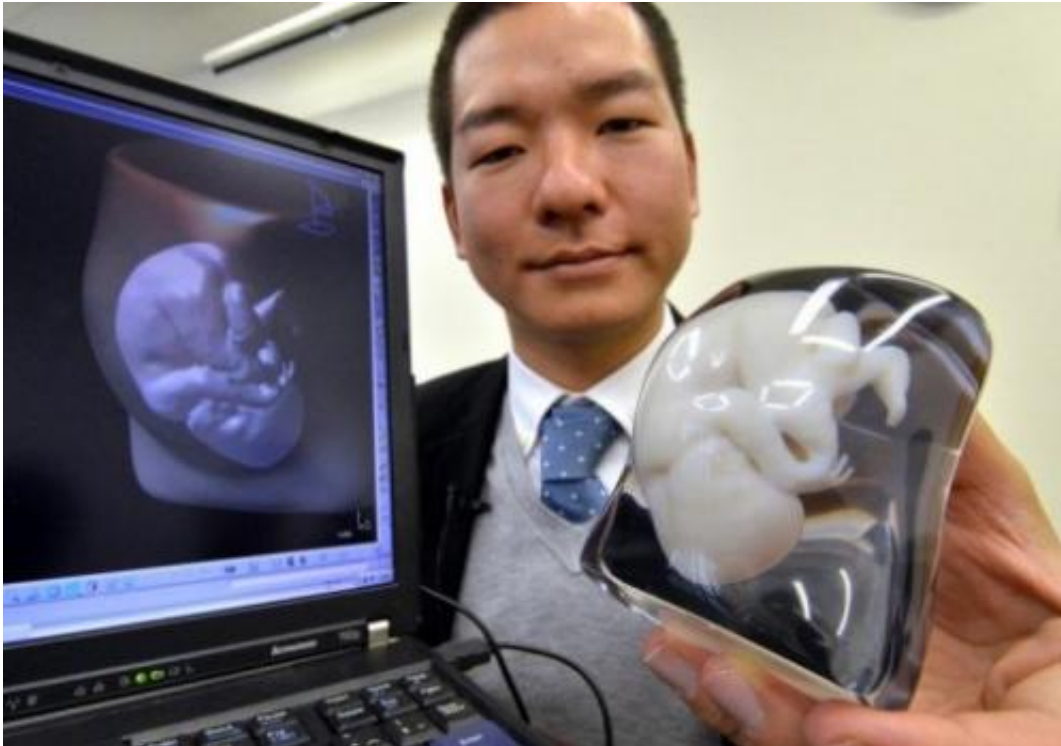


Japan firm offers 3D model of foetus

November 27 2012, by Miwa Suzuki



This photo, taken on November 26, shows Japan's 3D computer-aided design (CAD) venture Fasotec employee Tomohiro Kinoshita displaying a nine-month fetus and mother's body image, made of two-colour acrylic resin at the company's headquarters in Chiba, suburban Tokyo.

Expectant parents in Japan who can't wait to show the world what their baby will look like can now buy a three-dimensional model of the foetus to pass around their friends.

The nine-centimetre (3.6-inch) resin model of the white foetus, encased in a transparent block in the shape of the mother's body, is fashioned by a 3D printer after an MRI scan.

"As it is only once in a lifetime that you are pregnant with that child, we received requests for these kind of models from pregnant women who... do not want to forget the feelings and experience of that time," said Tomohiro Kinoshita of FASOTEC, the company offering the service.

The "Shape of an Angel", which costs 100,000 yen (\$1,200), comes with a miniature version that could be a nice adornment to a mobile phone, he added. Many young women in Japan have decorations attached to their cellphone strap.

The company said the ideal time for a scan is around eight or nine months into the pregnancy.

For those who would like a less pricey version, the company will start offering a 3D model of the face of the foetus at 50,000 yen in December.

It will use ultrasound images taken at a medical clinic in Tokyo that has forged a tie-up with the company.

FASOTEC, originally a supplier of devices including 3D printers, uses a layering technique to build up three-dimensional structures. The technique has been touted as a solution to localised manufacture on a small scale.

The company also produces 3D models of internal organs that can be used by doctors to plan surgery or by medical students for training, a spokesman said.

It is also possible that models can be used in hospitals to better inform patients what their problems are, instead of relying on difficult-to-understand diagrams.

The technology "realises not only the form but also texture of the model—for example making it hard or soft", the firm said in a statement.

"By making a model that is similar to a real organ or bone, one can simulate operations and practise different surgical techniques."

Kinoshita said the company hit upon the idea of making 3D models of unborn babies in the hope that people would become more aware of the technology.

The company said some medics could also foresee diagnostic possibilities with the models that may help predict difficulties in the birthing process.

Three-dimensional printers have been around for several decades but advances in the technology mean it is now gaining in popularity in several fields.

The machines work in a similar way to an inkjet printer, but instead of ink they deposit layers of material on top of each other, gradually building up the product they are making.

Where traditional manufacturing only becomes efficient with economies of scale because of the need to produce moulds, 3D printing is capable of producing single copies of relatively complicated objects.

The technology is not yet advanced enough to build telephones or computers but it is already used to make components.

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Citation: Japan firm offers 3D model of foetus (2012, November 27) retrieved 6 May 2024 from <https://medicalxpress.com/news/2012-11-japan-firm-3d-foetus.html>

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