

GSM BASED ANTI THEFT DETECTION SYSTEM

(Secure your home, office and shop)

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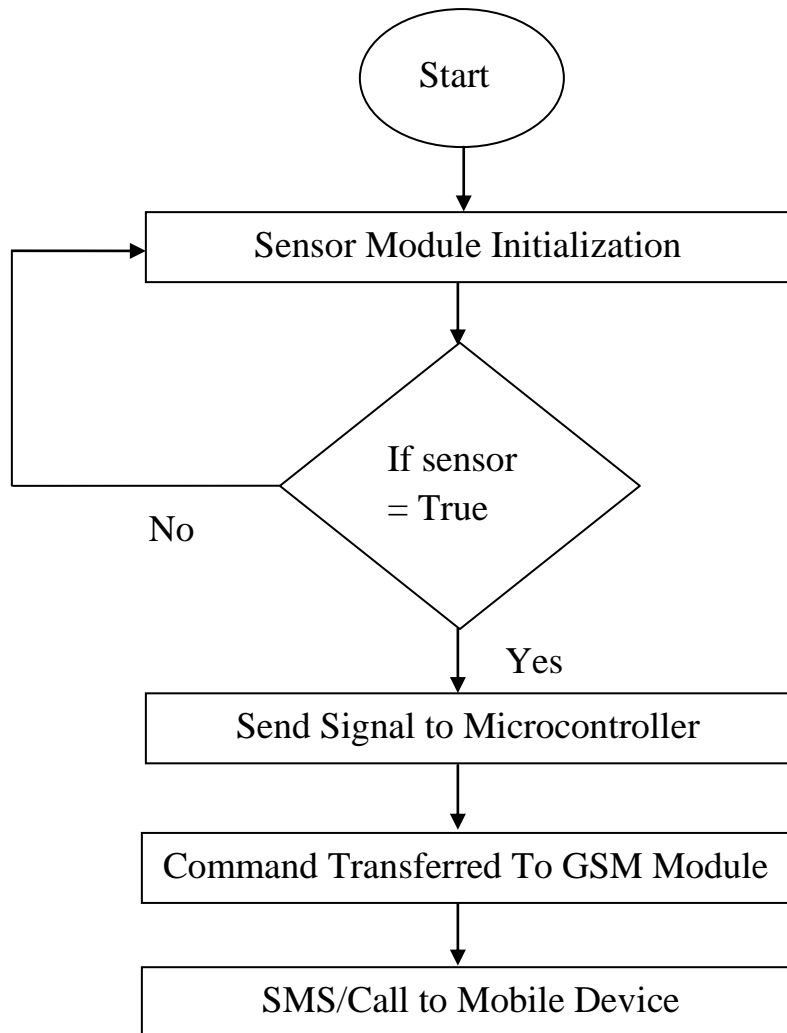
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Purpose of anti theft GSM system

The aim of this project is to implement a simple, affordable and cost-efficient system to protect house, shop and store from theft or unauthorized person's access. The project is designed for detecting intruders and informing the owner by making a phone call/messaging.

Lately, ensuring security for home, shop, store, and office is very significant. With the technological advancements we have achieved in the recent years, a homeowner doesn't have to worry about home security while getting off his/her home. Modern home security systems provide enough security from burglars, fire, smoke, etc. The system also provide immediate notification to the homeowner.

