Abstract. The project solves effective and humane substitution of anti-personnel (AP) mines with use of non-lethal technologies. The solved problem represents the technical solution of the proprietary weapon and the analysis of use of selected non-lethal technologies too. These technologies comply with the task to temporally affect on the human organism under various conditions. A MCG generator with output current approximately 22 kA which is able to supply a vircator as source of HPM was developed and tested in the first step.