

# Finale nationale des Olympiades de Physique

28 janvier 2017

Université Aix-Marseille



OLYMPIADES  
DE PHYSIQUE  
FRANCE

3<sup>ème</sup> prix :

Prix de l'Union des  
Professeurs de Physique et de  
Chimie



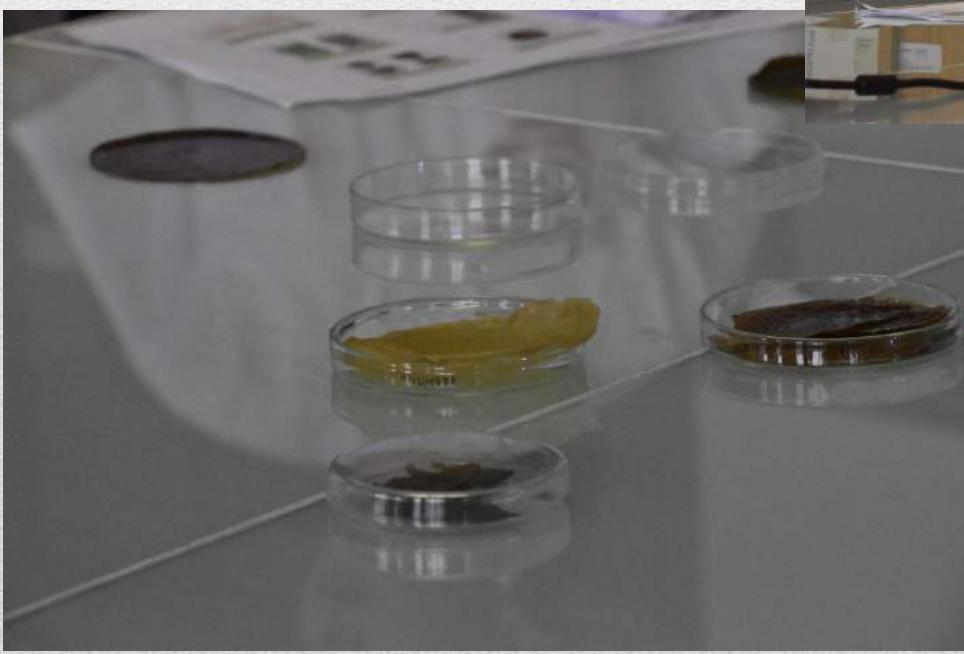
OLYMPIADES  
DE PHYSIQUE  
FRANCE

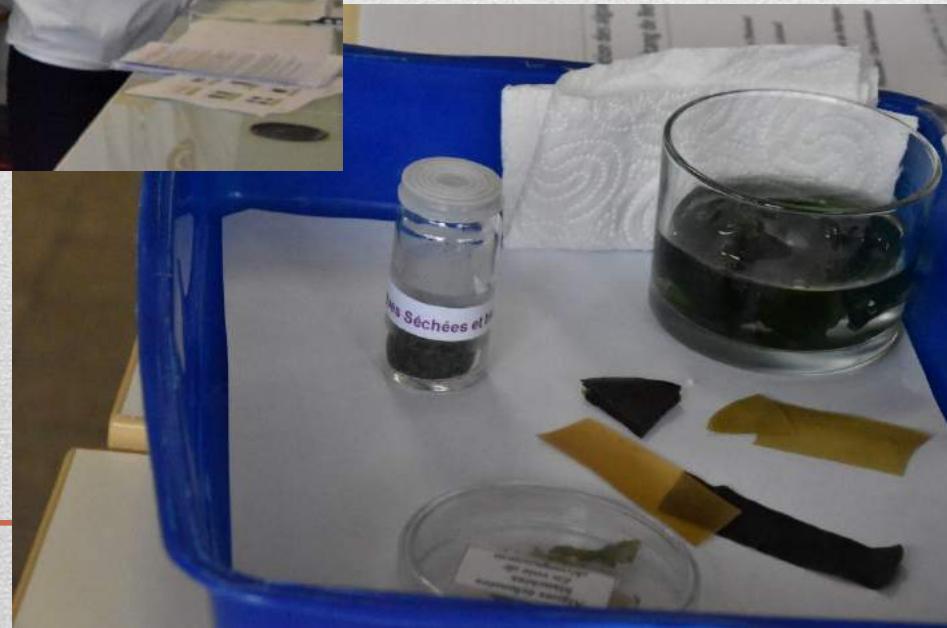
# Equipe B : Algues vertes

Lycée Jean Lurçat  
Martigues











**3<sup>ième</sup> prix :**  
**Prix de l'Université Paris-Sud**



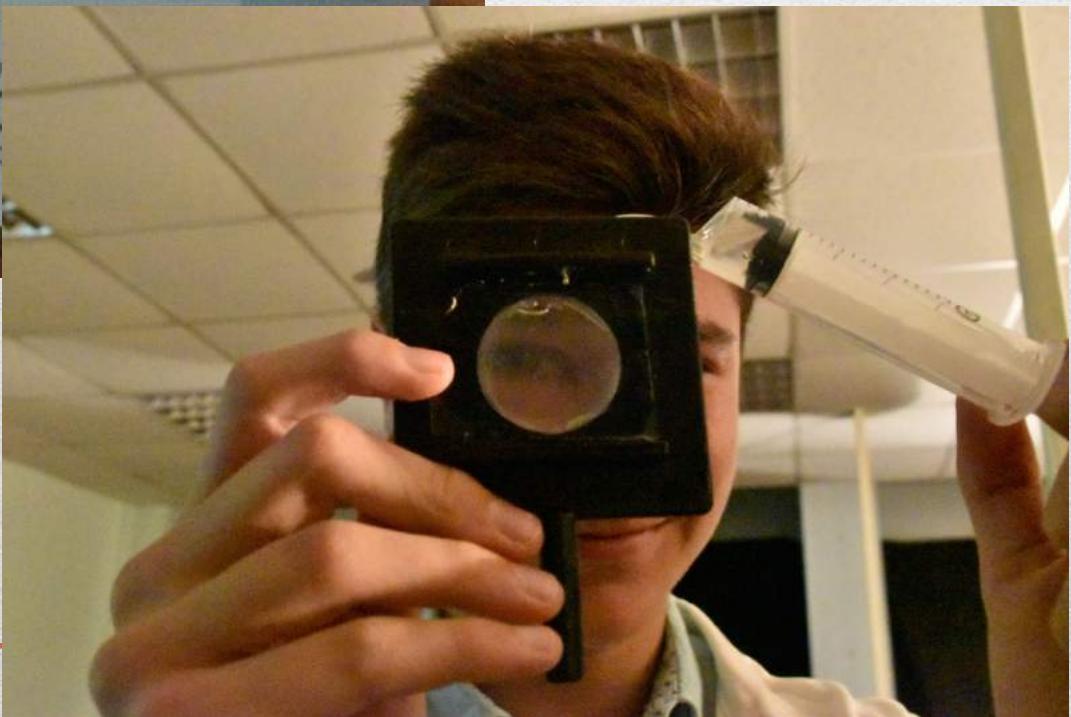
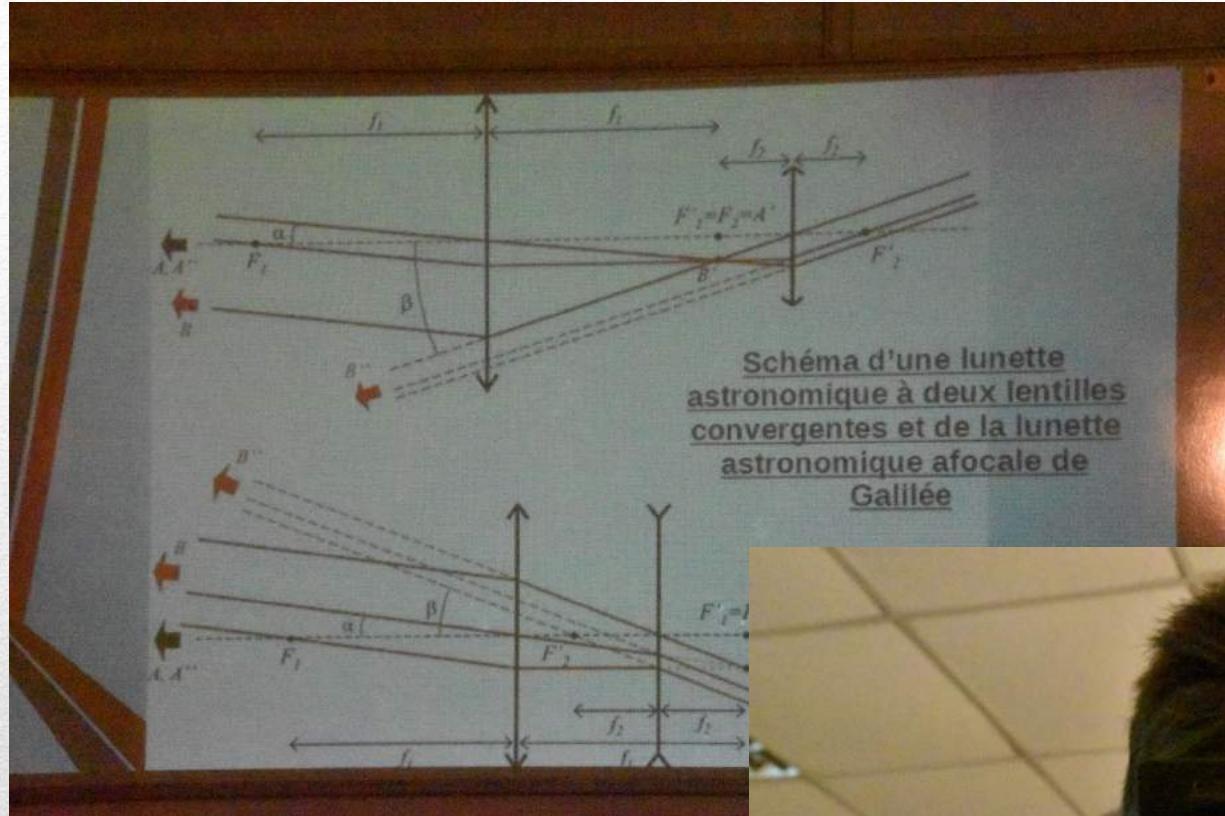
# Equipe C : Est-il possible de fabriquer une lunette astronomique « maison » pour étudier Jupiter ?

Lycée Bernard Palissy  
Agen











32

**3<sup>ième</sup> prix :**

**Prix de l'Institut de Physique  
du CNRS**



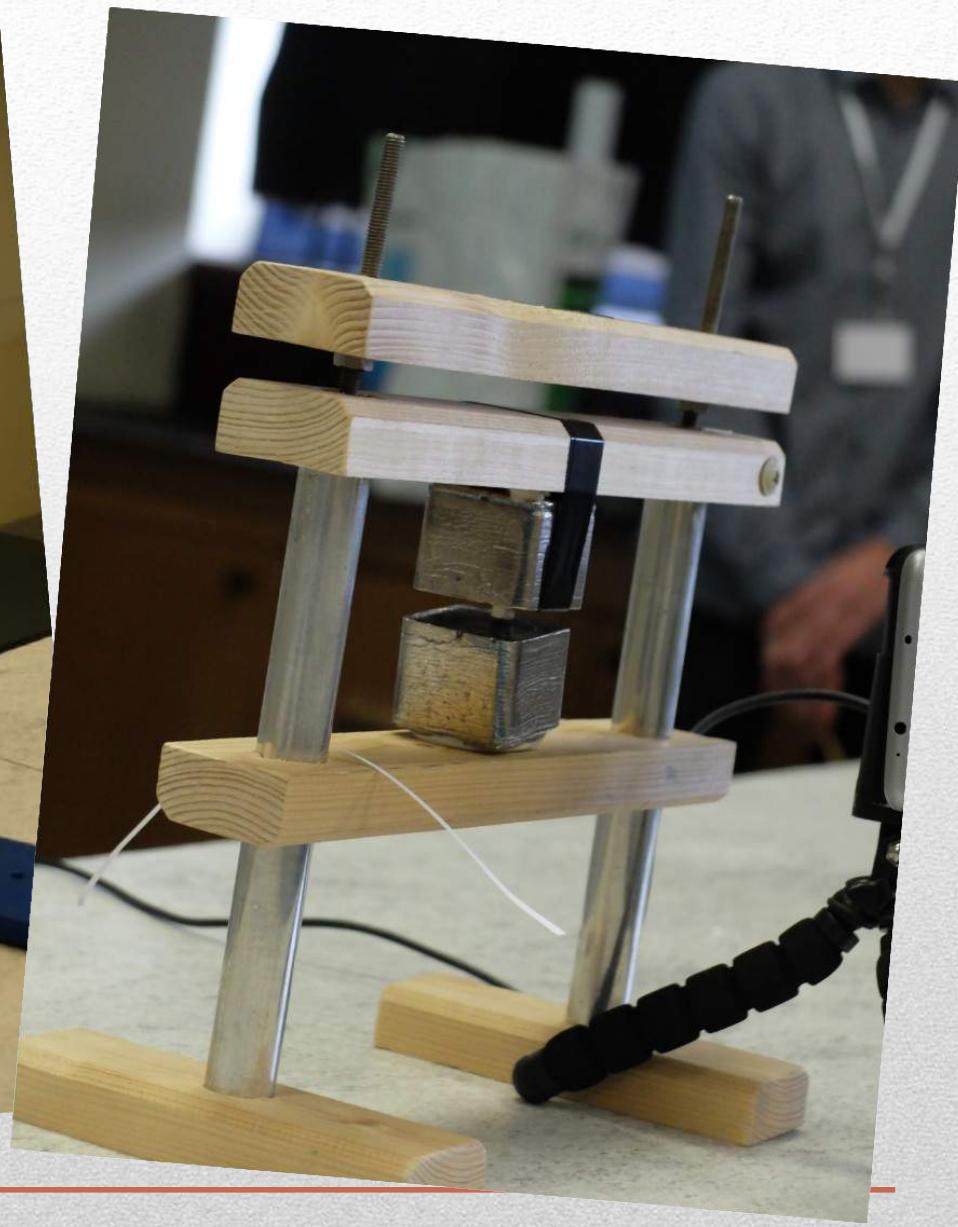
**OLYMPIADES  
DE PHYSIQUE**  
FRANCE

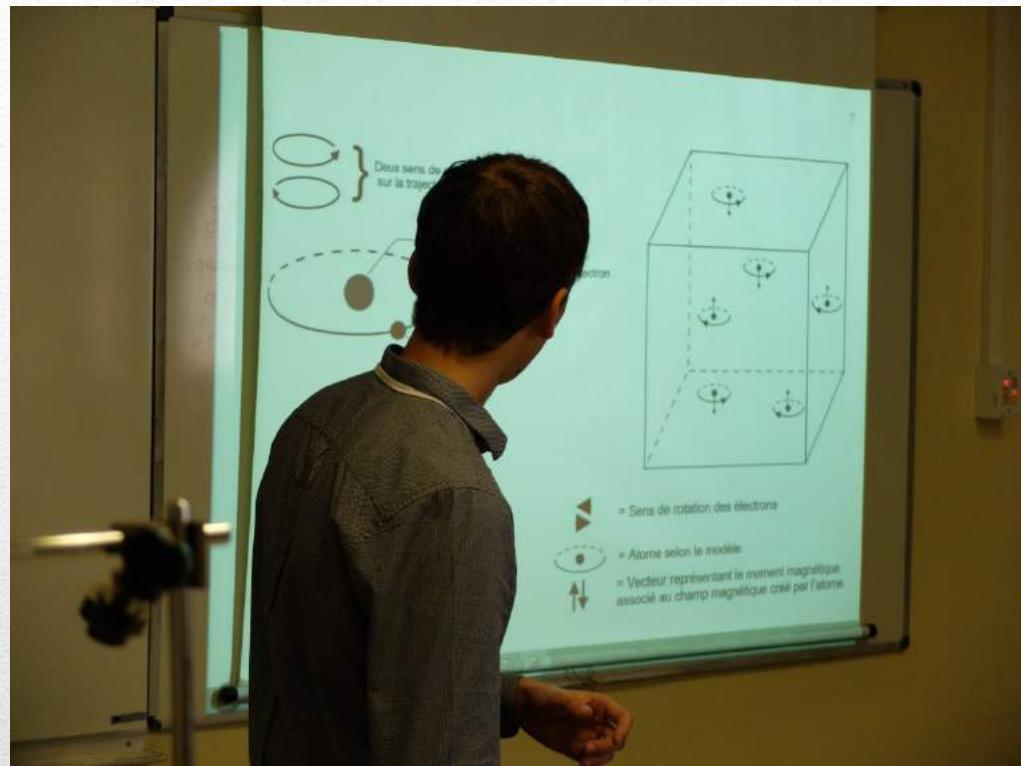
# Equipe D : Diamagnétisme du bismuth

Lycée René Cassin  
Bayonne











3<sup>ième</sup> prix :

Prix de la Société Française  
de Physique

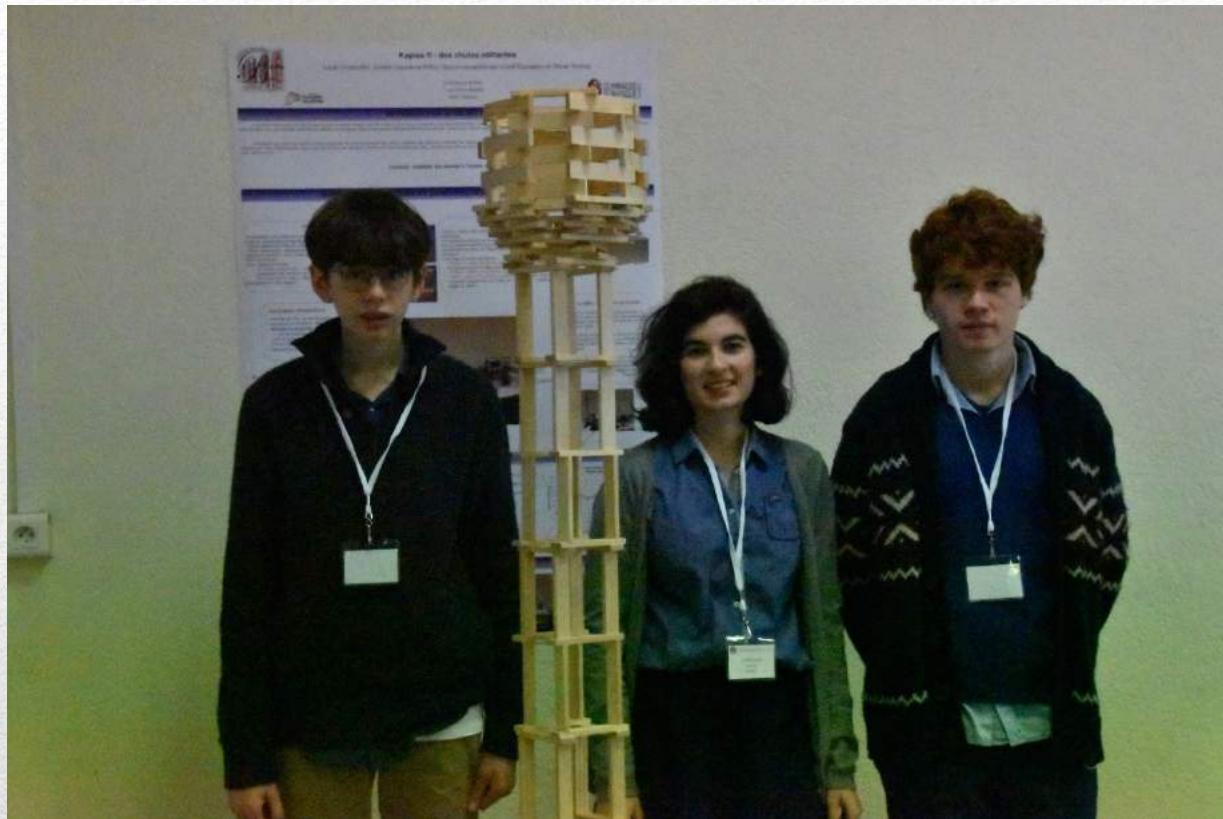


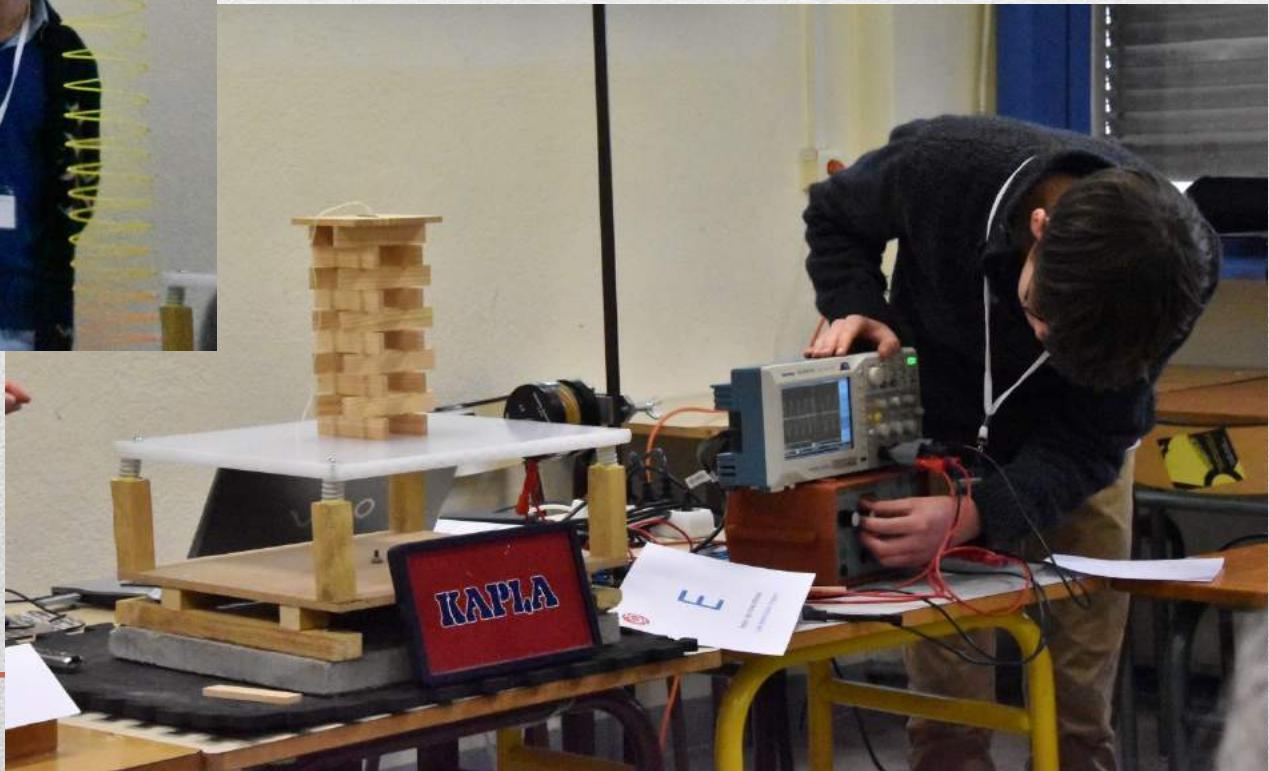
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DE PHYSIQUE  
FRANCE

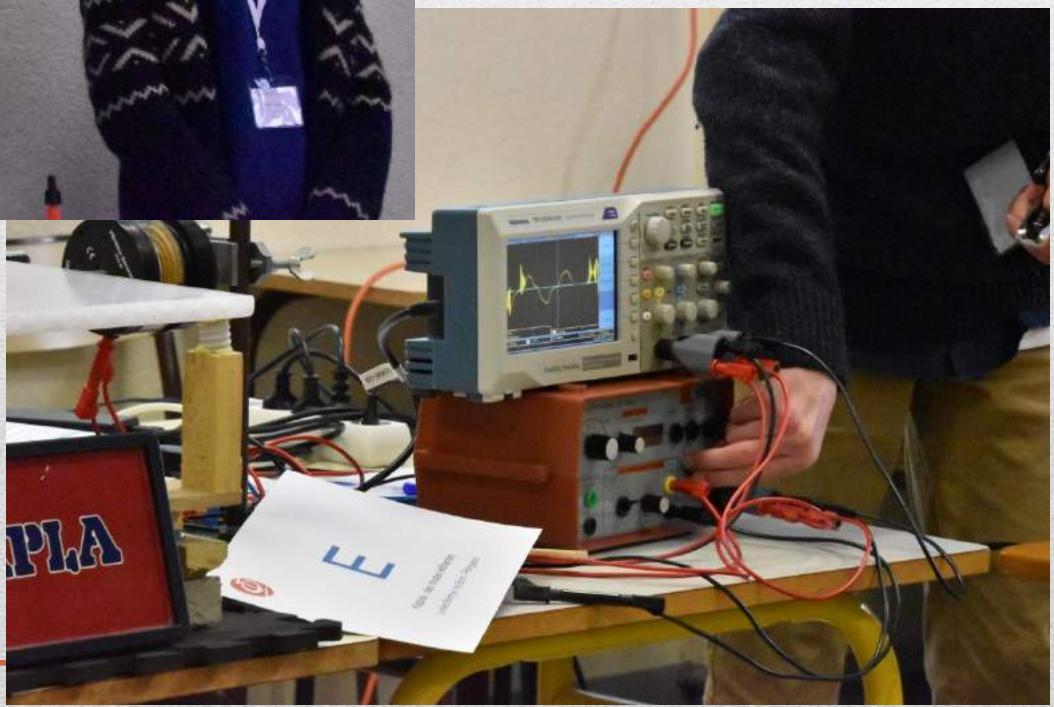
# Equipe E : Kaplas : des chutes édifiantes

Lycée Bertran de Born  
Périgueux











6 — Prix .

