



**Australian Government**

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

# **CUFCAM302A Rig camera infrastructure**

**Revision Number: 1**

## CUFCAM302A Rig camera infrastructure

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit describes the performance outcomes, skills and knowledge required to install camera infrastructure for a television production.  No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.
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## Application of the Unit

<p><b>Application of the unit</b></p>	<p>This unit describes the skills and knowledge required to rig cabling and dolly tracks for relatively complex multi-camera, or occasionally single-camera, productions.</p> <p>As a rule, cable installations and laying of dolly tracks follow predetermined camera plans and are supervised by a technical producer.</p> <p>Typically the skills set out in this unit apply to television productions but may have relevance to other activities within the cultural industries.</p> <p>Sophisticated rigs are a feature of outside broadcasts, with studio-based productions generally having access to a basic plug-in infrastructure for cameras.</p> <p>Productions may include sporting events, entertainment at venues, drama, comedy and other multi-camera activities.</p> <p>Skills associated with manipulating cables during productions are covered in:</p> <ul style="list-style-type: none"> <li>• CUFCAM301A Shoot material for screen productions.</li> </ul> <p>Skills associated with the erection of camera towers and platforms (for which a scaffolder's licence is required) are covered in:</p> <ul style="list-style-type: none"> <li>• CUFCAM403A Plan and implement the installation of camera supports.</li> </ul>
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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
Prepare for cable rigs	<ol style="list-style-type: none"> <li>1. Confirm cabling requirements for <i>shoots</i> with <i>relevant production staff</i> and select appropriate <i>camera cables</i></li> <li>2. Repair minor cable faults or defects according to safety requirements and manufacturer instructions</li> <li>3. Refer complex repairs to technical specialists according to enterprise procedures</li> <li>4. Complete <i>documentation</i>, according to enterprise requirements</li> <li>5. Ensure that camera cables are operational and available on time at the correct <i>location</i></li> </ol>
Rig camera cables	<ol style="list-style-type: none"> <li>6. Check that <i>power source</i> is appropriate and available</li> <li>7. Use the camera plan and other available cabling information to confirm cable points and cable runs</li> <li>8. Establish cable points, runs and lengths to meet anticipated <i>camera movements</i> and minimise cable cross-overs</li> <li>9. Lay out excess cable to avoid knotting or twisting during use</li> <li>10. Run power cables from power source to cameras and other relevant <i>equipment</i></li> <li>11. Secure cables to avoid strain on plugs and sockets</li> <li>12. Ensure that cable routing and patching to camera control units, cable slinging and cable ramping is completed according to camera plans and completed in a safe manner</li> <li>13. Check that camera cables are run from correct outlet points to cameras and do not impede the movement of cameras involved in <i>productions</i></li> <li>14. Ensure that installed camera cables are not a hazard to personnel involved in shoots or to the general public</li> </ol>
Lay tracks for dolly mounts	<ol style="list-style-type: none"> <li>15. Position tracks according to production requirements and confirm final positioning with relevant production staff</li> <li>16. Lay tracks safely, taking account of <i>ground conditions</i> and according to site safety plans</li> <li>17. Ensure that tracks are placed without risk to production staff involved in shoots and that they are smooth, level and secure throughout the route</li> <li>18. Ensure that tracks do not intrude on proposed shots and allow free movement of camera equipment and staff</li> </ol>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
	19. Secure dolly to track and check <i>fastenings</i>
Disassemble camera cables and dolly tracks	20. Break down cabling and ensure that cables are coiled or wound onto drums to avoid strains or damage 21. Break down and carry track equipment, employing safe lifting techniques 22. Report damage to equipment to relevant production staff and complete required documentation 23. Clean and safely pack equipment to avoid damage and prepare for transport as required 24. Leave worksites in original or improved condition, ensuring that there has been no adverse impact on sites

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

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

#### Required skills

- communication skills sufficient to interpret camera plans
- initiative in the context of making practical suggestions that result in minor modifications to camera plans
- technical skills sufficient to:
  - undertake basic repairs to a range of different cables
  - use tools and test equipment required to install and maintain cables
- ability to work and communicate closely with other team members
- problem solving skills in the context of anticipating and addressing equipment set-up problems
- self-management skills sufficient to:
  - prioritise work tasks
  - meet deadlines
  - seek expert assistance when problems arise
- literacy skills sufficient to interpret written and verbal instructions

