
Subject: Re: OMG Super Mario Tesla Coil
Posted by [jnz](#) on Mon, 12 Nov 2007 16:20:19 GMT
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Caveman wrote on Mon, 12 November 2007 15:08RoShamBo wrote on Mon, 12 November 2007 15:04I'm currently building a tesla coil, i'll post some videos if i ever get it working. Music through a tesla coil is quite simple, in sound waves they cross from +x volts to -x volts in a manner that creates sound (when amplified and put through a speaker). If you activate the tesla coil whenever it is at 0 volts you create the same frequency of the sound required and create the sound.

Yeah I think its abit easier said then done.

Not really, but then again..i've never built a tesla coil so i couldn't really say. The concept of how they work is pretty simple, assuming we're talking about a single spark gap tesla coil. You charge a very high voltage capacitor to around about 6-15KV. Your spark gap should be big enough depending on your capcitor size (generally 1mm per Kv). When the capacitor charges to it's potential the spark completes the circuit to the primary winding on the coil. And this then induces an ultra high voltage on the secondary due to magnetic breakdown. The spark only lasts less a few micro seconds (1 millionth of a second) and repeats at about 20-100Khz.

The circuit is pretty simple, transformer -> diode(series) -> capacitor (parallel) -> spark gap (series) -> primary tesla coil. There is another spark gap, but it's only to protect the diode from back emf.
