

The information processing systems (part 1 of 2)

A basic information processing system ...

... the mercury thermometer

40

≣ 30

20

0

-10

-10

-30



Input information : outdoor temperature (physical parameter) Output information : displayed value of the temperature (in °C)



From the mercury thermometer of yesteryear ... to the digital thermometer

 \rightarrow The contribution of electronics technology :

a temperature sensor included in the thermometer

Outdoor temperature

Acquisition

Processing



From the mercury thermometer of yesteryear ... to the digital thermometer

→ The contribution of electronics technology :

a temperature sensor included in the thermometer
a memorization device



Acquisition

Processing



From the mercury thermometer of yesteryear ... to the digital thermometer

→ The contribution of electronics technology :

a temperature sensor included in the thermometer
a memorization device

Display

• an LCD screen

Displayed outdoor temperature

(min, max, current)

temperature

Acquisition

Outdoor



Outdoor and

temperatures

Acquisition

indoor

And what if we measured and displayed both outdoor and indoor temperatures ?

→ The contribution of electronics technology:

two temperature sensors

Processing

a memorization device
an LCD screen

Displayed outdoor and indoor temperatures

(min, max, current)

Measuring and displaying the temperature : but why ?

→ In order to regulate the temperature of a house

Outdoor and indoor temperatures

Acquisition

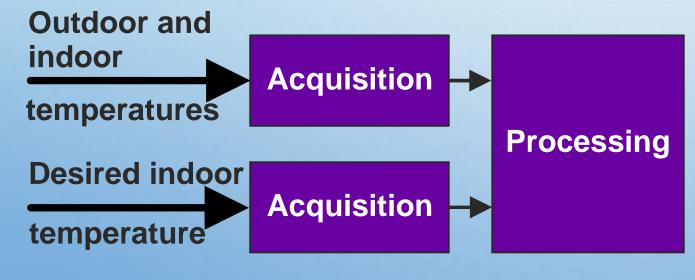
Measuring and displaying the temperature : but why ?

→ In order to regulate the temperature of a house

Outdoor and
indoorindoortemperaturesDesired indoor
temperatureAcquisition

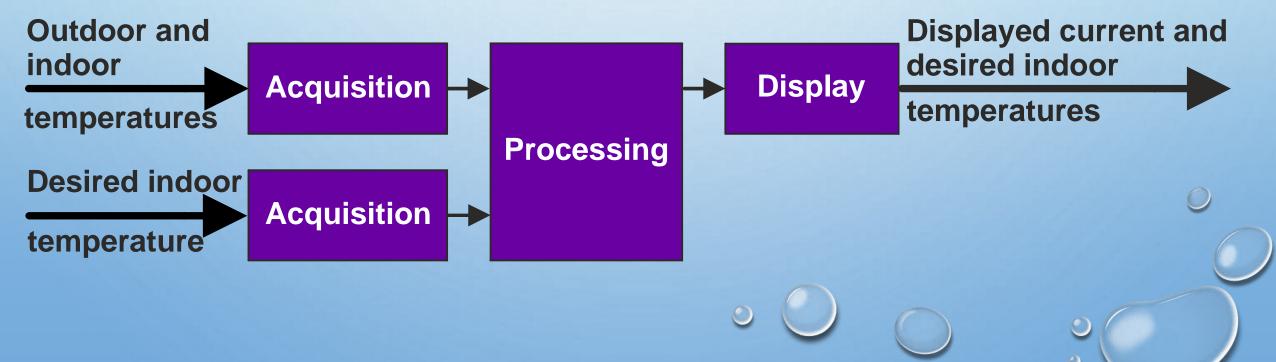
Measuring and displaying the temperature : but why ?

