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Two-Stage Mechanical Oscillator - By Veljko Milkovic

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Veljko pictured next to his two stage oscillator -[Source](#)

The patented two-stage mechanical oscillator technology by inventor [Veljko Milkovic](#) **can be used TODAY as a mechanical amplifier for clean energy applications.** Current applications (but not limited too) include a mechanical hammer, press, **water pump**, transmission and electric generator.

The two-Stage mechanical oscillator process is like no other and **is a proven demonstration to show a higher efficient transformation of a smaller force into a BIGGER forced rotation.** **Currently there is no known mechanical water pump method that is more efficient than the Milkovic two stage oscillator's process.** All industry gravity assisted systems are wasting energy in comparison to this method.

Veljko also has Eco-housing designs which are profiled both on his web site and under Eco housing on Panacea's [sustainable development page](#). None of these systems are in use to capacity today in consensus reality. The Milkovic process is an invaluable power management lesson, the observation and demonstration of this two stage oscillation process is needed to UPGRADE mainstream faculties power management theories.

It can be said that Milković's models satisfy the main precondition of the "eternal motor" - positive balance of energy. The output energy is larger than the input energy. However, these models are still not autonomous. Gradual decrease of energy of the primary oscillator, which is usually a physical pendulum, must be supplemented from outer energy sources. Degree of efficiency of these machines is larger than one, therefore much larger than with any other machine, which could not be expected, according to present laws of physics.-[Source](#)

Veljko's technology can be proven by independent testing and physical models to help upgrade the current curricula. If you are involved in a foreign university and can help this effort please [Contact us](#) or Veljko.

Given the proven replication results of this technology, It may well be that the Newton laws are in need of extension. This device teaches us many new things. More on this will be discussed in the faculty section of this document. [Replications](#) have already been done proving that this design is very practical in the application of gravity assisted systems. Also many scientists have been shown how the device operates and have all agreed that this system deserves further investigation.

http://www.veljkomilkovic.com/Tok_i_rezultatiEng.html

Recently Ronald Pugh, a Canadian machinist, reports on the pendulum-lever system efficiency measurement he conducted that one more time confirms the super efficiency of Milkovic's Two-stage Mechanical Oscillator. Ronald Pugh demonstrated his

Mk 5 Input/output -Determination through Load Cell Measurement Output/Input Power Ratio 1.46. You can read and download the paper on the next link (487 KB - PDF):

http://www.veljkomilkovic.com/Images/Merenja/Ronald_Pugh_Input-Output_Measurement_Mk5.pdf

The following inventions are different possibilities from application of the multi-level oscillator:

1. Water hand pump with pendulum
2. Fan with pendulum
3. Mechanical hammer with adaptable pendulum weight.
4. Press with pendulum and magnets.
5. Water pump with pendulum and electromagnets.
6. Electrogenerator with pendulum and magnetic buffers.
7. Wind propelled electrodyamo and gravitational potential.
8. Electrodyamo with elastic pendulum handle
9. Electrodyamo with double lever and eccentric mass windmill.

The author of the tenth invention is Nebojsa Simin. This invention is a universal device for power generation and movement by inertia:

10. Electrodyamo with eccentric flywheel and electric motor.

Veljko has also has developed an Inertial drive (anti-gravitational) motor In his research study, there he worked hard on a gravitation phenomenon and also on the improvement of anti-gravitational experiments and, connected to that, anti-gravitational operating systems. Veljko has also made a new discovery about gravity and inertia that is as important as Newtons observations.

In light of the efficiency reports by the Milkovic replicators, this technology is an invaluable power management process which the mainstream faculties must benefit from. **As an emission cutting device and power savings device alone, the Milkovic technology justifies (and needs) law for its mandatory implementation.**

The Nonprofit organization Panacea-BOCAF intends to support open source engineers working with the Milkovic and other suppressed /neglected and misunderstood clean energy technologies. These engineers require grants, resources, faculty recognition and security. All this can be created in [Panacea's proposed granted research and development center](#). For those able to help this effort, please [Contact us](#).

Despite Veljko Milkovic having a working available device, his scientific find has no faculty recognition, and he is further unable to get faculties to present his findings. Veljko Milkovic contributions need a grant backed research and development environment to flourish and will be submitted into faculty study in the proposed granted Panacea research and development center. If you're a member of the public or a scientific group which can aid in grants for the center or help Veljko Milkovic please [contact Panacea](#)

Description



Veljko Milkovic pictured next to his Two-Stage mechanical oscillator

Introduction by Peter Lindermann

Model Builder's Guide- To Understanding Veljko Milkovic's "Two-stage Mechanical Oscillator". The following description is a set of guidelines for model builders who wish to replicate a working model of Veljko Milkovic's "[Two-stage Mechanical Oscillator](#)". For a theoretical description of what the machine does, and why, [please read](#).

Understanding the Mechanism

The first part of this machine is a "simple machine" called a lever and fulcrum. It functions as a balance beam resting on a low-friction bearing system, with one fixed weight on either side of the beam. This part of the machine is oriented in the horizontal plane, and can rock up and down within a limited range. This limited horizontal

movement is best defined by physical “stops” and limited to less than 15 degrees of rotation. Likewise, this movement is best “damped” by adding springs on both the top and bottom of the beam to constantly center the beam at the mid-point of its movement, and to return energy to it when the beam approaches the extremes of its movement range. This creates a mechanical oscillator that has mass, inertia, and an inherent frequency of oscillation based on its physical constants. This is the first of two oscillators in the system.

The second component of the machine is a weighted pendulum. One of the fixed weights is replaced with a weighted pendulum of equal mass hanging from the beam on one side. Ideally, it should be attached to the balance beam by a low-friction bearing mount whose position can be adjusted along the length of the beam. This weighted pendulum defines a second oscillatory system in the vertical plane, and is free to swing back and forth within a defined range. The swing of the pendulum is “undamped”, and left able to swing completely free in the gravitational field for no less than 90 degrees of rotation, and up to 180 degrees of rotation. The weighted pendulum defines a second mechanical oscillator that has mass, inertia, and an inherent frequency based on its physical constants.

The combining of these two, separate mechanical oscillators into a single system becomes a “Two-stage Mechanical Oscillator”. When properly tuned, this machine can function as a Mechanical Amplifier.

Specific Set of Plans

This document does not function as a specific set of plans for building a model, simply because there are so many different variations the home model builder may wish to explore. Whatever design is used, the model must be built so that the frame can withstand all of the physical forces that appear in the machine, without bending. It must be stiff and firmly mounted to an immovable base. Each movement, including the pivoting of the balance beam, and the swinging of the pendulum, should be secured in high quality bearings, to minimize frictional losses during operation.

1 Also, the linkage of the power take-off from the beam should be light weight, and strong enough to convey the energy to the output load. The weight of this output linkage must be taken into account in the over-all balance of the horizontal beam system.

Necessary Adjustments

For these two mechanical oscillators to function together harmoniously, their oscillatory characteristics must be synchronized. In order to facilitate this tuning process, Veljko recommends that various aspects of the machine be built so that they are adjustable. These include:

- 1) The position of the “fixed” weight on the balance beam should be adjustable horizontally.
- 2) The position of the bearing block holding the pendulum should be adjustable horizontally.
- 3) The position of the weight on the pendulum rod should be adjustable vertically.
- 4) The tension of the springs that damp the movement of the horizontal beam should be adjustable.

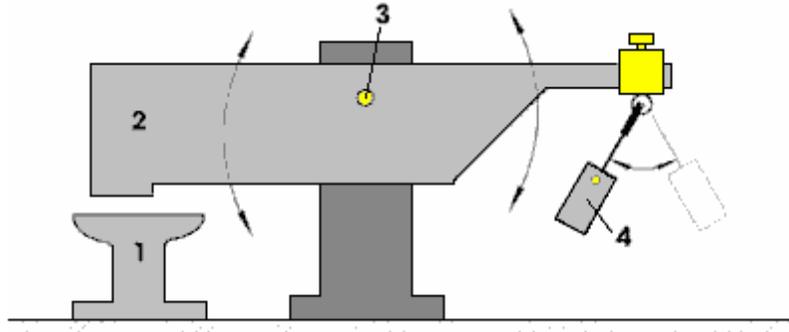
When tuned properly, the oscillations of both systems act together to produce “harmonic reinforcement” of the energy stored in the combined oscillatory system, and very large force amplifications are possible. When left un tuned, or improperly tuned, the oscillations of the two systems cause “beat frequencies” against one another, and the force amplification is dissipated in “parasitic oscillations.” Therefore, the machine can only function as a Mechanical Amplifier when it is built well AND tuned properly.

Specific Tuning Procedures

The first set of adjustments is to make sure that the beam is balanced in its resting position. This is accomplished by moving the fixed weight or the pendulum bearing block along the balance beam as necessary, so that the beam rests perpendicular to the floor, without the damping springs in place. After the balance position is found, the damping springs may be installed. The second set of adjustments is made to synchronize the oscillatory periods of the two oscillators. The oscillation period of the beam can be adjusted by changing the spring tension. In general, the stiffer the spring tension, the faster the oscillation will be. The oscillation period of the pendulum can be adjusted by sliding the weight up and down the pendulum rod. In general, the higher up the rod the weight of the pendulum is, the faster the oscillation will be.

The goal is to tune both of these oscillations so that the beam oscillates at exactly twice the frequency of the pendulum swing. There are numerous other subtleties to the tuning process, but this will get model builders pointed in the right direction. Good luck, [Peter Lindemann, DSc](#)

Replication



As with many of these types of motors and mechanisms, trying to understand exactly how they produce energy can be confusing without building one. When a Milkovic type oscillator is first assembled and operated, it behaves much like the theoretical model would be expected to behave. The output is erratic and weak, the pendulum is difficult to keep going and the whole thing is an inefficient mess. However, it's a whole different machine once it falls into resonance.

