



# Together

# LANCASHIRE TEACHING HOSPITALS NHS FOUNDATION TRUST WORKFORCE DIRECTORATE

## JOB DESCRIPTION

JOB TITLE: Electronics Technician (Radiotherapy)

DIRECTORATE: Surgery

REPORTS TO: Senior Radiotherapy Engineer

ACCOUNTABLE TO: Radiotherapy Engineering Manager

KEY RELATIONSHIPS: Engineers, Clinical Scientists, Dosimetrists and  
Therapeutic Radiographers, External Suppliers.

DIRECT REPORTS: None

LOCATION: Royal Preston Hospital

BAND: 5

**NB:** The post holder may be required to work in other departments across our hospitals including across our sites.

Senior Radiotherapy Engineer

Electronics Technician

### DBS (Criminal Record) check level required for role:

Please indicate the level of DBS check required in this role	None	Standard	Enhanced without Barred List Checks	Enhanced with Child only Barred List Check	Enhanced with Adult only Barred List Check	Enhanced with Child and Adult Barred List Checks
		✓				

### KSF Core Dimension Levels for Role

Communication	Personal & People development	Health, Safety & Security	Service Improvement	Quality	Equality & Diversity
2	2	2	1	2	2

## **Role Summary**

To assist radiotherapy engineers in providing electronic, electrical, mechanical and IT systems support within a multidisciplinary engineering department for the maintenance, calibration and repair of all cancer treatment and associated equipment within the Rosemere Cancer Centre Radiotherapy Department. To ensure the safe and efficient delivery of radiotherapy treatment to patients.

## **Key Duties and Responsibilities:**

The duties and responsibilities listed below should be undertaken in accordance with the levels of competence as defined in the KSF outline for this post. In addition, all staff are expected to act in accordance with the values and behaviours of our organisation.

## Our Values



### Being Caring and Compassionate

*Being caring and compassionate is at the heart of everything we do, it is about understanding what each person needs and striving to make a positive difference in whatever way we can.*



### Recognising Individuality

*Appreciating differences, making staff and patients feel respected and valued.*



### Seeking to Involve

*Actively gets involved and encourages others to contribute and share their ideas, information, knowledge and skills in order to provide a joined up service.*








### Building Team Spirit

*Working together as one team with shared goals doing what it takes to provide the best possible service.*



### Taking Personal Responsibility

*Individuals are accountable for achieving improvements to obtain the highest standards of care in the most professional way, resulting in a service we can all be proud of.*

ROLE DUTIES	MEASURABLE OUTCOMES					
Maintenance, design, and manufacture.	<ul style="list-style-type: none"> <li>To perform and assist in planned and unplanned maintenance of radiotherapy treatment delivery and associated IT systems.</li> <li>To manufacture bespoke beam limiting devices to required tolerances using lead and other metals.</li> <li>To perform planned and unplanned maintenance of beam measuring equipment.</li> <li>To design, manufacture and test bespoke mechanical and electronic devices.</li> <li>To assist in installs of radiotherapy and associated equipment.</li> <li>To liaise with equipment manufacturers for maintenance advice and guidance.</li> <li>To attend manufacturers technical training courses.</li> </ul>			✓	✓	✓

Excellent care with compassion

	<ul style="list-style-type: none"> <li>Take part in the decision process to order high-cost parts following machine breakdown.</li> <li>Carry the departmental phone on a rotational basis to provide first contact for radiotherapy equipment problems.</li> </ul>					
<b>Communication</b>	<ul style="list-style-type: none"> <li>Cascade information from training to other staff members enabling them to maintain appropriate and correct standards.</li> <li>To provide simple technical advice on engineering or technical matters to none-engineering staff within the department.</li> <li>To liaise with outside agencies ensuring any information is shared with the appropriate staff.</li> </ul>	✓	✓	✓	✓	✓
<b>Quality Assurance</b>	<ul style="list-style-type: none"> <li>To assist in non-routine quality control of the radiotherapy treatment equipment following repair or major service to ensure that all functions are within tolerances.</li> <li>To participate in routine radiotherapy quality assurance.</li> <li>To ensure that all test equipment is in calibration if required.</li> <li>To be fully aware of quality systems, their purpose and use. Especially ISO9001:2015</li> </ul>			✓	✓	✓
<b>Information Collection and Analysis</b>	<ul style="list-style-type: none"> <li>To be able to locate documentation, both paper and electronic, necessary for the correct operation and maintenance of equipment within radiotherapy.</li> <li>To collect and analyse data from radiotherapy treatment equipment to enable failure trends and performance variation to be identified.</li> <li>To use commercially available software to produce text documents, spreadsheets, and databases for data analysis.</li> <li>Maintain logs of any faults or interventions that occur on radiotherapy equipment.</li> <li>To comply with Information Governance policy and legislation</li> </ul>			✓		✓
<b>Research and Development</b>	<ul style="list-style-type: none"> <li>To assist in R&amp;D projects and to liaise with other staff working on such projects.</li> </ul>	✓	✓	✓	✓	✓
<b>To maintain and develop own professional competence</b>	<ul style="list-style-type: none"> <li>Participate in appraisal and personal development planning process and has current appraisal and personal development plan.</li> </ul>			✓	✓	✓

