



Global Friendship Through Space Education

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# ASTRO

## The Partner School Science Program Newsletter

### Celebrating PSSP's 100<sup>th</sup> Videoconference!

PSSP's 100th videoconference will be held in April. GFTSE has organized 49 videoconferences with NASA, as well as 52 videoconferences between partners or NASA experts since 2002.

A Meet and Greet videoconference between Lindsey Middle School from Long Beach, California, and SEV American College from Izmir, Turkey, took place on February 25, 2011. Students met with their partners and asked questions to one other. Turkish students taught some Turkish words such as "Merhaba - Hello" and "Nasilsin - How are you?" to their friends. The students' teachers - Mrs. Adrienne Sandstedt and Mrs. Seran Dumlu - assisted during the videoconference.

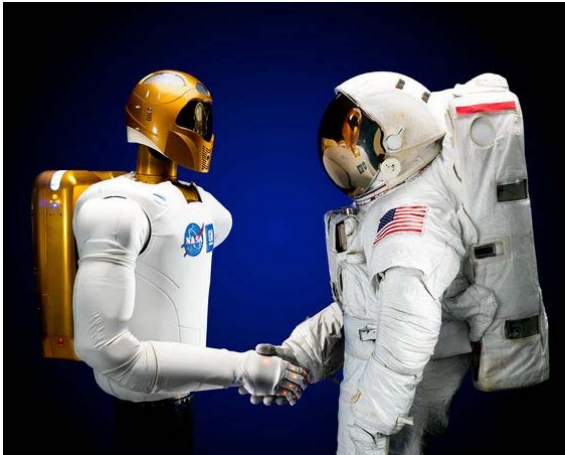


Mrs. Sanem Sayar from Beykoz Doga College in Istanbul, Turkey, and Mrs. Kristy Burt from the Discovery School in Tennessee, U.S.A., also organized a Meet and Greet videoconference on March 16, 2011, to allow their students to talk and share their hobbies with one another.



## NASA's Historic Handshake

Astronauts of the future, meet your competition: when the space shuttle *Discovery* launched on February 24th, Robonaut 2 (R2)—seen above on the left—became the first humanoid robot in space.



R2 is bound for the International Space Station, and scientists will spend a year simply studying how well the robot moves in Zero *G*. Once mission managers are satisfied, the android will be assigned one of its first tasks: house cleaning.

To keep the crew healthy, astronauts on the ISS have to use disinfecting wipes on all handrails every week. "Jobs like that are really crummy for humans," said Robert Ambrose, the Robonaut project leader at NASA's Johnson Space Center in Texas. Fortunately for the ISS crew, R2 wasn't programmed for snarky backtalk.

Besides, Ambrose said, "We're designing [Robonaut] for EVA"—extravehicular activity, the NASA term for spacewalking—"and you can't really hear your robot crack jokes in a vacuum."

These days, plenty of robots have landed on other planets and been put to work. Still, building a machine that can operate in microgravity around humans but without human control was a unique challenge. The mature, responsible R2 owes its shot at glory in space to a host of robotic "ancestors," earlier androids that never left Earth as well as less human-like machines that are already hard at work on the ISS.

To check out the five forerunners of NASA's R2, visit [http://news.nationalgeographic.com/news/2011/02/photogalleries/110224-space-shuttle-discovery-launch-nasa-robot-pictures/#/space-shuttle-discovery-launch-robot-family-tree-r2\\_32471\\_600x450.jpg](http://news.nationalgeographic.com/news/2011/02/photogalleries/110224-space-shuttle-discovery-launch-nasa-robot-pictures/#/space-shuttle-discovery-launch-robot-family-tree-r2_32471_600x450.jpg).

## IMAGE OF THE DAY - THE HUNDRED-YEAR QUESTION



The Triangulum Galaxy is located nearly 3 million light years from Earth. And, in a study that pushes the limits of observations currently possible from Earth, a team of NASA and European scientists recorded the "fingerprints" of mystery molecules in the Triangulum Galaxy, as well as the Andromeda Galaxy.

*Image Credit: NASA/Swift Science Team/Stefan Immler*

Figuring out exactly which molecules are leaving these clues, known as "diffuse interstellar bands" (DIBs), is a puzzle that initially seemed straightforward but has gone unsolved for nearly a hundred years. The answer is expected to help explain how stars, planets and life form.

*Note: The Image of The Day section's aim is to create curiosity in your mind and make you want to search about the image or topic, rather than us giving full details about the image. We are expecting you to ask yourself questions and to search for information about the image of the day to get answers and learn more.*