Gateway

Actuators: -

Lighting

Heater

Cooler

Buzzer Alarm

Execution: -

* Light Control Driver
* Heaters and Coolers Drivers
* Buzzer Alarm Driver

Sensors: -

PIR

Light Sensor

DHT Sensor

Ultrasound Sensor

Real time Control: -

* Lighting control based on Ultrasound and Light sensors
* HVAC control based on the forecast, current and target temperatures

Repository

Context: -

* Light Intensity Calculation
* People Count
* Target Temperature Calculation
* Presence Detection