



# County of San Mateo

## Inter-Departmental Correspondence

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**Department:** BOARD OF SUPERVISORS  
**DISTRICT 5**  
**File #:** 16-821

Board Meeting Date: 12/12/2017

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**Special Notice / Hearing:** None  
**Vote Required:** Majority

**To:** Honorable Board of Supervisors  
**From:** Supervisor David Canepa, District 5  
**Subject:** Resolution Regarding Fully Autonomous Weapons

### **RECOMMENDATION:**

Adopt a resolution calling on the United States Congress to adopt national laws and policies restricting the development and use of fully autonomous weapons and the United Nations to develop an international agreement restricting the development and use of such weapons.

### **BACKGROUND:**

The International Committee of the Red Cross has defined “autonomous weapons” as those weapons that are able to “independently select and attach targets, i.e., with autonomy in the ‘critical functions’ of acquiring, tracking, selecting, and attacking targets.” Similarly, the United States Department of Defense classified weapons as autonomous if, “once activated, [they] can select and engage targets without further intervention by a human operator.”

Commentators, such as Human Rights Watch and the International Human Rights Clinic at the Harvard Law School have cited to experts in Artificial Intelligence (AI) who have stated that fully autonomous weapons “could be developed for use within years, not decades.”

Further, founders and senior leaders of robotics and AI companies from twenty six countries that develop technologies that may be repurposed to develop autonomous weapons have sent an open letter to the United Nations’ Convention of Conventional Weapons (CCW), stating that “once developed, [lethal autonomous weapons] will permit armed conflict to be fought at a scale greater than ever, and at timescales faster than humans can comprehend.”

Many of the signatories to this open letter and other companies that focus on AI and robotics technology that are key to development of autonomous weapons are located in, or have a close connection to the Silicon Valley region, of which the County of San Mateo is a vital part. It is therefore appropriate for the County to lead in speaking out regarding the potential risks posed by autonomous weapons.

**DISCUSSION:**

Precursors to autonomous weapons, such as armed drones and fixed place sentry guns, are being developed by several countries. Commentators have noted that robots (and, potentially, autonomous weapons) may be able to more easily and safely perform some tasks that would otherwise endanger human lives and do so faster and more efficiently than if done by humans. However, there is also significant concern about such weapons being used by terrorist and despots around the world, as well as the ability of autonomous weapons to comply with core principles of the Law of Armed Conflict that govern the lawful waging of war.

For example, the principle of *distinction* requires that parties to a conflict distinguish between civilians and civilian objects and legitimate military targets. Combatants may only attack targets of military value (e.g., enemy combatants, military equipment, etc.) and must not target civilians or civilian locations, such as schools or hospitals. Similarly, combatants may not target enemy combatants who have surrendered or who are defenseless because of injuries or sickness. Fully autonomous weapons may lack the capabilities necessary to distinguish legitimate targets from those that should not be targeted under the Law of Armed Conflict.

Further, the principle of *proportionality* prohibits military attacks that can be expected to cause incidental loss to civilian life, injuries to civilians or damage to civilian objects that would be excessive in relation to any anticipated concrete and direct military advantage. Many commentators have expressed concerns with autonomous weapons' ability to comply with the principle of proportionality.

Given the risks potentially posed by the development and use of autonomous weapons, I believe that the County of San Mateo should call for the restriction and regulation of such weapons to ensure that they do not give rise to warfare on a larger and faster scale; that they are not unlawfully used by terrorists or despots; that they are not hacked and used in undesirable ways; and that, when used, they comply with the Law of Armed Conflict.

Therefore, I request that this Board adopt a resolution calling on the United States Congress to adopt laws and policies to restrict and regulate the development and use of autonomous weapons to protect against the risks described above and calling on the United Nations to develop an international agreement restricting and regulating the development and use of autonomous weapons. I also request that copies of such resolutions be transmitted to members of the County's congressional delegation and other appropriate members of Congress and to the Secretary General of the United Nations.

**FISCAL IMPACT:**

There is no known fiscal impact of this proposed action.