



# Kawasaki Robotics Academy

Overview of seminar courses 2021

Status: 1-2021



# Lifelong learning

The Kawasaki Robotics Academy is responsible for knowledge management within the company on the basis of corporate objectives. It aims at the identification, generation, transformation and preservation of organizational knowledge from industrial automation.

Through interactive technical product training on Kawasaki robot systems, Academy participants are enabled to implement economically successful automation solutions effectively and efficiently. The sustainable implementation of Kawasaki Robotics product innovations ensures the long-term global competitiveness of companies. Higher productivity, product quality and occupational safety are measurable goals of the Personalized Learning service of the Kawasaki Robotics Academy. The human being is the center of the Academy and requires a higher qualification in order to be able to help shape the digital transformation in the future.

In order to keep pace with the changes in today's society, the Kawasaki Robotics Academy would like to start a paradigm shift in product training. We want to inspire people to lifelong learning and accompany the constant change of future value creation systems.

Change Forward with the Kawasaki Robotics Academy

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## General Information

This catalogue includes information about different training courses which we offer at Kawasaki Robotics.

The training contents are including a lot of application fields of using Kawasaki robots. We provide customized or application-oriented training courses.

### Training Locations

The training courses will be held at our office in Neuss (Germany).

### Training Dates

If you need information about the actual training dates, please call us on +49(0)2131/3426-1350 or visit our webpage.

### Training Time

Monday to Thursday 9.00 am to 4.00 pm

Friday 9.00 am to 2.00 pm

(Lunch time 12.00 pm to 1.00 pm)

Please note the terms and conditions of the Kawasaki Robotics Academy

## Overview of our Standard Training Courses

We provide a range of different courses. Fundamental for all advanced courses are our standard courses. After completion of a standard course, further advanced and application training courses are available.

### Standard Courses:

Operation Training

Electrical Maintenance Training

Programming Training

duAro Tablet Training

### Advanced Courses:

CUBIC-S Training

K-ROSET Simulation Training

duAro AS-Programming Training

### Application Courses:

Operation & Programming of Painting Robots

Integration of Painting Robots

Application Training Arc-Welding

Application Training Cleanroom

Application Training Picking System

## Overview of our Option Training Courses

Some functions of the robot system exceed the standard functions. Here we talk about options. With the help of these options, the scope of performance can be extended in a modular manner.

In the following you will find an overview of our option training courses which we offer. Detailed information and descriptions can be found later in this catalogue.

### Option Courses:

Conveyor Tracking Training

General Fieldbus Training

Collision Detection Training

Soft Absorber / Change Gain Training

Interface Communication Training

K-Logic / K-Ladder Training

External Axis Training

K-Sparc Training

K-VFinder Vision System Training

TREND Manager Training

Data Storage Training

Fixed Tool Training

Spin Control Training



## Operation Training

The target of this training course is that the attendant will be able to operate the robot system safely.

Target group:	<ul style="list-style-type: none"><li>- System Operators</li><li>- Shift Supervisor</li><li>- Production Manager</li></ul>
Qualifications:	<ul style="list-style-type: none"><li>- Technical Knowledge</li><li>- Elementary English</li></ul>
Contents:	<ul style="list-style-type: none"><li>- Safety Instructions</li><li>- Summary of the Robot System</li><li>- Start-up the Robot System and Shutdown</li><li>- Safety Operation of the Robot System</li><li>- Troubleshooting (Basic)</li></ul>
Period:	2 days
Price:	760,00 € per student
Number of participants:	3 – 6 students
Location:	Kawasaki Robotics Academy Neuss

## Electrical Maintenance Training

The target of this training course is that the attendant will be able to do troubleshooting on the robot system. The attendant can analyse and solve electrical interferences.

Target group:	<ul style="list-style-type: none"><li>- Maintenance Engineers</li><li>- Service Engineers</li><li>- Electrical Technicians</li><li>- People with Electrical Knowledge</li></ul>
Qualifications:	<ul style="list-style-type: none"><li>- Technical Knowledge</li><li>- Elementary English</li><li>- Electrical Knowledge</li><li>- Electrical Education</li></ul>
Contents:	<ul style="list-style-type: none"><li>- Safety Instructions</li><li>- Summary of the Electrical Robot Parts</li><li>- Configuration and Function of the Robot Controller</li><li>- Summary of Circuit Diagram</li><li>- Troubleshooting</li></ul>
Period:	2 Days
Price:	760,00 € per student
Number of participants:	3 – 6 students
Location:	Kawasaki Robotics Academy Neuss

## Programming Training

The target of this training course is that the attendant will be able to operate the robot system safely. Create programs in the AS programming language, background tasks and individual user interfaces (Interface Panel). At the end of the training you will have created a complete palletising program.

