

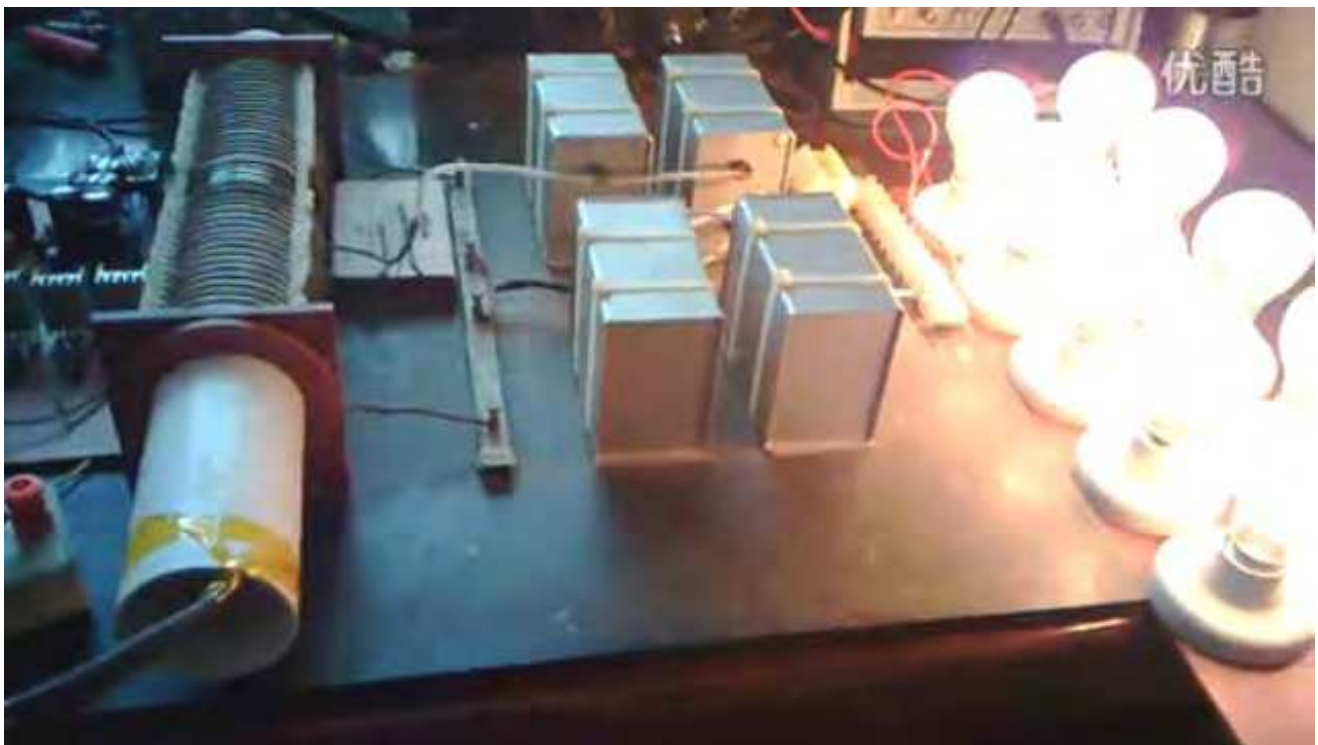


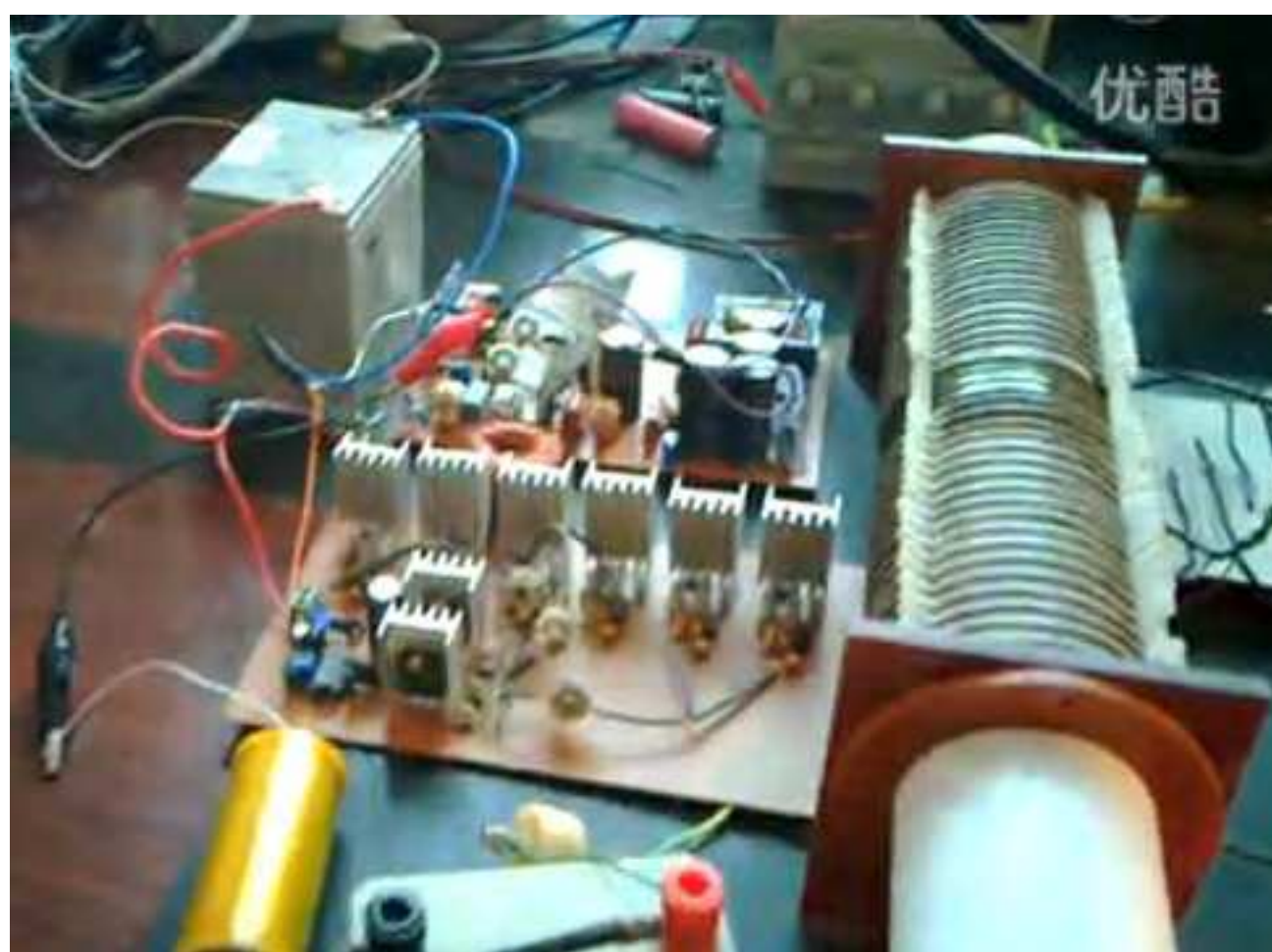
