

The Next Generation of Problem-Solvers Revealed: Two Canadian Winners Named to James Dyson Award Global Top 20 Shortlist

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- Twenty student-led inventions have been shortlisted as global finalists in the 2026 James Dyson Award, selected by a panel of Dyson engineers.
- This year's Top 20 shortlist includes a wristband that translates sign language into speech, an AI-powered mobility cane for blind people, and a low-cost dialysis machine designed to improve access to life-saving treatment.
- Each finalist now progresses to the final stage of judging for the chance to win £30,000. James Dyson will select the 2026 global winners, to be announced on 4th November.

Today, the James Dyson Award unveils its 2026 global Top 20 shortlist, recognising student-led inventions tackling some of the world's most pressing challenges through engineering and design.

For 21 years, the James Dyson Award has championed budding engineers to transform promising ideas into inventions with real-world impact. This year's Top 20 shortlist demonstrates how young inventors are applying engineering to challenges ranging from healthcare and accessibility to environmental sustainability.

The Award's Top 20 shortlist addresses some of the world's most pressing challenges:

1. **Expanding access to healthcare:** Young engineers are developing technologies that could make healthcare more affordable, accessible and effective. In the **Philippines**, Andrew Jacob Buensalido and Allyson Cabrestante have developed [BiDaKidney](#), a low-cost, semi-automated dialysis machine designed to improve access to life-saving treatment. In **Canada**, Hyunjae Noh's [SoleTrace](#) uses AI and smartphone scanning to detect early signs of Parkinson's disease through changes in gait, while Yonatan Morocz's [AnemoSwab](#) rethinks respiratory disease testing, capturing breath particles instead of using nasal swabs.
2. **Improving independent living for disabled people:** Several finalists are helping people overcome barriers to communication and mobility. In **Germany**, Samuel Nagel and Paul Feiler created [NURA](#), a wearable wristband that translates sign language into speech. Bing He Sun's [CaneSight](#) from **Chinese Mainland** uses AI to help blind people navigate accurately to their final destination, while Erdzean Nathaniel Sybico's [VocaBuddy](#) enables non-verbal autistic children to communicate using familiar voices and photos.
3. **Building environmental resilience:** Other finalists address environmental and infrastructure challenges. In Taiwan, Yin-Rui Liao's [Reefvive](#) transforms recycled materials into coral bases that support reef restoration, while Aldrei Ong's [Sentinel](#) from the Philippines uses embedded sensors to monitor structural damage in concrete buildings following earthquakes.

This year's global finalists were selected by a panel of 12 Dyson engineers based in the UK, US, Singapore, Malaysia and the Philippines. They bring a wide range of expertise, from product design, mechanical engineering, electronics, sustainability and chemical engineering. Each invention was evaluated on its functionality, design process, originality, and commercial viability.

Kay Yeong, Principal Engineer and James Dyson Award Top 20 Judge said: *"The James Dyson Awards always attracts entries from a broad spectrum of areas, and this year no less so! This keeps things interesting, but it can be difficult to choose between say a child's toy and a geoengineering structure. My favourite entries are those that*

introduce me to problems that I didn't know needed solving and this is something that a lot of the top 20 have in common. It is precisely these kinds of thought-provoking insights that are needed to help us invent practical, everyday solutions to improve lives. I'm excited to see who takes home the global prize."

The overall global winners, selected by Sir James Dyson, will be announced on 4th November. Each winner will receive £30,000 in prize money to support the next phase of their invention.

Top 20 shortlist:

