ROBOT ROUND-UP

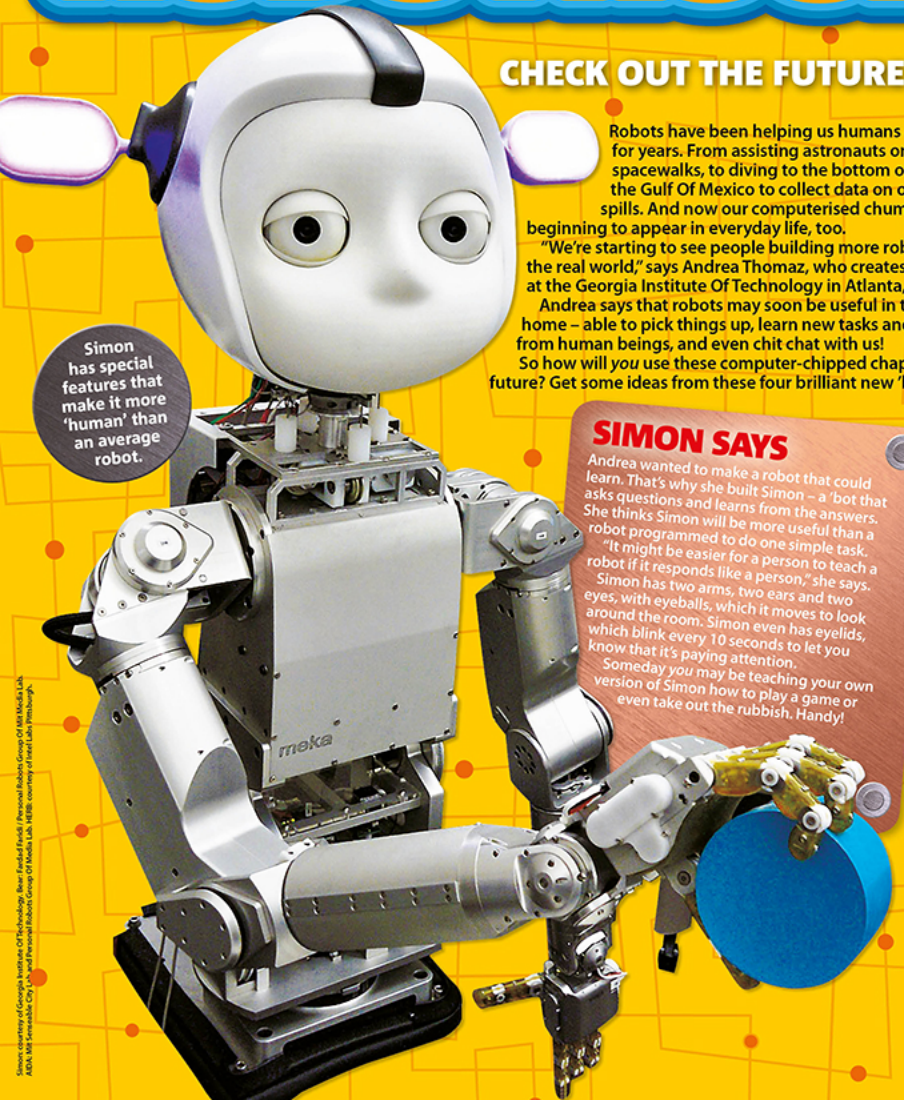
CHECK OUT THE FUTURE OF OUR COOL 'BOTS...

Robots have been helping us humans out for years. From assisting astronauts on spacewalks, to diving to the bottom of the Gulf Of Mexico to collect data on oil spills. And now our computerised chums are beginning to appear in everyday life, too.

"We're starting to see people building more robots for the real world," says Andrea Thomaz, who creates robots at the Georgia Institute Of Technology in Atlanta, USA.

Andrea says that robots may soon be useful in the home – able to pick things up, learn new tasks and tricks from human beings, and even chit chat with us!

So how will *you* use these computer-chipped chaps in the future? Get some ideas from these four brilliant new 'bots…



Simon has special features that make it more 'human' than an average robot.

