

STEM is for everyone

When Fiona Holmstrom saw a gap in her children's STEM education, she decided that she would be the one to fill it, despite not having a STEM background. Six years after co-founding STEM Punks, Fiona is an example of how you can enter and succeed in STEM at any time in your life as long as you are persistent and passionate about what you want to do.

Can you tell us about what you do?

I'm the co-founder and director of STEM Punks, a company that provides science, technology, engineering, and mathematics (STEM) education to children all over Queensland and the world. My role at STEM Punks differs from one day to the next. One day I could be brainstorming program ideas with the team for a new client and the next day I might be travelling to North Queensland to visit a school. Anyone in a start-up or scale-up knows that you're always wearing many hats and that's one of the things I find interesting and fascinating about my job. There's no two days that are the same.

What drove you to start STEM Punks?

It began when I started researching my own children's education. I immigrated to Australia, so I knew different curriculums existed. At the time there were subjects in isolation being taught in schools, but STEM hadn't yet been introduced to the Australian curriculum at the national level. One such subject was coding and robotics, which I began teaching to local children in my garage. When those children went back to their schools and told their teachers what they were doing after school, those teachers called us to hold STEM classes at their schools, and that's how STEM Punks started six years ago.

How is it different working at a STEM education start-up?

Working as an entrepreneur or a business owner requires a different mindset than working as an academic because the environment is different. STEM Punks is self-funded and running on a bootstrap.



Fiona Holmstrom

Discipline: Science, technology, engineering, and mathematics (STEM) Education

Organisation: STEM Punks

Degrees:

- Bachelor of Fine Arts in Creative and Professional Writing
- Master of Arts in Writing, Editing and Publishing

Key words:

- STEM education
- Start-up
- Ground-breaking
- Passion and persistence
- Girls in STEM

Social Media:

- www.stempunks.com.au
- Facebook: STEM Punks AU
- Instagram: stempunksau
- Twitter: @stempunksau
- LinkedIn: company/stempunks

Prize: Queensland Women in STEM Prize 2021
– Highly Commended



We always are conscious of resources and marketing which can be outsourced to other departments if you're part of a university or a multinational corporation. In a start-up, you are always thinking of how to provide the best STEM education and most positive impact to as many children as possible in the most economical way.

“*...I began teaching to my children and local children in my garage.*”

What excites you the most about what you do?

Seeing the difference that we make in children's lives. It's so rewarding, and the novelty never wears off. When you see faces light up and shifts in body language when they realise that they've solved a problem using STEM, you think, that's why we do this - to make a difference and to make a positive impact. We want them to know they can work or study in STEM and that there are hundreds and thousands of options available. Being able to take that message to children, that STEM is for everyone and everyone can do it. That's the best part.

Is there an impactful moment in your STEM journey you'd like to share?

When we get feedback from parents and teachers, it's wonderful because you don't know the long-term impact you have until someone tells you. That's when you really know the legacy that you have left behind. Recently, I was speaking at a school and a parent said they had something they wanted to tell me. He told me that his daughter had attended one of my STEM Punk classes when she was in high school and now she's in university studying science. He told me it was all because of how the class exposed her to STEM. I was very moved because I don't really get direct feedback very often. I look back on that quite a lot and think, that's the takeaway, to positively impact children, especially girls, so that they will consider a study or career path in STEM.

What is a challenge that you have encountered?

A big challenge is getting more girls into STEM. That's where, unfortunately, there's still a long way to go. By involving stakeholders and creating awareness of why it's important, gradually we will be able to attract more girls. However, the ultimate goal is where we don't have to market so aggressively because girls in STEM is just part of the picture.

Recently, there has been 40-50% attendance by girls at STEM Punks engagements in Australia which have been traditionally dominated by boys, so we know we are making a difference. It's encouraging, but there's more work to be done.

I hope that eventually everyone is included in STEM because increased inclusivity and diversity results in the best innovation. Making STEM accessible and relevant to everyone is really the ultimate goal.

What advice would you give young people who are looking at going into STEM?

Use the free resources that are available to you, especially those online, to explore all the study and career options that are available to you. Talk to your teachers, your mentors, and your peers. Find someone to ask questions to. It's an important first step in finding something that will truly be relevant to you, that you are interested in, and that you would enjoy doing. After that, reach out to leaders in the fields you find interesting. Ask them how they got to where they are and what path they took. Some of those people might have had non-linear journeys. Some people start out in non-STEM fields and then switch to STEM. Ask people to mentor you or have them be your role model. Find out what people have done in the past and try to emulate their successes.

You won a Queensland Women in STEM Prize. How did this benefit you?

The prize gave us fantastic recognition of the work we've been doing to get more girls into STEM. Since receiving the prize, we've been able to better platform discussion such as how to get into STEM, what STEM looks like, and why STEM is important. There are still misconceptions that STEM is only something boys do or that it's boring or that it's this or that. Just creating awareness of what STEM is and what fields are available make it more accessible to everyone.

It's also why the existence of the prize is vitally important to the success of STEM in Queensland. It tells school children that they can stay here, study STEM, and get a career in many different industries, and be successful. That's what is really valuable.