The Golden Ratio is an Ideal Proportional Coupling among Self-Inductances to Achieve Maximum Gain

> *"Seeing is not believing; believing is seeing."* – Spoken by Judy, an elf, in response to Scott Calvin's disbelief in Christmas. This is a Tim Allen movie, "The Santa Clause".

Three substances are assigned the task of constructing three self-inductances...

1. Iron is used as the ferromagnetic material of choice for toroidal armatures (in motors and generators) for providing a magnetic field in which other inductive materials may participate.
2. Copper is used as the diamagnetic material of choice for constructing a field coil that will receive the magnetic charge transferred to it from the ferrous armature.
3. Aluminum is used as the paramagnetic material of choice (at the center of this arrangement) for receiving the magnetic charge transferred to it from the field coil.

The mutual inductances among these three substances requires <u>all three</u> of the following mathematical relations are met, serving as a set of constraints, for maximum power gain...

1. The mutual inductance between the toroidal ferrous armature and a copper "squirrel cage" field coil (embedded into the toroid's inner surface) produces a maximum gain of power if this magnetic coupling is in a proportion between a maximum of 100% and a minimum of the Golden Ratio of 61.8%, or...

   a) $$0.618=\frac{2}{1+\sqrt{5}}$$ §1

2. The mutual inductance between the toroidal ferrous armature and the paramagnetic mass of aluminum (at the center of this toroid) produces a maximum gain of power if this magnetic coupling is in a proportion of the square root of 100% minus coupling §1, namely...

   a) $$0.618=\sqrt{1-0.618}$$ §2

3. The mutual inductance between the copper "squirrel cage" field coil and the aluminum mass (positioned at the center of the toroidal hole) produces a maximum gain of power if this magnetic coupling is in a proportion of the cube of coupling §1, namely...

   a) $$0.236=\left(\frac{2}{1+\sqrt{5}}\right)^3$$ §3

b) Under ideal conditions of construction, this same proportion can be calculated more simply as... $\sqrt{5}-2$

Let's rephrase these presumptions as a series of questions...

1. Is the ideal mutual inductance between iron and copper a golden ratio for maximum gain?
2. Is the mutual inductance between iron and aluminum an equivalent analog of the golden ratio?
3. Is the mutual inductance between copper and aluminum a variation of, and a predecessor to, the golden ratio?

Let's postulate some answers in a slightly mixed up order beginning with this last question, first (since I find it most intriguing). Thus...

$$\sqrt{5}=2.2360679774997896964091736687313$$

$$\sqrt[3]{\sqrt{5}-2}=0.6180339887498948482045868343656 9 \quad =\varphi$$

Is $\sqrt{5}-2 \quad =\varphi^3$ the mutual inductance between copper and aluminum and satisfies question #3?

$$\frac{2}{1+\sqrt{5}}=0.6180339887498948482045868343656 4 \quad =\varphi$$

Does φ equal the mutual inductance between iron and copper and satisfy question #1?

$$\sqrt{1-\frac{2}{1+\sqrt{5}}}=0.6180339887498948482045868343656 9 \quad =\varphi$$

