

RED HOT RED DOT WINNERS

Seven entries from Singapore have clinched the Red Dot Award: Design Concept accolade, with one making it to the Best of the Best finalist line-up



Chantal Sajan
Senior Correspondent

Seven novel design concepts from Singapore have won the Red Dot Award: Design Concept accolade, which saw 4,080 entrants from 47 countries participating in the annual competition.

They are part of a total of 326 international award winners announced on Tuesday in two categories – 288 Red Dot winners and 38 Best of the Best semi-finalists.

Five finalists from the Best of the Best category from Singapore, South Korea, Taiwan and two entrants from China went on to compete for the highest recognition, the Red Dot: Luminary award, at a gala presentation ceremony at the Red Dot Design Museum in Marina Bay on Tuesday.

The top prize went to South Korea's Hyundai Global Design Center for its Trailer Drone design concept, a driverless platform for the future which combines fuel cells, trucks, trailers and robots in a single platform.

Singapore was represented by designers from local studios and industrial design students from the National University of Singapore who won six Red Dot awards. Only one firm, Schaeffler Singapore, made it to the Best of the Best finalist line-up.

The Red Dot Award: Design Concept is organised by a Singapore team led by Mr Ken Koo, Asia president of Red Dot and creative director of the Red Dot Design Museum.

The awards can be traced back to 1955 in Germany, when it began as an annual national design competition to help make the country's consumer goods fit for export.

The Red Dot award is segmented into three design disciplines – Product Design and Brands & Communication Design, which are held mainly in Europe; and Design Concept, organised annually in Singapore.

Only about 7 per cent of the entries submitted by companies, design studios, research institutions and designers were selected for their design merit by 2022's Red Dot jury, comprising an international team of design experts who are mainly academics, design studio heads and editors of design publications.

The Red Dot Award: Design Concept is one of the toughest design prizes one can win in the world today, says Mr Koo, who was appointed Asia president in 2005.

He says that a clever solution is not enough to win the Red Dot

award. Sophisticated and well-executed industrial design projects that also evoke an emotional response from the user stand a better chance, especially if their efficacy can be extended via the Internet or through artificial intelligence.

"Instead of focusing on the present woes, our winners... impressed the jury with their imagination of a bright future that is fabricated with objects and services that range from simple pleasures to advanced technologies."

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• View the winning designs and more than 300 exhibits from previous years at the Red Dot Design Museum at 11 Marina Boulevard, or check out online updates at str.sg/wrzw and red-dot.sg

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BEST OF THE BEST



PHOTO: RED DOT
DESIGN AWARD

Dex by Schaeffler Singapore

One of the standout features of the Dual Extendable autonomous mobile robot, simply called Dex, is its ability to understand not only verbal but also non-verbal cues.

A user simply needs to stand in its path, and it will know that it has to be ready to receive instructions. It can also be controlled using hand gestures, further reducing the complexity of interacting with a robot.

Its maker, Schaeffler Singapore, is the winner of the Red Dot: Best of the Best award, the highest accolade in the Red Dot Award: Design Concept category. Singapore is the regional headquarters of the company, which is part of the Schaeffler Group, a German supplier in the fields of motion and mobility.

Mr Han Boon Siew, leader of the design team which comprised eight members, says a multidisciplinary approach is needed to plan for the

world's future in a post-pandemic world.

"We need roles to come together to tackle the complexity of recovery and generate continuous knowledge," says the 44-year-old, who is the director of the Schaeffler Hub for Advanced Research at Nanyang Technological University and head of advanced research and innovation for Asia-Pacific.

"This design concept is the result of breaking down the silos between two disciplines – design and engineering – and showing that we can build on one another's expertise to deliver innovative products. We also hope to show the versatility of design, demonstrating that when you put a designer in a field that traditionally had none, we can conceive new ways of thinking."

At its core, Dex was developed with human-robot interaction at

heart, he says.

