

# [Inventing solutions](https://assignbuster.com/inventing-solutions/)

[Engineering](https://assignbuster.com/essay-subjects/engineering/)

Inventing Solutions Introduction Thomas Edison’s contribution is immense when one thinks about his amazing scientific inventions having huge utility value in the last more than 100 years. Edison had a remarkable problem solving capacity and all his inventions are outcome of his dogged perseverance to find the solution on the issue that he worked on time to time. The paper attempts to explore his approach to some of his innovations that finally resulted into great inventions. Edison Inventions as per Market Needs Thomas Edison once said, “ Anything that won’t sell, I don’t want to invent. Its sale is proof of utility, and utility is success." (Thomas Edison Inventions). How remarkable this statement is when one relates it to the modern-day philosophy of developing products as per the market needs. After opening his laboratory in Menlo Park in 1876, Edison developed the phonograph, telephone transmitter, incandescent light and many other devices. Later on in 1887, he opened a larger laboratory in West Orange, New Jersey. He continued to work there for next 35 years and developed motion picture camera, improved version of phonograph, an alkaline storage battery, manufacturing process for cement and a technology for refining iron ore. Phonograph Phonograph is certainly one of the most cherished inventions of Edison. Though the device was invented in 1878, it continued to rock the market for several decades throughout the world. Market made the major use of phonograph in playing music records. Edison already had several uses of phonograph in his mind and he was sure that world would get crazy about this invention. Some of them can be listed as per the following. 1. It will serve the purpose of stenographer. 2. In educational institutions where teacher's lessons or instruction can be preserved in phonograph and later on it can be referred by the students as and when needed. 3. The phonograph can preserve the family records or the last words of the dying person or any great person. 4. For blind person, it can speak lessons – already preserved for their learning. Needless to say that Edison had thought about so many uses of phonograph and huge market demand was expected of the device. Edison was right in his forecast about the market demand; market really went crazy after the phonograph in those days (Inventions 2012). Electric Lamp In 1979, Edison developed a carbon-filament lamp. He demonstrated operation of lamp at his Menlo Park laboratory. Very next year, he began producing lamps commercially in which he used carbonized bamboo as filaments. After finding that the oxygen weakens the platinum once it gets heated, he put the filament in a vacuum bulb. This surely improved the performance of his lamp. The market was eagerly waiting for a device that could solve their lighting needs. Edison applied the Joule's and Ohm's laws in developing high resistance lamps reducing the size of copper conductors and thereby its cost. He was the first person to convert carbon into a wire-kind ; the invention helped him to make incandescent electric lamps providing one more utility that fulfilled market needs (Inventions (2012). Electric Power System When question comes to developing electric power system, he felt the need to develop host of other devices such as electrical generator, electric motors, fuses to prevent overloading, and the screw socket to hold lamps. Edison also designed a direct-current system that was required to provide power to an isolated single building. Soon he realized that an alternating current system was a better alternative for high-voltage transmission. He did not develop an alternating current system because he believed that high voltages were unsafe. His contribution to the development of electrical systems and devices is unprecedented (Inventions 2012). Motion Picture Camera After designing phonograph, his attention focused on a device that can show moving pictures. Here he got support of his colleague W. K. L. Dickson who was a photographer. The motion picture camera came into being in the year 1892 along with a viewing device called Kinetoscope. Very next year, the device was in public to show the Edison films commercially. Motion picture business currently runs into thousands of billions of dollars worldwide and this has been possible due to small but very important contribution of Edison in the field of motion pictures (Inventions 2012). Conclusion Edison’s numerous inventions such as Electric Pen, Electric Generator, Telegraphy, Storage Battery, Telephone transmitter, vote recorder, Loud-speaking Telephone, Ore Milling and many more have left indelible marks of his contribution in the scientific world. He always believed in offering solutions to the problems and most of his inventions had great utility in the market place. His only invention in the field of pure science came to be known as the Edison effect. Modern days’ many inventions including silicon chips, computers and electronic industries trace their developments in this important principle. To be precise, 1368 patents are registered in the name of Edison; it is unparalleled in the history of the world to have been registered so many patents on the name of a single individual. Undoubtedly, his inventions have enriched the life of mankind and will continue to do so in future. References Beals, G (1996). Major Inventions and Events in the Life of Thomas Alva Edison. thomasedition. com. Retrieved October 30, 2012 from http://www. thomasedison. com/Inventions. htm Inventions (2012). The Thomas Edison Papers. Rutgers. com. Retrieved October 30, 2012 from http://edison. rutgers. edu/inventions. htm Thomas Edison Inventions (n. d). Edison Muckers. Edisonmuckers. org. Retrieved October 30, 2012 from http://www. edisonmuckers. org/thomas-edison-inventions/