



Cardiff  
Metropolitan  
University

Prifysgol  
Metropolitan  
Caerdydd

## JOB DESCRIPTION

<b>Job Title:</b>	<b>Product Designer/KTP Associate – Knight Fire and Security Products Ltd</b>
<b>Department:</b>	<b>PDR – International Centre for Design and Research, Cardiff Metropolitan University</b>
<b>Location:</b>	<b>Cardiff</b>
<b>Salary:</b>	<b>Circa £21,000 per annum</b>
<b>Hours:</b>	<b>37 hours per week</b>
<b>Tenure:</b>	<b>Two Years Fixed Term Contract</b>

**This is a key post that will contribute to the ambitions of the University's Strategic Plan 2017/18 – 2022/23**

### **Accountable for:**

Supporting and project managing a collaborative, Product Design based Knowledge Transfer Partnership (KTP) project between Knight Fire and Security Products Ltd (Knight) and PDR, an internationally recognised design consultancy which is part of Cardiff Metropolitan University.

### **Role Summary:**

PDR is a leading European multidisciplinary design and development research centre. The Centre combines award winning consultancy, highly rated research functions and leading knowledge transfer programmes. PDR has six groups of activity: new product development, service design; user-centric design, single-patient solutions (SPD); advanced manufacturing (workshop and prototyping technologies) and Ecodesign.

Knowledge Transfer Partnerships (KTP's) are one of Europe's leading graduate recruitment programmes, designed to develop the skills and knowledge of future business leaders whilst embedding new knowledge, systems and processes in the host company. High calibre graduates are employed to work on specific projects of strategic importance to companies, whilst being supported by a dedicated University or College. All graduates spend around 10% of their time in training and development.

The KTP associate will be based at Knight in Cardiff and will benefit from a training package in excess of £8.5K, with regular meetings from PDR's supervisory team.

The associate will benefit from mentoring from academic and professional supervisors as well as guidance and support from their KTP advisor.

Formed originally as Knight Plastics Ltd in 1984, the business grew and evolved to Knight Fire and Security Products Ltd. They are now part of the Knight Manufacturing Group which includes Knight Precision Tooling Ltd and incorporates MSW Engineering Ltd and Knight Precision Moulding.

Knight are the market leading manufacturer of magnetic contacts, junction boxes, panic buttons, call points and other alarm ancillaries. All products are manufactured in the UK. Knight export worldwide and service the UK market. Knight produce mouldings for their own security products and run contract moulding work for their customers.

Knight's sister company Knight Precision Tooling have, over the past 20 years, manufactured hundreds of tools out of their 5,000 square foot tool-room in Aberbargoed.

The KTP will provide an exciting opportunity which aims to increase the innovative capacity of a manufacturing SME, leading to increased profits from increased exports. It will help the company transition to the production of high value, digitally enabled products, supported by new service offerings.

The KTP will produce efficient routes to the production of products that can meet the stringent safety standards required for the company to move into the production of new classes of Fire and Safety products. It will give the company the capability to iteratively test development opportunities from early in the process, both for testing market acceptance of ideas and in preparation for the required external testing.

The KTP Associate will be responsible for introducing a product design function that exploits user centred design and service design knowledge in combination with fire and security regulations which will transform the company from that of a traditional manufacturing company to that of a service-orientated, digitally enabled and value-driven product provider.

To find out more about Knowledge Transfer Partnerships please see <http://ktp.innovateuk.org/>

### **Principal Duties and Responsibilities:**

The product designer position plays a pivotal role in the development of new, innovative fire and security products within Knight. As such this is a hands on product design and development position. Design and development activity in the context of fire and security products will be in close collaboration with the in house design team at PDR and engineering team at Knight.

The role will require the associate to quickly develop research and project management skills which will allow them to organise and facilitate workshops, analyse data and effectively convert findings into strategies for new product development.

The role includes:

- Taking overall responsibility for the delivery of the KTP project objectives:
  - To review Knight's current development activity and regulatory requirements.
  - To establish internal review groups.
  - To develop a process for user-centred design, undertake appropriate user insight research and develop a user insight capture methodology for Knight.

