

Using drones and robots when delivering Australian Curriculum: Digital Technologies **does not cover all aspects** of the relevant achievement standard within each band. Other contexts need to be considered.

The following outlines opportunities to use robots and drones and indicates relevant content description codes.

SOME LINK <i>using robots or drones has some contextual opportunity; (additional contexts required)</i>	STRONG LINK <i>using robots or drones has a strong contextual opportunity</i>
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	F-2	3-4	5-6	7-8	9-10
Strand: Knowledge and understanding					
Digital systems	<i>exploring robots or drones with controllers; identifying hardware and software elements</i> ACTDIK001	<i>identifying and exploring robots and drones; (as part of a larger approach to investigating peripherals (hardware) and data transmission)</i> ACTDIK007	<i>requires deep dive into drone or robot systems; (examining components, networks and data transmission still required)</i> ACTDIK014	<i>investigation of data transmitted to and from robots or drones; (as part of a larger approach to data transmission, specifications, performance and distinguishing different types of networks still required)</i> ACTDIK023	*ACTDIK034
Representation of data	*ACTDIK002	*ACTDIK008	*ACTDIK015	*ACTDIK024	*ACTDIK035
Strand: Processes and production skills					
Collecting, managing and analysing data	<i>collecting of data using drones or robots; (exploring, sorting and creative presentation of data still required)</i> ACTDIP003	<i>collecting different types of data using drones or robots; (accessing and presentation of data using simple software to create information still required)</i> ACTDIP009	<i>acquiring different types of data using drones or robots; (storing and validating data, and using a range of software to interpret and visualise data to create information still required)</i> ACTDIP016	<i>using drones or robots to acquire data; (a range of data sources and evaluation of data is still required)</i> ACTDIP025	<i>extracting data collected from a robot or a drone and combining it with data obtained from another source to create a composite representation; (range of sources (both qualitative and quantitative), and privacy and security requirements still required)</i> ACTDIP036
				*ACTDIP026	*ACTDIP037
Creating digital solutions by:					
Investigating and defining	<i>solve a problem using steps and decisions to control robots or drones</i>	<i>design and follow a sequence of steps and decisions to control robots or drones</i>	<i>creating a plan incorporating the needs for a solution that uses robots or drones</i> ACTDIP017	<i>breaking a solution into sub elements, considering the requirements for using robots or drones under different conditions</i> ACTDIP027	<i>defining and decomposing stakeholder functional and non-functional requirements for solutions to problems that could be solved using robots or drones</i> ACTDIP038
Generating and designing			*ACTDIP018	*ACTDIP028	*ACTDIP039
			<i>designing algorithms that include branching, iteration and user input to control robots or drones</i> ACTDIP010	<i>designing algorithms to control robots or drones: diagrams, explanation of code and debugging</i> ACTDIP019	<i>designing algorithms to control robots or drones: running of test cases, explanation of code and debugging</i> ACTDIP029
Producing and implementing	<i>using visual/block-based code that includes branching and user input to control robots or drones</i> ACTDIP004	<i>using visual/block-based code that includes branching and user input to control robots or drones</i> ACTDIP011	<i>using visual/block-based code that includes branching, iteration and user input to control robots or drones</i> ACTDIP020	<i>using a general purpose programming language that includes branching, iteration, functions and user input to control robots or drones</i> ACTDIP030	<i>using an object-oriented programming language to create modular programs and data structures to control robots or drones</i> ACTDIP041
Evaluating	<i>exploration of how robots and drones are used safely to meet information, communication and recreation needs; (other common information systems should also be considered)</i> ACTDIP005	<i>exploration of how robots and drones meet various needs including safe use; (other common information systems should also be considered)</i> ACTDIP012	<i>exploration of how robots and drones meet various sustainable needs; (other common information systems should also be considered)</i> ACTDIP021	<i>evaluating student solutions using drones and robots; (other common information systems should also be considered)</i> ACTDIP031	<i>examine and review policies regarding the use of robots or drones; (other common information systems should also be considered)</i> ACTDIP042
Collaborating and managing	*ACTDIP006	*ACTDIP013	*ACTDIP022	*ACTDIP032	*ACTDIP043 *ACTDIP044

*related learnings that do not directly use robots and drones but could be covered in an appropriate unit(s)