## **Mechatronics Engineering**

## **Assessment Fact Sheet**



## **Overview**

**Details** 

Multi-choice test that measures the knowledge related to basic mechatronics systems, components, sensors, feedback devices, control elements, actuators, computational elements and application of mechatronic systems.

	Relevant Job Roles	Mechatronics Engineer, Automation Engineer, Equipment Engineer
	Language	English (US)
	Average Testing Time (minutes)	19 minutes
	Allowed Time (minutes)	20 minutes
	Maximum Number of Questions	15 questions
	Number of Sittings	One
	Test Type	Multiple Choice - CTT
	Sector	Engineering
	Scores Reported	<ul> <li>Overall Score</li> <li>Introduction to Mechatronics</li> <li>Sensors and Feedback Devices</li> <li>Control Elements and Actuators</li> <li>Computational Elements and Controllers</li> </ul>

Engineering and Technology

Knowledge, Skills, Abilities And Competencies Measured The following areas are covered:

- Logic Gates
- JK flip-flop and D flip-flop
- Electrical and mechanical actuation systems
- Electrical motors

O\*NET Competency

- Pneumatic and hydraulic actuation systems
- Types of sensors
- Errors and output impedance of sensors
- Static and dynamic characteristics of sensors
- Transducers for measurement of displacement
- Basic concepts of control systems
- Communication protocols
- Controllers for robotics and CNC
- Microprocessors and microcontrollers
- PLC and SCADA/Human machine interface
- Design of simple mechatronics systems