

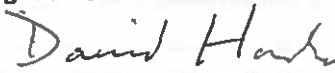



Title of project/experiment/activity Use of mechanical test systems			
Location of activity Cambridge Graphene Centre : Ink Lab		Start and end dates 24/08/2015 - continuous	
Brief description (or attach procedure/protocol) The Deben mechanical tests systems are commercially made tensile test system and 3/4 points vertical bending system and will be used in accordance with the manufacturer's instructions after training. The tensile test system is used to stretch samples while recording the force, the displacement and the time. The 3/4 points bending test system is used to bend samples while recording the force, the displacement and the time.			
Hazard	Effect	Control measures	Residual risk
Mechanical: The mechanical test systems have a rotating screw and moving parts leading to potential pinch points.	User may trap fingers but most likely mechanical damage to equipment	The user must use the system as trained and explained in the manual. The user must not touch the system while moving and do not put any solid object in contact with the rotating screw. (Likelihood: 1, Severity: 1).	Low risk
Electric shock	Shock to user, damage to equipment	Do not get any part of the system wet (Likelihood: 1, Severity: 1)	Low risk
Personal Protective Equipment required [eye/face protection, respiratory protection, gloves, lab coat etc] Gloves (purple nitrile) and eye protection (safety specs) required in the lab at all times but not required for the use of the system.			
Emergency Instructions & First Aid Fire: In case of fire, the fire alarm should be sounded and fire service called. If safe to do so, the fire may be extinguished using an extinguisher containing carbon dioxide, located in the corridor outside the laboratory.			
Any special monitoring required [e.g. hearing test, vibration monitoring, health surveillance] No			

<p>Further control measures required? If yes, list with actions.</p> <p>In the case of equipment malfunction/failure: shutdown instrument from plug socket.</p>
<p>Biological/Laser/Radiation Approval [requires relevant Specialist Safety Officer signature and date]</p> <p>N/A</p>
<p>Out of hours/Lone working</p> <p>The system can be left working alone for several hours overnight. A label mentioning „running equipment / keep away“ must be displayed when the equipment is running unattended. <i>Requires overnight running permit from Head of Division</i></p>

Signature to confirm that this is a suitable and sufficient assessment of risk and that stated control measures are in place. This risk assessment should be reviewed if additional risks not covered in this assessment are identified or if there is any reason to indicate that the control measures are insufficient.

<p>Name of Assessor Panagiotis Karagiannidis Email: pk412@cam.ac.uk</p>	<p>Signature </p>	<p>Date 31/8/2016</p>
<p>Name of Supervisor Prof A.C. Ferrari Email: acf26@cam.ac.uk</p>	<p>Signature </p>	<p>Date 2/11/16</p>

<p>Local Safety Coordinator</p>	<p>Signature </p>	<p>Date 2/11/16</p>
<p>Departmental Safety Office IAN. SLACK</p>	<p>Signature </p>	<p>Date 9 NOV 2016</p>