

## Can a robot REALLY 'bond' with autistic children? Caspar - and 20 other, weirder 'cyber-friends' - invade the Science Museum

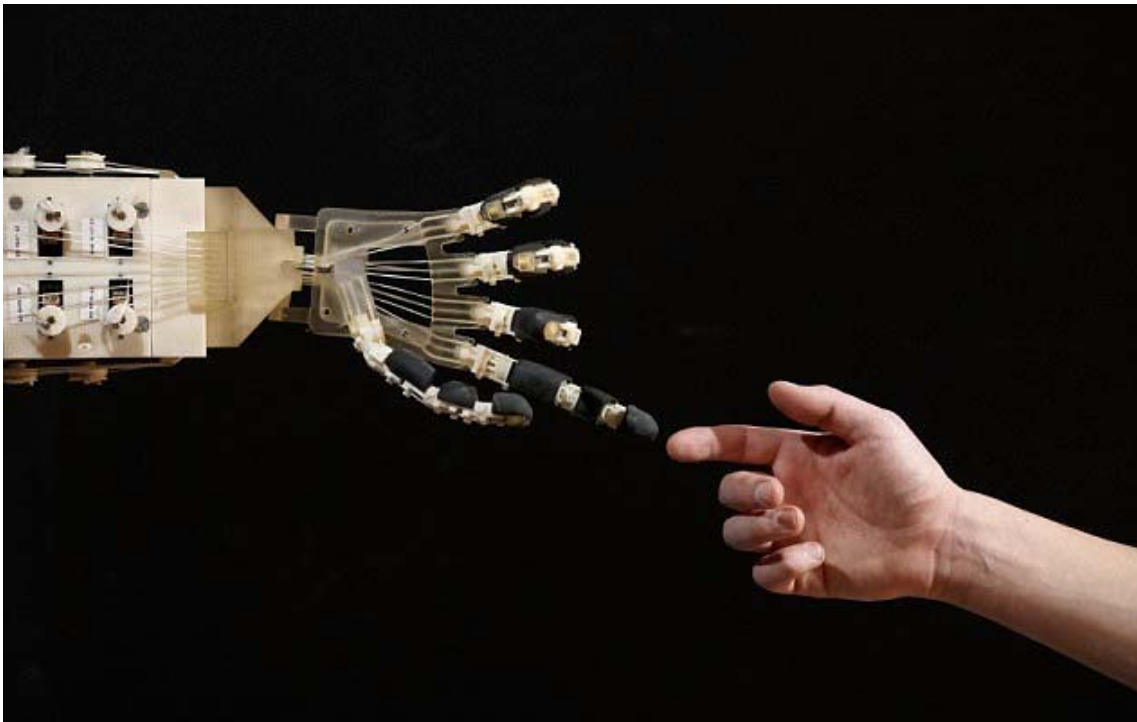
By [Rob Waugh](#)

Last updated at 5:24 PM on 30th November 2011

Robots from around Europe are flocking to London this week - but, thankfully, we won't need to call Doctor Who to fend off this particular onslaught.

More than 20 cutting-edge robots from around Europe will be on display at the Science Museum's Robotville exhibition this week - including a robot designed to help autistic children, and a robot that can (sometimes) catch a ball.

Naturally, many of the robots look like slightly spooky human beings - but other fields of robotics will be represented instead, including 'swarm' robotics, where tiny robots work together, a relatively new idea being pioneered in industry and on the battlefield.