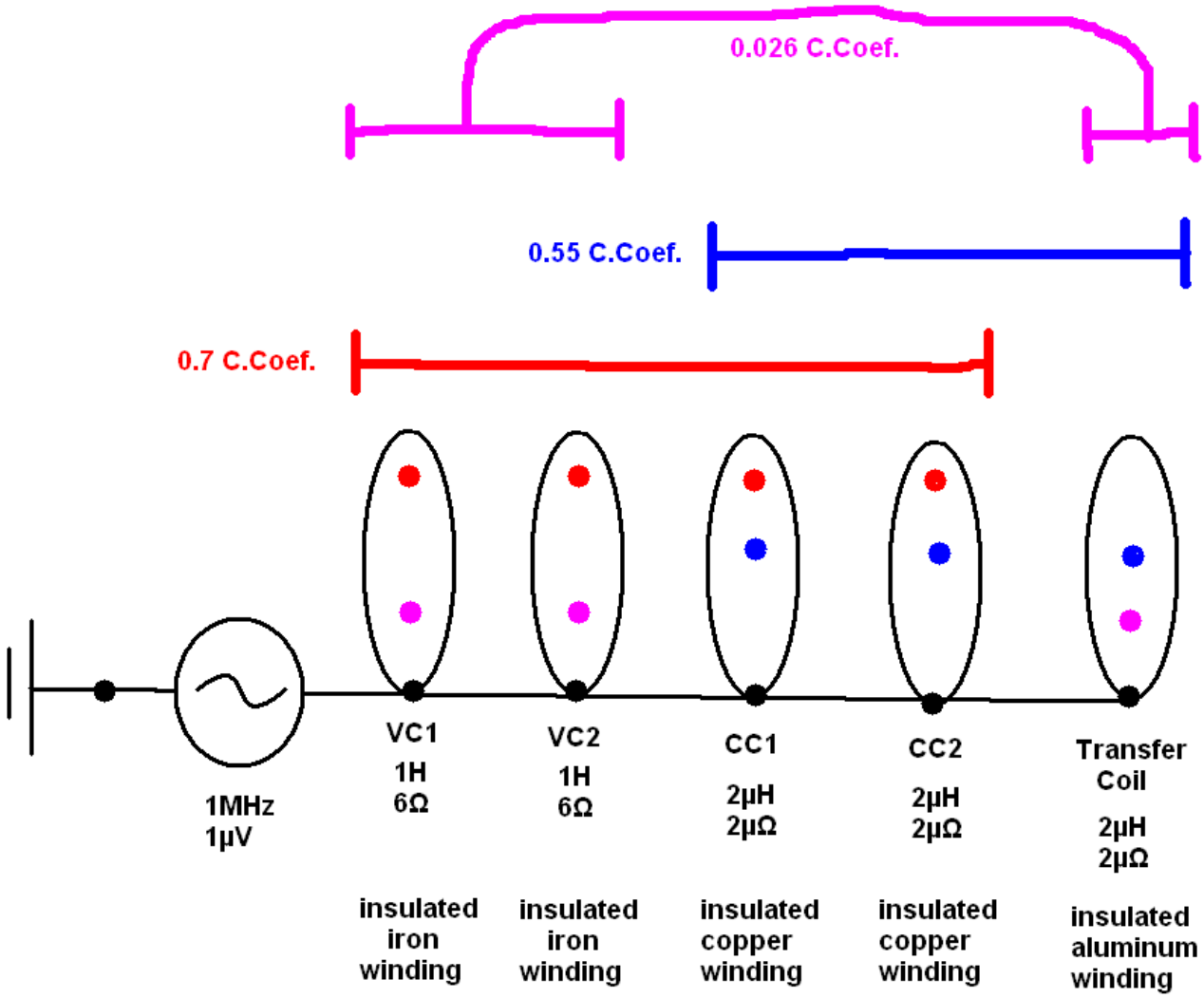
Is $\sqrt{1-\varphi} \quad =\varphi$ the mutual inductance between iron and aluminum and satisfies question #2?

More questions...

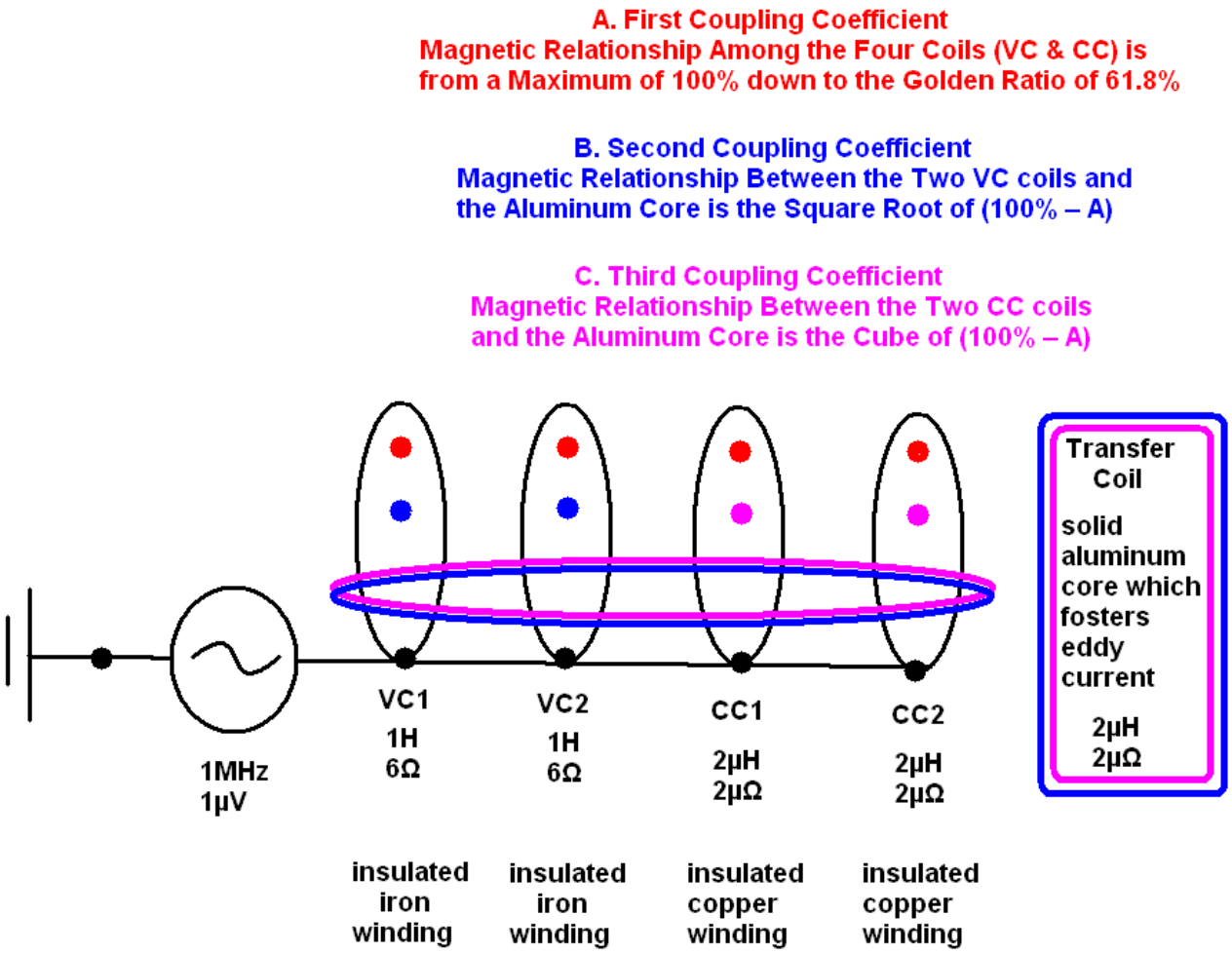
Is this the foundation for Nikola Tesla's elusive Tri-Metal Generator: a Homopolar Generator said to possess no moving parts and no prime mover capable of lasting 5,000 years and furnishing the power supply for his "ideal flying machine" (as claimed by William Lyne in his book, "Occult Ether Physics") serving as the original UFO (also invented by Nikola Tesla)? I have reason to think so courtesy of Micro-Cap analog circuit simulations displayed, below...

