

Robot Healing

Unique robots support elementary school children's mental health during the pandemic.

by **Bob Sliwa**

COVID-19 has had a profound impact on the lives of Tokyo's children. They have spent time in conditions they have never experienced before, including the closure of schools from March to May 2020, causing feelings of anxiety. At the same time, the pandemic has accelerated the use of technology in schools. In response to the prolonged school closure, the Tokyo Metropolitan Government decided to move the Tokyo Smart Schools project to promote ICT in education significantly forward from their original plan. ICT-based learning support services were introduced to all metropolitan schools starting in May 2020, allowing for online communication between teachers and pupils, including delivering and collecting assignments.

Under these circumstances, Eguchi Chiho, the principal of Kita Ward's Oji Daini Elementary School, north of the city center, faced the unprecedented situation of not being able to hold normal school events and assemblies due to the COVID-19 countermeasures. Even after the school

reopened, she was keenly aware of the need for mental health care for the children. It was just then that they came upon a household-type robot called LOVOT. Programming classes were already planned to start in 2020, and they were considering introducing a state-of-the-art robot, so it was the perfect fit. They contacted Groove X, the Tokyo start-up that created LOVOT, and the company agreed to loan the school six of them for real-world testing.

LOVOT was created for a different purpose than the vast majority of robots, whose sole function is to replace human beings, like on a factory assembly line. Groove X's CEO, Hayashi Kaname explained the concept behind his team's creation. "I saw that machines working on behalf of people don't always make them happy, and I wondered if something could be done about it. Pet dogs and cats are loved even if they don't work for people. They recognize people and move to people, only to be completely dependent and get in the way of them. But, that's exactly why we feel happy."

Typically robots have a cold industrial feel. How a LOVOT functions as this calming pet-like companion for humans is because Groove X's Emotional Robotics® technology is encased in its soft and warm to the touch body. They can separate human beings out from their surroundings with infrared cameras, recognize multiple faces they encounter, understand speech, and respond to stimulus like tickling with their surprisingly emotive LED eyes and cute gestures.

In the first part of the program before summer vacation, playing with the LOVOTs and taking care of

them eased students' pandemic anxieties. So in the second half it was easy for them to learn to program actions like simple dances, because they were comfortable with their LOVOT. The LOVOTs are a massive hit with the students of all grade levels. They eagerly pass them around, hug, tickle, and talk to them, disinfecting their hands before and after. Even students with animal allergies feel at ease playing with them. The principal observed, "Outgoing students immediately embraced the LOVOT, but the most noteworthy effect has been on shy students who would sit alone with one, and emotionally open up by interacting with

it. We have heard from families that children look forward to going to school when it is their turn to take care of their new friend, and that they are also more communicative at home about their school. I've also seen teachers having a one-on-one with a LOVOT!"

Faculty and students were unanimous about what a positive effect having the LOVOTs in the school was; most importantly, brightening the overall mood of the children, which had been darkened by the pandemic.

Emotional Robotics is a registered trademark of GROOVE X, Inc.

LOVOT responds with its expressive eyes when students stroke and tickle its warm, soft body.



Students accepted LOVOTs as if they were a classmate.



LOVOT roams the classroom freely during classes.

