

This paper presents a flexible and an inexpensive home control and monitoring system by utilizing network based on Raspberry Pi and using Arduino Microcontroller. The interface between the Access Point and switches with IP connectivity for accessing devices and appliances and controlling it remotely will be made by using Android based Smartphone application or server computer. This switch node connected to electrical devices that can be controlled using sensor and remotely controlled through an access point, the Smart Switch system for Smart Home development consists of two major parts that are smart switch device and the access point. The main hardware for this system contain: Raspberry Pi, Arduino Microcontroller, nRF24L0+ Wireless Transceiver, Relay Modules, Gang Switches, Lamps, Plugs, Sensors and Wire Set. Expected outcomes from this system: programming by using Python that comes built-in with Raspbian, Wireless module adapter to make connections between the Arduino Microcontroller and nRF24L0+ Wireless Transceiver.