

Specification of Competency Standards
for the Manufacturing Technology Industry
Unit of Competency

Functional Area - Process Design and Development

Title	Apply multi-axis robots to develop automation system
Code	106499L4
Range	This unit of competency is applicable to the corporations of the Manufacturing Technology Industry. Practitioners should be capable to base on the plan of automation assembly systems, apply multi-axis robots to develop automation system
Level	4
Credit	6 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1. Understand relevant knowledge of multi-axis robots</p> <ul style="list-style-type: none"> • Understand the working principle and latest development trend of multi-axis robots • Understand the structure and component units of multi-axis robots system • Understand the types, load, specifications, advantages and disadvantages of multi-axis robots • Understand the processing path and working steps design methods of assembly and processing methods of multi-axis robots • Understand the parametric designs and programming techniques of multi-axis robots <p>2. Apply multi-axis robots to develop automation system</p> <ul style="list-style-type: none"> • Through mechanics calculate the specifications of multi-axis robots, select the suitable multi-axis robots for automation system • Through programming techniques, design the most suitable processing path and working steps • Combine the multi-axis robots and production equipment, develop automation system and induct production line • Regularly review the efficiency of multi-axis robots and make system optimisation <p>3. Professional handling of application of multi-axis robots to develop automation system</p> <ul style="list-style-type: none"> • Meet the design, production quantity and quality requirements as a precondition, apply multi-axis robots to develop automation system • Ensure safe operation of the developed automation system
Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> • Capable to select suitable multi-axis robots for automation systems and design the most suitable processing path and working steps
Remark	