

Saucer Design Proposal

FlyingSaucerField_2.xmcd

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The charged electrophorus surface (q_0^2) of a saucer having a changing circular magnetic B field orthogonal to a changing radial electric E field generates a field having the units of Plank's constant times the units of the pressure tensor $T_{u,v}$ of Einstein's General Relativity equation.

$$q_0 := 1 \cdot \text{coul}$$

$$B := 1 \cdot \frac{\text{volt} \cdot \text{sec}}{\text{m}^2} \quad \text{also,} \quad A_{\text{vec}} := \frac{1 \cdot \text{volt} \cdot \text{sec}}{\text{m}}$$

$$E := 1 \cdot \frac{\text{volt}}{\text{m}}$$

$$h := 1 \cdot \text{joule} \cdot \text{sec}$$

The usual cross-product equation times the dot product of charge squared yields:

$$\left[\begin{pmatrix} B \\ 0 \\ 0 \end{pmatrix} \times \begin{pmatrix} 0 \\ E \\ 0 \end{pmatrix} \right] \cdot \left[\begin{pmatrix} 0 \\ 0 \\ (q_0)^2 \end{pmatrix} \right] = 1 \cdot h \cdot \text{Pa} \quad \text{The result is not a vector.} \quad 1)$$

However, the simultaneous alternating B and E field result is a vector always in the same direction in the Z axis:

$$\left(\begin{pmatrix} q_0 \cdot B \\ 0 \\ 0 \end{pmatrix} \times \begin{pmatrix} 0 \\ q_0 \cdot E \\ 0 \end{pmatrix} \right) = \begin{pmatrix} 0 \\ 0 \\ 1 \end{pmatrix} \cdot h \cdot \text{Pa} \quad \text{or,} \quad \left(\begin{pmatrix} q_0 \cdot -B \\ 0 \\ 0 \end{pmatrix} \times \begin{pmatrix} 0 \\ q_0 \cdot -E \\ 0 \end{pmatrix} \right) = \begin{pmatrix} 0 \\ 0 \\ 1 \end{pmatrix} \cdot h \cdot \text{Pa} \quad 2)$$

Thus, the ac field produces mono directional vector in the Z direction.

The vector magnetic potential (A_{vec}) is key to the propulsion vector Z as: $(A_{\text{vec}} \cdot q_0) \cdot \frac{N}{m} = 1 \cdot h \cdot \text{Pa} \quad 3)$

QED

Allowing for a changing charge per second, we develop pressure times power where the power increases as the square of the frequency of the charge change. Both charges in the below equation are always the same polarity for the force vector to remain the same.

Example A

Example B

$$\begin{bmatrix} \frac{-q_0}{\text{sec}} \cdot \left(\frac{\text{volt} \cdot \text{sec}}{\text{m}^2} \right) \\ 0 \\ 0 \end{bmatrix} \times \begin{bmatrix} 0 \\ \frac{-q_0}{\text{sec}} \cdot \left(\frac{\text{volt}}{\text{m}} \right) \\ 0 \end{bmatrix} = \begin{pmatrix} 0 \\ 0 \\ 1 \end{pmatrix} \text{ Pa} \cdot \text{watt} \qquad \begin{pmatrix} \frac{-q_0}{\text{sec}} \cdot -B \\ 0 \\ 0 \end{pmatrix} \times \begin{pmatrix} 0 \\ \frac{-q_0}{\text{sec}} \cdot -E \\ 0 \end{pmatrix} = \begin{pmatrix} 0 \\ 0 \\ 1 \end{pmatrix} \text{ Pa} \cdot \text{watt} \qquad 4)$$

In the above equations, examples A and B are identical in the result where example A shows that B is equal to $\left(\frac{\text{volt} \cdot \text{sec}}{\text{m}^2} \right)$ and E is equal to $\left(\frac{\text{volt}}{\text{m}} \right)$. Then the Example A equation can be restated as:

$$\begin{bmatrix} -q_0 \cdot \left(\frac{\text{volt}}{\text{m}^2} \right) \\ 0 \\ 0 \end{bmatrix} \times \begin{bmatrix} 0 \\ \frac{-q_0}{\text{sec}} \cdot \left(\frac{\text{volt}}{\text{m}} \right) \\ 0 \end{bmatrix} = \begin{pmatrix} 0 \\ 0 \\ 1 \end{pmatrix} \text{ Pa} \cdot \text{watt} \qquad \text{which shows that power is proportional to frequency.} \qquad 5)$$

(This is by reason that the inverse of time is frequency.)