The output becomes strong and regular, the pendulum takes very little energy to keep it swinging and you can see immediately what Milkovic is talking about. You really need to build one and test it to get a better understanding of the principal involved. Then you can try and get it into resonance, which will teach you in no uncertain way the difference between a resonant and a non-resonant device. – Open source engineer.

Ron's Double Solenoid Pendulum



Image taken from the video

“Anyone duplicating Veljko's pendulum was thought to have their own ideas as to how to build.

This has been presented as an idea piece only. It uses a quadrature shaft encoder to

provide the logic to fire the main solenoid and the ratchet solenoid. The first part of the video is with the system running on 12 volts DC, the second part is around 20 volts DC- Ron"

Ron's intention was to get a pendulum to operate in continuous mode before attempting to connect up a generator or some such device to extract power. So what you see here is merely a first step towards that goal. Ron tried several schemes to get the pendulum to run under power. With the arm locked this is easy enough. He has had a 18 Kg pendulum running on 5 watts. But when one allows the arm to oscillate it takes more power, as much as 10 times more power.

The basic machine then has a one meter secondary arm and an 18 Kg pendulum. The solenoid is triggered to pull the pendulum as the pendulum changes direction. A quadrature encoder provides the direction of rotation information to the logic board. A one shot is fired which powers the mosfet which engages the solenoid. At the completion of the solenoids stroke, a Hall sensor shuts of the one shot. This holds off the solenoid until the second solenoid fires and resets the logic. A separate small solenoid is pulsed at the same time as the main solenoid to engage the ratchet.

As seen in the video, the unit is only running on 12 volts but will reach 180° easily on 24 volts. Each solenoid would use 50 watts if run continuously, but uses only a portion of this as it is cycled on for say 10% of the time.

Video by Ron -[Veljko Milkovic Research and Development](#)

Comment by Veljko -we are proud to inform you that there is a new video of a two-stage oscillator replica published by a Canadian engineer, Ron Pugh. Double Pendulum - Automatic Pendulum Driver System. Ron Pugh demonstrates his automatic double solenoid driving system for the pendulum swing in the Milkovic's two-stage oscillator.

You can watch this video on the next link (YouTube video, 01:17 min.):

http://www.youtube.com/watch?v=il_o0L8hcrE

More info on the subject:

<http://www.veljkomilkovic.com/OscilacijeEng.html>

Research and development ideas

Solar -Magnet powered pendulum

That is not bad running on its own power for 15 to 20 mins. The only source of energy for this device is the solar cell. There is no energy coming from the coils or magnets. The

energy flows like a stream flows. It goes from the sun to the solar cell. Then it flows into the capacitor. Then it flows from the capacitor. Then it goes into the coil, and the coil pushing on the magnets makes the energy jump from electrical energy into the mechanical energy of the moving pendulum. The pendulum is actually a mechanical oscillator, and the energy sloshes back and forth between kinetic energy and potential energy. The kinetic energy associated with the moving pendulum is lost to air friction and bearing friction. Both types of friction become heat. This represents another energy jump, from mechanical energy to electromagnetic energy. The heat energy radiates away into space, and is lost forever. So you go from sunshine hitting the earth, to heat radiating away at night.

[Video - Magnet powered pendulum](#)

Bedini Pendulum by Rick

Watching the pendulum swing back and forth, I immediately thought how cool it would be to use a Bedini Pendulum with the device. It seems that very little battery power would be needed to keep the pendulum swinging, and that keeping the run battery fully charged should be no problem if switching is employed. Take a look at the smw1998a (Lee's) replication of the Bedini Pendulum, and envision it as replacing the pendulum of the Milkovic 2 stage oscillator, and see if you agree.

Another idea is create a coil in other side, put powerful magnet on oscillator and make it move through the coil. Use the magic of induction. If you will measure flowing current, you will be able to compare total power that we put into this system and total power we can get out of it.

[YouTube - Tic Toc](#)

A way to utilize Milkovich's pendulum device by Mopozco

[Mechanical oscillator](#)

Wilt device or the Living Energy Machine

The Wilt device or the Living Energy Machine would be the ideal energy extraction machine to hang on the end of the secondary arm.

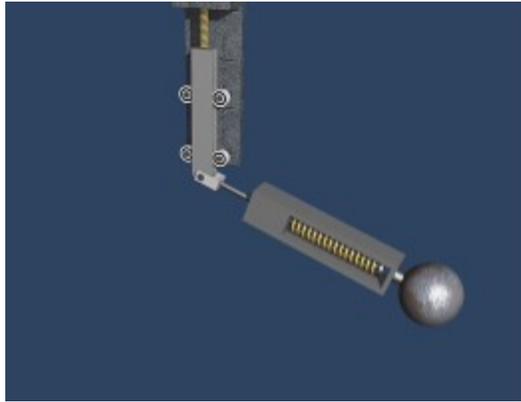
<http://www.youtube.com/watch?v=bnC9qCRhk0U>

http://www.youtube.com/watch?v=2B_35b6vd4M

<http://www.nextenergynews.com/free-energy/zero-point49.html>

This shows an interesting device, which converts centrifugal force into a rotation-[living energy machine](#). This could be one device which could be used on the output to create useful work.

Spring looped Design idea



A spring looped design

[Google Video of the process](#)

Dingus Mungus Fly wheel loop

I would suggest transferring the kinetic energy from the striking end of the lever to a fly wheel then you can add magnets and coils to it.

I'm attaching an animated version of my idea.

It's not to scale and I left out the connecting rods. (tired)

Alastair Carnegie replication

The following concepts provided by Alastair as based on already accomplished concepts and can be applied to improve the Milkovic system. This can also be amalgamated with Ron's replication (profiled below) Alastair states:

My designs are intended for the maximum efficiency, and that means NO Iron cores, which lead to core losses. The downside is that my designs are rather greedy on neodymium magnets. I note that a UK supplier that I use, has a good deal on her eBay Shop MAGNETIC-LIFE is selling 500; 50mm x 10mm x 1.5mm magnets for £46. After postage, just over a hundred UK pounds sterling per thousand.

As proof that all wire + magnet alternators are efficient, check out :

<http://www.otherpower.com/pmg2.html>- "Wooden Low-RPM Alternator"

350 watt input and 300 watt output. THAT'S GOOD for a low rev alternator!

American Wire Gauge 20/21

Conductor Diameter 0.032 inches: 0.8128mm / 0.0285 inches: 0,7239mm

Ohms per 1000ft 10.15/12.8

Ohms per km 33.292/41.984

Maximum Amps 11/9

AWG 20, x 3 = 2.5 mm. (a shade under)

So the mild steel pole pieces of the permanent magnet alternator with these 1.5 mm thick magnets, could be 1.0 mm (1.0 mm + 1.5 mm = 2.5 mm).The pole piece area would be about 100 mm x 15 mm, sufficient for two magnets. The stacks would have like polarity facing each steel pole piece.

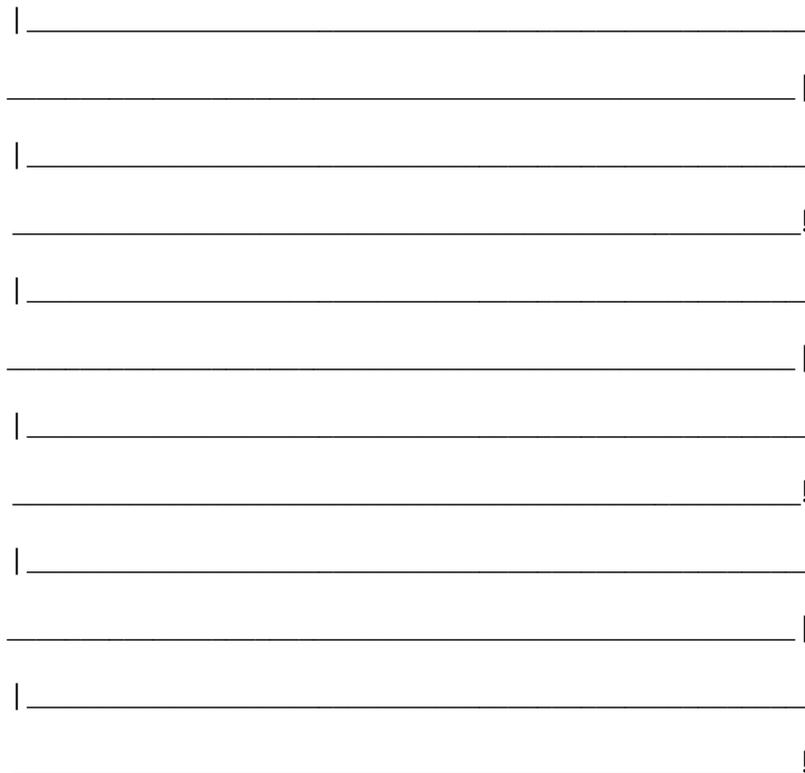
i.e. North/South--steel--South/North--steel--North/South--steel--South/North...etc.

