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Australian Standard<sup>®</sup>

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**Manipulating industrial robots—  
Vocabulary**

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# Manipulating industrial robots—Vocabulary

## 1 Scope

This Technical Report defines terms relevant to manipulating industrial robots operated in a manufacturing environment.

### NOTES

1 This Technical Report will be completed later by including other terms especially those related to safety.

2 Use of terms printed in italic: A term printed in italic typeface in a definition or example has the meaning given to it in another entry of the vocabulary. However, the term is only printed in italic typeface the first time it occurs in each entry.

## 2 General terms

**2.1 manipulator:** A machine, the mechanism of which usually consists of a series of segments jointed or sliding relative to one another, for the purpose of grasping and/or moving objects (pieces or tools) usually in several *degrees of freedom*. It may be controlled by an *operator*, a programmable electronic controller, or any logic system (for example cam device, wired, etc.).

**2.2 fixed sequence manipulator:** A *manipulator* which performs each step of a given operation according to a predetermined motion pattern which cannot be changed without physical alteration.

**2.3 manipulating industrial robot:** An automatically controlled, reprogrammable, multi-purpose, manipulative machine with several *degrees of freedom*, which may be either fixed in place or mobile for use in industrial automation applications.

### NOTES

1 The following is an explanation of terms used in the above definition:

— reprogrammable: whose programmed motions or auxiliary functions may be changed without physical alterations;

— multi-purpose: can be adapted to a different application (5.1.1) with physical alteration;

— physical alteration means alteration of the mechanical structure or control system except for changing programming cassettes, ROMs, etc.

2 For the purposes of the remaining clauses of this vocabulary, the term “robot” will mean “manipulating industrial robot”.

**2.4 playbackrobot;record playbackrobot** (*synonym*):

A robot that can repeat a *task program* which is entered through *teach programming*.

**2.5 mobile robot:** A robot mounted on an automatically movable *base*.

*Example:* A mobile robot is a gantry mounted robot which is a robot whose base is mounted on the carriage of a gantry.

**2.6 robot system:** A robot system includes:

— the robot (hardware and software) consisting of the *manipulator* whether mobile or not; power supply and control system;

— the *end-effector(s)*;

— any equipment, devices, or sensors required for the robot to perform its task;

— any communication interface that is operating and monitoring the robot, equipment, or sensors, as far as these peripheral devices are supervised by the robot control system.

**2.7 robotics:** Designing, building, and applying robots.

**2.8 operator:** A competent person designated to start, monitor and stop the intended productive operation of a robot or *robot system*.

**2.9 programmer:** A competent person designated to prepare the *task program*.

NOTE - Different ways of programming are defined in 5.2.

**2.10 installation:** The operation consisting of installing the robot on its site, connecting it to its supply and drive powers.

**2.11 commissioning:** Setting up, checking of the *robot system* and the verification of the robot functions following *installation*.