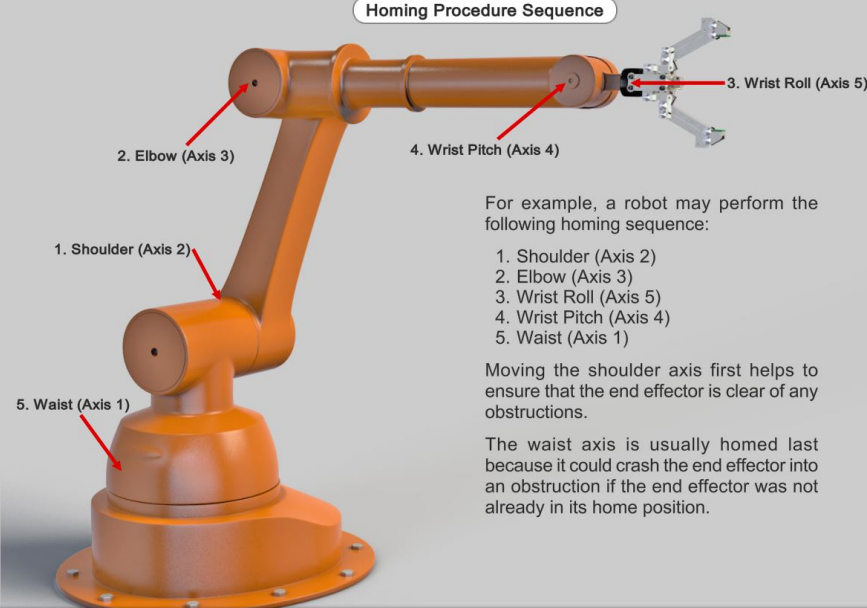


# Principles of Robotics S4C + Controller| Interactive eLearning

Basic Robot Operation - WXA0201-XX01XEN-E2

Objective 11: Describe the Operation of the Homing Procedure for a Servo Robot



**Homing Procedure Sequence**

For example, a robot may perform the following homing sequence:

1. Shoulder (Axis 2)
2. Elbow (Axis 3)
3. Wrist Roll (Axis 5)
4. Wrist Pitch (Axis 4)
5. Waist (Axis 1)

Moving the shoulder axis first helps to ensure that the end effector is clear of any obstructions.

The waist axis is usually homed last because it could crash the end effector into an obstruction if the end effector was not already in its home position.

AMATROL Page 30 of 38

## eLearning Course: MXAU201

Amatrol's Principles of Robotics S4C + Controller eLearning course covers major topic areas including: an Introduction to Robots, Robot Safety, Robot Motion, Robot Configurations, ABB Robot Controls, Automatic Operations, and ABB Robot Operations. Within these topic areas, learners will study: the benefits of using robots; safety precautions to take when working around robots; pinch points on a robot; safety precautions to take when inside the robot cell; component axes of the robot; the purpose of end effectors; the keys, buttons, and switches associated with the control cabinet and teach pendant; and more!

## Teach Workplace Safety Skills

### What are Advantages to Industrial Robots?

Robots have a number of advantages over manual labor for performing many tasks:

- **Improve Quality of Life** - Robots can work in dangerous or dirty environments where people should not be working. Robots can also perform repetitive tasks that would be boring to human workers.
- **Improve Product Quality** - Robots perform their tasks very accurately on a consistent basis, causing fewer rejects. They can also perform certain tasks much better than people, such as spray painting. This provides a higher quality in every product.
- **Reduce Production Costs** - Robots can operate continuously 24 hours a day, allowing them to produce the quantity of work of three people. Also, the multitasking ability of robots means they can be reused if their tasks are no longer needed. Finally the robot's ability to perform accurately, causing few rejects, creates a lower overall cost of production.

## **Highly-Interactive Multimedia Format Appeals to All Learning Styles**

Amatrol's Safety eLearning course curriculum features a highly-interactive multimedia format. Stunning 3D animations, videos, pictures, voiceovers of all text, and interactive quizzes and exercises bring learning to life. Amatrol's multimedia curriculum contains elements that will appeal to every learning style, keeping learners motivated and engaged.

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