# Prix de la Division de la Recherche Fondamentale du Commissariat à l'Energie Atomique et aux Energies



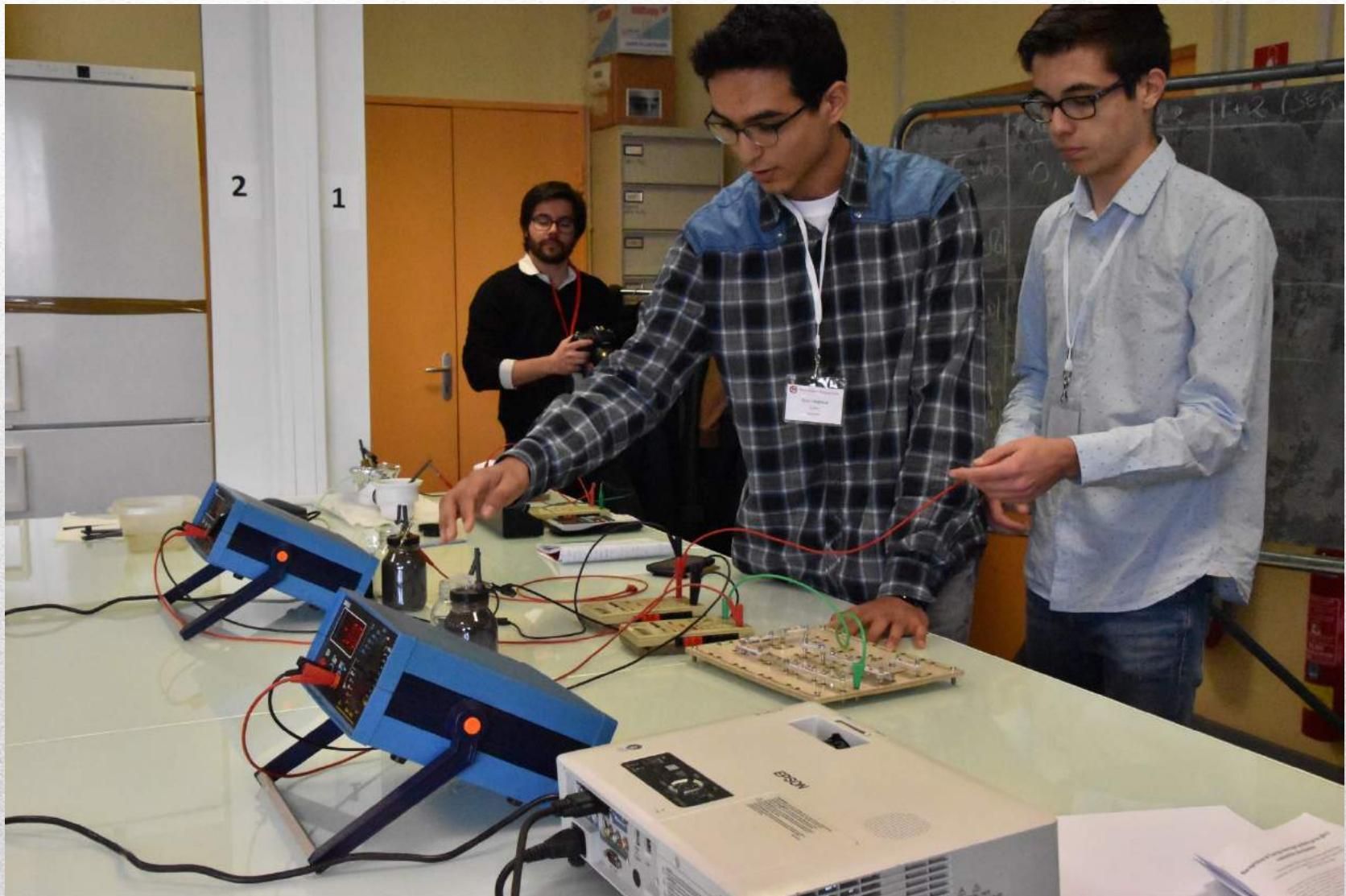
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DE PHYSIQUE  
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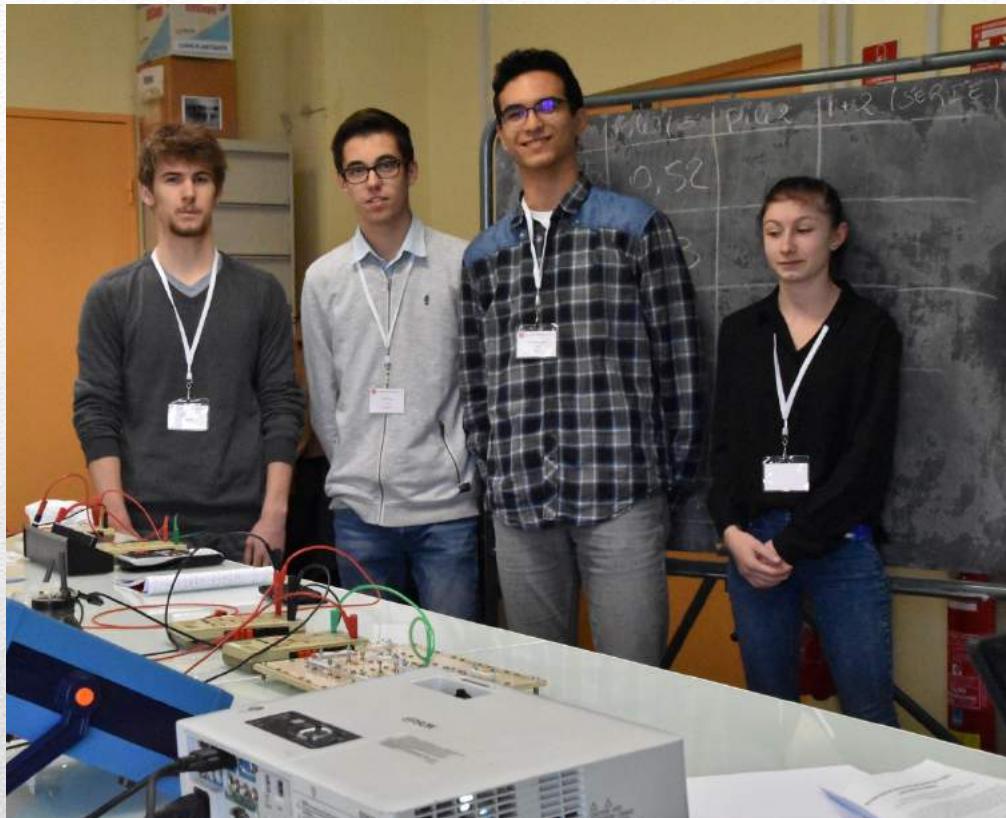
# Equipe F : Après EDF, **BDF bactéries de France**

Lycée Jay de Beaufort  
Périgueux











3<sup>ème</sup> prix :

Prix de l'Ecole Normale  
Supérieure de Paris-Saclay



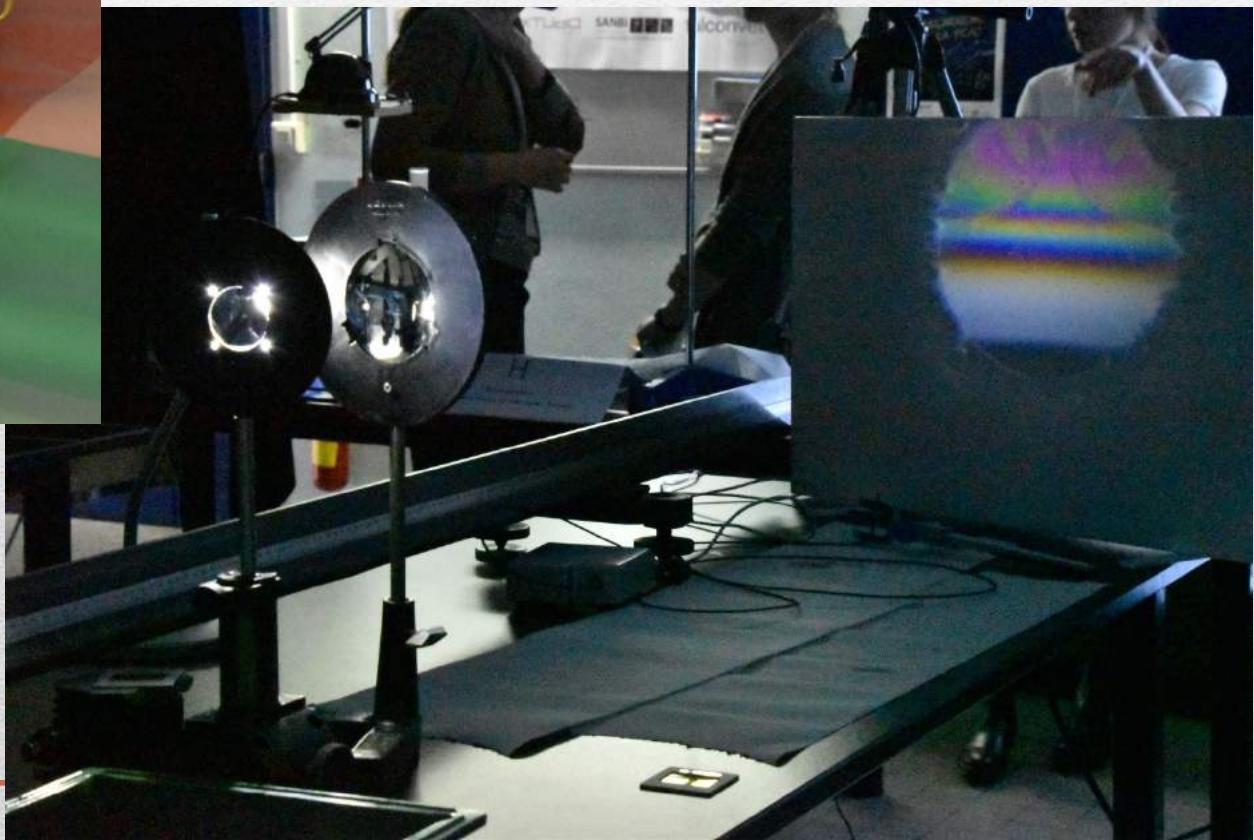
OLYMPIADES  
DE PHYSIQUE  
FRANCE

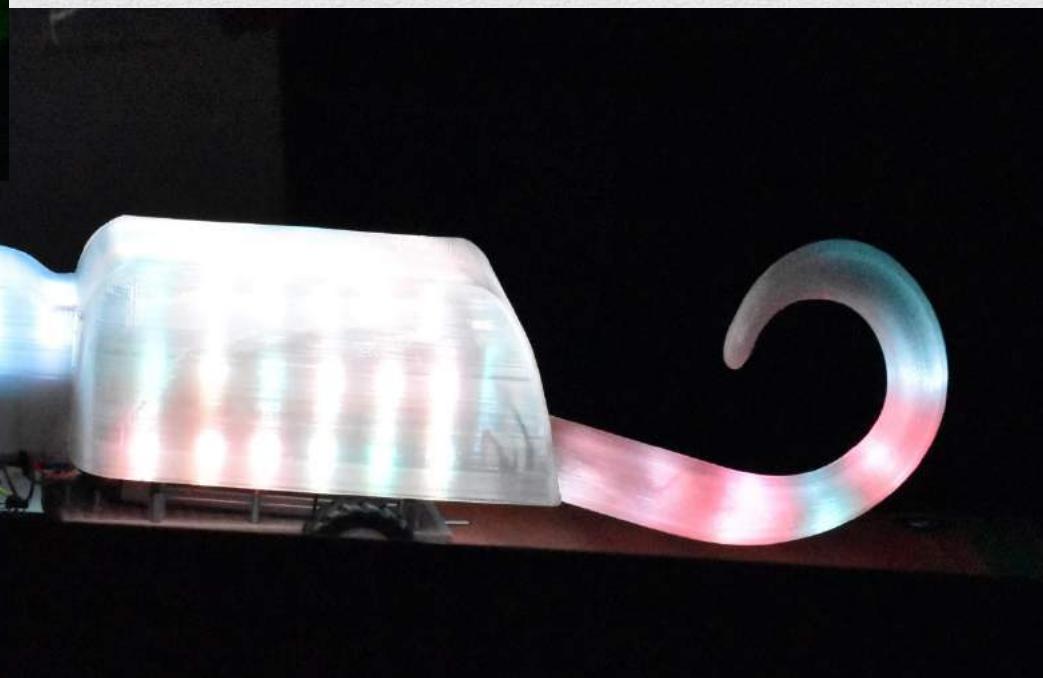
# Equipe H : Robot caméléon

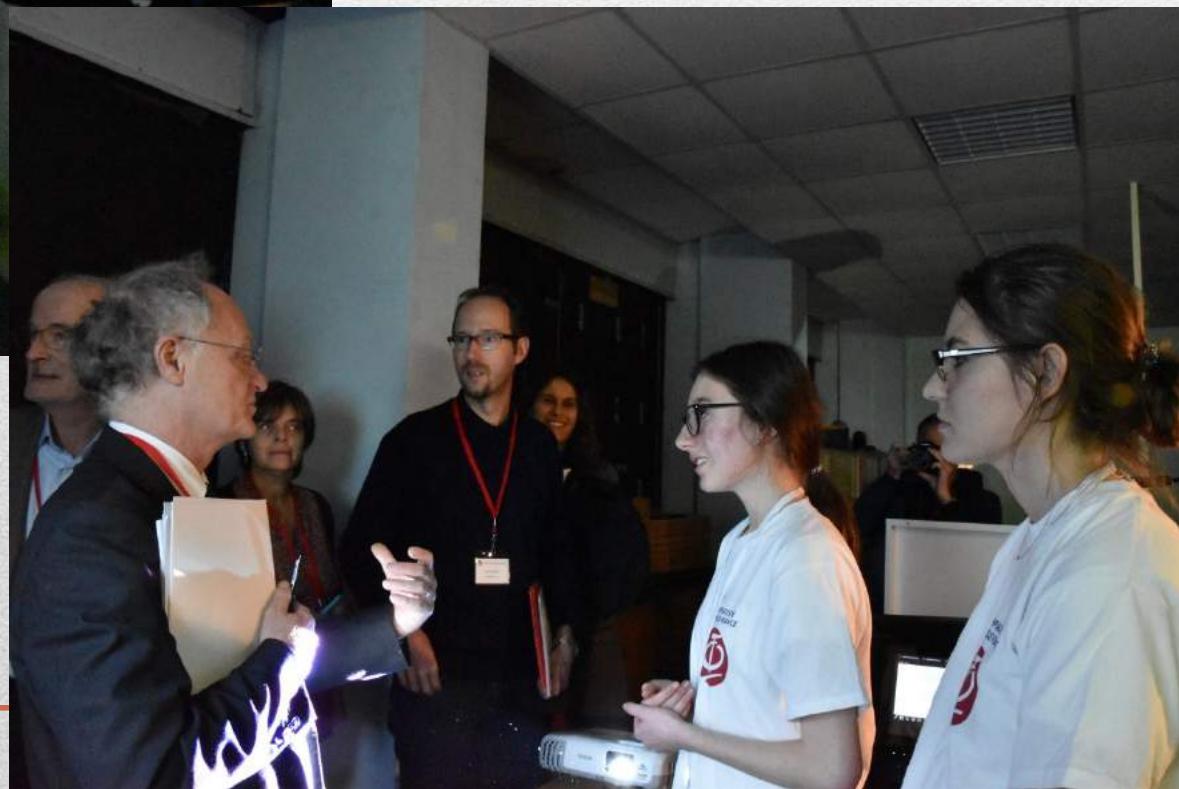
Lycée français Anna-de-Noailles  
Bucarest









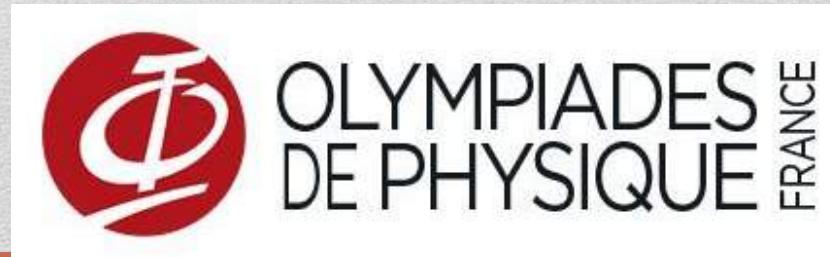


**Prix de l'Union des Professeurs  
des Classes Préparatoires  
Scientifiques et mention  
Philippe Lancel du Comité des  
Olympiades**

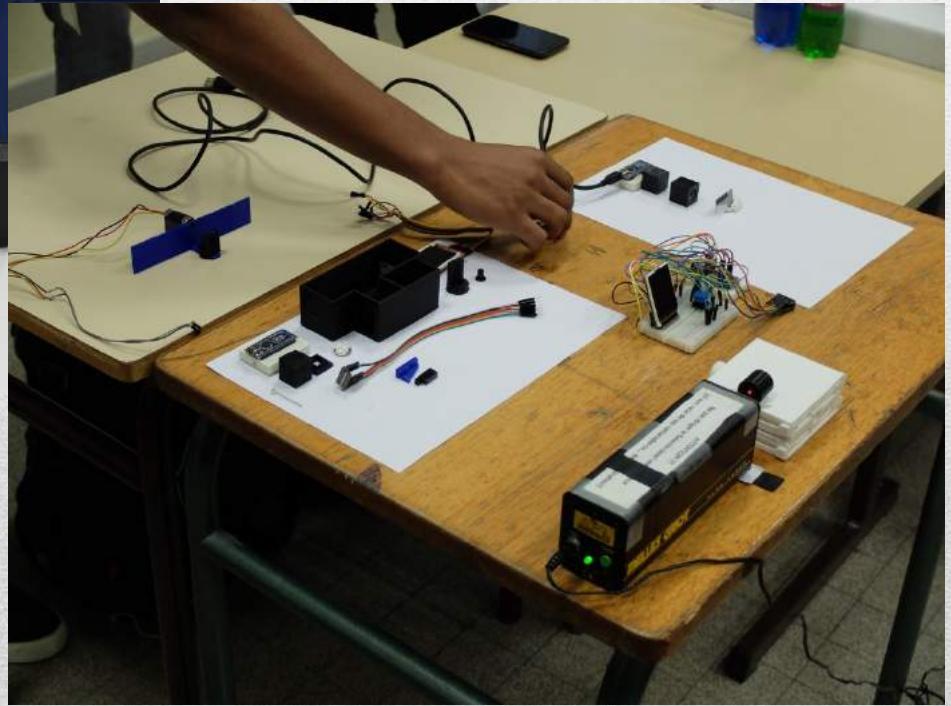
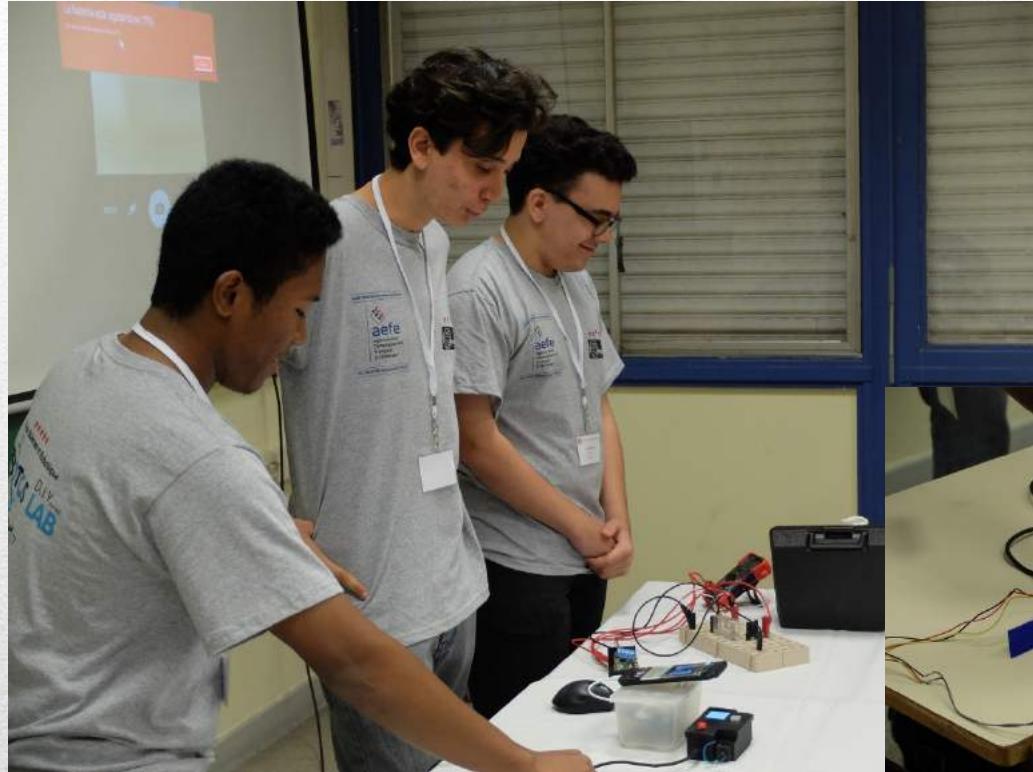


