



INCUBATOR

WINNERS 2017

ONE OF THE MOST OUTSTANDING INITIATIVES AT DesignBUILD 2016 WAS THE FLEDGLING INCUBATOR PROGRAM. IT WAS SUCH A SUCCESS THAT IT WAS BROUGHT BACK FOR THIS YEAR'S EVENT. WITH A SELECTION OF THE WINNING AND OTHER NOTABLE ENTRIES INVITED TO THE EVENT TO DISPLAY THEIR INNOVATIVE PRODUCTS AND PROJECTS. AR WENT ALONG TO CHECK OUT THE WINNERS



HOME*3

There are many homeless organisations offering services, but the HOME*3 (pronounced 'Home Cubed') provides the homeless with what they really need – a home of their own and one they can build themselves, thus empowering them greatly. They can own their own home, and all that that means in our society – safety, security, pride and belonging. Because the HOME*3 can be easily constructed and deconstructed, it can be readily moved to wherever the owner desires. This functionality is particularly desirable for Indigenous communities, which are generally more mobile. It is envisaged that the basic HOME*3 will cost under \$2000 and that sites for the HOME*3 would be provided by governments to make use of underutilised land. The concept was developed by team leader, David Nelson, a recent chemical engineering and physics graduate from the University of Queensland. "I was inspired by my trip to India surveying over 50 slum communities and I would love to see it get to that market – to transform people's lives over there," he says.



THE BUSINESS OF ARCHITECTURE

LED TRANSPARENT SCREENS BY AUROLED AUSTRALIA

AuroLED is a LED lighting design company, which has developed and manufactured the smallest high light emitters in the market. Using these tiny LEDs, AuroLED has developed the first transparent LED screens giving HD resolution on one side and transparency on the other. The screens offer up to 90 percent transparency, are lightweight, require little maintenance and are customisable for retrofits or new builds – easily controlled from an iPad or PC. "It allows us to put a screen behind glass, similar to a Venetian, and that allows light to transfer into the space, so it's still lit up by natural light, but on the outside of the building you've got a high resolution TV screen," says AuroLED's Stephen Webb. "It's only been available for a couple of years. There have been some fantastic applications in cities in China where they've installed it into, for example, 30 buildings of 20 or 30 storeys at a time, so the whole building becomes a TV screen, which is phenomenal."



top left
Home*3
bottom left
Flexitec by
Plastec
above
Lumes
by Eness

LUMES BY ENESS

Lumes is a light-emitting wall system that takes light out of the ceiling and transforms it into a surface of colour, light and interactive visuals. It's built on or into the wall, seamlessly integrating with the interiors of each architectural design. Lumes affects mood and emotion, with a recent hospital project aiming to reduce anxiety for children. It uses in-built software, which programs light to respond to human motion and interaction. "It can be an art piece or it can be an ambient way-finding system – a nice way of guiding people in a non-invasive way," says Larissa Lal-Ponni, marketing and content lead at ENESS. "We're using the sensor used in self-driving cars to power the interactivity and the LEDs are programmable. We know what it can do as a base, as a software. We'd like to match what it's capable of with what architects and designers are looking to do artistically in their spaces."

INTELLI PARTICLE

Intelli Particle invents, manufactures and licenses a special formulation of industrial carbon and graphite particles (exothermic coating) that create heat when provided with a low charge. It can be used in small amounts and utilised within the composition of a variety of construction materials, products, household fixtures, fittings and appliances that require heat or produce heat. Intelli Particle has successfully been incorporated into paint, polymers, resins, concrete, fabric and glass. "It's fundamentally a conductive, carbon graphite paint," says Greg Hancock, general manager at Intelli Particle. "We've worked the particulates so you can put it into a glass paste; it can be screencast in ink. Applications are underfloor heating, wall heating, even eventually hopefully printed onto clothing, so you can put a small battery in your clothing and heat your clothing up."

FLEXITEC BY PLASTEC

PVC plumbing systems are extremely rigid and in poor or unstable soil sites are susceptible to movement, often resulting in broken pipework leading to expensive repair costs. Australia's ever-changing atmospheric conditions, tree planting and even seismic activity are placing our drainage systems under stress. Although several products in the market and correct methods of installation have been beneficial in reducing risk, there is nothing equivalent to Flexitec, which can deflect, twist, torque, expand and contract. "Basically it's two compounds injection moulded together to form one, so it's almost a welded joint, although it looks like it's a rubberised product and that's what gives it its unique flexibility," says Chris Ferguson, product specialist at Plastec. "Unlike other flexible joints, which are mechanical in the way that they are manufactured and perform, this is uniquely simplistic in nature." **ar**

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