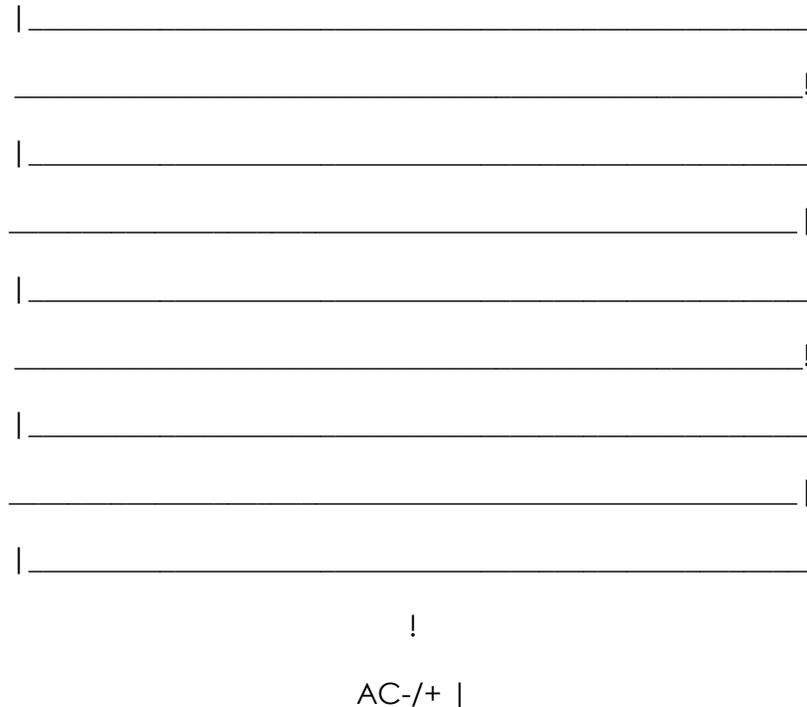
These stacks would oppose and hence create very high flux magnetic gaps:-

South/North--steel--North/South--steel--South/North--steel--North/South...etc.

The triple wire circuit would be of the form.

| ~AC +/-





Effectively a single conductor through a very long magnetic gap that changed polarity every 2.5 mm. Ten 'polarity changes' per inch of travel. Hence "Short-Stroke" The longer the zigzag wire circuit, the higher the voltage. with AWG 20, and allowing for glue to slightly extend the 1.0mm + 1.5mm to a little over 2.5 mm, Three Phase Wiring is possible. at 10 Amp. The wire is supported and sandwiched between single layer glass fiber cloth epoxy resin reinforced sheets This assemble is stretched on a frame, that is mechanically actuated. Several sheets of circuit can be simultaneously actuated. the series connected sheets making up the required voltage.

It's very much a 'suck-it-and-see' operation, just add more to increase the voltage, or increase the velocity the circuits travel though the magnetic gaps. If four pillars (coach-bolts) are deployed to act as a robust guide, they can also double up as the four three-phase conductor terminals.

Trial and error with a digital meter, and a short zig-zag circuit, with just two magnetic pole pieces, will soon give a rough estimate of what to expect. The rest will be up to intuition. Thicker copper wire, or circuits in parallel, would allow for higher currents. I anticipate a decent short-stroke alternator, would gobble up all thousand of those neodymium magnets! but would 'kick-ass!' at the same time!

I personally favor a 'push-pull' affair, with the frames above and below the actuating pendulum arm. The frame also sprung with suspension springs that have a natural period of oscillation in harmony with, and so inclined to reinforce by positive feed-back, the period of the pendulum oscillations.

With those 50 mm x 10 mm x 1.5 mm Neodymium magnets in mind, effectively at ten pence each when bulk purchased, I have been doing some 'back of an envelope' calculations. Five rows of mild steel pole pieces, will leave four very high magnetic flux gaps. Effectively for each of the three phases, this is just a very long single conductor in a very long gap, that is all folded-up zigzag wise.

Two magnets per steel pole piece = 10 magnets per stack layer. with a gap length of 4 x 100 mm or 400 mm per stack layer, with a 'push-pull' or twin alternator stack 500 magnets above, and 500 below, we get a total of 100 layers top and bottom, 400 x 100 = 40,000 mm, or 40 meters of ultra high magnetic flux gap. with three conductors (one for each phase) 3 x 40 = 120 meters of conductor. Please rest assured that much conductor going through those high flux narrow gaps, is going to pack a decent punch!

Over a kilo of copper wire!.... and if we use AMG 19 or even 18, the current is going to be rated at 14 & 16 Amps respectively. Each side of the push-pull alternator would be about 150 mm or six inches cubed. (50 stacks of about 3mm) Nice and compact. I would prefer to use 1/16th inch mild steel for the pole pieces 1mm is a bit too thin. and 1/16th gives more leeway for insulation etc.

It would be wise to have the travelling conductor frame mounted with tuned spring suspension, so that positive feedback reinforced the pendulum oscillations.

It would be nice to have twin pendulums, oscillating as if in a mirror; The twin solenoid actuation would keep them in synchrononous harmony. **Veljko Milkovic has pointed out that strong vibrations affect the performance with a single pendulum. A mirror-pendulum, would cancel out these parasitic lateral forces.** The push-pull tuned short-stroke three phase alternator could become an integral part of a central supporting pillar. with two beams extending outwards, and heavy fast oscillating pendulums attached at each end. The period of a pendulum's oscillation is perfectly independent of the weight, it is determined by the distance from the fulcrum point to the centre of gravity of the pendulum bob (Idealised) a short pendulum has a short period of oscillation, and a long one...a long period.

It would be convenient to keep the design compact, and with good engineering, robust and offering a long service life.

I have been attempting to bring down the distance between 'magnetic pole' centers, with thinner permanent magnets; unfortunately they are very brittle and break too easily. In a manufacturing situation, the problem would be trivial, Neodymium Permanent Magnets are available as 'unmagnified blanks' suitable for machining. It is possible to specify the distance between magnetic gap.

Take a look at the flexible 'ferrite' magnetic strip that holds a refrigerator door closed. You may observe that the magnetic polarity is in thin strips North-South-North-South-North-South-etc. So the equipment to produce the 'ideal' magnetic polarity for our Short-Stroke Permanent Magnet Three-Phase Alternators, already exists!..That is a great relief!

However for prototype construction, we have to go the 'magnet + Steel Pole Piece' design. In reality, the steel pole pieces are a waste of space and weight!.. but this is at least cost effective, and weight is not much of an issue as yet. I tried High Carbon Steel at 0.5 mm for pole pieces, but gave up. It would have been nice to shave a full 'mm' off the distance. It is better that the pole-pieces are at least as thick as the magnets and preferably a little thicker.

It is also a good idea (I will include instructions in my drawings) for the pole pieces to include a cradle (wood strip is fine) for the magnets. This makes assembly far more reliable. Those magnets just want to get as close as possible as fast as possible, and the wooden strips prevent that. The magnetic core of this alternator/generator, needs to be assembled layer by layer very carefully, the combined pull of those magnets would crush bone!...once assembled, an triple oiled spacer sheet can be extracted to create the alternating magnetic gap. once the middle spacer sheet is removed, the other two fall out.

New Shock Absorber Harvests Energy from Bumps in The Road, Increases Fuel Economy

<http://www.sciencedaily.com/releases/2009/02/090212181904.htm>

I drew a design for a hydraulic ram to be actuated by a Veljko Milkovic Pendulum, last year. The objective was to make the hydraulic ram double up as a suspension spring at the same time. The Concertina design could be turned from a billet of 'spring' steel. See below In order that the turning tools could have easy access to the interior, a 'screw lid' insert could be turned separately. (See Hydraulic Concertina Screw Insert...)

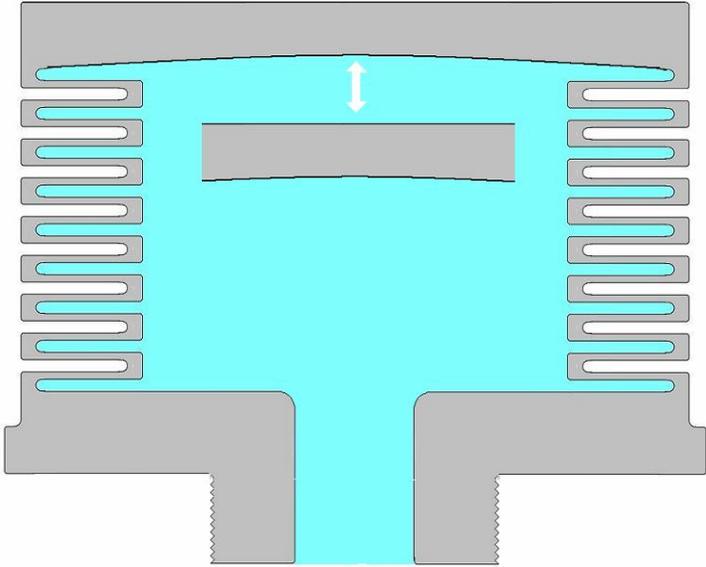
There is an advantage if 'positive-feedback' can be supplied to the pendulum oscillations with a 'tuned' suspension spring. The 'concertina' design could ensure this.

The concertina (See ZZ835321 Hydraulic Concertina Ram...) could also be made with a smaller bore, when the large bore ram was coupled to the small bore ram, there would be effective 'leverage'. The small bore concertina would extend in proportion, as a ratio of the respective 'bore' areas.

