

# [Free research paper about history of sensors](https://assignbuster.com/free-research-paper-about-history-of-sensors/)

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## Abstract

Being detectors that can be used to measure events or changes in many types of physical qualities and quantities, for instance light or pressure, whenever they are in occurrence, the sensors are in a wide range of different devices in which it is required to convert the measurement into a signal that can be read. This paper presents the definition and a brief history of sensors; it talks about who invented the sensor, the theory behind the sensor and how it is currently used in the industry.

For several years, even right from medieval times, sensors have been around in various forms. However, records have shown that the first manmade sensor, i. e. the thermostat, was first brought to the market in 1883. Also, the infrared sensor was recorded to have come into existence in the late 1940s, even though they have only come into the limelight over the past few years. Also, the motion detectors have been in use for a couple of years but it is in this past few years that their uses are been optimized.   
Although, force-sensing resistors and potentiometers are still widely used, the advancements in micro-machinery which has brought about easy-to-use microcontroller platforms, has led to a rapid rise in the uses of sensors beyond the more traditional fields of flow measurements, pressure, and temperature, . A good example of this can be seen in the MARG sensors. Low force sensors are now being applied in several industries which include robotics and medicines, aerospace and airplanes, manufacturing and machinery, and in automobiles.

## Who invented the sensor?

This question does not have just one single answer because the inventor depends on the exact type of sensor. For instance, an electric thermostat was invented by Warren S. Johnson. The very first motion sensor used in alarm systems was invented by Samuel Bagno, this device make use of both the Doppler effects and the ultrasonic frequencies.   
However, the low force sensing technology was invented and patented by Franklin Eventoff in 1977. This technology was given the international IR 100 award in 1987. The sensitronic was founded by Eventful in 2001 and has since become a leader in the development of force-sensing technology in the world .

## Theory behind Sensor

The basic theory behind the force sensor is that they are analog devices that allow the passage of a varying quantity of electrical current through them. The quantity of current that these analog devices permit is dependent on the level of the applied pressure.

## How is it currently used in industry?

The low force sensing techniques are been introduced into various industries as an added enhancement to the proven effectiveness of the industries’ processes. Most of these industries (especially the ones where construction equipment manufacturing, automation and gear matching functions is performed) require highly sophisticated assembling and manufacturing application that requires a very effective technique for the removal of materials, flawless assembly, and precise part fitting techniques.   
In conclusion, many force sensors have been developed based on force sensing technologies, but most of their structures suffer from several limitations which include thick sensor profiles, expensive manufacturing processes, a small amount of sensels, and low spatial resolution. I hereby recommend that a new versatile sensor technology should be developed. This new sensing technology should be the type that would allow substrate flexibility, sensing area size, force sensing range, and spatial resolution of the skin to be tailored perfectly as needed by each application.

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