#### Required knowledge

- industry knowledge, including:
  - roles and responsibilities of production personnel
  - broadcast/film language and terminology
  - issues and challenges that arise in the context of rigging camera infrastructure
- compatibility of a range of video cameras and camera equipment with:
  - a range of cables and connectors
  - different power sources
- OHS regulations and requirements, and procedures in relation to the use of electrical equipment, cables and dolly tracks
- duty of care to colleagues and the general public

## 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>• correct rigging of cables according to a camera plan in a variety of production contexts</li> <li>• safe construction and laying of dolly tracks</li> <li>• safe work practices</li> <li>• cooperative attitude in a team environment.</li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> <li>• access to a real or simulated workplace environment that reproduces all the elements of a television production</li> <li>• access to video cables and equipment as listed in the range statement</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>• observation of the candidate laying cables and setting up dolly tracks on location to determine if correct procedures have been followed</li> <li>• written or verbal 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>• CUFCAM301A Shoot material for screen</li> </ul>



**EVIDENCE GUIDE**

- productions
- MEM18001C Use hand tools.

## 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.

<b><i>Shoots</i></b> may include:	<ul style="list-style-type: none"> <li>• digital</li> <li>• film</li> <li>• multi-camera</li> <li>• single-camera.</li> </ul>
<b><i>Relevant production staff</i></b> may include:	<ul style="list-style-type: none"> <li>• camera operator</li> <li>• director</li> <li>• director of photography</li> <li>• floor manager</li> <li>• gaffer</li> <li>• grip</li> <li>• head of department</li> <li>• lighting personnel</li> <li>• other specialist staff</li> <li>• other technical staff</li> <li>• safety officer</li> <li>• supervisor</li> <li>• technical director.</li> </ul>
<b><i>Camera cables</i></b> may include:	<ul style="list-style-type: none"> <li>• auxiliary cables</li> <li>• camera cables</li> <li>• power cables.</li> </ul>
<b><i>Documentation</i></b> may include:	<ul style="list-style-type: none"> <li>• camera plan</li> <li>• fault reports</li> <li>• production schedules</li> <li>• rig plans</li> <li>• stock orders</li> <li>• stock reports.</li> </ul>
<b><i>Locations</i></b> may include:	<ul style="list-style-type: none"> <li>• day</li> <li>• exterior</li> <li>• interior</li> <li>• night</li> <li>• outside broadcasts</li> <li>• studio.</li> </ul>

<b>RANGE STATEMENT</b>	
<b><i>Power sources</i></b> may include:	<ul style="list-style-type: none"> <li>• battery power</li> <li>• generator</li> <li>• mains power.</li> </ul>
<b><i>Camera movements</i></b> may include:	<ul style="list-style-type: none"> <li>• crab</li> <li>• dolly</li> <li>• pan</li> <li>• static</li> <li>• tilt</li> <li>• track in/out.</li> </ul>
<b><i>Equipment</i></b> may include:	<ul style="list-style-type: none"> <li>• cameras</li> <li>• monitors</li> <li>• power supply</li> <li>• video assists.</li> </ul>
<b><i>Productions</i></b> may include:	<ul style="list-style-type: none"> <li>• animated productions</li> <li>• commercials</li> <li>• documentaries</li> <li>• EFP (electronic field production)</li> <li>• ENG (electronic news gathering)</li> <li>• feature films</li> <li>• filmed events or performances</li> <li>• live or prerecorded television productions</li> <li>• music video</li> <li>• short films</li> <li>• television productions, e.g.Â music, drama, comedy, variety, sport.</li> </ul>
<b><i>Ground conditions</i></b> may include:	<ul style="list-style-type: none"> <li>• broken</li> <li>• dry</li> <li>• firm</li> <li>• level</li> <li>• sloping</li> <li>• soft</li> <li>• studio flooring</li> <li>• undulating</li> <li>• wet.</li> </ul>
<b><i>Fastenings</i></b> may include:	<ul style="list-style-type: none"> <li>• bolts</li> <li>• carabiners harnesses</li> <li>• clamps</li> <li>• fixings</li> <li>• joiners</li> </ul>

**RANGE STATEMENT**

	<ul style="list-style-type: none"> <li>• knots</li> <li>• lashings</li> <li>• ropes.</li> </ul>
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**Unit Sector(s)**

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

<b>Competency field</b>	Media and entertainment production - Camera/cinematography
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**Co-requisite units**

<b>Co-requisite units</b>		