In order to regulate the temperature of a house



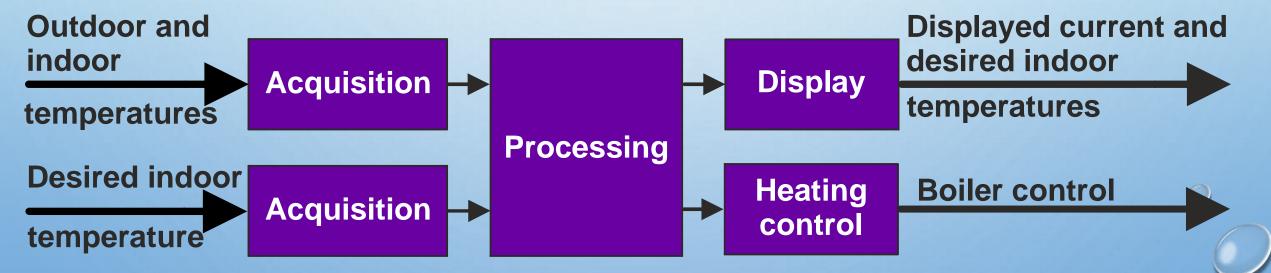
Measuring and displaying the temperature : but why ?

In order to regulate the temperature of a house



Measuring and displaying the temperature : but why ?

In order to regulate the temperature of a house



The temperature regulation control system

2 ways of controling the desired regulated temperature :

