

All eyes are on 3D Printing for Healthcare

The brief:

The fastest growing industry in 3D printing is Healthcare. As 3D technologies become more mainstream, there has been an increased demand for 3D printed replacement prosthesis.

The challenge:

Thousands of people in the developed world require artificial eyes; even more so in developing countries. Prosthetic replacement can significantly enhance a patient's quality of life and employability. Previously replacement and repair for prosthetics was invasive and costly. Creating ocular prosthesis was particularly time-consuming as glass and acrylic eyes were painstakingly hand-crafted.



The solution:

3D printing technology has enabled realistic prosthetics to be created at a fraction of the price.

Artificial eyes are created quicker and more cost effectively than traditional techniques, which require inherent artistic ability and intensive training. The device we've developed requires no painting skills, is simple to adjust or reline if necessary and provides a cost effective alternative when compared to traditional manufacturing methods of hand painted acrylic or glass-blown prosthesis.

The outcome:

3D printing is the way forward for cheap and effective prosthesis. This innovation will be particularly valuable in developing countries assisting in enhancing an individual's social status and economic independence.

"With 3D printing, we can now provide prosthesis at a fraction of the cost and in a much quicker period of time. It's revolutionary." - Dr Liz Gill, MMU School of Healthcare Science

The facts:

- Batch printing up to 150 eyes an hour compared to 4- 8 hours to make one by hand
- Around 400-500K people in the developed world require artificial eyes (20,000 in the UK)

Find out more:

[Find out more about 3D printed prosthesis](#)