Firstly, in its mechanical design, Dex aims to support workers' safety and ergonomics using its ability to raise its platform to reduce lifting distances. Secondly, in its software design, Dex's programmed navigation focuses on transport, mission completion, and safe interaction with humans and other vehicles throughout its desired path.

Finally, on the industrial design front, the design reimagines the relationship between a shop floor employee and Dex, as if it were a bond between a rider and horse.

Mr Han says: "Its concept direction conveys a feeling of agility and robustness that uses visual cues from automotive design to create a sense of wonder and excitement for the user."

RED DOT WINNERS on C2

RED DOT WINNERS

The Passerine Chair by Amos Goh

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Chairs that are made the industrial way usually end up being discarded after years of use.

But what if the chair is designed with fully replaceable and recyclable parts, and retailers can provide this as a value-added service for a profit?

This was what local industrial designer Amos Goh, 35, set out to do two years ago when he launched a sustainable home and lifestyle brand called Studio Bulbul with Singapore-based Korean designer and co-founder Shin Hyang-eim, 34.

In early 2022, he submitted one of Studio Bulbul's concepts called the Passerine Chair for the Red Dot Award: Concept Design accolade.

The chair has since made it to production and retail on the brand's website (bulbul.sg) for \$330. Passerine refers to bird species that perch on branches and ledges.

Its design is inspired by this posture, as seen in the joinery of the chair's backrest which appears to be perched on metal branches. All its components are made without the use of harsh chemicals and are de-



signed to be replaceable to ensure the seat is ready for a lifetime of use.

"The reality of furniture today in Singapore is that once it is spoilt, it is most likely to be discarded because repairing it will probably cost more than buying a new one,"

says Mr Goh. "The Passerine Chair is a sustainable concept that make sense not only for us as responsible buyers, but also for businesses to adopt."

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R3 Vac by LionsBot International

Lead designer Tan Wei Hua of LionsBot International, a home-grown maker of industrial cleaning robots, wanted more than just a functional robot for his design concept for the Red Dot global call for entries to its annual competition in 2022.

He worked with a team of five other designers and engineers to come up with a vacuuming robot that could make expressive faces on its screen display, that is easy to operate and could do its work with less noise than conventional vacuum cleaners on the market.

"The current labour shortage has been an unexpected effect of the pandemic," says Mr Tan, 30, who has been working as a designer in LionsBot since 2020. The company started in 2018, designs and manufactures robots for heavy-duty cleaning in malls and public spaces such as museums.

He adds: "In the cleaning industry, workers already having to deal with mental tasks were further put at risk due to the nature of their jobs, which require them to come into contact with surfaces. The R3 Vac is designed to lower the barriers to entry for the deployment of robots in industrial cleaning, while providing



superior cleaning performance."

He says the R3 is designed to be as easy to use as consumer electronics, with intuitive physical and digital touchpoints as well as controls that can be operated by users who have a basic level of technology literacy.

It is also driven by a "sparkling personality," displaying a range of expressions that endears it to its user and passers-by.

"We wanted a cleaning robot that brings smiles to everyone in the public spaces it cleans."

Verdure urban farming by Chong Zi En and Ong Kah Min

Two design students from the National University of Singapore (NUS) have devised a way to recycle rainwater for a self-sustaining watering system that transforms concrete spaces into vertical farms and gardens.

The modular concept called Verdure won Mr Chong Zi En, 25, and Ms Ong Kah Min, 23, from the NUS Division of Industrial Design the Red Dot Award: Design Concept accolade.

Ms Ong, design lead at the division's Communication Design Hub, says the idea to introduce nature into high-rise environments, such as along the corridors of a Housing Board block of flats, came about while working on a class project.

The students were tasked to improve everyday lives by creating "pockets of engagement" with the community using greenery, designed to improve living conditions for both young and old.

"Verdure is designed to be cost-effective and can be customisable to adjust to a comfortable height for people to care for their plants," says Mr Chong, a fourth-year NUS industrial design student.