As an aside, it just so happens that the electronic symbol for inductance (measured in Henrys) is an upper case Greek letter Phi, Φ (pronounced, "fee"), while the mathematical value for the Golden Ratio is symbolized by a lower case Greek letter phi, φ ...! What a coincidence!

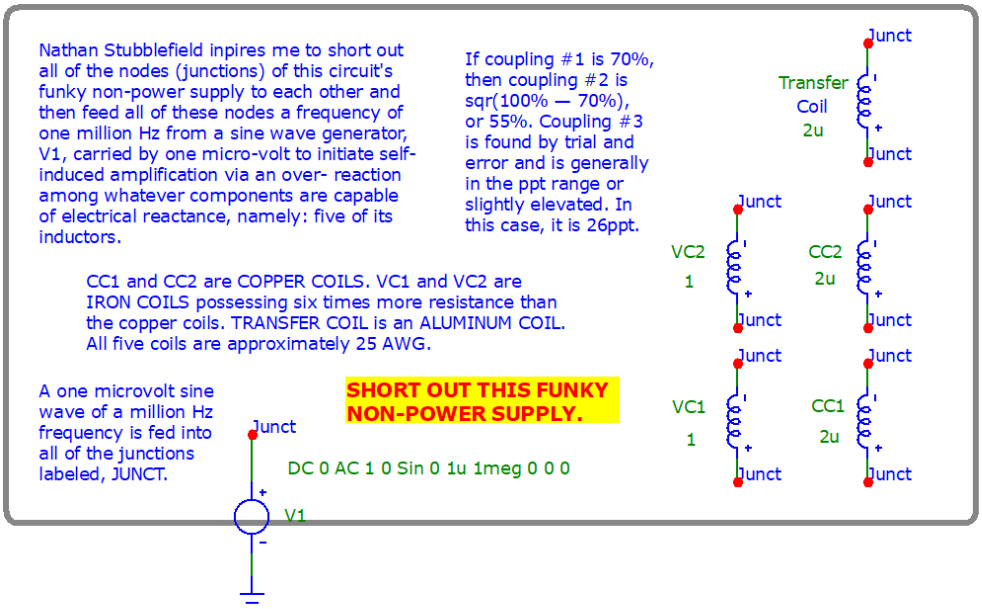
We'll begin this odyssey with a variation of Nathan Stubblefield's Earth Generator, mislabeled by the U.S. Patent Office as his Earth Battery. All of the terminals of each of its inductors are self-shorted and mutually shorted with each other. It is fed a sine wave (through a single wire) of one mega Hertz carried upon a potential of one millionth part of a volt. Here is a primitive, hand-drawn schematic...



