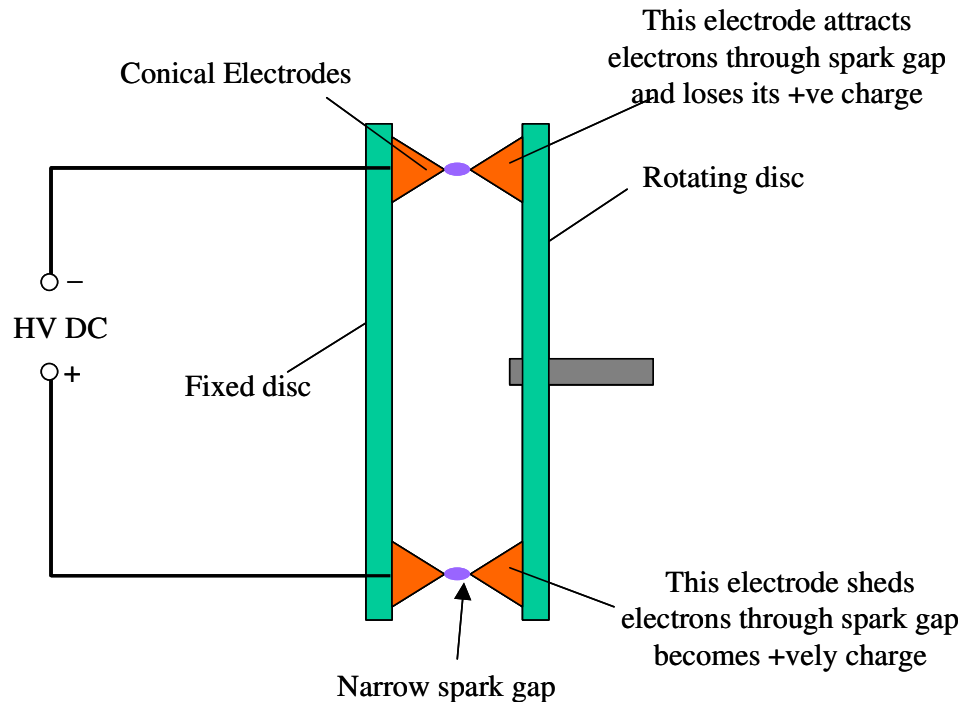


## More Thoughts on Using the Earth's Magnetic Vector Potential

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The previous suggestion for a rotating disc assumed that electrodes following a curved trajectory would obtain some induced charge by that movement. That may not be the case and it may be necessary to deliberately place charge on an electrode so that this quantity of charge  $q$  moving from a positive electro-kinetic potential  $+\mathbf{v}\cdot\mathbf{A}$  to a negative potential  $-\mathbf{v}\cdot\mathbf{A}$  gains or loses electro-kinetic energy  $2q(\mathbf{v}\cdot\mathbf{A})$ . This would require the device to include a HV DC generator that supplies the charge via spark gaps. The following figure shows this.



The moving electrodes are on an insulated disc and represent isolated bodies that can receive charge via spark gaps formed when their sharp points get close to the fixed electrodes. Note that the charge supplied to the moving electrode as it passes the lower fixed one is of the polarity to be electrically repelled away from the fixed one (both are positive), thus creating a boost torque as it leaves that position. However it is also of the correct polarity to be attracted on approach to the top fixed electrode (one positive and the other negative), where it then loses its charge (or possibly receives the opposite charge), thus also creating boost torque on approach. This simple arrangement of moving and fixed electrodes with spark gap commutation therefore creates a form of motor that uses electric forces between charges, not magnetic forces. And since electric forces between moving charges are much greater than magnetic ones, it is a viable form of motor, (although I have never come across this in a lifetime devoted to electro-magnetics). It would normally be expected that the mechanical power delivered by the motor would be supplied from the high voltage DC supply that drives unidirectional current impulses into the machine. However with the electrodes moving within the uniform  $\mathbf{A}$  field from the Earth to gain or lose electro-kinetic potential there is the possibility that the motor exhibits over-unity performance that can be used to make the system self run and deliver excess power. The need for very high voltage to be generated can maybe explain the Tesla-like coils within the Innova Tehno machine.