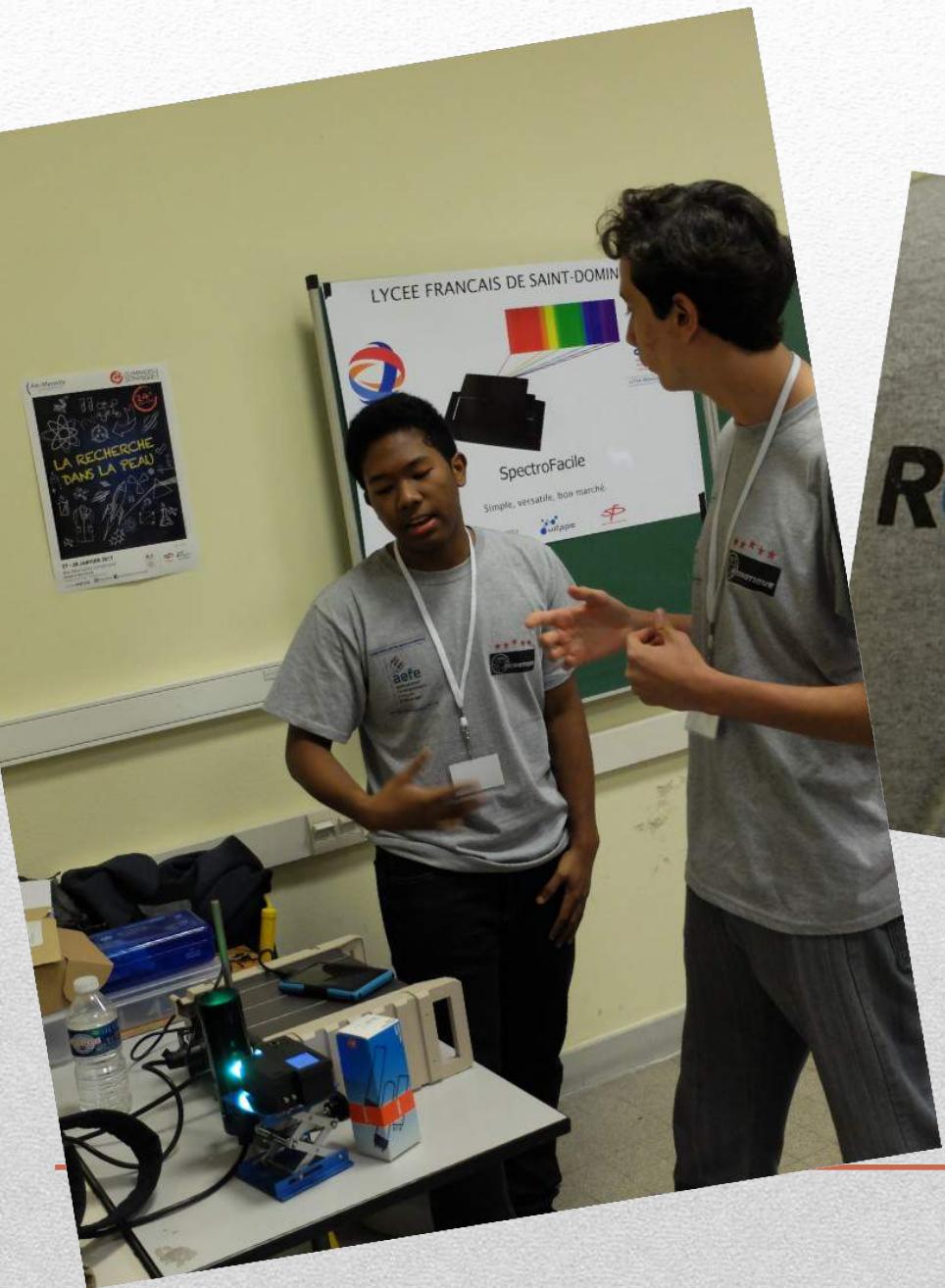
# Equipe I : Spec trop Fort

Lycée français de Saint-Domingue  
Saint-Domingue











3<sup>ième</sup> prix :

Prix de l'Ecole Normale

Supérieure Paris Sciences

Lettres



OLYMPIADES  
DE PHYSIQUE

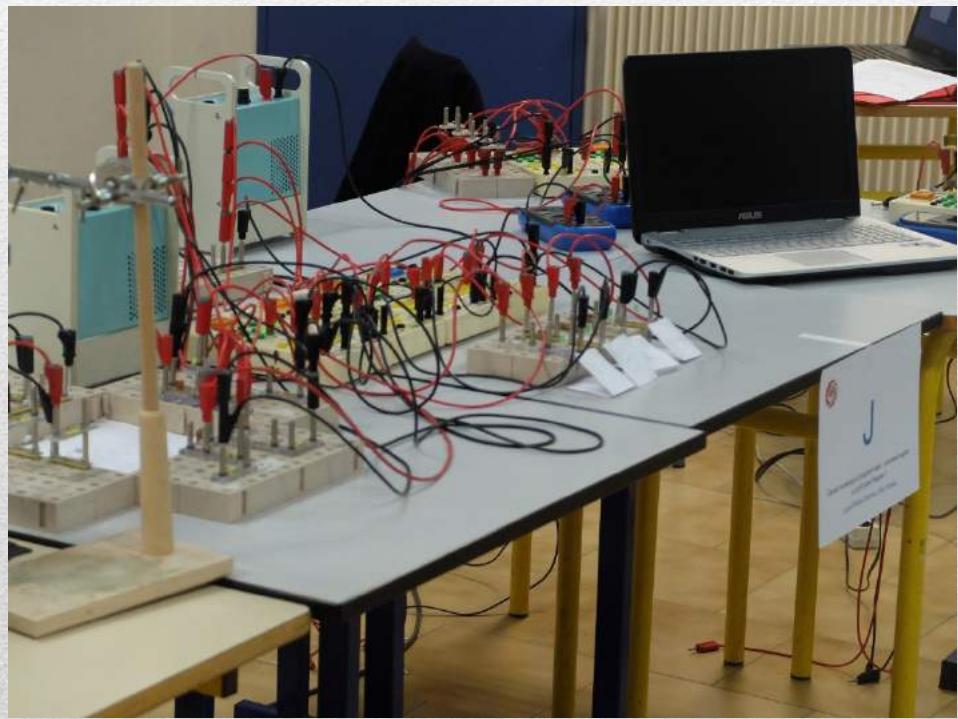
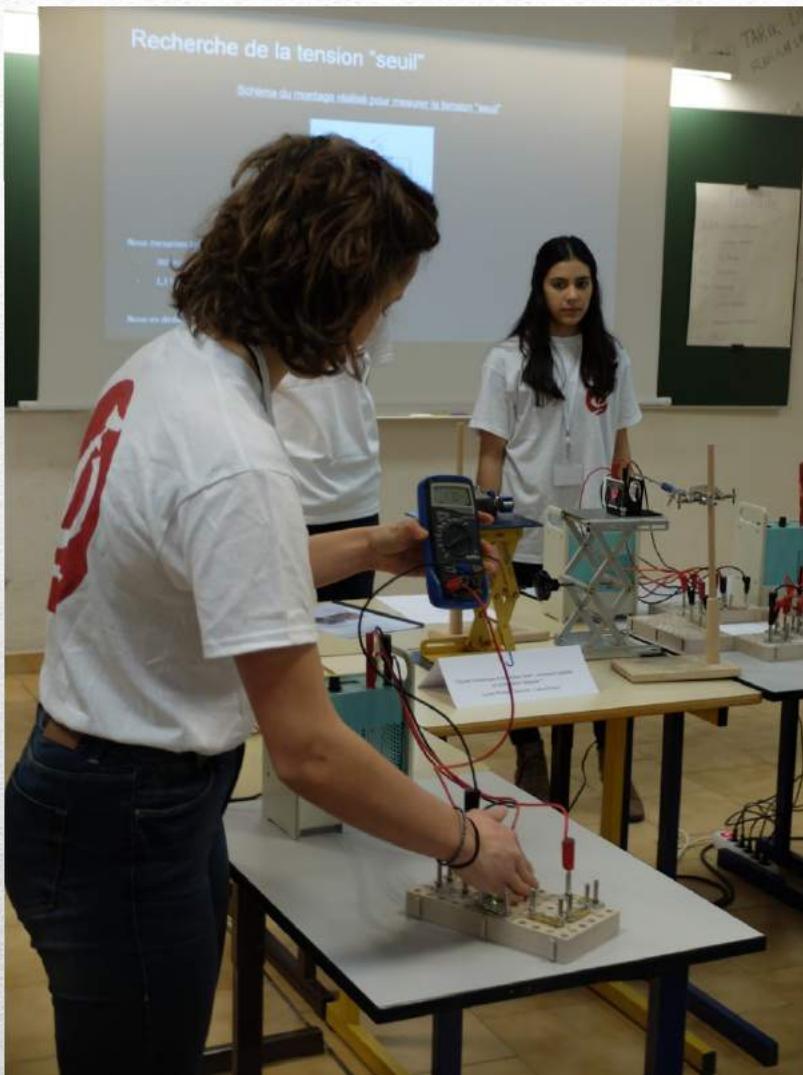
FRANCE

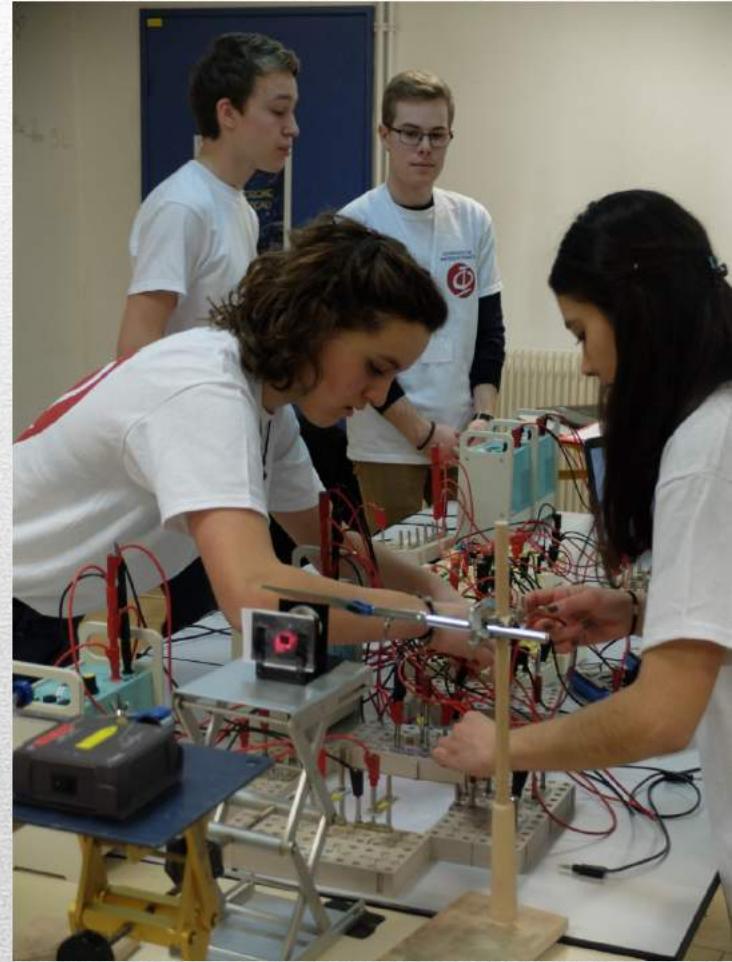
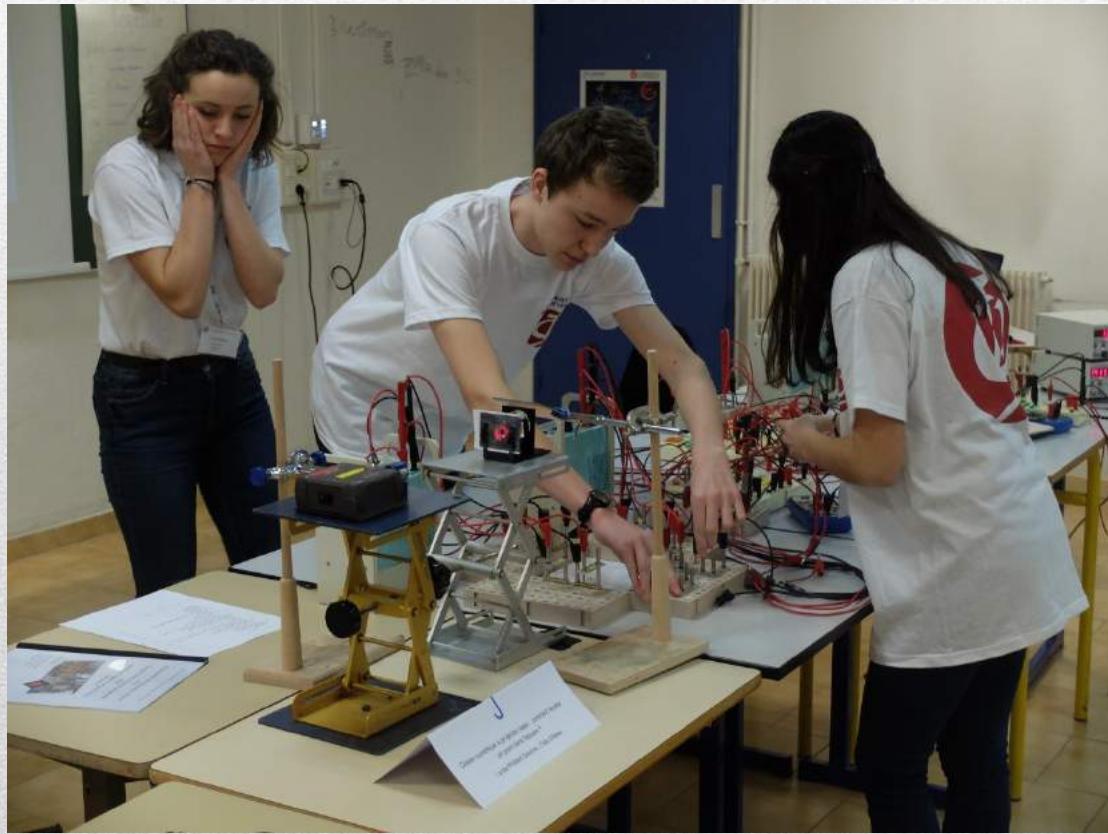
# Equipe J: Clavier numérique à projection laser : comment repérer un point dans l'espace ?

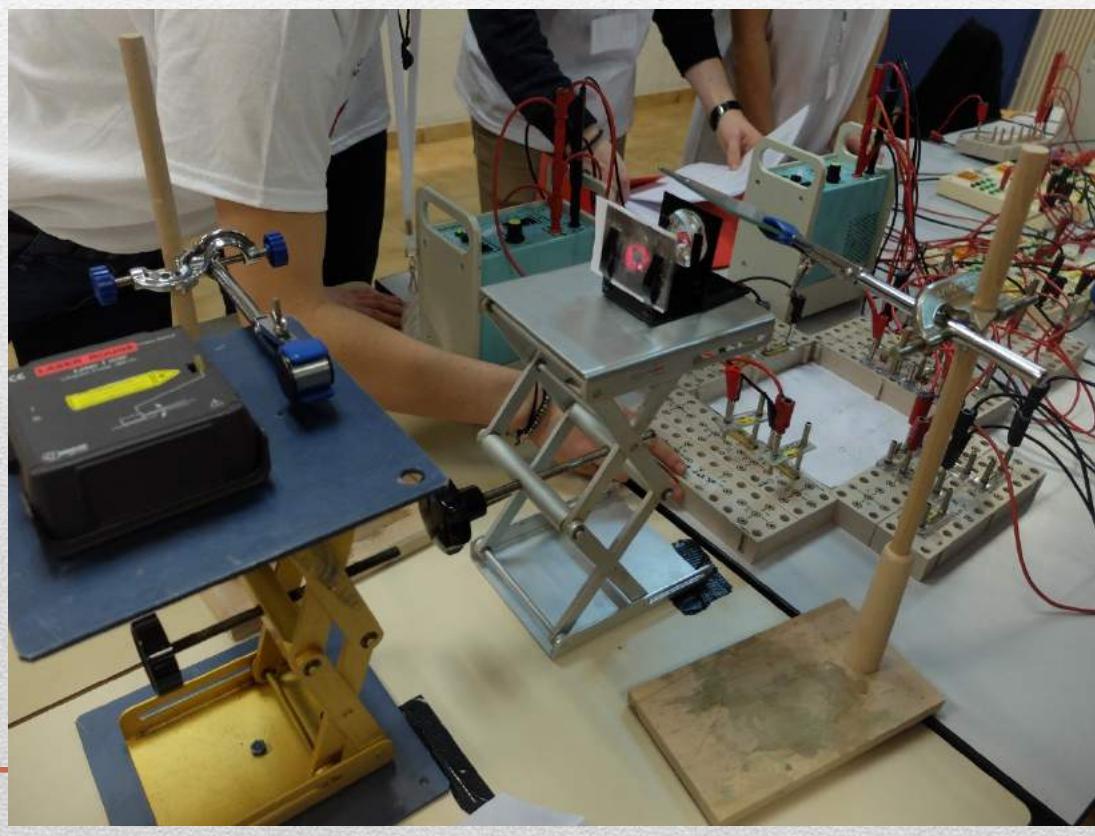
Lycée Philibert Delorme  
L'Isle d'Abeau











3<sup>ième</sup> prix :

Prix du l'Ecole Normale  
Supérieure de Lyon



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DE PHYSIQUE  
FRANCE

# Equipe K: Viscosité et écoulement des laves

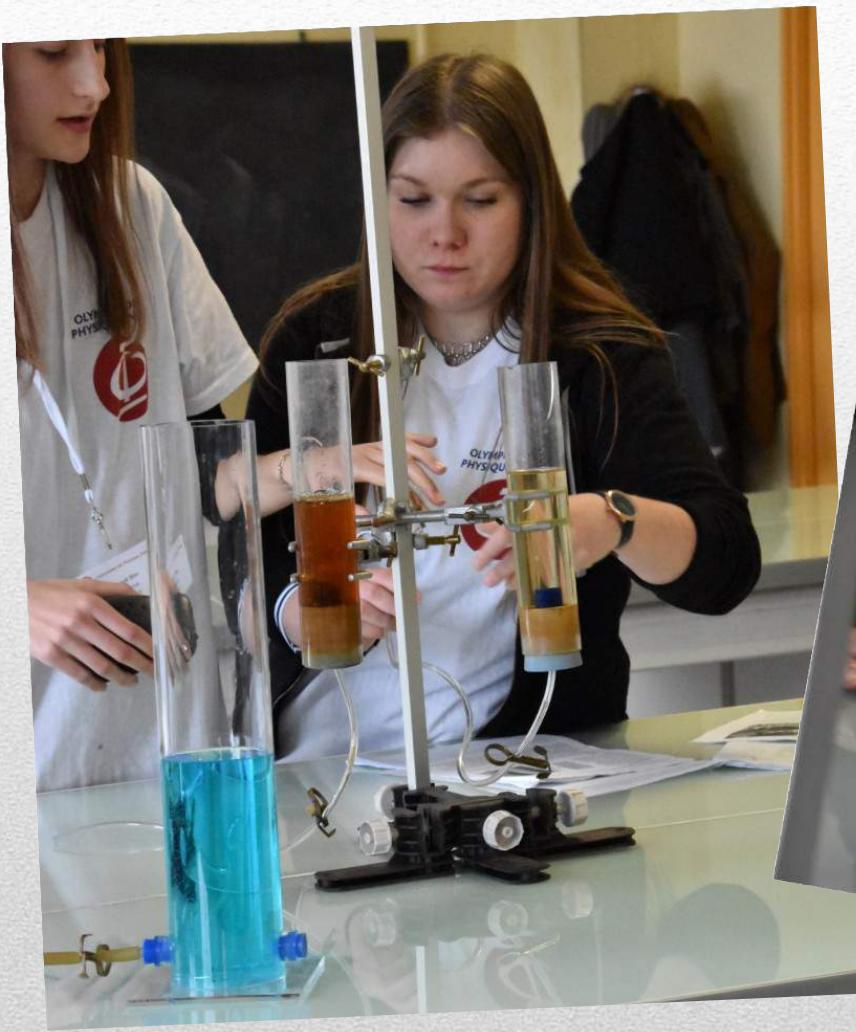
Lycée des Flandres  
Hazebrouck

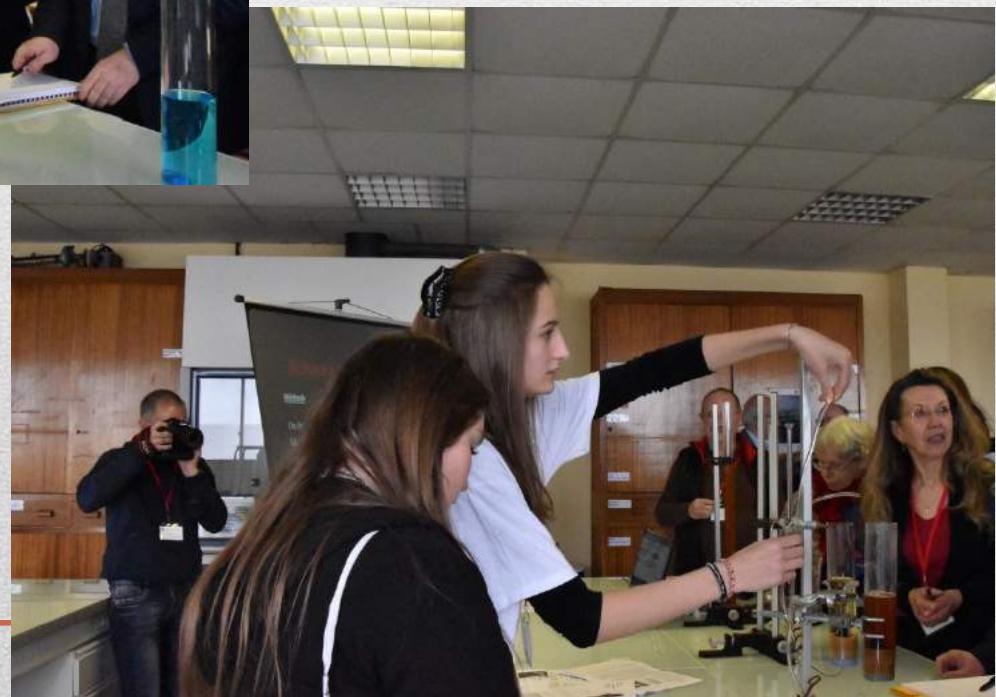




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3<sup>ième</sup> prix :

