

JOB DESCRIPTION

DTE Technician



DEPARTMENT	Design Technology & Engineering
REPORTS TO	Head of Design Technology & Engineering
RESPONSIBLE FOR	N/A
WORKING PATTERN	Contract will provide further details
ISSUE/REVISION DATE	September 2025

BACKGROUND

Harrow School is one of the world's most famous schools. Founded in 1572 by a local yeoman farmer, John Lyon, under a Royal Charter granted by Queen Elizabeth I, it is located on a 324-acre estate encompassing much of Harrow on the Hill in north-west London. Around 830 boys aged 13 to 18, who come from all over Britain and across the world, live in the School's 12 boarding Houses, and there are about 120 academic staff and over 500 support staff. All members of staff work to a single, unifying purpose: to prepare boys with diverse backgrounds and abilities for a life of learning, leadership, service and personal fulfilment.

The Design Technology & Engineering department is outstanding. All boys study the subject in their first year, 74 boys have continued it to GCSE and around 24 boys are taking A level.

The department teaches a broad-based curriculum in its first year, covering topics of graphics, resistant materials, mechanisms, electronics, CNC and structures. The subject is practically based and uses a wide variety of equipment. The department is particularly strong in engineering, electronics, resistant materials, CAD/CAM and materials processing, including the use of laser cutting and 3D printing. Pupils are encouraged to develop their own projects in a wide variety of contexts.

Design Technology & Engineering is housed in a purpose-built, open-plan building with individual rooms for electronics and graphics, a specialist Sixth Form design room and an exhibition area, along with a well-equipped workshop.

The extensive workshop has CNC routers, lasers and milling machines, a fully equipped foundry for MIG welding, plasma cutting, casting, oxyacetylene welding and forge work. The main workshop is multi-material and is resistant-material based. The department has two fully equipped IT rooms with CAD facilities, which include the use of Solidworks, Corel Draw, Sketch Up and 2D designer, as well as digital imaging, which is used throughout all coursework. Black and white printing, colour printing and dye sublimation are linked to the main school network, and IT is used in all aspects of the day-to-day functioning of the department. A departmental library resource area is equipped with all reference materials for research. A permanent exhibition area houses a variety of work.

Examination results are excellent at IGCSE with 88% A*/A grades in CIE Systems and Control. Results at A level (Edexcel) are usually 100% A/B grades, with several pupils going on to study Design & Technology or engineering related degree courses.

There are four full-time teachers in the department, a Senior Technician and one part-time technician. The workshop is open every afternoon during the term for boys to pursue hobbies and interests.

THE ROLE

The DTE Technician is responsible for providing a safe and inspiring learning environment for the pupils. You will be on hand to advise pupils and assist them and prepare materials and maintain equipment whilst ensuring resources for lessons are laid out and made available. Any afternoon work will involve helping in our extra-curricular clubs advising and giving practical guidance whilst ensuring a safe working environment.

KEY RESPONSIBILITIES AND DUTIES

This job description reflects the core activities of the role and is subject to change as the department and the post holder develop. The School expects that the post holder will recognise this and will adopt a flexible approach to work. In addition, the post holder will be expected to undertake such other duties within the scope of the role as may be required by the line manager.

DAILY PREPARATION

- Maintain the workshop areas and prepare areas to ensure a clean, safe and orderly environment.
- Visual checks on machinery, 3D printers, workbenches and displays to ensure a clear and inspiring workspace.
- Check which practical's are lined up for the day to arrange preparation and layout.
- Check emails for any matters that require attention for either orders or estates.
- Liaise with the Head of Department regarding daily tasks needing attention.
- Accept and storing deliveries
- Organise storage and dispensing of materials to students.

LESSONS

- Prepare materials and workshop for lessons and demonstrations.
- Design and construction of equipment and teaching aids for lesson projects.
- During lessons assist the teachers as appropriate with the general instruction, care, and supervision of the pupils.
- Advise pupils on economic and effective use of materials and safe practice on machinery.
- When machinery is in use, the technician's prime focus is to supervise the use of machinery and guide pupils on safe and effective techniques while the teacher is conducting the lesson (training provided).
- Machines will need adjustment and repair during use in lessons.
- Ensure practical lessons are cleared away and ready for next lessons.

AFTERNOON WORKSHOPS

- Be a constant presence in the supervision of boys during afternoon workshops, ensuring all staff and boys are adhering to all relevant H&S legislation.
- Prepare any materials and give practical assistance to societies such as; F1 in Schools and Electric GoKarting.
- Oversee any extracurricular activities within the workshop that would require any extra supervision or technical help, this is an opportunity to contribute and help run these clubs, if the Head of Department agrees.
- Correct CAD work that has been sent from the boys for the laser cutter to cut.
- Change filaments and manage department 3D printers including any repairs and cleaning.

HEALTH AND SAFETY

- Ensure a safe working environment for students and staff
- Keep up to date with safety legislation and carrying out regular safety checks relaying any new information to the team including training if necessary.
- Exercise vigilance towards boys especially in matters of health and safety particular during workshop opening hours of Tuesday and Thursday afternoons.
- Alert the head of department and staff to any issues of safety within the department.
- Be familiar with and adhere to the safety rules of the workshop and the school as outline in BS4163 2021 and the willing to attend safety training courses when necessary.
- Assist the Head of Department in writing and updating department risk assessments including management on iproctu system when legislation or equipment is updated or changed.
- Oversee tracking of department staff health & safety training in liaison with head of department to ensure the team is working safely and up to date.
- Ensure all health and safety related to COSHH is adhered to.