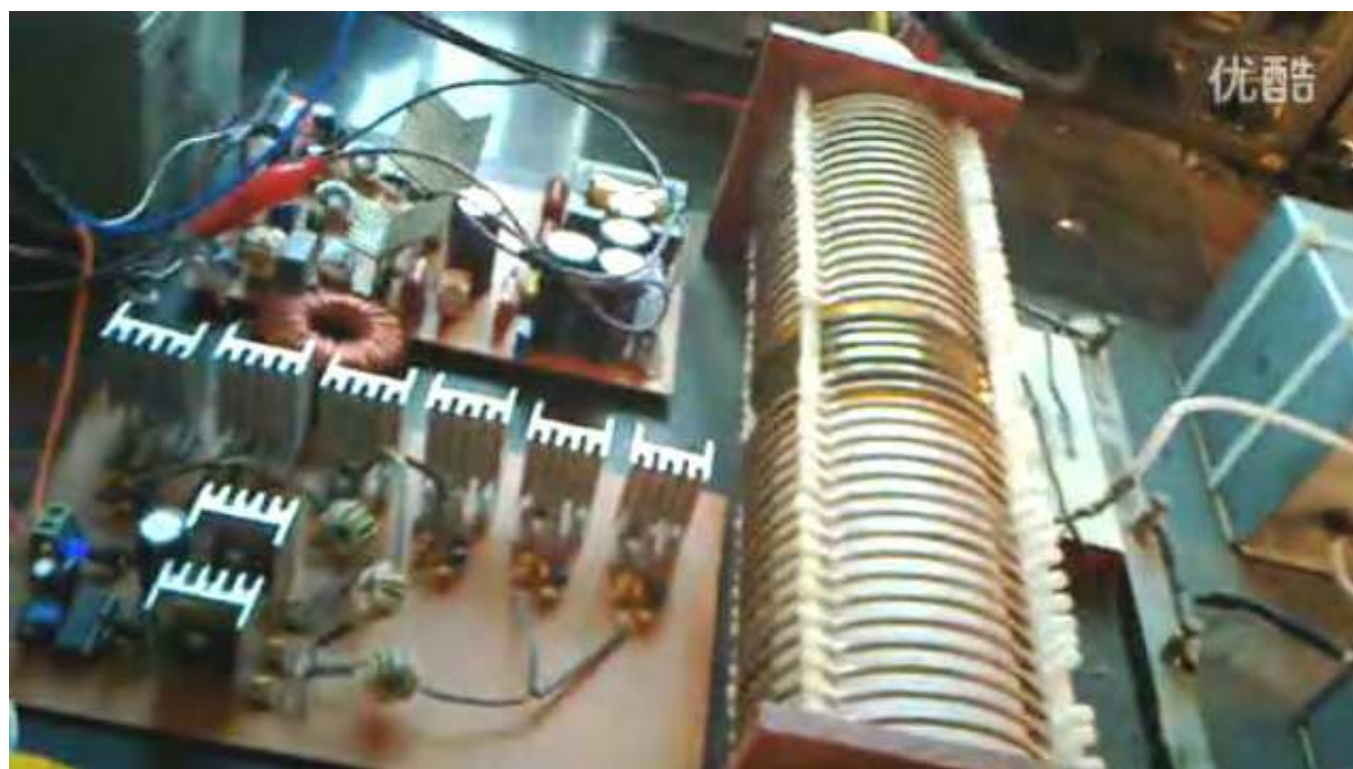
‘Salty Citrus’ Chinese Developer.