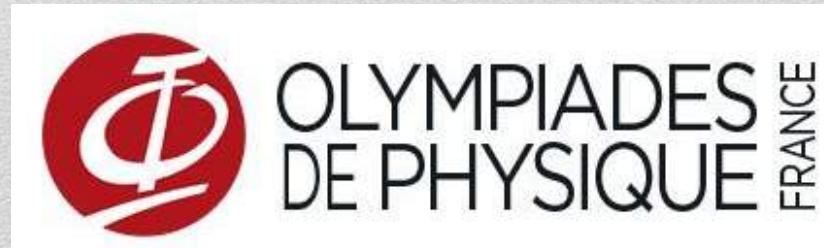
Prix de la Société Française  
d'Acoustique



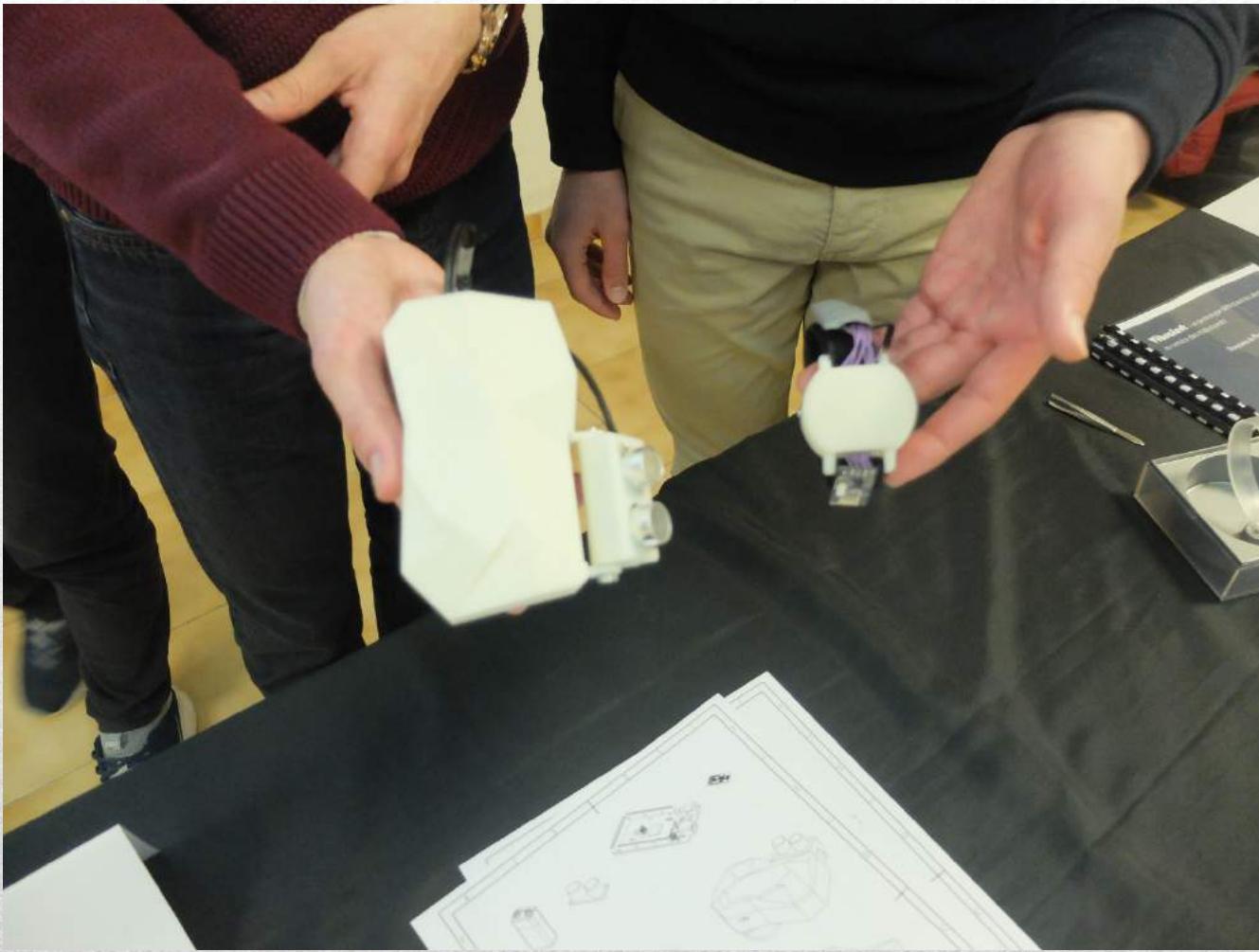
OLYMPIADES  
DE PHYSIQUE  
FRANCE

# Equipe R: Vibralert : un prototype détectant des obstacles au service des malvoyants

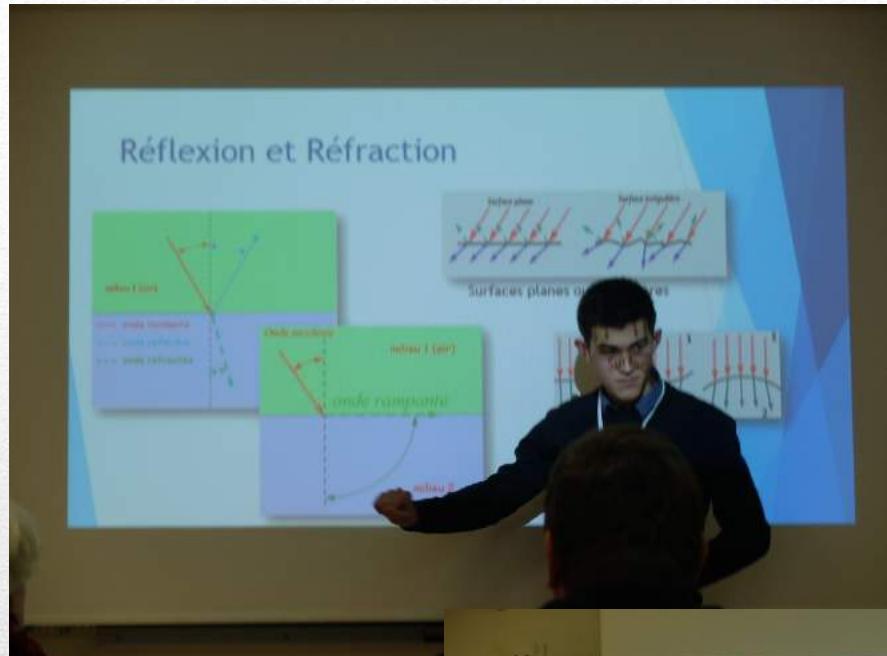
Lycée Saint-Joseph-la-Joliverie  
Saint-Sébastien-sur-Loire







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3<sup>ème</sup> prix :

Prix de l'Université Paris-Est  
Marne la Vallée

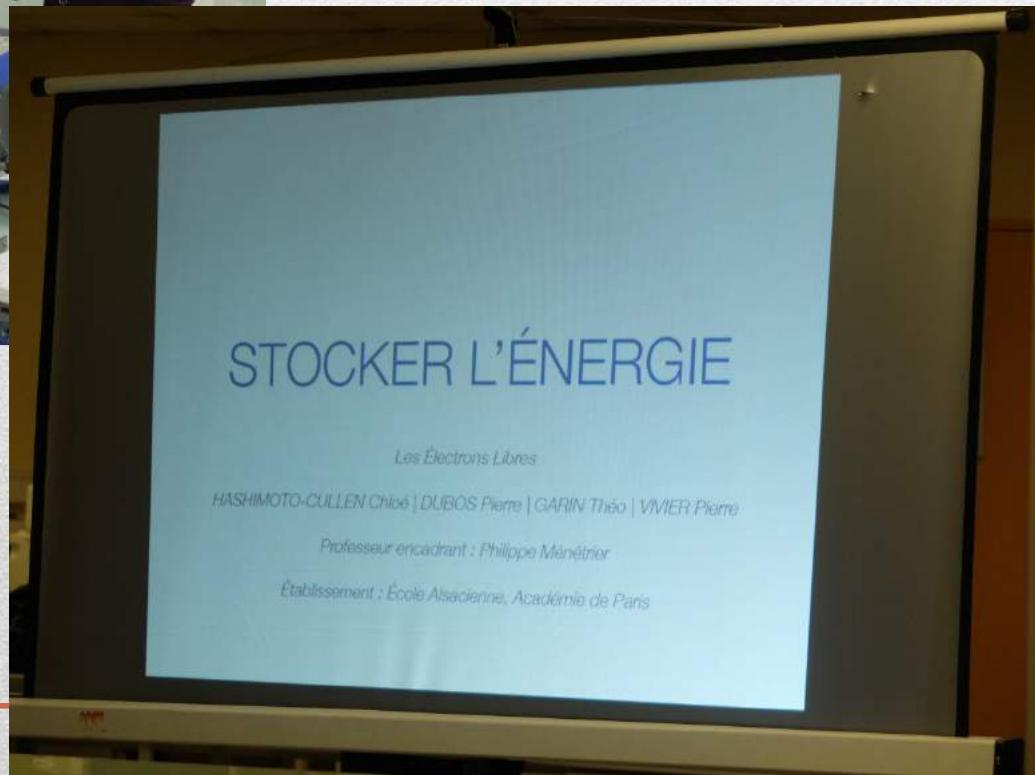
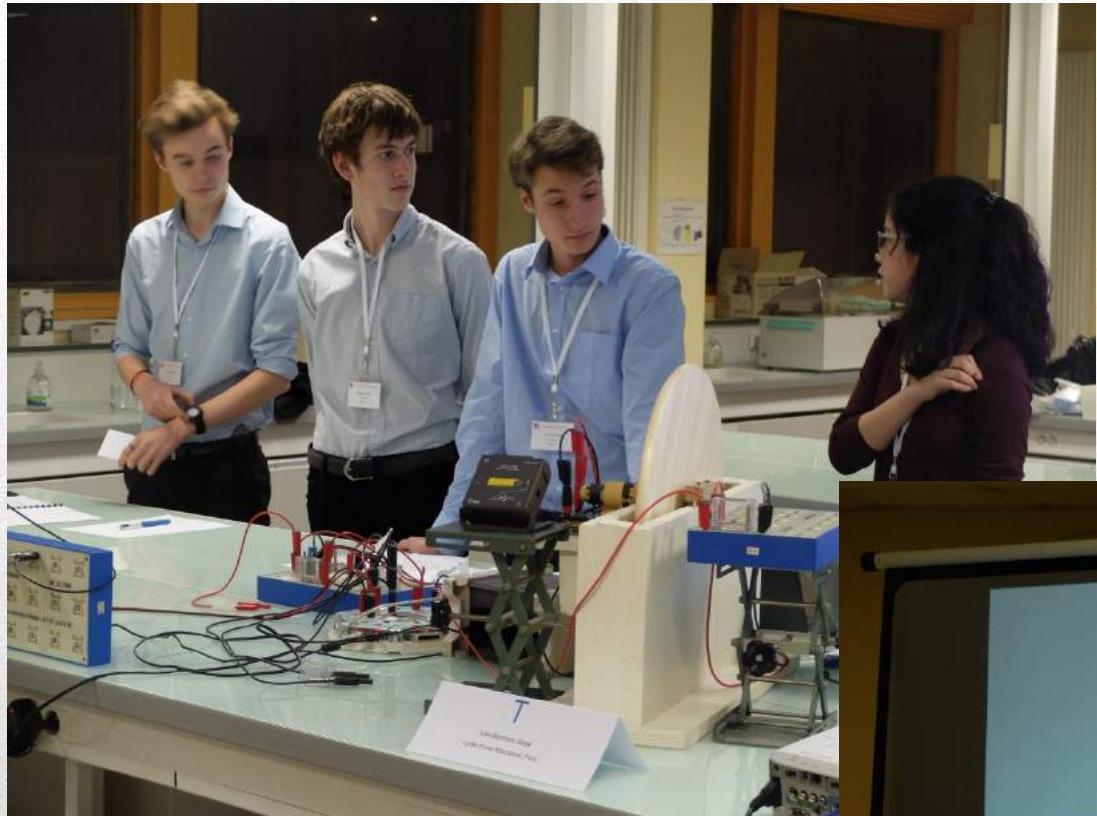


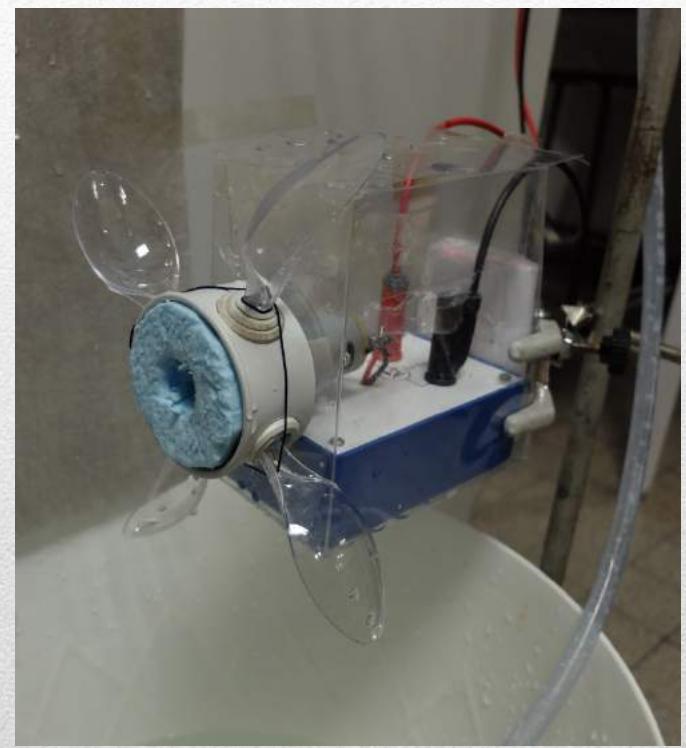
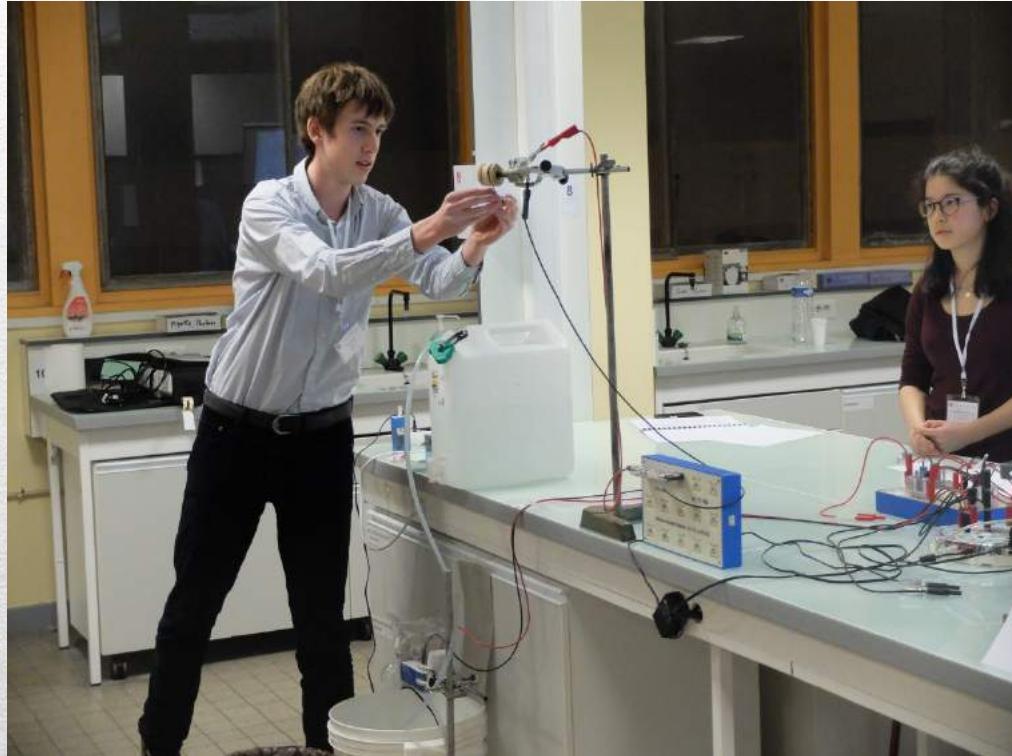
OLYMPIADES  
DE PHYSIQUE  
FRANCE

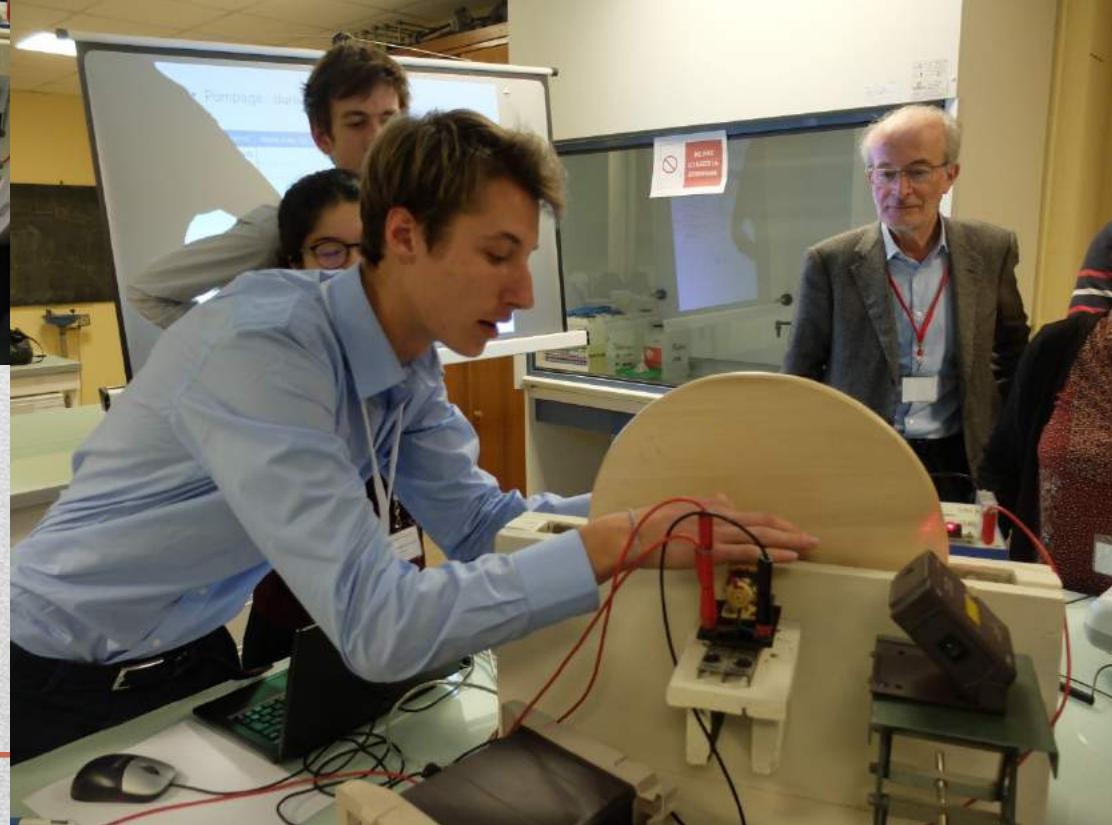
# Equipe T: Les électrons libres

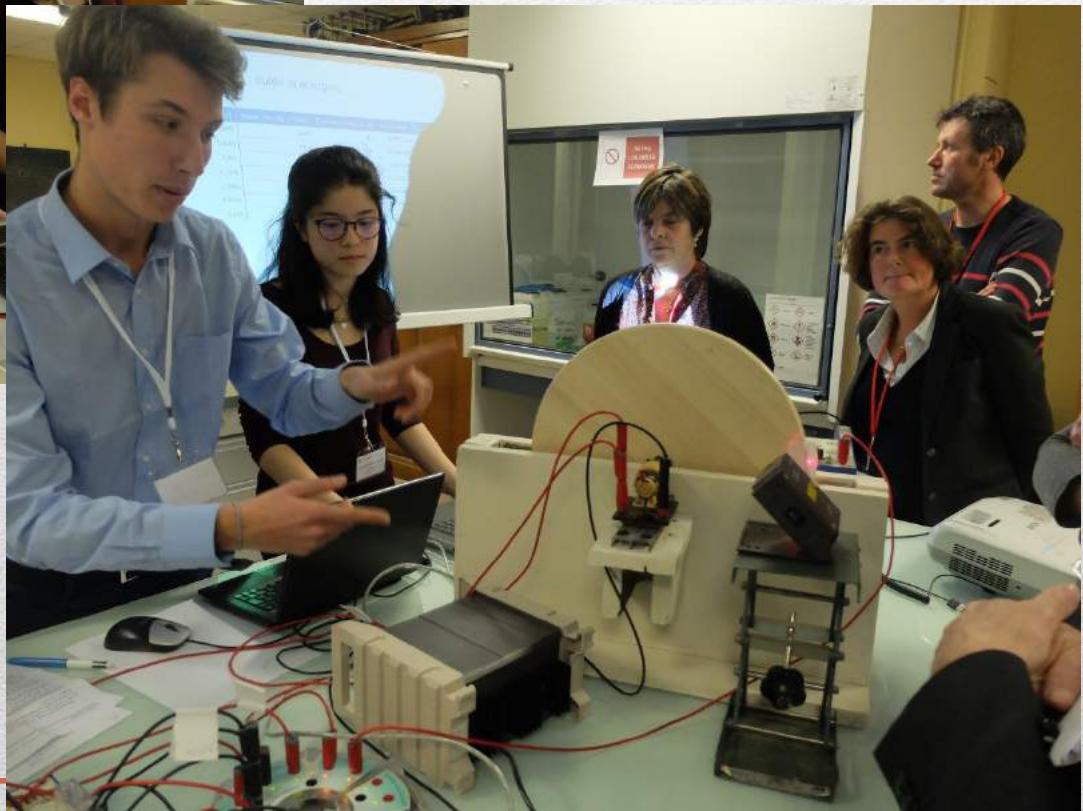
Lycée Ecole Alsacienne  
Paris











3<sup>ième</sup> prix :

