**Door Position Guessing System With ATmega328P**

**Introduction –**

**Door Position Guessing System With ATmega328P is a project that operates on the position on the door in real time where it perfectly guess the door position whether it is opened and closed. The system helps the user by providing the output with the help og LEDs in guessing the position of the door from the distance of very long where his visibility can help him providing the outputs of the system.** **The project titled Door Position Guessing System is guessing system for monitoring and controlling the door position just for user help and avoid accidents just because of not getting the information and sometimes because of less visibility, this system can help in that manner for avoiding the accidents and can help the user. The project Door Position Guessing System is developed in SimulIDE and programmed in Microchip Studio with C language.  
The project Door Position Guessing System gives us perfect information about the door whether it is opened or closed in real time manner. And due to this system will get the idea and the door position in real time we can do our certain works according at that instant.**

**Objectives –**

1. **To build a system that can receive input and gives output automatically in easy way and short time.**
2. **To build a system that is able to monitor and give the output efficienty.**
3. **Give an opportunity to the user to not to make mistake and avoid the accidents accordingly.**
4. **To keep tracking of door in real time with the help of real time monitoring system.**

**Benefits –**

* **Avoid Accidents.**
* **Gives output with the help of LEDs and that will be visible in day as well as night for the users.**
* **Saves Time and Cost.**
* **Secure and Reliable.**
* **Simple and Easy to Use.**

**Features with Timeline –**

1. **Activity of this system is automated, which increases its throughput**
2. **The system is fast, user friendly.**

**4W’s and 1H –**

**Who**

**The Door Position Guessing System is a hardware that will be fitted in the doors of car, home and other and it will provide the output to the user by LEDs for avoiding accidents and helping the user.**

**What**

**Door Position Guessing System is a hardware that helps to detect the position of the door in real time manner for avoiding the accidents and helping the user.**

**When**

**This Door Position Guessing System is very useful when some user try to overtake the vehicles like car and suddenly the person in the car opens the door from the same side that time this system will help the user by blinking the LEDs for avoiding the accidents there.**

**Where**

**The Door Position Guessing System is nowadays essential need of the vehicles which haves the doors and giving information to the users coming from behind that door is opened and should drive by maintaining the distance.**

**How**

**This project will be implemented on the doors and give the respected information about the door to the users.**

**Swot Analysis –**

**Strengths**

* **Simple & Easy to implement.**
* **Increase efficiency of the user.**
* **Highly Secure, Scalable & Reliable.**

**Weakness**

* **Need battery for the whole process and continuous usage of batter may lead to change battery as it get dry accordingly .**

**Opportunities –**

**The Door Position Guessing System is now-a-days very useful and essential component for avoiding accidents. Some components like LEDs with motion sensors are available in market but it operates on small button cell and that get dry in 10 to 15 days of usage and some time provides wrong information even the door is closed it blinks the LEDs.**