# #MeetOurSTEMAmbassadors
## We have so many amazing volunteers and we'd like you meet them!

**DEBP**

| About me | | |
|---|---|---|
| **Name:** | Steve Markham | **Photo:** |
| **Location:** | Newcastle Upon Tyne | |
| **Job/course title:** | Director/Contract Quality Engineer | |
| **Organisation:** | STM Quality Limited | |
| **Fun fact about me:** | I love to play drums and keyboards – much to the delight of my neighbours. | |

### Education/career journey:

I attended George Salter High School, West Bromwich. I loved Engineering, English and Science, but went along with everything else. Seeing the moon landings as a small boy was the most fascinating thing I'd ever seen and as my Dad told me – getting them there was the easy part – getting them back to earth was probably more difficult. My Dad was a press toolmaker – taking sheets of metal and making the tools that could form them into such things as wheelbarrows, kitchen sinks and car doors – so he was my biggest inspiration as to why I became an Engineer.

### Your current job:

I've had my own business for over 14 years now. I'm a Quality Engineer and I help many other businesses develop new products and make improvements to their existing products and manufacturing processes. I also help in developing systems so that everyone has processes that they can follow that will ultimately lead to better and better quality. I mainly work in the automotive industry so I get to see many new cars long before they are launched to the public.

## Nice to get to know you!

## STEM Ambassador role:

I became a STEM Ambassador in April 2018 and I've participated in many events – career speed networking, CV building, mock interviews and I've also delivered some practical activities such as welding with chocolate. I enjoy talking with lots of young people and helping to inspire them to consider taking a career in STEM. Being passionate about what I do and having the enthusiasm hopefully shows them that STEM subjects and careers are really exciting. View my **short video** about being a STEM Ambassador.

## Student challenge:

Most Engineers spend much of their working life solving problems. So here is a typical problem.

*I want you to think about not only how to solve the problem, but how to stop it ever happening again*. This is just for you to think about.

So here are the facts – this is what you know so far:
- You work at a company that makes a switch for a car.
- Your company makes thousands of switches every week and delivers the switches to the car assembly factory in boxes of 500.
- The car assembly factory has found a problem with one switch – it doesn't work.
- It has come from the latest box of 500. They have no more switches there.
- They have asked you to check all switches in the box at their factory.
- You have checked them - all of the other switches work.
- So, there is only one switch that doesn't work, *but why?*

Your ideas are now needed – so what could you do?
- Your factory is currently making switches – can you be certain that they are all working?
- How would you test them?
- Are there any instruction for the workers who build them?
- Are all workers following the instructions?
- Could the switches get damaged in any way?
- How could you be certain that all switches are working perfectly when they leave our factory?
- How can you stop this problem from ever happening again?

*Nice to get to know you!*