# Standalone Automation

## Benefits to the user

♦ Easy installation

♦ Retrofit solution

♦ Uses SMPS, increasing safety and life of product

♦ Enhanced life due to the absence of mechanical switches

## Situation

Have you ever wondered if there could be an easier way to operate lights and fans without getting up or getting close to the switch board? Are you tired of using several mechanical switches to light up your home? Would you like to quickly light up home with a single touch? Look no further as you are now rewarded with the Standalone Automation solution.

## Solution

This solution is self-contained and requires no connectivity with other units or central server to satisfy user needs; hence it is named "Standalone Automation".

Standalone automation offers a retrofit panel with feather-touch switches based on cap-sense technology and an IR remote to operate the switches. These retrofits panels are effectively designed to easily replace the traditional four-module switch boards at home. You can now operate switches from the wall panel and also enjoy the convenience of operating the switches from a remote location.

IR remote provides the ease to operate the appliances from any part of the house. You can also turn ON and turn OFF all the appliances using a single key.

## Expected feature set

♦ Switching ON and OFF home appliances

♦ IR (infrared) remote

♦ Allows 'all OFF', 'all ON' and 'Restore' mode for loads during power failure

♦ Support to restore the load status after power failure

♦ Audio indication for every operation from IR remote

♦ LED indications for status

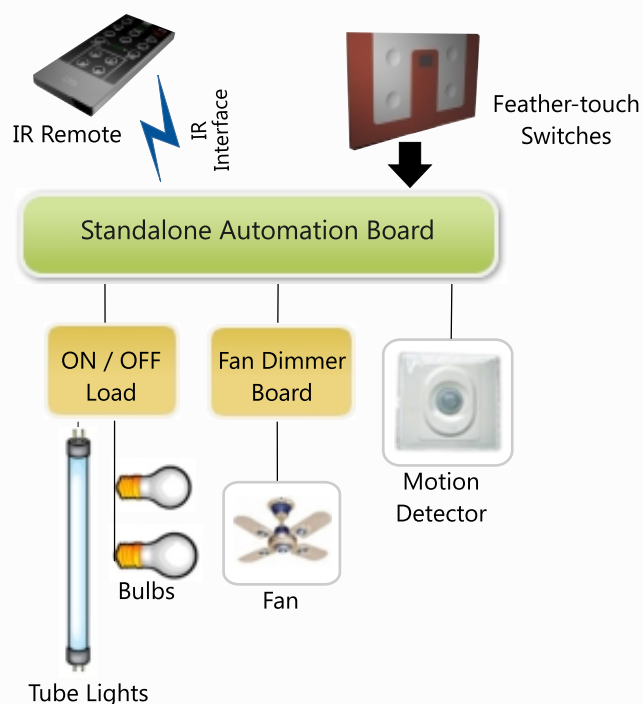## Technologies used

♦ Cap-sense

♦ IR receiver and transmitter

♦ 8-bit micro-controller firmware

♦ Cypress PSoC firmware

## Aftek's value add

♦ Implementation of firmware

♦ Integration of cap-sense technology

## Architectural overview



Standalone Automation is designed as two-tier architecture to provide flexibility and scalability.

## Standalone Automation board

Tiny 8bit micro-controller is used on this board. All control actions are decided by the firmware present on this board. It has feather-touch cap-sense switch interface, IR receiver and LED status indication.

## Standalone Automation is available in three flavors:

♦ Four feather-touch switches and IR

♦ Four feather-touch switches, IR and fan dimmer

♦ Four feather-touch switches, IR, fan dimmer, motion detector and day light sensor

## Feather touch IR remote control

IR remote for standalone automation is an elegant device with feather-touch buttons and a unique design. It is a general purpose remote that can be configured for other applications too. Cypress PSoC processor is used in this remote. IR remote control is compliant with standard RC5 protocol.