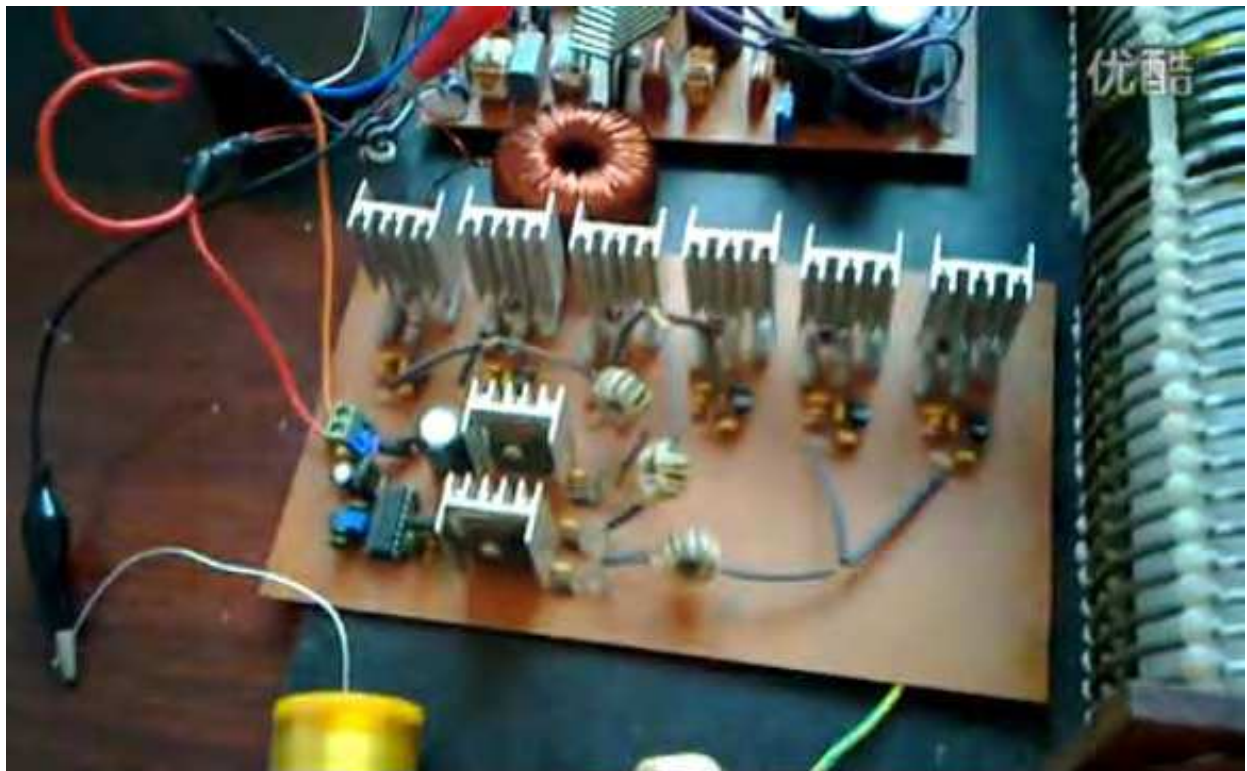
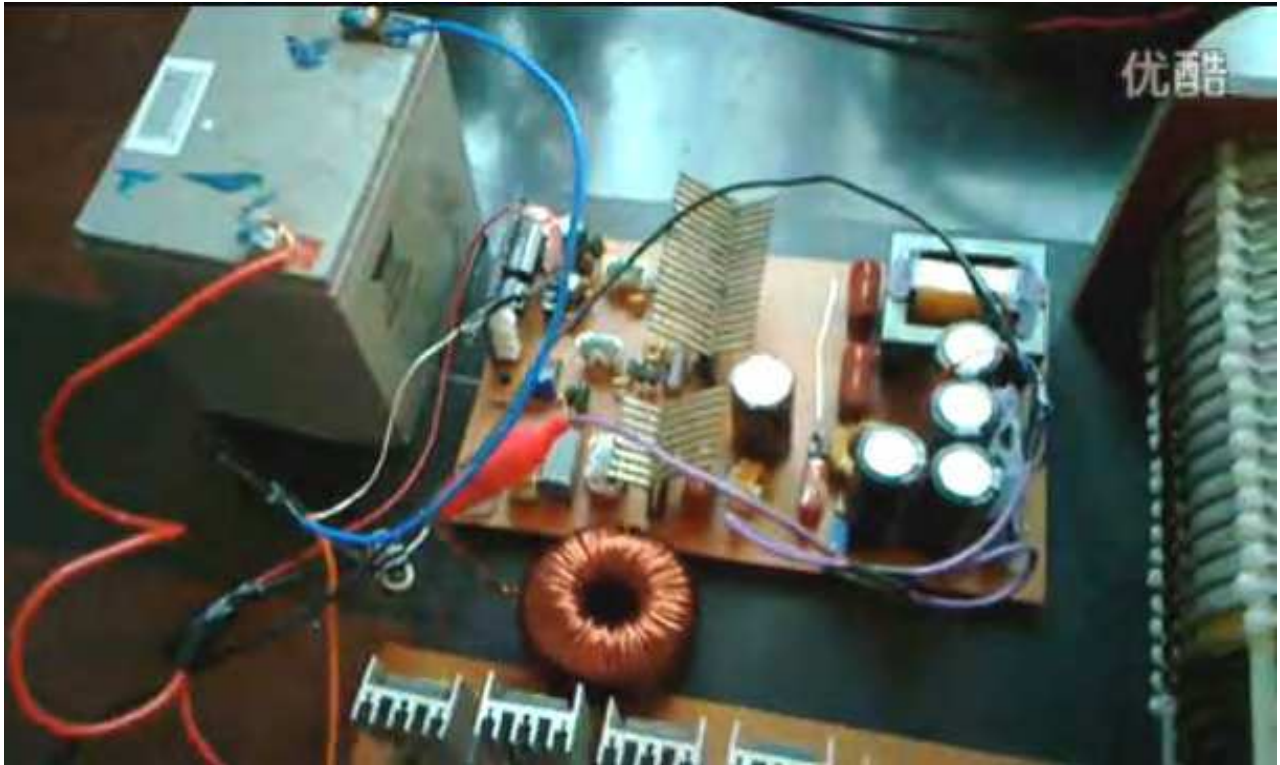
A Chinese developer whose forum ID is ‘Salty Citrus’, has replicated Don Smith’s main device very successfully. Using an input of 12V at 1A to 2A (24 watts) he is lighting ten 100-watt light bulbs to a high level of brightness. The Chinese language video relating to this can be seen at:

