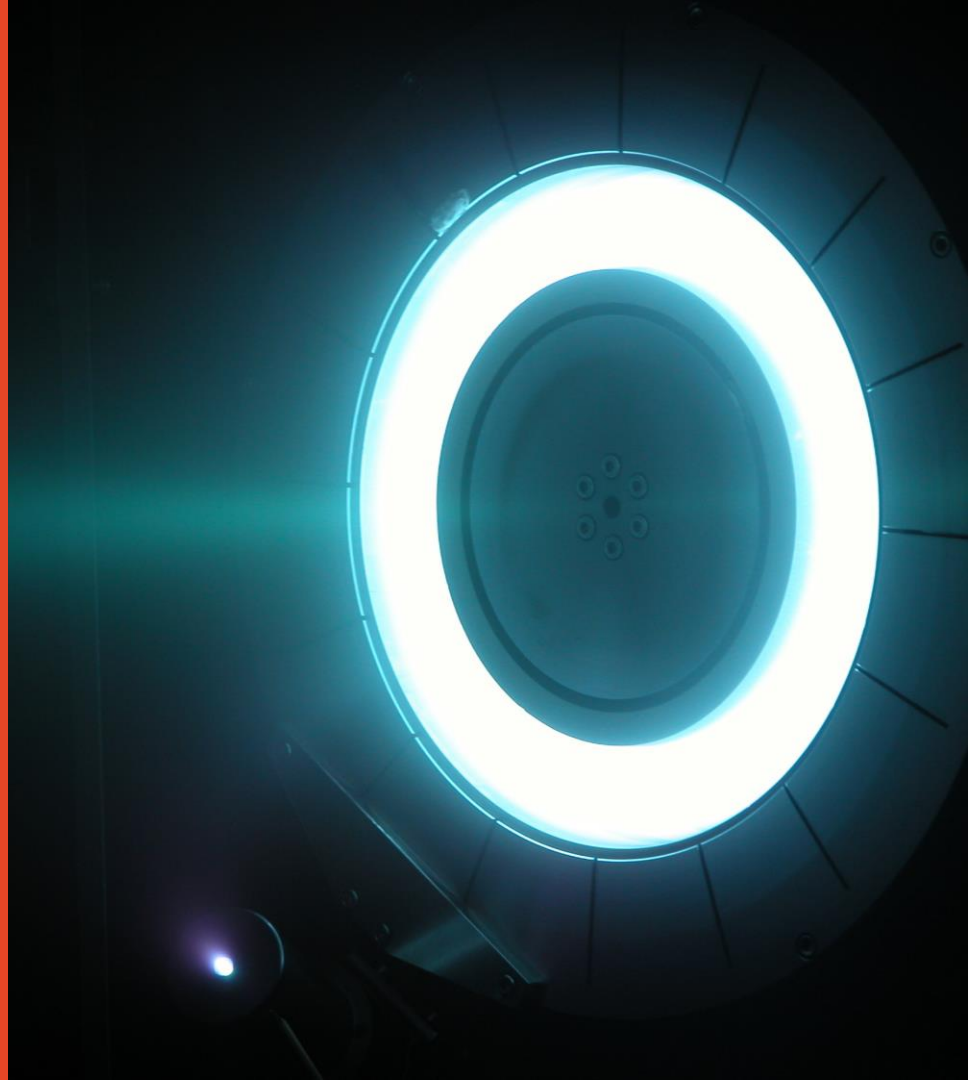


Presenting in High Schools: An Engineer's Guide

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Faculty Communicator Training 19/2/20



A little about me...

- **4th Year Mechanical (Space)/Physics Student @ USYD**
- **Faculty Communicator/Student Ambassador**
- **Engineering Leadership Scholar**
- **Immediate-past President of Mechanical Undergraduate Society and Vice-President of Physics Society @ USYD**

- **Definitely not someone with an education degree (experience is always the best teacher!)**