DEPARTMENT OUTPUT

- Photograph and collect images from relevant work and prepare text in liaison with Head of Department to produce outputs such as departmental magazines, leaflets and coursework.
- Plan and produce department displays including PowerPoints and physical wall displays
- Plan, overview and produce department exhibitions such as speech day, including preparation of space, planning locations of exhibiting work, painting plinths and walls, collecting project information from boys ensuring a quality exhibition that is representative of the department.
- Work towards introducing more exhibitions as the demand requires.
- Collating information and images towards department DATA award ensuring the standard of work produced through the department is evidenced.

ORDERING AND EXPENDITURE

- Liaising with the Head of Department when ordering materials and equipment for various lessons, specific projects and societies
- Liaising with various suppliers and contractors
- Helping to track budget expenditure in liaison with head of department.
- Accepting and storing deliveries
- Organizing storage and dispensing of materials to students.
- Ensure stock is well organised and updated.

MAINTENANCE

- Ensure regular cleaning, checks and maintenance is carried out for all machinery including laser cutters and 3D printers and tools.
- Carry out repairs and adjustments to machinery when required or organizing replacement of expired tools / machinery.
- Assist with proposals for the development of the department and overseeing any changes including improved practices and procedures, new machinery or machine removal.
- Ensure staff are up to date with any changes and introduced to new machinery as needed.
- Design and construction of workshop furniture including storage and workbenches.
- Liase with Estates department on any building or maintenance issues or changes.
- Run through end of term shutdowns, including machine deep cleans and stock checks.

DEPARTMENT IMPROVEMENTS

- Prepare any jigs required to make machine use more efficient
- Use expertise on machinery, tooling and techniques to maintain equipment and work using the most up to date processes.
- Be knowledgeable and engage in training on any software updates and equipment that allows department to be an innovative and inspiring making space.
- Research machinery and processes providing any relevant training or demonstrating that would improve or produce to projects.

The post holder's responsibility for promoting and safeguarding the welfare of children and young persons for whom s/he is responsible or with whom s/he comes into contact will be to adhere to and ensure compliance with the School's Safeguarding and Child Protection policies and procedures at all times. If in the course of carrying out the duties of the post the post holder becomes aware of any actual or potential risks to the safety or welfare of children in the School s/he must report any concerns to his/her line manager or the School's Safeguarding Lead.

This position is subject to an enhanced check with the Disclosure and Barring Service in the event of a successful application. Copies of the School's Code of Practice and Policy on the Recruitment of Ex-Offenders is available from the HR Team. It is an offence to apply for the role if the applicant is barred from engaging in regulated activity relevant to children.

PERSON SPECIFICATION

Post holders/candidates will be expected to demonstrate the following:

QUALIFICATIONS, EDUCATION AND TRAINING

ESSENTIAL

- A good general education

DESIRABLE

- Computer Aided Design (CAD) Skills Training i.e. Solidworks (or similar)
- Training with Aurdino or Raspberry Pi
- Relevant H&S training with workshop machinery and equipment e.g. bandsaw, fret saw etc. (Training available)

KNOWLEDGE AND EXPERIENCE

ESSENTIAL

- Experience of undertaking a range of design-related tasks
- A working knowledge of Microsoft Office computer packages
- Knowledge of a range of design techniques

DESIRABLE

- Previous experience of working in a design technology environment
- Knowledge of building mechanical and electrical systems – qualifications are desirable but not essential
- Experience of operating workshop machinery e.g. bandsaw, fret saw etc. (Training available)
- Knowledge of COSHH regulations

SKILLS AND ABILITIES

ESSENTIAL

- IT skills – Competence in the use of Microsoft Excel, Word, Outlook and PowerPoint
- Ability to work as a supportive member a small team, responding flexibly to the needs of the department
- Ability to build a professional, approachable rapport with pupils
- Ability to communicate appropriately, authoritatively and helpfully with all staff and visitors
- Ability to work in a fast-paced environment without cutting corners or diminishing the service levels
- Ability to prioritise when working under pressure and delegate tasks so that the team operates effectively
- Has an eye for detail and takes pride in providing a working environment that conforms to the highest standards of safety

PERSONAL ATTRIBUTES

- Friendly and collaborative
- Tactful and diplomatic
- Shows empathy towards others
- Uses initiative to solve problems and find ways to work more efficiently
- Reliable
- Self-motivated to provide an inspiring working environment

SCHOOL VALUES AND BEHAVIOURS

All staff are expected to conduct themselves in line with the School's values which are: **Courage, Honour, Humility** and **Fellowship**. While the School's values set out what matters most to us, the behaviours below are intended as a shared set of expectations to refer to, and standards to aspire to, in our dealings with others. They are the practical application of our values.

COURAGE

- We remain optimistic and purposeful in a disrupted world.
- We take responsibility for our decisions, even the hard ones.
- We always challenge poor behaviour in ourselves and others.
We are open to new ideas, and seek fresh challenges.

HONOUR

- We keep our promises.
- We act with integrity – doing the right thing, even when it is difficult or when no one is watching.
- We respect and value our traditions whilst setting them in the context of today.

HUMILITY

- We work hard to serve others within the School and across our wider communities where possible putting their interests before our own.
- We give and seek honest and appropriate feedback, reflect on our failures and learn from them.
- We support each other through challenges and whatever the outcome, we celebrate those that took part.

FELLOWSHIP

- We respect each other and value our differences, knowing that we are more effective and more resilient working together.
- We are kind and inclusive; we value the contribution that each of us makes.
- We role model the behaviours that we would like to see in others; we ask only of others what we would be prepared to do ourselves.