or will save the lives of those the State is charged with protecting, it is fair to say that they should not be banned.

[Deterrence in the Age of Thinking Machines](#)

[IoT News - Could A Quarter of British Soldiers Be Replaced By Robots by the 2030s?](#)

[How a New Army of Robots Can Cut the Defense Budget](#)

[Put Your Money Where Your Strategy Is: Using Machine Learning to Analyze the Pentagon Budget](#)

[Pentagon Asks More for Autonomous Weapons](#)

[How a New Army of Robots Can Cut the Defense Budget](#)

## Additional Negative Articles

[When Speed Kills: Autonomous Weapon Systems, Deterrence, and Stability](#)

[Human In-The-Loop Vs. Out-of-The-Loop in AI Systems: The Case of AI Self-Driving Cars](#)

[Lethal Autonomous Weapons: Take the Human Out of the Loop](#)

[Autonomous killer robots are probably good news](#)

[The future of war: could lethal autonomous weapons make conflict more ethical?](#)

[Lethal Autonomous Weapons: Meaningful human control or meaningful human certification?](#)

[Norm-making and the Global South: Attempts to Regulate Lethal Autonomous Weapons Systems](#)

[A Path Towards Reasonable Autonomous Weapons Regulation](#)

[A New Arms Race and Global Stability](#)

## ADDITIONAL READING:

[Lethal Autonomous Weapons and the End of Just War: Awakened Automata or Solemn Simulacra?](#)

[General Legal Limits of the Application of the Lethal Autonomous Weapons Systems within the Purview of International Humanitarian Law](#)

[When HAL Kills, Who's to Blame? Computer Ethics](#)

[The Artificial Intelligence Arms Race: Trends and World Leaders in Autonomous Weapons Development](#)

[Laws and Ethics Can't Keep Pace with Technology](#)

[In the Loop? Armed Robots and the Future of War](#)

[With no laws to stop them, defense firms are on track to make killer robots a reality](#)

[Artificial Intelligence and National Security](#)

[The Compatibility of Autonomous Weapons with the Principle of Distinction in the Law of Armed Conflict](#)

[The Ethics of Autonomous Weapons Systems](#)

[Autonomous Weapons Systems: Five key human rights issues for consideration](#)

[Ethics of Artificial Intelligence and Robotics \(Stanford Encyclopedia of Philosophy\)](#)

[Autonomous Weapons Would Take Warfare To A New Domain, Without Humans](#)

[A Study on Driverless-Car Ethics Offers a Troubling Look Into Our Values](#)

[Dangerous Work: Russia Puts New Mine-Clearing Robots Into Service](#)

[Robots Aren't Better Soldiers than Humans](#)

[Army University Press: Pros and Cons of Autonomous Weapons Systems](#)