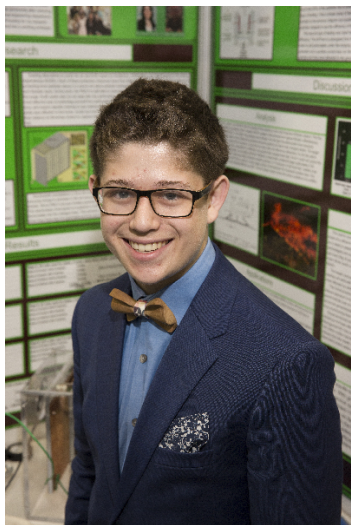


## CWSF 2019 - Fredericton, New Brunswick



### 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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