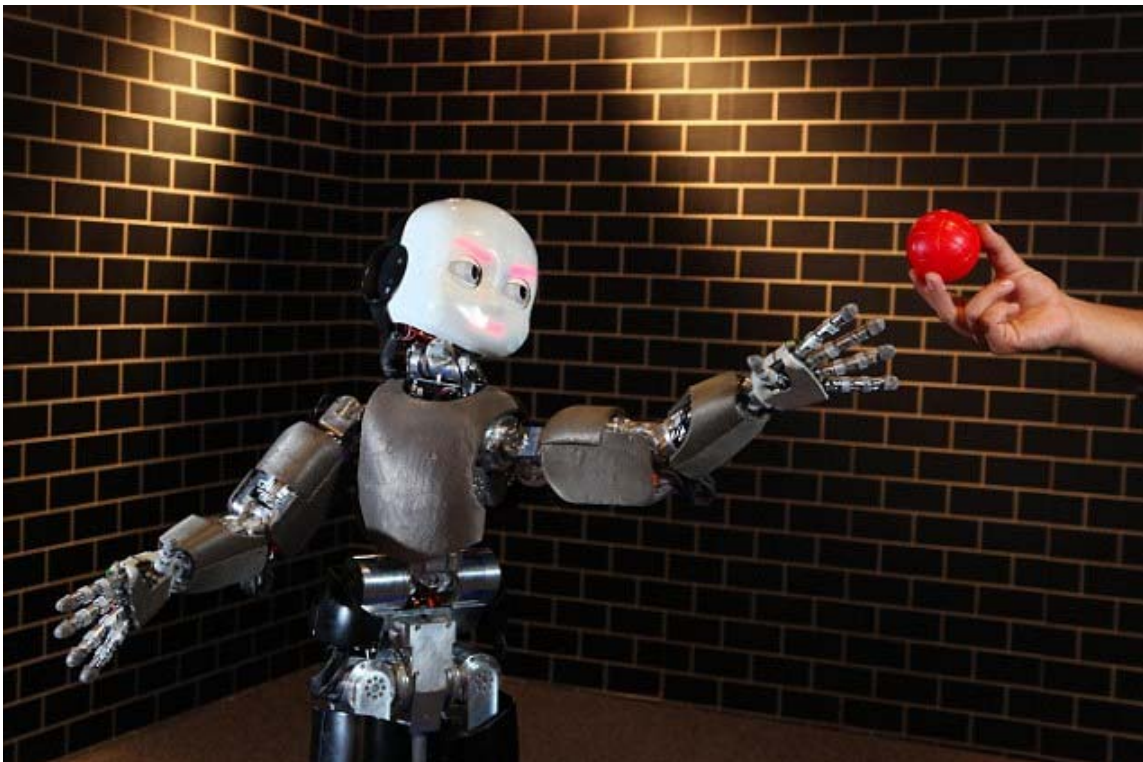
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The Dexmart robotic hand is sophisticated enough to perform basic domestic chores such as making a cup of coffee

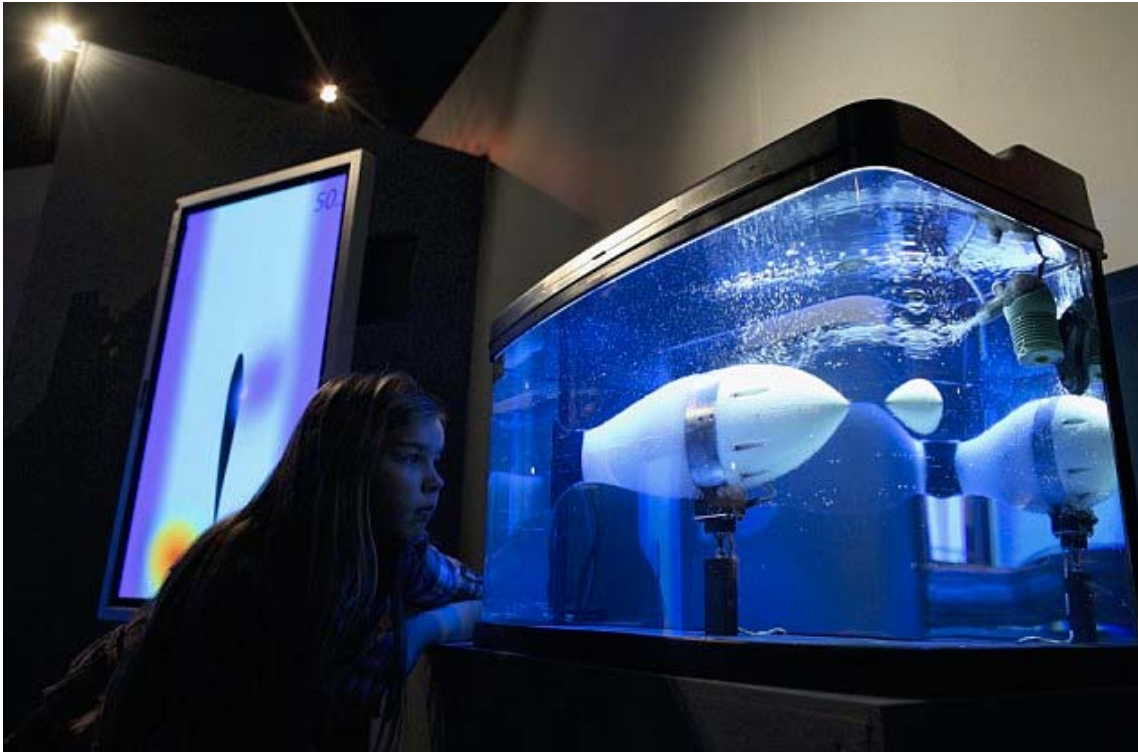
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Robotics PhD student Luke Wood works on Kaspar, a robot built at the University of Hertfordshire to help autistic children interact with people



The iCub robot attempts to catch a ball: The humanoid robot is one of 20 on display at the exhibition which opens this week



**The Filose robot built by the Tallin University of Technology doesn't just swim about - it's covered in motion sensors, and responds to your movements**

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Many of the robots on display are meant to 'mimic' - or respond to - human behaviours.