Prix de l'Organisation  
européenne pour la  
recherche nucléaire CERN

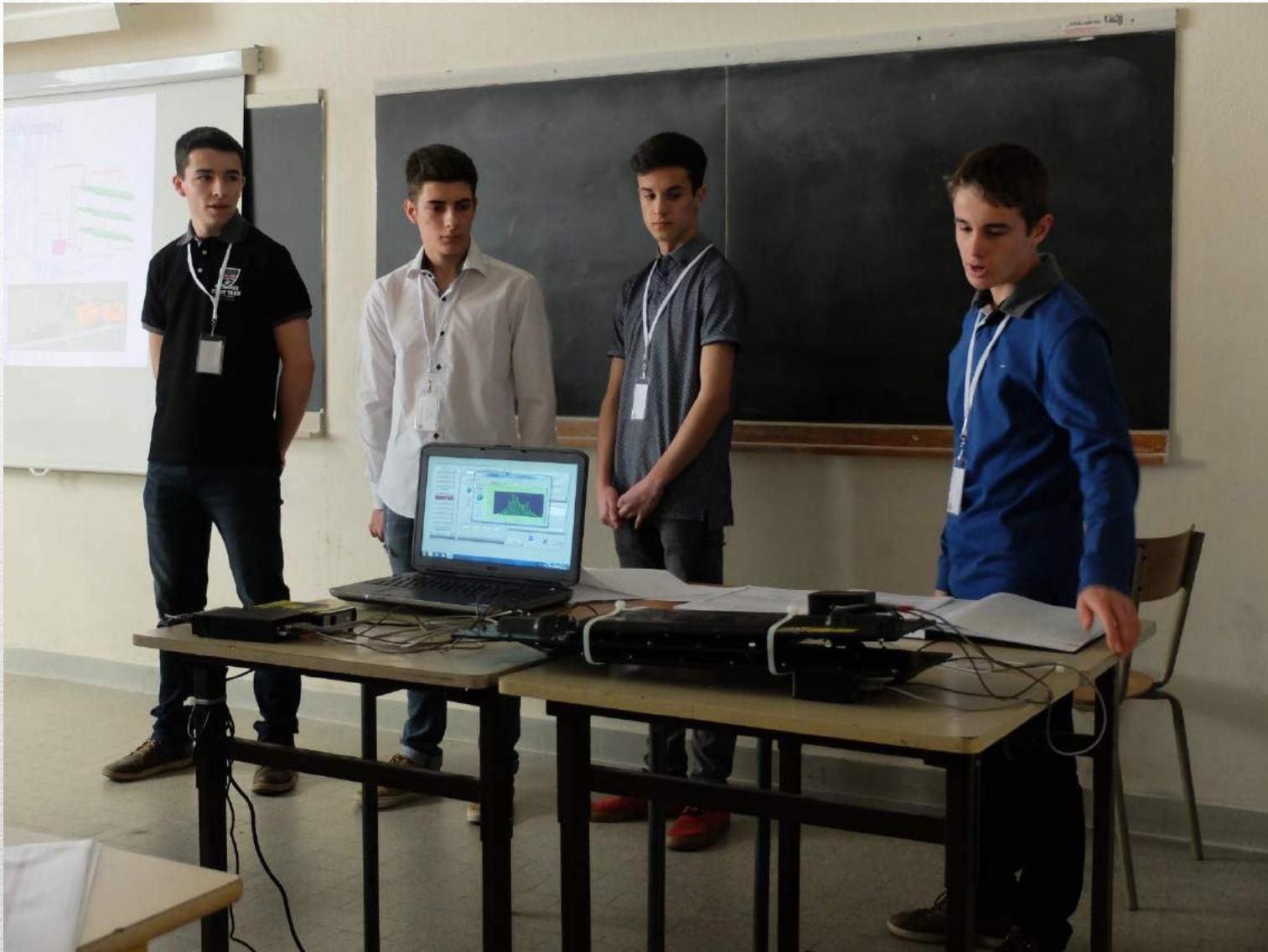


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DE PHYSIQUE  
FRANCE

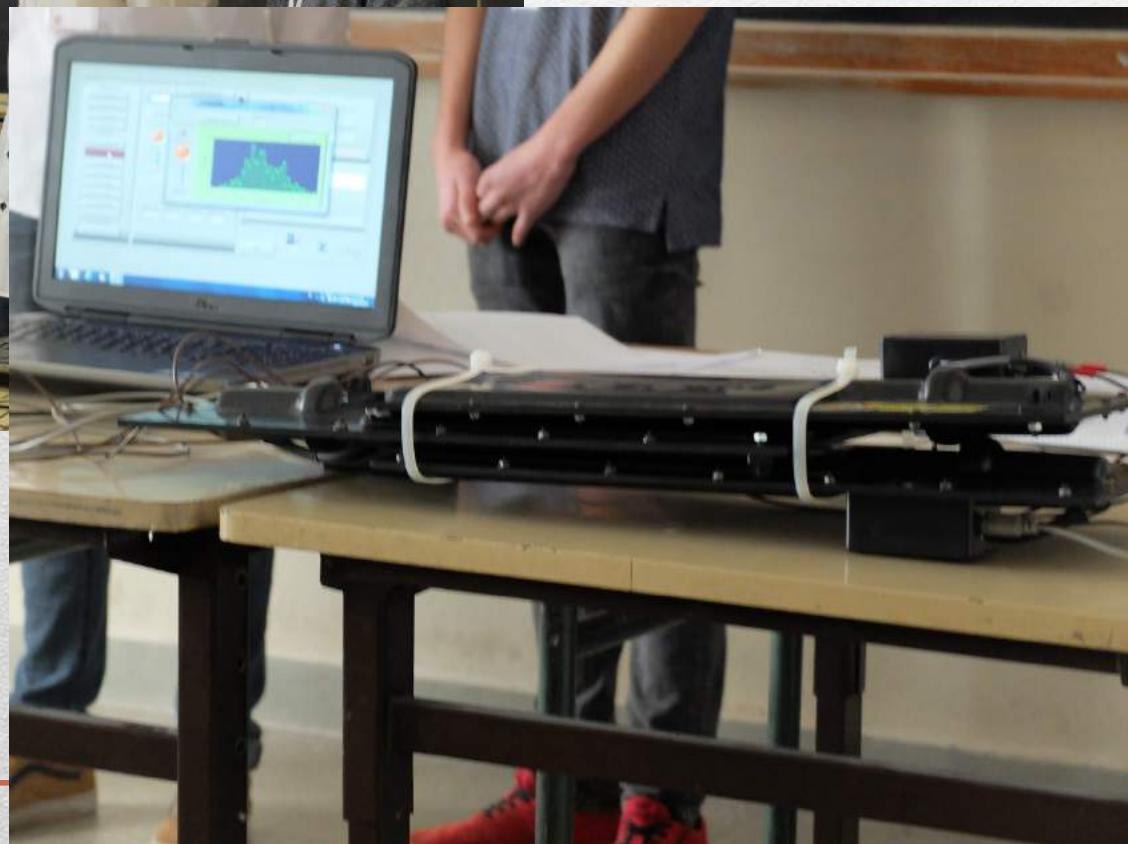
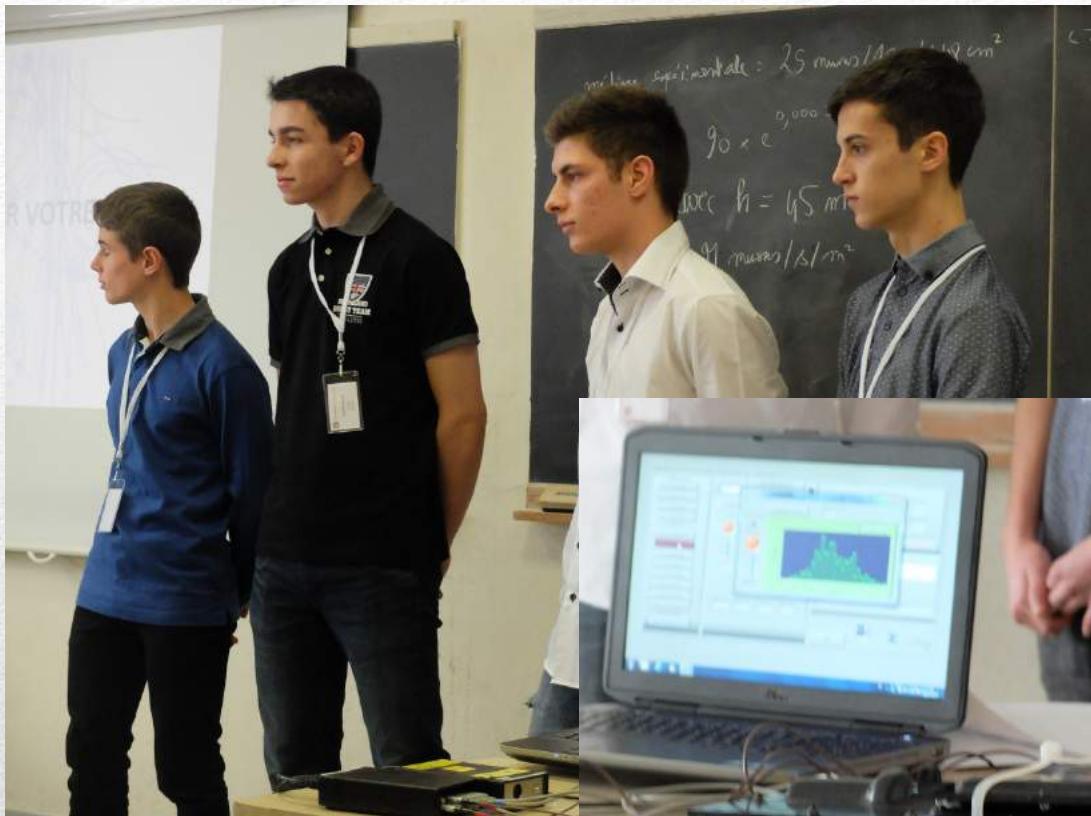
# Equipe Y: Y a-t-il un muon dans l'avion ?

Lycée Gaston Monnerville  
Cahors





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**2<sup>ième</sup> prix :**  
**Prix de l'Education Nationale**



