Disclaimer

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What is PEMF?

It stands for Pulsed (Electro)Magnetic Field. Most PEMF power is transferred via magnetic aspect of this phenomenon, so let me concentrate on it. If a coil gets impulses of an electric current, magnetic impulses are produced. The main action of PEMF takes place when the current in the coil goes up or down (changes). The more intensive/fast the change is, the bigger the effect of PEMF.

The body needs PEMF to survive

Living organisms must get magnetic impulses to survive. Most of us do not realize we are bathing in different kinds of constant and pulsed magnetism provided by Mother Earth. Experiments done at special, blocking magnetism chambers indicate, that animals and humans cannot survive without magnetism. However, the survival is possible when artificial pulses of magnetism were provided in the chambers. This discovery is commonly used in the field of space travelling.

PEMF can be perceived as a special kind of an essential "nutrient" for humans to survive, a kind of "magnetic food" our bodies need. At least two kinds of impulses are important.: Schumann and not only, the body likes other frequencies as well. These days, due to several factors, we suffer from lowered levels of PEMF generated by the earth. That is why people getting sessions of PEMF feel better.

PEMF and magnetic fields can be perceived not only as factors enabling many metabolic processes in the body, but also as protective (against - for example - harmful radiation) ones.

Beneficial for humans functions of magnetism, especially in the form of PEMF impulses, have been noticed. Some companies commercially offer devices generating PEMF. The prices? Such devices, actually very simple, are sold for thousands of dollars. Too expensive.

Why the prices of PEMF devices are so big? Because people do not realize how simple the PEMF devices are and, consequently, how simple to make they are. The general public tend to mistake commercials with information. One mustn't believe that a marketed product is a a fruit of "a long, complicated research". Such "info" is what it is – a commercial gobbledegook. If a seller says "it's the best" - do not believe it, there's no such a thing like "the best" for a simple reason - there's no established definition of this term. I have compared different information related to parameters of such products. They are different, often contradictory.

Limitations of commercial PEMF Magnetic Devices

I am not going to give any examples of much too big prices of PEMF producing devices here, as it would be putting the cat among pigeons.

A customer pays big money for his lack of knowledge and sometimes for, well, e.g. FDA blessing. But when a new drug can be allowed to appear on the market? As I see it, only if it does not heal, but masks symptoms. The same with PEMF devices: if they have a certificate (which of course makes the prices go up), its frequency range is severely limited (usually just to at most 30 Hz or 100 Hz), which limits their applications to the mentioned above "nutrient" uses. Such "blessed" devices cannot produce frequencies in the range up to several thousand Hz.

Meanwhile, such ranges of frequencies are necessary to enable the device to kill microbes. Another "feature" of certified devices is their low strength of magnetic induction, which again, very conveniently, limits their applications to the "nutrient" (and not microbe killing) aspects.

It doesn't have to be like this. You can have a much better and many times cheaper device, if you or your friend can do some DIY.

How my interest in PEMF began

In 2014 I decided to write a Polish language e-book "Maszyna Rife'a" (Rife Machine). While analizing the available literature and information, I found information on a device called Doug Machine and the PEMF it can produce. Writing the book I wanted to know what I was talking about. I decided to make one, in spite of the fact it seemed to be a big project to me (no workshop, small flat). It was a good decision, because, later on, it enabled me to understand some important rules in the field of PEMF machines, and to go further on. A day of practice is sometimes worth more than months of theorising.

Building Doug Machine

Building the Doug Machine (DM) cost me a month for gathering the components and then two weeks of my holiday and was also a serious logistic job for me. The real challenge was, however, the "tuning" of the device. The most difficult part of the Doug Machine device is the LC unit. One needs several dozens of switches, precisely chosen relatively high voltage capacitors as well as resistors and other components. The winding of the coil was also a challenge to me and I had to seek help of a friend of mine. The Doug Machine (DM) produces frequencies via tuning the impedance of the LC unit to the frequency produced by a simple function generator.