<http://www.energysea.net/forum.php?mod=viewthread&tid=1350&extra=&page=1>

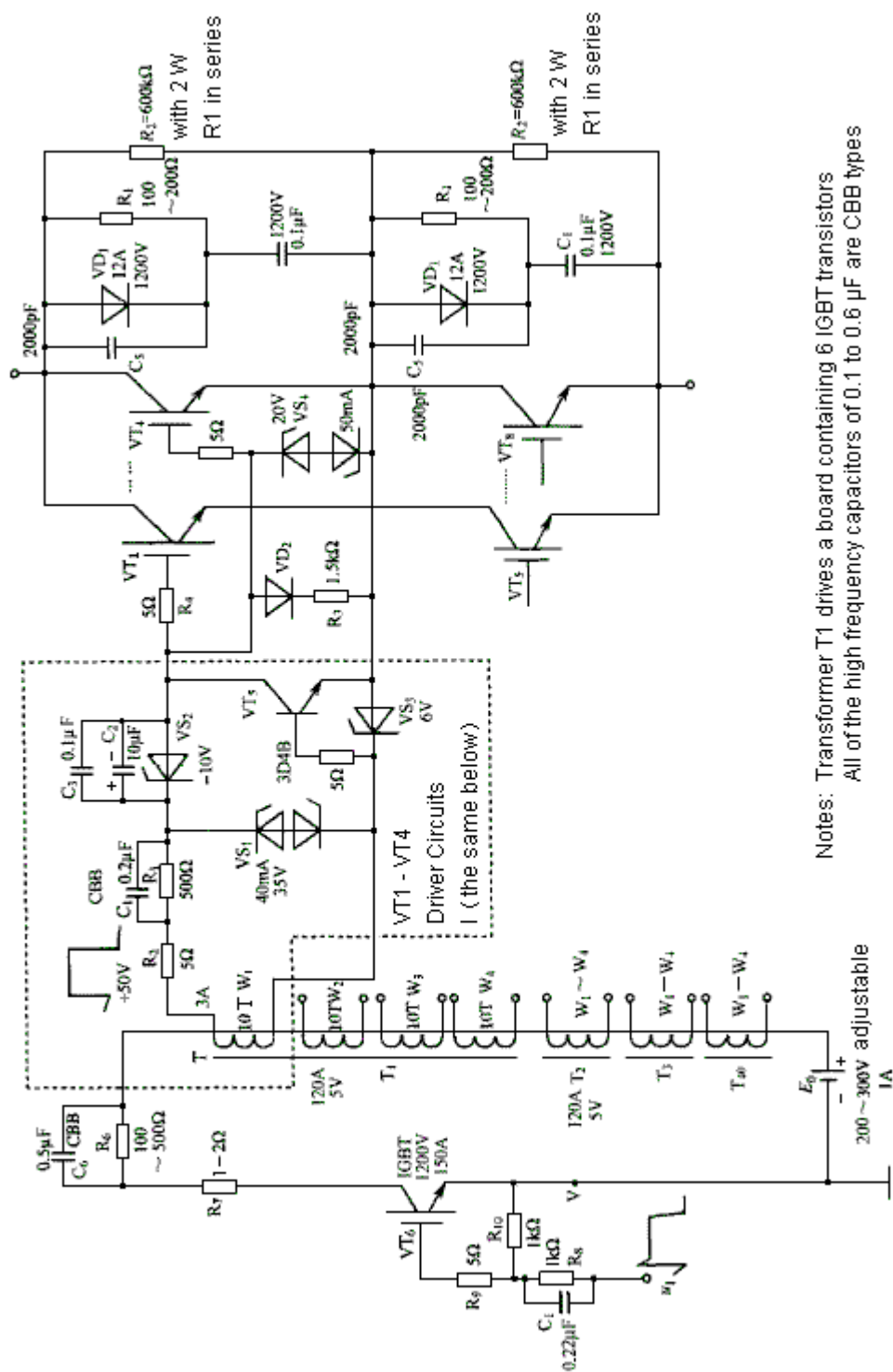
Here are some of the frames from that video:



