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| Home automation via voice recognition for disabled |
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Home automation via voice recognition for disabled

Prof Dr. Hanna Abd El Malek

**Abstract:**

The aim of this project is to make a smart home but with special requirements to help disabled to enjoy their life without disturbance for another person. In order to live their complete life's more easily like others without depending on others.

So our project has the following specifications:

1. Applying full automation on different devices of the home to help disabled.
2. Wireless communication to transmit the control data from the disabled room to the other rooms to give him/her full controlling on the whole home.
3. Give a trusted person a partial control (ex: opening the door from outside) on the home to check on the patient.
4. Ability to control home away from it via controls mobile SMS.

**CONCLUSION:**

After the detailed description of the system we want to show the big importance of the system in the disabled life as we make our system to serve those people and save comfortable life to them not only the disabled persons that can benefits from our system but also the healthy people can use it as we present a mobile communication in the system and control SMS from outer the home , also we present a good system to control the IR devices in one IR transmitter and one receiver all this in addition of controlling the main devices in the home like : Door , window …..etc and finally we present ALARM system for the purpose of security. All those devices controlled by VOICE as the main idea of our project is to control anything in any place by voice this present a comfortable life for all kinds of people.

As the design of the system is made with small size we can put our system to control not only home but we can control offices or cars and by the reconfigure soft ware we can change the commands to be suitable to the new place.

As mentioned in the detailed description of the system parts, the data coming from the user by saying the configured command and this command is converted to signal that is compared by the learned command and after that the VR chip deliver the output data to the microcontroller which is the thinking brain of the system that deliver the data to the wireless device which is the ZIGBEE that make its job by sending the data to the other side of the system where there is another module of ZIGBEE that make the reverse task of the one in the other side and deliver the data to the second microcontroller that take the decision and handle the user request by comparing the coming data to the commands that are saved to it at the stage of configuration and give the devices the permission to work. As we have ALARM system and control SMS, the second microcontroller take the data from the GSM module that make the job of the mobile phone and comparing it by the saved data on it to process it and also take the decision to run or close the devices or take the input from the ALARM system.