Every single frequency means, apart from adjusting the frequency generator, a necessity of setting right positions of numerous switches to get a particular capacity of the curcuit. A many page list of frequencies and respective positions of switches must be calculated for a particular device, and later on applied every time the machine is used. Still, some frequencies cannot be generated.

When the device is ready, another difficulty appears. The "on" or "off" combinations of several dozens of switches enables you to get/tune to thousands of frequencies in the range of (very) roughly $200 \, \text{Hz} - 3000 \, \text{Hz}$. It means, that the values of capacitors (as well as the inductance of the coil) must be precisely measured. Then these values must be typed in the right cells of a special excel programme, which can be downloaded from the Internet. The task of the programme is to tell you the precise combination of positions (ON-OFF) of every single switch of the LC unit for every single frequency one can choose.

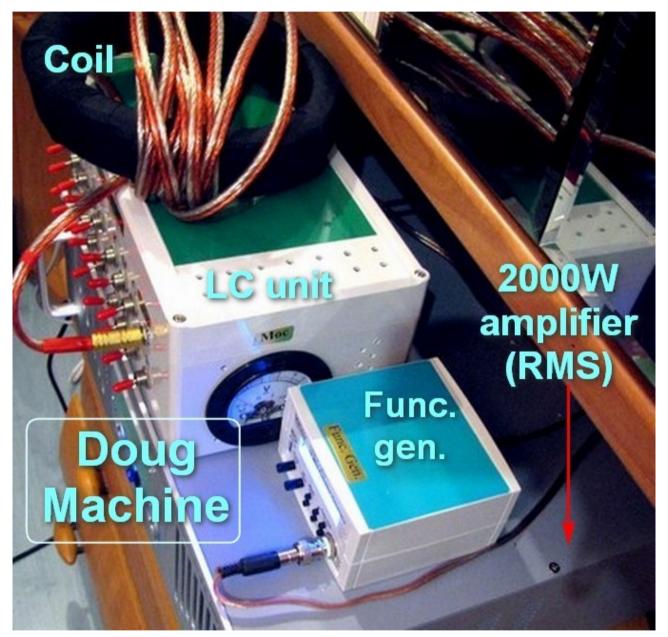
There's another catch. Every succeeding measurement of capacitors showed me different (one or two or more % difference) results of capacities. So what values was I supposed to input? I bought another set of measurement tools. But never did I get really steady measurement results. An exact "match" between frequencies produced by the function generator and resulting from the impedance of the LC unit is... practically impossible! And still this "match" determines the tuning, and, which follows, the efficacy of Doug Machines in terms of killing microbes. The lack of exact "match" is not the only problem with DM. One can choose only integer numbers determining frequencies.

Another problem is the fact, that every single change of a frequency is really complicated, as it is necessary to turn completely down the intensity of amplifying with the knob of the amplifier potentiometer, then one must change the positions of the switches accordingly to the results of excel programme, then change the generator frequency and finally turn the power up with the knob mentioned above. Any mistake means a costly damage to the amplifier of the DM. The DM cannot be automatically controlled by Spooky2 sequences of frequencies.

Is Doug Machine a good tool producing exact frequencies?

The features of the Doug Machine I listed above do not make it a good healing tool. Quite a big power of 2000W (as RMS - "real" power) seems to be necessary to make up for the tuning problems I mentioned above. Then, this complicated, difficult to tune LC unit makes operations troublesome.

Definitely the DM helped some people with Lyme, but it needs improvements. Below there's a picture of my Doug Machine (DM).



Ilustracja 1: *My Doug Machine*

Could these drawbacks of Doug Machine be avoided? If so, such a big power amplifier wouldn't have to be used. Maybe such a device could be automatically controlled by frequency sequences? Could we use just the PEMF idea, but carried out in a different way? I started to think about ways of simplifying, improving things.