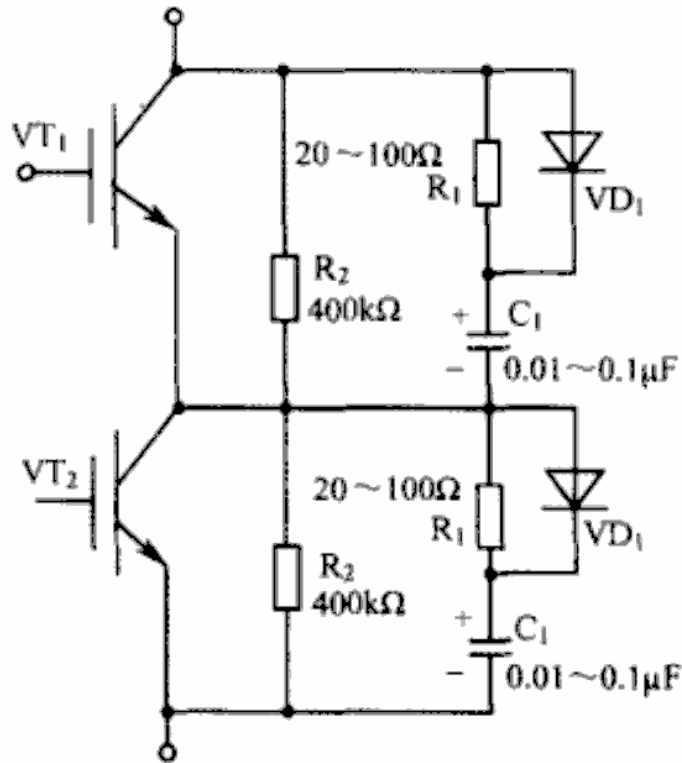




The circuitry used is shown here:



Notes: Transformer T1 drives a board containing 6 IGBT transistors
All of the high frequency capacitors of 0.1 to 0.6 μF are CBB types



Subsequently, a forum post by a Mexican man says:

Hello 'Salty Citrus',

I love your video!!!! I can really appreciate the amount of work you and your group have spent to develop and perfect the Don Smith / Tesla free-energy device. Thank you for pursuing such a noble cause.

I am intrigued by your switching network using the CREE CMF20120. How did you wire the MOSFET's? You used a UCC3825A Pulse-Width Modulator to clock the signal --> MOSFETS --> Gate Drive Transformers (x3) --> push-pull transistors --> CMF20120? Did you run the CMF20120 in series? Sorry about so many questions, but I am totally impressed by your ingenuity, and completely agree that your solid-state solution has undoubted benefits over Tesla's conventional spark gap.

I would be honoured if you could take the time to answer my questions. I would love to replicate your circuits.

I wish you the best of luck with your endeavours.

Sincerely,

'Lost_bro' (half a world away)

Re: 'Lost_bro'

Thanks for the compliment. The success does credit to my team. Thanks to my team. Yes, the CMF20120 run in series in this solution. The voltage balancing between each MOSFET is critical as is the balancing between RC and DC voltage created by R.

Welcome to our forum for the exchange of information. China is an hospitable country. If you have any information or ideas, please don't hesitate to share them with us. 'Half a world away' is not a great distance.

