

CWSF 2016 - Montreal, Quebec



Dina Shehata

A Low Cost Phantom Model for Point of Care Ultrasound Training

Challenge: Innovation

Category: Senior

Region: Eastern Newfoundland

City: St. John's, NL

School: Holy Heart High School

Abstract: This project has produced a low-cost variation of commercial phantom models in order to support ultrasound training. This low-cost gel model has better technical specifications than the commercial models while lowering the cost to below 2% of the average commercial price. This model then can enhance medical competency in Canada and the world by providing the same quality of education for a significantly less cost.

Biography

I am Dina Shehata, a grade 11 student from Holy Heart of Mary High school in St. John's Newfoundland. I found the inspiration for the project when I first saw a human body torso model that was used for ultrasound training and cost \$26,000.00. From there I found a simpler version of the model that only simulated two vessels costing \$499.00. I myself come from a small town in Egypt where these models would be unheard of because of the ridiculously high costs, and therefore limit from there (and many other places as a result) the education these models provide. I am currently working on patenting and industrializing the model I have made by sending it to several professionals, receiving their assessment, and giving them the option to purchase my low-cost models on a regular basis rather than the commercial ones. The advice I would give to other students looking for an idea is be as innovative and hard working as possible and the results will reflect that. Other than science I enjoy a multitude of activities such as basketball, running and drawing and am also involved with several local volunteer organizations and clubs.

Awards

Value

Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	
University of Ottawa Entrance Scholarship Senior Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Ottawa	\$1 000
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
Total	\$2 000