

JOB DESCRIPTION

Design Assistant



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	November 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.

Design Technology & Engineering is housed in a purpose-built, open-plan building with a specialist Sixth Form design room and an exhibition area. The fully equipped and extensive workshop has CNC routers, 3D printers, laser cutters and milling machines, a fully equipped foundry for MIG welding and forge work. The department has an IT room with CAD facilities, which include the use of Solidworks, OnShape, Fresco, Photoshop and many other software packages.

The Design Technology & Engineering is a thriving and popular subject at GCSE and A Level. We teach a broad-based curriculum in its first year, covering topics of graphics, resistant materials, mechanisms, electronics, CNC and structures. Gradually specialising as boys progress up the school, to Design Engineering. 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.

Outside of lessons, the department has a flourishing extra-curricular programme involving drones, robotics, Greenpower electric race cars and have recently competed at the world finals in Formula 1 Stem Racing.

Examination results are consistently excellent at IGCSE in CAIE Systems and Control. With results at A level (OCR) 70% A*/A grades, of which many pupils going on to study design or engineering related degree courses.

There are five full-time teachers in the department and one full time technician. The workshop is open every afternoon during the term for boys to pursue hobbies and interests.

THE ROLE

The Design Assistant is responsible for providing a safe and inspiring learning environment for the pupils in our classrooms and workshops. They will be responsible for departmental media and presentation, with opportunities to highlight contemporary work in a series of exhibitions and displays. We are looking for undergraduates or recent leavers, to bring current design thinking and skills to role model excellent practice to our aspiring pupils, by continuing their own practice along side the role and to highlight at the end of year exhibitions.

On a day to day basis, they will be on hand to assist technicians, pupils and teachers by preparing materials and resources, giving assistance and demonstrations with design work, such as CAD and helping to maintain equipment. In the afternoons they will help in our extra-curricular clubs; advising and giving practical guidance as the boys work on their projects.

The successful candidate will receive training on all machinery, with accreditation that is valid for 5 years and the use of an impressive workshop.

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.

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 audio visual outputs and physical wall displays
- Plan, overview and produce department exhibitions such as speech day, including preparation of space and resources, planning locations of exhibiting work, collecting project information from boys ensuring a quality exhibition that is representative of the department.
- End of year exhibit, showcasing their own design work and practice
- 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.
- Help in creating a physical and virtual presence for the subject internally and externally.

DAILY PREPARATION

- Help to 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.

LESSONS

Through discussion with the Head of Department and Teachers, be available to:

- Assist in CAD tutorials, demonstrations and help for students when working on design tasks.
- Assist in graphical communication skills and presentation of work with students.
- Discuss and advice project ideas for design progressions with designated students.
- If able, assist students with electronics such as Arduinos.
- Be a supervision presence when groups use machinery and guide pupils on safe and effective techniques while the teacher is conducting the lesson (training provided).
- Assist technicians with preparation for lessons
- 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.

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
- Ensure all health and safety related to COSHH is adhered to.

ORDERING AND EXPENDITURE

- Liaising with the Head of Department and Technician when ordering materials and equipment
- Accepting and storing deliveries
- Organizing storage and dispensing of materials to students.
- Ensure stock is well organised and updated.

MAINTENANCE

- Ensure checks and maintenance is carried out for all machinery including laser cutters and 3D printers and tools.
- Assist technicians with 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.
- Assist Technicians with end of term shutdowns, including machine cleans and stock checks.

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
- Computer Aided Design (CAD) Skills Training i.e. Solidworks (or similar)
- Undertaking or recently completed a Design degree

DESIRABLE

- Training with Aurdino or Raspberry Pi
- Excellent graphical skills

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 mechanical and electrical systems
- Experience of workshop machinery

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 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.