

# URBAN NODE

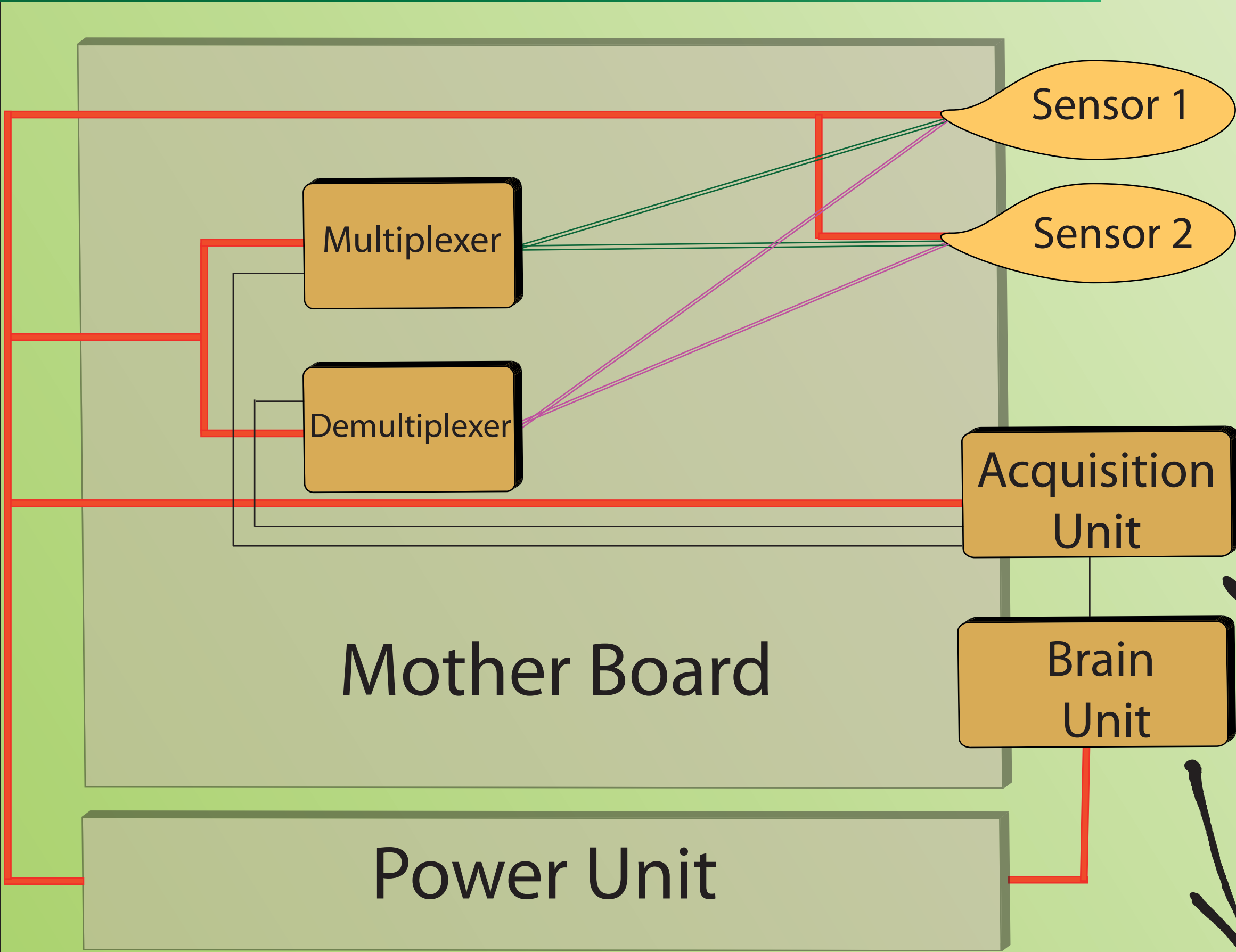
«Smart lighting for a smart city -  
Encourage the network»

## OBJECTIVES

Creating an electronic solution for a new urban  
element to turn Vilanova i la Geltrú into a Smart City.

This project is divided into an electronic part (EPS)  
and a design part (IDPS). This presentation is the  
EPS part and these are the electronic objectives:

- Create a new sustainable standard
- Add intelligence to the street environment
- Modular design and easy to maintain
- Electric and electronic solution
- Generate more energy than it spends
- Durable, expandable, recyclable & ecological