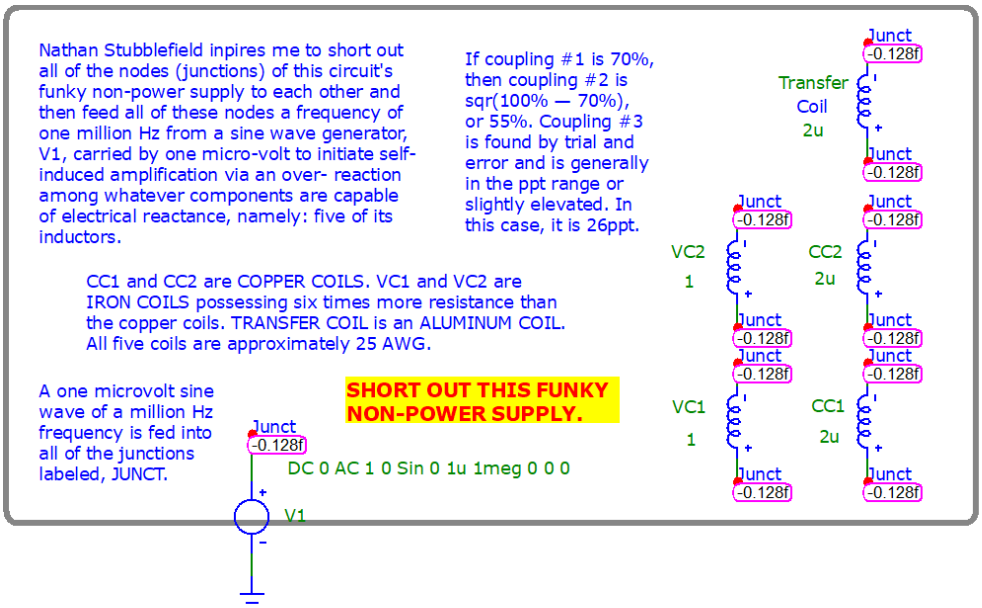
Another way of depicting this is...



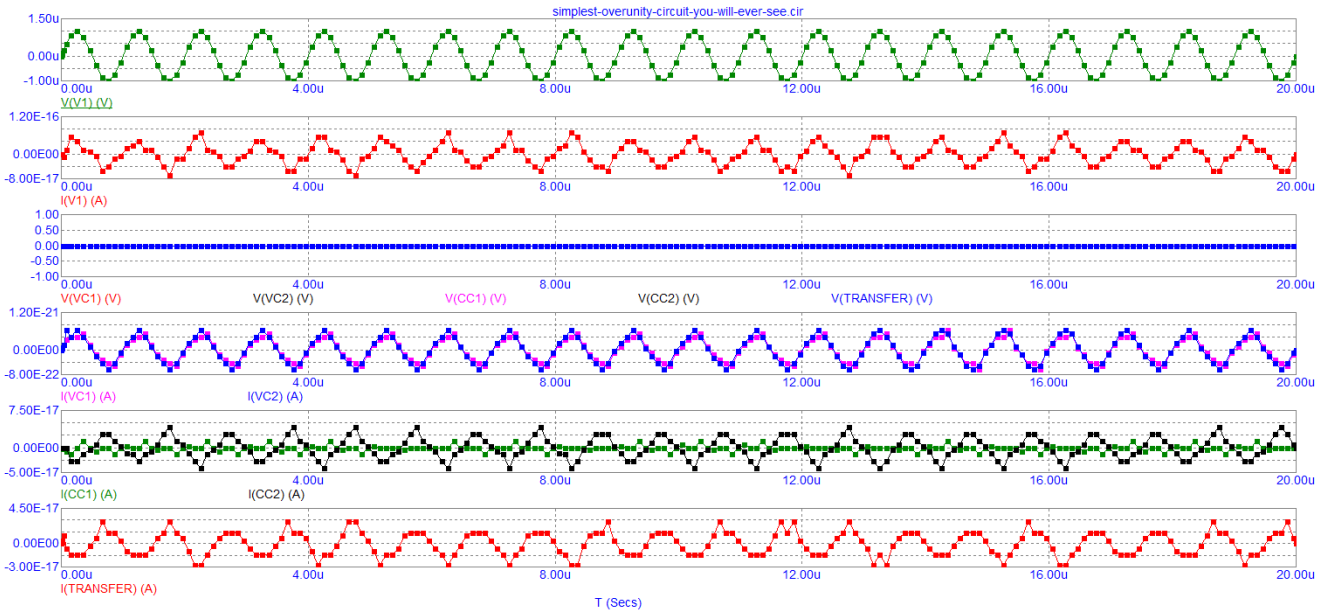
Here is a circuit simulation and its virtual oscilloscope tracings in Micro-Cap...



And its nodal voltages...