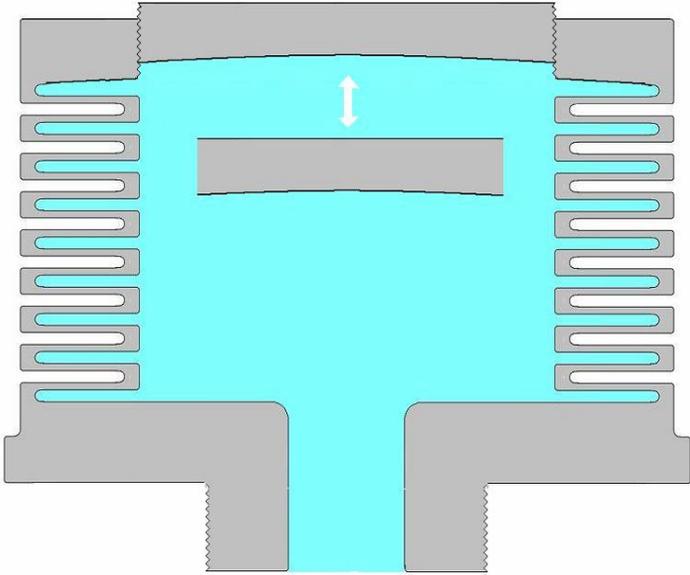
Because there would be no sliding surfaces, as found in conventional hydraulics, there would be no 'wear' problems due to the ingress of dirt, and other factors. The design could be effectively 'fit-&-forget'. A two-fold difference in bore diameter, would give a

four-fold extension in the small bore concertina. It is no wonder that MIT have chosen this route. Hydraulics can be over 96% efficient.

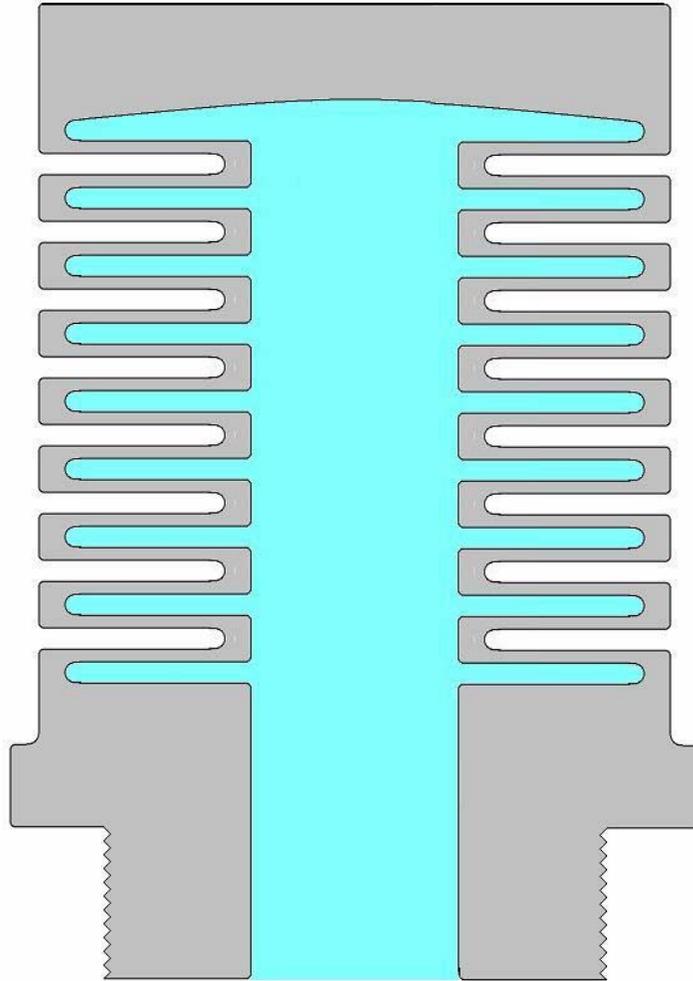
In the design I envisaged, a very heavy twin pendulum oscillated against two of these 'concertina wide-bore hydraulic rams' one ram above, and one below, and the hydraulic pressure was delivered to a separate small-bore concertina, which acted on a linear alternator. Four times the extension, would also mean four times the speed! that would make for a huge advantage! and there would be 'Power-Strokes' in both directions.



Hydraulic Concertina Ram Pendulum



Hydraulic Concertina Screw Insert Ram Pendulum



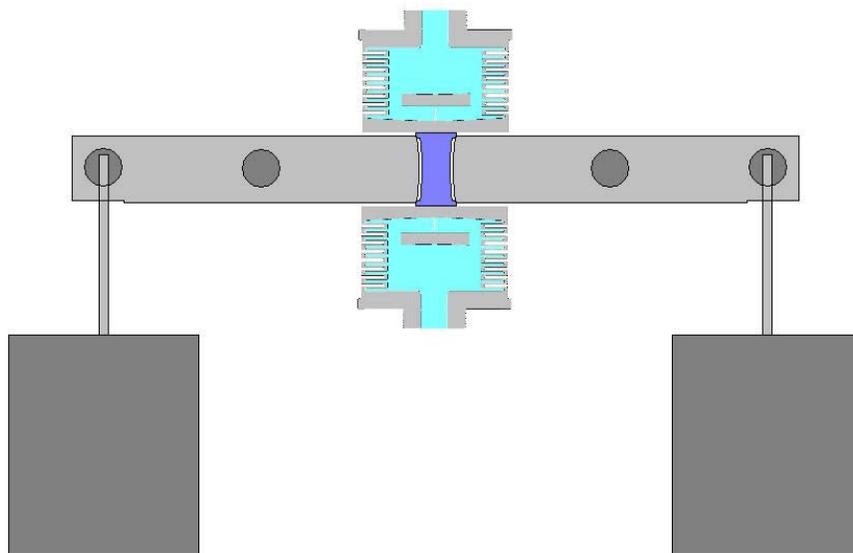
Hydraulic Concertina Ram Pendulum

This is a very crude schematic draft of a 'Twin-Pendulum' arrangement, but it will give you an idea. I have not indicated how the 'Spring-Concertina' Hydraulic Rams, would in fact be 'in tension' supporting the twin pendulum 'beam'. But that was a little difficult to draw quickly....this is only a schematic draft. I anticipate a very compact design, with the bulk of the weight contributed by the pendulums themselves.

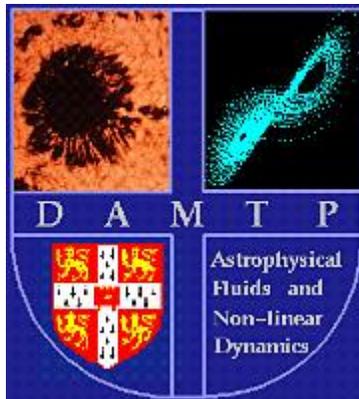
I have one design, where almost the entire weight is pendulums. And four hydraulic rams act as legs at the four corners. The mass bounces up and down on its hydraulic-ram legs. Two inner pendulums counter-oscillate with two outer-pendulums, so as to be fully balanced. The pendulums themselves, are just heavy segments of a circular ring

that float on a magnetic levitation track. Neodymium is 50 times less prone to demagnetization, so is ideal in 'opposition' for magnetic bearing applications. Also they are strong enough to support substantial weight. (Evacuation is also possible, further reducing friction on the pendulum).

Veljko Milkovic gives an elegant demonstration with a pendulum oscillating on a spring rod, to which he attaches an 'air-brake' (a fan). Surprisingly it seems to make little difference if the fan is present or not. This was the demonstration that sparked my curiosity. The pendulum oscillations appeared to be independent of the 'work' output, when that 'work-output' was connected to the suspension and not the pendulum itself.



As a past 'Visiting Fellow' at Cambridge University Dept. of Applied Mathematics and Theoretical Physics, D.A.M.T.P. (See 'daftarms' our official Coat of Arms) we have to be scrupulously impartial. At the moment we are only at the 'Discussion' phase. We must first discuss how we are going to devise an 'Experimentum Crucis' (The Crucial Experiment) Dr. Lindemann has published his Veljko Milkovic inspired interpretation of the Johann Bessler 'Self-Perpetuating-Wheel'.



This has to be the crucial test, once it has been demonstrated that there is sufficient 'anomalous' energy to promote self-sustaining motion, then the floodgates open, and critics will be automatically silenced...but until that time, the very vocal critics have every right to comment.

I note that very little human effort is required to keep a very heavy pendulum oscillating, i.e. a 4.5 ton wrecker ball, all that seems to be required as input, is sufficient energy to compensate for losses due to air friction/drag. While this wrecker ball is swinging back and forth, a huge 30 ton crane is creaking on it's haunches, solid steel girders are flexing,...etc.etc. and all because of a slight shove now and then. This is definitely 'anomalous'. The standard critic's explanation, that this is all due to 'stored potential energy', is in my view erroneous. The 'crucial' point that the critics miss, is that these creaking steel girders, can be maintained indefinitely...all day long...with just the occasional shove! to keep the oscillations going. If the experiment were conducted in a giant vacuum chamber, one shove every half hour or so, might be sufficient? as there would be no air friction.

We know the source of the energy, is resultant from the very real forces due to centripetal acceleration. (Centrifugal Force is an 'imaginary force' only used by engineers to balance equations) These forces are due to inertia, which we believe is due to the enigmatic Higgs Boson. The ultra-heavy particle predicted to give substance it's mass. CERN at Geneva are looking for the Higgs with the L.H.C.

Back to that 'Experimentum Crucis', I think it would be interesting to extend 24 three foot wooden spokes to a 24 inch bicycle wheel, to extend the wheel's diameter to eight feet, then make 24 pendulums by bending 2.0 mm galvanized wire into 'U' shapes with two pendulum bobs at each end. I will draw a picture later.

The object of the exercise is to have one side of the wheel 'dynamic' with oscillating pendulums, while the other side of the wheel lifts the pendulums up on pegs, ready to 'topple-over' at the top. It is clear with a simple beam, that if equal weight pendulums are at both ends, even though the 'static' pendulum is extended to the furthest point

out, the side with the 'oscillating' pendulum will have no difficulty lifting the static pendulum. The 'dynamic' side beats the static side, despite the slight fulcrum advantage.

With 24 pendulums, a pendulum would topple every 15 degrees of subtended arc rotation. 2 1/2 minutes on the clock face. the pendulums would be about six inches long. Swinging through a circle of about a foot each in diameter. for the eight feet diameter wheel. ($\pi \times D = C$.) On the 'dynamic' side, about nine pendulums would be assisting the rotation. three of which, would be producing maximum centripetal force as they would be swinging through the bottom of their arc. This can only be determined experimentally, as the motion will be 'chaotic'.

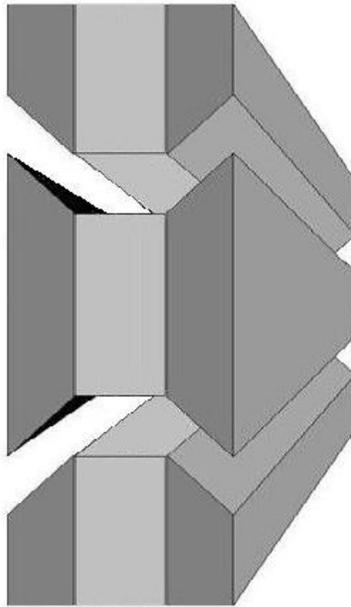
I drafted this couple of years back, It's a 'bmp' Windoze Paint File, so apologies it's so large, but AOL compression, can destroy details.

You can get an idea of the 'counter-oscillating' pendulums. Which cancel out unwanted 'lateral' forces. All we need are the vertical forces. I chose a rock-crusher because unmodified, it would generate it's own income as well as modified, hypothetically a little electricity? With a simple adaption.(hydraulic rams)

This rock-crusher has been designed, if you look closely, to be manufactured from stock steel sections. Only the pendulum rocker-box itself, requires close engineering tolerances. Circular curved steel "V" shaped tracks which incorporate Neodymium magnets sandwiched between the pole pieces (Possibly high energy flexible magnetic tape would work well?) This would require a large lathe to turn the parts. This equipment is fairly common everywhere.

If you have ever tried to make two tiny Neodymium magnets meet with similar polarity at the faces, you will observe that it takes considerable muscle-power to get the surfaces to mate. They are ideal for magnetic bearings, which almost eliminate friction, where it matters most.

This rock-crusher would be a useful piece of kit in its own right, regardless of whether it was over-unity or not. It also holds out the intriguing potential, of providing power as well. Just place one of those 'concertina hydraulic rams, where the 'rock' used to be. The design would only require slight modification, to hypothetically become a 'generator'?



Best Wishes and good luck to all

~Alastair

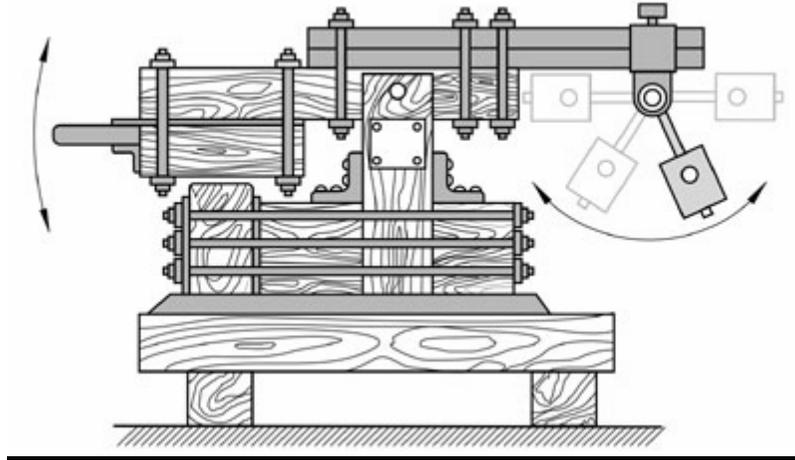
Replication links

[Harnessing Secondary Oscillations](#)

[The maximum use of Output](#)

<http://www.rexresearch.com/milkovic/milkovic.htm>

Faculty information



[Source](#)

"It is in fact violating Newton's third law of motion, "PLEASE don't say that. It is an open invitation to all the Quacks & crack pots that think they know everything. This machine does NOT violate any laws of physics. It does use the laws of physics, only coupled in an unfamiliar way. Anyone that builds this machine and it does not put out more than what is put in. Only need to study their design to find the flaws. It Creates NO energy. It transforms potential energy to kinetic energy. [RHEAD100](#)"

Veljko Milkovic' - 2 Stage Oscillator Violates 3rd Law of Motion

Newton's [Newton's Laws of Motion](#) states that there is an equal and opposite reaction. This is commonly believed to be a "law" as all "laws" of physics and nature are believed to be unbeatable. Laws of physics, nature, etc... are simply opinions based on what seems to hold true up to that point and is also based on conditional parameters. So, go outside of those parameters and these so-called laws of physics no longer apply. It truly is as simple as this.



Newton's Laws of Motion

Glenn
Research
Center



"Every object persists in its state of rest or uniform motion in a straight line unless it is compelled to change that state by forces impressed on it."

**"Force is equal to the change in momentum (mV) per change in time. For a constant mass, force equals mass times acceleration."
 $F = m a$**

"For every action, there is an equal and opposite re-action."

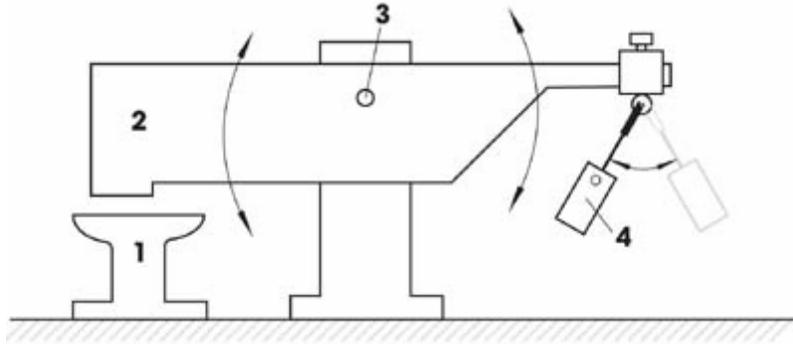
The first law PERMITS perpetual motion. Basically, it does NOT require that something HAS to act upon something in motion. If a ball is propelled from a spacecraft and it doesn't interact with anything for billions of years until the end of time, it will be in perpetual motion NOT violating any "laws" of physics. This laws only says something will deviate IF and only IF something acts on it but does NOT require that something must act upon it.

The third law state there is an equal and OPPOSITE reaction but this is untrue. There is nothing that requires a reaction to OPPOSE movement as it is possible to have a reaction that assist further FORWARD movement increasing efficiency and COP (coefficient of performance). Below is one of the most simple ways to not only defy but totally make a mockery of the third law of motion. Only if a system is closed and both ends are rammed together will there be an opposing force.

[Veljko Milković - Home Page - Zvanična prezentacija istraživača i pronalazača Veljka Milkovića](#)

English: [Veljko Milkovic - Home Page - Official presentation of the researcher and inventor Veljko Milkovi](#)

Look at this: [Two-Stage Mechanical Oscillator - A Mechanical Amplifier - Official presentation of the researcher and inventor Veljko Milkovic](#) for a simple description.



This is basically a balance beam where the heavier side of the balance by where 2 is balanced by the pendulum connected to it at 4. 3 is the pivot point and 1 is like an anvil for the hammer to swing down upon. As 4 swings towards the left, it gets to a point at the top of its swing right before it swings back where it is weightless for a split second. At this exact moment, the the left end of the beam is much heavier and will smack down upon the anvil.

Pendulum swings to the right being assisted by the force of GRAVITY and this balance out the beam for a moment so the hammer lifts up in balance with the pendulum, but the gravity assistance makes the pendulum side a heavier since there is added force in the momentum. The pendulum swings up towards the right side and at the moment the pendulum meets the top of its swing to the right, at the moment before it swings back down, it becomes weightless and the left side of the beam smacks down hard on the anvil.

The pendulum swings down and assisted with momentum and force of gravity makes it heavier than left side of beam and causes the hammer to lift up then pendulum goes to top of swing to left and then becomes weightless the hammer swings down. This isn't perpetual motion, when the pendulum is swung, if just left along WILL come to a dead stop...this isn't the point.

The point is that the OPPOSITE reaction helps the pendulum move in the other direction that causes continued motion of the hammer to move up and down. For each full swing in one direction and back to where it was, you get TWO FULL hammer smacks for each full swing of the pendulum. It take VERY LITTLE power to keep the pendulum swinging but you get an enormous amount of work at the anvil side!

This is an OPEN SYSTEM and all the work necessary to put into the system is a little bit of fly power to keep the pendulum swinging, which is virtually nothing. However, the work of the hammer on the anvil is about TWELVE times more than the input to the pendulum. It is open to the environment utilizing gravity to help power the system, swinging momentum assisted by gravity and other external forces.

This is 12.0 COP meaning 12 times more work is done than the operator has to input to the system of just getting the pendulum to swing. This does NOT mean it is over 100% efficient. It may be 99% efficient and there are still losses. Losses are the pendulum swinging against air resistance, friction on the pivot point, etc... Efficiency equals ALL the input energy. So conservation of energy is still "obeyed". What the operator puts in (a little bit of fly power) + what the environment puts in GRAVITY = total input. This compared to amount of work being done. That will probably be in the high 90%'s.

COP is total operator input (little bit of fly power) compared to all the work being done and is about 12 times more than the operator puts in so is 1200% of the input by operator. This is a 12.0 COP **the rest of the input energy is from the environment.**

So a mouse running on a wheel with a pulled fixed in a way to the pendulum could keep the pendulum going and this hammer or other side can be pumping water, hammering metal, etc... the inventor actually had a bunch of hand pumped flashlights and the hammer was smacking down on all these lights producing a lot of light with almost no input on the pendulum. This is an open system and doesn't violate any laws of physics that related to open systems. Closed system thermodynamics like Newton's "laws" are irrelevant to these systems

[Universal Two-State Mechanical Oscillator -- A Mechanical Amplifier](#)

If he stops putting in his input, the machine will come to a rest. **It is not meant to be a "perpetual motion machine"**. For every action there must be an equal and opposite reaction. This is true only in closed equilibrium thermodynamic systems. Basically, closed systems without being open to other potential input. In these systems, you are absolutely correct that the actions within these systems are met with equal and opposite reactions and it is these specific equal and opposite reactions that beat down the energy in the system (dissipate) until there is no more to dissipate and it comes to equilibrium with its environment. This system will always be less than 100% efficient due to losses (heat, friction, air resistance, etc...). Closed system thermodynamics apply to these systems as.

$e=mc^2$ is not an absolute and is only correct under certain parameters.

With Karma, what goes around comes around. However, there is a reaction but it is not an opposite reaction, the reaction is in the same "direction" building upon the same movement in the same "direction" as the originating input to the universe. Not an opposite reaction otherwise it would be impossible to attract anything good by doing good or bad by doing bad. Otherwise, the opposite reaction would cause bad to good and good to bad and we know this doesn't happen. This system is an open

system and not a closed system and I will make the distinction. "there exists no possibility that any energy can produce MORE ENERGY" is correct. This would be over 100% efficient and this will not happen. It won't happen in closed systems and it won't happen in open systems.

Below is from: [Laws of Physics - Introduction to the major laws of physics](#)

"Conservation of Mass-Energy: *The total energy in a closed or isolated system is constant*, no matter what happens. Another law stated that the mass in an isolated system is constant. When Einstein discovered the relationship $E=mc^2$, in other words that mass was a manifestation of energy, the law was said to refer to the conservation of mass-energy, which says the total of both is retained, although some may change forms. The ultimate example of this is a nuclear explosion, where mass transforms into energy."

Please make note that this is specifically talking about closed systems. "Laws of Thermodynamics: The laws of thermodynamics are actually specific manifestations of the law of conservation of mass-energy as it relates to thermodynamic processes. The first law of thermodynamics demonstrates the relationship between internal energy, added heat, and work within a system. The second law of thermodynamics relates to the natural flow of heat within a closed system."

To understand how the two stage oscillator is absolutely outputting more work than the OPERATOR inputs, please allow me to explain. There are two terms that are necessary to be understood as well as two very different systems of thermodynamics. Efficiency = total energy input compared to total energy output COP (coefficient of performance) = total energy the OPERATOR inputs compared to total energy output. An example of a closed system and an open system:

Closed system: Light bulb hooked to a battery. Half the potential that the battery can sustain is powering the load and half is fighting against the resistance, losses, etc... There is no other source of input energy possible to light the bulb or to charge the battery as in a flashlight turned on. It has X amount and it will dissipate all of this until it is in equilibrium with its environment and it is "dead." Lets say the operator put a charger to the battery and put in 10,000 joules of work. Lets say that it produces 5,000 joules of usable work in the form of light. *TOTAL INPUT compared to TOTAL OUTPUT is 10,000/5,000 = 50% EFFICIENT. TOTAL OPERATOR INPUT compared to TOTAL OUTPUT is 10,000/5,000 = 50% or 0.5 COP (less than 1.0 COP)*. All the input was supplied by the operator paying for charging the battery. There was no input from environmental sources as the system was running. These results are what are to be expected and are totally in sync with energy conservation since it is a closed system.

"The total energy in a closed or isolated system is constant,"

An example of an open system governed by open dissipative non-equilibrium thermodynamics: A refrigerator. If you as an operator have a refrigerator plugged into a wall, you are paying for input energy from the "grid." Let's say that what you pay for in input energy is 25 parts. A refrigerator is simply a reverse heat pump...nevertheless; it operates the same meaning that it utilizes energy input from the environment. The heat inside the refrigerator is being drawn outwards and that heat is supplied by the environment and it doesn't cost the OPERATOR anything. Let's say that heat that is perfectly capable of doing quite a bit of work is contributing 75 parts input energy. Therefore, operator utilizes and pays for the grid input in electricity 25 parts and heat supplies 75 parts, which equals a total of 100 parts input energy. Total input is 100 parts. Even in this open system, there are still losses, friction, conservation of energy, etc...

And the actual work done to make the fridge/freezer cold is 50 parts work energy. The TOTAL INPUT = 100 PARTS ENERGY AND TOTAL OUTPUT IS 50 PARTS ENERGY = 50% EFFICIENT. The OPERATOR INPUT 25 PARTS ENERGY AND TOTAL OUTPUT IS 50 PARTS. That is a COP of 2.0 or 200% MORE than the operator paid for in electricity. Not 200% efficient but 200% COP or 2.0 COP. Even in an open system, there will never be over 100% efficient but there CAN be MORE work being done than the operator inputs since an open system is open to environmental source of input potential. In this case, the heat is supplied by the environment.

In the two stage mechanical oscillator, the input energy is gravity. In [Bedini's battery charger units](#), the environmental input energy is the virtual photon flux of the quantum mechanical vacuum or literally space/time energy from vacuum space. I can charge input batteries using 100 parts work for example, hook it up to the circuit and charge batteries with it. When I use those batteries on the output to actually run load, it will power a load using a measurable amount of joules that may be 200 joules in work meaning I got out 2.0 COP or 200% more than what I put in. However, the TOTAL input includes what I put in + what nature puts in in the form of space/time quantum potential. The total out will be less than the total input by me and nature meaning the efficiency will be less than 100%...perhaps 99.99% efficient as an example.

Both open and closed have losses and BOTH are under 100% efficient when comparing total in to total out. Only the open system will be over 1.0 COP or over 100% compared to what the OPERATOR puts in. Every single electric motor in commercial production and virtually every other system in the world commercially is built according to closed system principles where not only are they of course under 100% efficient but they are ALL under 1.0 COP except for a few exceptions but most physicists and electrical engineers and do not understand the difference between efficiency and COP.

Refrigerators, heat pumps, Bedini battery chargers, this mechanical oscillator and many

other devices are all over 1.0 COP and these violate the laws of closed system thermodynamics or Newton's laws. Where the laws of motion come in is that the two stage oscillator is OVER 1.0 COP, UNDER 100% efficient and violates the 3rd law because there IS a reaction but it is NOT an opposite reaction... the reaction assists the system in a way that it continues to help propel it forward instead of having it butt heads with itself forcing it to have less than 1.0 COP and having the reaction bring it down to a stop even quicker.

To learn more about open dissipate systems or open non-equilibrium thermodynamic systems, please see: Ilya Prigogine a Russian chemist who won the Nobel prize in 1977 for open dissipative systems showing full well that open systems can freely output more than the operator inputs, the rest of the input is from nature:

[Ilya Prigogine - Autobiography](#)

His Nobel lecture is called Time, Structure and Fluctuations and is available here:

[Ilya Prigogine - Nobel Lecture](#)

COP Example

A refrigerator is such a device. The work being done to chill a fridge is MORE than the work in joules of electricity that went into a refrigerator. This is fact. Obviously there is extra input that the operator does NOT have to pay for and this is the ambient heat inside the fridge that moves towards a lower potential. The heat is free, is not supplied by the operator and does REAL WORK and this work is NOT supplied by the electricity. This is common knowledge that heat pumps and refrigerators (reverse heat pumps) are all over 1.0 COP but still under 100% efficient.

If you add the work done by heat that is NOT supplied by the operator + you add the work supplied by the operator in the form of electricity you have X parts input energy. The TOTAL work being done is LESS than X meaning it is less than 100% efficient.

If operator input is A and heat input is B that equals X the total input. If output is Y...Y can be MORE than A...MORE than the operator input...there is obviously extra energy input by the heat so more is not going out than going in...More work is being done than the operator inputs. I fail to see why anyone objects to this. The refrigerator is doing this even if we don't agree this is happening.

If you take a ping pong ball and toss it into a hurricane. The hurricane is going hundreds of miles per hour and carries the ball hundreds of miles for example. The work the operator puts in might be fly power...lets just say 10 joules of energy to toss the ball into the storm. The hurricane supplying the rest of the work being done on the ball might be just for example... 100000000000 joules of energy. Obviously the hurricane is supplying

more energy than the operator input. 100000000010 is the total input here. Obviously WAY more work than the operator inputs. The ball fights against gravity, air resistance, etc... so there is a loss compared to total input to total work being done on the ball. Therefore it is less than 100% efficient. However the COP is way more than 1.0.

The work being done on the ball is MANY THOUSANDS of percent more than the operator inputs. This system is an open system. It is the same as a refrigerator and this mechanical oscillator.

It is a FACT that sharp gradients violate Newton's thermodynamics. It is a fact that open systems can produce more than the operator inputs. This has been established for decades and is known very well by the leading thermodynamics in the world. Sharp gradients in chemistry, sharp gradients in electromagnetic...sharp rise and decay times..Impulses not waves DO violate Newton's thermodynamics. Everything you are saying applies only to closed equilibrium thermodynamics.

[Extension of the thermodynamics of small systems to open metastable states: An example](#)

"Proc Natl Acad Sci U S A. 1998 October 27; 95(22): 12779–12782.

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Physics *[Extension of the thermodynamics of small systems to open metastable states](#)*: An example. Small-system thermodynamics is a branch of equilibrium thermodynamics. Metastable states are not, strictly speaking, equilibrium states".

The open non-equilibrium systems that I give examples of are also known as "metastable states or systems" and as the published article by the National Academy of Sciences mentions, Metastable states are NOT equilibrium systems that are encompassed by Newton's equilibrium thermodynamics. This is also why the exact title of the article is Extension of Thermodynamics.... that means the current "laws" of thermodynamics do NOT apply to the open systems and this is why they have to be extended. Basically Newton's laws just don't cut it, they don't apply to those systems and they are incomplete.

This book:[Amazon.com: Modern Thermodynamics: From Heat Engines to Dissipative Structures: Books: Dilip Kondepudi,I. Prigogine](#)

Modern Thermodynamics: From Heat Engines to Dissipative Structures- Written by Ilya Prigogine and Dilip Kondepudi regarded as the two leading thermodynamicists in the world explain this better than anyone.

"Editorial Reviews CHOICE, April, 1999

Kondepudi and Prigogine's book will be a revelation for chemists schooled in the Lewis and Randall thermodynamics approach. The authors provide new insights into even basic thermodynamic concepts from the view of the Belgian school. Prigogine received a Nobel prize for his work in nonequilibrium thermodynamics, and the last two parts of the book are based on this necessary part of modern chemical education. The first 14 chapters cover traditional thermodynamics in an unconventional and insightful way. The last two parts are available for use in more advanced courses than a first reading of the subject. Further, the book as a whole presents a rarely accomplished view of both equilibrium and non-equilibrium thermodynamics. A number of problems are included, and the reader is encouraged to solve some of them using Mathematica and/or other computer packages. The authors acknowledge the existence of real data and other information on the Web and encourage the reader to access these sources via Internet addresses provided. A fresh presentation of thermodynamics, which underscores this science as one of irreversible processes. Upper-division undergraduates through professionals.

High Temperatures - High Pressures, Vol. 30, No. 6, 1998

The authors of this book have identified a gap in the range of textbooks currently available, and have filled it, efficiently and admirably. Lecturers in physics, chemistry and engineering will find this text invaluable for their undergraduate courses, and postgraduates in the area of thermodynamics will find it essential reading. ..."

The open system thermodynamic systems governing over 1.0 COP systems is not some nutty pseudoscience, it is established fact and the leading scientists in the world have acknowledged this extension to the current limited system of thermodynamics that are known to NOT be relevant to open systems. It is only a matter of time until it is common knowledge by the masses and that eventually will be taught in school as being the compliment to the currently taught closed system thermodynamics.

Below is from: <http://cmm.cit.nih.gov/~mago/mystory2.html>

"The second law of thermodynamics does not allow self-organization and formation of spatial structures in thermal equilibrium. This is so because self-organization and pattern formation in isolated systems reduces the entropy of the universe. Therefore, to form macroscopic spatial structures, the system must be open, interacting with the external world. This is the only way the system under consideration (a subsystem of the entire, isolated system) can self-organize and remain in this condition over time, reducing its entropy but increasing the total entropy of the universe. The requirement for the system being open is very demanding and generates serious conceptual and practical problems: classical thermodynamics deals with equilibrium systems, and statistical mechanics concepts were developed to understand the microscopic origin of this thermodynamics. To deal with open systems (as the ones found in biology) it is first

necessary to develop a non-equilibrium thermodynamics theory and a non-equilibrium statistical mechanics formalism to give microscopic basis to this thermodynamics. Such general theories are not trivial and sophisticated mathematical techniques and controversial concepts (e.g., how to deal with the problem of temporal irreversibility in nature) have to be used."

The 2nd law obviously doesn't allow self-organization.

Also, it is stated for a system to self-organize...meaning there are systems that 2nd law DO NOT APPLY TO, it has to be an open system out of equilibrium, where open system thermodynamics DO apply (but not the 2nd law). It says a system CAN self organize and be in this condition over time BUT entropy of the overall universe will increase...that is because in open systems, there are still losses (must be under 100% efficient). But the system itself can reorganize...DECREASE ENTROPY (this violates Newton's 2nd law outright - Newton's only allows for INCREASING ENTROPY)...because of extra input from the environment...Gravity in the oscillator for example.

End

OU test by By mikestocks2006

There is an easy way to prove if this is OU, a fully mechanical way too. Build the setup as shown e.g. the one with the hammer.

1. Hold the hammer (output arm) down fixed with a screw or a tie or a vice so it is motionless
2. Move the pendulum to a fixed height from its resting position
3. Record the weight of the pendulum
4. Record the height and let go
5. Record the amount of time it takes to come to a stop. (only needed to measure friction losses on the pendulum side)

All the original energy put into the system will have been dissipated into friction (air, pivot etc) we can even calculate the amount of energy lost per cycle due to friction by counting the number of swings it takes to stop etc. ($E_{in} = M_{pend} \times G \times H_{pend}$) E_{in} = energy in, M_{pend} = Mass of pendulum, G =acceleration of grav H = height

Next:

6. Attach a flywheel/crankshaft link to the output arm. (Convert linear movement up/down to rotational)

7. On the shaft of the flywheel tie a string and a known weight and let it hung
8. Measure the distance (vertical) the weight has moved by the action of the string being wrapped around the shaft. When the system comes to a stop. $E_{out} = M_{weight} \times G \times \text{Height}$

With claims of energy out is 12 x energy in, friction is non important for all practical purposes. If E_{out} is measured greater than E_{in} then it is an OU device. If that's the case one can easily couple the flywheel back to the pendulum to give it a small push? On every cycle to assure self sustaining system plus energy to spare. An interesting system nevertheless, with frequency and harmonic resonance implications.

Note if one wants to measure friction losses on the rest of the system (main output arm, flywheel, other bearing surfaces it's easily done too.) Again with 12 to 1, friction is basically non issue here.

From the Veljko Milkovic site

A victory for clean energy is achieved - the free mechanical energy from Texas (USA) is confirmed in the latest analysis! After two years of experiments, consultations and discussions it becomes clear that accomplished mechanical energy surplus cannot be denied anymore! Jovan Marjanovic - Raymond Head's Over Unity Proof for the Veljko Milkovic's Two Stage Mechanical Oscillator

http://www.veljkomilkovic.com/Docs/Jovan_Marjanovic_Raymond_Head_Over_Unity_Proof.pdf

"The weight would be raised 2+ inches (5 - 6 cm) when the pendulum was moving towards the left side and 2- inches when it was moving back. So the weight of 80 pounds was raised a total of 4 inches (10cm) for each hand input. The path of the hand was also around 10cm (before losing contact with pendulum). So, because paths passed by the weight and path passed by the fingers were almost the same and because the weight was 80 pounds and force of the fingers was less than 20 pounds, it should be obvious that output energy was 4 times bigger than input energy."

In the continuation of his analytical work in the field of ultra effective systems and new energy technologies, Jovan Marjanovic, the electrical engineer, has published his new paper in which he presents now simple mathematical proof of Free Energy.

Jovan Marjanovic - The Case in Electro-Magnetism Where Newton's Third Law is Not Valid and Getting an Energy Surplus in an Electro Generator. With simple formulas in electromagnetics it can be proven that Third Newton's law is not valid in all cases for electrical charges. Easy proof that electrical generator with high voltage achieved by high RPM have energy surplus in comparison with another generator with low voltage and high current.

You can read and download the paper on the next link (732 KB - PDF):

http://www.veljkomilkovic.com/Images/Jovan_Marjanovic_The_Case_in_Magnetisam_Where_Newton_Law_is_Not_Valid.pdf

We are glad to present you a new article written by Aleksandar B. Slavkovic from Pittsburgh, PA, USA on new theoretical interpretation of Veljko Milkovic's two-stage mechanical oscillator.

Aleksandar B. Slavkovic - Milkovic's Two Stage Oscillator As a Parametric Oscillator "In this document I will show that Mr. Milkovic's two stage oscillator may be viewed as a damped parametric oscillator, and that pumping of energy from the driving, swinging pendulum is not a precedent in the world of physics, but rather, an expected effect due to a well-known phenomenon called parametric excitation, parametric resonance or parametric pumping. Consequently, a ready-set of modeling tools should be applicable to properly model the device."

You can read and download the paper on the next link (55 KB - PDF):

http://www.veljkomilkovic.com/Images/Aleksandar_Slavkovic_Milkovic's_Two_Stage_Oscillator_As_a_Parametric_Oscillator.pdf

New video: Cart with a pendulum - Vehicles with internal and inertial drive

We are very proud to present you our new (old) video presentation. Veljko Milkovic: Cart with a pendulum - Vehicles with internal and inertial drive New video presentation of Serbian inventor, Veljko Milkovic, demonstrating his perennial research work on the idea of moving vehicle without indirect mechanism (transmission). Milkovic explains a new power and how the isolated powers can perform one-way moving of model using tensile forces of physical pendulum.

There is also an attempt to improve and to confirm the law of action and reaction (The third Newton's law), which hadn't undergone any revision from its beginning. From the contents: Tensile forces of physical pendulum, Motion without usual reflection, An addition to the Law of action and reaction (The third Newton's law), Cart with a pendulum, Truck with horizontal physical pendulum.

This video is an excerpt from the TV show "Svet ideja", Radio Television of Novi Sad. (Serbia) recorded in 1996. You can find and watch this video on the next link (YouTube video in English, 7 min.):

<http://www.youtube.com/watch?v=4foY5r2TMOo>

More info: http://www.veljkomilkovic.com/Antigravitacioni_motorEng.htm

Additional information can be found also in the book by Veljko Milkovic "Anti-gravity motor": <http://www.veljkomilkovic.com/KnjigeEng.html#motor>

Pendulum-Lever system different from simple machines better than transmissions

We are very proud to present you our new video presentation of two-stage mechanical oscillations research: Veljko Milkovic - Pendulum-Lever system different from simple machines better than transmissions In a new video presentation, Veljko Milkovic, presents great advantages of using pendulum-lever system and ultra efficiency of two-stage mechanical oscillator experimentally demonstrating how it is many times better and effective than the simple machines and transmission systems.

From the contents: Two-stage mechanical oscillator and two-armed lever; Two-stage mechanical oscillator and transmission systems with gears, pulley wheels...; Two-stage mechanical oscillator and pulley (simple machine), screw (simple machine), inclined plane, fly press; Possible applications in industrial processes - pump jack example; Hand water pump with a pendulum; Two-stage mechanical oscillator as a big mechanical hammer.

You can find and watch this video on the next link (Google Video: English subtitles, 35 min.):

<http://video.google.com/videoplay?docid=951414596138700872>

More info: <http://www.veljkomilkovic.com/OscilacijeEng.html>

Keys of Understanding Gravity Machines of Veljko Milkovic

Jovan Marjanovic, engineer, has written recently a new paper about two-stage mechanical oscillator and cart with a pendulum. Jovan Marjanovic - paper: Keys of Understanding Gravity Machines of Veljko Milkovic Jovan Marjanovic explains Gravity machines and details for construction of Two-Stage Oscillator and common errors; theorem which must be satisfied by any gravity machine to be perpetual mobile; Inertial propulsion and errors in Newton's laws:

"The goal of this work is off to clarify some issues concerning two inventions of Serbian inventor Veljko Milkovic. The first invention is two-stage mechanical oscillator and second one is inertial propulsion cart. In this work I will try to:

- Point out omissions in modeling the system,
- discuss issues with mechanical feedback loop,
- discuss some errors in measuring and re-calculate output energy done by Jovan Bebic,

- continue addressing issues started by Colin Gauld concerning Centrifugal force terminology and omission to use moment of inertia in formula for kinetic energy,
- explain errors in Lead Out theory developed by Lee Cheung Kin and Lawrence Tseung,
- challenge the first and third Newton's laws and confine the law of conservation of quantity of the movement of the system in analysis of inertial propulsion cart."

You can find the paper on the next link (560 KB - PDF):

http://www.veljkomilkovic.com/Images/Jovan_Marjanovic_Key_of_Gravity_Machines.pdf

Precise Energy Surplus Measurement

in continuation of researching and testing the efficiency of the two-stage mechanical oscillator, a new input/output energy measurement has been conducted and now a report on that has been issued by Jovan Bebic, electrical engineer. Jovan Bebic - Precise Measuring of Input and Output Energy in the Two-Stage Mechanical Oscillator Jovan Bebic demonstrates the new efficiency measurement of Milkovic's two-stage oscillator in his new paper and reports that the output/input energy ratio is 2.284.

You can read the paper on the next link (339 KB - PDF):

http://www.veljkomilkovic.com/Images/Jovan_Bebic_Precise_input-output_energy_measurement.pdf

Recommendations for Measuring the Efficiency Quotient

There is a new paper written by Jovan Marjanovic, electrical engineer, considering the problem of choosing the correct methodology when conducting an input/output energy measuring of the two-stage mechanical oscillator. Jovan Marjanovic - Recommendations for Measuring the Efficiency Quotient in the Two-Stage Mechanical Oscillator of Veljko Milkovic .

Jovan Marjanovic gives the recommendations for correct efficiency measurements and stresses some errors in input/output energy measurement methodologies.

You can read the paper on the next link (112 KB - PDF):

http://www.veljkomilkovic.com/Images/Jovan_Marjanovic_Recommendations_for_Efficiency_Measuring.pdf

Mechanical Feedback Loop

There is one more new paper written by Jovan Marjanovic, electrical engineer, considering the experiments with the pendulum-lever system. Jovan Marjanovic - Mechanical Feedback Loop Problems and Possible Solutions for the Two-Stage Oscillator of Veljko Milkovic. Jovan Marjanovic analytically describes his experimental work on Milkovic's. Pendulum-Lever System and shares his findings and problems in an attempt to close the loop giving possible solutions for the two-stage oscillator.

"The goal of this work is to share findings and problems in an attempt to close mechanical feedback loop for two stage mechanical oscillator of Veljko Milkovic. This work is a continuation of my first work with some additional insights after several attempts to finish the mechanical feedback loop.

In this work I will try to:

- point out omissions in modeling the system and suggest solutions,
- further discuss issues with mechanical feedback loops,
- explain the problem of passing energy to the pendulum."

You can read the paper on the next link (392 KB - PDF):

http://www.veljkomilkovic.com/Images/Jovan_Marjanovic_Mechanical_Feedback_Loop.pdf

Peter Lindemann, D.Sc. - The Mechanical Engine: A Re-Evolution of Bessler's Wheel

We are glad to inform and present you a paper written by the American scientist, Peter Lindemann, D.Sc. considering the famous invention of Bessler's Wheel and possible solutions for its re-evolution with the inspiration found in the ideas like Veljko Milkovic's two-stage mechanical oscillator is.

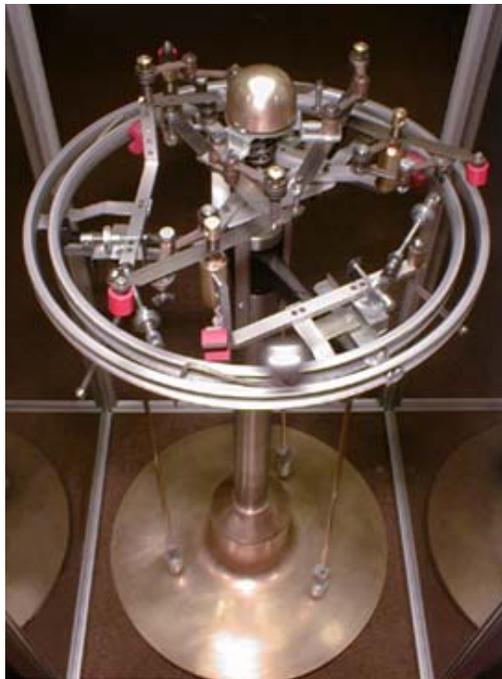
You can read the paper on the next link (1.25 MB - PDF):

http://www.veljkomilkovic.com/Images/Dr_Peter_Lindemann_Mechanical_Engine.pdf

In the same time we are inviting you to visit great new web-site of Peter Lindemann, D.Sc. www.free-energy.ws with many new texts and articles on new technologies and free energy issues.

Closing the loop with a pendulum and magnets -Finsrud's Perpetuum

In 1996 Norwegian artist Reidar Finsrud created "The Finsrud Wheel", a moving sculpture. It appears to use a combination of gravity, magnets, and pendulum effects to achieve continuous motion.



copyright by <http://www.reidar-finsrud.com>



The steel ball continually runs around the path formed by the 2 concentric circular aluminum tracks. The ball is about 2.7 inches in diameter and the track has a diameter of about 25 inches. You can see one of the 3 horseshoe magnets next to the ball in the 3rd pic.

3 magnets are involved in the mechanism. So far it has run continuously for at least 14 days without intervention. It has been proven that there is no outside energy source affecting the motion. "Reidar says the machine does stop on occasions but that this is not on a daily basis. To start the machine the pendulums are swung by hand. This does puts external input energy into the system." A Google Video shows about 45 minutes of it operating. The video is of excellent quality and shows it in great detail. Is it a perpetual motion machine? Almost. Does it achieve overunity? It seems that the energy required to keep a 2 pound steel ball revolving on a track for 14 days certainly is more than the effort required to set 3 pendulums in motion (a few seconds). Why does it work? And why does it stop working.

http://video.google.com/videoplay?docid=553061720631716456&q=Finsrud%27s+Perpetuum+mobile&ei=cFhmSO8EKbY-wG3m_T_Ag

The best source of information on it is the Artist's Website <http://galleri-finsrud.no/index.html> . He seems to have nothing to hide. -[Source](#)

Faculty links

[Pendulum Thruster](#)

[Mechanical engine PDF by Peter Lindermann](#)

Papers

[Academician professor Bratislav Tošić mathematical analysis](#)

Videos

[YouTube - Primary Pendulum Creates Secondary Oscillations](#)

[Two Stage Mechanical Oscillator](#) – By [echiao206](#)

[Perpetual Motion - analyzing the Finsrud GMD \(IPMM 6\)](#)

The [echiao206](#) clip demonstrates the movement of the system with slightly more weight on the output end. System can be biased any number of ways, and can closely mimic the movement patterns shown in other videos regarding the same principle.

[Tri-gate energy gain](#)

With a little help of tri-gate rail the magnet on pendulum swings higher than without tri-gate.

[YouTube - Lindemann Mechanical Engine](#)

[YouTube - lindemann machine - Inaquorate adaption](#)

<http://www.youtube.com/user/RHEAD100>

<http://www.youtube.com/user/marthaleZ>

[Perpetual motion water wheel](#)

[Stop It! Perpetuum Mobile](#)

[Truly, The Remarkable Possibility For The Free Energy Device](#)

Technical Discussion/Support

[Energetic forum thread](#)

[Over unity dot com thread](#)

Links

[Visualization of the Coriolis and centrifugal forces](#)

<http://www.free-energy-info.co.uk/Chapt4.html>

<http://www.rexresearch.com/milkovic/milkovic.htm>

Credits

The open source energy community

If you are able to contribute to this document in ANY way, IE- replication details, faculty info and or additional data please contact the nonprofit organization.

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