Then the rate of charge change per second will determine the force field strength as well as the applied voltage.

In constructing our flying saucer, the first step is to consider a pair of circular metal conductors (plates) which are separated by some distance and which also have a dielectric medium between the two plates within that distance. This is a capacitor which will form the central circular floor of our flying saucer.

When charging a capacitor constructed as described above, there is a circulating magnetic flux generated within the space between the plates that is parallel to the plates and also 90 degrees to the electric field lines between the plates and 90 degrees to the plates.

The relevant equation for the field generated as described is given by reference 1 below:

Reference 1: Fleish, Daniel, A Student's Guide To Maxwell's Equations, Cambridge University Press, 2008, 2009, p.100

The next page develops an example for the nature of the field generated.

MagFluxGenTemp3.xmcd

	Superconductor?	Plate radius	Field radius
$C1 := 10 \cdot \text{nF}$	$R1 := 1.2 \cdot 10^{-07} \cdot \text{ohm}$	$r_o := 9 \cdot \text{in}$	$r := 9 \cdot \text{in}$
$\Delta V := 1 \cdot 10^{05} \cdot \text{volt}$	$\mu_o := 4 \cdot \pi \cdot 1 \cdot 10^{-07} \cdot \frac{\text{henry}}{\text{m}}$		$f := 1.420405 \cdot 10^{14} \cdot \text{Hz}$
$t := \frac{1}{f}$	$R1 = 1.2 \times 10^{-7} \Omega$	$C1 = 1 \times 10^{-8} \text{F}$	$\frac{t}{R1 \cdot C1} = 5.8668713031377$

Mylar has a dielectric constant K of 3.2 and a breakdown voltage of 7500 volts per mil.

$$C = \frac{\epsilon_o \cdot K \cdot \text{Area}}{d_o} \quad \text{Area} := \pi \cdot r_o^2 \quad \epsilon_o := 8.854187817 \cdot 10^{-12} \cdot \frac{\text{farad}}{\text{m}} \quad 6)$$

Where: $r_o = 9 \cdot \text{in}$ $r = 9 \cdot \text{in}$ $K_d := 3.2$

$$d_o := \frac{\epsilon_o \cdot (K_d) \cdot \text{Area}}{C1} \quad d_o = 18.3133298013145 \cdot \text{mil} \quad \text{where:} \quad 1 \cdot \text{mil} = 1 \times 10^{-3} \cdot \text{in} \quad 7)$$

Cap. voltage limit: $d_o \cdot 7500 \cdot \frac{\text{V}}{\text{mil}} = 1.3734997350986 \times 10^5 \text{V}$ @7500 v/mil for Mylar 8)