"We believe that the concept is important for the community, especially in a post-pandemic reality, because we are beginning to take baby steps back to our old ways of socialising. By creating green rooms to foster harmony between people and nature, we can improve our everyday lives."



Verdure is a modular concept that can be customised and is designed to be cost-effective. PHOTOS: RED DOT DESIGN AWARD, STUDIO BULBUL

Rune Modular Smart Table by Mok Zijie

Design student Mok Zijie found his eureka moment when he stepped back and saw the clutter on his table from both his work and leisure pursuits.

Amid the chaos of design implements, crumpled-up paper and assorted electronic devices, he found a sense of order.

"I wanted to design something that helps us manage our hybrid working environment at home, but without the mess," says the 25-year-old student at the National University of Singapore's Division of Industrial Design.

He created a design concept called Rune, which is a modular smart table that has slots across the table to house a variety of modules of varying sizes, such as lights, speakers and storage components. Rune connects these modules through a remote control device, which contains presets that alter the configuration of the desktop.

For instance, if the user has to study, the table can be programmed to a desired format with magnetic attachments that snap into place for the appropriate set-up. If it is to be used to play video games, the table format can be altered through the smart device to allow more elbow room to accommodate items such as microphones and headgear.

"I believe that in this post-pandemic reality, hybrid working environments are the 'new normal,' says Mr Mok. "While people need a place at home for their work, they should also be able to alternate between living, working and playing seamlessly."



FastClic Baby Milk Warmer by Allen Lai

Hungry babies can be angry babies.

Parents have a lot on their minds when it comes to feeding babies – the milk must not be too hot, as it may affect the nutrients, or be too cold, which might not be palatable.

One person who knows that only too well is Mr Allen Lai, chief executive and founder of local firm Intuito Home, which designs and manufactures home automation products. The firm is planning to release a series of baby products in the next 12 months.

Mr Lai, who has an engineering background, founded the company in February after 20 years of product design experience.

Earlier in 2022, he designed a portable milk warming bottle that combines a cap that conducts heat, a flexible printed circuit heater and an integrated temperature sensor to enable rapid heating. It is de-



signed to be operated with just one hand.

The milk bottle's safety features include a tilt sensor that ensures the warmer does not heat up when it is tilted and a magnetic sensor

that prevents the warmer from running dry and damaging the heater.

The bottle is also paired with an intuitive app that allows busy parents to select one of three warming

settings: "breast milk", which is quick but gentle in its heating function; "frozen", for rapid heating; and "maintain", to maintain milk temperature. The app also sends an alert when the bottle is ready for feeding.

Mr Lai, 43, who is married to an entrepreneur, conducted several interviews since February with about 10 mums and dads before producing prototypes of the milk warmer. He also obtained testimonials from nursing mothers for the prototype before he finalised the design.

He is planning to sell the device at a promotional price of \$120 on the firm's website (intuito.com) and in physical stores by year-end. "FastClic is a breakthrough in the design and manufacture of milk bottles for warming purposes," he says.

"We set out to design a soft-gel flexible heater that takes just two minutes to warm milk and can warm up to 15 bottles of milk on a single charge using four rechargeable batteries. It also designed so other members of the family can easily help out with warming milk."

Tilt hairdryer by Siew E Ian

Design student Siew E Ian came up with an ergonomic hairdryer designed for those with limited arm mobility after observing a family member struggling to operate a conventional one.

"As hair grooming and drying are such necessities, I was driven to provide a simple yet elegant solution to improve the experience for those with disabilities," says the fourth-year industrial design student at the National University of Singapore.

Called Tilt, his design is a wall-mounted system featuring a hairdryer which can be operated by people with limited mobility in one or both arms. "Design concepts like these promote inclusiveness in society," says Mr Siew, 23, who believes inclusive design is the way forward for designers who are focused on innovations that impact society.

"Although my concept was initially for people with limited arm mobility, Tilt can also assist seniors and improve the overall experience of able-bodied people."

