JOB DESCRIPTION

Ref: N2731

<table>
<thead>
<tr>
<th>Job Title: DUNE Mechanical Assembly Technician (x2)</th>
<th>Present Grade: 6</th>
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<tr>
<td>Department/College: Physics Department</td>
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<td>Directly responsible to: Dr. Jaroslaw Nowak (PI) and Head of the Mechanical Workshop (Line Manager)</td>
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Other contacts

Internal: DUNE UK APA Quality Manager, other technicians in the mechanical workshop.
External: A team of electronics and mechanical technicians constructing components for the DUNE detector at Daresbury Laboratory (Warrington).

Purpose of the job

You will be part of a team of electronics and mechanical technicians constructing components for a particle-tracking detector called DUNE. The primary place of work will be the Daresbury Laboratory (Warrington). You will be under the management of academics in the Experimental Particle Physics group at Lancaster University.

The components to be constructed are large (6 m x 2.3 m) planes consisting of a steel frame around which several layers of 150 μm-diameter wires must be wound in a parallel array, with 3 mm space between the wires. The task will include working together with other operators to assemble components onto the steel frames, control and guide a semi-automatic wire-winding machine, and ensure that the wires are positioned correctly for subsequent gluing and soldering.

Major duties

- Assembly components on steel frames.
- Control and supervise semi-automated 12 m x 4 m wire winding machines.
- Testing of the position of the wires and their tension.
- Be an intrinsic team member, assembling fine wire mesh frames and soldering terminations onto printed circuit boards.
- Ultrasonic cleaning of mesh frames.
- Assemble and align completed mesh assemblies onto large constructed steel frames.
- Itemising and categorising components before insertion onto large stainless steel frames.
- Monitor, record, and analyse wire tensions and positions, adjust semi-automated processes as necessary.
- Work autonomously, soldering terminations and recording and maintaining metrology data.
- Assist with Laboratory H&S and good general housekeeping.
- Undertake any other duties appropriate to the grade of the post as and when required by the line manager of the Head of the Department.