



## ESPC 2016 - Montreal (Québec)



## Biographie

My name is Zoey Jones, and I am a grade 10 student at Stratford Hall in Vancouver. Aside from my interest science, I am an actress, competitive swimmer, and horseback rider. I am also very passionate about world-wide issues, which I why I decided to try to tackle the issue of water scarcity with my project this year. Creating a water saving shower head using computational simulations in a combination with physical prototyping was a rewarding experience. I hope to move my design into full manufacturing and provisional patenting. This is my first year at CWSF, and I would recommend science fair to anyone who is passionate. It takes dedication, but the whole process is extremely worth it.

## **Zoey Jones**

## Water Saving Shower Head: Multi-iterative Design Incorporating Atomized Flow

Défi:	Innovation
Catégorie:	Intermédiaire
Région:	Greater Vancouver
Ville:	Coquitlam, BC
École:	Stratford Hall
Sommaire:	The goal for this proje

nmaire: The goal for this project was to multi-iteratively create a water-saving shower head incorporating an atomized flow. Computational Fluid Dynamics simulations were completed using ANSYS CFX to simulate multi-phase flows out of shower head designs drawn in Autodesk Inventor. A final design was reached, and this design was moved into physical prototyping and later manufacturing. The goal flow rate of below 2.5 LPM was achieved.



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