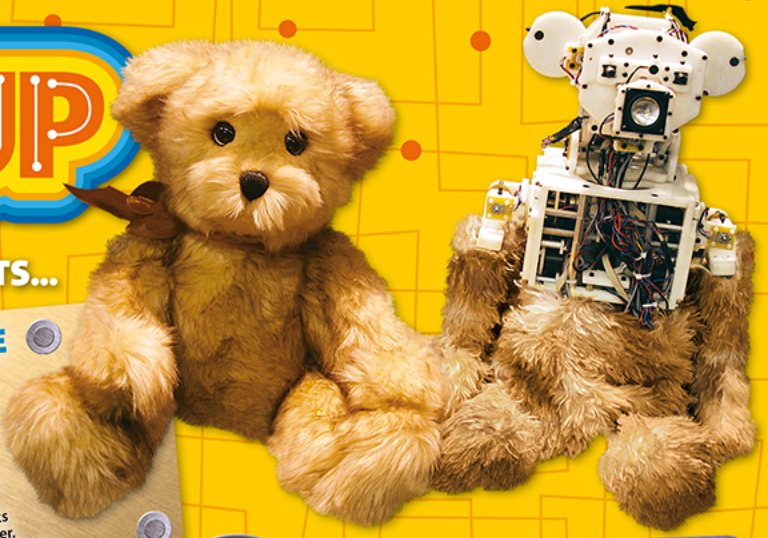
SIMON SAYS

Andrea wanted to make a robot that could learn. That's why she built Simon – a 'bot that asks questions and learns from the answers. She thinks Simon will be more useful than a robot programmed to do one simple task.

"It might be easier for a person to teach a robot if it responds like a person," she says.

Simon has two arms, two ears and two eyes, with eyeballs, which it moves to look around the room. Simon even has eyelids, which blink every 10 seconds to let you know that it's paying attention.

Someday you may be teaching your own version of Simon how to play a game or even take out the rubbish. Handy!



HUGGABLE FRIEND

This teddy bear may look like a normal cuddly toy. But don't be fooled – this ted has 1,500 sensors buried in its fur. Its eyes are cameras, its ears are microphones, and its mouth has a tiny speaker. That means it can see and hear you, compute what you say, and respond.

How will it work? Say you want to call your mate on the computer. Instead of putting on headphones and staring at a screen, you talk to the bear, and your pal's replies also come through the huggable teddy. *Bear-illiant!*

This bear 'bot could help kids who are in hospital, as the teddy's like a comforting friend.

DRIVER'S CO-PILOT

There's no telling how wacky vehicles will look like in the future. But you may be lucky enough to be driving one with a robot called AIDA (Affective Intelligent Driving Agent).

A prototype (early version) for now, AIDA sits on the dashboard of your car and acts like a computerised co-pilot. A top-class map reader, this robot will know where you're going, how you should get there, and how long it will take.

Thanks to its facial-recognition software, AIDA will know if you're happy, angry or excited, and change its *own* expressions to match yours! Plus, if you're stuck in a traffic jam, or lost in the middle of nowhere, AIDA will also offer helpful suggestions, making this top 'bot the perfect 'backseat driver'!

Connected to sensors in the car, AIDA will be able to remind a driver to stop for fuel or add air to the tyres.

HERB, AT YOUR SERVICE

What would be better than a robot in your house? One that can clean your room, of course! Meet HERB, the 'Home-Exploring Robotic Butler'.

Built on a Segway – a motorised, two-wheeled vehicle – HERB can roll around quite speedily, and the butler 'bot will soon be able to grab your clothes and put them away in drawers. The butler bot's video cameras and a spinning laser on top makes an up-to-the-minute 3D map of the room, so HERB can wheel from one place to another without squashing anyone's feet!

In the future, the house-work-loving HERB is sure to be a very popular member of the family!

Simon: courtesy of Georgia Institute Of Technology. Bear: Fuzzed Fendi / Personal Robots Group Of MIT Media Lab. AIDA: Mitsubishi City. / Personal Robots Group Of Media Lab. HERB: courtesy of Intel Labs Pittsburgh.