Australian Government

MSL953004 Operate a robotic sample preparation system

Release: 1

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Modification History

Release	Comments
Release 1	This version was released in *MSL Laboratory Operations Training Package Release 2.0*. Supersedes and equivalent to MSL953002 Operate a robotic sample preparation system. Range of conditions removed. Assessment requirements amended.

Application

This unit of competency describes the skills and knowledge to operate a robotic sample preparation system to ensure efficient throughput of samples without sacrificing quality or safety. Personnel are expected to seek advice from their shift supervisor when non-routine problems arise.

This unit of competency applies to instrument operators in the mining, construction materials testing and manufacturing industry sectors. Robotic sample preparation systems are used where there are high volumes of material and/or there is a need to minimise the operator's contact with potentially hazardous materials.

No licensing or certification requirements exist at the time of publication. However, regulations and/or external accreditation requirements for laboratory operations exist, so local requirements should be checked. Relevant legislation, industry standards and codes of practice within Australia must also be applied.

Pre-requisite Unit

Nil

Competency Field

Sampling

Elements and Performance Criteria

Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1 **Prepare robotic**	1.1 Perform routine system checks at start of shift

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	system for operation	1.2	Confirm shift priorities with supervisor
		1.3	Review job requests to identify the samples, required parameters and special instructions/preparation methods for each
		1.4	Identify hazards, safety equipment and safe work procedures associated with samples, preparation methods and robotic system
		1.5	Check that samples are dry and free of obvious contamination
		1.6	Check that the particle size of any sample does not exceed system input size limits
		1.7	Check samples against accompanying documentation and record/report any discrepancies
2	**Load samples into system**	2.1	Scan sample barcodes into system
		2.2	Load samples in the correct sequence when the system is ready
		2.3	Use system monitor to ensure that correct worksheet is assigned to each sample
3	**Monitor system and report errors**	3.1	Monitor screen displays and conduct visual checks, as necessary, to ensure that system operates correctly throughout cycle
		3.2	Recognise common error codes and promptly inform supervisor
		3.3	Seek advice to deal with any situation beyond scope of responsibility or knowledge
4	**Unload samples**	4.1	Unload samples sequentially in accordance with workplace procedures
		4.2	Obtain analytical portions of each sample using

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		workplace procedures
	4.3	Label and store analytical portions and excess sample material in accordance with workplace procedures
	4.4	Seek advice when problems are beyond scope of responsibility or knowledge
5 **Maintain a safe work environment**	5.1	Use safe work practices and personal protective equipment (PPE) to ensure personal safety and that of others
	5.2	Minimise the generation of waste and environmental impacts
	5.3	Segregate and dispose of wastes in accordance with workplace requirements
	5.4	Clean robotic system components, care for and store equipment as required

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Equivalent to MSL953002 Operate a robotic sample preparation system, Release 1.

Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa