

10 reasons to ban killer robots

Fully autonomous weapon systems, also called killer robots, are weapon systems that can select and engage individual targets, without meaningful human control.¹ There are various concerns regarding these weapons:

Ethical concerns

1. A machine should never be allowed to make the **decision over life and death**. This goes against the principles of human dignity and the right to life. This decision cannot be reduced to an algorithm. Outsourcing this decision would mean outsourcing morality.

Legal concerns

2. Fully autonomous weapons are unlikely to be able to adhere to **International Humanitarian Law**. It is unlikely that they will be able to properly distinguish between civilians and combatants, or to make a proportionality assessment.
3. Fully autonomous weapons create an **accountability vacuum** regarding who is responsible for an unlawful act. Who would be responsible: the robot, the developer or the military commander?

Security concerns

4. While the deployment of fully autonomous weapons might reduce military casualties, it could **lower the threshold for the use of force**. It also reduces the incentive to find political solutions to end conflicts.
5. This new technology could lead to a new **international arms race**, which would have destabilising effects and threaten international peace and security.
6. These weapons could lead to **accidental and rapid escalation of conflict** as fully autonomous weapons react and interact with each other at speeds beyond human control.
7. In contrast to for example nuclear weapons, the technology is likely to be relatively cheap and simple to copy. This would increase **proliferation risks** and thus enable dictators, non-state armed actors or terrorists to acquire fully autonomous weapons.
8. Because of their nature these weapons could be **highly unpredictable**, especially in their interaction with other autonomous systems and if they are capable of self-learning.
9. Only a small number of people are needed to deploy a large number of fully autonomous weapons, raising concerns about **prevention, oversight and control**.
10. As with armed drones, deploying fully autonomous weapons instead of human soldiers may **incense the population** of the targeted state, potentially working against the interests of the attacking state.

¹ There are several terms for fully autonomous weapon systems. The Campaign uses the term fully autonomous weapons or 'killer robots'. At the Convention on Conventional Weapons (CCW), the term Lethal Autonomous Weapon Systems (LAWS) is mainly used.

Who has raised concerns and called for a ban?

- At the Convention on Conventional Weapons (CCW) more than **70 states** have shared their views of which **22 states** have called for a ban.
- **China is the first permanent member of the UN Security Council** calling for a legally binding instrument within the CCW, similar to that of Blinding Laser Weapons.²
- The Parliament of **Iceland** passed a motion calling for a ban.³
- The **European Parliament** passed a motion calling for a ban.⁴
- **116 AI and robotics companies** urged United Nations to ban lethal autonomous weapons.⁵
- More than **3,000 robotics and Artificial Intelligence experts**, including prominent scientists such as Stephen Hawking, Elon Musk (Tesla) and Demis Hassabis (Google), called for a ban.⁶
- **Twenty Nobel Peace Laureates** called for pre-emptive ban.⁷
- Over **160 religious leaders**, including Desmond Tutu, have called for a ban.⁸
- The **Vatican** has called for collective action by the United Nations "to prohibit the development and use of lethal autonomous weapon systems".⁹
- The **Campaign to Stop Killer Robots**, consisting of 61 international, regional, and national non-governmental organizations (including Human Rights Watch, Amnesty and PAX) from 26 countries call for a pre-emptive ban on the development, production and deployment of fully autonomous weapons.¹⁰
- The **former Secretary-General of the UN Ban-Ki-Moon** said these weapons would be morally unacceptable.¹¹
- The **UN High Representative for Disarmament Affairs Izumi Nakamitsu** said these weapons raise "many fundamental concerns for international peace and security."¹²
- **UN Special Rapporteur on Extrajudicial Killings Christof Heyns** called for a pre-emptive ban.¹³
- The **International Committee of the Red Cross** has expressed various concerns.¹⁴
- The **Vice Chairman of the Joint Chiefs in the United States** reported that these weapons could have serious consequences for humanity.¹⁵
- Sir Roger Carr, **chairman of weapon producer BAE Systems**, expressed his concerns at Davos World Economic Forum.¹⁶

² Position paper submitted by the Chinese delegation to CCW 5th Review Conference (2016)

[http://www.unog.ch/80256EDD006B8954/\(httpAssets\)/DD1551E60648CEBBC125808A005954FA/\\$file/China's+Position+Paper.pdf](http://www.unog.ch/80256EDD006B8954/(httpAssets)/DD1551E60648CEBBC125808A005954FA/$file/China's+Position+Paper.pdf)

³ Iceland Parliament Motion (2017) <http://www.althingi.is/altext/145/s/1486.html>

⁴ Joint motion for a resolution, (February 2014) <http://www.europarl.europa.eu/sides/getDoc.do?type=MOTION&reference=P7-RC-2014-0201&language=EN>

⁵ Killer robots: World's top AI and robotics companies urge United Nations to ban lethal autonomous weapons

<https://futureoflife.org/2017/08/20/killer-robots-worlds-top-ai-robotics-companies-urge-united-nations-ban-lethal-autonomous-weapons/>

⁶ Autonomous weapons: an open letter from AI & robotics researchers, (July 2015), <http://futureoflife.org/open-letter-autonomous-weapons/>

⁷ Noble Women's Initiative: 'Nobel Peace Laureates call for pre-emptive ban on Killer Robots', <http://nobelwomensinitiative.org/nobel-peace-laureates-call-for-preemptive-ban-on-killer-robots/#sthash.gXkiskQE.dpuf>;

⁸ Interfaith Declaration, <https://www.paxforpeace.nl/stay-informed/news/interfaith-declaration>.

⁹ 'Vatican warns on autonomous weapons', (April 2016), <https://international.la-croix.com/news/vatican-warns-on-autonomous-weapons/2982>

¹⁰ Campaign to Stop Killer Robots: <https://www.stopkillerrobots.org/>

¹¹ Secretary-General of the UN, 'Report of the Secretary-General on the protection of civilians in armed conflict' (November 2013), www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s_2013_689.pdf

¹² Address at the high-level AI for Global Good Summit, (June 2017), https://gallery.mailchimp.com/bbc5cfb1d102722bdde24480d/files/fa5294a2-1c2a-4124-bdc3-336c23a85428/HR_AI_summit_remarks_June_2017.pdf

¹³ 'Report of the Special Rapporteur on extrajudicial, summary or arbitrary executions A/HRC/23/47', (April 2013), http://www.ohchr.org/Documents/HRBodies/HRCouncil/RegularSession/Session23/A-HRC-23-47_en.pdf

¹⁴ 'Autonomous weapon systems: Is it morally acceptable for a machine to make life and death decisions?', (April 2015), www.icrc.org/en/document/lethal-autonomous-weapons-systems-LAWS.

¹⁵ 'The Terminator Conundrum' (January 2016) <http://breakingdefense.com/2016/01/the-terminator-conundrum-vjcs-selva-on-thinking-weapons/>.

¹⁶ 'Delegates at Davos held a meeting about the dangers of autonomous "killer robots"', (January 2016)

<http://www.independent.co.uk/life-style/gadgets-and-tech/news/world-economic-forum-davos-killer-robots-discussion-a6833371.html>