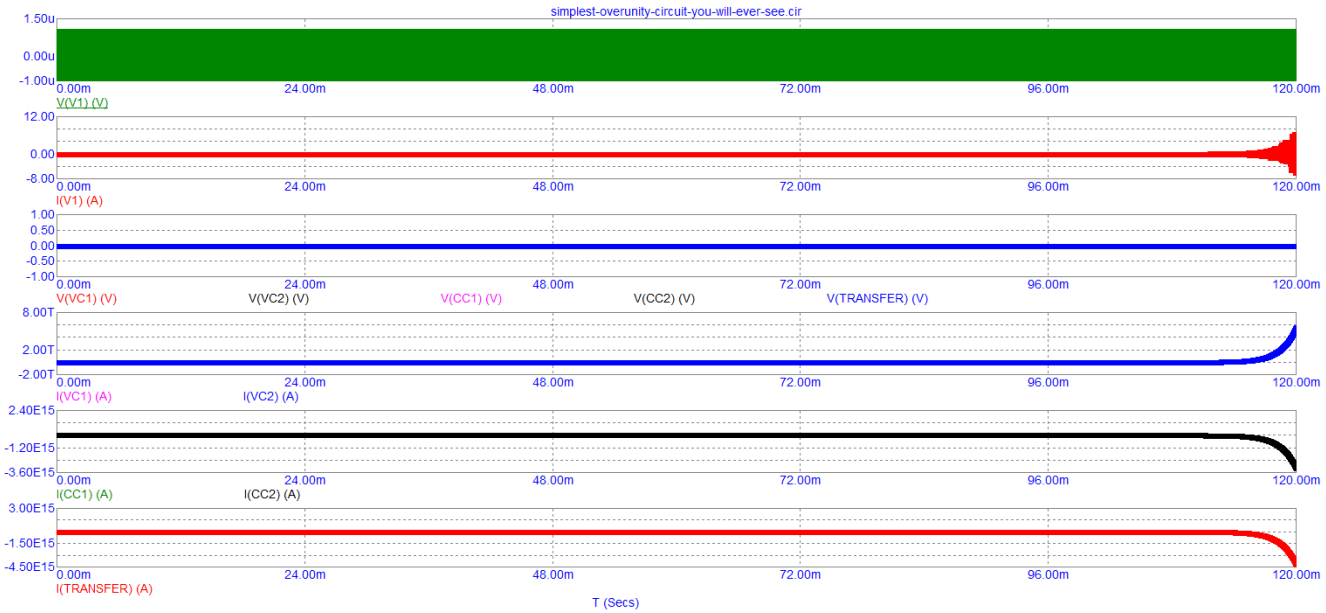


It's initial 20 micro-seconds of input voltage plus a few of its outputs...

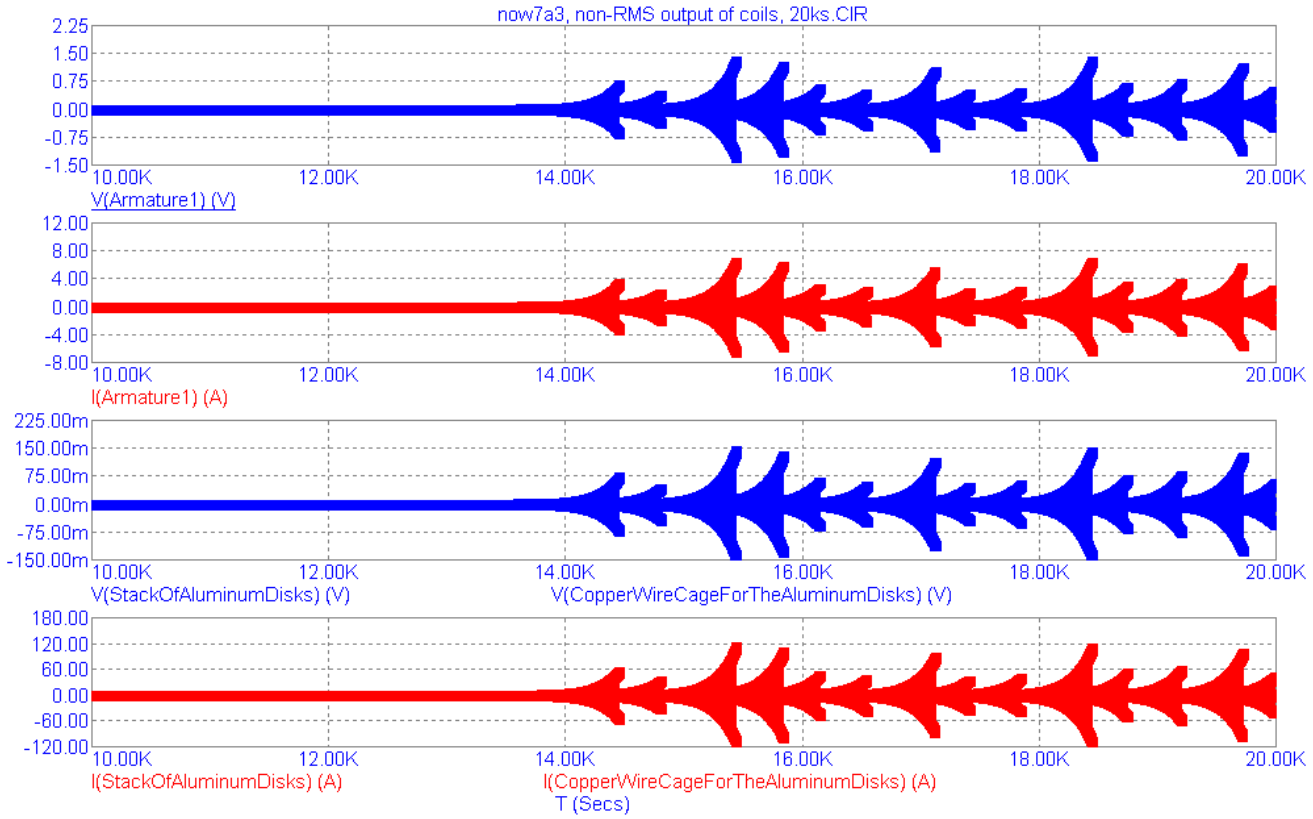


At ten milli-seconds, it is just beginning to take off (escalate its amplitudes at an exponential rate)...

