

Home Automation and Security Solution

Situation

Ever wondered if there could be some way to turn ON or turn OFF the lights or fan without getting up or getting close to the switch board. Do you want to switch on or switch off the power at home remotely with a simple telephone call? Look no further as you are now rewarded with Aftek's home automation solution. We ensure control over your home, no matter where you are. Our home automation solution allows you to lead a stress free life.

Solution

Home automation is a useful system that allows you to control home appliances remotely. It eliminates the need to go to the local switch board. Now you can control the appliances from a remote place using remote control, internet, SMS or telephone. The **Central processing unit (CPU)** sends the control messages like "switch ON or switch OFF the devices" to the automation board via RS485 bus.

The device interfacing sensors (used for **safety and security**) like motion detector, gas leakage detector, flow control, smoke detector are also monitored by the central processing unit. The automation boards support RS485 communication and are based on multimaster protocol. **Aftek** has developed a **multimaster protocol** over RS485 bus, which is customized for **superior speed and response time**. It allows multiple devices (**automation, safety, and security** devices) to initiate error free communication with CPU in case of local event generation. In this way all home appliances like HVAC, fan, lights, boilers and water heaters can be controlled by installing these modules.

Expected Feature Set

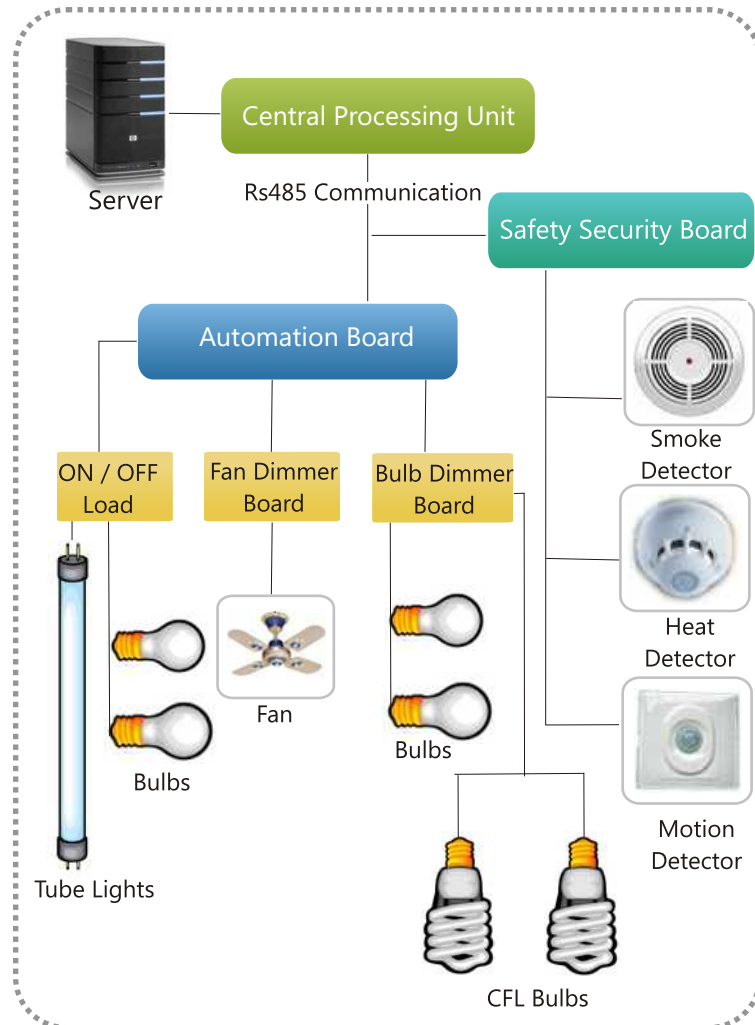
- ✓ Support for RS485 communication for central control
- ✓ Control home appliances from a remote place through remote control, internet, SMS or telephone
- ✓ Support for controlling fan speed and dimmer control
- ✓ Rotary knob, piano switch interface

Aftek's value add

- ✓ Superior response time when switch status changes
- ✓ Integration with an external intelligent device or network for appliance control
- ✓ Development of reliable hardware platform for automation, safety and security devices



Architectural Overview



Benefits to the User

- ✓ Easy installation
- ✓ Uses SMPS, increasing safety and life of product
- ✓ Ease of operation and stress free life
- ✓ Reduces time and efforts of user in controlling appliances
- ✓ Efficient usage of energy

Technologies Used

- ✓ ST7 micro-controller based firmware
- ✓ Multimaster protocol over RS485 bus

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