South Devon High School

Lumentum photonics

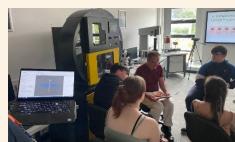


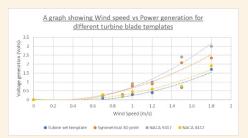
Can 'micro' wind turbines solve the energy crisis?

Energy costs are rising, global temperatures are soaring; we are in a global climate and energy crisis. Faced with huge challenges, could the solution be small? Large wind turbines are scattered through the British countryside and are an important provider of renewable energy. Our team of 14–16 year-olds set out to investigate whether small-scale 'micro' wind turbines could save the world, or at least charge our mobile phones.









We discovered that the design of wind turbines is very complicated and uses science such as aerodynamics and computational modelling. However, we 3D printed our own blades (based on industry standards) and discovered that factors such as the wind speed, number of blades, blade aerodynamics and blade angle all contribute to power generation. In summary, our 'micro' turbines could help!

Funded by a partnership grant from