Project	Solution:	Inventor:	Country / Region:
AnemoSwab	A non-invasive breath test for respiratory diseases	Yonatan Morocz	Canada
BiDaKidney	A low-cost, semi-automated dialysis machine	Andrew Jacob Buensalido, Allyson Cabrestante	Philippines
BiliRoo	A phototherapy sling for treating newborn jaundice	Daniel John	US
Bobo	A handheld menstrual health companion	Anoushka Sawardekar	UK
CaneSight	An AI-powered navigation aid for blind people	Bing He Sun	Mainland China
Egle	An assistive mask for blind football	Gildas Bouger	France
Fixwing	A self-securing IV catheter	Shin Ding Min, Joo Songmin	Korea
mōmigo	A reusable, all-in-one breastmilk system	Nicolette Wong	Singapore
morito	A fire-free prayer tool	Masano Yu, Suda Takeharu, Yamada Hayato, Hirose Kazuki	Japan
Noli	A discreet emergency wristband for mental health nurses	Ella Flanagan	Ireland
NURA	A sign language translating wristband	Samuel Nagel, Paul Feiler	Germany
Reefvive	A recycled coral reef restoration base	Yin-Rui Liao	Taiwan
RUDHRA	A voice-controlled Braille printer	Lingampalli Himaja	India
Rumble Rims	A sideline concussion screening device	Radhika Saran, Cleo Pontone, Sophia DeVito	US
Saturn	A head-operated wheelchair controller	Seán-Jameson Galvin, Jamie Luik, Miha Arink, Lieke Neppelenbroek, Jens Peeters	Netherlands
Sentinel	An embedded earthquake damage sensor	Aldrei Ong	Philippines
Softact	A robotic breast screening system	Peng Yang, Yujie Zang, Zhiyu Xu Jianzi Ma Baohong Li	Mainland China
SoleTrace	An early Parkinson's screening tool	Hyunjae Noh	Canada
VenaLume	A vein visualiser for Intravenous Catheter insertions	Umer Farhan	UAE
VocaBuddy	A wearable communication device for non-verbal children.	Erdzean Nathaniel Sybico	UAE

James Dyson Award

The [James Dyson Award](#) is an international design competition which inspires and celebrates the next generation of design engineers. Now in its 21st year, the Award has supported more than 400 problem-solving inventions with over £1.5m in prize money. It operates across 28 countries and regions and is run by the [James Dyson Foundation](#), Sir James Dyson's engineering-education charity.

James Dyson Foundation

The [James Dyson Foundation](#), established in the UK in 2002, now supports design, technology and engineering education programmes not only in the UK but also in countries around the world, including the United States, Japan, Singapore, the Philippines and Malaysia. To date, James Dyson and the James Dyson Foundation have donated more than £155 million to charitable causes. This includes a £12 million donation to establish the Dyson School of Design Engineering at Imperial College London, an £8 million donation to support the creation of the Dyson Centre for Engineering Design and the James Dyson Building at the University of Cambridge and finally, a £7.8 million donation to fund Malmesbury Primary School's STEAM Centre and expansion project.

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NOTES TO EDITORS

The [James Dyson Award](#) forms part of a wider commitment by Sir James Dyson, to demonstrate the power of engineers to solve the world's problems. The competition has supported more than 400 inventions with prize money and a chance to gain global media exposure, and is run by [the James Dyson Foundation](#). Founded in 2002, the Foundation is an international education charity whose mission is to inspire the next generation of engineers. The Foundation also invests in medical research and has donated more than £145m to charitable causes to date.

ABOUT THE COMPETITION

The brief. Design something that solves a problem. This problem may be a frustration that we all face in daily life, or a global issue. The important thing is that the solution is effective and demonstrates considered design thinking. Unlike other competitions, participants are given full autonomy over their intellectual property.

The process. Entries are judged first at the national level by a panel of external judges and a Dyson engineer. Each operating market awards a national winner and two national runners-up. From these winners, a panel of Dyson engineers then select an international shortlist of 20 entries. The top 20 projects are then reviewed by Sir James Dyson who selects his global winners.

The 2026 prizes

- Global winners, chosen by Sir James Dyson, each receive a prize of £30,000.
- Each national winner receives £5,000.

Previous global winners

- [2025 Medical Winner – OnCue](#)
A smart, assistive keyboard for people with Parkinson's
- [2025 Sustainability Winner – WaterSense](#)
An autonomous water quality monitoring device.
- [2024 Medical Winner – Athena](#)
A portable and affordable hair-loss prevention device for chemotherapy patients.
- [2024 Sustainability Winner – airXeed Radiosonde](#)
A reusable, nature-inspired sensor to improve weather forecasting and tackle e-waste.
- [2023 International Winner – The Golden Capsule](#)
A hands-free IV device for disaster zones.
- [2023 Sustainability Winner – E-COATING](#)
A sustainable exterior wall coating with a high cooling effect, reducing environmental costs of air conditioning.
- [2023 Humanitarian Winner – The Life Chariot](#)
An off-road trailer ambulance for universal towing.
- [2022 International Winner – SMARTHEAL](#)
A smart sensor for dressings which indicates how well a wound is healing by measuring its pH level.
- [2022 Sustainability Winner – Polyformer](#)
A machine that recycles plastic bottles into affordable 3D printer filament for developing nations.

James Dyson Award on social media

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