- Target group:
- System Integrators
  - Developers
  - Programmers
- Qualifications:
- Technical Knowledge
  - Elementary English
  - PC Knowledge
- Contents:
- Safety Instructions
  - Summary of the Robot System
  - Start-up the Robot System and Shutdown
  - Safety Operation of the Robot System
  - AS-Language Programming
  - Create/correct of positions
  - Input/Output Signals
  - Working with Offsets
  - Creation of the TCP (Tool Center Point)
  - Task Programs (Process Control)
  - Creation of individual user interfaces (Interface Panel)
  - Simple error analysis during plant downtime (Basic)
- Period: 4 Days
- Price: 1400,00 € per student

## Seminar Courses

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Number of participants: 3 – 6 students

Location: Kawasaki Robotics Academy Neuss

## duAro Tablet Training

The target of this training course is that the attendant will be able to operate the robot system safely. The attendant also can-do troubleshooting and create simple programs via Tablet and set up the safety module

Target group:	<ul style="list-style-type: none"><li>- System Integrators</li><li>- Developers</li><li>- Programmers</li></ul>
Qualifications:	<ul style="list-style-type: none"><li>- Technical Knowledge</li><li>- Electrical/Mechanical Knowledge</li><li>- Elementary English</li><li>- PC / Android Tablets Knowledge</li></ul>
Contents:	<ul style="list-style-type: none"><li>- Safety Instructions</li><li>- Summary of the Robot System</li><li>- Start-up the Robot System and Shutdown</li><li>- Safety Operation of the Robot System</li><li>- Programming via Tablet</li><li>- Configuration of the safety module</li></ul>
Period:	3 Days
Price:	1080,00 € per student
Number of participants:	2 – 4 students
Location:	Kawasaki Robotics Academy Neuss

## CUBIC-S Training

The target of this training course is that the attendant will be able to parameterize the safety module CUBIC-S and to integrate the hardware into the robot system.

Target group:	<ul style="list-style-type: none"><li>- System Integrators</li><li>- Developers</li><li>- Programmers</li></ul>
Qualifications:	<ul style="list-style-type: none"><li>- Technical Knowledge</li><li>- Elementary English</li><li>- PC Knowledge</li><li>- Successful participation in the courses:<ul style="list-style-type: none"><li>o Programming Training</li></ul></li></ul>
Contents:	<ul style="list-style-type: none"><li>- Safety Instructions</li><li>- Integration of the safety module CUBIC-S into the robot system</li><li>- Parameterization of the individual safety settings of the CUBIC-S module</li><li>- Creating/Adjusting safety zones</li><li>- Determination/interconnection of safety inputs/outputs</li></ul>
Period:	2 Days
Price:	888 ,00 € per student
Number of participants:	2 – 4 students
Location:	Kawasaki Robotics Academy Neuss

## K-ROSET Simulation Training

The target of this training course is that the attendant will be able to create own robot simulations with the PC-simulation software “K-ROSET”.

Target group:	<ul style="list-style-type: none"><li>- System Integrators</li><li>- Developers</li><li>- Programmers</li></ul>
Qualifications:	<ul style="list-style-type: none"><li>- Technical Knowledge</li><li>- Elementary English</li><li>- PC Knowledge</li><li>- Successful participation in the courses:<ul style="list-style-type: none"><li>o Programming Training</li></ul></li></ul>
Contents:	<ul style="list-style-type: none"><li>- Installation and short Summary about the Software</li><li>- How to move the Robot in Simulation Software</li><li>- Create and Load Tool Data</li><li>- Create Geometrical Objects</li><li>- Import Objects</li><li>- Create Robot Programs</li><li>- Analyse Cycle Time</li><li>- Obstacle Contour</li></ul>
Period:	2 Days
Price:	888 ,00 € per student
Number of participants:	3 – 6 students
Location:	Kawasaki Robotics Academy Neuss

