

World's Greatest Electrical Discoveries

	Date	Inventor	Discovery
1	600 BC	Thales of Miletus	Discovered static electricity by rubbing amber with furs.
2	1600	William Gilbert	Coined the word "electricity" from the Greek ' <i>elektron</i> ' (the Greek word for amber)
3	1705	Francis Hauksbee	Discovered the neon light
4	1720	Stephen Gray	First to distinguish things that would conduct electrical charge and things that would insulate it.
5	1745	Pieter van Musschenbroek	Invented the Leyden Jar--a means of storing electric charge which could later be discharged at will.
6	1752	Benjamin Franklin	Discovered the 2-pole nature of electricity and that lightning was electricity.
7	1783	Charles Augustin de Coulomb	Showed the attractive force between two electrically charged particles was dependent on the charge and the distance between the particles.
8	1786	Luigi Galvani	Discovered electrical current flowed between different metals
9	1796	Allesandro Volta	Invented an electric battery capable of creating a continuous flow of electric current.
10	1820	Hans Christian Oersted	Discovered that an electric current would generate a magnetic field
11	1820	André-Marie Ampère	Called "The Newton of Electricity" by Maxwell, he observed that currents would repel or attract each other depending on their direction of flow. Developed the first mathematics predicting the relation between electricity and magnetism & posited the existence of the electron as the basic component of both subjects.
12	1821	Thomas Johann Seebeck	Discovered that voltage (and current) flow between two dissimilar metals in proportion to their temperature differences.
13	1821	Michael Faraday	Built the first electric generator based on his discoveries of electromagnetic rotation and induction. Further he found that electric induction takes place through an intervening vibrating medium (aether) and not by some incomprehensible "action at a distance."
14	1823	William Sturgeon	Produced an electro-magnet
15	1826	George Ohm	Precisely defined the relationship between power, voltage, current, and resistance.
16	1832	Hippolyte Pixii (& André-Marie Ampère)	Built the first direct current commutator-type continuous current generator.
17	1833	Samuel Hunter Christie	Invented the Wheatstone Bridge for measuring electrical resistance.
18	1834	Thomas Davenport	Invented the first battery-powered electric motor.
19	1835	Joseph Henry	Discovered the electromagnetic phenomenon of self-inductance & Invented the electric relay.

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20	1839	Edmond Becquerel	Discovered the photovoltaic effect (PV) used today in solar panels.
21	1857	William Thomson (Lord Kelvin)	Deemed Britain's greatest electrician, he invented measuring devices for every electrical quantity in existence and chaired the international committee that named what we know today as the Amp, Volt, Ohm, etc. His home was the first in the world to be lit with electricity and he produced the first mathematics in support of Faraday's concept that electric induction takes place through an intervening medium.
22	1860	James Clerk Maxwell	His equations unifying magnetism, electricity, and light, make him the 2 nd most important scientist in history (next to Sir Isaac Newton).
23	1878	George Armstrong	First hydroelectric plant built in England.
24	1879	Thomas Edison	Made the first workable light bulb
25	1882	Thomas Edison	Built the first DC power station in New York.
26	1883	Nicola Tesla	Invented the "Tesla Coil" which made it possible to transfer electricity over long distances.
27	1884	Nicola Tesla	Invented 3-phase alternating current. Electrical power all over the world is based on this principle.
28	1886	Jacob F. Schoelkopf	1st commercial hydroelectric power system opened in Niagara Falls, New York.
29	1888	Charles F. Brush	Invented an electricity-generating wind turbine
30	1888	Nicola Tesla	Invented the rotating magnetic field
31	1888	Nicola Tesla	Built the first step-up and step-down transformers
32	1888	Nicola Tesla	Designed, patented and built the first alternating-current induction motor
33	1889	Nicola Tesla	Designed and built a system to power electric lights wirelessly at a distance of thirty miles.
34	1897	J.J. Thomson	Discovered the electron
35	1904	John Ambrose Fleming	Invented the thermionic vacuum tube (diode)
36	1911	W. Carrier	Invented air conditioning
37	1911	Heike Kamerlingh Onnes	Discovered superconductivity
38	1925	Julius Edgar Lilienfeld	Invented, built and patented a solid-state transistor that used an electric field to control its functions.
39	1926	Paul Eisler	Invented the printed circuit board
40	1931	Julius Edgar Lilienfeld	Invented, built, & patented an electrolytic capacitor
41	1931	Soviet Union	First wind energy plant went on line
42	1938	Otto Hahn	Discovered nuclear fission, which was the basis of the first atomic bomb (1942) and the first nuclear power plant (1951).