ITSP'15

Institute Technical Summer Project 2015

Project Name - SuperLock

SLOT -1

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Motivation

Forgotten of door keys is normal thing in our home or workplace, it give so tension or pain.

Second thing is that If suppose you have the key but you are outside the home or workplace, at the same time your relative, friend or partner etc. arrived at your door, and suppose he/she want file or important things from you, What you want to do!!, it is obvious that you cannot immediately came home (generally not possible).

You are out of home/workplace, if a thief enters into it with its trick(or whatever), what you gonna do!! as you don't know what is happening there.

This is why we are making intelligent , effiecient and wireless control Door Lock (named it as "Superlock"), it is controlled by mobile phone devices(as no one forget mobile than key). Mobile are very useful and most access devices in today's world.

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Project Overview

Superlock is a mechatronic door lock device that can open/close lock via mobile phone through GSM Technology. It consist of four parts

- Small Door and wall model
- Mechanical Model of Spring and rod system for auto-close door
- Lock Design and motor stuff
- Electronic component attached to motor (GSM and Arduino Module)

We are also adding Sensor Technology for better security function in the project.
Basically, we first focus on the above part, If it successfully work in less that 25-30 days, then we start our sensor part. In this part, we are using motion and fire detector sensor.

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Project Overview

In the beginning, first 10-15 days, we will do learning stuff about what we are required in the project (Arduino coding, GSM sim 900 tutorials, Lock mechanism, auto-lock mechanism). Then in 8-10 days, we code the program, we make connections and join the components of lock and start checking the it, if it work properly without any bug, then we immediately move on sensor part. We give 8-10 parts for sensor tutorials and learning resources and the in 7-8 days we applying sensor to the lock system and try to fix the bug as before the itsp deadline for project submission. But if bug is there then we first fix the bug and based on the time remaining, we select the option for sensor accordingly

At last, we assemble door model with lock system and spring auto –locker.

Based on time remaining, we also tring to add more useful features if above part is bugless.

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Structure