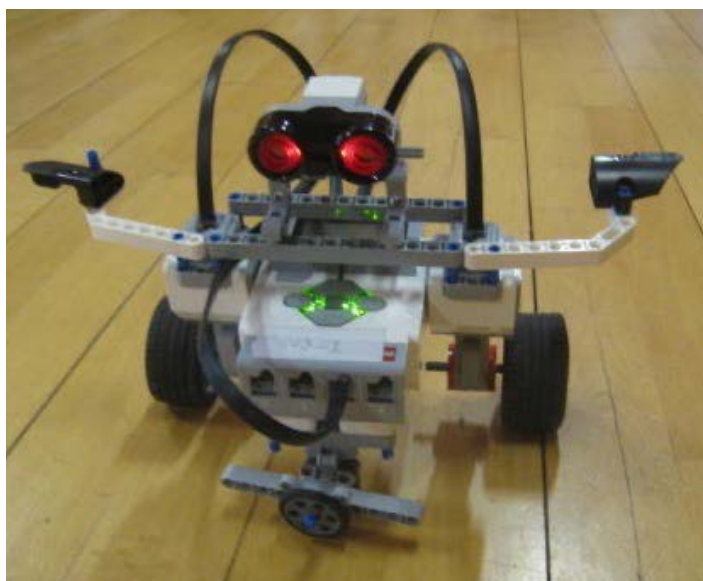


How professional bodies engage with the STEM Ambassadors programme



Background: Garry Packer – High Integrity Control System Engineer

I am a high integrity control system engineer. I studied electronics at college and then I spent 12 years in the Navy working on weapons systems. After that I worked for a company moving things like explosives and nuclear fuels, automating drilling for oil and working in water sewage treatment. Around 23 years ago I joined the Highways Agency and worked on various big projects, including improving traffic signals by moving them away from lamps to LEDs and then specialising in control room systems.



The STEM Ambassador journey

I heard about the STEM Ambassadors (SA) programme about six or seven years ago. I had done some engagement work in my son's primary school, and I'd been part of a reading volunteering programme with a Bristol charity. **It was fun to spend time out of the office every week, and there was a lovely sense of appreciation from the teachers that you gave up your time to do it.**

After a while I started doing some maths support alongside the reading and then I added in STEM activities. For me there were two objectives: one was about making maths fun – and the other was to promote engineering and working in highways engineering.

Until the pandemic, I would routinely trawl the opportunities for SAs shared by our local SA Hub and then I'd use the online platform to contact the school who'd made the request. After a while, there were schools that would routinely come back to me and ask me to return, but I always recorded and logged my activity on the SA platform.

My employer was part of STEM Learning's ENTHUSE programme, so I was partnered with a school locally. A teacher came in for work experience and I ran a STEM Club for their Year 6 pupils.



What I do as a STEM Ambassador

When the pandemic hit, there were lots of new opportunities to do online or virtual activities, so I did a lot of those. I've returned to doing in-school things now that I've retired and schools have opened up to visitors again. I run a lot of maths workshops and the topics I cover vary depending on the age group. I try and use the sort of maths that I used in my jobs in industry. For example, I've had teams of Year 9 and 10 students looking at the algorithms that control speeds on motorways – we've collected lots of good data which is ideal for what they're learning at school. **I use kit from our local SA Hub to build Lego robots so that I can teach the students about autonomous vehicles.** I've done bridge-building competitions, careers fairs and interview workshops too.

But my most popular sessions are very different: I'm a beekeeper so I talk to the children about bees and insect pollinators. If the school is local to me, I can take my bees into school – as long as the risk assessment is OK! I try to make sure that the things I do fit into the curriculum: if I can support teachers with their planning, I do. **I like to ensure that they can see the connections between what they are teaching and what I can offer them.**

Sometimes the reaction from the kids is really good. They tell me that it's the best lesson they've ever had! That's what keeps me doing this: the appreciation from the school. When you get positive feedback about your sessions, you get some big wow moments!

About STEM Ambassadors

STEM Ambassadors is a fantastic volunteer programme that has been running for over 20 years.

Our volunteers offer their time, passion and energy to visit schools, colleges and youth group organisations to deliver requests from teachers and youth group leaders who want to link STEM subjects to the real world of work.

Find out more at our [information session](#).



Become a partner

Our STEM Ambassadors programme inspires the next generation and helps young people to develop the skills, confidence and mindset to build successful futures in STEM.

By running a STEM volunteer cohort we provide even more opportunities to connect young people to real-life STEM careers, prioritising support for those who need it most.

Find out more at our [information session](#).



How to get involved

If you have been inspired by how STEM Ambassadors support the learning and development of young people across the UK and you'd like to know more, please contact us at employersupport@stem.org.uk or visit stem.org.uk/stem-ambassadors/partner-info

 @STEMAmbassadors  /STEMAmbassadors