Bright ideas showcased at re-launched Youth Innovation Fair

From helping kids who are afraid of the dark get a good night's sleep to coming up with illuminating ways to re-purpose some of the things we stockpiled to combat COVID-19, the Skylight Gallery at Aurora Town Hall was full of bright ideas last week as the Town re-launched its annual Youth Innovation Fair.

The Youth Innovation Fair, which last took place in 2019 due to the global pandemic, brought together youth from across the GTA on Wednesday, May 15. Taking home top honours in Junior and Senior categories were ideas that quite literally shone a light on innovation.

Stardust Snugglers helped Taylor Underwood and Kingsley Matthews of Lester B. Pearson nab top spot in the Junior Category.

Stardust Snugglers appear to be simply stuffed animals by day, but by night they warm up and glow for the kids who cuddle them.

?We came up with the idea because kids are afraid of the dark and we want to fix that,? said Kingsley.

Added Taylor: ?It's a nightlight that you can actually cuddle with and we really want them to know that these ?stuffies' are good for little kids and can help them fall asleep more easily.?

The students know first-hand how difficult it can be to fall asleep when you're afraid of the dark. They had been through it themselves, they say, and younger family members can still find themselves unsettled when the lights go out.

?I have ten cousins and five of them are really little,? said Kingsley. ?When we go to the cottage together, sometimes they will wake us up really early!?

Nightlights also won the day in the Senior category when students from Toronto French School (TFS) presented the Lumine to local judges.

In 2020, when much of the world first experienced the impacts of COVID-19, one of the courses of action taken by TFS was to install Plexiglas barriers between desks to help stop the spread.

But, now that we're settled into our new normal, these students discovered the school had ?thousands? of these boards gathering dust

in storage with very little practical use. That is, until they came up with the Lumine.

?We found out that thousands of boards were being left in the storage room and were probably going to be thrown out, but our business solution to that is to reuse the boards, cut them out using laser cutters and put them together using LED boards to create acrylic nightlights,? said student Ethan Bu.

The main goal of the idea, added Aiwen Huang, is to ?reduce as much Plexiglas as we can as we realized there is so much waste.?

?The material itself, which is a polycarbonate, is very difficult to recycle,? said Huang. ?By making these nightlights, we're able to reduce the amount of waste our school has produced and, in the future, we hope to reduce Plexiglas around our local communities, including other schools, businesses, and maybe even hospitals. Additionally, we work with local artists to create our nightlight designs so their art can be spread amongst the community and we can collaborate with even more people in the community.?

The lights have been a hit within the TFS community, noted Tristan Kako.

?We have been able to talk about our projects and also sell nightlights at school events,? said Kako, adding popularity was particularly high around Valentine's Day. ?We made over 35 sales there and were able to talk to people about the mission of our project.?

?We want to continue this for as long as we can, just so we can maximize how much Plexiglas we can use up,? said Vanessa Leung. ?In the future, we're also planning to make a few more products, maybe some smaller ones. Our night lights aren't all square, so there are wasted space. We want to take that space and maybe make some small keychains. Hopefully we can grow our business and experience more entrepreneurship, more communication skills, and be able to reach out to our community.?

HONOURABLE MENTIONS

RYAN QIN ? St. Augustin CHS: Qin's innovation focused making computers and processers more energy efficient, particularly given the rise of Artificial Intelligence in day-to-day use. ?I see a lot of use for AI [but] the downside of it that nobody has been talking about is excessive power consumption. It's easy to fall into this hole that AI is good, and I agree, but I believe if the power consumption is not solved, there will be a shortage of electricity.? Qin's innovation optimizes the efficiency of voltage regulators, how chips are powered and how the chips, in turn, consume the power.?

EQUIPE FRANCOBOTIQUE: LES ROBOT-FRANCO-ZARTS ? Multi-School Team: This Francophone robotics team, which will head to the international WPI FIRST LEGO League open next month was inspired by a lack of music education in schools to create their innovation. Their solution was a universal keyboard that could be enjoyed by people of all abilities, including the visually-impaired and colourblind. ?We found that Ontario has the lowest amount of education for music in school,? said team member Madeline Northrup. ?We have no mandatory music in any grade, while Saskatchewan has mandatory music all the way through Grade 9.? Added Ayden Arabi: ?Small details all together make a big problem and we have to solve that. This has a universal design, which means it includes everyone in the design of the product.? The team is comprised of (Grade 4) Dominic James, Mila Oliveira, Ayden Arabi, Patrick Northrup, (Grade 5) Alexander Kharlanuau, (Grade 6), Hagan Pong and Madeline Northrup.

ZOEY RABINOVICH & MAELLE HAMILTON ? Highview Public School (Grade 5): Students can often find getting ready quickly and efficiently in the morning can be a bit of a chore, particularly if you have physical challenges. These young innovators developed a neat solution featuring a skateboard on a track. The idea is twofold: if you have difficulty getting up and down the stairs holding your school supplies, you can secure what you need to a skateboard to help get up and down; if you're packing your bag, you can also use it to propel what you need from the counter directly into your bag. ?I hate packing up in the morning and I just thought it would be a good idea ? and I thought of people in wheelchairs who have disabilities and this is so much easier,? said Maelle.

LUCAS AGOLLI, RYAN BOROOMAND, ETHAN MacDONALD & WINTERS ZHANG ? Lester B. Pearson Public School:

Looking to keep fit and help the planet at the same time, this group of students presented the Vacusize, a backpack that, with weights, can be used for various forms of exercise, but also equipped with small vacuums to help you pick up garbage and recyclables you might find in your path. ?Lucas came up with the idea of a vacuum combined with a backpack,? explained Ryan. ?Then I added onto the idea that maybe it could be a backpack for exercise so when you're on a walk you can put weights in it.?

SUMAYA CHAUDARY ? St. Maximilian Kolbe Catholic High School: Sumaya has always had her eye on environmental innovations and here she presented Green Roof Community Gardens, an innovation she said would help with pollution, air quality, and addressing ?urban heat islands? through making the most of roofs. ?I really appreciate gardening and that is something that is so useful,? said Sumaya. ?I found green roofs fascinating ever since I first learned about them. I put the two ideas together because people who mainly live in apartment buildings or have small back yards, they might not have the opportunity to garden and I thought that was such a sad thing. They could garden on the rooftop and that makes it a community space, it makes it easier since it is a shared responsibility. I also realized the learning experience this creates ? learning about the environment, the eco-system it creates, how to garden and leadership skills in the community. They can also be implemented on top of schools and this food can be used to teach students about the ecosystems, about healthy eating, healthy living, and how gardening is good for your physical and mental health.?

VANESSA PALAZZOLO ? Lester B. Pearson Public School: When the alarm goes off in the morning, our thoughts often immediately turn to what we have to do that day. Palazzolo's projecting alarm clock takes away much of the guess work, projecting not only the date and time, but weather and your complete agenda. ?I would always wake up and wonder what do I have to wear, I didn't even know what temperature, what day it was, and how to dress appropriately for school. I thought of this because I thought maybe I can just think of something that would project on the wall or ceiling and show you everything you have today. If you have a soccer practice or something, if you have a hot lunch at school like Pizza Fridays and subjects you have today.?

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