



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **CUFSFX301A Maintain and repair special effects items**

**Revision Number: 1**

## CUFSFX301A Maintain and repair special effects items

### Modification History

Not applicable.

### Unit Descriptor

<p><b>Unit descriptor</b></p>	<p>This unit describes the performance outcomes, skills and knowledge required to maintain the functionality of physical special effects items for productions in television, film, entertainment and interactive media industries.</p> <p>The maintenance of special effects involves cleaning, repairing and altering each item to ensure operational continuity throughout a production.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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### Application of the Unit

<p><b>Application of the unit</b></p>	<p>The maintenance and assembly of physical special effects is related to the maintenance of props and other elements of sets for productions in television, film, entertainment and interactive media industries. However, the scale and nature of special effects items can vary quite dramatically - from models and miniatures to electronic devices to animatronics and creatures.</p> <p>People who apply the skills and knowledge described in this unit work under direct supervision. They need to be proficient in the use of a range of hand and power tools.</p>
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## Licensing/Regulatory Information

Not applicable.

## Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
Maintain appearance of special effects items	<ol style="list-style-type: none"> <li>1. Liaise with <i>relevant personnel</i> to confirm appearance of special effects items</li> <li>2. Check <i>special effects</i> items for dirt, stains or marks</li> <li>3. Clean special effects items, ensuring that delicate or problem materials are serviced with care</li> <li>4. Apply new paint or other finish to required areas where appropriate</li> <li>5. Ensure that special effects are always accurately labelled, coded and stored according to enterprise procedures</li> </ol>
Repair special effects items	<ol style="list-style-type: none"> <li>6. Identify faults, rips or breakages in special effects items</li> <li>7. In consultation with relevant personnel, agree on minor repairs to be made according to individual level of responsibility</li> <li>8. Use appropriate <i>techniques</i> and <i>materials</i> to complete minor repairs to special effects items</li> <li>9. Organise repair of special effects items requiring specialist expertise in line with enterprise procedures</li> <li>10. Complete <i>documentation</i> in accordance with enterprise procedures</li> <li>11. Follow up specialist repairs to ensure that special effects items are available on <i>location</i> and functioning correctly in line with <i>production</i> schedules</li> <li>12. Advise relevant personnel of any repair-related problems that require attention in a timely manner</li> </ol>
Make alterations to special effects	<ol style="list-style-type: none"> <li>13. Liaise with relevant personnel to identify alterations that need to be made</li> <li>14. Read and interpret instructions for the required alterations</li> <li>15. Complete alterations to special effects items or refer to relevant personnel, according to individual level of responsibility</li> <li>16. Observe relevant <i>OHS and public safety legislative requirements</i> while repairing and maintaining special effects items</li> <li>17. Complete relevant workplace documentation in accordance with enterprise procedures</li> </ol>
Maintain special effects items during productions	<ol style="list-style-type: none"> <li>18. Assist with the safe packing and loading of special effects items for <i>transportation</i> to production locations</li> <li>19. Confirm with relevant personnel techniques, materials</li> </ol>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
	<p>and tools required to assemble special effects items on location</p> <p>20. Participate in ongoing discussions throughout the assembly process to ensure that special effects design requirements are met</p> <p>21. Store partially finished special effects items and equipment during the assembly phase to avoid loss or damage</p> <p>22. Assemble and disassemble special effects items throughout productions in line with production requirements, ensuring that continuity of appearance of items is maintained</p> <p>23. Disassemble special effects items at the conclusion of productions and safely pack and load them for transportation</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

- communication, literacy and teamwork skills sufficient to:
  - interpret written and verbal instructions related to the repair and maintenance of special effects items
  - liaise with specialist repair services for specified special effects items
  - work collaboratively as a member of a production team
  - complete workplace documentation
- problem solving skills sufficient to make adjustments to special effects items during routine maintenance and repair activities
- planning and organising skills sufficient to:
  - ensure that repairs are completed on time
  - assist with the assembly, maintenance and disassembly of special effects items during productions
- technical skills sufficient to:
  - use hand and power tools to repair and maintain special effects items
  - handle hazardous materials in a safe manner
  - draw to scale and correct perspective
- self-management skills sufficient to:
  - work under pressure and meet deadlines
  - follow manufacturer specifications and organisational policies and procedures
  - maintain a clean and safe work area
  - seek expert advice when problems arise
- numeracy skills sufficient to interpret scale drawings and measurements

