



# ICRC

**Convention on Certain Conventional Weapons (CCW)  
Group of Governmental Experts on Lethal Autonomous Weapons Systems  
9–13 April 2018, Geneva**

**Statement of the International Committee of the Red Cross (ICRC)**

*Characterization of the systems under consideration in order to promote a common understanding on concepts and characteristics relevant to the objectives and purposes of the Convention*

Mr Chair

**Purpose of characterisation**

The purpose of discussing characteristics may be to:

- to identify a specific category of weapon systems to be regulated, or
- to identify a broad category, within which a specific group should be regulated.

The ICRC's view is that the second approach will provide more effective way of identifying "autonomous weapons systems", and tailoring regulatory or policy responses to address any legal and ethical issues.

The advantages of this approach include that it:

- acknowledges the reality that some autonomous weapon systems are already in use
- enables experience with existing weapons to inform legal and ethical assessments, and determinations of "meaningful" or "effective" human control, and
- avoids prejudging regulatory responses at the outset.

It is important that discussions are reality-based, and draw on technical, operational and legal evidence from existing weapon systems with autonomy in their critical functions.

**Autonomy in critical functions is the key characteristic**

The ICRC has characterised autonomous weapon systems broadly as

Any weapon system with autonomy in its critical functions. That is, a weapon system that can select and attack targets without human intervention.

After launch or activation by a human operator, the weapon system – though its sensors, programming (software algorithms) and connected weapon(s) – takes on the targeting functions that would normally be controlled by humans.

In other words, the weapon system self-initiates the attack.

This encompasses any weapon system that can independently select and attack targets, including some existing weapons (see below), as well as potential future systems.

It is autonomy in the critical functions that distinguishes autonomous weapon systems from all other weapon systems and that are central to legal obligations, ethical concerns, and humanitarian consequences.

Considering only “full system autonomy” is too narrow, since a weapon may have autonomy in targeting functions without having system-level autonomy.

Other autonomous functions – take-off and landing, navigation, flying or driving, and control of sensors – can be excluded, as can autonomous robotic systems that are not weaponised.

Lethality is not a relevant factor. It is the use of force that triggers legal obligations under international humanitarian law (and international human rights law).

### **Technical sophistication is not a key characteristic**

Technical sophistication is not the defining characteristic of whether a weapon is autonomous, rather it is whether the weapon system self-initiates the attack. Therefore, notions of “automated” and “autonomous” weapons are interchangeable because they raise the same legal, ethical and humanitarian questions. This is why the ICRC intentionally includes both “dumb” and “intelligent” autonomous weapon systems.

A weapon could be very simple and “unintelligent” in its design, but highly autonomous in its critical functions (e.g. a machine-gun that is triggered by a motion or heat sensor). In fact, a “dumb” autonomous weapon systems could even raise greater legal concerns, and lead to worse humanitarian consequences. In addition, predictability in programming of a weapon system does not necessarily equal predictability in consequences.

Autonomous weapon systems all raise questions about predictability, owing to varying degrees of uncertainty as to exactly when, where and/or why a resulting attack will take place.

### **Autonomy in existing and future systems**

Autonomy in the critical functions is found in existing anti-materiel weapons that attack objects (e.g. counter rocket, artillery and mortar systems; vehicle “active protection” systems; and some loitering munitions).

However, autonomy in the critical functions is a feature that could, in theory, be applied to any weapon system, including existing remote controlled weapon systems.

There is a trend towards increasing autonomy in the wide range of robotic weapon platforms in the air, on land and at sea. Future developments could include shifts:

- from anti-materiel to anti-personnel systems
- from static (fixed) to mobile systems, that “search” for targets over an area
- from use in armed conflict to use in law enforcement operations, and
- use of autonomous target identification systems as “decision aids” not directly connected to weapon systems.

Thank you.