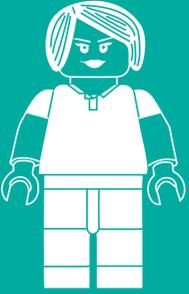


# BUILDING YOUR OWN MRI/CT SCANNER ON A BUDGET

hi



One day, after a tricky preparation session, I decided to look into different preparation resources for MRI scans. I was looking for a resource that was slightly more complex than the papier mâché toilet roll tube we were using. LEGO® and Siemens both have excellent models but slightly over budget, so there started my challenge to build an all-singing, all-dancing (noisy and moveable) MRI scanner built from LEGO® bricks for less than £100...



“PLAY IS THE HIGHEST FORM OF RESEARCH”

-ALBERT EINSTEIN

## MORE THAN 'JUST PLAYING'

Offering an MRI scan to children without sedation or anaesthetic is better for the children physically, and it is much cheaper for the service. However, the MRI process can be a loud and frightening place for children and young people.

Part of the role of a Health Play Specialist (HPS) is to prepare children for procedures, imparting information, offering support, reassurance and ultimately, creating an understanding for the child and family of the procedure.

Role-play as part of preparation offers children a safe opportunity to work through and learn to cope with the frightening aspects of hospital treatment (Hubbuck 2009). Using this model allows the HPS to show how the MRI process works to scale, and encourages the child to role-play and explore their feelings about this.

In addition, I have made a Lego™ minifigure pack so the child can build themselves and their family members; offering the opportunity to represent themselves and ask questions or raise concerns before the procedure takes place.

When preparing patients, the MRI/CT scanner can be combined with other preparation methods such as apps, Youtube videos, a preparation book and most importantly, discussions with the HPS.

## WHAT IS THE IMPACT?

After successful preparation, the child should feel willing and confident to enter the procedure with parental and MDT support. At Hampshire Hospitals Foundation Trust (HHFT), we have found this to be very effective and the use of Lego™ has been appealing for children who recognise it as a familiar building toy, along with the fact this model can move and makes similar sounds to the scanner.

We have successfully enabled children as young as four years old to feel confident when having an MRI scan. This method has also proven particularly successful with patients with Autistic Spectrum Disorder as it successfully bridges the gap between fun familiar toy to unfamiliar hospital procedure. It also allows them to get used to the sounds whilst in a fun environment.

As well as using the model at HHFT, the design and information has been shared with Health Play Specialists both nationally and internationally, with the design being used as far away as New Zealand! This has been shared at the National Association of Health Play Specialists annual conference and through online forums.

“IT IS A HAPPY TALENT TO KNOW HOW TO PLAY”

-Ralph Waldo Emerson

