A Novel Method of Defusing Land Mines and Other Ordnance

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Twelve people are killed daily because of unexploded landmines and other ordnance left behind by the war. Tens of millions of square kilometers of land are inaccessible for economic use because of the same problem. The project goals were: identification of a new effective method that will be used in land mine defusing, designing and building a device that makes the process of disposing of unexploded ordnance safer for explosive ordnance disposal technicians and minimize the costs of this procedure. The detection of dangerous objects is performed with a metal detector that was designed to be cheap and effective. To increase the device sensitivity to land mines, which are made of plastic, the metal detector can be replaced with a GPR (Ground penetrating radar). The new method of disposing consists of using capsules (external detonator), which have as main component thermite (a substance that in fast reaction of oxide reduction offers enough energy to increase temperature of the mine to the point of detonation). We can add small quantities of other explosive substances to obtain a small blast that will ensure the full disposal of the land mine. The procedure is performed remotely, so the technician will not take any risk. This designed technique and the device M.D.Mv2.0, which was built, have lower cost in comparison with the ones used currently, they will make the process of land mine and ordnance defusing safer for army technicians, they are efficient and will clear the soil that was inaccessible for economic use.

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