	<ul style="list-style-type: none"> <li>• Undertakes identified learning and development opportunities as agreed with the manager.</li> <li>• Participates in mandatory training as outlined by the Trust.</li> <li>• Maintain up to date technical knowledge by liaison with manufacturers, technical training, and technical publications.</li> <li>• To work towards membership of the Register of Clinical technologists (RCT)</li> </ul>					
<b>Radiation Protection, Health and Safety issues and legislation.</b>	<ul style="list-style-type: none"> <li>• To be aware of current radiation protection legislation and to bring to the attention of the RPS or RPA any safety issues identified.</li> <li>• To be aware of current and applicable Health and Safety legislation.</li> <li>• Be aware of and comply with manual handling, lone working and working at heights policy and legislation.</li> <li>• Carry out COSHH and risk assessments.</li> </ul>	✓	✓		✓	✓

Occupational hazards or exposures relevant to this job (please tick)			
<b>Physical</b>			
Patient moving & handling	<input type="checkbox"/>	Regular DSE work	<input checked="" type="checkbox"/>
Regular equipment / material moving & handling > 10kg	<input checked="" type="checkbox"/>	Climbing ladders and / or working at height	<input checked="" type="checkbox"/>
Noise (LEP,d > 80)	<input type="checkbox"/>	Hand Arm Vibration	<input type="checkbox"/>
Hot or cold conditions	<input type="checkbox"/>	Exposure to Ionising Radiations	<input checked="" type="checkbox"/>
Entry into confined spaces	<input checked="" type="checkbox"/>	Other potential ergonomic problems	<input type="checkbox"/>
Driving on Trust business	<input type="checkbox"/>	Vocational driving (C1,D1, LGV, PCV)	<input type="checkbox"/>
<b>Chemical</b>			
Exposure to known respiratory irritants or sensitisers	<input type="checkbox"/>	Exposure to known skin irritants or sensitisers (including latex)	<input type="checkbox"/>
Exposure to asbestos (non-licenced work)	<input type="checkbox"/>	Exposure to any other chemicals	<input checked="" type="checkbox"/>
<b>Biological</b>			
Exposure-prone procedures	<input type="checkbox"/>	Laboratory exposure to pathogens	<input type="checkbox"/>
<b>Other</b>			
Night work	<input type="checkbox"/>	On-call duties/ lone working	<input type="checkbox"/>

## Teaching Hospital & Learning Organisation

As a teaching hospital and an organisation committed to continuous learning, we offer a broad range of education and training to staff and students/trainees/other learners. All post holders are expected to fulfil mandatory training requirements, engage in continuous learning and support education and training of others commensurate to their role.

## Governance

The post holder will operate at all times to high standards of probity. This will include compliance with:

- Health and safety regulations
- All policies and procedures approved by our organisation.
- Trust Standing Financial Instructions
- Working within Data Protection Legislation, Health & Safety at work Act 1974, maintain confidentiality at all times, as required by legislation and our policy.
- Working to defined policies and procedures, actively implementing the development of the electronic solution.
- Work within the limitations of the role.
- Professional codes of conduct including the NHS Managers Code of Conduct (where these apply)
- All policies and procedures related to infection prevention and control as relevant to their post
- To raise any concerns as soon as possible, as per whistle blowing policy, relating to any:-
  - Healthcare matters, e.g. suspected negligence, mistreatment or abuse of patients; the quality of care provided.
  - Concerns about the professional or clinical practice or competence of staff
  - The treatment of other staff, including suspected harassment, discrimination, or victimisation
  - Health, safety, and environment issues
  - Suspicion or knowledge of theft, fraud, corruption, bribery allegations or other financial malpractice.
  - Employment standards and/or working practices.
  - Criminal offences or miscarriages of justice.
  - Failure to comply with any other legal obligation.
  - Deliberate concealment of any of the above.