**OLYMPIADES  
DE PHYSIQUE**  
FRANCE

# Equipe A : Brumisateur

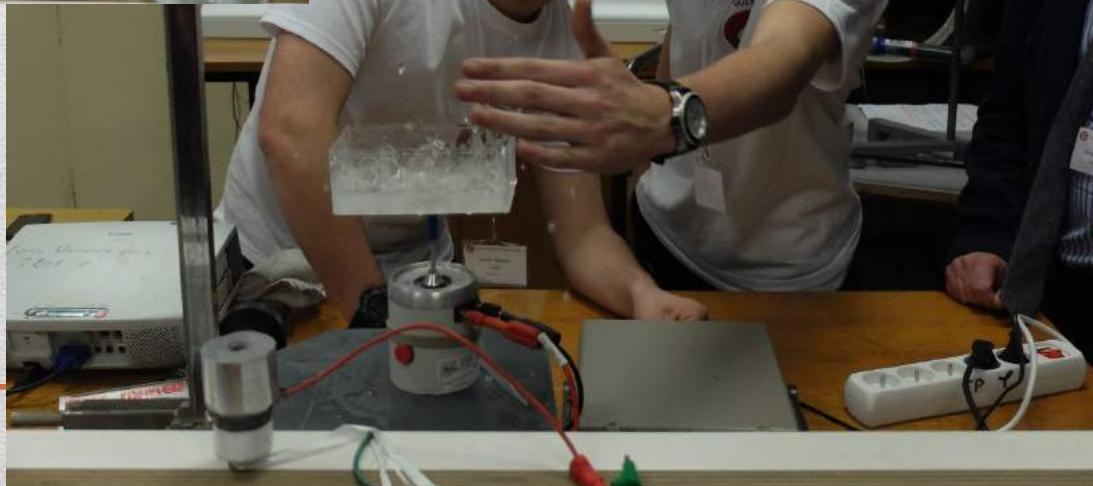
Lycée Vauvenargues  
Aix-en-Provence

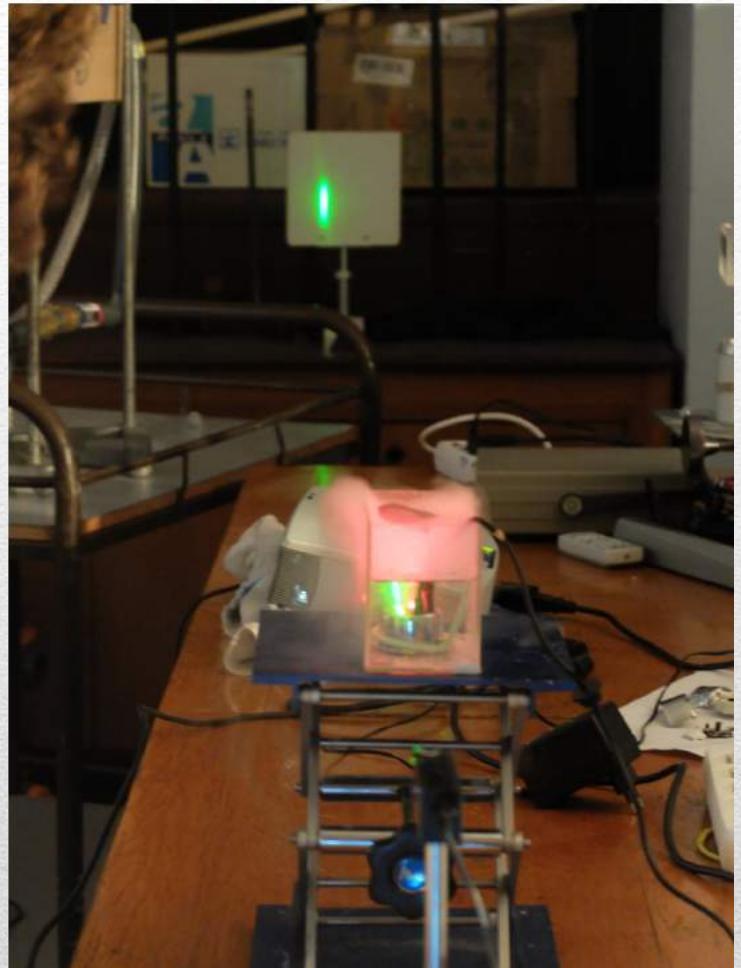




2014 Adonis  
BENOÎT GABRIEL  
CAROLE GILLES  
FRANÇOIS

Etude d'un...ateur







**2<sup>ième</sup> prix :**  
**Prix de la Fondation iXCore**  
**pour la Recherche**



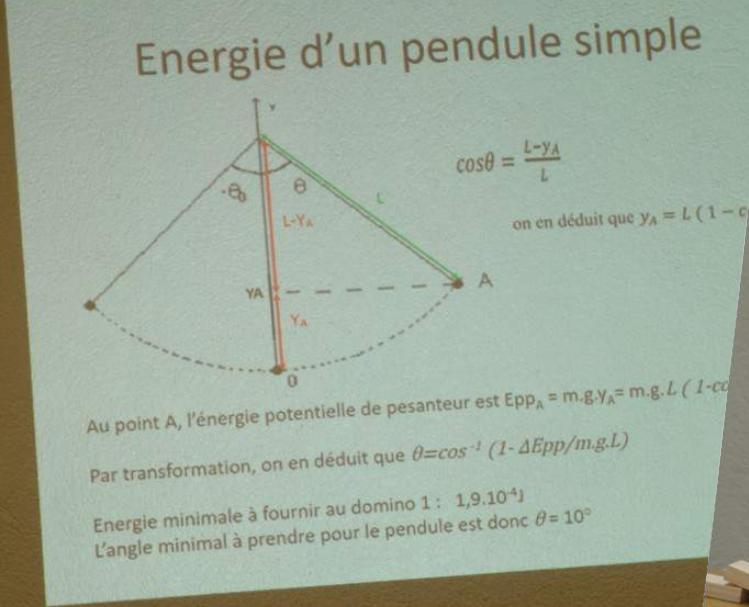
# Equipe L: Sucre contre béton

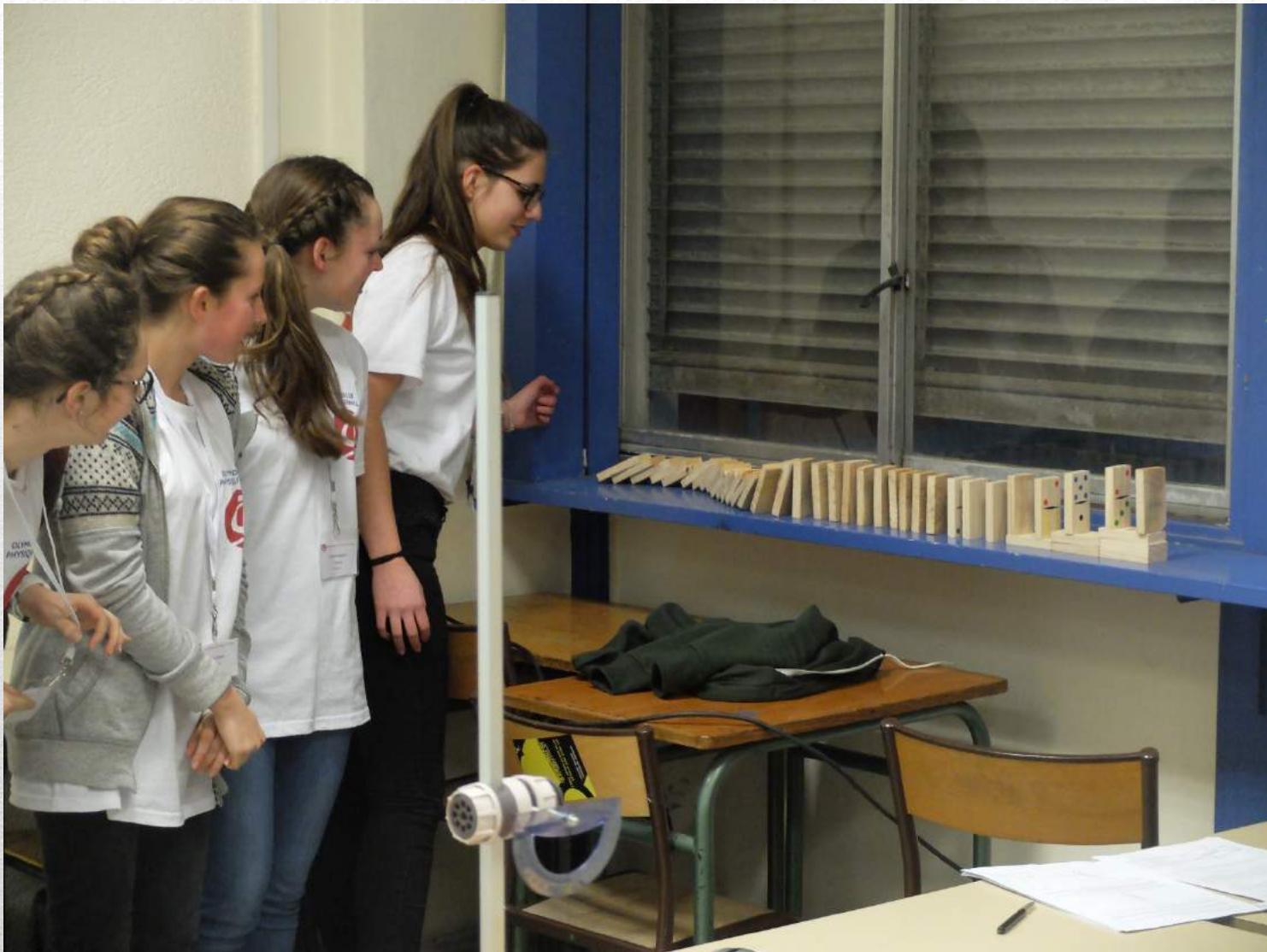
Lycée des Flandres  
Hazebrouck











2<sup>ième</sup> prix :  
Prix Wolfram



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DE PHYSIQUE  
FRANCE

# Equipe M: Dé-mineur

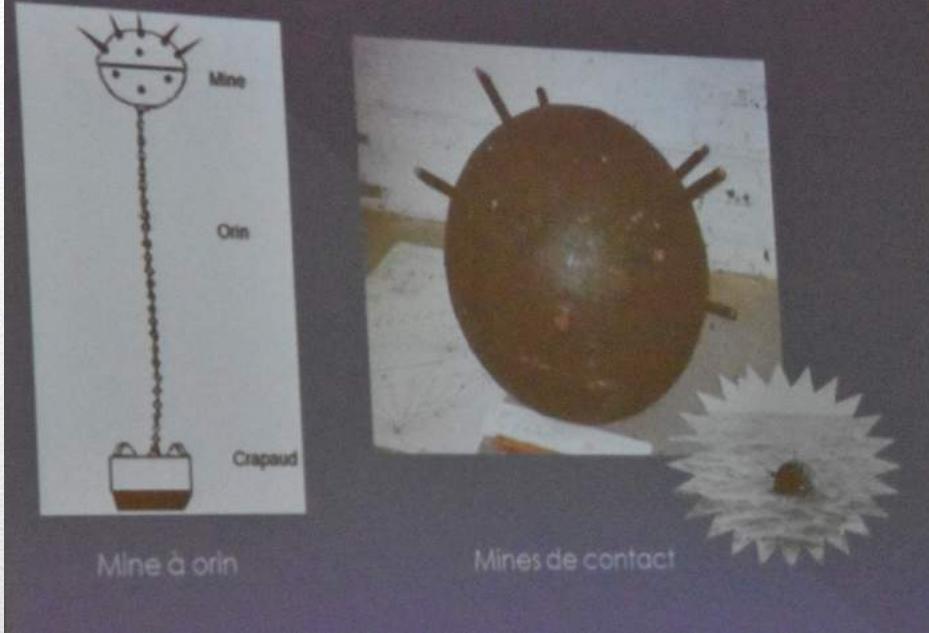
Lycée Saint-Jacques  
Hazebrouck

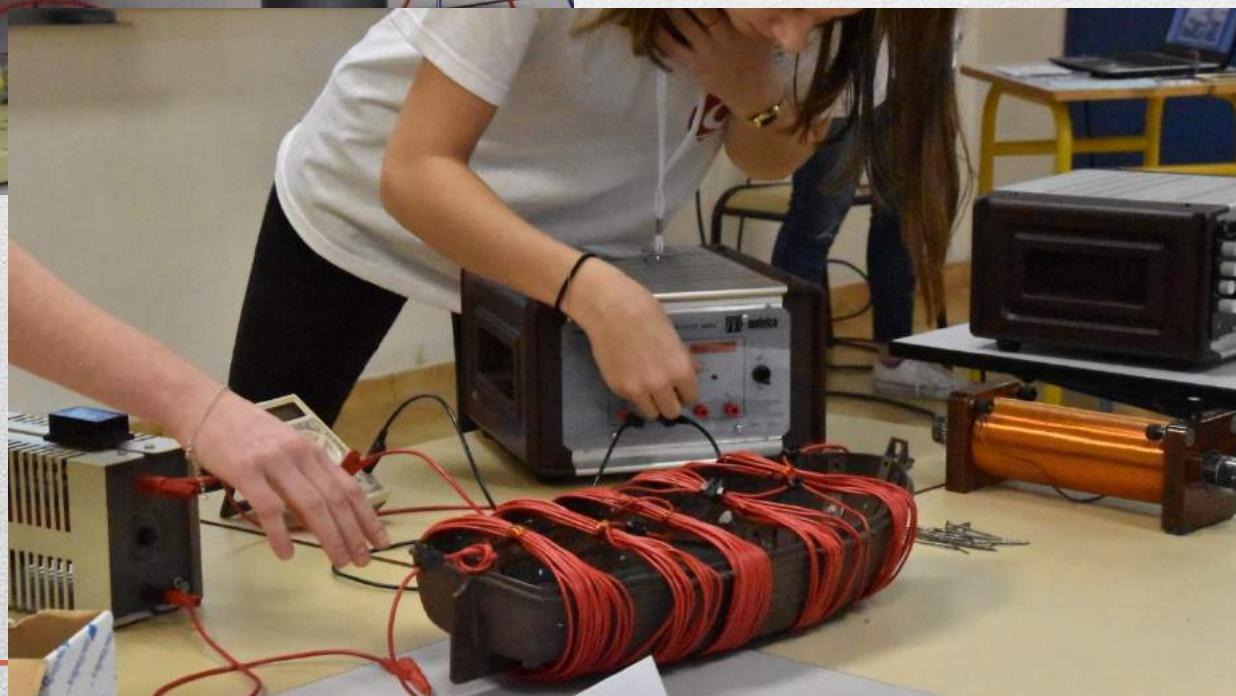
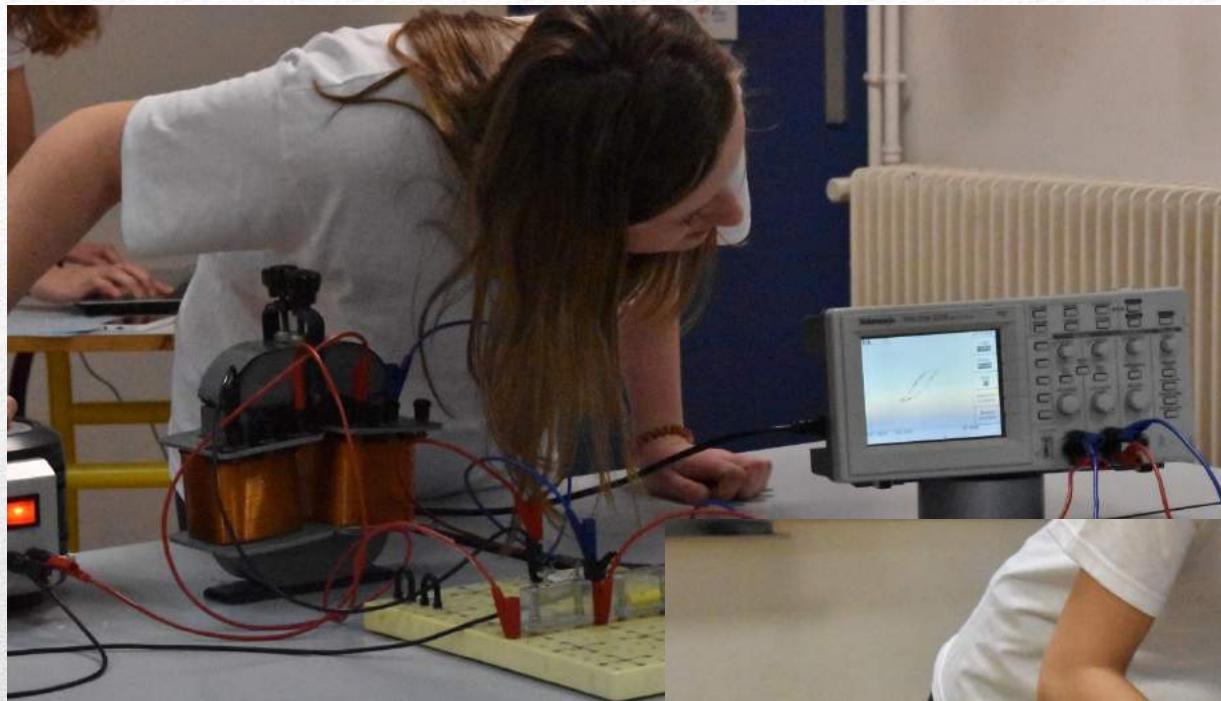


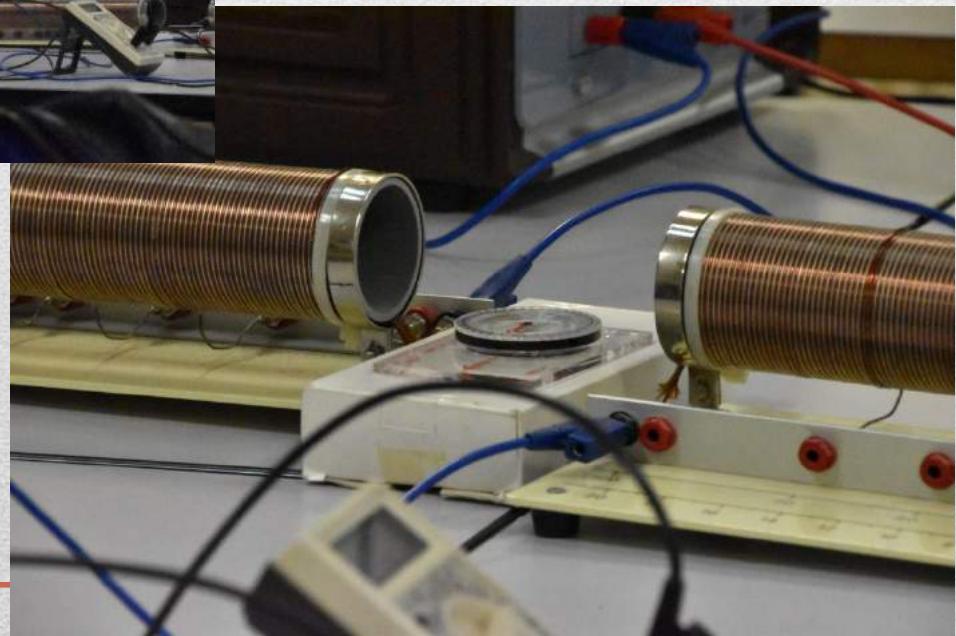


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# Différentes mines







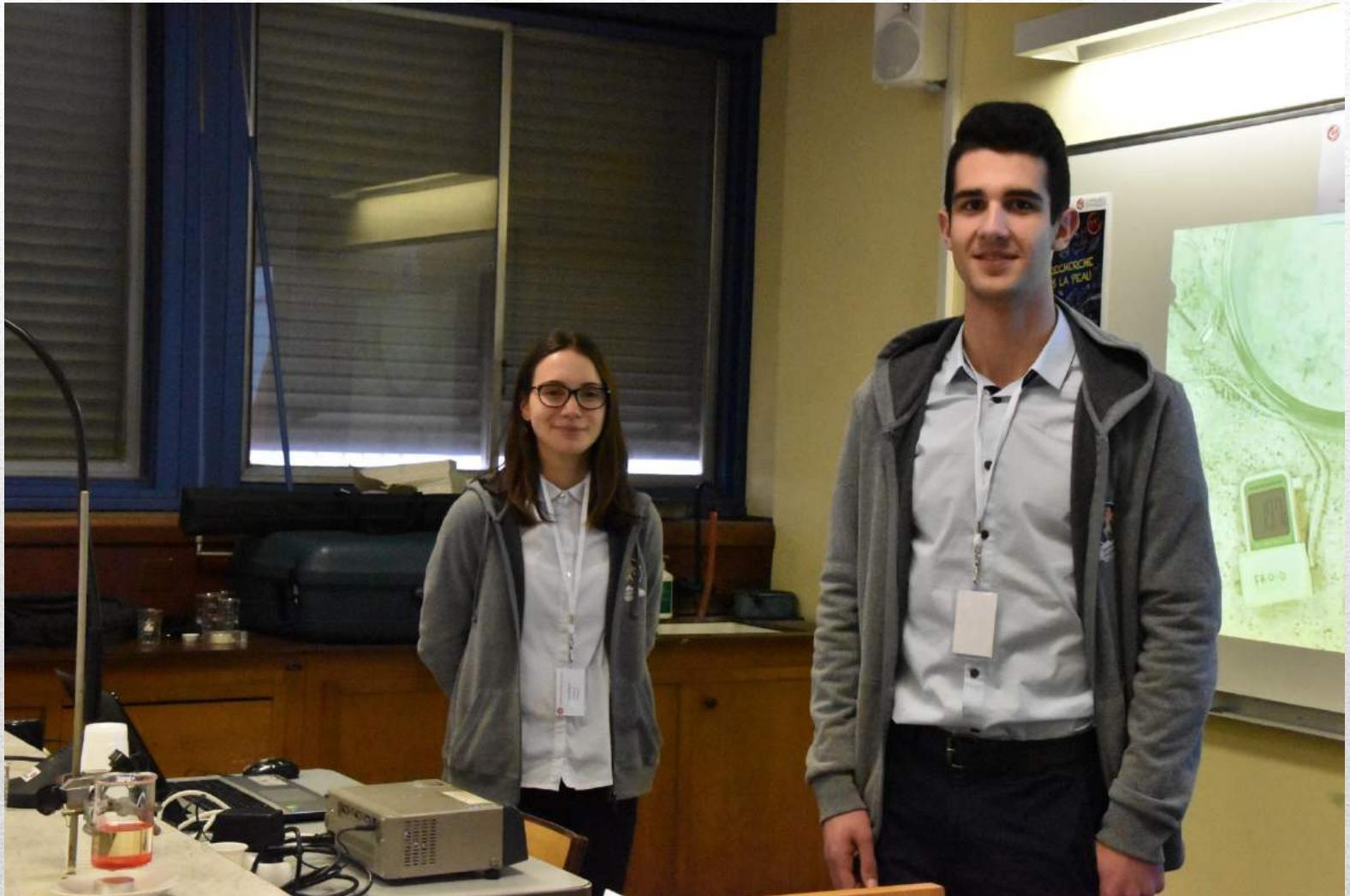
**2<sup>ième</sup> prix :**  
**Prix des laboratoires de**  
**physique de l'AMU**



# Equipe 0: Chaud ? Froid ? Non, Mpemba !

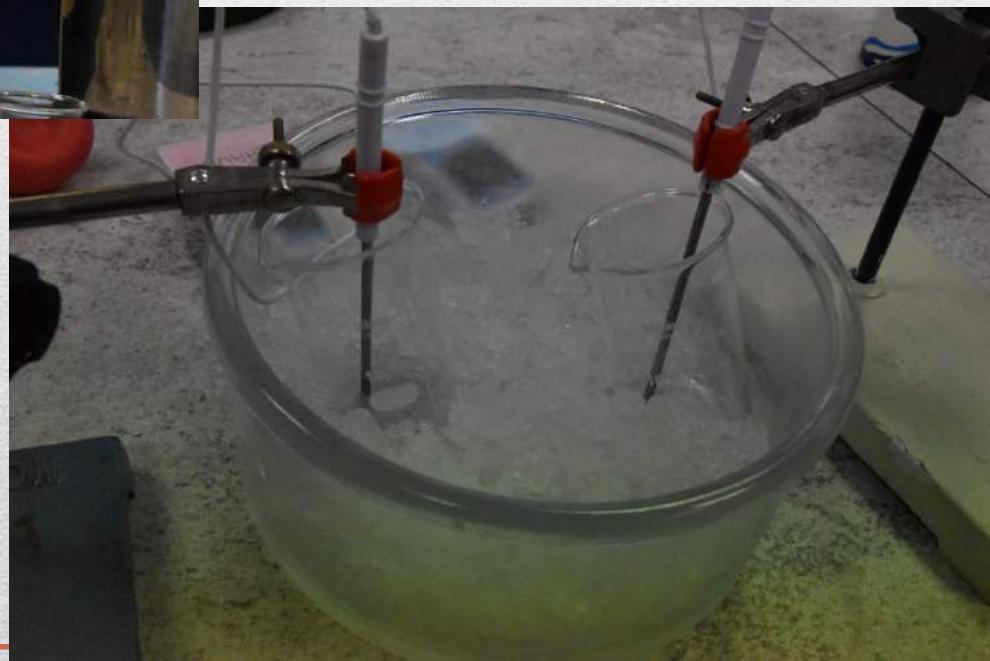
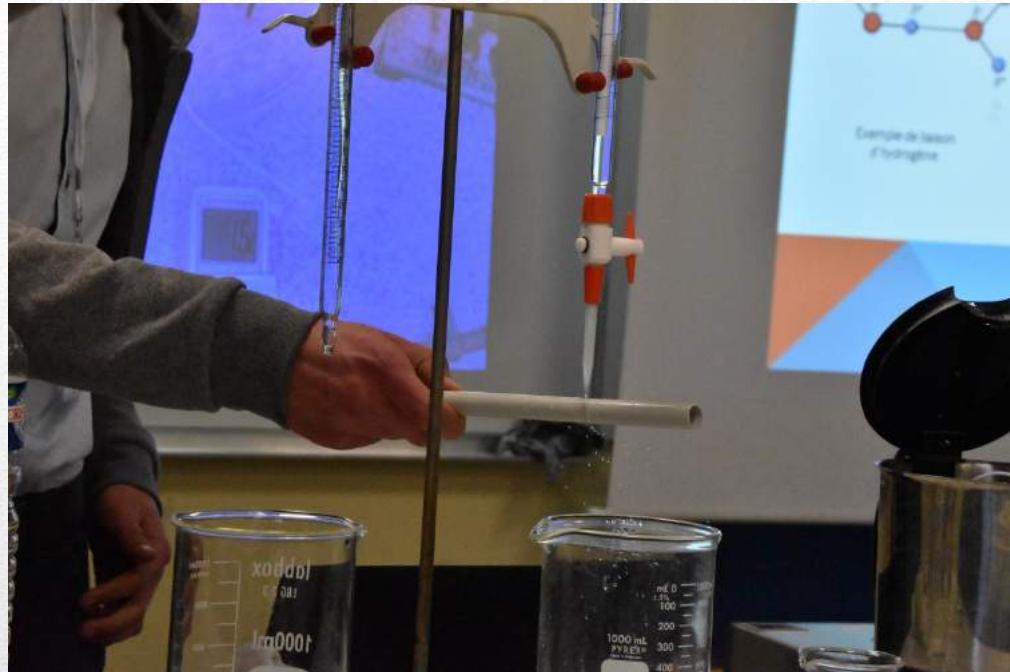
Lycée Antoine de Saint-Exupéry  
Fameck





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**2<sup>ième</sup> prix :**  
**Prix de C'Nano Ile-de-France**



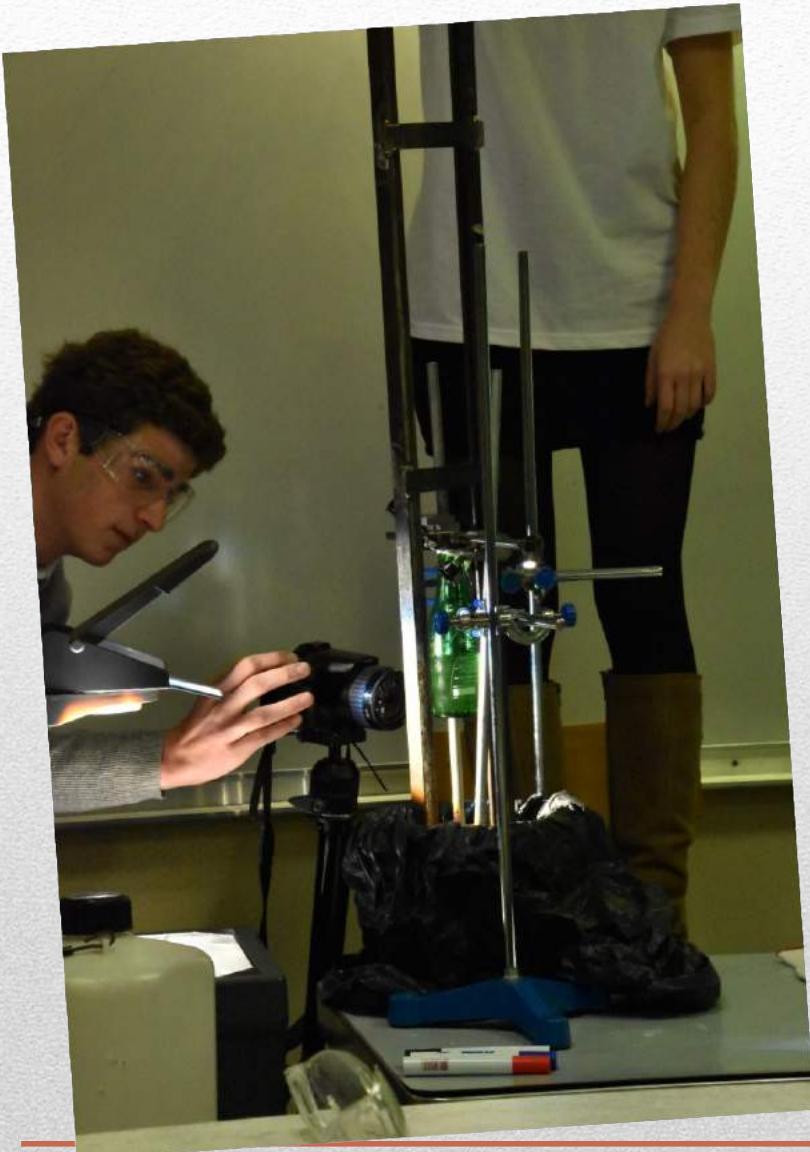
**OLYMPIADES  
DE PHYSIQUE**  
FRANCE

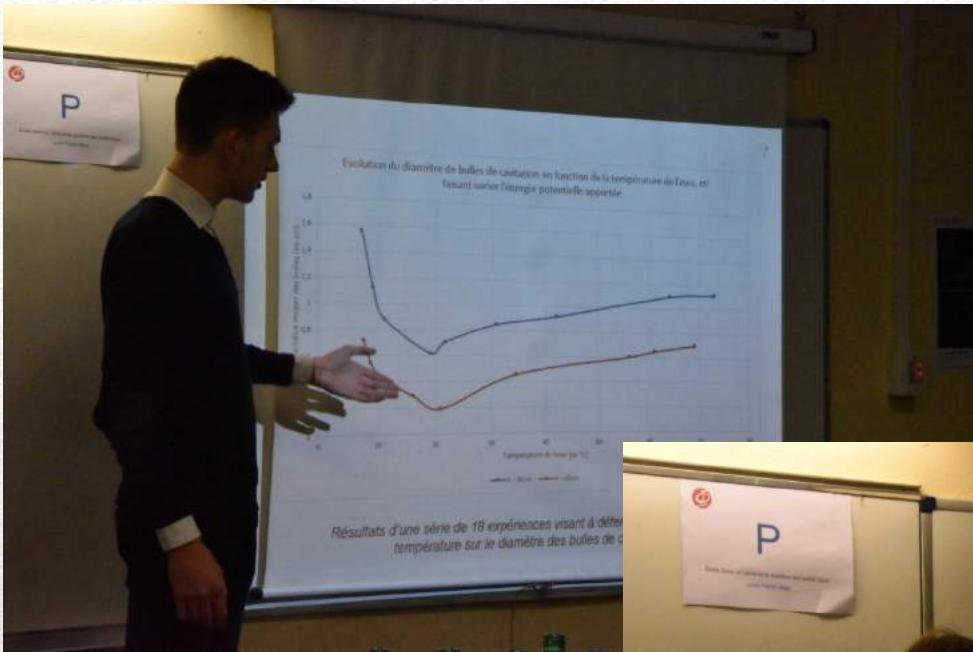
# Equipe P : Etoile dans un verre et le mystère des petits trous