Local access

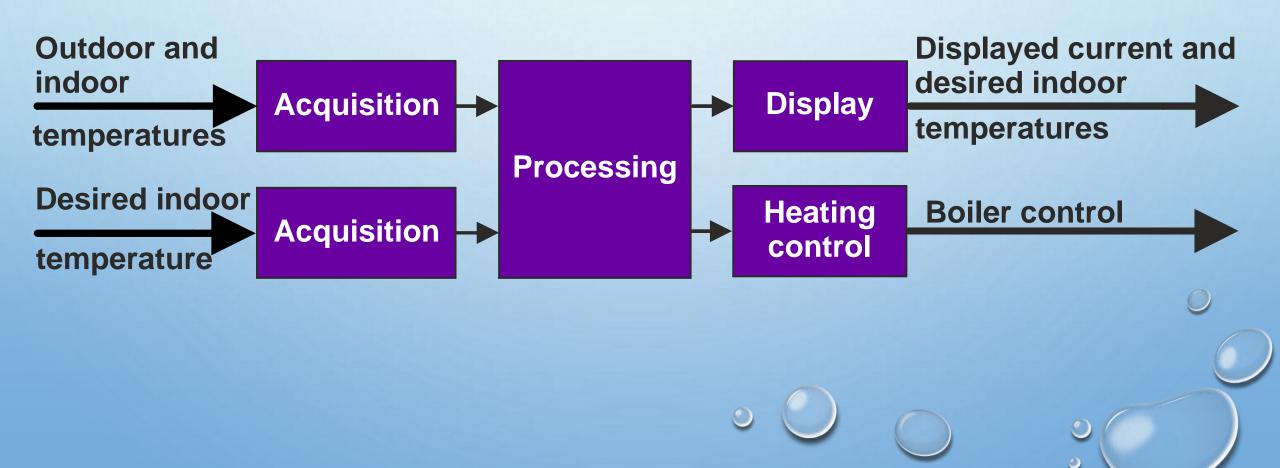


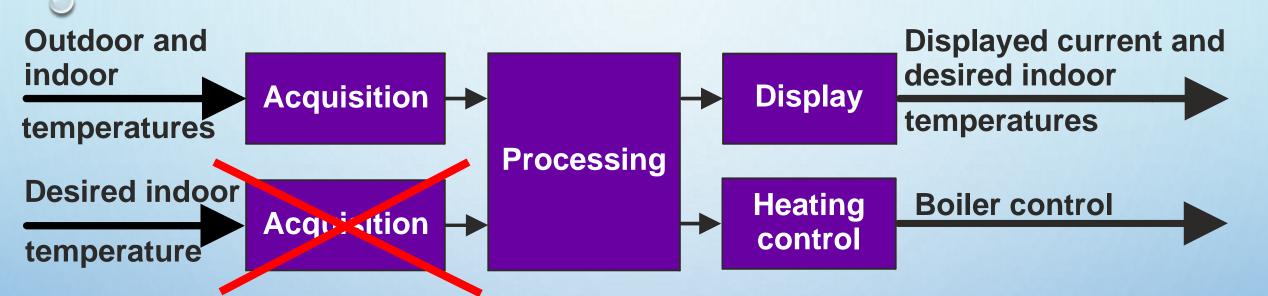


With or without a remote control

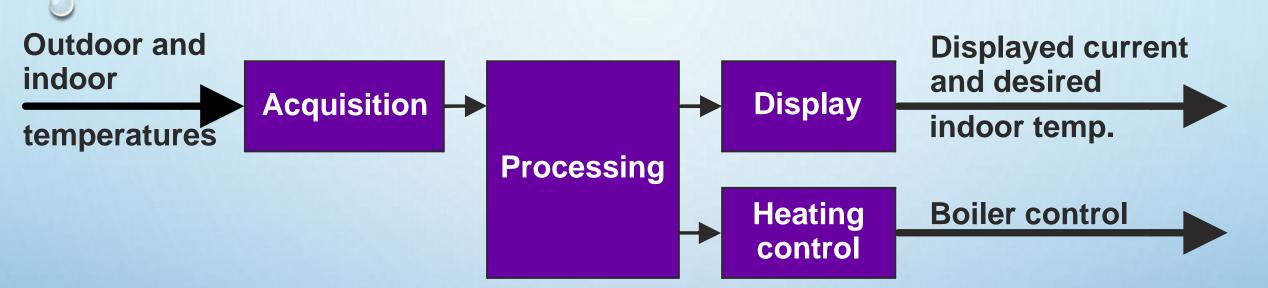
With a smartphone or a PC

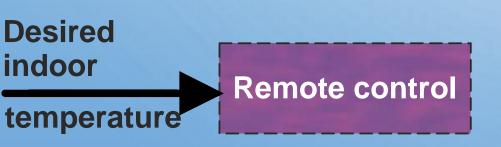
1) Local access without a remote control