### **Information Governance**

- To be fully aware of and committed to all policies, procedures and initiatives relating to information governance - this will include, but not limited to, data quality improvements, confidentiality and information security.
- To take personal responsibility for safeguarding and ensuring the quality of information

### **Behaviour**

The post holder will be expected to:

- Support the aims and vision of our organisation.
- Always act with honesty and integrity.
- Be a positive ambassador for the organisation.
- Demonstrate high standards of personal conduct.
- Set an example and encourage openness and honesty (particularly in reporting incidents and near misses) and will actively foster a culture of learning and improvement.
- Value and respect colleagues, other members of staff and patients
- Work with others to develop and improve our services.
- Uphold the organisational commitment to equality and diversity.
- Take personal responsibility for their words, actions, and the quality of the service they deliver.

### **Job Review**

This job description will be reviewed periodically to consider changes and developments in service requirements. Any changes will be discussed fully with the post holder.

Signature of Post Holder:

Date:

Signature of Manager:

Date



# LANCASHIRE TEACHING HOSPITAL NHS FOUNDATION TRUST

## PERSON SPECIFICATION

**POST: Electronics Technician (Radiotherapy)**

**Band:5**

**DIRECTORATE / DIVISION: Surgery**

ATTRIBUTE	ESSENTIAL	DESIRABLE	HOW ASSESSED
<b>Qualifications &amp; Education</b>	<ul style="list-style-type: none"> <li>BTEC/ONC or equivalent training and education in electronics or a relevant engineering discipline.</li> <li>Willing to work towards registration on the Register of Clinical Technologists.</li> <li>Willing to undertake further education.</li> </ul>	<ul style="list-style-type: none"> <li>Satisfactory completion of manufacturer's technical training courses.</li> <li>HNC/HND or 1<sup>st</sup> Degree in relevant engineering or science subject.</li> <li>Health engineering specific qualification.</li> </ul>	<ul style="list-style-type: none"> <li>Application form</li> <li>Interview</li> <li>Certificates</li> </ul>
<b>Knowledge &amp; Experience</b>	<ul style="list-style-type: none"> <li>Experience of working with electronic and/or computer-controlled systems.</li> <li>Experience in fault diagnosis and rectification on industrial, avionic, or medical complex systems.</li> <li>Knowledge of appropriate health and safety legislation.</li> <li>Experience of working in a multidisciplinary team.</li> </ul>	<ul style="list-style-type: none"> <li>Knowledge of the principles of operation of linear accelerators.</li> <li>Knowledge of physics and general scientific principles</li> <li>Working knowledge of ISO 9001 quality system.</li> <li>Working knowledge of spreadsheets and databases.</li> </ul>	<ul style="list-style-type: none"> <li>Application form</li> <li>Interview</li> <li>Test</li> <li>References</li> </ul>
<b>Skills &amp; Abilities</b>	<ul style="list-style-type: none"> <li>Good fault diagnosis and rectification skills.</li> <li>Good manual dexterity and coordination to facilitate the use of precision tools and test equipment.</li> <li>Able to read and interpret circuit and engineering diagrams.</li> <li>Data analysis skills.</li> <li>Ability to work under pressure.</li> <li>Attention to detail.</li> <li>Able to work in confined spaces.</li> <li>Able to perform heavy lifting tasks safely.</li> <li></li> </ul>	<ul style="list-style-type: none"> <li>Computer literate with knowledge of the Microsoft Office suite of applications.</li> <li>Ability to use machine shop and hand tools safely.</li> </ul>	<ul style="list-style-type: none"> <li>Application form</li> <li>Interview</li> <li>Test</li> <li>References</li> </ul>
<b>Values &amp; Behaviours</b>	<ul style="list-style-type: none"> <li>Willing to participate in shift rota to cover extended day working (7am to 9pm) and some out of hours and weekend work.</li> </ul>		<ul style="list-style-type: none"> <li>Interview</li> </ul>

	<ul style="list-style-type: none"> <li>• Respects diversity and people as individuals.</li> <li>• Enthusiasm and commitment to learn new skills.</li> <li>• Good interpersonal skills.</li> <li>• Commitment to Trust values.</li> </ul>		<ul style="list-style-type: none"> <li>• Application form.</li> </ul>
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