



Digital Technology Internship Placement

Employer Information:

'Made Smarter' is a Government funded programme, matching your expertise, skills, and insight to help North West businesses implement digital tools. You will be working on a live project while gaining valuable experience for your C.V.

Placements are open to 3rd and 4th Year Undergrads, MSc, and Postgraduate Students

Placement Information

Job Title:	Robotics and Data Systems Integration Project
Reference: 792Z	
Business Overview	<p>A unique business that combines leading edge plating technologies with traditional machining capabilities that are rarely found in modern manufacturing but are still essential to strategic industries in the UK and elsewhere.</p> <p>Specialising in the design, manufacture, and remanufacture, of high-performance heat transfer rolls for many industrial applications. Heat transfer rolls provide temperature control by circulating heated or cooled fluid through the inside of the roll chamber. Roll design and configuration of the internal spirals play a major role in the performance of heat transfer rolls. The company can advise on the design and method of manufacture of its customers' rolls to ensure optimum performance and efficiency.</p> <p>Using processes such as electroplating, precision grinding, polishing, and inspection, the company manufacturers and repairs rolls to extremely tight tolerances.</p>
Location:	Radcliffe, Manchester, M26 2XT
Number of posts:	ONE
Job Description: <i>Please include as much information as possible including main purpose and detailed duties/responsibilities</i>	<p>Project Overview:</p> <p>To study the plating processes (chrome, nickel and copper), to measure all inputs, to study the effect of the inputs on the outcome, to control the inputs and to automate the inputs. The study should follow a structured methodology, such as Design of Experiments (DoE).</p> <p>The advantages of such measurement and control will be to:</p> <ul style="list-style-type: none">• Create process repeatability• Reduce waste• Reduce rework.• Optimise quality• Reduce energy consumption• Reduce carbon footprint• Deskill the operation of the process

	<p>Likely inputs to be measured and control could include:</p> <ul style="list-style-type: none"> • Voltage • Current • Solution composition • Solution age and contamination • Surface area • Temperature • Temperature rate of change • Component dimensions, weight, and material <p>The outputs of interest are the weight, quality, and thickness of deposition.</p> <p>The work plan:</p> <ul style="list-style-type: none"> • Familiarisation with the product and processes • Identification of the target inputs • Research and plan experimental approach (with external support) to determine the effects of inputs on the outputs • Source any equipment required to conduct the trials • Conduct the trials • Analyse the results • Document the key findings and recommendations for the real time measurement and control of the key process variables
<p>Expected areas of knowledge:</p>	<ul style="list-style-type: none"> • Background in engineering, ideally manufacturing engineering. • Knowledge of chemistry or electroplating processes is beneficial. • Knowledge of experiment construction and structured trial methodologies, or background in statistics, or statistical process control. • Knowledge of control systems is beneficial. • Capable of transferring knowledge gained from trials to all levels of the business.
<p>Salary:</p>	<p>£12.00 p/h (£5,760 per placement)</p>
<p>How to apply:</p>	<p>By e.mail to Amanda Lyons, Made Smarter DTI Placement Manager at: amanda.lyons@growthco.uk</p>
<p>Placement Start Date:</p>	<p>As soon as possible – Sep 2021</p>
<p>Duration of Placement:</p>	<p>480 Hours on a full-time, part-time, or flexible schedule</p>
<p>Additional Info:</p>	<p>You will be required to register your interest in a Digital Technology Internship with Made Smarter on our website at: www.madesmarter.uk</p> <p>C.V's can be uploaded at the point of registration or forwarded directly. Your details will be stored to allow us to contact you for any future suitable opportunities.</p>