When you want something, often you get it. Soon I found an article by late Aubrey Scoon in an English electronic magazine. The article included a diagram of a simple magnetic pulser (thank you, Aubrey). I built this device and described the process in Polish language articles <u>here</u> and <u>here</u>.

There are pictures, which can help to understand the concept. The latter article presents an improved, much smaller, much cheaper and more robust version of the Aubrey's device which I called MA-2 (years passed from the moment Aubrey developed his machine, so I could use some new ideas).

The MA-2 (Machine by Aubrey to commemorate Aubrey's research) device is cheap, extremely simple and extremely universal. It can be controlled by Spooky2 frequency sequences. It can serve as a basis to make DIY versions of PEMF mats, sold nobody knows why for \$3000 or \$4000. It can be used to emit PEMF (Schumann/waves at night, the device put on your bedside table. By the way – Schumann frequency needn't be exactly 7.83 Hz: e.g. 7 Hz – 9.6 Kz is still OK. Schumann frequencies are different in different parts of the earth. MA-2 produces unipolar PEMF (no polarity of magnetism changes).

The cost of literally a few simple components is well below \$100. And do not believe, that some special conditions must be fulfilled. It's disinformation aimed at discouraging us. We should always remember that at least 80% of what we are told - anytime, anywhere - is either lies, or in all innocence disinformation (even parents, friends, well meaning people). The Matrix has been operating like this for millennia in all possible fields (including so called karma, by the way).

Coils and PEMF

Coils, properly used, are elements producing PEMF. A standard coil I like to use: 350-400 turns. Copper wire, isolated 0.7 mm diameter. Spool: 13-15 cm in diameter (the spool should be 15-20 mm high). Finishing, use several plastic bands to keep the turns stiffly together. Connect a 1.5 m speaker 2.5 mm diameter cable to the coil. Now if you start connecting and disconnecting the coil to/from a car battery (or just a 12V/2A power supply adaptor), the coil is producing PEMF. You can put a neodymium magnet inside the eye of the coil to see and feel it:). You can connect this coil directly to a Spooky2-XM for a while, a weak PEMF will be produced (the generator will not be damaged, since there's a 50 Ohm resistor inside the generator. Also, the magnetic strength is weak due to the same reason.

In the picture below you can see several different coils. The coil I depicted above can be seen in the right hand top corner of the picture (there are two similar ones).



Ilustracja 2: *Several coils, the Doug one presents just* 1.4 *Ohm resistance, the other ones about* 7 *Ohm.*

The coil I depicted above may be considered a universal, cheap one, serving different purposes carried out by different PEMF devices. One can make powerful coils, but I'm not going to describe their constructions in this article.

Ways of winding bifilar coils

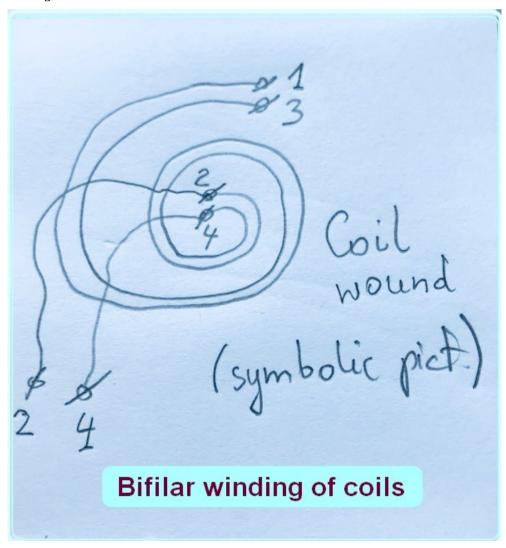
A coil may be wound with for example one or two wires. Let us concentrate on fibrillar winding (two wires).

If we use two wires to wind the coil (fibrillar winding), we get four endings of the wound coil. There are three ways of connecting these two wires, which corresponds with different goals we want to achieve.

