SURGICAL TRAINING

3D-printed simulator for surgical training in the correction of congenital heart malformations

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What we are looking for

We are looking for a suitable partner to enter into license deal/co-development partnership

What it is needed for?

In recent years the evolution of 3D printing has allowed the use of materials that reflect well *in vivo* conditions.

The present invention describes a 3D-printed simulation device having a compact size and light weight, that allows surgeons to practice the correction of congenital heart malformations, especially the pediatric ones.

This is a significant improvement over simulators on the market which consist in rigid, bulky and static structure devices not suitable for the training of a multitude of pediatric cardiac malformations.

Additionally, the simulation device aims to shorten the learning curve of inters and doctors and to refine their surgical technique due to practicing on 3D-printed models of rare and complex heart malformations.

Advantages

- Compact size and light weight of the simulator;
- Easy to transport;
- Low cost of production and maintenance;
- Training with different types of surgical accesses and pediatric cardiac malformation models;
- Different tilts and angles of surgical approach due to tripod.

Applications

- Cardiac surgery training in Universities, Hospitals and Private structures;
- Training and specialization courses for interns and doctors.

TRL scale

Health and Biomedical

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