

**THE FABRICATION AND STUDY ON DEVELOPMENT FOR THE ACTIVATION  
CIRCUIT USING SOUND SENSOR.**

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## ABSTRACT

The study is about to control or activate the camera system using the sound sensor circuit. It is include developing the sound sensor circuit and doing the experiments to know the characteristics of the sound sensor. The camera with sound sensor switch will work best when the characteristic is known for any modification. So two experiments are carried out to the circuit. First is to know the minimum and maximum voltage produced by the circuit. Hence the minimum voltage is 0 volts and the highest is 5 volts. It is influenced by the voltage supplied, sound intensity, and the distance of the source. Second is to know the range of sound that can captured by the microphone. The microphone can capture sound in heart – shape only. It is work best when the source of sound is exactly in front of the microphone.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Background and theory

A sensor is a device that measures a physical quantity and converts it into a signal which can be read by an observer or by an instrument. For example, a mercury-in-glass thermometer converts the measured temperature into expansion and contraction of a liquid which can be read on a calibrated glass tube. A thermocouple converts temperature to an output voltage which can be read by a voltmeter. For accuracy, all sensors need to be calibrated against known standards[1].

A sensor is a device which receives and responds to a signal or stimulus. Here, the term "stimulus" means a property or a quantity that needs to be converted into electrical form. Hence, sensor can be defined as a device which receives a signal and converts it into electrical form which can be further used for electronic devices. A sensor differs from a transducer in the way that a transducer converts one form of energy into other form whereas a sensor converts the received signal into electrical form only [2].

Sensors are used in everyday objects such as touch-sensitive elevator buttons (tactile sensor) and lamps which dim or brighten by touching the base. There are also innumerable applications for sensors of which most people are never aware. Applications include cars, machines, aerospace, medicine, manufacturing and robotics [1].