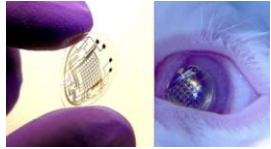


## BIONIC : HOW TO COPY THE REAL ?

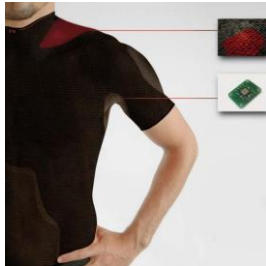


- Improve the performances thanks to bionic.
- Understand sensors.
- Program robots.

## SPORT :

How can the equipment improve performance?

- Materials constituting the skis
- Intelligent clothes



### After the 2°

As in each exploration teaching, all the choices are still possible after the 2°. ES allows to discover the possibilities of continuing studies in « SI » or « STI2D » series, to prepare technical or scientific studies in « BTS », « IUT », at the university and in the "grandes écoles".

## Contacts

LYCEE D'ENSEIGNEMENT GENERAL  
TECHNOLOGIQUE ET PROFESSIONNEL  
49 Bd des 9 Clés  
71018 MACON cedex  
Tél : 03 85 39 53 50  
Fax : 03 85 39 53 70

@-mail : 0710048s@ac-dijon.fr

## INTERNET :

<http://lyc71-cassin.ac-dijon.fr/>  
OR « cassin macon » ON GOOGLE



## Facebook :

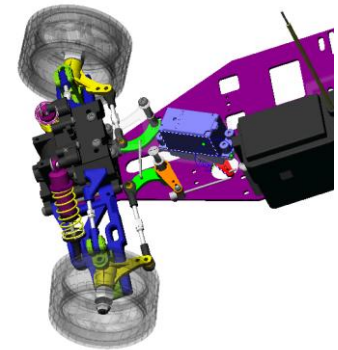
[www.facebook.com/lyceerenecassinmacon](http://www.facebook.com/lyceerenecassinmacon)

# ES



2° Exploration teaching

## ENGINEERING SCIENCES



*How does it work ?  
How has it been conceived ?*

<http://lyc71-cassin.ac-dijon.fr/>  
OR  
« cassin macon » ON GOOGLE

## OBJECTIFS :

- To make pupils discover the links between **society and technology**
- To **understand** how technical objects **function** and **how they are built** in the respect of **sustainable development**.
- To learn the **approach of conception**
- To **work** on your own **educational guidance**
- To learn to communicate with **computers**

## LEARNING HOURS

1,5H / week

Most activities are made in autonomy by small groups of 2 pupils. The work is based on the equipment of the engineering sciences lab.

## ACTIVITIES DONE BY THE PUPILS

To understand how the products are conceived :

- by using the products
- by reading digital technical documentation
- by using **professional softwares** (3D modelling tools, CAD, CAS, electrical and pneumatic engineering...)
- by writing reports
- by making a presentation to the class

## THEMES ABORDES

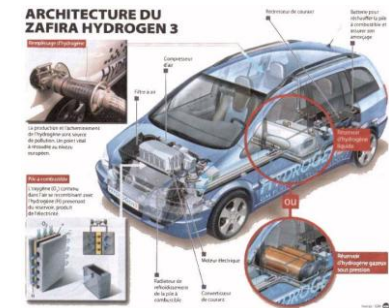
**Home automation (domotics) : Why and how to automate the house?**



To understand the functioning of « intelligent » houses which make it possible to manage the heating, lighting, watering...to improve comfort, to make energy saving and to improve safety.



## RENEWABLE ENERGY



Which energy to use to preserve our planet?