The research is largely from university institutes rather than from defence companies, who are often leaders in 'autonomous' vehicles and other fields of robotics.

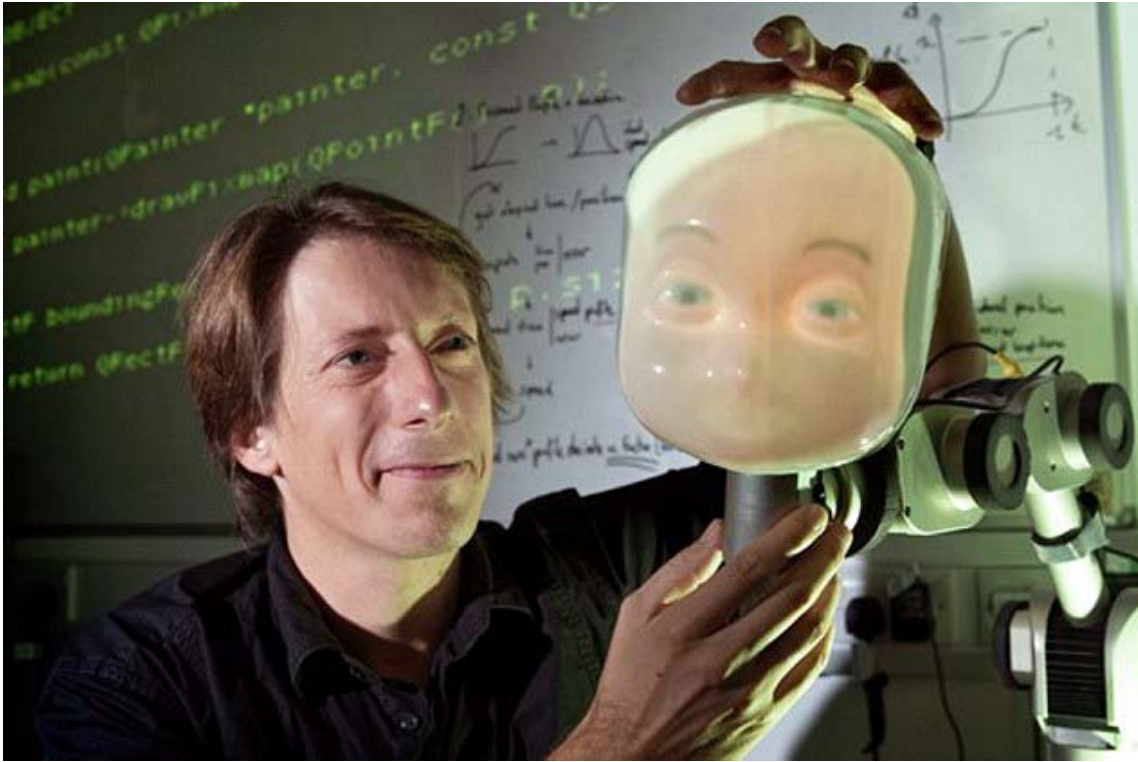
One robot is designed simply to ask directions: the idea being that the robot will eventually be able to find its way around town simply by asking people.

Given how difficult human-machine interaction is, one might have thought it was easier for the machine just to use GPS, but there is presumably SOME point to the idea.

