

SSBIO05 3D Body Scan Operator – Biomedical Garments

1. Job role

TCF sub-sector	Biomedical Textiles (Medical and Health Applications)
Functional area	Manufacturing - Rehabilitation, Compression and Disability Support Textiles production
Job role	SSBIO05 3D Body Scan Operator – Biomedical Garments
Job role description	Operates advanced 3D body scanning systems to capture precise anatomical data for the development and manufacture of custom biomedical garments, ensuring accuracy, repeatability and integration with digital design and production systems. In the Australian biomedical textiles sector—where products such as compression garments, orthopaedic supports and rehabilitation textiles require exact anatomical fit and clinical precision—the 3D Body Scan Operator plays a critical role in digitising patient body data. The role ensures high-resolution scans are captured, processed and translated into usable datasets for CAD pattern development and garment engineering. The position works closely with Compression Garment Fitting Specialists, Digital Pattern Makers and clinicians to ensure scan data accurately reflects patient morphology, posture and clinical requirements. The operator must manage scanning environments, patient positioning and data processing workflows to ensure outputs are reliable and clinically valid.
Performance expectations	• Capturing highly accurate and repeatable 3D body scans • Ensuring correct patient positioning and scanning protocols • Minimising scanning errors, distortions and data loss • Producing clean, usable digital models for pattern making and design • Maintaining data integrity, traceability and patient confidentiality • Integrating scan data with CAD and production systems • Supporting rapid turnaround for custom garment production • Following WHS, privacy and infection control procedures
Specialisation	3D body scanning, anatomical data capture, digital modelling, scan-to-pattern workflows, clinical measurement systems
Application in other TCF sectors	• Orthotics and prosthetics design • Medical device development • Sports science and performance wear • Defence and protective equipment fitting • Advanced apparel and wearable technology

2. Key tasks and critical work functions

Key tasks	• Preparing scanning equipment and environment • Positioning patients correctly for scanning procedures • Capturing full-body or targeted anatomical scans • Processing scan data into usable digital formats • Cleaning and refining 3D models • Transferring data into CAD and pattern making systems • Maintaining scan records and patient data securely • Collaborating with clinical and production teams
Critical work functions	• Ensuring anatomical accuracy of digital body data • Maintaining consistency and repeatability of scans • Supporting correct garment fit and therapeutic performance • Preventing data errors that impact production outcomes • Maintaining patient privacy and data security • Enabling integration between clinical measurement and manufacturing • Supporting efficiency in custom garment workflows

3. Technical skills

3D scanning technology	Operating structured light or laser scanning systems
Anatomical data capture	Recording accurate body geometry and posture
Digital model processing	Cleaning, aligning and refining scan data
CAD integration	Transferring scan outputs into design systems
Measurement validation	Verifying scan accuracy against clinical measurements
Data management	Handling sensitive digital patient information
Equipment calibration	Maintaining scanner accuracy and performance
Quality assurance	Ensuring data meets production and clinical standards

4. Generic Skills

Attention to detail	Ensuring precision in scan capture and processing
Communication	Working with patients, clinicians and production teams
Technical aptitude	Operating advanced digital systems
Problem solving	Resolving scanning and data issues
Time management	Managing scanning schedules and workflow
Professionalism	Maintaining patient confidentiality and care standards
Adaptability	Working with evolving scanning technologies

5. Emerging skills

Emerging skills	• AI-assisted body modelling and scan correction • Integration of digital twin technologies • Real-time scan-to-pattern automation
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	• Cloud-based data sharing and collaboration • Integration with wearable sensor technologies • Advanced biometric data analytics
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6. VET Qualifications and Skill Sets

Entry-level preparation	ICT40120 Certificate IV in Information Technology or equivalent
Advanced development	Bachelor's degree in Biomedical Engineering, Industrial Design, Digital Manufacturing or related field

7. Job progression

Possible job progression	Scanning Technician → 3D Body Scan Operator → Senior Digital Measurement Specialist → Product Development Technologist → Technical or Clinical Specialist
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8. Classification

Australian Qualifications Framework	Level 4-6
Australian Bureau of Statistics (ABS) Skill Levels	Skill Level 2-3
Open Source Classification of Occupations for Australia (OSCA)	3D Body Scan Operator / Digital Measurement Specialist - Biomedical Textiles



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