ROBOT REVOLUTION FUN FACTS

Robot Revolution includes about 40 robots from all over the world—including Japan, Poland, Denmark, Germany, China, Canada, as well as coast to coast throughout the U.S.

Robot history:

“Robot” comes from the Czech word “robota,” which means forced work or labor. It was first used to denote a fictional humanoid in the 1921 play, “R.U.R.” by the Czech writer, Karel Čapek.

The history of robotics dates back to the fifth century B.C., when Archytas of Tarentum, a friend of Plato’s and a renowned mathematical scientist, built a mechanical bird driven by a jet of steam or compressed air—arguably history’s first robot.

Al-Jazari, a Muslim engineer and inventor, built what is believed to be the first programmable humanoid robots in 1206. They were musicians that played instruments while floating in a boat on a lake to entertain royal guests.

Alan Turing, in a 1950 paper, proposed a test called "The Imitation Game" that proposes a solution to determining machine intelligence. It tests the machine's ability to exhibit intelligent behavior equivalent to, or indistinguishable from, that of a human. Since then, the Turing test has become an essential concept in the philosophy of artificial intelligence.

The first toy robot for consumer purchase is believed to be the yellow tin robot, Lilliput, made and sold in Japan in the mid-1940s. Today, consumers can buy robotic toys ranging in price from $15 up to $1,000.

In 1954, inventor George Devol secured patents for robot technology. In 1956, physicist and engineer Joseph F. Engelberger adapted and applied Devol’s ideas to start Unimation Inc., the world’s first robotics company. This led to the development of the first industrial robotic arm, installed in 1961 at the General Motors plant in Ewing Township, New Jersey, which lifted and stacked hot metal parts, weighed 4,000 pounds and cost $25,000. Devol and Engelberger’s ideas reshaped production lines around the world.

In 2013, Harvard scientists created a tiny, insect-sized robot that is able to flap its wings eerily similar to a fly. The Robo-fly is the smallest flying robot, weighing 106 milligrams and made from carbon fiber.

In 2015, Kirobo, a small android able to have conversations in Japanese, set Guinness World Records for First Companion Robot in Space and Highest Altitude for a Robot to Have a Conversation following an 18-month stay onboard the International Space Station.

Facts about robots featured in the exhibit:

Since 2000, more than two million patients have had the da Vinci® Surgery experience. Using the da Vinci® Surgical System, specially trained surgeons perform minimally invasive surgery for a wide range of operations.

Robots similar to the TOPY OSCAR stair climbing robot investigated radiation leaks after the Fukushima nuclear disaster in Japan in 2011.

The one-pound Recon Scout® Throwbot® XT can be thrown up to 120 feet, or dropped from a 30-foot roof. This robot moves quietly and its infrared optical system enables it to see in complete darkness. More than 4,500 are in use worldwide.
People have been thinking about self-driving cars since the development of the automobile more than 100 years ago. Today’s robot cars have quicker reactions than humans, no blind spots and sensors that can see 360 degrees around them. Vehicles will be able to talk to each other and avoid collisions that cause so much damage today.