A. if we connect the wires parallelly: ending 1 connected together with 3 and ending 2 connected with 4, what we get is the resistance of the coil being half as much big, which results in bigger current; the coil produces magnetism

B. if we connect one end of the wire to the beginning of the other wire, and the two remaining ends serve as the input of the coil, the coil produces magnetism (1 and 4 together, 2 and 3 are the input)

C. if endings 2nd 4 are connected together and 1 and 3 are the input, the coil does not produce magnetism – the current flows, the magnetism is neutralized – guess, what is produced instead of PEMF if you connect such a coil to a generator.



Ilustracja 3: Symbolicly - bifilar winding of a coil – endings.

Simplicity of basic PEMF machines



Ilustracja 4: A PEMF device I call MA-2 - connections of the key elements of the system

Components of the above MOSFET amplifier unit cost not more than \$20 - \$30. The cost of the generator here is obvious, but for "nutrient" needs one can use a \$1 (literally) generator based on 555 chip (available via eBay). The key "component" here is your labour:).

There's just one universal power supply adaptor (for laptops) here, but if one chooses the voltage adjustment of 24V, within half an hour, or much sooner, the coil gets hot! Therefore it is a good idea to use smaller voltages or/and apply just 5% - 20% duty cycles (adjust according to your needs) of the generator, which greatly reduces temperatures of the coils. These devices several times helped people with ugly broken bones. Always remember to use amplitude = 20 V, Out1. The offset must be 100% (no negative voltage). Square wave. Then the MOSFET gate gets the right controlling signal.

This simple device allows the owner to do interesting research in the field of applying Spooky2 generated frequencies as a means of using decently strong PEMF for transferring frequencies. PEMF easily goes through the body, including the skull, bones and the inside of cells. Results can be achieved quicker, if we make a device powered with voltages of 48V (or more, but then the construction gets more complicated).

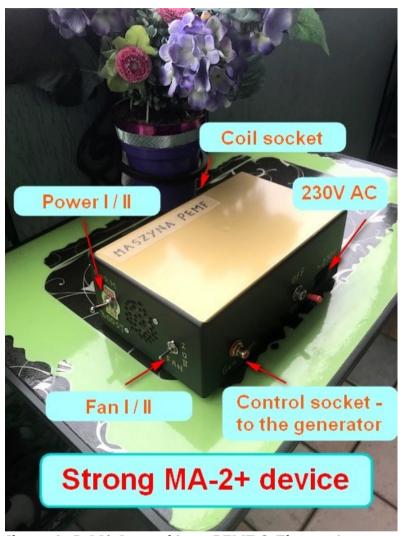
I have made a <u>short film</u> showing a coil "levitating" over the other - which is a proof of a decent strength of induction (the film relates to MA-3, 96 V, but remember - there are **two** coils connected in series). The film is in Polish language, but what you see is really self-explaining.

Below I'm presenting a bit stronger than MA-2 machine, MA-2+.

MA-2+ machine

I have also developed a bit more powerful devices, using two universal adaptors for laptops. In Poland one can buy such an adaptor for just \$8 (July 2018). I hope they are cheap in other countries as well.

The picture below shows a compact amplifier PEMF unit (with two laptop adaptors inside).



Ilustracja 5: *MA-2+ machine: PEMF & Flowers*;)

The device shown here has power supply adaptors built-in. Recently I had an occasion of testing it with a positive result. An ND visited me with his Voll diagnostic machine to test me thoroughly (over 3 hours!). He said my health was/is really OK, but he found toxoplasma gondi (TG). He said there may be different problems, headaches. Only then did I realize I have/had headaches from time to time, not being able to find the reason.

I loaded some TG frequencies, made a preset suitable for controlling my MA-2+ machine and - for several days in a row I religiously for a period of two hours treated my head with this device.

The term of my headache passed, free of ache. I think I can call it a success.

Other simple PEMF devices

Again I'd like to stress the fact, that PEMF devices are simple. A good exemplification of this claim is the way one can produce PEMF using a smartphone, a simple \$7 amplifier and the coil I have already mentioned.