#### Required knowledge

- detailed knowledge of sections of the Australian Recommended Safety Code for Film and Television related to the maintenance of special effects
- special effects design and construction process
- industry knowledge, including:
  - roles and responsibilities of art and construction personnel
  - issues and challenges that arise sufficient to maintain physical special effects for screen productions
  - set etiquette and protocols
- OHS procedures as they relate to the safe use of equipment and materials to maintain physical special effects for screen productions



## Evidence Guide

<b>EVIDENCE GUIDE</b>	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<b>Overview of assessment</b>	
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> <li>• ability to:             <ul style="list-style-type: none"> <li>• demonstrate attention to detail when repairing, maintaining and altering special effects items</li> <li>• follow directions and instructions</li> <li>• handle hazardous materials and equipment in a safe manner</li> <li>• assemble and disassemble special effect items on location in line with production requirements</li> <li>• maintain continuity of appearance of special effects items during productions</li> </ul> </li> <li>• collaborative approach to work.</li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> <li>• completion of special effects maintenance tasks within typical workplace time constraints</li> <li>• access to the tools required to complete repair and maintenance tasks</li> <li>• access to a selection of special effects items listed in the range statement</li> <li>• access to productions requiring special effects items</li> <li>• access to appropriate learning and assessment support when required</li> <li>• use of culturally appropriate processes and techniques appropriate to the language and literacy capacity of learners and the work being performed.</li> </ul>
<b>Method of assessment</b>	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> <li>• direct questioning combined with review of portfolios of evidence and third-party workplace reports of on-the-job performance</li> <li>• direct observation of the candidate maintaining, repairing or altering special effects items</li> </ul>



<b>EVIDENCE GUIDE</b>	
	<ul style="list-style-type: none"><li>• direct observation of the candidate assembling or disassembling special effects items on location</li><li>• inspection of special effects items maintained, repaired or altered by the candidate</li><li>• review of maintenance reports prepared by the candidate</li><li>• written or oral questioning to test knowledge as listed in the required skills and knowledge section of this unit.</li></ul>
<b>Guidance information for assessment</b>	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"><li>• CUFPRP301A Assemble and maintain props.</li></ul>

