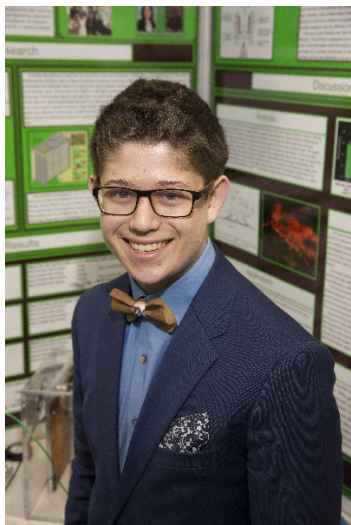


CWSF 2019 - Fredericton, New Brunswick



Jonah Leinwand

AirTree: Power Through Purification

Challenge: Environment

Category: Senior

Region: Ottawa

City: Ottawa, ON

School: Lisgar C.I.

Abstract: Wildfires are a threat to public health even after the fire has ended due to the fine particulate matter produced in the smoke. I have developed a working prototype for a filter that removes fine particulate matter from the air. This device can be flown by drone into wildfire smoke and protect the health of the community and first responders.

Biography

My name is Jonah Leinwand and I am a grade 12 student at Lisgar Collegiate Institute in Ottawa. I came up with the idea for this project at a program called SHAD, which I recommend to any high school student interested in STEM. SHAD is a program where high school students from across Canada spend a month at a university doing STEAM-based learning on a yearly theme. My annual theme was natural disasters and my design group came up with the idea for a drone that could purify wildfire smoke. After the summer I pitched my idea to a professor in the UOttawa chemical engineering project and it was a success! I have spent the past 7 months working in their labs to design, research, and test my filtration device: the AirTree. I want to continue my work on AirTree by testing in different environments that closer mimic a wildfire and find a drone to use for the piloting of the device. To other students thinking of doing a project I would say go for it! Adults want to work with youth if you've got a great idea.

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