

A low-angle photograph of a classical building facade, showing a large, fluted column and an ornate capital. The sky is blue with some clouds. The image is partially obscured by a large orange arrow pointing to the right, which contains the main text.

50:50 Participation in Pre-19 Engineering Education

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UCL

- In 1878 UCL became the first university in England to admit women on equal terms with men
- Today UCL is the only UK University to hold both a Silver Athena SWAN Award and a Race Equality Charter Bronze Award
- Widening diversity in every sense and increasing gender equality is a key priority



UCL Engineering

- UCL Engineering is made up of eleven diverse departments
- In 1827, founded first laboratory in the world devoted to engineering education
- 36% of female students across the Faculty of Engineering; 38% of female students are postgraduates while 31% are undergraduates



Aim

- Gender equality at all levels as well as with our school and industry partners – *eventually!*
- Show diversity in what Engineers do and its impact to society
- Challenge stereotypes & unconscious bias, show real choice
- Informal networks across the Faculty



50:50 Engineering Engagement Strategy



- A step change in the representation of female students
- Equal opportunity to engineering education for both girls and boys from a very early age
- Show how Engineering meets the needs of different people

50:50 Engineering Engagement Strategy



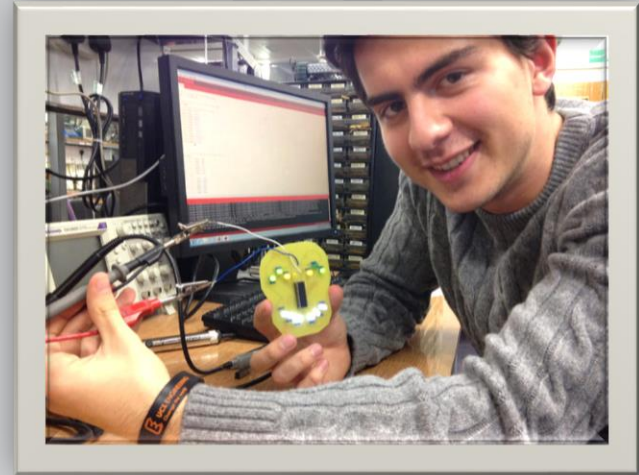
- Promote inclusion both in participation and programme design. Learning made accessible through differentiation
- Ensure good gender & racial representation from staff & students
- Foster empathy, fairness, tolerance and diversity in every sense

50:50 Engineering Engagement Strategy



- A clear, consistent message to show young people real choice
- Changing stereotyped perceptions of suitable choices & careers in young people – both girls and boys
- Including individuals otherwise excluded due to invisible social structures
- Cater for a broad range of abilities and levels of understanding

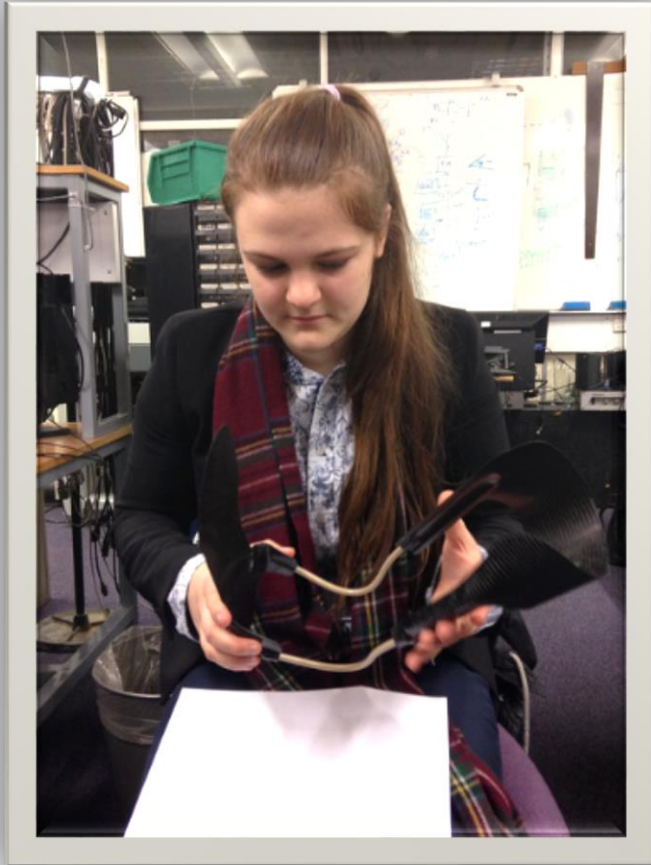
Students designing their favourite objects



Students improving & hacking wheelchairs



Demonstrating the design and research around prosthesis



Our Engagement in Numbers

- **134** programmes, events and activities
- **529** primary and secondary schools in London and the UK
- **6000+** young people aged 5-19 years old
- **623** staff and students designing & delivering our programmes & activities

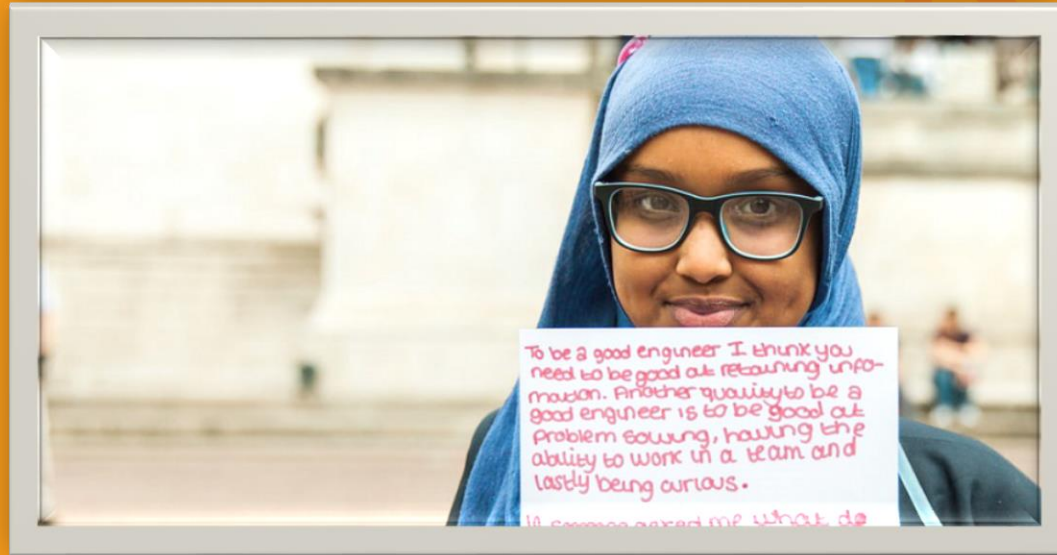


Challenges & Barriers



- Achieving buy-in and support from teachers and key stakeholders
- Changing misconceptions about Engineering in young people and their key influencers
- Breaking down silos in the field. Taking advantage of potential for synergies and vast knowledge of people in this field

Our Impact in Numbers



- 62% increase of female participants in our Pre-19 Engineering Engagement programmes
- 43% increase of female participants in school-led STEM activities
- 93% of female participants have positive view of engineering (upon completion of our programmes or activities)
- 69% of female participants aged 17-19 years old apply to study engineering at UK universities or for apprenticeships

Conclusions

- Deceptively simple criterion

50:50

- Clear message. Engineering is diverse, both in application and participation
- Enables teachers & participants to challenge stereotypes
- Network of students and staff through the Faculty



Thank you!

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UCL Engineering

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