## duAro AS-Programming Training

The target of this training course is that the attendant will be able to operate the robot system safely. The attendant also can-do troubleshooting and create simple programs in AS-Language and set up the safety module

Target group:	<ul style="list-style-type: none"><li>- System Integrators</li><li>- Developers</li><li>- Programmers</li></ul>
Qualifications:	<ul style="list-style-type: none"><li>- Technical Knowledge</li><li>- Electrical/Mechanical Knowledge</li><li>- Elementary English</li><li>- PC Knowledge</li><li>- Successful participation in the courses:<ul style="list-style-type: none"><li>○ duAro Tablet Training</li><li>○ Programming Training</li></ul></li></ul>
Contents:	<ul style="list-style-type: none"><li>- Safety Instructions</li><li>- Summary of the Robot System</li><li>- Start-up the Robot System and Shutdown</li><li>- Safety Operation of the Robot System</li><li>- AS-Language Programming (Basic)</li></ul>
Period:	1 Day
Price:	504 ,00 € per student
Number of participants:	2 – 4 students
Location:	Kawasaki Robotics Academy Neuss



## Operation & Programming of Painting Robots

The target of this training course is that the attendant will be able to operate the robot system safely. To create painting programs and adapt databases for the management of painting parameters.

Target Group:	<ul style="list-style-type: none"><li>- Developers</li><li>- Programmers</li></ul>
Qualifications:	<ul style="list-style-type: none"><li>- Technical Knowledge</li><li>- Elementary English</li><li>- PC Knowledge</li></ul>
Contents:	<ul style="list-style-type: none"><li>- Safety Instructions</li><li>- Summary of the Robot System</li><li>- Start-up the Robot System and Shutdown</li><li>- Move Robot in Teach-Mode</li><li>- Setting of Tool Coordinates</li><li>- Creation and teaching of coating programs with defined commands</li><li>- Creating and using databases for managing and controlling the paint supply</li><li>- Creating programs with automatic path generation</li><li>- Creation of subprograms for cleaning, home position and serving colour</li><li>- Observation of wrist and avoidance of singularities</li></ul>
Period:	3 Days
Price:	upon request
Number of participants:	3 – 6 students

Location: Kawasaki Robotics Academy Neuss

Training date: upon request

**Note:** Kawasaki Robotics GmbH does not have any painting equipment. We work together with named manufacturers, who provide us with their equipment.

## Integration of Painting Robots

The target of this training course is that the attendant will be able to operate the robot system safely. To integrate General Field Bus-system and other paint-specific components into the robot system. Create painting main program and use process-based signals.

- Target Group:
- System Integrators
  - Developers
  - Programmers
- Qualifications:
- Technical Knowledge
  - Elementary English
  - PC Knowledge
- Contents:
- Safety Instructions
  - Summary of the Robot System
  - Start-up the Robot System and Shutdown
  - Necessary first steps after receiving the Robot for start-up
  - Move Robot in Teach-Mode
  - Setting of Tool Coordinates
  - Setup of General Fieldbus, Analog output card and Conveyor Tracking into the Robot System
  - Setting up the Machine communication to the PLC for starting, stopping and program selection
  - Preparing of the main program
  - Setting up the signals for controlling the paint supply
  - Explanation of Paint related Control
  - Setting up the interface panel
  - Calling of subprograms for cleaning, home position, etc.
  - Explanation of PC Programs for Paint Signal Control
- Period: 4 Days

Price: upon request

Number of participants: 3 – 6 students

Location: Kawasaki Robotics Academy Neuss

Training date: upon request

**Note:** Kawasaki Robotics GmbH does not have any painting equipment. We work together with named manufacturers, who provide us with their equipment.

## Application Training Arc-Welding

The target of this training course is that the attendant will be able to operate the robot system safely. To integrate the welding machine into the Robot System, create application-specific welding programs and select the necessary parameters and option for the welding process.

- Target Group:
- System Integrators
  - Developers
  - Programmers
- Qualifications:
- Technical Knowledge
  - Elementary English
  - PC Knowledge
  - Successful participation in the course
    - o Programming Training
- Contents:
- Safety Instructions
  - Summary of the Arc Welding Robot System
  - Start-up the Robot System and Shutdown
  - Setting of external axes
  - Connection between Robot and welding machine
  - Integration of General Fieldbus into the Robot System
  - Allocation of signals and digital I/O
  - Explanation of the various setting options in the Robot System
  - Setting of Tool Coordinates
  - Creation of Block-/ and AS-Program structures
- Period: 3 Days
- Price: upon request

## Seminar Courses

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Number of participants: 3 – 6 students

Location: Kawasaki Robotics Academy Neuss

Training date: upon request

**Note:** Kawasaki Robotics GmbH does not have any arc welding equipment. We work together with named manufacturers, who provide us with their equipment.

