mystery science

Grades K-5
Mini-Lesson: “Do people really use robots?”

VIDEO TRANSCRIPT

VIDEO 1

Hi, it's Doug! A few years ago, these robots in China broke the world record for the biggest robot dance party. Over 1,000 robots were programmed to do the same dance at the same time. And it looks like they did a pretty good job, except for a few robots who fell down while doing their dance moves. They didn't count them in the record. Someone named Adalyn has a question about robots. Let's give Adalyn a call now.

[Video Call]

- Hi, Doug!

- Hi, Adalyn!

- I have a question for you. Do people really use robots?

- Ooh, that's a great question. And I know the perfect person to answer it.

A real-life robot expert named Marita Cheng. Marita runs a robotics company that designs and builds robots. Let's give Marita a call now.

- Hi, Marita!

- Hey, Doug, I heard you have a question for me.

- I do. And it's a good one. Adalyn wants to know, do people really use robots?

- Ooh, I like that one!

- You know, when I was in my teens, I would look around and think to myself, it's so strange that we don't have robots in our world. I mean, a long time ago people predicted a future full of robots. Robot hairstylists, robot sweepers, robot everything. But when I looked around the streets where I lived that wasn't really happening that much. I started to wonder, we have all this technology like computers and video games and the internet, why don't we use that same technology to build robots to help us in our daily lives? Then I started thinking, I should just start creating these robots myself. It became my goal in life. So I studied robotics in school and learned all I could about building them. And guess what? Now I run a robotics company and every day I'm trying to come up with ways that people can use robots to make their lives easier. That's why I really liked Adalyn's question. Before I answer it though, I'm curious, have you ever seen someone use a robot in real life?

VIDEO 2

Now, I'm not sure how you answered but some of you may have said you've never seen someone using a robot before. Maybe that's because you're thinking about some of the robots you see in the movies or on TV, like this one or this one. That's what a lot of people think of when they think of robots. They think of robots as having arms and faces or even talking like humans do, and that's how our idea of a robot might've started out. But did you know that most things we call robots today don't look or act like humans at all? That's because we don't need robots to be human. We need them to be useful. Like have you ever seen one of these? A robotic vacuum is one of the most popular robots in homes today. It can find dirt, change directions when it runs into objects, and even keep from falling down stairs. Notice it doesn't

look anything like a human, and that's a good thing. Its thin round shape helps it go under tables and sofas and roll around corners. A robot that looked like a human wouldn't be able to do that very well and take a look at these huge robots. They don't talk or have faces, but they do have arms and that's exactly what they need to help us make cars. Believe it or not, about half of all the robots in the world are in car factories. Robotic arms lift heavy things like engines, hold parts together, and even paint the car when it's finished, and they don't need legs to walk around like C3PO to do that. No, they're designed to do one thing, help human workers build cars, and they do that really well. At first, a factory was only able to build one car a day but now with robots helping, they can build 1000. Okay, but what about robots that do look like the ones you see in the movies? Are there any robots like that? They actually are. Sometimes it's useful to build a robot that can walk and talk like a human or even an animal. Like, check out these companion robots. Robots like Buddy are designed to keep people company. They can help me send messages, study for tests and even play hide and seek, and take a look at this robot dog. It almost looks real and it's supposed to. Robots Like Tombot act as pets in places where dogs and cats aren't allowed like hospitals and retirement homes. So robots, whether they look like the ones in the movies or not really are useful and they can make a big difference in our lives. When I was younger, I met a friend named Jess. Who's had quadriplegia since she was one year old. This means she can't move her legs or arms, and doing things you and I find simple, like picking up a toy or getting a drink from the fridge. She can't even scratch her face if she has an itch. And she's not the only one, there are a lot of kids and grownups that can't do these things. So I decided to make a robot to help. This is Jeva. Jeva is a robotic arm that can be put on the side of a wheelchair, to help people like Jess pick things up. A person can control Jeva by their head movements to move and grip objects or even scratch an itch. And that's certainly one way robots are making a difference. Robots are helping doctors with surgery, they're putting

out fires, and rescuing people. They're even helping people explore places they've never been before on Earth and on other planets like Mars where humans haven't been able to visit yet. The possibilities are endless. So do people really use robots? They definitely do. Robots have been used all over the world to help us at home, and at work and even in space. That's all for this week's question. Thanks, Adalyn, for it!