3D printer-cum-scanner is unveiled at AAAS meeting

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Nanyang Technological University (NTU Singapore) start-up, Blacksmith Group has launched the world’s first compact 3D printer that can also scan items into digitised models.

Named the Blacksmith Genesis, this user-friendly device allows users without much knowledge of 3D software to scan any item, then edit the digitised model on the computer and print it out in 3D.

The all-in-one 3D printer and scanner whose production was financed through a crowdfunding campaign on Indiegogo.com, was unveiled on Saturday (February 14) at the American Association for the Advancement of Science (AAAS) Annual Meeting in San Jose, California.

The first batch is now ready to be shipped out in March to early adopters who supported Blacksmith Group’s crowdfunding campaign.

Housed in a black aluminium casing, the high-tech device, weighing 6kg, features a 2in LCD display, Wi-Fi, an integrated SD-card reader and a USB connection for instant printing.

Blacksmith Genesis uses a novel rotary platform for its printing and scanning, unlike other commercial 3D printers. This patent-pending system allows for true 360-degree scanning, and can print items up to 6,650 cm³ (about 6.5 litres), twice the size of those printed by other similar-sized 3D printers.

Reproduction resolution is 50 micrometres, while scanning objects with its 5 megapixel camera takes only 8 minutes. Blacksmith Genesis also features remote live monitoring and automatic error detection thanks to its in-built camera. This allows users to monitor and control the printing process on their smartphone from anywhere in the world via the Internet.

The device is the brainchild of Blacksmith Group’s founders, NTU engineering graduate Dr Alex Pul Tze Sian and Mi Fang Kok Boon. Mi Fang, CEO of Blacksmith Group, said their aim is to make 3D printing easy and accessible to the average consumers.

A pre-order site has been launched here.