Remote Controlling of Home Appliances using wireless microcontroller device

Objective:

Design and develop a wireless controller device to control the home appliances securely as Smart home is one of these types of system equipped with home appliances which we wish to control smartly. Some products are commercially available which allow remote home appliance controlling through internet which is undoubtedly emerging. But it lacks the true sense of real mobility and security, making the remote home appliance controlling a limited term than it is supposed to be.
In search of a true remote and adequately secure solution to be really effective and practicable, designed prototype secure wireless device is better than any other solutions.. In this project we have to introduce a new mechanism to communicate with and control the home appliances and make our homes a really smart one.

General Approach:

In modern days, we must use various high-tech machineries and equipments to get our jobs done and make the life easier. These machineries should be controlled by the homeowner from any location within the wireless coverage as the homeowner might be away from home at near place. Thus nowadays a system of remote monitoring and controlling are very much necessary.

Design Tools and Methods :

The students will discuss the implementation of each component of the system. They first present the block diagram, design phases, and identifies which microcontroller should be used. Then mastering the low level assembly programmability of the selected microcontroller, then they get complete knowledge of wireless VHF theory of operation to select the suitable components to design and implement the suitable wireless device and interface it with the controller. Programming the microcontroller to remote control many home appliances .

Expected Project Deliverables:

By the end of this project a working system will be designed and developed using assembly language of the used microcontroller.

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