

Abstract Submitted
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Hydroelectric Generator DANIEL ZIPPRIAN, None — The idea behind a hydro electric generator is to have a large potential well of water that you can be controlled to be able to convert into kinetic energy. The kinetic energy is from the flow of water which is directed towards some kind of turbine. In turn the kinetic energy is turned into mechanical energy. The turning of the turbine rotates the rotor part of the generator, and the stator remains stationary. Induction is caused when the rotor is rotating around the stator. This is caused when a magnetic field interacts with a wire causing the electrons inside the wire to face in the same direction. Once the magnetic field begins to move the electrons start to flow through the wire creating current. For this to work the direction of the magnetic field has to be perpendicular to the direction of the coils of wires. For my design I plan to funnel the flow of water into a nozzle which will be aimed towards my turbine. The turbine will be connected to a shaft that will be connected to my rotor. The rotor I designed uses a brake router for the surface to hold me magnets. The system will be vertical, with the rotor as the highest part on the generator and the turbine at the bottom. The magnets will be facing downwards with the magnetic field going in a vertical direction. The stator of my generator will be the coils which will sit on top of a metal ring that have the ability to rise or low to match the height of the brake router.

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None

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