Landing in living rooms: LEGO models of NASA Mars rover and helicopter

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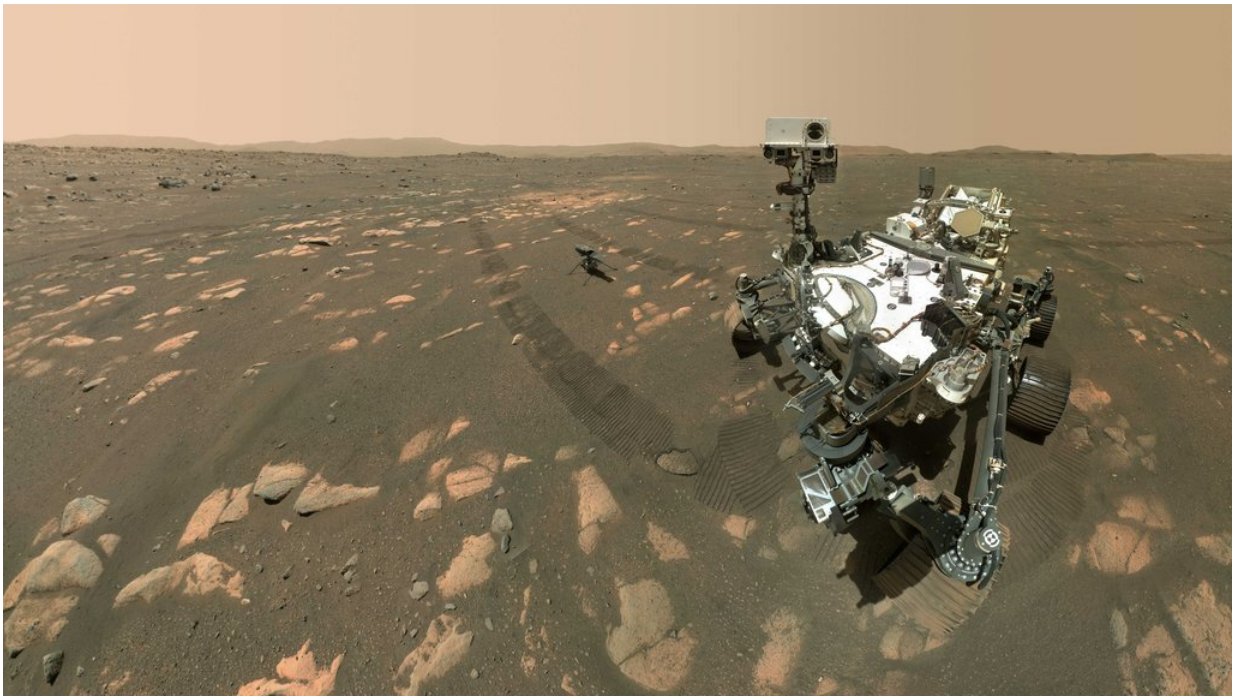

Using the WATSON camera on its robotic arm, NASA's Perseverance Mars rover took a selfie with the Ingenuity helicopter—seen here about 13 feet (3.9 meters) from the rover—on April 6, 2021. Credit: NASA/JPL-Caltech/MSSS

A new STEM-themed kit developed in cooperation with NASA-JPL is designed to spark kids' interest in engineering and space via traditional toys and augmented reality.

While NASA's Perseverance rover and Ingenuity helicopter are busy exploring Mars, one-tenth-scale buildable models of them have begun touching down in homes around the globe.

Developed in cooperation with NASA's Jet Propulsion Laboratory in Southern California, a new LEGO Technic building set is based on the real rover and helicopter, which have been roaming through Mars' Jezero Crater since landing there in February 2021. In its search for signs of ancient microbial life, Perseverance has been collecting Mars rock and soil samples for potential return to Earth by a future campaign. Ingenuity became the first aircraft to perform powered, controlled flight on another planet, and since then has gone on to complete more than 50 additional flights.

To create the building set, LEGO designers met with engineers at JPL to learn more about the engineering designs of the spacecraft. The kit is just one example of how JPL's Technology Affiliates Program works with industry, in cooperation with the Office of Technology Transfer and Corporate Partnerships at Caltech, which manages JPL for NASA. The latest in a history of NASA-LEGO collaborations, the kit allows builders to explore key features of Perseverance like its mobility system and science instruments, see data returned by the rover, and complete interactive challenges.

By teaming with these technology transfer offices and programs, corporations can form strategic alliances with JPL to either license intellectual property, as was the case with LEGO, or to gain access to JPL's engineers and scientists to solve a range of technological problems. These cooperative efforts provide a streamlined way for JPL, one of 10 NASA centers around the country, to do business with the private sector. The end result is that technologies developed for the space program can benefit people on Earth, and in this particular case, help educate and excite the public about the space program.

"Our Mars missions began decades ago with an idea so big, many thought it was impossible. Today, we've successfully landed rovers and even a helicopter on Mars to explore the climate, geology, and possibility of life on the Red Planet," said JPL Director Laurie Leshin. "At JPL, we dream big and push boundaries as we seek to answer awe-inspiring scientific questions. I hope these kinds of toys spark the same spirit of exploration within kids that we have here at NASA's JPL."

Scott Hulme, a Mars public engagement specialist at JPL who helped the LEGO team refine the kit, said, "We love sharing the work Perseverance and Ingenuity are doing on Mars, and collaborations like this are another way to make space exploration more fun and accessible to the next generation of explorers."

JPL built and manages operations of the Perseverance rover and Ingenuity helicopter.

Provided by NASA

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