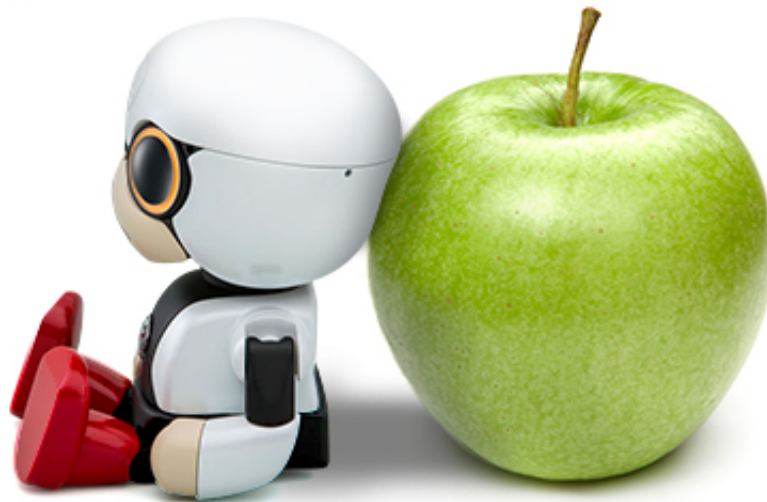


# Kirobo Mini robot for drivers part of Toyota Heart Project

October 29 2015, by Nancy Owano

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What's a little robot that looks like a cute astronaut doing at a car event? Kirobo Mini is a companion robot from Toyota that appeared at the Tokyo Motor Show; it is engineered to make the driver have a better emotional experience when behind the wheel.

The [robot](#) can offer tips and emotional support.

Toyota's Kirobo Mini belongs to the Toyota Heart Project, where humans and AI work together. Senior Editor Mat Smith, *Engadget*, said this is human interaction research on which Toyota and several Japanese

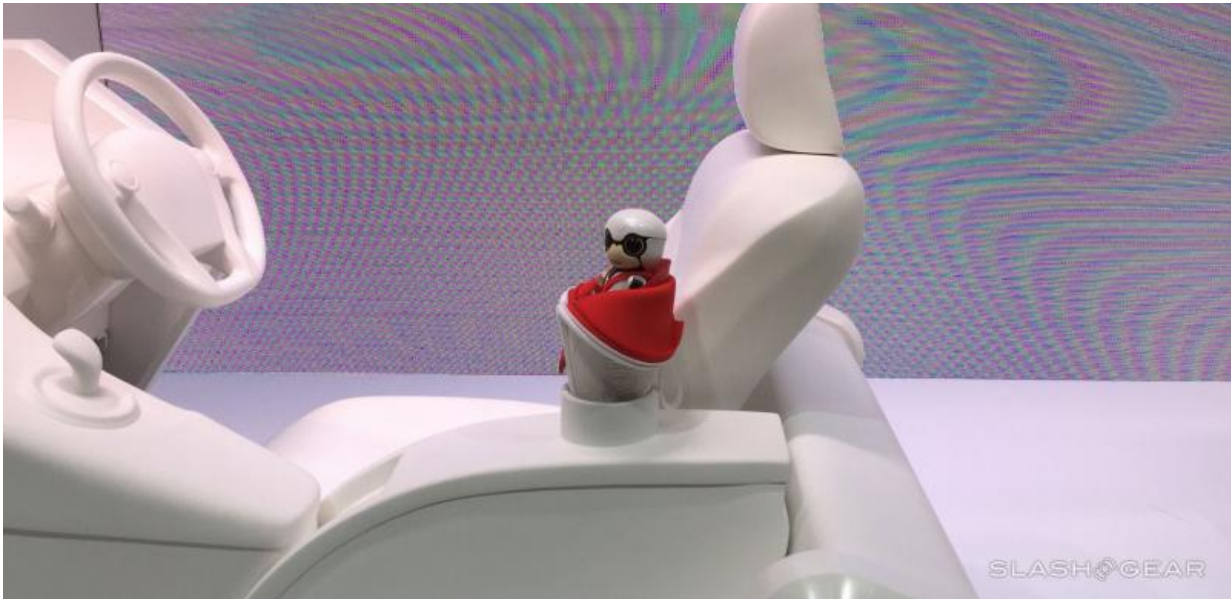
universities are working [together](#).

One point of view is that if Kirobo Mini's technology were integrated into Toyota vehicles, it would be possible that the driver experience could benefit. Toyota believes that much can be learned about the driver's behavior and emotion while driving. Enter Kirobo Mini.

This is a 10cm high "communication companion," said the company. Smith said the robot was small enough to fit into a car's cup holster. It was not certain at this time, said news sites, if the robot would become available in the United States.

Kirobo's name derives from the Japanese word for 'hope.' If the name and look sound familiar, this is a smaller relative of the larger, 34cm high astronaut robot Kirobo, which was described as a "humanoid verbal communication robot" and was sent on an international space mission.

This larger robot participated in a number of experiments aboard the International Space Station, and it was equipped with voice-recognition software from Toyota. The June 2013 news release announcing the space-bound robot said Kirobo was one of two humanoid verbal-communication robots developed under the Kibo Robot Project. It said this was a joint research project carried out by RCAST, Robo Garage and TMC. The Japan Aerospace Exploration Agency provided [assistance](#) too.



RCAST and Robo Garage worked on robot hardware and motion generation; TMC was responsible for the voice-recognition function. Dentsu handled the conversation content as well as project management.

As for the smaller version for cars, it too has voice recognition technology, as one of its key features. The robot's behavior shows human-like feeling, in that it is capable of answering and exchanging questions with humans. Kirobo is also designed to be a good listener, attentively taking in what the person says in order to process the information and respond with a positive show of sympathy or kindness.



"With people spending an average of 4.3 years of our lives in our cars (which equates to traveling to the moon and back three times) Toyota believes that much can be learnt about our behavior and emotion while driving. And that's where Kirobo Mini could [help](#)," said the company release.

Last month, at a press conference in Palo Alto, California, Toyota announced "the first step of what is expected to be a major push into artificial intelligence and robotics," according to *IEEE Spectrum*. The automaker said it will establish two collaborative research centers at MIT and Stanford. "Toyota may be a car company, but they have a notable history with [robotics](#) and automation in a variety of contexts and implementations," said the report.

**More information:** [www.toyota-europe.com/world-of ... ing-kirobo-mini.json](http://www.toyota-europe.com/world-of...ing-kirobo-mini.json)

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