Engineering Education Scheme

Year 12 students, Brian Hornsby, Amir Nayebkosh, Kai Tattingham and Joseph Webster have recently completed a six month enrichment project taking part in the Engineering Education Scheme (EES). This prestigious educational programme allows teams of selected students from schools across the region (Beds, Bucks, Herts & Cambs) the opportunity to work with a local engineering company on a project based working partnership. The four students worked alongside two professional engineers from Niftylift, Sam Thornton and Thomas Cousins (previously a Denbigh Engineering student, now working as a Design Engineer at Niftylift) on a real life engineering project set by the company. The boys were given the brief to design and develop a prototype test rig to evaluate the strain gauges on the machines manufactured at Niftylift. The purpose of the strain gauge is to monitor loads that the machine carries on the platform as a safety feature. This was a challenging brief which required the students to develop strong skills in team work, structured research & design and manufacture. They applied their skills and created solutions suitable for industrial application.

During the project the team attended a launch event in October 2014 at Anglia Ruskin University. After the launch day the students held weekly meetings with their link engineers either at Denbigh or at the new Niftylift factory based at Shenley Wood working on research and design for a practical solution. In December they attended an overnight two day workshop at the Department of Engineering at the University of Cambridge residing at St. Catherine’s college to focus and develop their ideas and utilise the University’s workshops and test facilities. This gave the students valuable meeting time to discuss plans and consult with Sam and Tom on their final idea. On returning to school they set about working on manufacturing the parts for their full size test rig.

The EES project culminated with all of them compiling and submitting a professional Engineering report for assessment and at the final presentation day of the Scheme at the University of Hertfordshire in April they delivered a strong presentation to a group of professional engineers working in the industry. In addition to this, the group produced an excellent display stand of their work which required them to promote their work and final design solution to other EES students, teachers and engineers. They did this with confidence and professionalism.

The team have been put forward for the BA CREST Gold award and Exscitec Platinum award.
The EES is run by the Royal Institute of Engineers, whose aim is to promote engineering in schools and to inspire potential young A-Level students in the Engineering, Maths & Science subjects and to consider the exciting and challenging career opportunities in this sector. They do this by linking schools with local engineering companies to work on real life projects. Denbigh School is extremely proud and grateful after 9 years of support from Niftylift to continue with this excellent partnership. Niftylift design and manufacture elevated access platforms which are used in the plant and construction industry and sold all over the world. It is a company that recognises the importance of supporting young engineering students. Many of our students who have been selected to take part in the Scheme have gone on to undertake university degrees in Engineering and Industrial based Design and have secured careers in the engineering sector. A number of Denbigh students have gone on to undertake extended work placements at Niftylift, apprenticeships or now work at the company. Thomas Cousins is a prime example of how well the Scheme works. During his time as a Denbigh student he took part in the EES, and then after completing a first class degree at Loughborough University he secured himself a position as a member of Niftylift’s Product Design and Development team. Thomas now finds himself advising current Denbigh students. Additionally Joseph Webster since completing this project has been offered an apprenticeship with Niftylift starting in the summer.