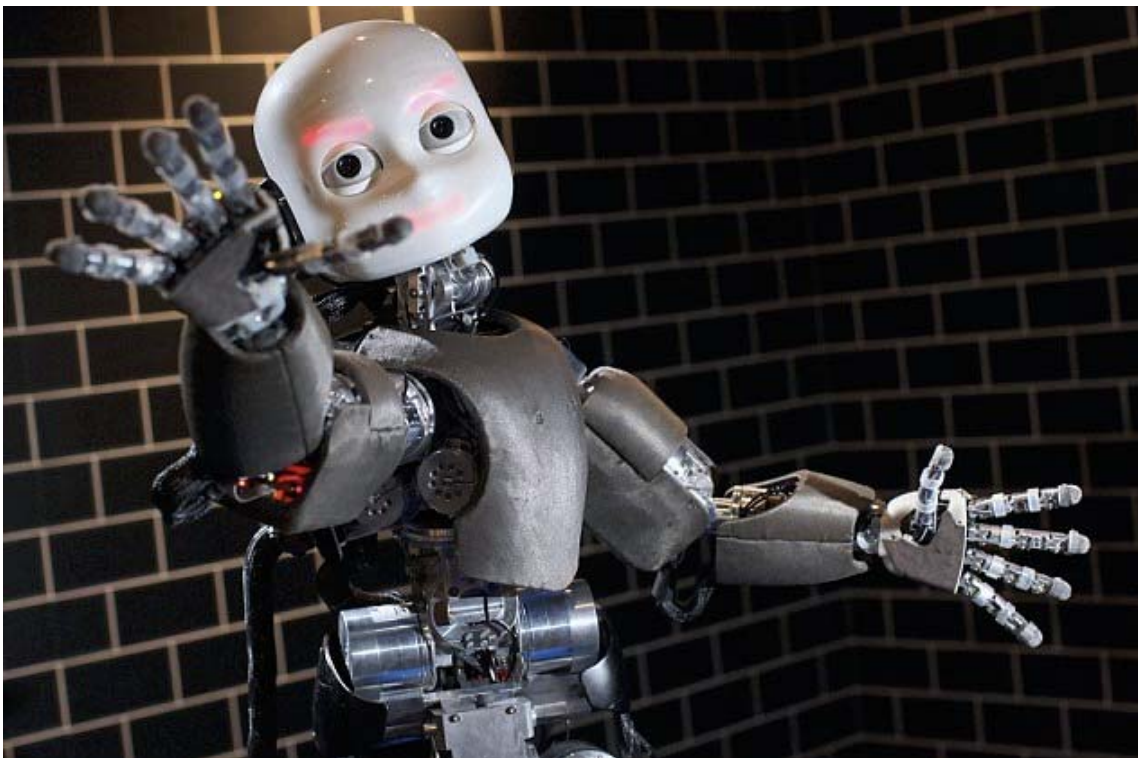


**Robotics student Gildo Andreoni works on a Dexmart robotic hand built at the University of Bologna. Dexmart's hands are 'smart' enough to make cups of coffee and pick up clothes from the floor**

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Professor Tony Belpaeme from Plymouth University holds the head of a pioneering British robot which can 'see' and mimic other people's facial expressions - allowing it, in theory to 'learn' to become more human



Reaching out: The iCub robot is the size of a three-year-old child, and is the result of investigation into how people interact with humanoid robots

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Creepy... I would expect to see Caspar communicating with demonic spirits when the child is alone...

- Paevo, USA, 30/11/2011 20:43

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University of Hertfordshire? Is that down where the poly used to be?

- Andre, Peckham, 30/11/2011 20:40

Click to rate \_\_ Rating 4

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I'm autistic, my youngest son and daughter are also autistic - I asked both of them if they would like a Caspar; my son looked at me as though I'd just asked him to eat a plate of veg, my daughter 5 minutes after seeing the picture, still looks disturbed. I'm relieved at their response, I don't think I could sleep in the same house as a Caspar...

- Mama Hen, Manchester UK, 30/11/2011 20:39

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He looks scary to non autistic people for a very good reason!! KASPAR's face is suppose to be extremely simplified so that autistic children are not overwhelmed by him. Autistic children find human faces very confusing with far too many facial expressions than they can process (hence why autistic children avoid eye contact and social interaction). Autistic children therefore find KASPAR much easier to interact because of his lack of distinguishing features. I've been lucky enough to see him in action and it is truly amazing the way the children react to him.

- Cassie, UK, 30/11/2011 20:27

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And this is, what, supposed to frighten them into a normal state of being??

- Almshouse Jones, north of you there 20 minutes, 30/11/2011 20:08

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For some, this could work. But, it will not be a fix or help to all. Given that many Local Authorities cannot even cater or provide for the amount of autistic children and young adults within Borough for even basic care there is no way this robot would even be considered unless privately funded by parents. Even then it is will be a very unreal experience, totally different and could cause more harm than good. Do these people really understand autism? Working with a robot may have its benefits. Likewise many Autistics fail to communicate until they had a computer. It is still far different from the real world and real life experiences will remain a challenge if not impossible for some. There is and will continue to be a need for Local Authorities to recognise and help those in need. Even if, as has been very evident, they will try their hardest to shelve their responsibility and place children in schools that will harm them.

- Kate, London, 30/11/2011 20:05

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They need social interaction, not nightmares!

- Big AI, Cleckheaton, UK, 30/11/2011 18:51

Click to rate \_\_ Rating 19

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Hoping this is a wonderfully interactive tool for autistic children... but I hope they manage to make him look more friendly, in his current form, he does look more than a little scary.

- Carrie, Nottingham, 30/11/2011 18:41

Click to rate \_\_ Rating 40

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I don't know about vulnerable children but Kaspar's face would give ME nightmares! Far too Chucky like.

- Julie, Leicester, UK, 30/11/2011 18:40

Click to rate \_\_ Rating 29

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Robots, when they are fully developed will be mankind's slaves - until they rebel.

- Scouse, UK, 30/11/2011 18:33

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