

Lexus Eco Challenge Competition

Description

The Lexus Eco Challenge is a STEM-focused contest for grades 6–12 in which student teams tackle environmental issues related to land, water, air, and climate. The project is judged based on the team's knowledge on the issue, research skills and results, awareness raised, and overall Action Plan. The competition is built on three challenges: Land & Water, Air & Climate, and an invitation-only Final Challenge. After winning the 2017 Land & Water Challenge and \$10,000 in scholarships, our student team advanced to and recently won the First Place Prize and an additional \$15,000 in scholarships.

For the 2018 Final Challenge, our 6-person team (i.e. Hunter Adams, Kimmy Chang, Austin Davis, Isabel Ferguson, Olivia Northcutt-Wyly, Ginger Simon) along with the help of other Hydrology Club students (esp. Priyanshu Swar), renamed "Fighters for Filtration", decided to extend our Land & Water project. Previously, our team, 3PAC, designed aerators that were 3D-printed out of recycled plastics our team collected in order to combat algae pollution. For the Final Challenge, the 3PAC team decided to focus its efforts on one of the most detrimental effects of algae blooms: contamination of safe drinking water. In summary, over the span of several months, our team created international partnerships with Nepal and China to send personalized and individual filtration devices to local communities lacking access to safely managed drinking water. Notably, our team partnered with the Soarway Foundation and its current executive direction, the retired Ambassador of Nepal, Scott H. Delisi, who endorsed and supported our mission. Additionally, as one of our personalized filtration device options, our team engineered a "bioswale net" that naturally filtrates sediments and contaminants in small-scale bodies of water like the Nepal communities we are working with. In China, our team is still setting up partnerships, but has received responses and interest from some organizations. With the help of Ambassador Delisi, our project has received financial support from Splash Nepal and is being advocated internationally. Currently, our team is still looking for local sponsors that could help our project and ways to publicize our project. We look forward to advancing this project in correspondence with Ambassador Delisi, and hope to provide a wider array of filtration devices that suit the needs of communities in Nepal and China in the future.

Below are some links:

Our team's website: <https://onorthcuttwyly.wixsite.com/fighters4filtration>

YouTube video: <https://www.youtube.com/watch?v=AyOhpFh1JU0>

!!! Soarway Newsletter Publication: <https://mailchi.mp/308eae7f971f/accessible-adventure-arsenic-in-your-tea-duty-and-honor-and-moreall-in-the-soarway-foundation-march-newsletterread-on?e=862d78aaad>

Recently Opened Fundraising Site: <https://www.crowdrise.com/o/en/campaign/arsenic-in-your-water-not-if-these-kids-have-a-say-meet-the-filtration-fighters-for-nepal>