



## The Effect of White Weapon on Deterrence of Electronic Devices

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### ABSTRACT

*This study discusses the effect of white weapon on deterrence of electronic devices. Its plan initially was a simple and bare idea; an idea to figure out a way to turn off electronic devices and communication instruments. Certainly it will be at hand if we may turn off any electronic piece or device for a short time. Whenever I was thinking about this subject, waves occurred to me as the only solution. Then, researches were followed widely and more specifically in this regard. So, it is appraised as energy generated by waves can be applied to circuit like a nail. It damages the electronic devices in a way the device or system turns off a few second after the application of waves, and then its components also become disabled.*

**Keywords:** white weapon, deterrence, electronic devices

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### MATERIALS AND METHODS

#### INTRODUCTION

The project to produce white weapon deterring electronic devices does not have any history or similar sample in Iran, since the knowledge and technology of microwave devices are not well-progressed in Iran. Microwave systems and devices are mainly imported, or the imported pieces are just assembled within country. Thus, information is not usually included (it is insignificant even if it is included). Hence, there is a few learned persons familiar with microwave pieces and devices in theory and technique.

#### The significance of the study

How is it conceivable to deter misusing electronic device? What can then turn off electronic device or communication instruments for seconds? Is it possible to turn off electronic devices linearly from far distances? Is it possible to derange the circuits of a communication system through an electric shock? Is it possible to disable radially communication systems of a small area? Is it helpful to disable devices from a specific distance?

#### The goals of the study

The effect of white weapons on deterrence of electronic devices

#### Literature review and findings of the study

Studies indicate that this project does not have a similar sample in Iran. It means that there has not been a device with the ability to turn off communication systems within country. Even, no project even has been registered to Patent Office for Industrial Property for accomplishment of such devices. In regard to foreign samples, studies on the Internet indicate that there is not a foreign sample as well. Further studies on foreign samples require more facilities and services. (Amid Dictionary)

It should be noted that collecting such extensive data and analyzing them properly requires years of research and is searching multiple sources. the method of collecting data in this paper, papers presented at conferences and books, and websites have been collected. its plan initially was a simple and bare idea; an idea to figure out a way to turn off electronic devices and communication instruments. Certainly it will be at hand if we may turn off any electronic piece or device for a short time. Whenever I was thinking about this subject, waves occurred to me as the only solution.

My concern was ability to turn off electronic devices and communication instruments for a short time. Gradually, I commenced more comprehensive studies and researches. Initially, the issue was obscure and incomprehensible. I examined different processes and hypotheses to turn off devices. I noticed that most of electronic devices have a weak point and hidden side that can be used for turning them off. However, if the devices turn off in this way, the device or system is just disabled considerably, and it needs to be serviced or repaired then. Form this point, the project turned to a military configuration. It means that electronic devices or communication instruments used by criminals can be turned off. In other words, police or military forces may reduce threats and crimes through this idea. Hence, the research took more thorough and specific account. The result was to apply energy generated from waves like a nail to circuit and damage electronic systems. In a short time after applying waves, electronic system or device turns off, and it components also become disabled. (Moeen Encyclopedic Dictionary)

It is notable that waves generated by device are not effective on human. Not only do not they imperil human beings, but also they are not harmful to environments and animals. Then, it can be called "white weapon or deterrence of electronic devices".

### RESULTS

Yet they are problems in execution of the project. One is the vulnerability of other devices or systems by the side of targeted device or system. In other words, failure or mistake in shooting may damage systems or devices other than targeted device or system. Certainly, it is considered a problem for all weapons and military equipment, and failure in shooting may cause irretrievable consequences. However, damages in our device can be compensated.

(<http://science.howstuffworks.com/e-bomb.htm> )

Another problem concerns penetrability of waves and radius they produce, since waves need to be powerful in order to penetrate. And if we amplify the waves radially, there is a possibility for vulnerability of other devices in adjoining. Certainly, researches in this regard require facilities and authorities for further experiments. In this case, it is possible to find a way to eliminate other devices from vulnerability. At present by the way, the results are favorable in laboratory. (<http://www.cceia.org/resources/transcripts/5256.html#>)

The primary costs of the project mainly include measurement devices such as devices for measuring high frequency, devices for generating waves industrially in laboratory, research setting, systems and device for testing, and other equipment and instruments. Most of them are accessible in Iranian markets. It just require sufficient budget.

Microwaves are propagated spontaneously in all directions. Yet it is possible to limit them into a particular direction by the advantage of specific antennas. The range of propagation for radio waves is too far, and radio waves can be amplified to reach even farther locations by the help of sending-receiving radio devices as well. The velocity of data transmission in radio systems is between 1 to 10 Mbps, yet our concern is with microwaves that their frequency is 245 MHz. ([www.fda.gov/cdrh/comment\\_4.html/FDA/CDRH\\_consumer\\_Information/Microwave\\_oven\\_Radiation/2006.2.14](http://www.fda.gov/cdrh/comment_4.html/FDA/CDRH_consumer_Information/Microwave_oven_Radiation/2006.2.14))

Our goal is to achieve the advanced technology for a-bomb or what is called electromagnetic pulse, which is currently exclusive to U.S. Army. It is an appropriate substitution for atomic bombs. It is not harmful to human beings, environment, and animals. It can be called "white bomb", since it just disables electronic systems or devices.

[Fig. 1] indicates the function of electromagnetic pulse. It is seen in [Fig. 2] that it just cuts electricity in the region, and damages are not observed.

**Fig. 1: The function of electromagnetic pulse**



**Fig. 2: Electricity cut in region without damages**



#### **Creativity**

This project's creativity is highly significant to military and security communities. Through available facilities and authorities, this project is defined to solve the problems efficiently in this field

#### **Innovative**

This project is considered new and innovative, since no record is reported in this regard. The knowledge and technology for constructing such devices is insignificant; thus, its novelty is unquestionable.

#### **Practicality**

This project is completely practical, and it is able to solve many problems and concerns in this regard, if it is used carefully and if it is not authorized to misusers and criminals.

#### **Economically-justified**

This project is economical, since if we rely on foreign countries for these devices and their knowledge, we have to afford enormous costs. However, if we manufacture them in our own country and accomplish their mass production, it will be a great honor for our country to achieve their knowledge and technology and we are not supposed to afford high costs. (<http://www.centralclubs.com/emp-bombs-t46729.html>)

#### **CONCLUSION**

The advantages of white weapon highly effective on deterrence of electronic devices are: low costs, manufacturing and mass production, singularity, and harmless to human beings and environment. It is mainly practical in social and national safety and security. It may be misused if it is authorized to unaware person or to public, since this device is able to disable any electronic device or communication instrument. It can be a best device for criminals to achieve their wicked goals; thus, it should be authorized to state and inaccessible to criminals.

#### **REFERENCES**

1. Amid Dictionary
2. Moeen Encyclopedic Dictionary
3. <http://science.howstuffworks.com/e-bomb.htm>
4. <http://www.cceia.org/resources/transcripts/5256.html#>
5. [www.fda.gov/cdrh/comment\\_4.html/FDA/CDRH\\_consumer\\_Information/Microwave\\_oven\\_Radiation/2006.2.14](http://www.fda.gov/cdrh/comment_4.html/FDA/CDRH_consumer_Information/Microwave_oven_Radiation/2006.2.14)
6. <http://www.centralclubs.com/emp-bombs-t46729.html>