Small spider-shaped robots bag Singapore Design Mark

A spider-like robot is among the projects that have been awarded the Singapore Good Design Mark

Cara Wong  
(mailto:carawong@sph.com.sg)

A spider-like reconnaissance robot and a rounded toilet bowl devoid of crevices are two of 36 projects that have been awarded the Singapore Good Design Mark this year.

Launched by the Design Business Chamber Singapore (DBCS) in 2013, the mark aims to recognise well-designed products and services. So far, 176 projects have received the award.

While this year's showing is smaller than last year's, when there were 45 winners, DBCS president Tai Lee Siang notes that the quality of projects has improved.

"I see higher standards of design. There's been stiff competition in the last two years and people have to work harder to get to where they are," says Mr Tai, who attributes the smaller pool of entries to the economic slowdown.
Entries are judged according to six criteria, including sustainability, which means that projects had to minimise their environmental footprint.

The mark aims to show the public what good design is and that the concept of design is beyond aesthetics, says Mr Tai. "People still have a very narrow definition of design. They think that design is about interior or aesthetic design, but everything that you can see, touch and feel has an element of design."

Here are five winning works.

1 WATERWAY TERRACES I & II BY HDB

Inspired by paddy fields around South-east Asia, this Housing Board project features a terraced design, providing inhabitants with panoramic views of the nearby Punggol Waterway:

It is the first HDB project near a waterway to have a rain garden on the circumference of the blocks, which helps filter and purify rainwater before it enters the waterway.

With solar panels installed on the taller buildings, the HDB blocks are self-sustainable in energy as the solar panels alone can power the lighting of the project's public areas, such as the void decks and corridors.

This project was designed by architecture firms Aedas and Group8asia. The design will inspire other similar housing developments along waterways, says HDB's deputy director of design implementation, Mr Quek Ser Bock, 50.
When faced with hazy conditions, many will choose to take a break from exercising outdoors.

However, when faced with that problem in China, Airmotion Laboratories’ founder chose instead to come up with this face-mask solution.

Fitted with a PM2.5 filter, which is able to keep out the smallest polluting particles in the air, the mask comes with a tiny built-in fan that allows more air to pass through the replaceable filter.

This allows the user to breathe in more air at a go, says its designer Leonard Tan Bahroocha, 41, who developed the product with the maskmaking company’s founder Bibi Ho, 46.

The mask is designed to fit the user’s face securely to ensure that no polluted air is let in. Other user-friendly features include adjustable straps that go round the back of the neck instead of at the ears, so it does not interfere with eyewear.

The mask is available at www.falconpev.com.sg and retails at $98, but is now out of stock.
3 SCORPIO URBAN RECONNAISSANCE ROBOT BY SINGAPORE UNIVERSITY OF TECHNOLOGY AND DESIGN

This invention seems to have come out of a science-fiction novel as the spider-shaped robot is the first of its kind to be able to crawl, climb walls and roll.

Specially designed for urban reconnaissance missions, the 12cm tall robot is capable of taking photographs and mapping out areas in 2D.

Created by a team from the Singapore University of Technology and Design, the robot will help ensure the safety of its security personnel.

The design was inspired by an endangered spider species, says the project’s head researcher, Dr Mohan Rajesh Elara, 34.

"We looked to nature to extract design principles," he says, adding that the robot’s rolling feature was inspired by the spider’s ability to roll down surfaces with minimal effort.

Despite the complexity of its design, the robot can be operated easily through a mobile application, he says.

For more information, go to temasek-labs.sutd.edu.sg
4 PHILIPS MOBILE HEALTH MONITOR BY PHILIPS

Unlike bulky, kiosk-like health monitoring stations used by healthcare providers, this portable health monitor was designed with ease of use in mind.

Measuring about 30cm in height, the device can be easily deployed by healthcare personnel and be used to monitor a user’s key vital signs, such as blood pressure and weight. This data can then be transmitted to a community nurse through the device’s software.

To use the device, a user taps his identity card at the side and the screen will display his health profile. The device also has Bluetooth capabilities, enabling it to work with other measuring devices.

"Even though the functionalities aren’t novel, by bringing them together in such a cohesive package, the Mobile Health Monitor stands out as the first of its kind," says the project’s lead designer Nigel Geh, 27.

http://www.straitstimes.com/lifestyle/home-design/singapore-designs-make-their-mark