## Application Training Cleanroom

The target of this training course is that the attendant will be able to operate the robot system safely. The attendant also can-do troubleshooting and create simple programs in AS-Language and set up the safety module

Target group:	<ul style="list-style-type: none"><li>- System Integrators</li><li>- Developers</li><li>- Programmers</li></ul>
Qualifications:	<ul style="list-style-type: none"><li>- Technical Knowledge</li><li>- Elementary English</li><li>- Good PC Knowledge</li></ul>
Contents:	<ul style="list-style-type: none"><li>- Safety Instructions</li><li>- Summary of the Robot System</li><li>- Explanation of KRET (Teach Tool)</li><li>- Introduction to KMTerm and KR3D (simulation)</li><li>- Importing of teached data generate by KRET Tool</li><li>- Explanation of the most important commands (via Manual)</li><li>- Performing Simulation and collision free check exercise</li><li>- Introduction to KSUtility Software</li><li>- Exercises on a real robot</li></ul>
Period:	3 Day
Price:	upon request
Number of participants:	3 – 6 students
Location:	Kawasaki Robotics Academy Neuss

## Seminar Courses

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Training Date:                      upon request



## Application Training Picking System

The target of this training course is that the attendant will be able to realize a complete pick and place application with a Y-Series robot.

Target group:	<ul style="list-style-type: none"><li>- System Integrators</li><li>- Commissioning Engineer</li><li>- Programmers</li></ul>
Qualifications:	<ul style="list-style-type: none"><li>- Technical Knowledge</li><li>- Elementary English</li><li>- Knowledge of AS-Programming</li><li>- Knowledge of Robot Operation</li><li>- Successful participation in the courses:<ul style="list-style-type: none"><li>○ Programming Training</li><li>○ Conveyor Tracking Training</li><li>○ Interface Communication Training</li><li>○ K-VFinder Vision System Training</li></ul></li></ul>
Contents:	<ul style="list-style-type: none"><li>- Safety Instructions</li><li>- Summary of the Application System</li><li>- Functional Overview of the Programs</li><li>- Setting up the System by using of example program</li></ul>
Period:	1 Day
Price:	504,00 € per student
Number of participants:	3 – 6 students
Location:	Kawasaki Robotics Academy Neuss

## Conveyor Tracking Training

The target of this training course is that the attendant will be able to install the relevant hardware components in the robot controller and to define the system-relevant settings for conveyor tracking. Furthermore, program examples with the conveyor tracking function will be created.

Target group:	<ul style="list-style-type: none"><li>- Programmers</li><li>- Commissioning Engineer</li></ul>
Qualifications:	<ul style="list-style-type: none"><li>- Technical Knowledge</li><li>- Electrical/Mechanical Knowledge</li><li>- Elementary English</li><li>- Knowledge of AS-Programming</li><li>- Knowledge of Robot Operation</li></ul>
Contents:	<ul style="list-style-type: none"><li>- Safety Instructions</li><li>- Overview of Conveyor Tracking</li><li>- Installation procedure of the hardware components</li><li>- Function-relevant settings</li><li>- Operation of the robot with conveyor tracking</li><li>- Creation of program examples</li><li>- Troubleshooting (Basic)</li></ul>
Period:	2 Days
Price:	888,00 € per student
Number of participants:	3 – 6 students
Location:	Kawasaki Robotics Academy Neuss

## General Fieldbus Training

The target of this training course is that the attendant will be able to implement a Fieldbus into the robot system and to realize a signal exchange between the PLC and the robot.