## Range Statement

### RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p><b><i>Relevant personnel</i></b> may include:</p>	<ul style="list-style-type: none"> <li>• designer</li> <li>• director</li> <li>• director of photography</li> <li>• fire and safety officer</li> <li>• floor manager</li> <li>• head of department</li> <li>• medic</li> <li>• performer</li> <li>• personnel with specialist expertise in special effects productions and execution</li> <li>• producer</li> <li>• production designer</li> <li>• special effects department personnel</li> <li>• special effects production personnel</li> <li>• special effects supervisor and manager</li> <li>• specialist equipment designer</li> <li>• specialist manufacturer</li> <li>• technical director</li> <li>• transportation provider and crew</li> <li>• other technical/specialist staff.</li> </ul>
<p><b><i>Special effects</i></b> items may include:</p>	<ul style="list-style-type: none"> <li>• animatronics and creatures</li> <li>• automated and animatronic devices and controls</li> <li>• cables</li> <li>• computer controlled devices</li> <li>• electrical and mechanical winches</li> <li>• electro mechanical devices</li> <li>• electronic devices</li> <li>• electronic flashing and timing devices</li> <li>• electronic hardware</li> <li>• floor effects, including:             <ul style="list-style-type: none"> <li>• weather effects</li> <li>• fire and smoke</li> </ul> </li> </ul>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• collapsing and destruction</li> <li>• water</li> <li>• crashes</li> <li>• motion control systems</li> <li>• models and miniatures, including:               <ul style="list-style-type: none"> <li>• demonstration type</li> <li>• real type</li> <li>• figures</li> <li>• landscapes</li> <li>• buildings</li> </ul> </li> <li>• motion control electronics and systems</li> <li>• pneumatics</li> <li>• power packs</li> <li>• road cases, boxes, crates for storage and transportation</li> <li>• sculpture - human, animal and inanimate.</li> </ul>
<i>Techniques</i> may include:	<ul style="list-style-type: none"> <li>• fabrication</li> <li>• gluing and cementing</li> <li>• metalwork, including:               <ul style="list-style-type: none"> <li>• cutting</li> <li>• welding</li> <li>• brazing</li> </ul> </li> <li>• moulding materials</li> <li>• painting and finishing</li> <li>• sculpting and other shaping methods</li> <li>• timber construction</li> <li>• woodworking.</li> </ul>
<i>Materials</i> may include:	<ul style="list-style-type: none"> <li>• adhesives</li> <li>• canvas</li> <li>• clay</li> <li>• fabrics</li> <li>• fasteners</li> <li>• fibreglass</li> <li>• foam</li> <li>• latex</li> <li>• leather</li> <li>• masonite</li> <li>• metal products, e.g. bars, tubes and sheets</li> <li>• mouldable materials</li> </ul>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• moulded or cast metal</li> <li>• paper products</li> <li>• plaster</li> <li>• plastics, e.g. moulded sheet</li> <li>• polystyrene</li> <li>• resins</li> <li>• thermoplastic</li> <li>• timber</li> <li>• timber products, e.g. plywood, particle board and craft wood.</li> </ul>
<b>Documentation</b> may be:	<ul style="list-style-type: none"> <li>• budgets</li> <li>• call and running sheets</li> <li>• colour charts</li> <li>• computer generated</li> <li>• confirmation of receipt and dispatch notes</li> <li>• descriptive special effects checklists</li> <li>• fault reports</li> <li>• hire agreements</li> <li>• manually written</li> <li>• manufacture schedules</li> <li>• manufacturer specifications and instructions</li> <li>• measurement charts</li> <li>• memos of instruction</li> <li>• operational and project plans</li> <li>• paint colour formulas</li> <li>• production schedules</li> <li>• scripts</li> <li>• sketches</li> <li>• special effects breakdown lists</li> <li>• special effects construction schedules and plans</li> <li>• special effects design</li> <li>• stock orders</li> <li>• stock reports</li> <li>• technical drawings.</li> </ul>
<b>Locations</b> may include:	<ul style="list-style-type: none"> <li>• day and night</li> <li>• on location - exterior</li> <li>• on location - interior</li> <li>• outside broadcast</li> <li>• studio.</li> </ul>

<b>RANGE STATEMENT</b>	
<b><i>Productions</i></b> may include:	<ul style="list-style-type: none"> <li>• animated productions</li> <li>• commercials</li> <li>• documentaries</li> <li>• feature films</li> <li>• filmed events or performances</li> <li>• live events and entertainment</li> <li>• live or pre-recorded <b><i>OHS and public safety legislative requirements</i></b> may include:television productions</li> <li>• music videos</li> <li>• short films</li> <li>• theatre productions.</li> </ul>
<b><i>OHS and public safety legislative requirements</i></b> may include:	<ul style="list-style-type: none"> <li>• commonwealth, state and territory OHS regulations</li> <li>• local government construction rules and regulations</li> <li>• national and international standards, guidelines and codes of practice, e.g. the Building Code of Australia.</li> </ul>
<b><i>Transportation</i></b> may involve:	<ul style="list-style-type: none"> <li>• hired vehicles</li> <li>• specialist handling and packaging of dangerous goods, including explosives, chemicals and pyrotechnic items</li> <li>• use of boats, planes, helicopters and trains</li> <li>• use of special transport low loaders.</li> </ul>

## Unit Sector(s)

<b>Unit sector</b>	
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## Competency field

<b>Competency field</b>	Media and entertainment production - special effects
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## Co-requisite units

Co-requisite units		