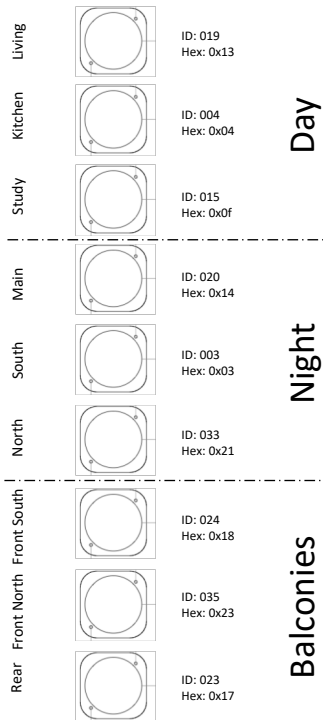
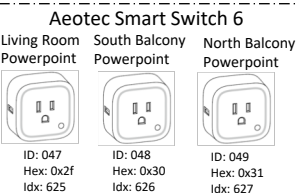
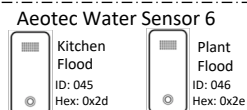
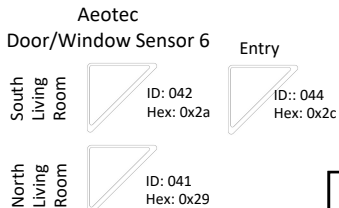
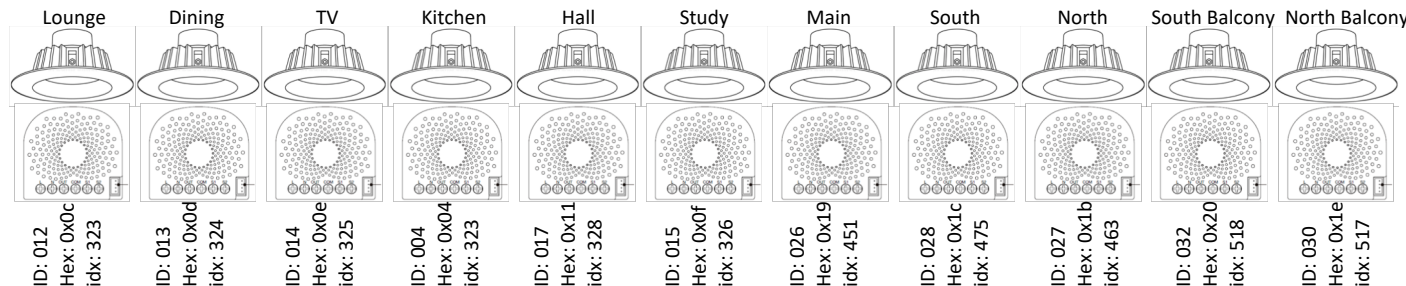


# Northcliff Home Automation Functional Overview



Aeotec MultiSensor 6



LED Lights

Aeotec Nano Dimmers

## Domoticz: Z-Wave Device Interface

### Domoticz: Z-Wave Device Interface

Capture Domoticz Sensor Data

#### Control Aircon

- Record current room temperature for each indoor sensor and divide into Day & Night Zones
- Record the target temperatures for each room and which rooms have their sensors user-activated, based on HomeKit settings
- Divide those current temperatures, target temperatures and sensor activation states into Day and Night Zones, averaging out the activated temperatures for each zone and the overall apartment
- If sensors are activated in only one zone, control the damper to direct the air to the active zone. If sensors are activated in both zones, balance the air to both zones, proportional to the gap between target and current temperatures in each zone.
- Record Heat or Cool Mode, based on user-activated HomeKit settings and set the aircon to those respective modes in Fan Hi state if the active current temperatures and under (Heat) or over (Cool) active target temperatures. Once the active target temperatures have been exceeded by 0.5 degrees (over for Heat and under for Cool), set the aircon to Fan Mode in Fan Lo state until the active current temperatures are under (Heat) or over (Cool) the active target temperatures.

#### Update Temp History

- Keep a log of the active and passive temperature history of each indoor sensor for the previous 10 minutes and determine the aircon effectiveness for each active sensor and active zone by calculating the temperature change over each 10 minute period and logging the maximum and minimum changes.

#### Room Sunlight Control

- Set the Living Room Blind positions, based on four balcony light levels, the state of the Living Room doors and the balcony temperature levels.

### Home Automation Controller

#### Dictionaries

- Status - Record the status of aircon and doorbell
- Temperature - Record the temperature of each sensor
- Humidity - Record the humidity of each sensor
- Light Level - Record the light level of each sensor
- Motion Detected - record the motion state of each sensor
- Brightness - Record the brightness of each dimmer
- Domoticz Brightness - Record the dimmer brightness as seen by Domoticz
- Temperature History - Record the prior 10 minutes of indoor sensors
- Zone Dictionaries - map the sensors and their states to the aircon zones
- Active Temperature History - Record the prior 10 minutes of active indoor sensors
- Temperature Change Rate - Record the temperature change of each sensor over the prior 10 minutes
- Active Temperature Change Rate - Record the temperature change of each active sensor over the prior 10 minutes
- Temperature Update Time - Record the time when the last temperature update was done for each sensor
- Aircon Effectiveness - Record the aircon effectiveness for each sensor and each zone
- Blind Control - Record settings, status and commands for blind control

#### Aircon Controller

- Use the mqtt messages from the Home Automation Controller to set the aircon mode, fan state and damper position
- Report aircon status back to the Home Automation Controller

#### Garage Controller

- Use the mqtt messages from the Home Automation Controller to control the garage door
- Report garage door open status back to the Home Automation Controller

#### Somfy myLink

- Use the Somfy myLink messages from the Home Automation Controller to control the Living Room Blinds via command or via Front Balcony Light Level, Temperature and door states

#### Doorbell Controller

- Answer the doorbell, play a recorded message, capture a picture of the person ringing the doorbell and send a pushover notification and a HomeKit alert when in Auto Mode. Auto mode prevented at night, on weekends or when the entry door is open.
- Send a pushover message, set up a SIP video call to a phone, send a pushover notification and a HomeKit alert and allow the door to be opened by HomeKit when in Manual Mode

Capture Powerpoints

Capture Dimmers

Control Blinds

Capture Garage Door Status

Capture Garage Button

Capture Aircon Buttons

Capture Aircon Status

Capture Doorbell Buttons

Capture Doorbell Status

## Homebridge: Apple HomeKit Interface

