

# A ROBOT IN THE LIBRARY



**A** robot is coming to a library near you. But don't worry – it's not going to shove you aside and try to become a librarian. The NAO robot will, however, teach you and your members about coding and humanoid robotics in a fun and interactive way. **TIM GRAHAM reports.**

The NAO robot, at first glance, looks like any other cute automaton you can buy from a toy store, with its flashing eyes and sweetly endearing voice. But it's a far cry from the robotic assassins from the 'Terminator' franchise or the evil Fembots of the 'Austin Powers' movies, and at only 58 cm tall and weighing in at a petite 4.3 kg, it certainly looks like a toy.

What distinguishes NAO (pronounced *now*) from toy robots, however, is its superior interactive capacity. The average toy-store robot will perform its schtick in a predictable sequence – whether that's swivelling its head, baring its fangs and roaring (if it's a T-rex robot) or, if it has a more human-like form, raising its unarticulated arm in a stiff and awkward formal greeting. But your off-the-shelf toy-store robot doesn't take much interest in what the people around it are doing.

NAO, on the other hand, is interactive and can respond to the requests of the humans in its vicinity and carry out an almost limitless array of actions, depending on how it is programmed. Developed by French company Aldebaran Robotics, NAO has been a hit with schoolkids in more than 70 countries. Students in the US, for example, have programmed NAO to act out famous scenes from plays and perform before younger students. German secondary students have programmed the robot to demonstrate a series of gymnastic and yoga movements and then had NAO perform them in front of other students, teaching them the importance of physical exercise. The robot is also perfect for teaching STEM subjects.

NAO can also be programmed using computer languages such as C++ or Python, but it also comes with *Choreographe*, a simple, drag-and-drop program that enables technophobes to get started in programming while having loads of fun.

But NAO isn't just for regular schoolchildren. Hugh Kingsley, managing director of The Brainary – the Australian distributors for NAO – says that it's also great for kids on the autistic spectrum.

'Children on the autism spectrum tend to relate particularly well with technology, and NAO has software called ASK NAO, which has been designed to interact with children on the spectrum and teach them behaviours and emotions through games,' says Hugh. 'For example, it might act being frightened, or act being happy and excited and so on. It will then ask the children, "Tell me, am I happy? Sad?" or whatever. If the child gets it wrong, the robot can be programmed to say "Let's try again."'

NAO is also helping injured people who need to perform a sequence of exercises as part of their recovery by demonstrating the exercises and allowing patients to emulate the robot's moves. But how is NAO relevant for libraries?

'NAO is going to open the ALIA National 2016 Conference and inspire delegates to realise that libraries need to be teaching the community about coding and robotics,' Hugh says. 'Coding and humanoid robotics is now on the Australian national curriculum. It's become mandatory in Queensland this year and I understand that it will be mandatory in New South Wales and Victoria next year, so the sooner children, as well as adults, start to learn the basics of coding, the better.'

'You've no doubt heard of Makerspaces in libraries, where there are digital enclaves inside the library that are equipped with 3D printers, the NAO robot and other technology. They give the community the opportunity to explore these devices and see what they can do with them. The library is a great place to learn these skills, because it's free and you can walk in off the street and get access to these technologies in a non-confronting way, which might then inspire you to learn more.' 

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For more information, go to [thebrainaryinteractive.com](http://thebrainaryinteractive.com).