Lycée Fabert  
Metz











**2<sup>ième</sup> prix :**  
**Prix de la MGEN**



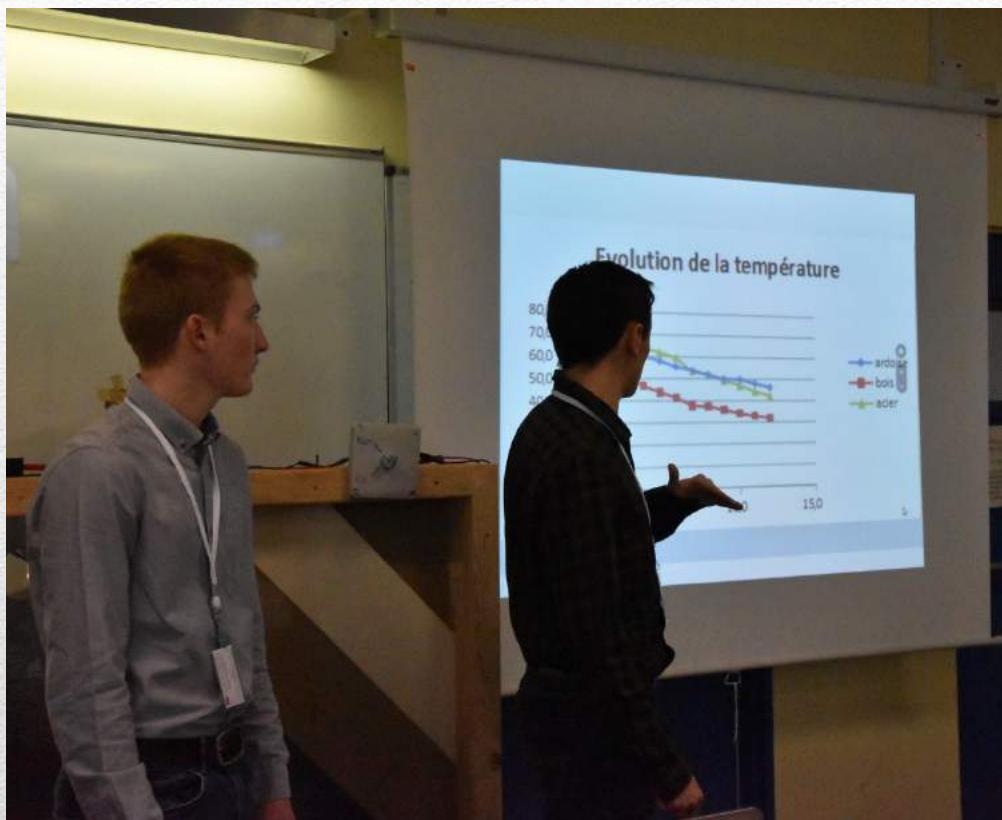
# Equipe Q : Ventilation mécanique solaire

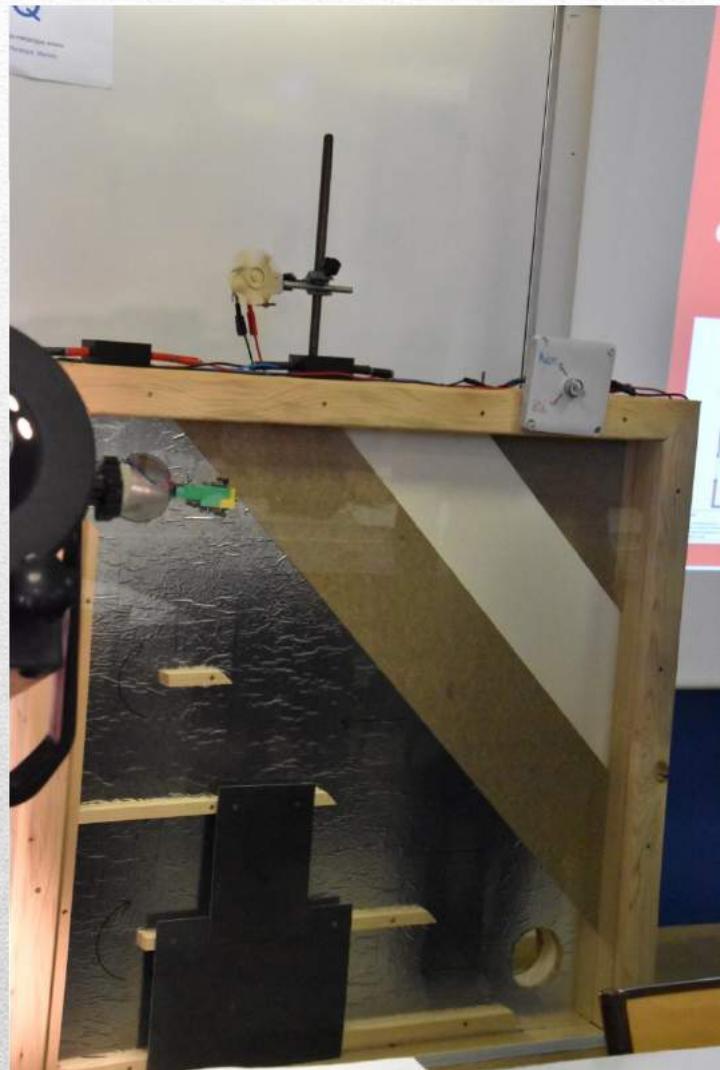
Lycée Perseigne  
Mamers





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**2<sup>ième</sup> prix :**  
**Prix du Laboratoire**  
**d'excellence FIRST-TF-OBSPM**



# Equipe S : Distilla'Sun

Lycée Jacques de Vaucanson  
Tours











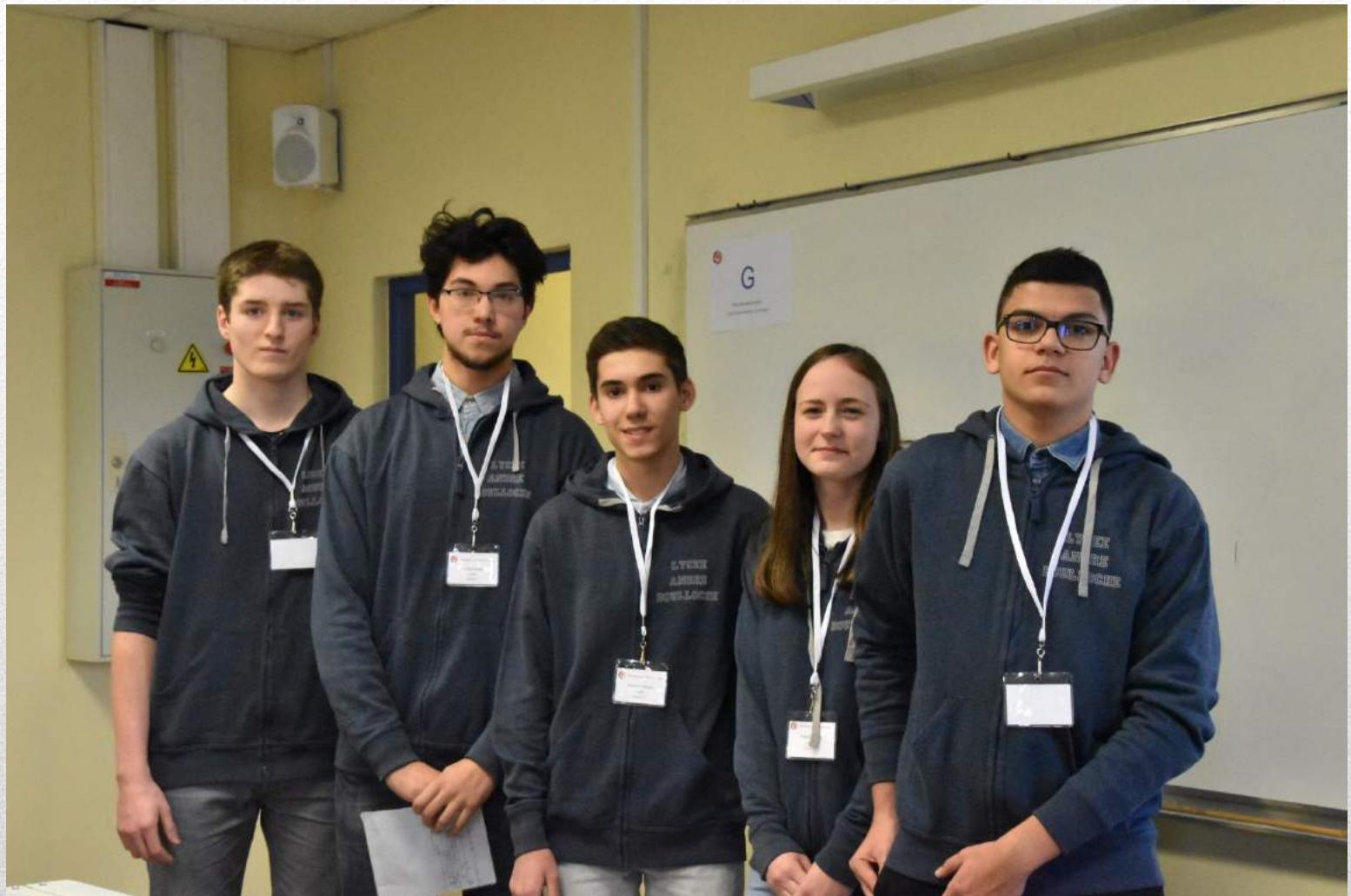
**1er prix :**  
**Prix de la Fondation Nanoscience**



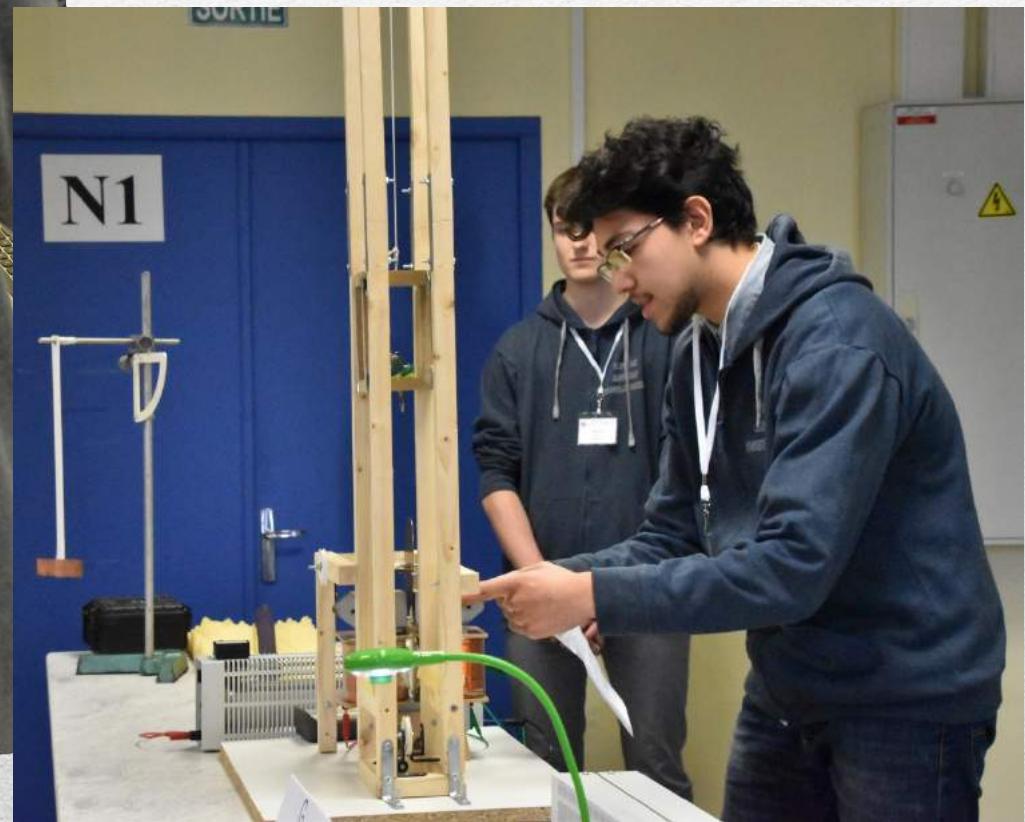
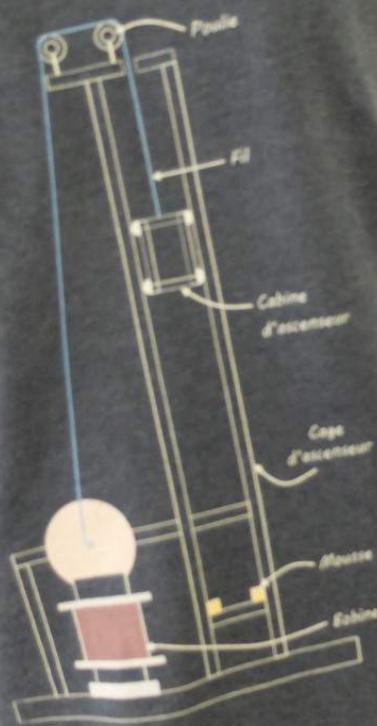
# Equipe G : Plus lente sera la chute...

Lycée André Bouloche  
Livry-Gargan





G







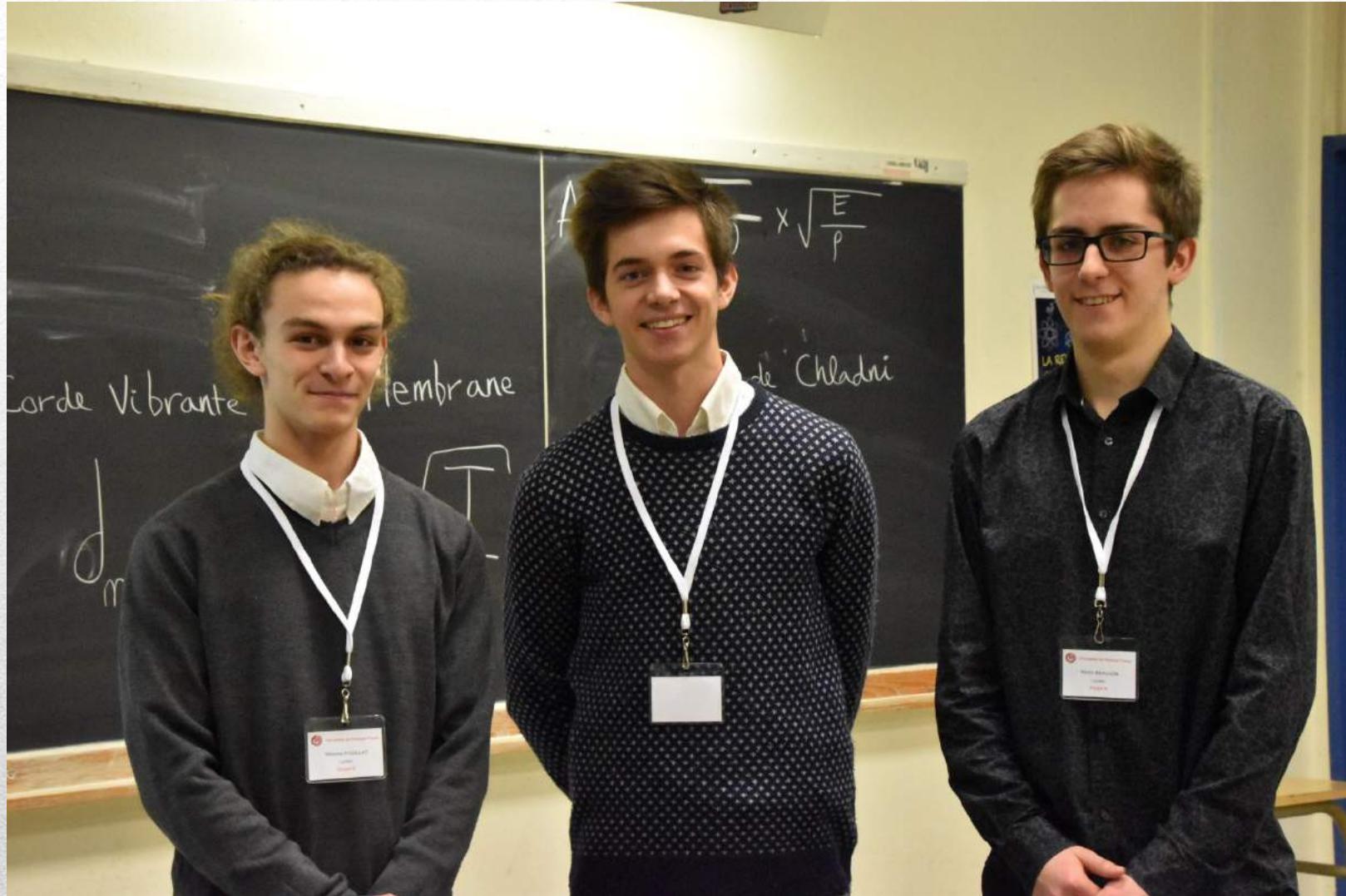
**1er prix :**  
**Prix de la Fondation CFM pour la**  
**Recherche**



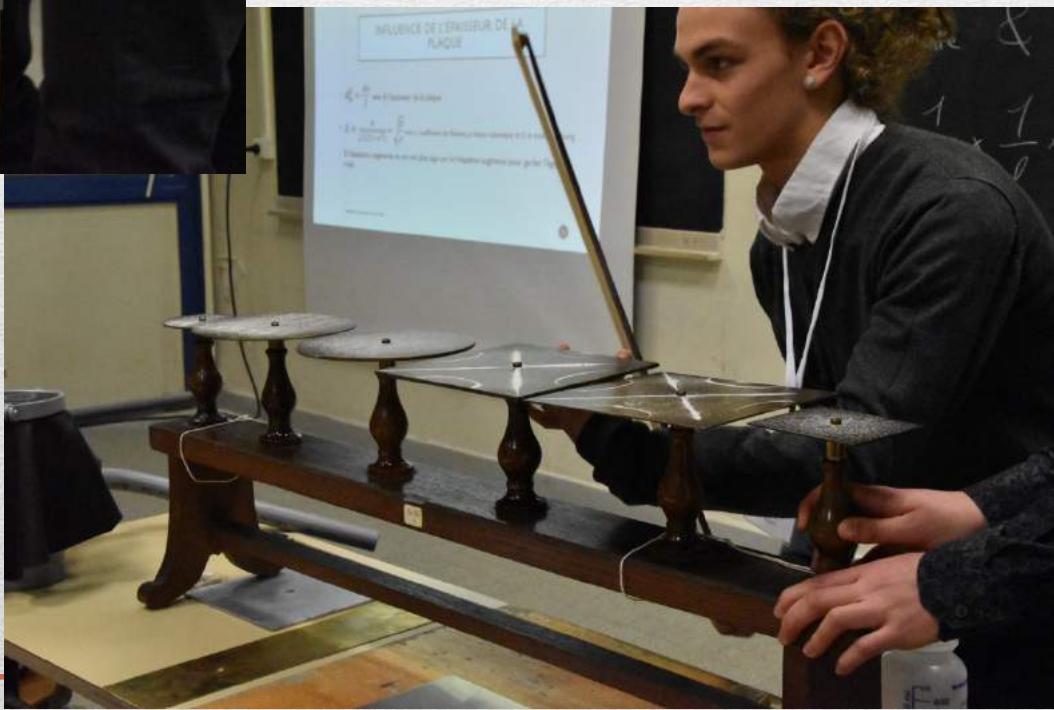
# Equipe N: Le son et la matière

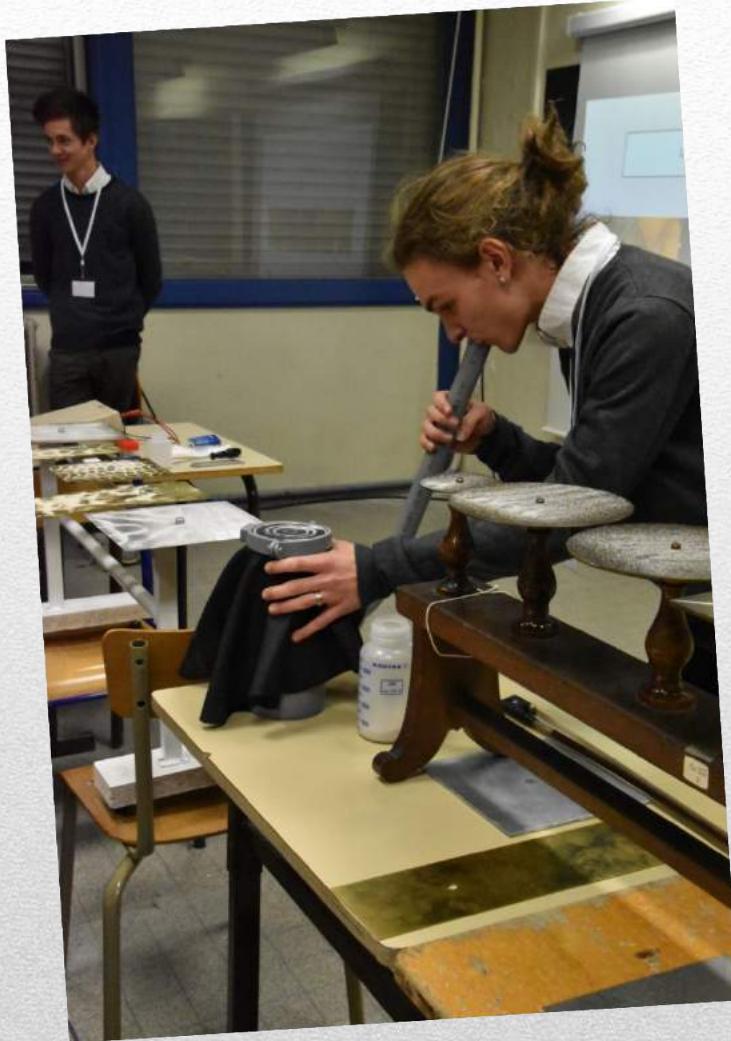
Lycée Antoine de Saint-Exupéry  
Lyon









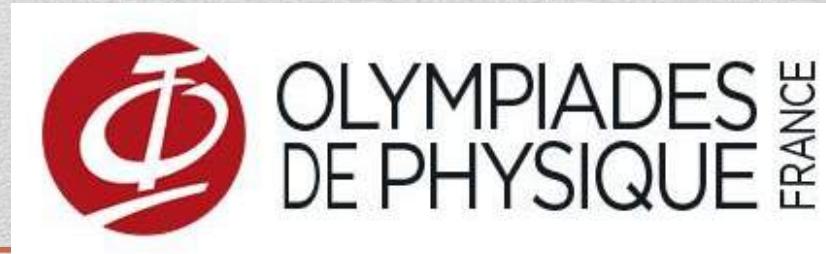


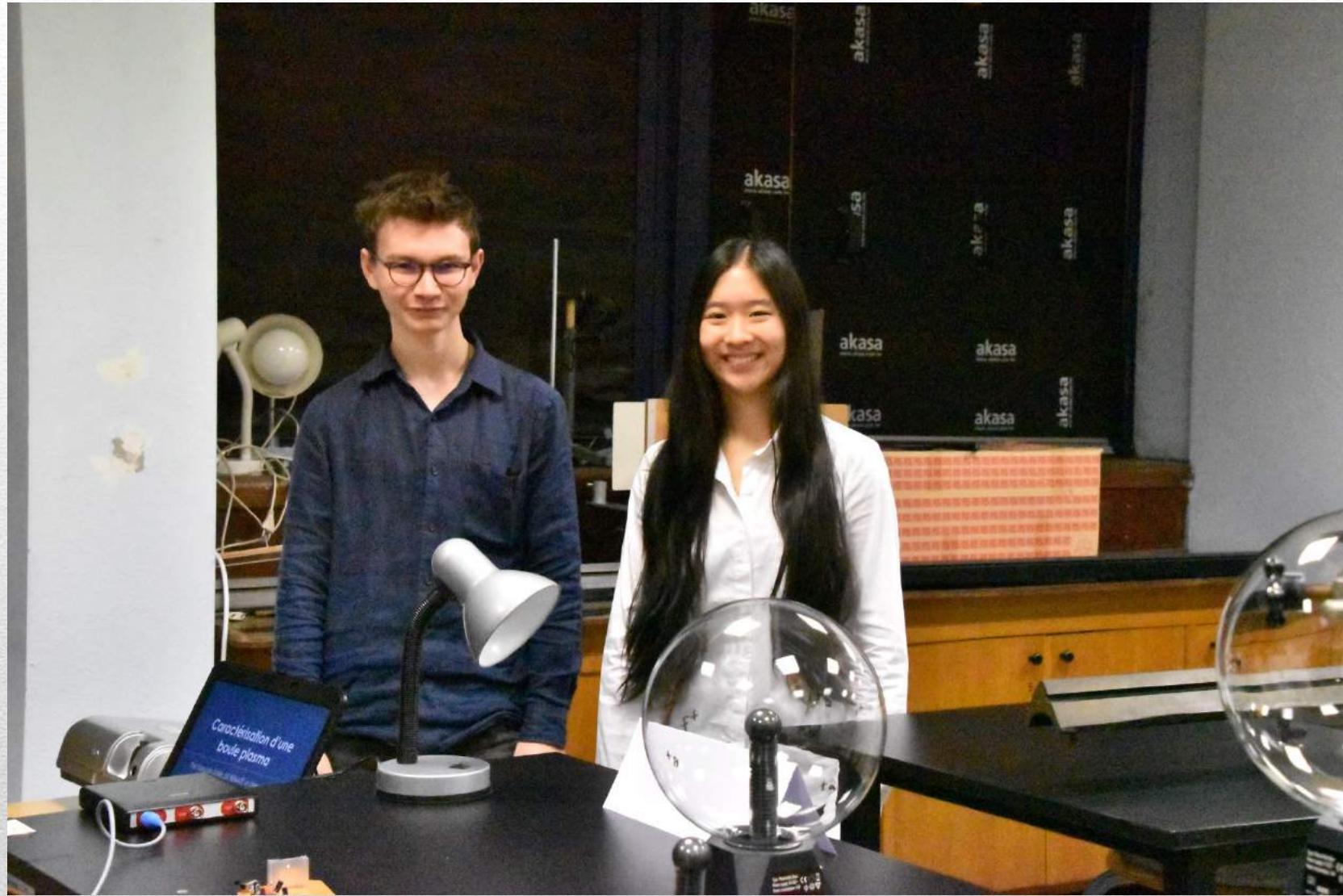
**1er prix :**  
**Prix du Laboratoire d'Excellence**  
**PALM**