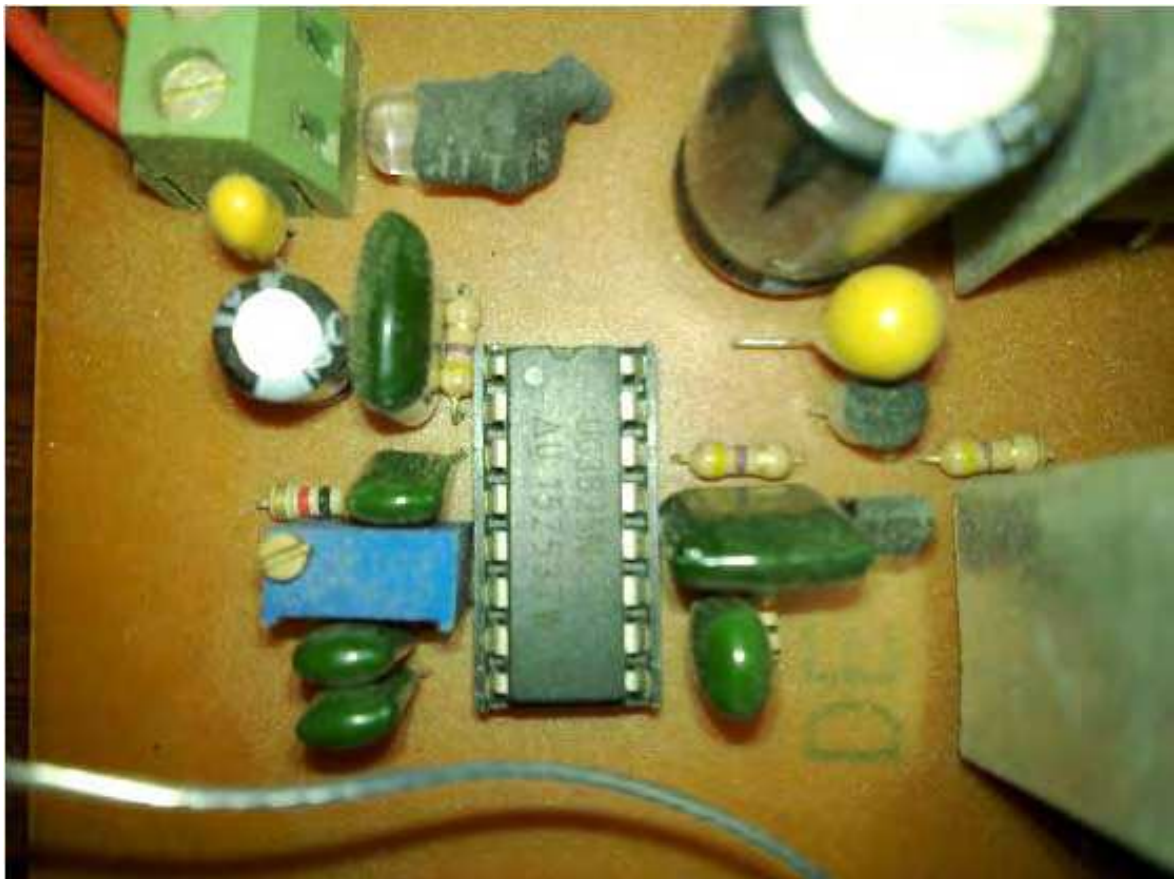
All the best,

Sincerely

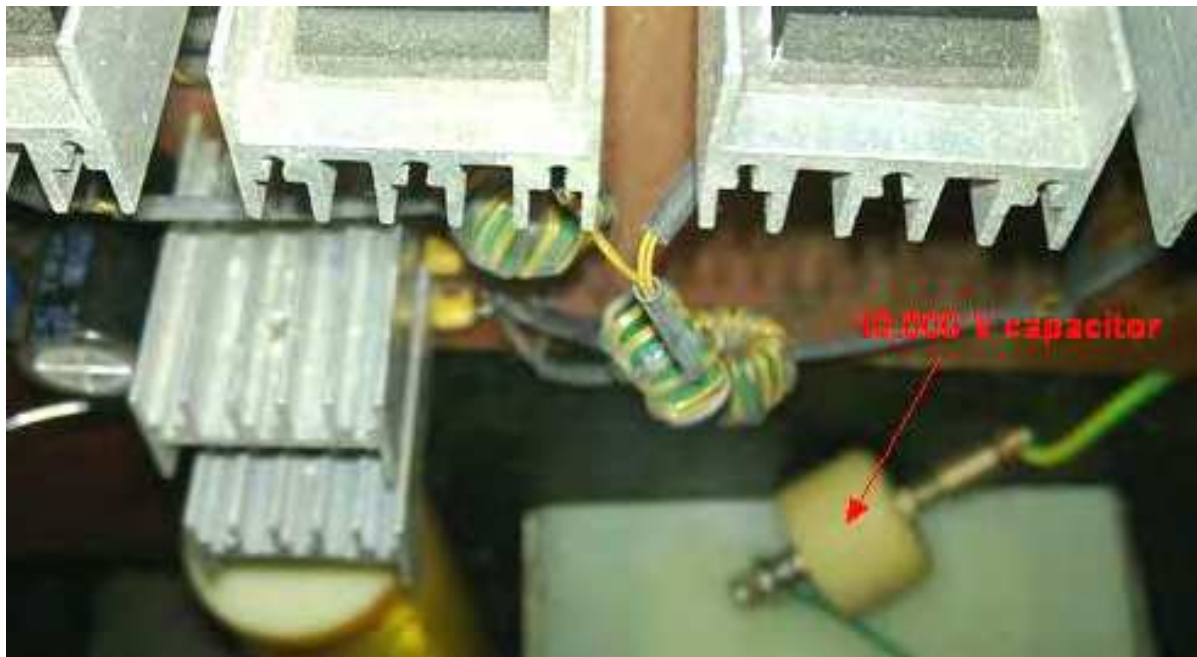
'Salty Citrus'

An earlier entry on the Chinese forum translates as:

Here is an earlier build. It is simple and has no step-down section and so cannot be self-powered:









Each bulb is 100 watts. The first board has a 12-volt input and an adjustable output which can be varied from 500V to 1600V (any higher voltage would damage the four 450V 20 microfarad capacitors). In the video, the variable resistor is used to set the voltage level of the FBT after boost as the voltage step-up circuit can go up as high as 3,000 volts.