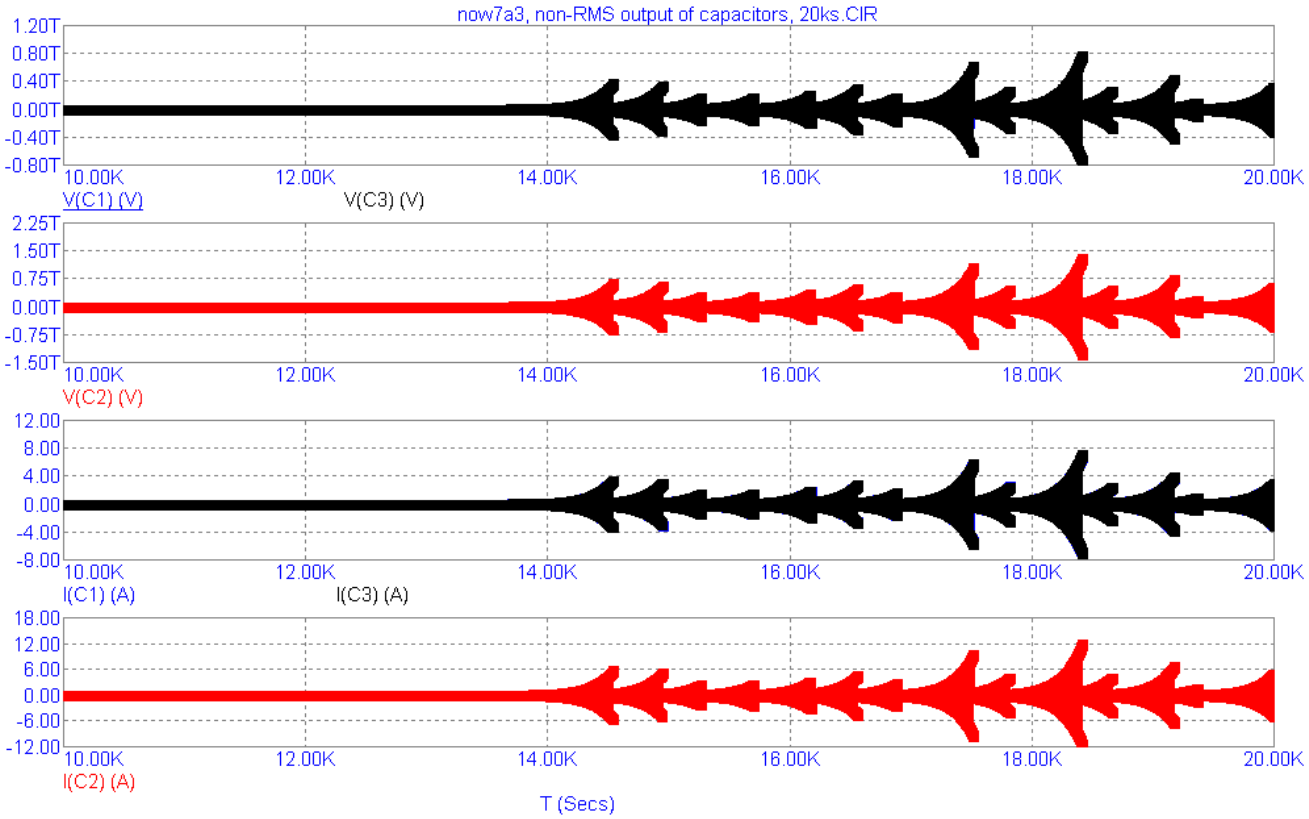
And lastly, at 120 milli-seconds, it is *really* taking off...



