

# 'HAVE A PLAY!' Pitsco Robotics Certification Program produces world's first Pitsco Robotics Certified Educator



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In 2001, Peggy Mangovski was a successful software developer in Australia, operating several small businesses and working as president of the local business chamber to improve community programs. By the end of that year, she had begun training to become a computer science teacher.

"Having come from a disadvantaged background, I used my businesses and status within the community to help at-risk youth develop technology skills and find employment," Mangovski said. "It was the part of my job I didn't get paid for but found the most rewarding."

Eventually, though, the extra hours became too much. "I decided to sell my businesses and retrain as a computer science teacher, so I could balance both passions," she explained.

Mangovski now holds dual roles in her job for the New South Wales Department of Education in Australia. She is the head STEM teacher for the Cessnock Academy of STEM Excellence (CASE) as well as the project and diversity leader for the STEM Industry in Schools Partnership (SISP). It is this second role that led her to further her robotics training and become the world's first Pitsco Robotics Certified Educator.

"SISP has partnered with Pitsco and Kookaburra Educational Resources [Australia's Pitsco dealer] to design and develop a robotics competition and curriculum based on mining sustainability and rehabilitation," Mangovski said. "Mining is a big industry in Australia, but with growing environmental concerns, we knew it was important to find a way to use technology to solve big problems around planet health and people safety."

## TAKING ON TETRIX®

Knowing that if she were to lead this new program centered around robotics in mining careers she would need to know everything she could about TETRIX and coding, Mangovski eagerly signed up for the Pitsco Robotics Certified Educator event held in Australia in June 2019.

"Our goal [with SISP] is to increase the awareness of environmental science and cyber technology careers for students and create more seats at the table for girls and low socioeconomic and indigenous students within STEM careers," she said. "Being a well-known robot lover and STEM equity warrior, I jumped at the opportunity to help lead the program and complete the TETRIX training."

## BUILDING ROBOTS – AND EXCITEMENT!

Mangovski was so motivated by the TETRIX training, she returned to her classroom and immediately tried it out with her students. "I knew my students would love building and coding with TETRIX, so I cancelled my appointments the following week to run an in-school workshop for them." After recording her students working with TETRIX, and sharing her results on social media, she wrapped up her certification and earned the title of the world's first Pitsco Robotics Certified Educator!

"The TETRIX training was an absolute blast," Mangovski said. "I loved building the bots, and the kits are so easy to use. The fact that I can differentiate the coding level for my students with either Ardublockly or Arduino is a huge advantage. And being able to combine PRIME and MAX kits interchangeably to create bigger, better, and funkier robots is brilliant."

The training also helped boost her confidence level with robotics and coding. "Teachers rarely get time for their own learning, and we certainly don't get time to 'play' with the technology before we're expected to be experts," she said. "The TETRIX training gave me the time to experiment. It also gave me an idea of where students might get stuck with problems, so I could prepare for teachable moments."

## 'HAVE A PLAY' FOR YOURSELF!

For teachers unsure about venturing into robotics and coding, Mangovski suggests they "have a play" and get to know the product and curriculum before trying to implement it in the classroom. A Pitsco Robotics Certified Educator event is the perfect way to let teachers engage in hands-on learning. To schedule an event in your area, contact Mohit Abraham at [mabraham@pitsco.com](mailto:mabraham@pitsco.com).

Mangovski also advises teachers to relax and let things roll. "I prefer an inquiry-based teaching method," she said. "I let the students find and solve problems while encouraging them to stretch the coding or designs just that little bit further. . . . TETRIX is so easy that teachers don't need to have all the answers, which allows the learning process to take on a life of its own." 

