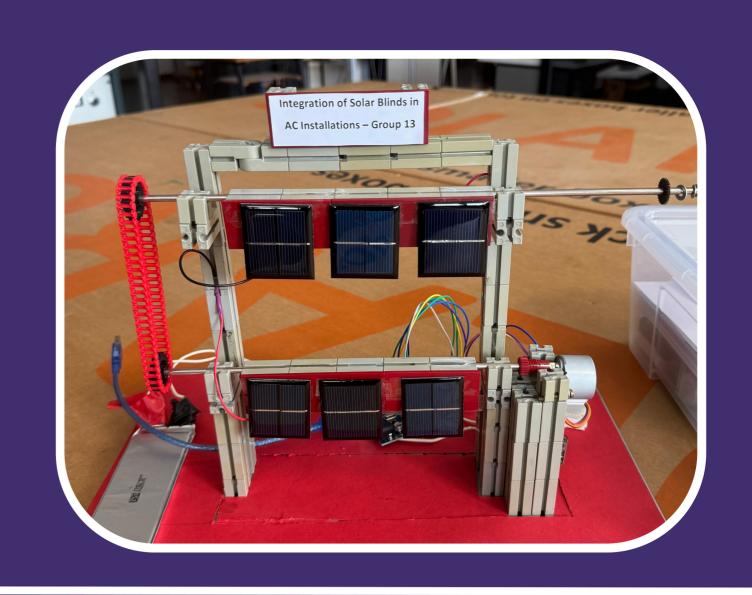
## Integration of Solar Blinds in AC Installations







"GET OFF THE GRID, GET ON THE SUN"

#### **PROBLEM**

There is significant energy inefficiency in conventional electrical installations. Regular blinds represent major energy loss and heat gain.



### BENEFICIARES

Buildings without accessible roofs or with limited surface area to install photovoltaic panels:





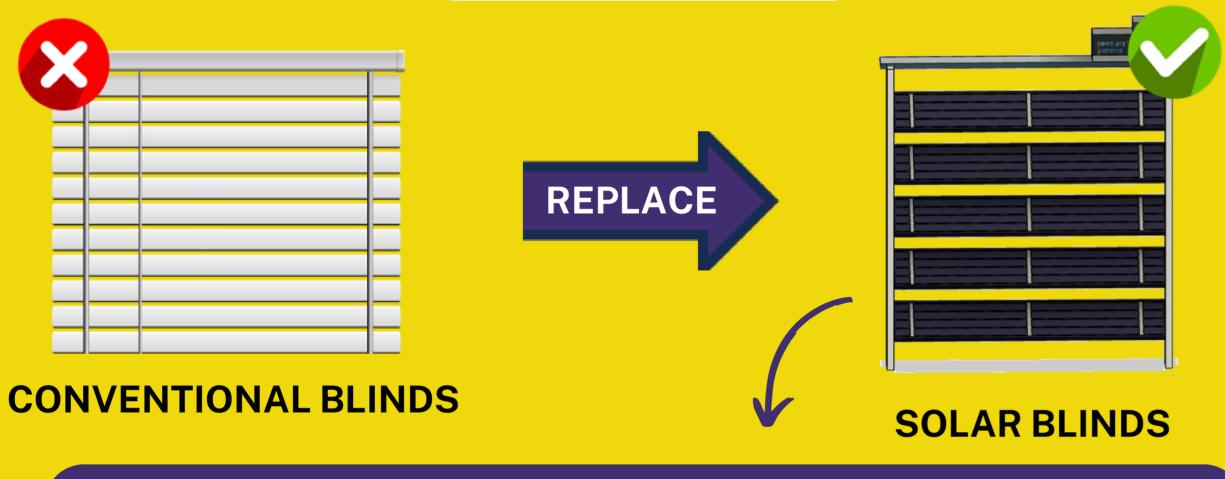


**Schools & Universities** 

Buildings

Offices

#### SOLUTION



Reduction of energy usage from electrical providers through energy generated by blinds

## **TECHNOLOGY USED**

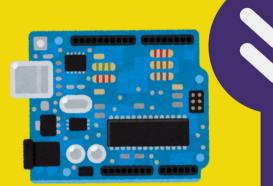














WIFI Module





# 2 OPERATION MODES

Automatically changes its inclination to maximize the energy produced

The user can manually operate to **adjust** the blinds



**Manual Mode** 

#### **BENEFITS**



**Energy Efficiency** 



**Environmental Impact** 



**Cost savings** 



**Grid Independence and** Reliability



**Seamless integration** 



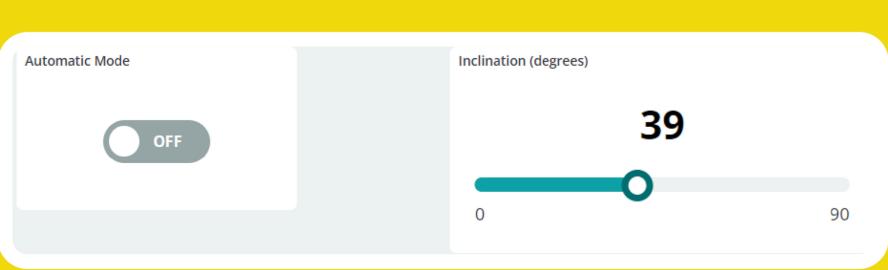
**User friendly** 

## RESULTS



- Obtained the expected power;
- Functional with both modes.

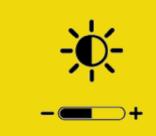
Expected returns in 4-6 years!



#### **FEATURES**



**Temperature Control** 



**Brigthness Control** 



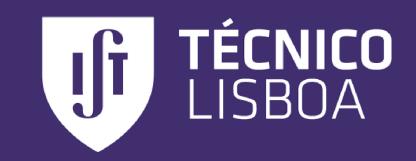
Renewable energy production

Save costs on electricity bills up to 30%

Up to 600 kWh per 1 sq.m (annually)



## **Partners:**

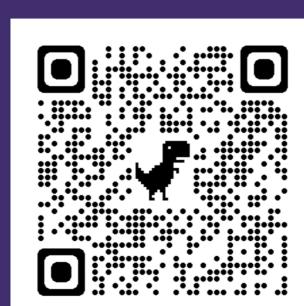


**Automatic Mode** 





#### FIND US!



Assis J., Gonçalves M., Ribeiro J., Roça M, Santos L., Visueshcumar N.

https://web.tecnico.ulisboa.pt/ist1102539/