



## Celebrating Women In STEM with Penny Morton

Former Morrison's Academy pupil, Penny Morton is a senior project engineer at Koolmill Systems, a UK company which is leading the world in delivering a modern, ultra low power, simplified and sustainable approach to cereal milling.

She is also the founder of DIYWomen which runs workshops to equip and empower women with practical skills and engages with employers to create more diverse and inclusive engineering, construction and trades workforces.

Penny graduated from the University of Glasgow with a first-class honours degree in MEng Product Design Engineering and was selected as a Young Pioneer on the Manufacturer Top 100 List. Throughout university, she was President of the Female Engineering Society, promoting female interest in engineering, an Equate Scotland student champion and awarded the GUES Medal 2020 - graduate most likely to contribute to the engineering profession.

Let's find out what makes Penny tick when it comes to STEM:

### **What's your favourite memory of STEM at School?**

I loved the feeling of solving complicated mathematical problems in advanced higher physics and maths. However, my favourite part was then applying this knowledge in a creative way in advanced higher art where I explored geometrical structures in fashion.

### **Tell us about your career journey so far?**

During a work experience week in 5th year at school, I was lucky enough to speak to engineers working in industry at SSE. My eyes were opened up to the many different career roles and opportunities within STEM. I realised that by doing engineering I would gain a range of transferable skills that would set me up for life. I loved the idea of being able to move freely from an engineer in the food industry to one in healthcare for instance.

I then completed five years at University to gain my Masters in Product Design Engineering, which involved studying mechanical engineering at the University of Glasgow while also completing engineering design projects at the Glasgow School of Art. During each of my summers I completed various internships and volunteering roles around the world, involving diverse teams, different cultures and unique challenges. These included:

- Teaching children how to swim at Camp America
- Bringing a permanent water supply to a rural village in India through a charity
- Building robotic beer taps - through IAESTE - in Turkey
- Designing solutions to improve efficiency in industrial power systems in China through IAESTE

I graduated during the pandemic so many of the jobs I had lined up fell through as companies stopped hiring. Luckily through my network I managed to secure a job working at Koolmill Systems, which produces a patented rice processing technology that is set to transform the industry. I have been incredibly lucky to find a company that shares my passion of using innovative technologies to bring about positive and sustainable change.

**What is the best thing about your job?**

I enjoy it when we run tests on the machine. I feel like I'm back in science at school as we measure the weight and temperature of the rice before and after, except this time our data is used in real life. I've been lucky enough to travel to Nigeria and Kenya with my job which is a dream come true for me. Leading a project from start to finish as we design, build, test and improve is an exciting process and extremely rewarding when it goes to plan.

**What's your advice for girls who aspire to follow a career in STEM?**

Don't be scared to ask for help, stay curious and challenge yourself. I recommend using your summers to learn something new and put yourself out of your comfort zone - you will gain valuable experience, skills, knowledge and also meet new people! Interestingly enough it's in the jobs I have not enjoyed as much that I have learned more about myself and it's helped me decide the type of career I want to have. Also seek out a mentor a few steps ahead of you in a career you are interested in.

**Who was your STEM inspiration growing up?**

I didn't have a STEM inspiration growing up, but I loved STEM subjects so that really inspired me to keep learning. I struggled to find a degree that combined both my interest and skills in physics and maths but also my desire for creativity. To help me decide my future career path I visited lots of open days and gained work experience in a range of disciplines including architecture, medicine and engineering. There are so many courses out there that you don't know about - be open-minded and find the course that excites you. For me this was Product Design Engineering, it allowed me to solve problems creatively and challenged me academically.