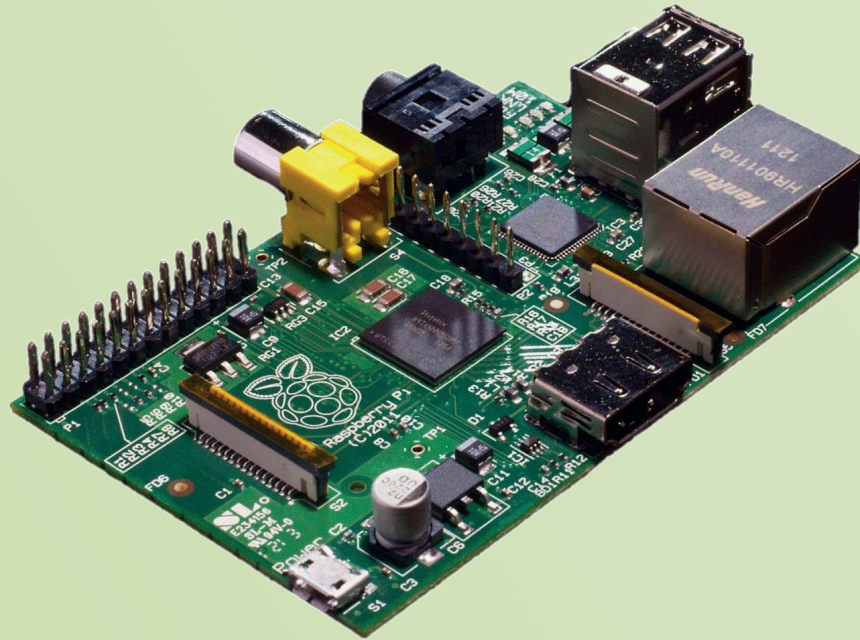
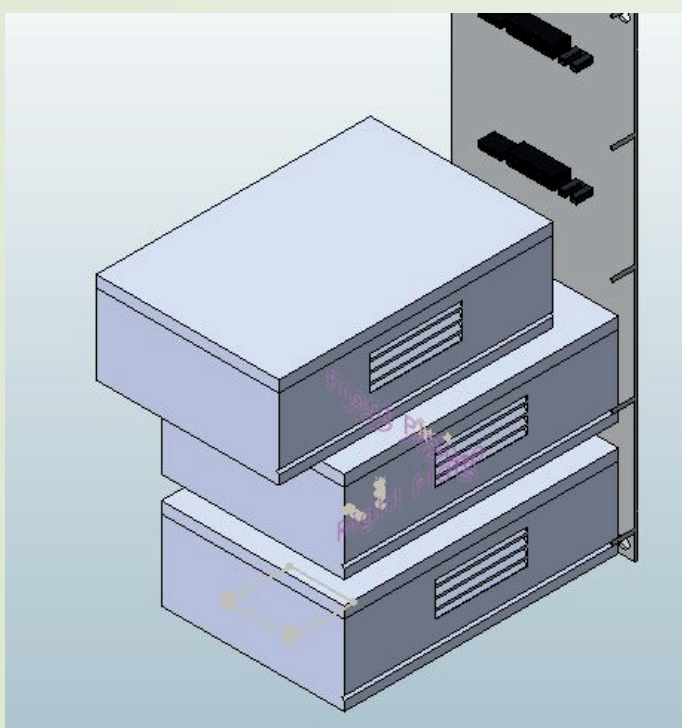
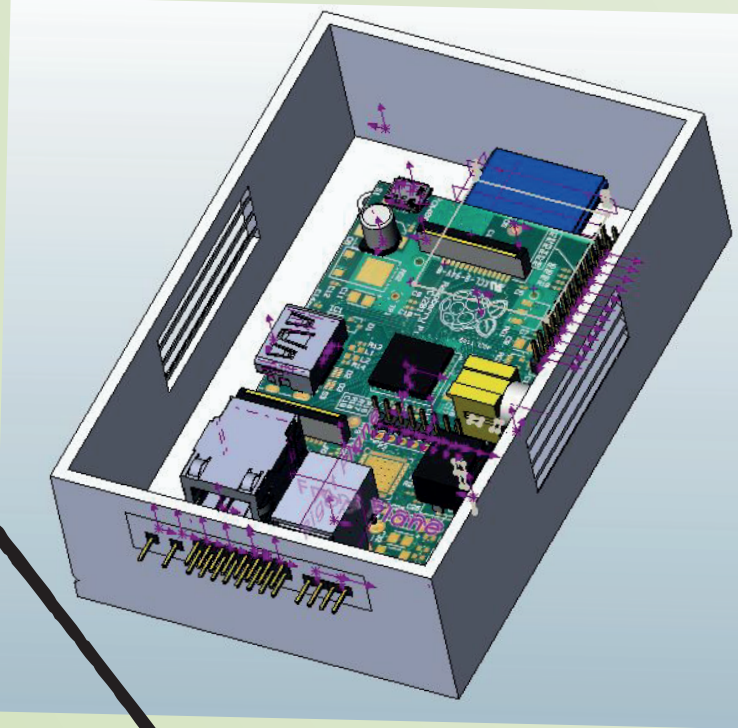
## Electronic Solution:

Motherboard connects all the  
parts together, gathering  
information from sensors  
and sending it to the Brain Unit

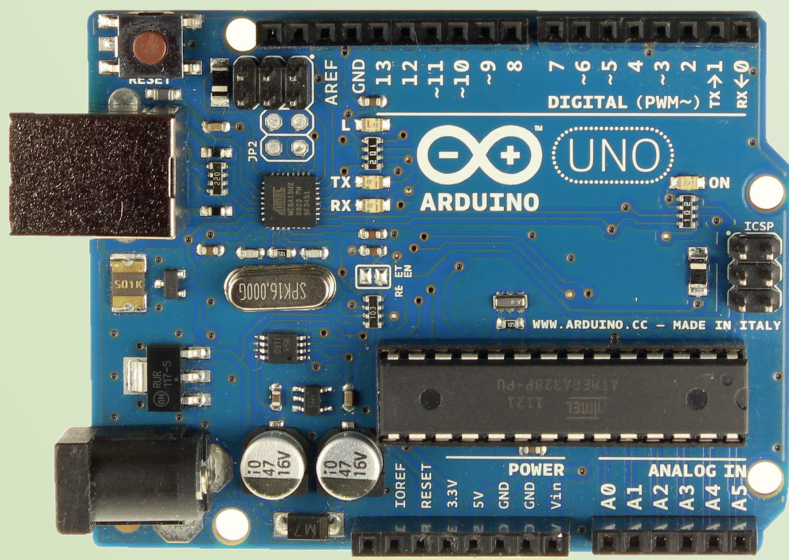


## Modularity

- Rack system
- Standard boxes for electronics
- Easy adding and removing of modules



Raspberry Pi



Arduino Uno

## Functions

- Wi-Fi
- Collect information from the environment
- Mobile phone charger
- Interactive display with information about the city
- Parking facilities
- Apparatus for physical exercise
- Video surveillance for safety