- To work closely with PDR and Knight to set up and lead user centred innovation, identifying and developing new and innovative products and services for Knight.
  - To work closely with PDR and Knight to introduce new prototyping processes to inform new product requirements throughout their development process, maximising their commercial appeal.
  - To work with Knights in house designer on new products for their contract moulding customers, which will cover a very wide range of different markets and concepts.
  - To interact with Knights toolmaking team. A new in house toolroom is coming on line later this year, you will be required to assist with organisation and planning of new advanced manufacturing techniques Knight are looking to implement.
  - To expand the development portfolio through the development of new products and services that meet the needs of the user through the newly developed processes through to manufacture and launch.
  - To work closely with PDR and others to manage and create appropriate Design History Files and ensure clear regulatory compliance.
  - To develop training programmes which will result in the knowledge and techniques captured and developed as part of the KTP process being thoroughly embedded into the company culture at Knight.
- To complete the compulsory KTP Associate training modules;
  - To provide a progress report for presentation at the Local Management Committee (LMC) meetings;
  - To manage the budget associated with the KTP Project;
  - Convene and lead monthly technical meetings to discuss progress, targets and resources;
  - Adhere to all confidentiality, IPR, IIP, health and safety procedures etc., established within the Company and Cardiff Metropolitan University;
  - Complete a final report quantifying the benefits that have been achieved prior to the agreed end of the KTP programme;
  - Any other duties that may be reasonably assigned by the Knowledge Base Supervisor/ Industrial Supervisor.

## **Standard Notification**

**This job description is indicative, not prescriptive, and the balance of duties will be in accordance with the contract of employment.**

**These guidelines are provided to assist you in the performance of your contract. The university is a dynamic organisation; therefore changes may be required from time to time. Any changes will be made in consultation with the post-holder. The Summary of Duties and Responsibilities is not intended to be an exhaustive list of tasks performed. Other associated technical tasks are likely to be performed as directed by the line manager.**

**It is accepted that individual staff will have a specialist skills and knowledge base in relation to the role they have been appointed to. In addition to this, Cardiff Metropolitan University expects that all staff will conduct themselves in a professional and courteous manner at all times and have particular regard for their responsibilities under Cardiff Metropolitan University's Equalities, Financial, Human Resources and Health and Safety policies and procedures.**





**PERSON SPECIFICATION**

Post: **KTP Associate/Knight – Product Designer**

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Unit/School: **PDR**

FACTORS	ESSENTIAL AND DESIRABLE CRITERIA	ASSESSED BY		
		A*	I*	T*
<b>Education and Qualifications (Essential)</b>	Honours Degree in Product/Industrial Design or similar.	X		
<b>Education and Qualifications (Desirable)</b>	Master's degree in Product Design or related Discipline	X		
<b>Knowledge (Essential)</b>	Experience and evidence of good research & analytical skills.	X	X	
	Knowledge of manufacturing processes and assembly methods		X	
	Knowledge of user-centric design theory and methods.	X	X	
	Experience and evidence of good product design process & outcomes	X	X	
<b>Knowledge (Desirable)</b>	Experience of designing fire and security related products whether commercial or as part of studies.		X	
	An awareness of design in regulated environments and control systems.		X	
	Experience of using user-centric design methods in support of a new product/service development.	X	X	

<b>Skills and Abilities relating to role (Essential)</b>	Ability to identify and implement appropriate research methods.		X	
	High degree of design and analytical skills	X	X	
	Product prototyping and modelling skills	X	X	
	3D CAD and modelling skills	X	X	
	Strong interpersonal skills with an ability to communicate and present to a variety of professionals at different levels.		X	
	Self-motivated and well organised with the capability of taking the lead role and managing others.		X	
	Ability to work independently and as part of a team	X	X	
	Good report writing and organisation skills	X	X	
	Good presentation skills		X	
	High level of problem solving skills.		X	
<b>Skills and Abilities relating to role (Desirable)</b>	Ability to facilitate workshops and lead training sessions.	X	X	
<b>Experience paid / unpaid (Essential)</b>	Managing product design projects, including time management and budgeting	X	X	
<b>Experience paid / unpaid (Desirable)</b>	Industry/business experience related to product design and innovation.		X	
	Experience of designing fire or security related products.	X	X	
<b>Other Requirements (Essential)</b>	UK Driving Licence or the ability to travel throughout the UK.		X	
	Willingness to travel overseas		X	
<b>Other Requirements (Desirable)</b>				