Example2: house with 1 Raspberry + 6xDomBusTH + 3xDomBus12 + 3xDomBus1 + 2xDomBus31 and 1xDomESP1

Raspbian and Domoticz are free open-source software. Domoticz is a user friendly controller that is fully customizable through LUA scripts, and provides a clear web interface for PC and smartphone, and one app for Android and iOS.
RS485 bus easily connect all devices by a 4 wire cable (data+power supply), cabling up to 1km and avoiding RF pollution.

Roof

Photovoltaic system

Wireless meteo station

External siren

Night zone

External siren command + tamper
Button + relay output to supply the **electric heater**
1 indoor light controlled by domoticz
Magnetic contact sensors on windows and blinds

Temperature and humidity
1 button to enable/disable alarm and white led
1 buzzer, activated in case of alarm or door bell
White led activated in case of **blackout or by pushbutton**
Green/red led to check the alarm status

DomBus1

DomBusTH   **Bus cable**

100-150Ω resistor between A and B

Main bedroom

Temperature and humidity sensor
1 button to **enable/disable alarm and white led**
1 **buzzer, activated in case of alarm or door bell**
White led activated in case of blackout or by pushbutton
Green/red led to check the alarm status
1 external relay to command the **bedroom light**
1 external relay to command the **balcony light**

DomBusTH

Garage

Distance sensor — Measure water level in the tank

ElectroValve — Used to enable garden watering

DomBus23

Solder jumper to enable resistor between A and B

Cellar

Dehumidifier

DomRelay2 (ext. relays)

DomBusTH

Technical room

Raspberry equipped with the following software:
* Raspbian operating system (Linux)
* Domoticz (home automation system controller)
* Weewx (read data from the meteo station)
* some lua scripts, easy to customize, to manage pushbuttons, **heat pump, ventilation, doorbell, gate, alarm system**, outdoor lights....
Everything is supplied at 12V with backup battery.

6 sensors for doors, windows and blinds
1 input from the door bell
1 output for the gate door
1 output for the gate
1 oudoor light
4 outputs to control ventilation,dehumidification, heating/cooling and air recycling

IPCAMs   12V

Network video recorder   12V

USB harddisk for backups

12V with fuse protection

13.6V 15A Power supply

SDM230 energy meter

Meteo station palm (USB)

Raspberry + Domoticz

5V 3A DC/DC

12V 50Ah lead battery

energy meter pulsed outputs

Instant power (RS485) to ESP8266

pulse outputs to DomBus12

RS485/ TTL converter

DomESP1   12V

USB/ RS485

DomBus31 (8 relays)

DomBus12 (9 I/Os)

Bus cable

Laundry

HeatPump

Commands for the heat pump:
* summer/winter
* on/off
* low power/high power
* coil/radiant temperature
A script in domoticz manages the **heat pump to use most energy from photovoltaic**.

Electric car charge socket

DomBus31

Office

LCD display

Temperature and humidity.
Buzzer to alert in case of **doorbell or alarm activation**.
White led in case of power outage.
1 external relay to **enable monitor** in case of **doorbell, alarm or outdoor sensors activation.**

Connects 8 magnetic contact sensors (for 4 windows and 4 blinds) and 1 tamper.

DomBusTH   **Bus cable**   DomBus12

Living room

DSL Router

Temperature and humidity.
Double button to force/disable ventilation and dehumidification.
White led in case of power outage.
1 external relay to **reset DSL router** in case of internet failure.

Outdoor lights.
Indoor light.
Magnetic contact sensors for doors, windows and blinds.

DomBusTH   DomBus1

Kitchen

LCD display

Temperature and humidity.
Double button to **force/disable ventilation** and **dehumidifier**.
Red/green led to **monitor power usage/production**.
External relay to supply LCD in case of doorbell or alarm activation.

Magnetic contact sensors for doors, windows and blinds.

DomBusTH   DomBus12 (9 I/Os)