

Submission on autonomous weapons systems to the United Nations Secretary-General

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Project Ploughshares, a Canadian peace research institute, has focused advocacy and research efforts on the issue of autonomous weapons for the past nine years. While there have been rapid technological advancements in artificial intelligence (AI) and robotics and these technologies are now being used in conflict zones, international governance frameworks have not kept pace. At the same time, growing geopolitical competition is increasing the likelihood of deployment of technologies that are not ready for complex and dynamic settings; such use could have far-reaching implications for civilians. What is needed now to address the growing use of emerging technologies in warfare is a legally binding instrument on autonomous weapons.

Such an instrument must be future-proofed to respond to evolving—even revolutionary/transformative—uses of technology. In our view, it is crucial that this governance mechanism operates on two tiers: prohibiting certain uses and providing restrictions based on risk categorizations.

This submission does not indicate all the factors that states should take into account in developing this recommended instrument. Instead, we would like to raise several concise key points that address the crucial need to ensure human control over targeting of humans, and protect civilian infrastructure and the environment needed to sustain human life.

- A clear prohibition should be placed on antipersonnel weapons and on autonomy in weapons of mass destruction (WMD), such as nuclear weapons. While WMDs are already prohibited by existing agreements, addressing technological advancements enabling autonomy in their functioning requires further bolstering.
- States should develop categories of risk and concurrent levels of restriction. For example, a high-risk category would be one that impacts the health and safety of civilians. Included in this category would be systems that are less lethal but still capable of immobilizing or causing reverberating effects on civilians and the environment. Moderate-risk systems would be regulated to ensure the transparency of their functioning. Low-risk systems could involve voluntary best practices.

- The proposed instrument should be based on meaningful/necessary human control over weapons systems. Demonstrable human control in time and space is required for all high-risk systems; human control over moderate- and low-risk systems must be clear. Systems that cannot meet the human control requirements of the appropriate risk category should be prohibited. Decision-support systems or target-generation systems can be suitably addressed by ensuring that targeting decisions are subjected to an evaluation of appropriate accountability.
- The instrument should provide the foundation that will support more regulation at various levels, and therefore should focus on crucial aspects necessarily addressed at the global level. A toolkit of governance mechanisms can and will follow such instruments. States already have other forums at which to exchange best practices and voluntary measures. The aim of this new instrument is to provide the necessary legal commitments on human accountability and human-decision making.
- A forum that allows all states parties to participate and includes civil society is critical to address the risks posed by these weapon systems.

Without a global regulatory framework and specific prohibitions on certain autonomous systems, it seems inevitable that ever more autonomous systems will soon be developed and employed by many states and become readily available to nonstate armed groups, posing an unacceptable risk to global stability. Countries need to begin serious negotiations immediately to avoid these consequences.



Project Ploughshares is a Canadian peace research institute with a focus on disarmament efforts and international security, specifically related to the arms trade, emerging military and security technologies, nuclear weapons, and outer space.

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