



Here's the Pixii's generator restoration model. Let's look into this generator for a while since this is the originator of Direct Current generator or a motor. A principle of this generator is electromagnetic induction. In 1831, Faraday discovered the principle of generating electricity by using magnets. Depending on whether you close the magnet on a coil or move it away, direction of current will change. A year later in 1832, Hippolyte Pixii, a French machine engineers, invented the first practical generator using coil and magnet and went public it in Paris. On top of this model has a coil with many layers of conducting wire. Under the coil there is a Permanent magnet which is standing on the gold pedestal. If you turn the handle, magnet will turn with the pedestal. Because the magnet moves toward or away from the coil, current flows through the coil due to electromagnetic induction. This current is an alternating current that changes direction every half turn. The lead wires from the coil run down to a device centered on an X-shaped copper plate. Below the rotating magnet is a half-moon plate that pushes the L-shaped part back and forth as the magnet rotates. What on earth is this device for? This is a device for extracting direct current from alternating current. It is a rectifier device required for DC motors and generators. In the same year, Pixii invented a better commutator than this device, a great invention still in use today. #7 is about equipment used for AC/DC generation experiments. You will understand more about commutator.