

Renishaw Education Outreach

C++ software coding of RenBed buggy

3 hour workshop

This exciting workshop is an ideal starting point to get pupils thinking about coding. The session gives the pupils the opportunity to gain hands on experience as they learn and develop their coding skills using the RenBed buggy to complete a set of challenges.

The RenBED buggy is made up of a microcontroller development board which is used to run software as well as electronic projects. The RenBED is programmed in C++ which is a popular and highly desired programming language.

A tour of the manufacturing facility, additive manufacturing (3D printing) labs and a careers talk will end this exciting hands on workshop.

Biscuits and refreshments will be served during the workshop.

What are the benefits to pupils in your school attending this course?

- Learn fundamental computing concepts.
- By using the RenBED pupils will gain an insight into a microcontroller used by companies like Renishaw.
- Understand and use C++ coding.

Who should attend?

- Key stage 2 pupils
- Key stage 3 pupils with an interest in computing, computer science or software engineering
- Key Stage 4 pupils with an interest in computing, computer science or software engineering

Curriculum links

- Use programmable/computer control systems that can create, test, modify and store instructions to control events. (National Curriculum for Wales – Design and Technology Key Stage 2 – Designing)
- Use microprocessors and computer control systems in different products (National Curriculum for Wales – Design and Technology Key Stage 3 – Designing)
- Programming microcontrollers to control a range systems and devices (WJEC GCSE Design and Technology 2017 -Engineering design core skills)

Venue: Renishaw plc, Fabrication Development Centre, Miskin Business Park, Pontyclun, RCT CF72 8XY

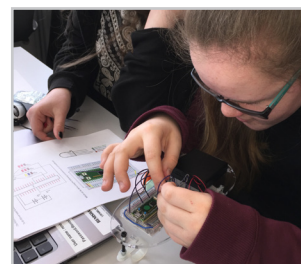
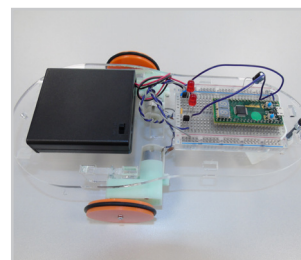
Time: 09:15 to 12:15 (times can be changed to suit your school day)

Cost: FREE - Just bring enthusiastic young people with an interest in engineering -15 pupils per workshop*

Date: Dates can be arranged to suit your school. Applications can be made by requesting a date directly by email or phone

*Please note - Pupils must be accompanied by a qualified teacher that is teaching a subject related to the workshop being held. We would encourage the teacher to be involved with the workshop as much as possible.

For more information, visit www.renishaw.com or contact education@renishaw.com



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Renishaw in Wales

In 2011 the purchase of the 461,000 sq ft former Bosch facility and associated land near Miskin, South Wales gave Renishaw the space and opportunity it needed to support its growth and development. By the end of 2015, Renishaw had invested nearly £40m in the site acquisition and refurbishment and in the purchase of plant and machinery. It has already created over 250 new jobs and has well developed plans for the site to support research and development and manufacturing in new areas of its business. The co-location of research and development, design, and manufacturing functions at Miskin provides many advantages. Better communication, design for manufacture, shorter product development times and more responsive design and test capabilities can be significant advantages for research and development projects.

Building on and creating new, strong relationships with research and educational organisations in Wales, Renishaw is leveraging its skills and experience in metrology and additive manufacturing to create exciting new developments in healthcare. The proximity of the Miskin site to good transport links and a wide variety of potential collaboration partners in life sciences, with support from national and local government, will give Renishaw the opportunity to create new centres of expertise and new jobs. Renishaw has opened a Healthcare Centre of Excellence at its Miskin site to provide manufacturing capacity for medical parts as well as facilities for training, demonstrations and research.



Highlights to date and future plans

- £40m outlay on site acquisition, refurbishment and production plant and machinery by the end of 2015
- Over 300 employees on site with open vacancies for a range of manufacturing and research roles
- Assembly of the only UK manufactured metal additive manufacturing (3D printing) machines
- Electronics assembly including latest surface mount technology for PCB assembly
- Metal part machining using the latest CNC (computer numerically controlled) machine tools and robot technology
- Planning application approved for development at the Renishaw Miskin site. The planned facilities provide additional capacity for Renishaw and for other businesses to establish operations at Miskin, providing many more employment opportunities

For more information, visit www.renishaw.com or contact Simon Biggs by phone (01443 221727) or email (simon.biggs@renishaw.com)



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