

Helping physically disabled kids make music



Mr Jain Rathan with his daughter Mackenzia Gabriella and Mrs Teo Wei Lin with her son Reon. The children are playing with the modified musical instruments created by engineers from DSO National Laboratories, Mr Yee Qing Xiang (third from left) and Mr Leow Hua Sheng. ST PHOTO: LAU FOOK KONG

A team of engineers from DSO National Laboratories modified musical instruments for children with special needs

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Three-year-old Reon Teo enjoys music and has various toy musical instruments at home, which he loves shaking and banging on.

However, he is not able to play with these toys with the same ease that most toddlers do.

As a result of a previously undetected brain aneurysm that ruptured suddenly when he was 11/2 years old, he suffered a brain haemorrhage that left him physically disabled.

He lost the ability to speak and chew food properly and has limited mobility on the entire right side of his body.

Because every action requires so much effort, he initially did not have the motivation to move his right hand and arm.

But that changed when a team of engineers from DSO National Laboratories, Singapore's national defence research and development organisation, created a series of more than 20 specially modified musical instruments for SPD (formerly known as Society for the Physically Disabled).

At last, there is something they can do. They can shake and move and create music in their own unique way.

Reon is in the voluntary welfare organisation's Early Intervention Programme for Infant and

MS SHA'DAH SUIB, a senior teacher at SPD, on the modified instruments

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Children (EIPIC), which provides learning support and therapy services for children aged up to six.

Since last month, he has been able to experience the joy of making music again, using both his hands. He will also be performing in the SPD EIPIC Graduation Ceremony next month.

His mother, part-time teacher Teo Wei Lin, 28, observed that he could use the modified musical instruments with far greater ease, in spite of the restricted movement in his right hand and arm.

She says: "I think what the engineers have done is wonderful because physically disabled children like Reon have limited toys to play with. Many of the toys on the market are catered to children with normal abilities."

Her husband, 32, works as an operations executive in the container port industry. The couple have another son, aged seven.

Earlier this year, 10 engineers from DSO approached SPD for a partnership on a corporate social responsibility project. They found out that some of the children in EIPIC would perform in a year-end graduation concert, but the teachers have not been able to incorporate music acts as a result of the children's physical disabilities.

The team of engineers call themselves the Mod (short for Modification) Squad. They gave themselves the name as they have been using assistive technology to modify toys.

Under the leadership of Mod Squad head and research engineer Yee Qing Xiang, 29, the team embarked on modifying toy musical instruments such as xylophones, cymbals and tambourines.

The instruments were fitted with assistive devices such as grips, motors and wrist-straps to help the children use them with ease.

Because of their disabilities, many of the children lack the strength and ability to grasp and hold items easily.

Ms Sha'dah Suib, 52, a senior teacher at SPD, says the modified musical instruments allow children with more severe disabilities to perform at its upcoming concert.

"At last, there is something they can do. They can shake and move and create music in their own unique way," she says.

The little ones tried out the modified musical instruments several times and the engineers made improvements following the children's responses and teachers' feedback.

Last month, they completed the tweaks and the instruments were handed over to SPD.

On that day, Mrs Teo says, Reon was encouraged to use his right hand, when he saw that there was a reaction from the toys by using slight movements.

At one point, he even had an instrument in each hand and was using both hands to play.

Mrs Teo says: "It doesn't matter if he's not keeping to a rhythm or tempo. He's enjoying creating music."

She hopes that more toy makers and engineers will consider making toys that cater to children with special needs.

Likewise, Mr Jain Rathan, 42, was overjoyed to see his 31/2-year-old daughter Mackenzia Gabriella singing and playing with the modified musical instruments. She is visually disabled and has developmental issues.

Mr Rathan, who is unemployed, says she sang one song after another and could even keep to a tempo as she hit the instruments.

"Music makes my daughter happy and I am happy to see her happy," he adds. His wife, 40, is a nurse and the couple also have a son, aged five.

As for the Mod Squad, Mr Yee says the team felt a great sense of satisfaction as they watched the children play with their new toys enthusiastically. Some of them were so captivated that they refused to put down the instruments.

Mr Yee says: "One of the teachers said to me, 'These toys are priceless. You can't buy them outside.' That comment made me feel proud. We created something of value for these children."

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