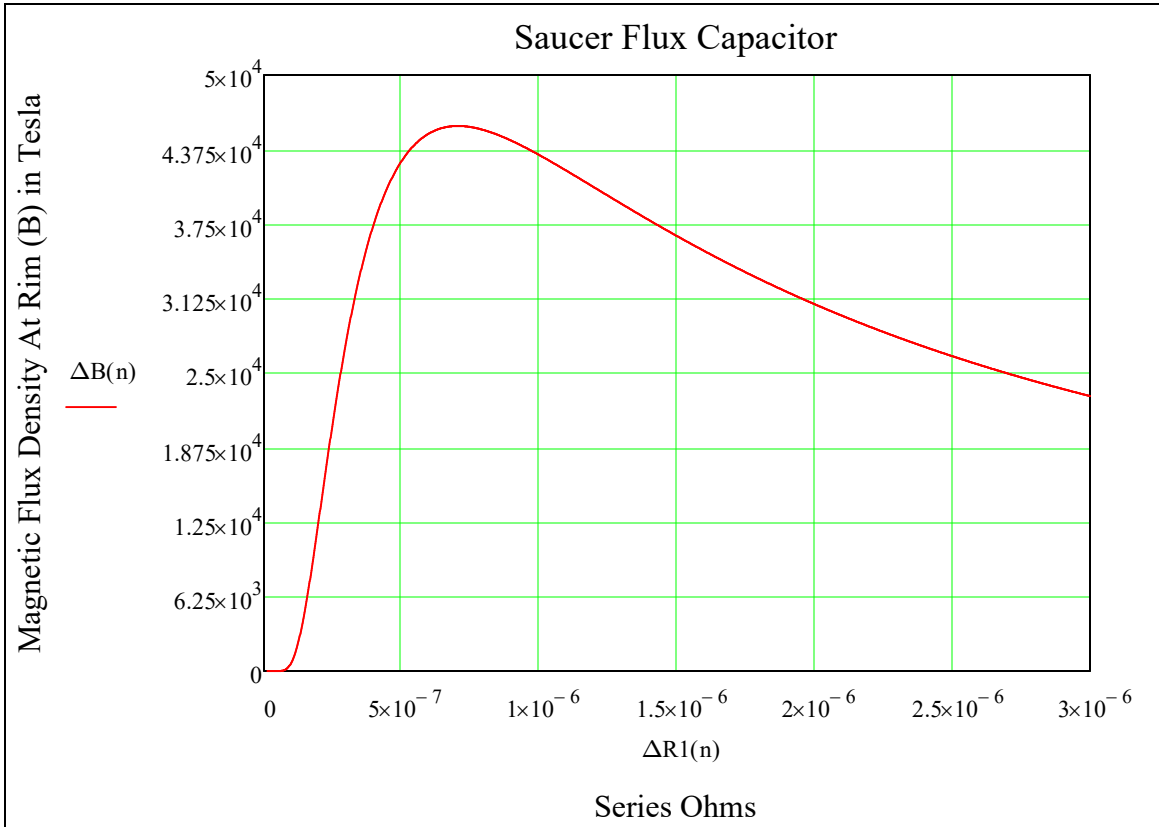
Given: $B = \left(\frac{\mu_o \cdot \Delta V}{2 \cdot \pi \cdot R1} \right) \cdot e^{-\left(\frac{t}{R1 \cdot C1} \right)} \cdot \left(\frac{r}{r_o^2} \right)$ $n := .1, .11..25$ $\Delta R1(n) := R1 \cdot n$ 9)

The following equation yields the magnetic flux density in Tesla (**B**) at the rim of a circular capacitor having plates of r_o in radius as a function of changing series ohms.

$$\Delta B(n) := \left(\frac{\mu_o \cdot \Delta V}{2 \cdot \pi \cdot \Delta R1(n)} \right) \cdot e^{-\left(\frac{t}{\Delta R1(n) \cdot C1} \right)} \cdot \left(\frac{r}{r_o^2} \right)$$

Decreasing R and t proportionally causes the magnetic flux B to increase proportionally. The smaller the saucer, the more the "punch". (Enough to take down anything humans have.)

Plot 1



$$\frac{t}{(R1) \cdot C1} = 5.8668713031377 \quad B_{\max} = \mu_o \cdot \frac{i_{\text{cur}}}{m} \quad \text{and} \quad H_a = \frac{i_{\text{cur}}}{m} \quad \text{or} \quad H_a = \frac{B_{\max}}{\mu_o} \quad 11)$$