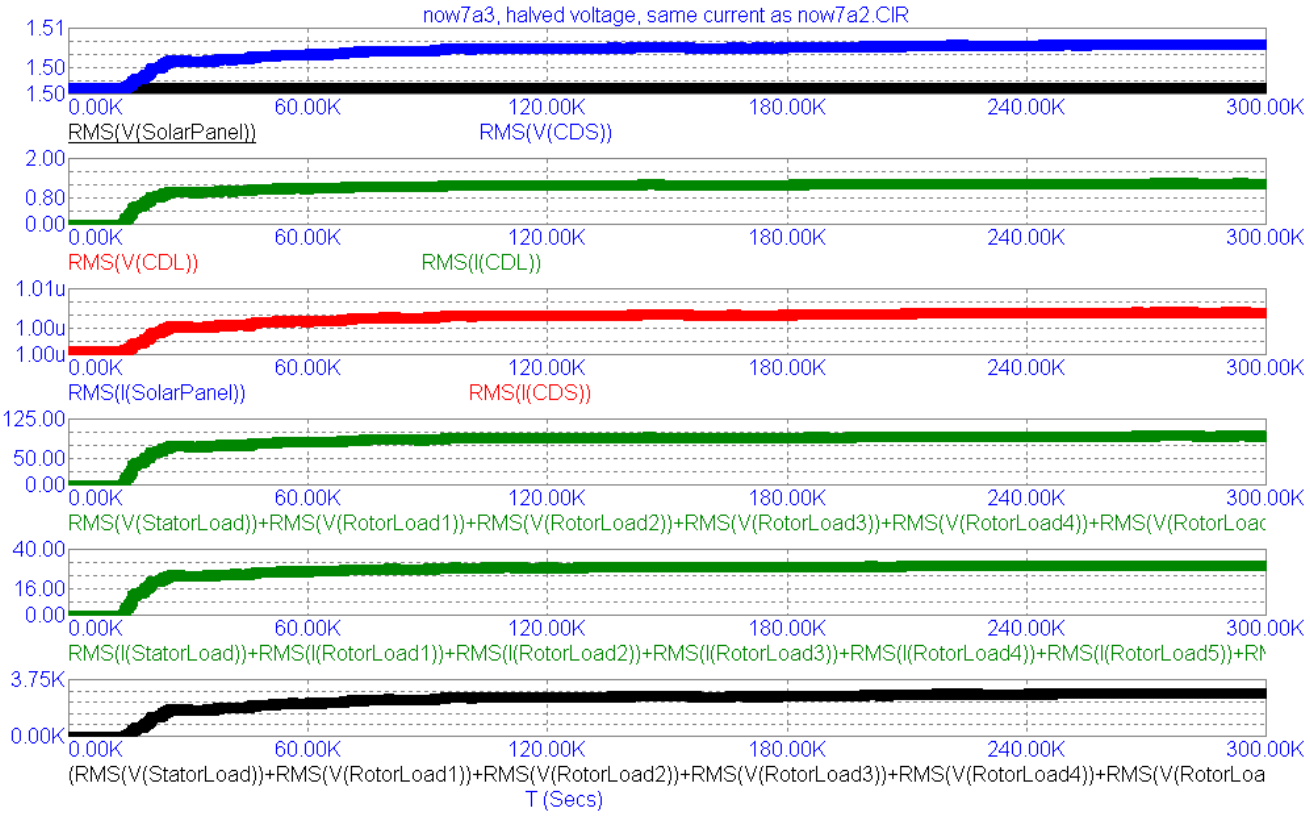
With the addition of a load, plus a suitable arrangement of its assisting components, it is possible to foster a condition of self-regulation via periodic pulses of surges which continuously collapse to create an even RMS once an initial warmup period has passed...



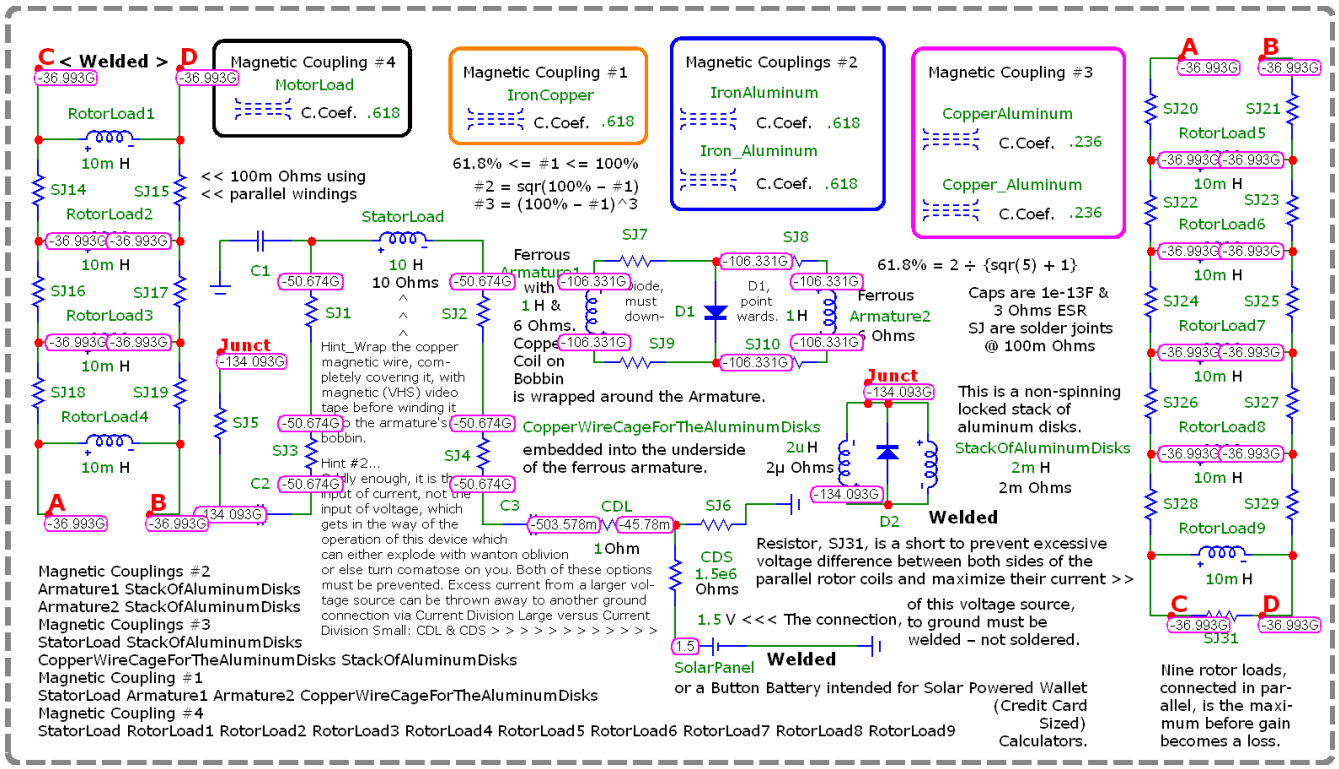
Here are the pulsating surges of this circuit's capacitors...