Flow chart of the proposed GSM System



Equipment Used

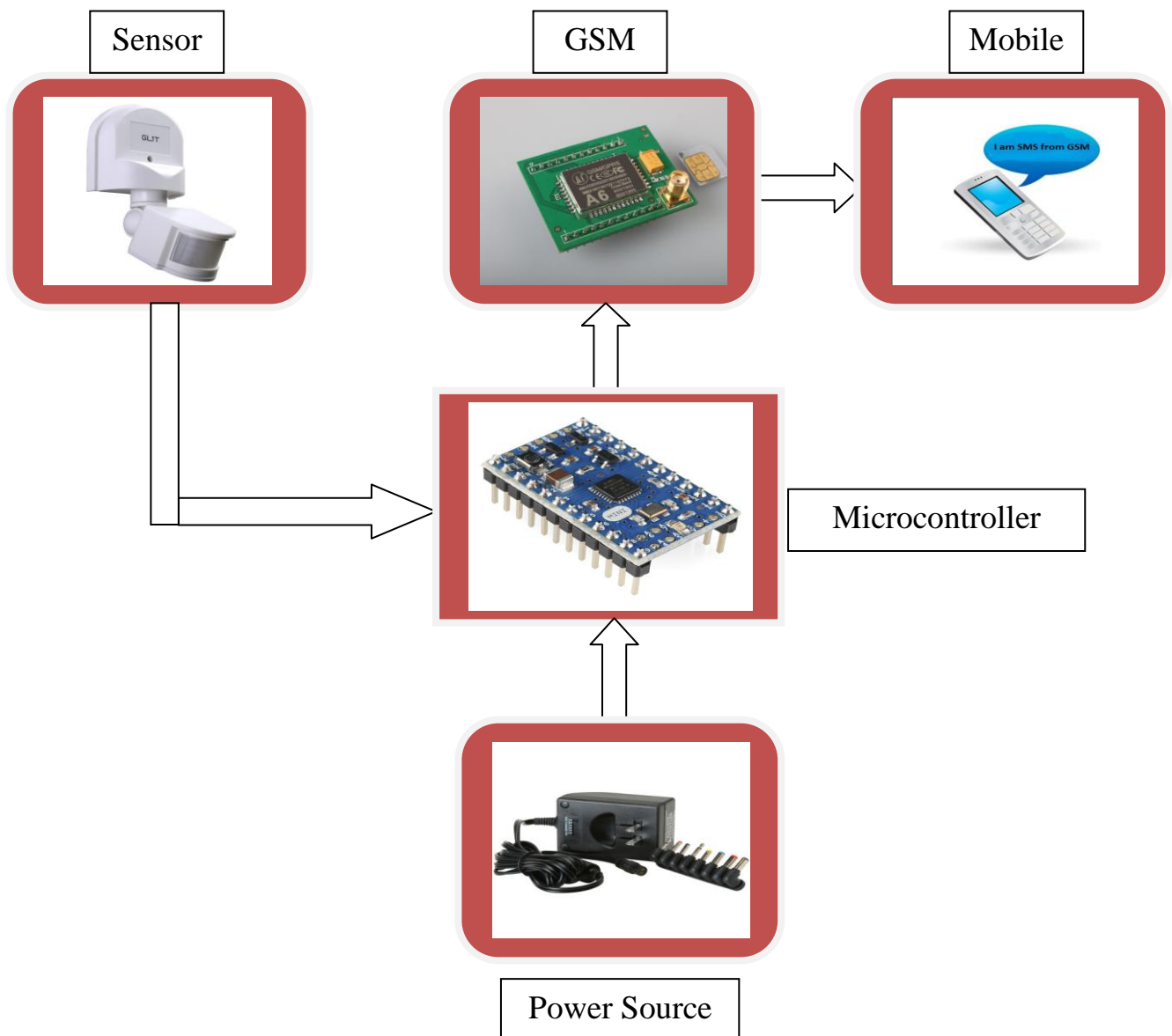


Fig: Equipment block diagram

Working Principle:

People getting more concerned to protect their house, office, shop, and store from unauthorized people. This system can monitor a house, office, shop, store by using sensor that integrated with a microcontroller and a GSM unit. A calling or messaging mechanism is used to alert users via mobile phone when a unauthorized person enters into the house. Today almost every one using mobile phone so by using our GSM system user does not need to carry additional device to monitor and protect their house from burglary.

This system is design using modularity to become a flexible system that can be add more sensors without changing the whole system, only add more sensors to increase systems functionality. So this system is a modular security system by using call/SMS function to communicate between system and user. The project model can be used in places such as home, banks, office, shop etc.

PIR Sensor basic

The sensor is an energy -saving automatic switch, it adopts integrated circuit and precise detecting components. It can identify day and night automatically. Its performance is very stable. The light will turn on automatically when one enters the detection field; The light will turn off after one leaves the detection field. Ambient-light can be adjusted. So it will work at night and stop in the daytime. The consumer can adjust it freely.

- Detection distance can be adjusted according to the local place.
- The time delay can be adjusted vary to the place.
- The light -time can be added automatically.
- When one moves in the detection field when the lamp is lighting, it can compute time once more and delay the light time automatically after the sensor detects signals..

Function of PIR sensor

PIR sensor detects motion by sensing the difference in infrared or radiant heat levels emitted by surrounding objects. The output of the PIR sensor goes high when it detects any motion. The range of a typical PIR sensor is around 6-12 meters or about 20-40 feet.

For proper operation of PIR sensor, it requires a warm up time of 20 to 60 seconds. This is required because, the PIR sensor has a settling time during which it calibrates its sensor according to the environment and stabilizes the infrared detector.

When the PIR sensor detects any motion, the output of the sensor is high. This is detected by the Microcontroller. Microcontroller then communicates with the GSM module via serial communication to make a call to the pre programmed mobile number.

Advantage of the GSM system:

- ✓ Low cost
- ✓ Easy to implement
- ✓ Low power consumption
- ✓ Long life operation
- ✓ Automated operation

Project Charge including installation:

SN	Project Type	Project charge
01	Single sensor control	9,000 BDT
02	Double sensors control	11,000 BDT
03	Four sensors control	15,000 BDT

The project charge is subject to change without prior notice.

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