

Professor Elena Rodriguez-Falcon Mechanical Engineer



### Hi there! I am Prof. Elena Rodriguez-Falcon –

### A mechanical engineer



### Where do I work?

I work in a university. I used to work in manufacturing, cement and food companies as an engineer and an educator, to teach students to design medical devices for people with disabilities.

### What did I like doing when I was at school?

I always liked understanding how things worked and making them better. When I was little, I looked inside my 'crying doll' to see how it worked. I also liked conducting chemistry experiments! What do I like doing in my spare time?

I like playing PokemonGo, listening to books, and going to the cinema. I also like spending time with my family and pets.

#### What do I do as a mechanical engineer?

I teach engineering students to find solutions to day-to-day problems, such as helping people with disabilities have a better life - for example, helping someone to be able to talk with the use of an electronic glove, or a walking frame for children with brittle bones.



#### How does what I do make the world a better place?

Teaching engineering students to solve problems creatively for people with disabilities helps them have more fulfilling and independent lives, and also, helps their carers have a less stressful time looking after their loved ones.

### What I like about my job

I really like working with engineering students, particularly working with them to find fun, creative and the right solutions for problems that really matter, like helping vulnerable people.



### **Challenges I have faced**

Engineering is often misunderstood. Some people think it is a career just for men. I decided to challenge that idea and I discovered that I could make a real change. Unless more women decide to study engineering and change the world, it will always be a bit harder to work with just men.

### If you want to be a mechanical engineer, you need:

- **curiosity,** so that you can spot problems and are curious enough to want to solve them
- **creativity,** so that you can come up with various ideas to find the best solution
- **a caring disposition,** to want to change the world
- # grit, to pursue that innovation which will make a difference to many people



## **Discussion time**

Would you like to be a mechanical engineer like Professor Elena Rodriguez- Falcon? Why? Why not?



- What skills and interests do you already have that would help you become a mechanical engineer?
- What new skills and knowledge would you need to develop?

#### Free supporting resources for mechanical engineering

<u>I bet you didn't know...</u> articles use cutting-edge science research as a context for learning. Teacher Guides describe the research, suggest activities and investigations for children, and can be used as classroom presentations:

- Water can be harvested from the air in very dry climates
- What small robots can do
- Toilets in the future may charge your mobile phone
- Weird, wiggly, crawling wheels roam Mars

<u>Science and STEM Clubs</u> – see 'Engineering our World' and 'Challenge Chasers' for ages 7-11

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