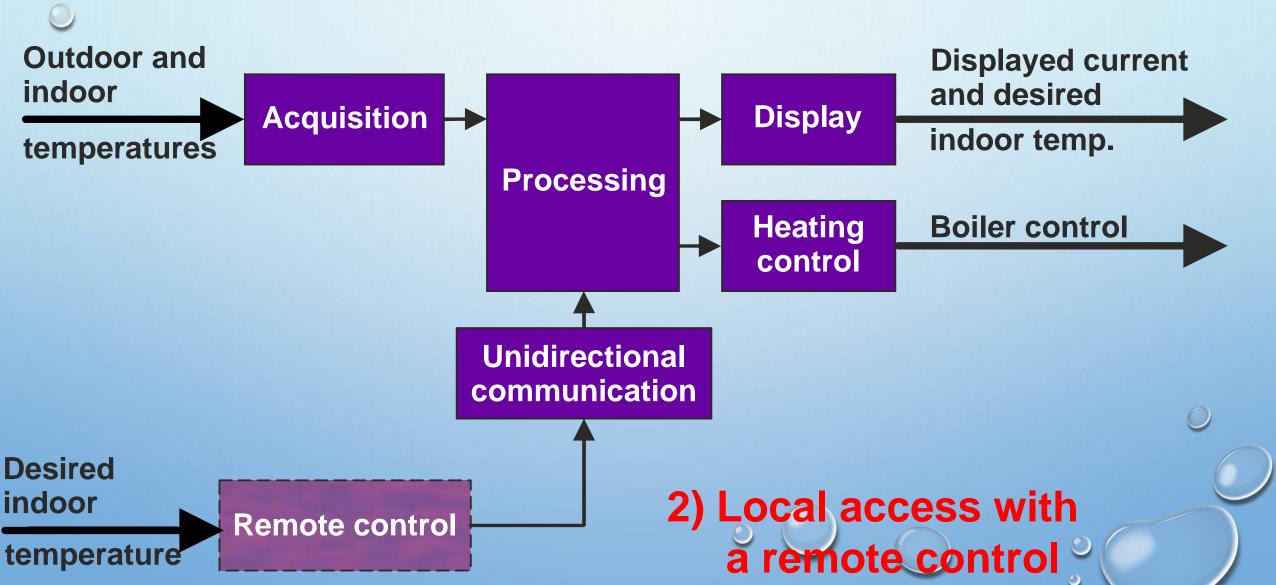


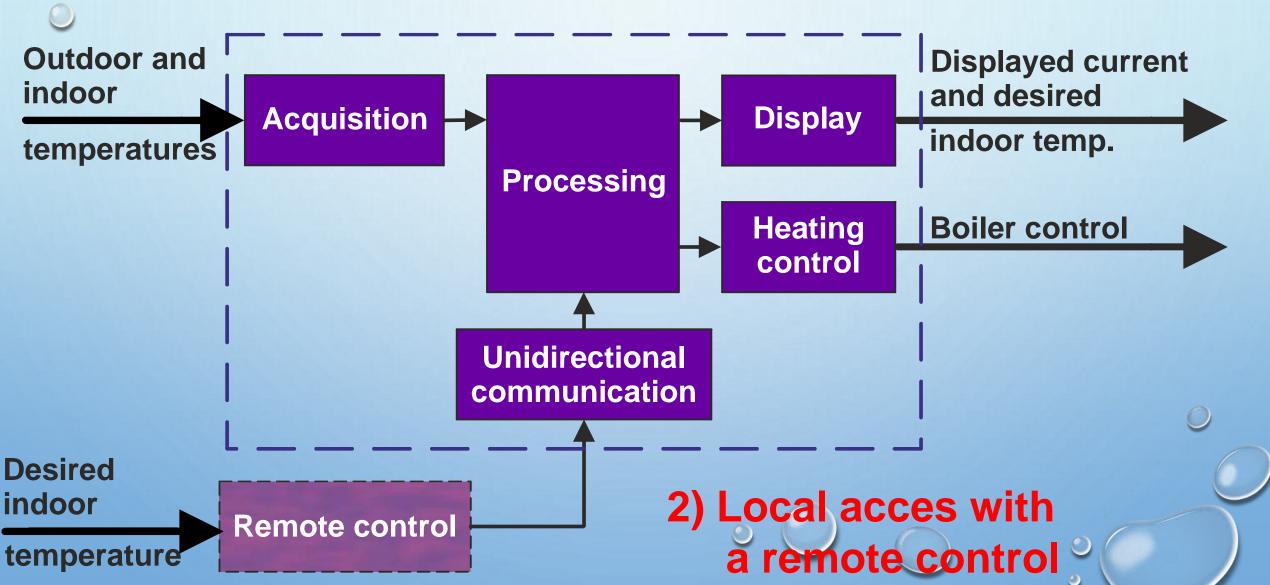
2) Local access with a remote control

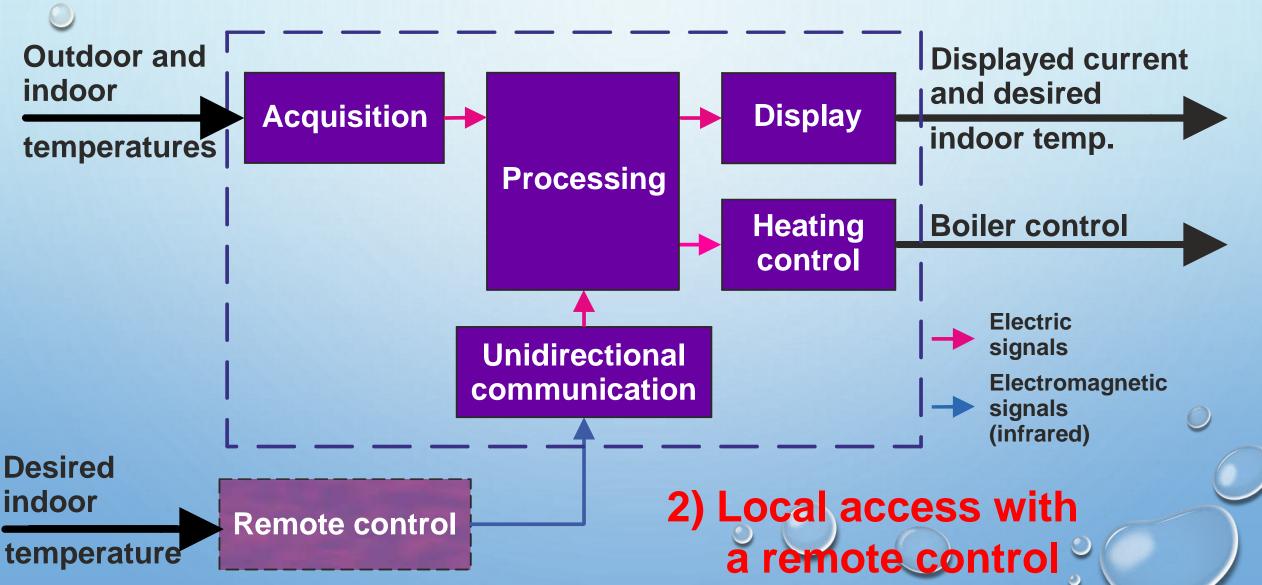


