Filipino engineer Aldrei Ong wins the 2026 James Dyson Award global Sustainability prize

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News

Filipino structural engineer Aldrei Ong, a De La Salle University (Manila) alumnus, was named the 2026 James Dyson Award global Sustainability winner for 'Sentinel', a low-cost building-damage sensor (reports of 4 Nov 2026). It turns the ordinary concrete spacer block, which holds steel bars in place during construction, into 'self-sensing concrete' mixed with conductive materials; a crack changes its electrical resistance, and the data are sent wirelessly to an online dashboard. Prize: £30,000 (about PHP 2.39 million). The global Medical winner is 'Rumble Rims' by Harvard students – an infrared eye-tracking headset for concussion screening.

Key facts

Winner	Aldrei Ong – structural engineer, De La Salle University alumnus, Philippines
Invention	'Sentinel' – self-sensing concrete spacer block; detects cracks through change in electrical resistance
Prize	£30,000 – for each global winner (two categories)
Medical winner	'Rumble Rims' – Harvard students (Radhika Saran, Cleo Pontone, Sophia DeVito)
Entries	2,294 entries from 28 countries and regions in 2026 – a record

Eligibility	Design and engineering students and recent graduates; winners chosen by Sir James Dyson

Background

- Award: the James Dyson Award is an international engineering-design prize named after British inventor Sir James Dyson (born 1947). In 2002 he set up the James Dyson Foundation to draw young people into engineering. His best-known invention is the 'Dual Cyclone' bagless vacuum cleaner.
- Filipino precedent: the first-ever Sustainability prize (2020) went to Carvey Ehren Maigue of Mapúa University, Philippines, for 'AuREUS', a crop-waste material that turns UV light into electricity.
- Geography: the Philippines is an archipelago of over 7,000 islands; capital Manila. Lying on the Pacific 'Ring of Fire', it faces high earthquake and volcanic risk; Pacific tropical storms there are called 'typhoons'. A scenario of a magnitude-7.2 quake in Metro Manila killing about 48,000 people is the backdrop to the invention.
- Science: Structural Health Monitoring uses sensors on bridges and buildings to track cracks and damage continuously, helping engineers decide quickly whether a building is safe after an earthquake.

Tamil Nadu link: CSIR's Structural Engineering Research Centre (CSIR-SERC) has worked at Taramani, Chennai, since 1965 – researching structural design, analysis, testing and rehabilitation, and the safety and resilience of infrastructure.

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