Project Description for General Public (In English)

For a full century now science fiction have dreamed of machines taking over Dull, Dangerous and Dirty tasks of humanity – and that sunny vision is finally coming true. Our assembly lines and crop fields are getting more and more automated; self-driving cars, self-flying drones and self-sailing ships are all about to become realities of our daily life. Few experts doubt that major advancements in robotics await us. Yet like every technological breakthrough, the wonders of robotics have their military applications. Actually, as far as war is concerned, robots seem to have natural advantages over humans; they do not sleep; they do not feel pain or emotion; they can think as fast as light and do not care about their own survival; they follow orders predictably and do not question them. Robots, it seems, would make perfect soldiers, if only we could teach them to move around reliably, tell friend from foe and shoot straight. These do not seem the hardest skills to learn, and all major armed forces are already working on technological solutions that, if combined, would make a robot soldier. It is rise of this technology, and especially its ethical and political aspects, that is the subject of this project.

Many famous scientists, engineers and technologists like Stephen Hawking or Elon Musk, worry that building combat robots is a step too far. They fear that such machines, killer robots without conscience, moral inhibitions and values that we share, will become a perfect tool for dictators and terrorists, engines of oppression and genocide. They are also afraid that even if employed by democratic societies, combat robots will make it easy for governments to wage bloody, unjust but low-cost wars far from the public eye, and maybe even use them to threaten civil liberties at home. Even a possibility of such events makes one shiver. Therefore, the critics say, we should get to work right now and ban all further research on the creation of combat robots once and for all.

Yet as the case of nuclear weapons shows, banning even most harmful military technologies is very hard, and may well prove impossible in the current geopolitical climate. For such a ban to be effective, every significant military power would have to agree to comply – and if one of them decided to secretly cheat, it could gain huge advantage over others. Depending on perspective one may distrust some powers more than others, but putting one's trust in smooth cooperation of the USA, Russia, China, Iran, Pakistan and North Korea, not to mention others, does not look like an optimal solution.

The fact that the global ban on combat robots is unlikely to work does not allow one to just give up on the issue. There are many other worries connected with the possible development and use of autonomous combat robots, but those already mentioned are serious enough for humanity to think deeply and thoroughly about all possible solutions. International community has a bad track record of banning weapons, especially those with potential to revolutionize warfare, but a little better one of regulating the most deadly ones for the common good. After all, the nuclear war never happened. And the same general kind of a weapon can be designed, produced and used in many different ways. How we will program (or what will we teach to) our combat robots; where and when we will use them; who, and how, will control them – these details will decide the kind of impact Robotic Revolution in Military Affairs will have on our world. Combat robots will not become anything that we will not make them be – for now, we are in control, and we have a moral duty to exercise it fully.

This research project aims to map and compare the ways in which we can exercise certain and meaningful control over combat robots, making sure they do not violate the humanitarian principles and values enshrined in the International Laws of Armed Conflict and the philosophical system behind them – the Just War Theory. If we successfully do so, the result will be not only an aversion of a humanitarian catastrophe, but also a significant improvement in the way the armed forces conduct themselves. Combat robots' lack of humanity makes them impervious to human vices and criminal behavior, allows them to take much greater risks to spare civilians, and potentially enables much greater levels of transparency, discipline and civilian control over the way war is waged. As robots absorb risks and dangers, humans could become free to do what their humanity makes them ideal for – focusing all their effort on making right moral judgments in the comfort of freedom from immediate danger. A force thus joining the best attributes of robots and humans would hold great military and moral advantage at once, realizing humane ideals far better than any army in history and having no equals at defending them.

Such an idealistic vision requires a healthy dose of skepticism to balance it – and the research will critically examine it for flaws and weak points. It may well be that it will prove such a position untenable. Given the stake on the issue and the fact that several governments started adopting this optimistic stance as their own, such a negative result would be no less valuable – and perhaps more so.