

Welcome, Robin the AI robot

July 7 2020



Robin with members of the staff of UCLA Mattel Children's Hospital. Credit: UCLA Health

"Hi! Do you want to sing a song with me?"

With its big WALL-E eyes and sleek plastic body, Robin the robot has the huggable, child-friendly look of an animated Pixar character—one

that is eager to interact with pediatric patients to ease their anxiety and loneliness in the hospital.

The emotional-learning technology that enables Robin to engage realistically with children is even more essential in the wake of the COVID-19 pandemic, during which physical isolation has become all the more important for [sick children](#), particularly those whose immune systems are compromised.

But while physical isolation is necessary, the feeling of being isolated is not, says Dr. Justin Wagner, a pediatric surgeon at UCLA Mattel Children's Hospital and co-leader of the Robin project.

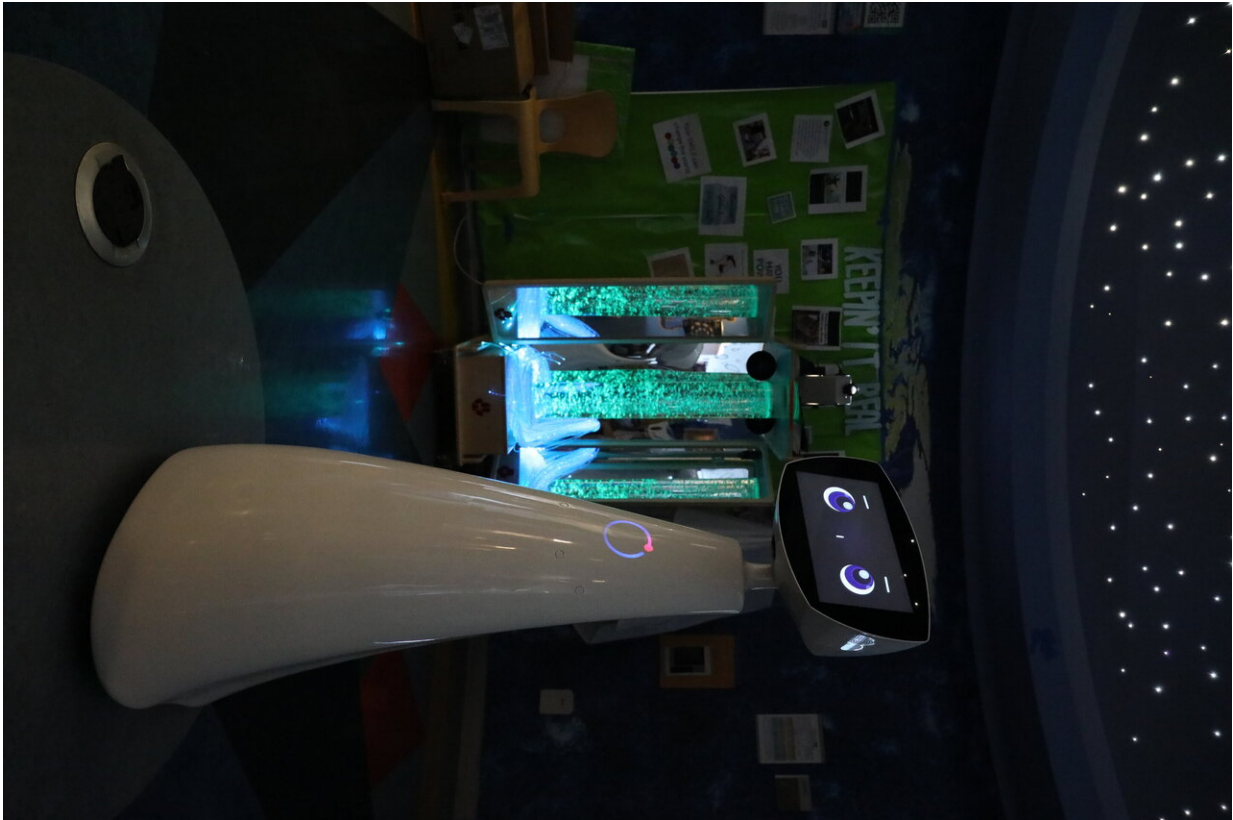
"Negative feelings are even stronger during this time," Wagner noted. "We hope to integrate Robin as a member of the team, augmenting our ability to give children contact, attention and companionship."

The artificial intelligence system was developed by Expper Technologies, a Silicon Valley-supported startup with roots in Yerevan, Armenia. Robin's technology enables the robot to build what is called associative memory—it recognizes a child's emotions by interpreting his or her [facial expressions](#) and builds responsive dialogue by replicating patterns formed from previous experiences.

Robin is expected to begin zipping along the halls of the hospital by mid-July and will go through a yearlong training period during which it will be remotely operated by a specialist from the hospital's Chase Child Life Program. The specialist will provide Robin's voice and control the robot's actions and expressions as it "learns" how to respond to the needs of children and families.

"This is another tool in our toolbox to provide developmental and coping support for our [young patients](#)," said Kelli Carroll, director of the Chase

Child Life Program. "While our traditional interventions are on pause during the pandemic, the need remains to prepare, educate and provide behavioral distraction for children. Robin will help our specialists do that."



In response to COVID-19 pandemic, UCLA Mattel Children's Hospital has launched an innovative project -- an interactive, artificial intelligence robot named Robin -- to support the emotional needs of children. Credit: UCLA Health

In addition to providing [emotional support](#) for pediatric patients, Robin will be the subject of a study by a multidisciplinary team of medical and behavioral specialists that will assess the robot's impact on children and

families. The goal is to determine how well this new technology helps both [children](#) and parents to cope with the stresses of being hospitalized.

"The ability to provide our [pediatric patients](#) with this type of social companionship is very compelling, particularly during this pandemic," says Dr. Shant Shekherdimian, a pediatric surgeon and co-leader of the project. "We also knew that by bringing Robin to UCLA, our team of clinicians and researchers would work tirelessly to improve this technology and make it an even more powerful tool."

Provided by University of California, Los Angeles

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