Agenda

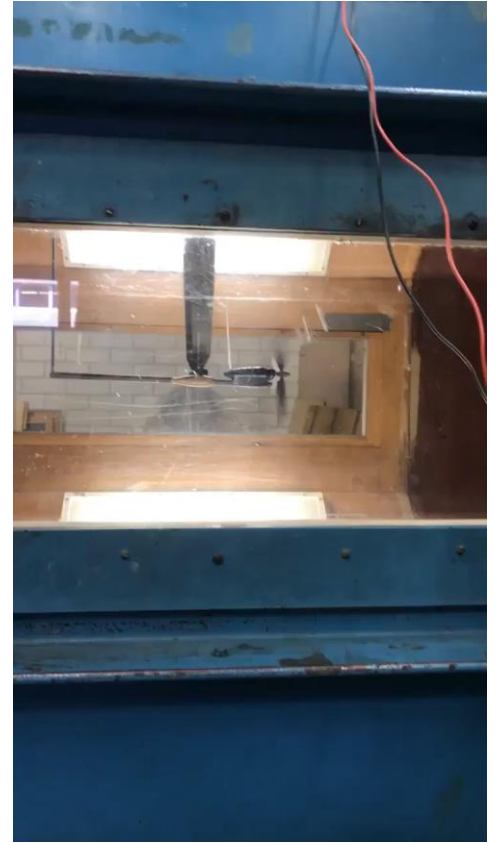
- **Kicking off in an engaging way**
- **How to pitch to students**
- **Domestic schools etiquette & technique**
- **International schools: a general overview**
- **Q&A**

Kicking off in an engaging way

- **The way you start talking to students determines how successful you will be**
- **You have 2 minutes from when you walk in the room to when the students will have an opinion set in stone**
- **Start promptly, and strongly**
- **Give them a good story**

What does studying engineering look like?









Opportunities



We're taught by some really cool people...



It's also REALLY fun



Activity: a good story

- Turn to the person next to you
- You've got one minute between you to work out the most exciting thing you've done at uni
- Will need: 3 volunteers with 30s each to tell some stories

How to pitch to students

- **If you've been at uni for a while you will probably have developed a bad habit:**
 - You will explain things like an engineer

And there is nothing worse...



Students aren't silly!

- **They know when you use the “magic” anecdote and they hate it**
- **If you've grabbed their attention then they are all willing to learn**
- **You want to tell them the truth in a way they can understand**
 - No maths beyond ~Year 10
 - Convert complex jargon into useful language
 - Build your explanation from the ground up

Something I prepared earlier

- **I'm going to explain plenoptic cameras in two ways:**
 - The engineering manner
 - The non-engineering manner

- **Same content – different impact: agree?**

Top tips

- **Treat it seriously like if you were a teacher**
 - Be prompt
 - Dress well
 - Be in a position to command the room (but not the students)
- **Be prepared**
 - Have everything ready for when the students walk in
 - Not being prepared eats into those two minutes

– **Be ready for anything**

- The students could have just walked in from sport hyper or half-dozed from English
- Chat with them as they walk in – gauge the audience and tailor accordingly
- The teacher gives all the info you need (if you know how to read them)



Most importantly...

- **Interact with the students!**
- **Teaching is not a chore – enjoy what you're leading the students through**
 - You should chatting, roaming the room, lending assistance
 - Just giving the answer is no fun – give them the tools to discover the answer

International schools: a general overview

- **Same rules apply as in domestic schools**
- **A bit more juggling:**
 - Different curriculums, some more advanced than Australia some not so
 - Juggle the technical with the language capability (this is not easy)
 - Different cultural norms: some students will be very uncomfortable with a very engaged approach

Tips

- **Use the chat to not only gauge the audience, but also their language proficiency**
 - Some countries with a strong focus on bilingual-ness students will be very comfortable with a presentation you would give in a domestic school
 - Others you will need to alter you plan (being agile is the key!)
- **Greet them all as they walk in and as you start**
 - You want them to feel comfortable: in most cases the way you present will be wildly different to how they are usually taught

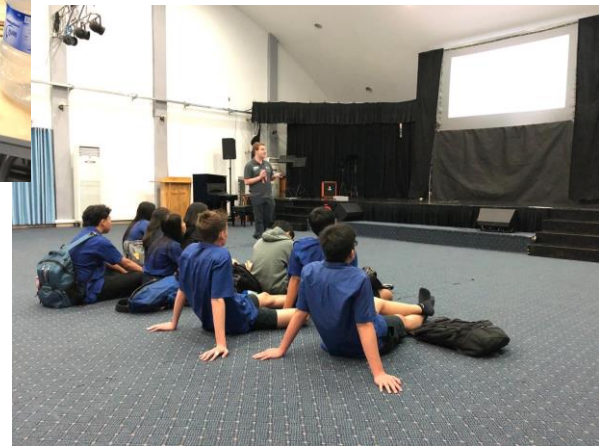
How can I prepare to teach students from somewhere that I haven't taught before?

- **Simple answer: you can't**

- You can be ready to adapt what you've got readily (you need to know your material really well)
- It all comes down to working out cultural norms, language etc. as you go.

- **A case study**







Q&A

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