

# Projet OIP

A. Chelfat, N. Mezemate, M. Moulahcene, F. Naimi, K. Noché, Z.  
Zhao

Sorbonne Université

11th February 2025

# Goals

# Sensors

# Materials

# Autonomous Energy

# Autonomous Energy

Consumption:  $\approx 331$  W

# Autonomous Energy

Consumption:  $\approx 331$  W

Solar Panels

# Autonomous Energy

Consumption:  $\approx 331 \text{ W}$

Solar Panels

$2 \text{ m}^2$



# Autonomous Energy

Consumption:  $\approx 331 \text{ W}$

## Solar Panels

$2 \text{ m}^2$

Efficiency  $\eta \approx 43\%$

# Autonomous Energy

Consumption:  $\approx 331$  W

## Solar Panels

2 m<sup>2</sup>

Efficiency  $\eta \approx 43\%$

Up to 733 W during sunshine.

# Autonomous Energy

Consumption:  $\approx 331$  W

## Solar Panels

2 m<sup>2</sup>

Efficiency  $\eta \approx 43\%$

Up to 733 W during sunshine.

Cost: €1.68

# Storing Energy

# Storing Energy

## Battery

# Storing Energy

## Battery

Capacity  $\approx 600$  Wh

# Storing Energy

## Battery

Capacity  $\approx 600$  Wh

Weight  $\approx 6$  kg

# Storing Energy

## Battery

Capacity  $\approx 600$  Wh

Weight  $\approx 6$  kg

Runtime  $\geq 1$  hr



# Storing Energy

## Battery

Capacity  $\approx 600$  Wh

Weight  $\approx 6$  kg

Runtime  $\geq 1$  hr

Price: around €50.00

# Conclusion