



Project: Electrical circuit for non-lethal weapon

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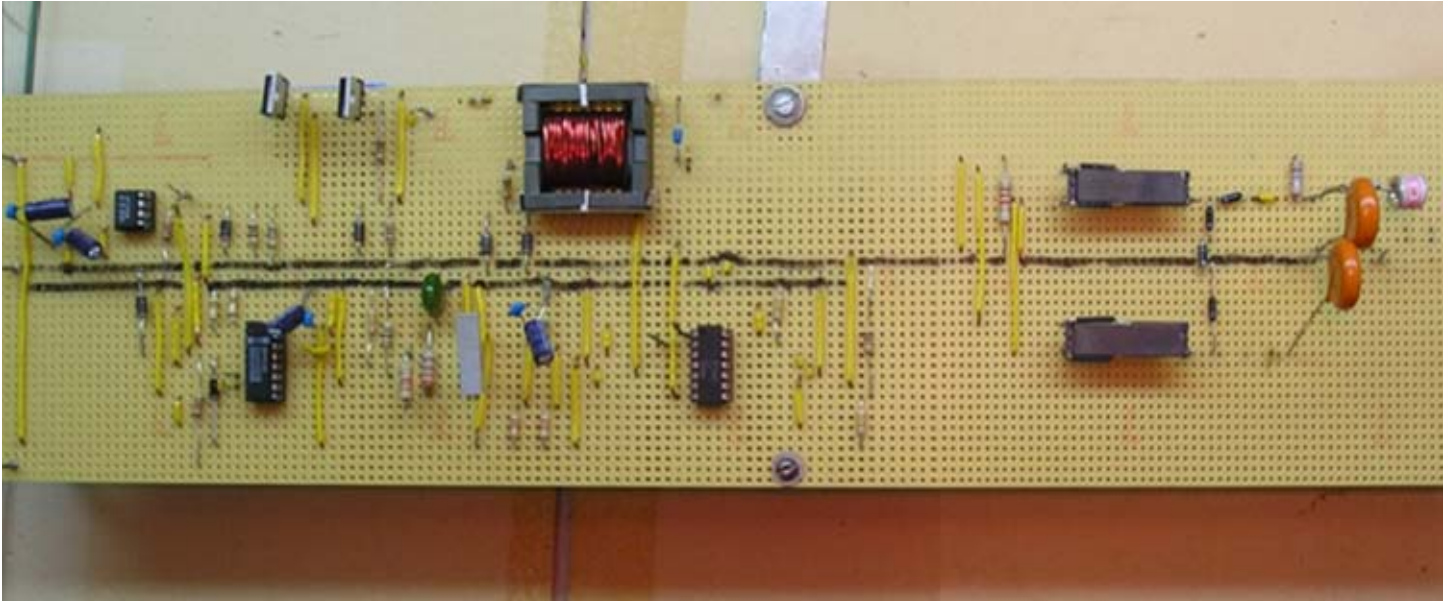
Abstract

The security field is a top priority these days. It appears that the best non-lethal device available today is the Tase M-26 electrical shocker. This device shoots electrodes that remain wired to the pistol itself after shooting. This kind of operation limits the use of the pistol to only a single shot and to a maximum distance of 4.6 meters.

The objective of this project is to design and build an electrical circuit able to generate a high voltage that when discharged, will shock the target.

An attempt will be made to minimize the size of this electrical circuit as much as possible to be able to plant it into existing weapons' bullets.

The circuit



The outline of this project was to drive the piezoelectric transformer in its resonance frequency (54.5kHz) using a feedback system to follow this frequency.

The following picture shows one of the comparator output (channel 1) and the PLL Phase pulse signal (channel 2) in which we can see that the circuit is in resonance.