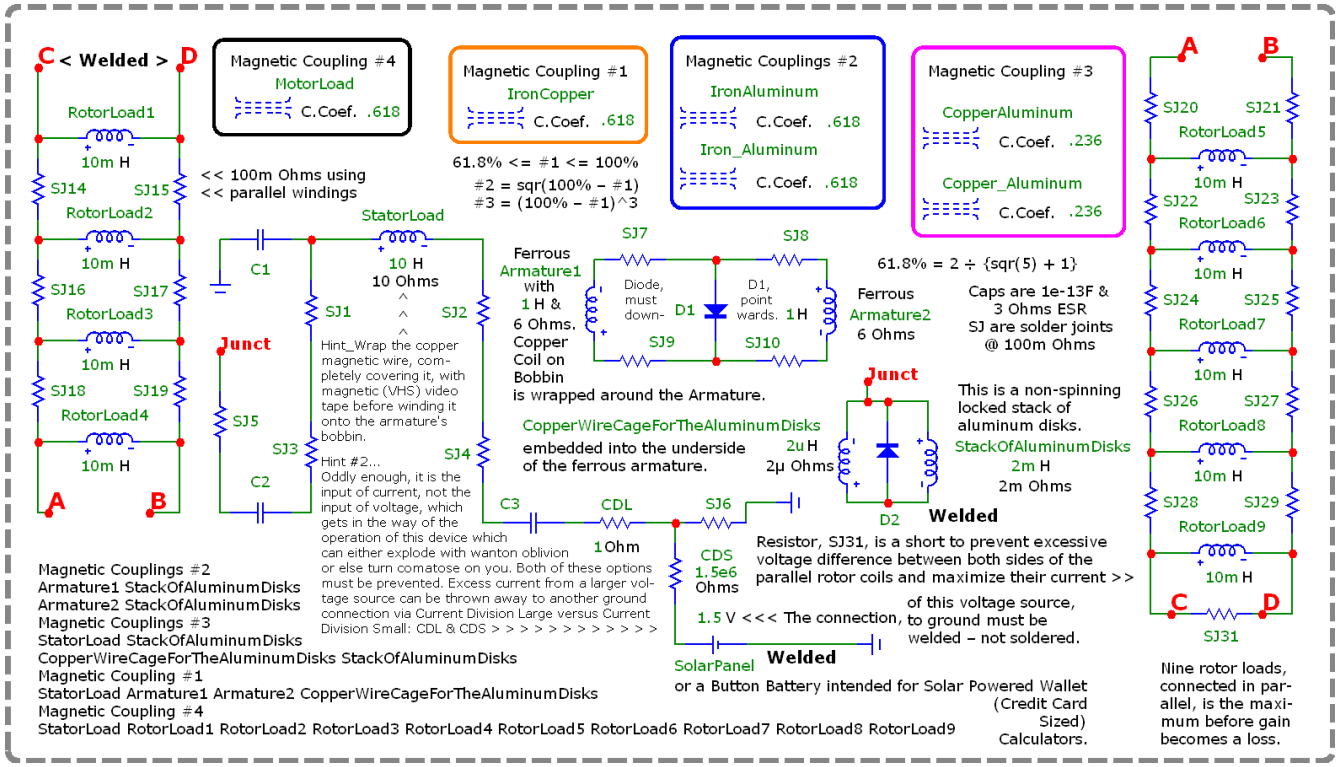
Here is the RMS input and output of its source voltage and its motor load...



Here are its nodal voltages...



Here is its schematic... [mirrored copy]



The screenshot images and the Micro-Cap simulation files which spawned them are located here...

http://vinyasi.info/patent/pri-vate/

For a more theoretical treatment of this topic, and how it was developed, please see this file...

"Burying our Overunity Circuits to Eliminate their Electrostatic Buildup" in PDF format...

http://vinyasi.info/patent/pri-vate/Burying%20our%20Overunity%20Circuits%20to%20Eliminate%20their%20Electrostatic%20Buildup.pdf

Its shortcut URL is... https://is.gd/idacan

And is mirrored here... https://ufile.io/nhrgryar