Aurora Lego team headed to Internationals after wowing businesses with green solutions

A group of Aurora students is going international after wowing judges with their real-world green solutions.

The Équipe Francobotique, comprised of female students in Grades 4 to 8 was crowned Ontario Champions last month at the Ontario FLL (First Lego League) Championship, held at Durham College.

There, they showcased not just a robot they built and programmed themselves, but also pitched ways to safely and cleanly boost energy production across Ontario.

?This year's First Lego League theme is energy,? explains coach Renee Northrup. ?With the Robot Games, there are 16 missions you need to solve with your robot, all themed with energy in mind. In their innovation project, our students chose to look at how to produce energy locally using existing infrastructure in order to power our electric vehicles through renewable energy.?

One of the starting points was looking at the amount of power Ontario is currently producing.

With electric vehicles becoming mandatory by 2035, the students chose to look at the most efficient and environmentally-friendly ways to power the vehicles.

?We'll have to produce so much more power or electricity in order to charge them,? says Northrup. ?Right now, the plan in Ontario is to create another natural gas-burning power plant in order to supply that additional electricity we would need for all these additional electric vehicles on our street, but that contributes to global warming and climate change.

?Instead of building massive power plants and having to transmit electricity really far away in order to charge our vehicles, why not make use of the free energy we have from the sun and the wind? [The students] did a lot of research on solar and wind energy and they came up with the idea of using our flat roofs on our large buildings and using our lampposts in our parking lots ? big, open, exposed areas with tall lampposts. Why not put solar panels and wind turbines on top of our lampposts and put solar panels on our flat roofs??

An added component of the plan is building pergola-style structures under which people can charge their cars, with the sloped roofs of the shelter used for solar power generation as well.

As part of the competition process, the girls presented their idea to property owners, like those who operate malls and shopping

centres, with four of the proposed retrofit solutions catching the eye of participating companies.

?A lot of them are encouraged by their municipalities to look at providing green energies on site, but they're not sure how. Everyone seems to go to solar panels, but solar panels don't really work when they're covered in snow and ice, or even in air pollution,? says Northrup, adding the next thing the students will tackle is developing a calculator that companies can use to determine how long it will take for them to get payback on investing in green solutions like these.

In order to take their ideas to the Internationals in Arkansas this coming May, however, the team needs to raise $17,000, which will cover their registration, resident fees to stay on a university campus and, of course, travel ? which is no small task with a large robot.

?This is the last year for our Grade 8 students ? they're giving it everything they have,? says Northrup. ?They're excited to meet teams from all over the world and see what they've done because they're following the same First Lego League program, they have the same robot games, the same missions, and the same theme of energy. They want to see how well they can do on the world stage.?

To contribute directly to the team's fundraising efforts, visit afry.s1.yapla.com/fr/campaign-3604. Anyone interested in providing sponsorship to the team, including having their logos added to team shirts, email Equipe.Francobotique@gmail.com or visit sites.google.com/view/equipefrancobotique.

By Brock WeirEditorLocal Journalism Initiative Reporter