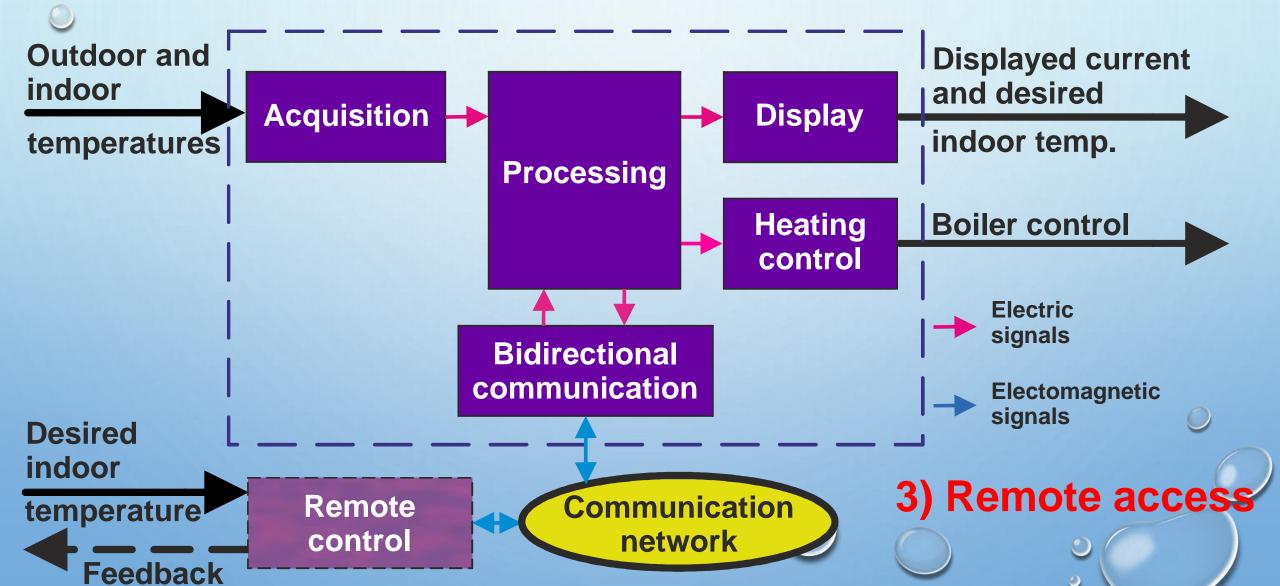


2) Local access with a remote control

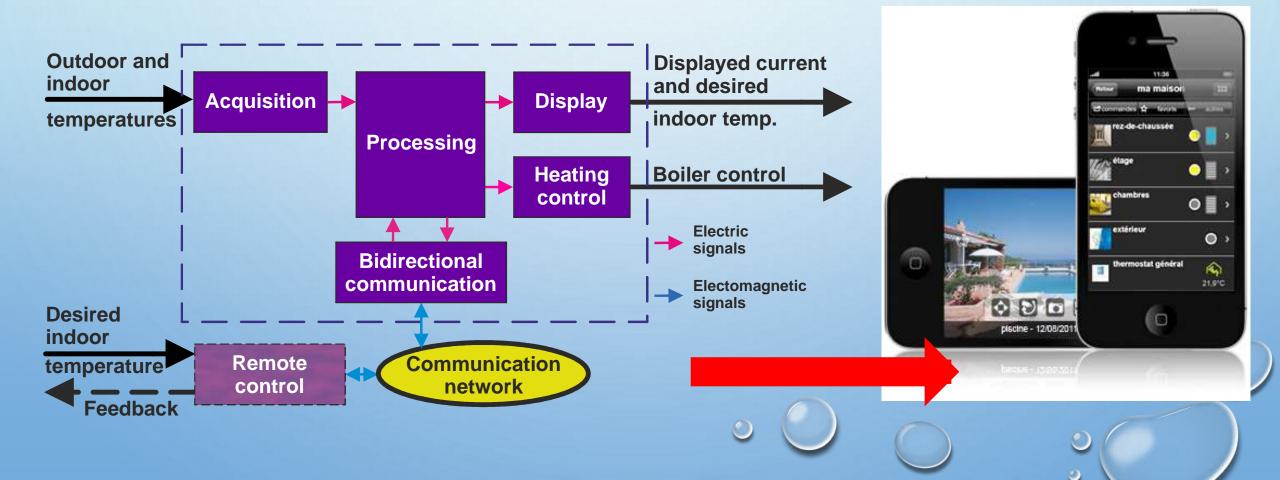


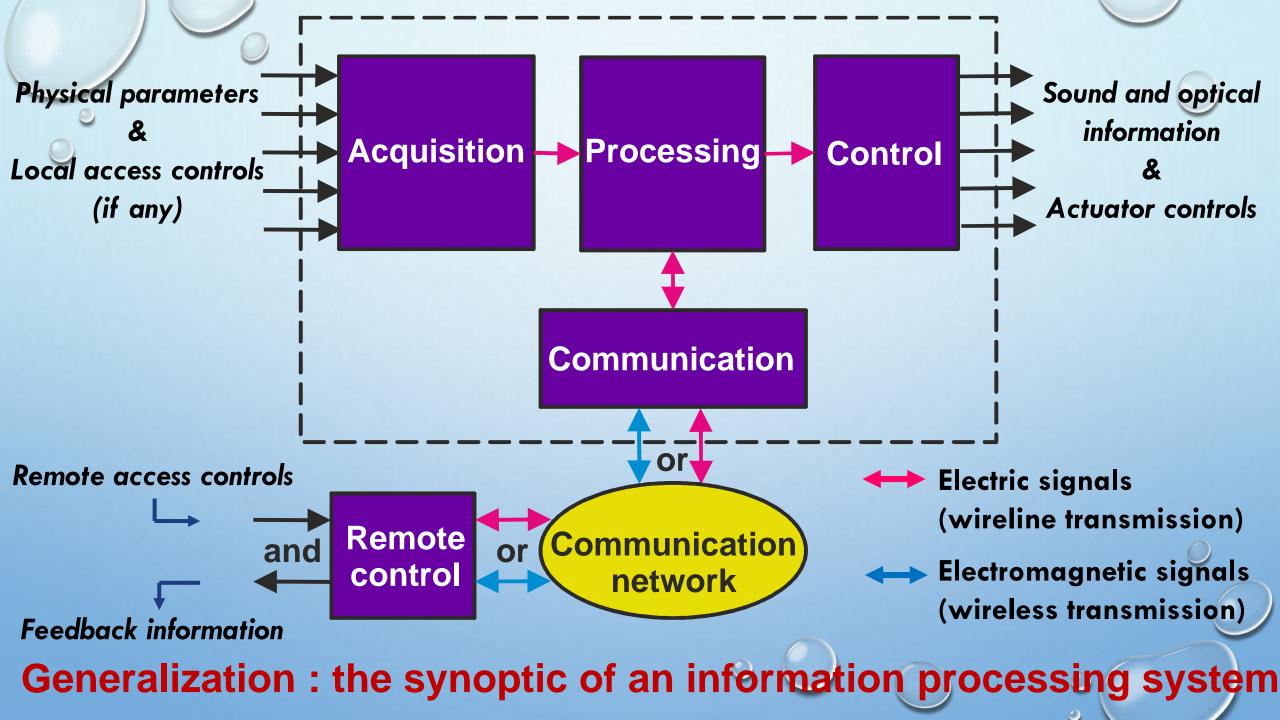






An example of information processing system : home automation





An example of information processing system

The famous Parrot drone