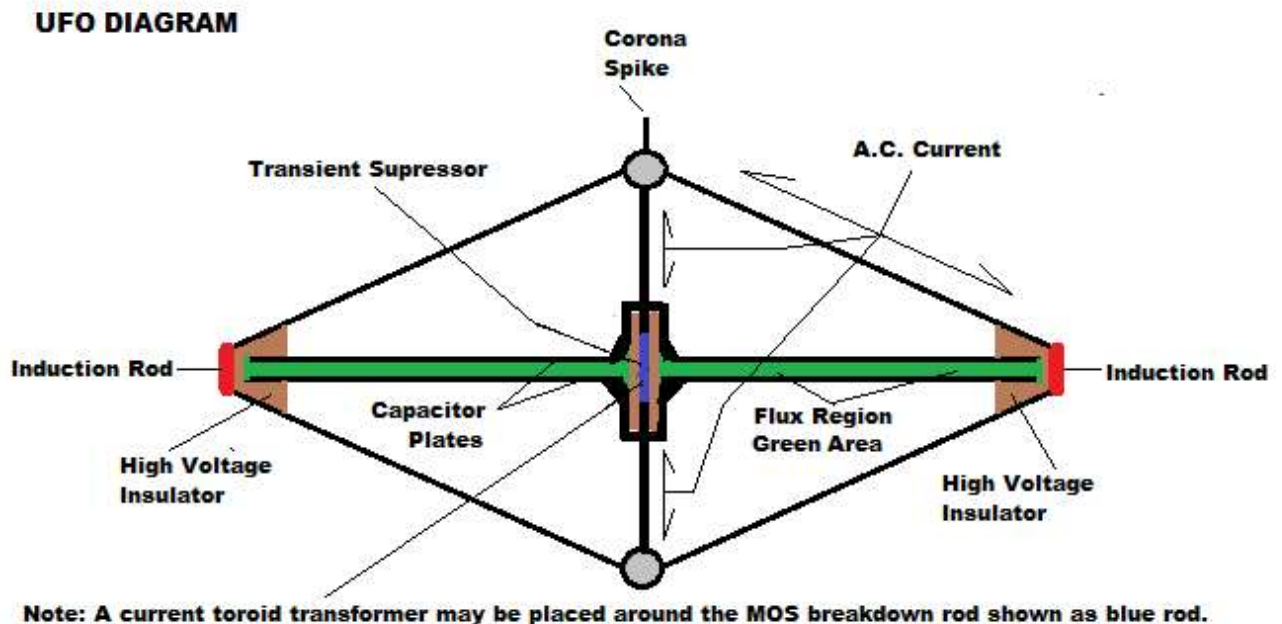
$$H_a := \frac{4.57 \cdot 10^{04} \cdot \text{tesla}}{\mu_o} \quad H_a = 3.6366904496498 \times 10^{10} \cdot \frac{\text{amp}}{m} \quad \frac{\Delta V}{r_o} \cdot H_a = 1.5908532150699 \times 10^{16} \cdot \frac{\text{watt}}{m^2} \quad 12)$$

$$\text{Press} := \mu_o \cdot (H_a)^2 \quad \text{Press} = 3.4710913660106 \times 10^{13} \cdot \frac{\text{lbf}}{\text{ft}^2} \quad \text{Press} = 1.66196753549 \times 10^{15} \cdot \frac{\text{newton}}{m^2}$$

$$Q_{\max} := C1 \cdot \Delta V \quad \Delta i_{\max} := \frac{Q_{\max}}{t} \quad \Delta i_{\max} = 1.420405 \times 10^{11} \cdot \text{amp} \quad 13)$$

The results yield huge pressure and power magnitudes. More than enough to create crop circles.

Figure 1 Complete saucer design showing external surface and total resonant circuit.



Surface of saucer could be a dielectric having a charged metal plate underneath that is charged and discharged at the same rate of the resonance frequency but having no direct connection to the outside surface of the craft. Further, the surface has powdered iron embedded into it to enhance the circular magnetic field strength.

The changing radial electric field would then generate a strong circular magnetic field around the surface of the craft 90 degrees to the radial electric field. The force field that provides the upwards propulsion would be the field containing the vector magnetic potential contained within equation 4 and 5 result on page 2 above.

Note the induction rods (red) are isolated electrically from the capacitor plates and serve to pick up the changing magnetic flux (green) and act as very low impedance source to the quarter wave surface of the craft. The ends at the corona spike will be the very high voltage point. Multiple quarter wavelengths could be employed for higher frequency modes of operation.

End