The L2 coil is wound in a single direction and has just one tap at the centre. The idea is from Tesla's Colorado Springs Notes, in which Tesla disclosed the best method for a resonant driver. The frequency used in this circuit is about 230 kHz.

Question: There is nothing to do with quarter-wavelength, but is there anything with the length of the L1 and L2 coils on quarter-wavelength?

Answer: I think that the phase is more important.

Question: Do you need a Phase-Locked Loop circuit with a certain phase difference?

Answer: Basically, I use a fixed frequency, I have tried a Phase-Locked Loop and the effect is the same.

Question: Do you use direct drive with the spark gap only being used to limit voltage?

Answer: You can use a vacuum tube to drive it.

Question: If you drive it directly, then the loading will be very big and the current will increase, whereas if you use a spark gap, then the spark will become smaller and the current will be steady.

Answer: If the load affects the input, then you cannot drive it even with a spark gap. If you trigger with a spark gap, then the load will not increase the input. The spark gap is just a switch.

Question: Is there any direct Lenz relationship between the load and the primary?

Answer: Once the phase has been adjusted, the primary has no adverse effect on the secondary.

Commenting on his circuitry, 'Salty Citrus' states:

The diode symbols with a tick indicate a Zener diode (or bidirectional TVS-Transient Voltage Suppressor or "varistor"). For example, in this circuit, they are used to suppress the Grid voltage of the MOSFET, to maintain the gate voltage within the range of +20V to -20V. The above circuit is just a description of the structure of the MOS series method. Specific components will be needed for your own requirements considering the MOSFETs being used in your construction.

The voltage E0 can be adjusted. The source can be made using a TL494 IC operating at 12V, or alternatively, an adjustable, voltage-stabilised inverter can be used. The voltage setting depends on the numbers of MOSFETs which are being used in series and the parameters of Grid voltage and the turns ratio of the isolation transformer. The circuit is arranged so that each MOSFET has its own separate isolation transformer, and all of the primary windings of those transformers are connected in series to form a single current path. The number of turns in the primary of each isolation transformer is exactly the same. To drive an IGBT(or MOSFET), VT6 provides a high-frequency pulse current to drive the Gates of the MOSFETs, so as to achieve consistent switching.

In my circuit, the frequency used is 220 kHz, for this frequency, I use six MOSFETs type CMF2012 (1200V, 37A, Resistance Drain-to-Source of just 80 milliohms). This MOSFET from CREE has excellent performance, but you have to design the drive circuit carefully, 2V to 22V for the Gate voltage will be best. I particularly stress that it is very important that MOSFETs operated in series, require voltage balancing and an accurate drive. Especially important is having synchronized drive signals and the rise and fall time of the drive signal should be as short as possible, so that the switching time difference between the MOSFETs will be short, and that improves the high frequency operation.

Another Russian Development

At <http://www.youtube.com/watch?v=sRLFfs9I18Q> there is a video which shows a self-powered motionless generator with an output of 105 watts:



Thanks are due to Wesley for his translation of the Russian soundtrack. No circuit details are available at this time, but the video has "Part 1" in the title and so further details may be provided at a later time.

Tesla Coils Back-to-Back

I have been told of one man who used his common sense and produced an impressive result. He used a Tesla Coil as the driving force, and then used a second Tesla Coil back-to-back with the first one, to step the high voltage back down again. Doing that, he was able to light a series of powerful light bulbs from the "L1" output coils. He also confirmed that doubling the voltage, quadrupled the power output, verifying what Don said. He also found that adding additional coils with bulbs to the output Tesla Coil, did not increase the input power at all, did not cause any of the existing light bulbs to shine any less brightly, and yet lit the additional bulbs. That would appear to be confirmation of Don's statement that any number of magnetic copies of the original oscillating magnetic field of the first Tesla Coil, can provide a full-power electrical output without requiring any additional input power. I'm no expert, but my understanding of the arrangement is: