

Best Electric Machine
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Best Electric Machine Business Executive Summary

BEM's Market Focus:

The “smart and ethical future” of green energy is contingent on the cost, efficiency, and resiliency of the electricity infrastructure, which also *enables* electric transportation technology, such as electrically propelled vehicles (**EV**), power generation technology, such as hydrogen, wind and solar, power storage technology, such as batteries, power distribution technology, etc. Electric motor and generator systems (**EMS**) are clearly the *essential backbone* of the electricity infrastructure by consuming over 40% of all the electricity produced when *motoring* and by producing nearly all of the electricity consumed when *generating*. Any cost-performance improvement of the EMS or associated electric power distribution and conditioning enabling systems will significantly impact the cost, efficiency, and resiliency of the entire electricity infrastructure to a bright green energy future with a present global electric energy capacity of [25 Terawatt-hour](#) that is exponentially growing, particularly with the advent of EVs.

Inspired by the rapid renaissance of EVs and the anticipated ROI from a rich enabling propulsion EMS market [reaching \\$1.4T by 2028 \(BB\) with a CAGR of 26.7%](#), millions of funding dollars continue to be allocated to potential Best Electric Machine (**BEM**) competitors for the development and manufacture of emerging EMS with impressive power density and efficiency claims, such as recent investments in [Infinitum Electric](#) with \$167M in total estimated funding that started in 2017, [Turntide Technology](#) with \$491M in total estimated funding that started in 2013, [Magnax](#) with \$39.9M in total estimated funding that started in 2018, and [H3X](#) with \$9M in total estimated funding that started in 2023.

Today, the Rare-earth Permanent Magnet (**RE-PM**) EMS is considered to be the most efficient with the highest power density available. Consequently, [most emerging propulsion EMS use RE-PMs](#) by carelessly ignoring: a) the RE-PM EMS is the most expensive EMS with significant price increases [expected from past experience when future RE-PM shortages occur](#), b) the supply, engineering, and manufacturing of RE-PM EMS are insidiously monopolized by [a global adversary seeking world dominance with devastating consequences on free labor, free market, environment, geopolitics, and technical innovation](#), c) the global adversary has become an influencer of virtually all EMS innovation by its tactical manipulation of today’s trendy reliance on the RE-PM supply chain, such as directing more research funds to RE-PM instead of RE-PM free EMS, d) the devastating [environmental impact](#) and human oppression, and e) [there is not enough minable RE-PM materials to meet the expected future EMS](#) demand without new discoveries of significant minable deposits. Many EMS manufacturers are ironically increasing the amount of RE-PM materials per unit of continuous power rating of the EMS to keep competitive performance but some EMS manufacturers are focusing on reducing (if not eliminating) the

amount of RE-PM material per unit of continuous power rating, such as developing smaller, higher speed RE-PM EMS, which reduce the amount of RE-PM material but introduce an extraneous speed-reduction gearbox with compounding loss, cost, size, and reliability issues. Only BEM is introducing: a) the only EMS, called SYNCHRO-SYM, that eliminates RE-PMs but provides double the continuous power density and octuple the peak torque at half the cost and half the loss per unit of continuous power rating as any RE-PM EMS and b) the *only* electric motor 3D Printing method, called MOTORPRINTER, for enabling convenient, rapid, just-in-time manufacture of SYNCHRO-SYM.

BEM Action Plans:

Today, [many business marketing types say](#), “You can’t compete with the [global adversary seeking world dominance with disregard to the environment, human suffering, and geopolitical consequences](#) in electric vehicle (EV) innovation and manufacturing. Instead, you must join the global adversary, regardless of their global thuggery and environmental, human, and geopolitical harm!” But not too long ago, the USA was an automotive manufacturing and innovation juggernaut until progressive hubris and government politicking conveniently gave our lead to Japanese and European automobile manufacturing and as we have shockingly learned, where manufacturing goes, so does science, technology, and engineering. Now, Japan and Europe are giving up to the global adversary. Instead, BEM wants to be the global lead for EV electrical component innovation and manufacturing and as a result, *smartly* and *ethically* take the associated profits away from a global adversary seeking world dominance. With your needed help and with our patented and unbeatably disruptive electric transportation technologies, called [SYNCHRO-SYM Technologies](#), we will do it together!

After calculating \$millions in debt financing by its parent company (i.e., EDI), which was focused on SYNCHRO-SYM research, development, patent protection, sole keeper of the knowledge base, and boutique marketing, BEM is now exploring financing means to *market overwhelm* the “me-too” asymmetric electric motor systems from the likes of Infinitum Electric, Turntide Technology, Magnax, H3X, Koenigsegg, Equipmake, etc., with the “pinnacle” of electric motor system technology as proven [by a half century of electric machine study, research, and publication](#).

Today’s competing EMS Technology & Manufacturing:

Regardless of the marketing spin, *all* EMS manufacturers use the same century old, *asymmetric* electric motor circuit and control architecture, **now called the “me-too” asymmetric EMS**, with: a) the universally essential “active” stationary (or stator) assembly, which comprises a single, independently excited multiphase winding set (*i.e., singly-fed*) that determines the torque (or power) rating, b) an *estimating* field-oriented or direct-torque control derivative, and c) a “passive” rotating (or rotor) assembly, which always comprises either:

- *Rare earth permanent magnets (RE_PM)*, such as the RE-PM synchronous EMS of Infinitum Electric, Magnax, H3X;

- *Reluctance Saliencies*, such as the [reluctance EMS of Turntide](#);
- *DC field winding*, such as the wound-rotor synchronous EMS of ZF, Vitesco, Mahle, & BMW's 5th generation e-drive;
- *Slip-Induction dependent windings*, such as the asynchronous (*i.e.*, *slip-Induction*) EMS of Telsa's Model S.

A "passive rotor assembly" *wastes* the other half of the EMS real estate, cost, and loss by not independently contributing additional working power to the electromechanical energy conversion process along with the universally essential "active stator assembly." Therefore, EMS performance distinction is limited to applying an empirical selection of *available* performance enabling material, winding, thermal management, construction, electronic control components, such as emerging wide-bandgap (WBG) semiconductor switches, and packaging techniques, **now called performance enabling techniques**, that will always show similar performance gain per unit of continuous power rating, if equally applied between "me-too" asymmetric EMSs with the same stator active winding set and airgap flux density design rating. As a result, cost-performance distinction between "me-too" asymmetric EMSs becomes a marketing campaign that always begins with a *technically irrelevant* website that does not provide the necessary details for reasonable expert cross-analysis but instead, with *fancy rendering* to market stimulate funding and short-term sales before another "me-too" asymmetric EMS comes along with "so-called" higher cost-performance. For instance, simply increasing voltage (e.g., torque current) and enabling coolant flow rate of one EMS contestant would show higher power density per unit of power rating than another EMS contestant without the same voltage and coolant flow rate.

Also, without considering the additional safety and handling issues of RE-PMs, the last century of EMS manufacturing practice hasn't really changed, which always begins with costly, low volume, skilled labor intensive, prototype manufacturing to meet initial short term demand until the construction of a large capital and labor intensive, industrial real-estate demanding, smokestack, assembly line manufacturing facility is completed, which is likely located in a low cost or forced labor country for profitability in a very competitive market.

BEM SYNCHRO-SYM Technology & Manufacturing:

Standing out from all others, BEM acquired the patents and knowledge base of [SYNCHRO-SYM](#), which is the *only* electric motor system with a "synchronous" symmetric multiphase wound-rotor electric motor circuit and control architecture that comprises an "active rotor assembly" with a second independently excited multiphase winding set (*i.e.*, *doubly-fed*) that *brushlessly* contributes an *additional* increment of working (*i.e.*, *active*) power to the electromechanical energy conversion process along with the universally essential active stator assembly of all electric motor systems. Already proven by [a half century of basic electric machine study, research, and publication](#) and a regiment of BEM prototyping and invention, a) the synchronous symmetric *doubly-fed* circuit and control architecture, **now called SYNCHRO-SYM**, provides double the continuous power and octuple the peak torque within the same packaging (less RE-

PMs) of size, loss, and cost of the *singly-fed* “me-too” asymmetric EMS, which is tantamount to twice the continuous power density (*i.e.*, *half the size*) and octuple the peak torque density (*e.g.*, *enables gearless direct drive capability*) at half the cost and half the loss *per unit of continuous power rating* of any other EMS with the same “performance enabling techniques,” but b) only by realizing the practical enabling invention of an *automatically exact*, brushless, sensorless, multiphase real time emulation controller (**BRTEC**) for stable synchronous operation with twice the [full load speed](#) range of the “me-too” asymmetric EMS for a given excitation frequency, port voltage, continuous torque, and synchronous speed design. Similarly, *only* SYNCHRO-SYM *doubles* the expected cost-performance gain per unit of continuous power rating with the same legacy or futuristic “performance enabling techniques” that were applied to the “me-too” asymmetric EMS.

Only SYNCHRO-SYM is the electric motor system with both the rotor and stator assembly brushlessly, stably, and independently contributing additional "working power" to the electromechanical energy conversion process for twice the power per unit of power rating of the EMS packaging!

Standing out from all others, BEM acquired the patents and knowledge base of [MOTORPRINTER](#), which is the only *3D Printer Method* of high performance, axial-flux electric motor, generator, or transformer systems, that a) uniquely and conveniently uses readily available, pre-manufactured feedstock (or *layering*) materials that, instead of optimized for the performance of the 3D Printer, are highly optimized for the performance of the electric motor product being additively manufactured, such structurally formed steel, aluminum, or composites, magnet wire, or ultimate electromagnetic performing amorphous or nano-crystalline metal ribbon that has eluded electric motor application until MOTORPRINTER, but also, b) without damaging their optimized structural, thermal, or electromagnet properties by traditional 3D Printing methods. Under the programmable control of BEM’s invented computer-aided-design tool (BEM-CAD), MOTORPRINTER also provides the unique symmetric synchronous doubly-fed electric motor circuit and control architecture of SYNCHRO-SYM with another level of cost reduction, such as duplicate rotor and stator assemblies, and improved thermal management. Most conveniently, production scaling to meet increasing product demand is simply field-installing another low cost, compact, self-contained, household powered, remote controlled, stackable footprint of MOTORPRINTER instead of typically constructing (or contracting) another costly and large, capital and labor intensive, industrial real-estate demanding, smokestack, assembly line manufacturing facility.

Standing out from all others, BEM has also acquired the patents and knowledge base of electricity micro-distribution and bidirectional power conditioning technologies that significantly enable another level of higher efficiency, lower cost, and smaller size to a System of Systems (**SoS**) application, such as the EV.

BEM Value Proposition:

In keeping with our mission to “Innovate for Our Clean, Efficient, and Sustainable Energy Future,” BEM value proposition is *straight-forward simple* but *market disruptive*:

- BEM is sole keeper of the knowledge base and patent holder for the *only* brushless, symmetric multiphase wound-rotor “synchronous” doubly-fed EMS, called SYNCHRO-SYM, which was proven by a [half century of basic electric machine study, research, and publication](#) and a regiment of BEM prototyping and invention to provide twice the power density and eight times the peak torque at half the cost and loss per unit of packaging power rating, and for the *only* 3D Printing Method of axial-flux electric machines, called MOTORPRINTER, which was proven by orchestrating the original empirical study with fiber laser and amorphous metal leaders. In the past, associated industries successfully waged efforts to discredit SYNCHRO-SYM Technologies but to their chagrin, BEM is now in a strategic position to stealthily make market history in a \$1.5T market with disruptive electricity infrastructure technologies that have no contrived competition or convenient additive manufacturing means with simple engineering, fabrication, and testing exposure readiness;ⁱ
- MOTORPRINTER provides the *only* 3D Printing method for the rapid, just-in-time, additive manufacture of highest performing axial-flux electric motors within a low cost, compact, self-contained, production scaling, household powered, remote controlled, stackable footprint that layers *readily available*, pre-production optimized feedstock material without damaging their optimized structural, thermal, or electromagnet properties:
 - MOTORPRINTER reduces the global adversary’s control on EMS engineering, manufacture, and innovation by democratizing EMS manufacture to any locality or tier, such as local boutique or R+D manufacturers, axial-flux prototyping shops, OEM manufacturers, etc., and as we have experienced first-hand, “where manufacturing goes, so goes our science, technology and engineering;”
 - MOTORPRINTER makes EMS manufacturing ethical and profitable without *sanctioning* offshored oppressed labor, which eliminates the only possible market advantage to SYNCHRO-SYM;
 - MOTORPRINTER provides better EMS thermal management, efficiency, and cost by its unique additive manufacturing method with BEM-CAD design and control;
- SYNCHRO-SYM is the *only* EMS that uses both rotor and stator real-estate in the electromechanical conversion process, which a half century of EMS study, research, and publication *calculates* to provide the *pinnacle* of EMS architecture with twice the power density (*i.e., half the size*) and octuple the peak torque density (*e.g., enables gearless direct drive capability*) at half the cost and half the loss per unit of continuous power rating of any other EMS with the *same* “performance enabling techniques,” but also, while *uniquely* including the compounding size, loss, and cost of the inherent electronic controller (or the integral BRTEC) in the calculations:

- SYNCHRO-SYM is without RE-PMs, which repurposes more of these precious materials to other strategic applications and as a result, mitigates the global adversary's influence on EMS innovation and geopolitics;
- By understanding that the century of EMS academic study *begins* with the optimized symmetric multiphase wound-rotor synchronous doubly-fed EMS by hypothesizing BRTEC, which has never been realized until SYNCHRO-SYM, and *finishes* with the "me-too" asymmetric EMS by deoptimizing the symmetry of active rotor assembly with the asymmetry of a passive rotor assembly with slip-induction dependent windings, reluctance saliencies, DC field windings and permanent magnets, it becomes evident that there is no competitive cost-performance alternative to SYNCHRO-SYM;
- Unlike the asymmetric electric machine system with an independent electric motor and an independent electronic controller component externally mated, SYNCHRO-SYM provides the only truly *integral* electric "motor system," where the electric motor entity cannot exist without the BRTEC entity;
- BEM electric power micro-distribution bus and power conditioner technologies halve the cost, size, and loss of an electric SoS application, such as an EV.

BEM Technology Assets (for "axial-flux" form of SYNCHRO-SYM):

- [Half a century of classic study, research, and publication verification and validation:](#)
 - Expert third party verification of SYNCHRO-SYM's double power density, octuple peak torque, half cost, half loss, etc. attributes, which also shows the invention of BRTEC is essential
- Multiple stages of proof of concept and pre-production prototyping:
 - Verified SYNCHRO-SYM
- Wrote textbook study of SYNCHRO-SYM concept of operation
- IEEE articles written, expert scrutinized, and presented at symposiums and published
 - Multiple Patents Issued:
 - Expert Scrutiny by patent examiners
 - Sole Keeper of SYNCHRO-SYM and MOTORPRINTER knowledge base
- Detailed Website
- Developed and verified BEM-CAD:
 - Simulations show expected power half density, cost, and loss IAW electric machine physics
- Full development proposal for axial-flux preproduction SYNCHRO-SYMs:
 - Third generation Mechanical, Electronic, and SW design (40% complete)
- Presently fabricating MOTORPRINTER (40% complete) for rapid inhouse additive manufacture of SYNCHRO-SYM:
 - Successfully orchestrated empirical studies with several fiber laser cutting and amorphous metal companies, which verified the MOTORPRINTER method
- Developed unique Cooling Method for the ultrahigh power density of SYNCHRO-SYM, as a result of BEM-CAD and MOTORPRINTER analysis and enabling

BEM Disruptive Technology Risk:

- **SYNCHRO-SYM functional proof is low risk**, because an unsuccessful evaluation of SYNCHRO-SYM must *incredibly* contradict: 1) the [half century of basic electric machine study, research, and publication](#), which proved the symmetric circuit and control architecture of SYNCHRO-SYM shows double the power at half the cost per unit of continuous power rating of any other EMS but only by *realizing* the invention of a brushless, sensor-less and automatic (i.e., emulation), real time (i.e., instantaneous) control means, now called BRTEC as only provided by BEM, to eliminate instability, or 2) the [analytically detailed proof of the enabling invention of brushless, sensorless, and automatic real time emulation control \(BRTEC\)](#) as disclosed in the patents and publications of BEM and as demonstrated by multiple progressive stages of prototyping and testing;
- **SYNCHRO-SYM prototype realization is low risk**, because the symmetric circuit and control topology of SYNCHRO-SYM is also the classic introductory study for all asymmetric EMS by deoptimizing the symmetry of an “active rotor” with the asymmetry of a “passive rotor” with slip-induction dependent windings, reluctance saliencies, DC field windings and permanent magnets. As a result, SYNCHRO-SYM and the “me-too” asymmetric EMS must obey the same laws of physics and leverage the same legacy or futuristic packaging as any other EMS;
- **MOTORPRINTER 3D Printing Method of the EMS is low risk**, because BEM already orchestrated empirical studies with several fiber laser cutting and amorphous metal ribbon companies, such as IPG-Photonics and Metglas, and as a result, BEM proved 3D Printing of axial-flux EMS, as only provided by MOTORPRINTER, is straight-forward ready with only enabling engineering and fabrication;
- **SYNCHRO-SYM product acceptance and sales are low risk**, because other originally unknown companies, such as Infinitum Electric, are showing impressive market traction in short time by marketing the same “me-too” asymmetric circuit and control architecture as others but with *incredibly* higher cost-performance gain from empirically applying performance enabling techniques that would show similar performance if equally applied between asymmetric EMS contestants. In contrast, SYNCHRO-SYM would show double power and octuple the peak torque at half the cost and loss per unit within the same packaging (less RE-PM) of performance enabling techniques (less RE-PMs) under the same synchronous speed, torque, port voltage, and frequency of excitation design;
- **Sell of SYNCHRO-SYM art is high risk without the technical verification data from Alpha Testing**, because: 1) as a totally new and disruptive “symmetric” electric motor circuit and control technology, SYNCHRO-SYM provides the only truly *integral* electric “motor system,” where the electric motor entity cannot exist without the BRTEC entity, and as a result, an effective SYNCHRO-SYM evaluation would require the evaluator to have the unlikely but deep expertise in two distinctly different engineering disciplines of electronic/SW/BRTEC motor control and electromagnetics, and 2) without the dual disciplines of expertise, evaluators consistently confuse SYNCHRO-SYM with the unstable

“asymmetric” multiphase wound rotor “asynchronous” quasi-doubly-fed EMS comprising a self-induction dependent “passive” rotor assembly, an unstable *estimating* control derivative, such as field-oriented control, and a traditional multiphase slip-ring assembly. Ironically, the same EMS experts enamored by the RE_PM EMS, while disregard its geopolitical and environmental consequences, stubbornly reject their peers [half century of basic electric machine study, research, and publication](#) that already proved SYNCHRO-SYM provides double the performance at half the cost per unit of continuous power rating of any other EMS within the same packaging of “performance enabling techniques” (less RE-PM). Although verifiable Alpha Testing data will make the nay-sayers irrelevant, consider the following facts, as well:

- BMW calculates [their optimized but traditional slipring assembly “asymmetric,” singly-fed, DC field wound-rotor “synchronous” EMS](#) improves the cost-performance of its 2023 iX M6 EV while eliminating the cost, geopolitical, and environmental consequences of RE-PM but the same EMS experts, which always confuse SYNCHRO-SYM with the unstable “asymmetric” multiphase wound rotor “asynchronous” quasi-doubly-fed EMS, have similarly dismissed BMW’s calculations while continuing to promote their consequential RE-PM EMS;
- Like the BMW EMS, SYNCHRO-SYM is a wound-rotor “synchronous” EMS but unlike the BMW EMS, SYNCHRO-SYM is also brushless, symmetric, and independently symmetric multiphase “doubly-fed.” As a result, the EMS package of BMW can be *conveniently* retrofitted with the brushless and symmetric multiphase wound-rotor synchronous doubly-fed circuit and control architecture of SYNCHRO-SYM to reliably provide double the continuous power density and octuple the peak torque at half the loss and cost per unit of continuous power rating;
- ***Sell of BRTEC art is high risk without the technical verification data from Alpha Testing***, because as a totally new and disruptive control technology, BRTEC uses a patented and unique multiphase high frequency magnetic sharing method, which bidirectionally, automatically, and directly converts low frequency (LF) multiphase AC or DC signal precisely to another LF multiphase AC or DC signal by an intermediate electromagnetic analog processor stage with inherent resonant or soft switching, instead of the typical topology of an intermediate DC Link Stage between two TOTEM Pole inverters that today’s motor controller or power conditioning experts anecdotally expect. As a result, the typical TOTEM Pole Inverter expert always says, “Where is the DC Link Stage?” without realizing:
 - The direct AC-to-AC switching circuit and control of BRTEC was proven by multiple stages of prototyping and is similar to the [direct AC-to-AC Power Electronic \(PET\) or Solid State Transformer \(SST\)](#).

BEM Team & Bootstrap Market Strategy:

Our team may not be the “Who’s Who” of marketing, which is essential for creatively marketing today’s “me-too” asymmetric EMS as having better cost-performance per unit of continuous

power rating than another “me-too” asymmetric EMS with the same performance enabling techniques, but instead, our team is the essential lean, committed team with the *functional* expertise to prudently conceive and tactically execute the following bootstrap strategy for marketing SYNCHRO-SYM:

1. Partner with investors that have experience in marketing and sales help, quick funding resources, and a path to at least series A funding;
2. Engineer & fabricate MOTORPRINTER, which requires no R+D but is straight-forward ready, for the rapid, low cost, just-in-time additive manufacture of SYNCHRO-SYM pre-production prototypes or production products;
3. Engineer & fabricate SYNCHRO-SYM pre-production prototypes, which requires no R+D but is straight-forward ready, with a “sweet” power rating and size for the EV market that are designed by BEM-CAD for in-house tuning and testing (i.e., Alpha Testing);
4. Publish & advertise SYNCHRO-SYM technical data results from Alpha Testing to emphasize the known double continuous power density and octuple peak torque density at half the cost and half the loss per unit of continuous power rating of any other EMS, as was already proven by a half century of EMS study, research, and publication;
5. Solicit 3rd party candidates for SYNCHRO-SYM Beta Testing, such as EV companies, by advertising SYNCHRO-SYM’s impressive Alpha Testing data results;
6. Produce pre-production prototypes via MOTORPRINTER to meet the sampling needs for SYNCHRO-SYM Beta Testing;
7. As SYNCHRO-SYM sales increase by at least the word-of-mouth results of SYNCHRO-SYM Alpha and Beta Testing data, such as no RE-PM but a disruptive twice the power density and efficiency at half the cost, field-Install additional low cost, household power, self-contained MOTORPRINTERS to meet production quantities.

SYNCHRO-SYM design to compete against Quark e-Motor by using BEM-CAD:

Using BEM-CAD, BEM has already designed [SYNCHRO-SYM to a “sweet” power rating, RPM, and size for the RE-PM EMS EV market, which is based on the 4000 RPM direct drive Koenigsegg Quark e-Motor](#) specifications. Koenigsegg is one of those rare EMS manufacturers that provides sufficient technical detail for cross-analysis. As expected, SYNCHRO-SYM provides twice the cost-performance, such as 66 Kw/L at 4000 RPM and 1.25T, and with conventional construction and easy manufacture by MOTORPRINTER.

ⁱ Frederick Klatt, the inventor of SYNCHRO-SYM, was the first to introduce Wikipedia articles to the multiphase wound-rotor “synchronous” doubly-fed electric machine system, now called SYNCHRO-SYM. Relishing upon his own witnessed experience, just as SYNCHRO-SYM was beginning to get an elite following of expert contributors from academia, the progressive establishment of Wikipedia’s political contributors without electric motor expertise and the global adversary’s rare-earth permanent magnet electric machine industry with its associated funders and investors, such as the US Departments of Energy and big multinational companies, complained that the articles were

too commercial (*sarcasm: similar to their Wikipedia articles*) and not grammatically perfect (*e.g., Mr. Klatt's submission leveraged the grammar of the original "induction" doubly-fed electric machine article*). As a result, Wikipedia: 1) disregarded the [proven 60 years of electric machine study, research, and publication](#), which were clearly referenced in the articles, 2) consistently confused the "synchronous" doubly fed machine with the asynchronous or "induction" doubly-fed electric machine, 3) purged all references to the multiphase wound-rotor "synchronous" doubly-fed EMS from Wikipedia, including contributions made by academic experts, and 4) banned Mr. Klatt from contributing anything to Wikipedia, such as in his defense, and even removed his electric motor 3D Printing articles. Although several years later, [Wikipedia seemed to suggest Mr. Klatt's contribution to Wikipedia were actually correct \(such as SeanCFountain \(talk\), 14:11, 13 July 2015 \(UTS\)\)](#), the damage to electric motor system innovations, such as SYNCHRO-SYM and MOTORPRINTER, were sealed and now, the global adversary's RE-PM electric machine system with all of its geopolitical consequences is anecdotally considered the electric machine system of choice and still, there is not a practical 3D Printer of electric motors. In bitter sweet support, Wikipedia was justly blasted by its ousted co-founder Larry Sanger for left-wing bias: "[The word for it is propaganda](#)," Fox News.