

ESPC 2018 - Ottawa (Ontario)



Selina Zhou

How Stressed Are You?

Défi: Innovation
Catégorie: Sénior
Région: Greater Vancouver
Ville: North Vancouver, BC
École: Collingwood School

Sommaire: This project evaluates the effectiveness of using skin volatile organic compound (VOC) emission as a psychological stress indicator. A VOC gas sensor was built and tested, which monitored the skin VOC emission from volunteers' foreheads. Results showed that although VOC can be indicative of stress, its performance is not similar to other existing stress indicators such as electrodermal activity, heart rate variability, and self-perceived stress.

Biographie

My name is Selina Zhou and I'm a grade 11 student from Collingwood, West Vancouver. I am an active member of my school's science club and enjoy going to competitions with my team. Besides science, I am passionate about art and giving back to my school community through working with the student arts committee and writing in our art publications Arts Mag. In my free time, I enjoy drawing, photography, table tennis, piano, and working on random projects. My project was inspired by the people around me who often complain about stress, which leads me to wonder if there's an easier way to measure people's stress level. I plan on continuing this project by expanding sample size, and if data is supportive, by developing an actual instrument. What I have learned through this project is that you shouldn't be afraid of not having enough knowledge to do what you want, because you can learn so much along the way.

Prix

Valeur

Prix d'excellence - Sénior - Médaille d'argent Commanditaire: Sciences jeunesse Canada	
Bourses de l'Université Carleton Médaille d'argent, sénior - Bourse d'admission de 2 000 \$ Commanditaire: Université Carleton	2 000,00 \$
Bourses d'admission de la Faculté des sciences de l'Université Dalhousie Médaille d'argent, sénior - Bourse d'admission de 2 500 \$ Commanditaire: Université Dalhousie, Faculté des sciences	2 500,00 \$
Prix d'admission en sciences de UBC (Vancouver) Médaille d'argent, sénior - Bourse d'admission de 2 000 \$ Commanditaire: The University of British Columbia (Vancouver)	2 000,00 \$
Bourse d'admission de l'Université d'Ottawa Médaille d'argent, sénior - Bourse d'admission de 2 000 \$ Commanditaire: Université d'Ottawa	2 000,00 \$
Bourse d'études de Western University Médaille d'argent - Bourse d'admission de 2 000 \$ Commanditaire: Université Western	2 000,00 \$
Total	10 500,00 \$