As the resistance of the coil is between 6 Ohm - 8 Ohm, it may be safely connected to the output of the amplifier. The smartphone should have a generator programme installed. Then connect the 3.5 mm mp3 Out socket of your smartphone to the input of the amplifier. Load the amplifier with not a loudspeaker, but the coil. The coil will generate PEMF – in tune with the frequency you chose using the phone generator programme.

It is a good idea to limit the frequency you choose to the range of $100 \, \text{Hz} - 10 \, \text{KHz}$. This is a bipolar PEMF – if you put the coil against your chest, you will experience alternately changing poles of magnetism N-S-N-S etc. This simple rig may be a real blessing in case, for

example – a broken bone. Choose the frequency of 1028 Hz, accelerate healing, get rid of pain. The power is big enough to accelerate healing.

To connect the smartphone to the amp, use the cable jack 3.5 mm plug – RCA male. Below is a picture which can help to grasp the idea.



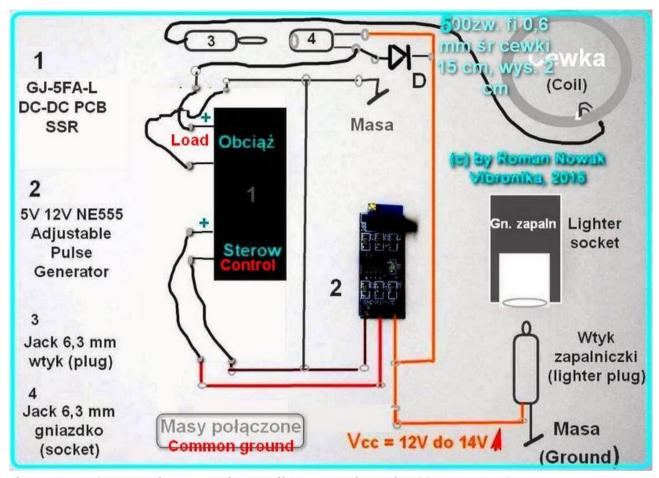
Ilustracja 6: *A simple rig for generating PEMF*

Other devices

I've developed several other devices – among them a 3 channel (three independent coils) device which can automatically sweep frequencies in the range of $60 \text{ Hz} - 10\ 000 \text{ Hz}$ within one hour or... a day. Some of them can be used as a strong Contact Machine (a kind of strong zapper) as well as a PEMF machine after a coil is connected instead of electrodes.

A practical simple PEMF machine, suitable for constant use in a car (gives energy, prevents exhaustion, coil on the seat) is presented below. To use the chip i suggest, one must make a little bit not typical coil: 500 turns, 0,6 mm in diameter wire (or just use 0.7 kg of 0.6 mm wire to wind the coil. The rectifier diode D: I like to use STTH6002c, this is an ultrafast, double rectifier, please connect the two diodes paralelly, connecting anodes with each other; catode is the middle pin.

The rectifier is necessary here, as it shorts/neutralizes reverse voltages generated by the coil. Thus, the circuitry of component 1 (as in the picture below) is protected against being burnt.



Ilustracja 7: A PEMF device, working well in a car. The coil: 500 turns wire 0.6 mm.

Of course the device shown in Ilustracja 7 can be used at home, a power adaptor 12 V/2A works well. Onsted of component 2 a much better generator may be used.

Safety while applying PEMF

What is the maximum strength of magnetism safe for humans? It's not established. What I mean is that (as far as I know) it was not possible to harm people with really big strength of magnetic induction. Of course, what must be taken into consideration here is frequencies, your reactions to them, and Herx.

Conclusion

The goal of this article was to present some chosen, basic aspects of generating PEMF. It's not comprehensive information enabling every reader to build the device. It is not a project with detailed diagrams and advice. I haven't written such a commercial project in English yet, but thinking about it.

PEMF producing devices are simple, cheap to assemble and... underestimated.