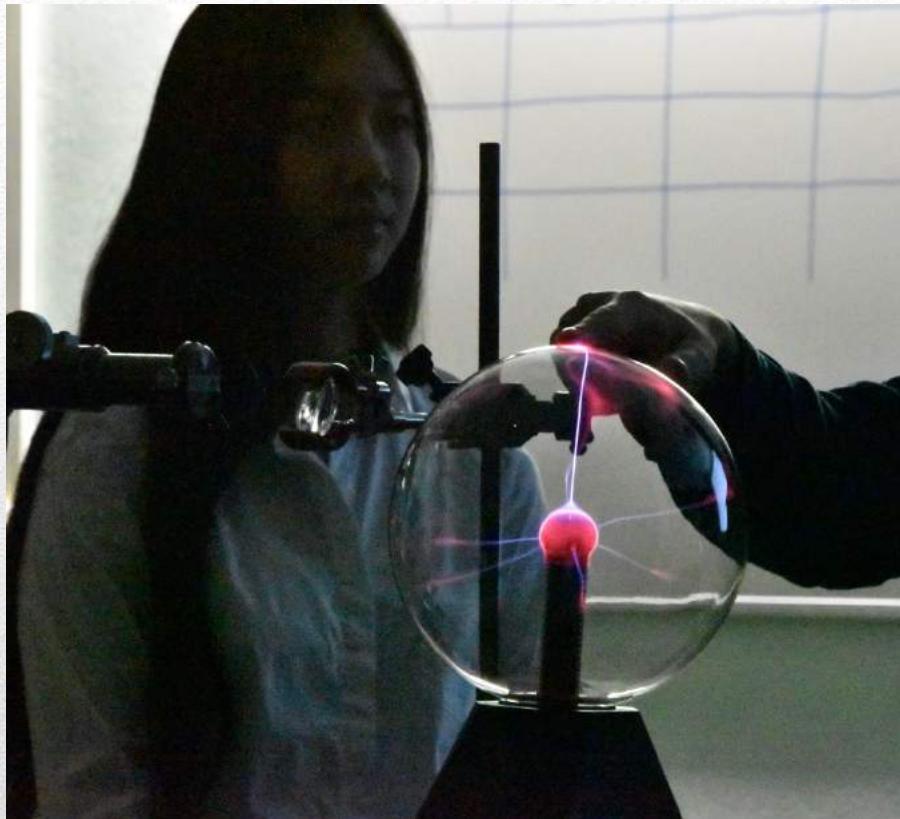


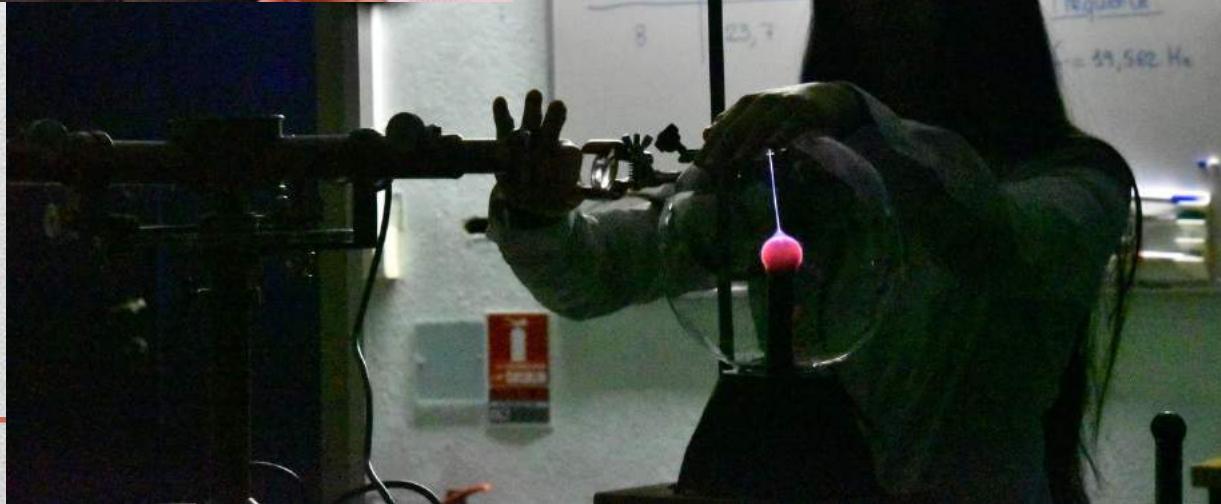
# Equipe U: Caractérisation d'une boule plasma

Lycée Ecole Alsacienne  
Paris











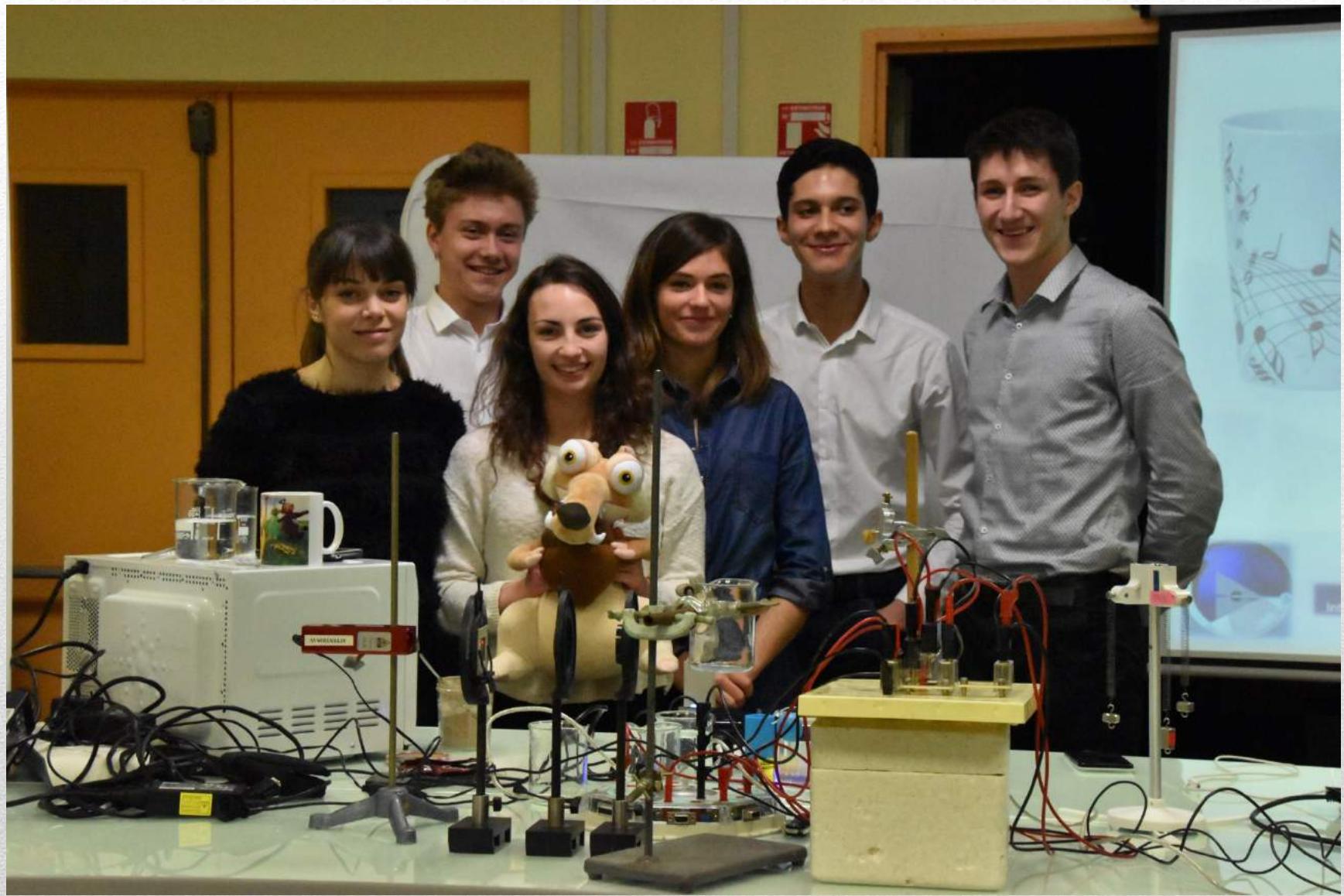
**1er prix:**  
**Prix Saint-Gobain**



# Equipe V: Les mystères de la tasse

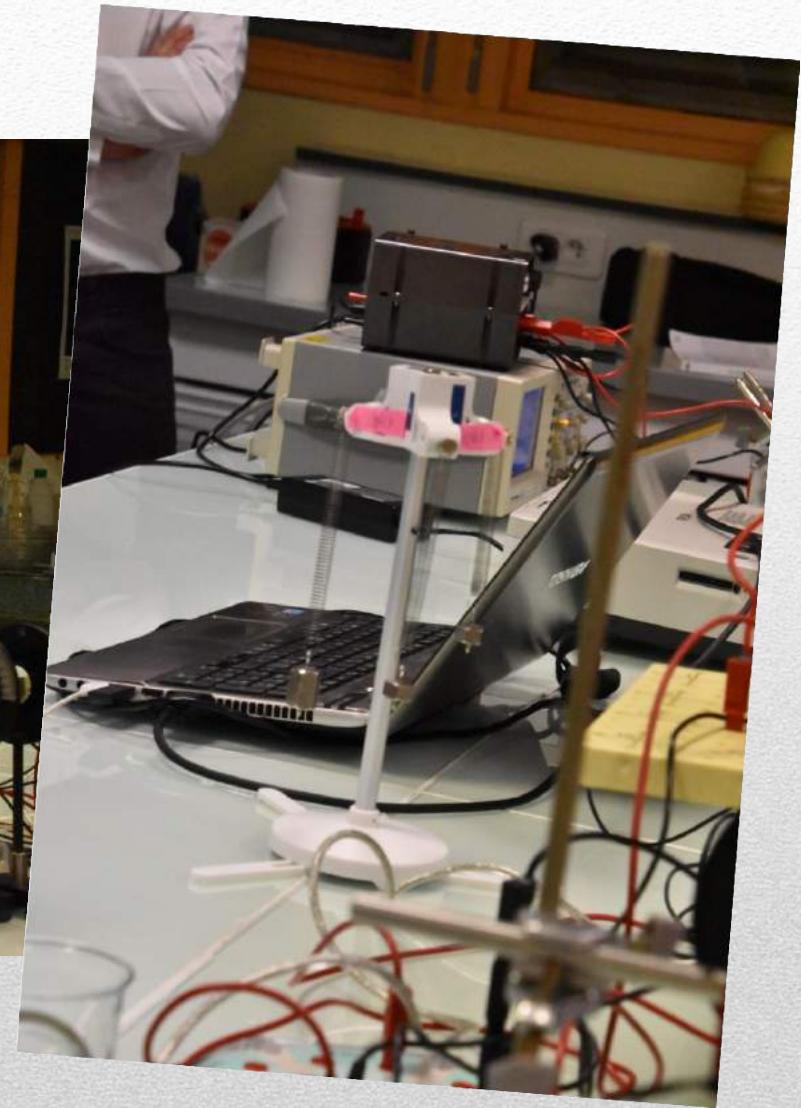
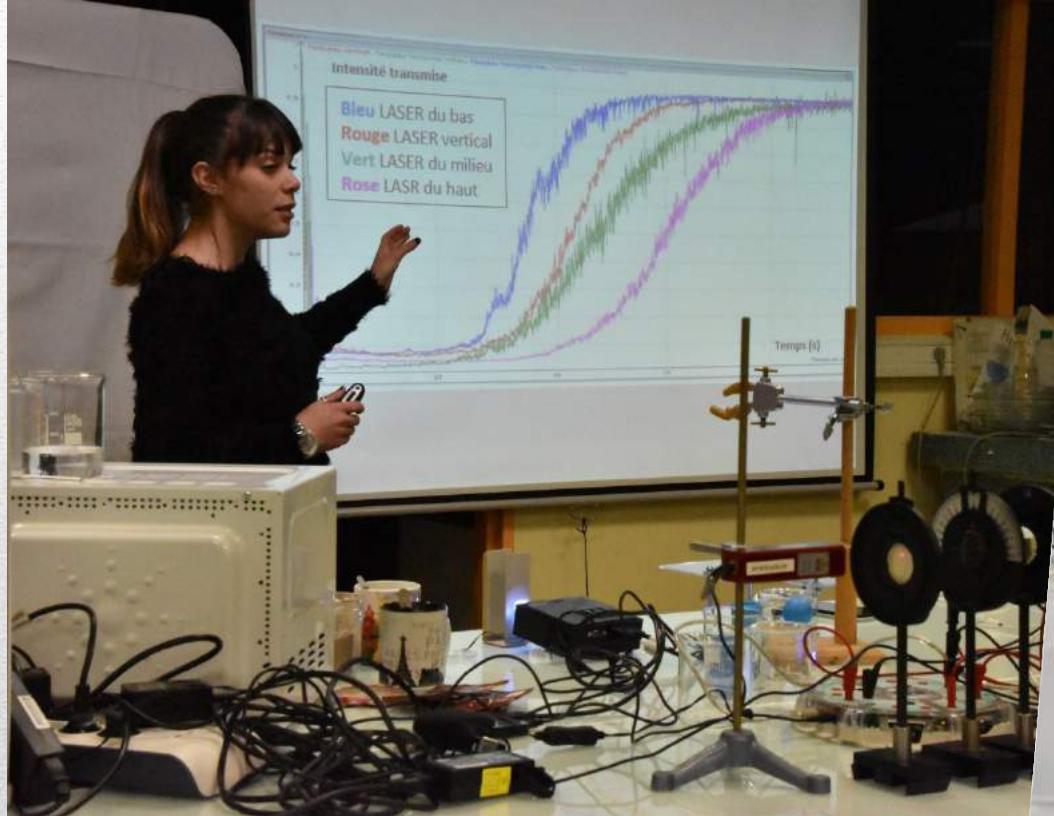
Lycée Pilote Innovant International  
Jaunay-Clan





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**1er prix :**

**Prix de la Fondation iXCore pour**

**la Recherche**

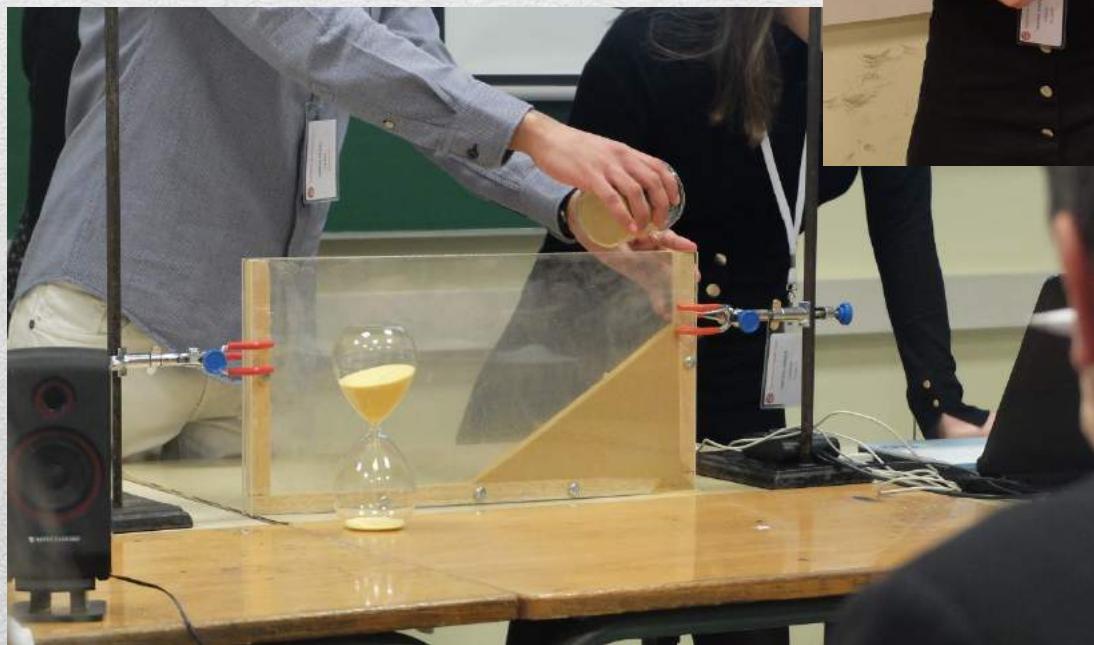


# Equipe W: Un chant impensable

Lycée des métiers Jean-Jacques Henner  
Altkirch











**1er prix :**  
**Prix de l'Education Nationale**



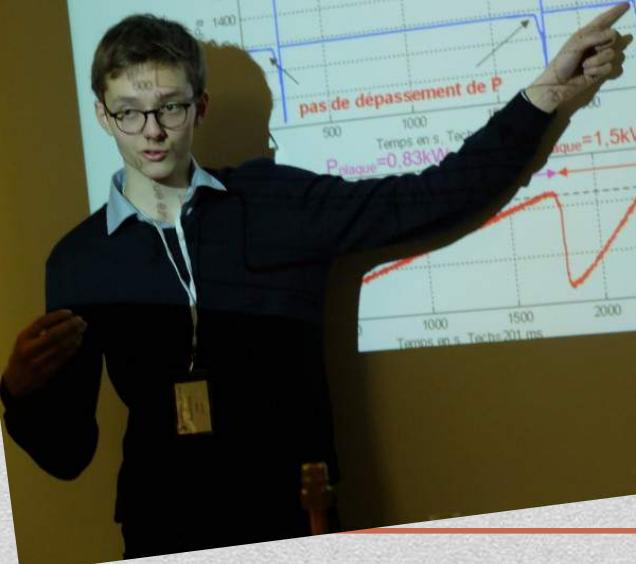
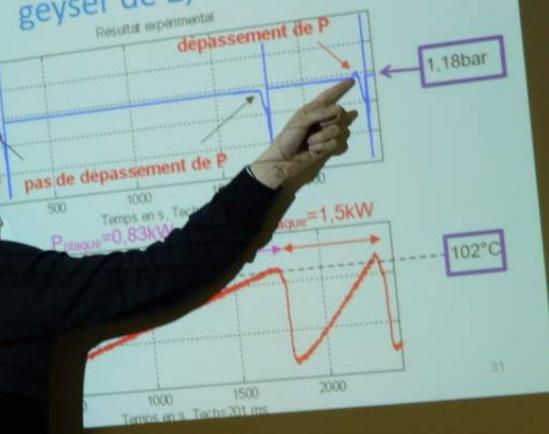
OLYMPIADES  
DE PHYSIQUE  
FRANCE

# Equipe X: Un geyser dans le jardin

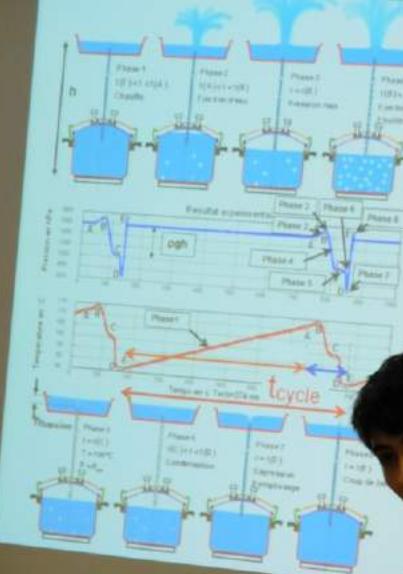
Lycée Le Gymnase Jean Sturm  
Strasbourg



## Influence de la puissance de chauffe de la plaque sur la durée d'un cycle. geyser de 2,2m



## 4. Durée d'un cycle



$$t_{\text{cycle}} = \frac{MC_{\text{eau}}(T(A) - T(E))}{P_{\text{plaqué}}} + t_{\text{éruption}}$$