Target group:	<ul style="list-style-type: none"><li>- Programmers</li><li>- Commissioning Engineer</li></ul>
Qualifications:	<ul style="list-style-type: none"><li>- Good PC Knowledge</li><li>- Elementary English</li><li>- Technical Knowledge</li><li>- Knowledge of Robot Operation</li></ul>
Contents:	<ul style="list-style-type: none"><li>- Safety Instructions</li><li>- Overview of supported Fieldbus systems</li><li>- Hardware installation in the robot controller</li><li>- Explanation of the Fieldbus settings in the teach pendant</li><li>- Creating a Fieldbus communication between PLC and robot system (PROFINET)</li><li>- Checking the input and output signals between PLC and robot system (PROFINET)</li></ul>
Period:	1 Day
Price:	504,00 € per student
Number of participants:	3 – 6 students
Location:	Kawasaki Robotics Academy Neuss

## Collision Detection Training

The target of this training course is that the attendant will be able to professionally set up and use the optional collision detection of the robot system.

Target group:	<ul style="list-style-type: none"><li>- Programmers</li><li>- Commissioning Engineer</li></ul>
Qualifications:	<ul style="list-style-type: none"><li>- Technical Knowledge</li><li>- Elementary English</li><li>- Knowledge of AS-Programming</li><li>- Knowledge of Robot Operation</li></ul>
Contents:	<ul style="list-style-type: none"><li>- Safety Instructions</li><li>- Overview of Collision Detection functions</li><li>- Function-relevant settings</li><li>- Applying Collision Detection in Teach and Repeat Mode</li><li>- Troubleshooting (Basic)</li></ul>
Period:	1 Day
Price:	504,00 € per student
Number of participants:	3 – 6 students
Location:	Kawasaki Robotics Academy Neuss

### **Soft Absorber / Change Gain Training**

The target of this training course is that the attendant will be able to set up and use the optional Soft Absorber / Change Gain function of the robot system professionally.

Target group:	<ul style="list-style-type: none"><li>- Programmers</li><li>- Commissioning Engineer</li></ul>
Qualifications:	<ul style="list-style-type: none"><li>- Technical Knowledge</li><li>- Elementary English</li><li>- Knowledge of AS-Programming</li><li>- Knowledge of Robot Operation</li></ul>
Contents:	<ul style="list-style-type: none"><li>- Safety Instructions</li><li>- Overview of Soft Absorber / Change Gain functions</li><li>- Function-relevant settings</li><li>- Using Soft Absorber / Change Gain in the robot program</li><li>- Troubleshooting (Basic)</li></ul>
Period:	1 Day
Price:	504,00 € per student
Number of participants:	3 – 6 students
Location:	Kawasaki Robotics Academy Neuss

## Interface Communication Training

The target of this training course is that the attendant will be able to implement a communication of different protocols in the robot system and to realize a data exchange between periphery and the robot system. Possible fields of application are e.g. camera systems or sensor technology connected to the robot system.

Target group:	<ul style="list-style-type: none"><li>- Programmers</li><li>- Commissioning Engineer</li></ul>
Qualifications:	<ul style="list-style-type: none"><li>- Technical Knowledge</li><li>- Elementary English</li><li>- Knowledge of AS-Programming</li><li>- Knowledge of Robot Operation</li></ul>
Contents:	<ul style="list-style-type: none"><li>- Safety Instructions</li><li>- Overview of supported protocols</li><li>- Creating a communication between periphery and robot system</li><li>- Checking the data exchange between periphery and robot system</li><li>- Troubleshooting (Basic)</li></ul>
Period:	1 Day
Price:	504,00 € per student
Number of participants:	3 – 6 students
Location:	Kawasaki Robotics Academy Neuss

## K-Logic / K-Ladder Training

The target of this training course is that the attendant will be able to use the optional K-Logic function in the robot system. The K-Logic function is a software-based PLC that is operated directly on the robot system.

Target group:	<ul style="list-style-type: none"><li>- Programmers</li><li>- Commissioning Engineer</li></ul>
Qualifications:	<ul style="list-style-type: none"><li>- Technical Knowledge</li><li>- Elementary English</li><li>- Knowledge of AS-Programming</li><li>- Knowledge of Robot Operation</li></ul>
Contents:	<ul style="list-style-type: none"><li>- Safety Instructions</li><li>- Overview of K-Logic functions</li><li>- Using the K-Ladder software</li><li>- Creating a sample program</li><li>- Troubleshooting (Basic)</li></ul>
Period:	2 Days
Price:	888,00 € per student
Number of participants:	3 – 6 students
Location:	Kawasaki Robotics Academy Neuss

## External Axis Training

The target of this training course is that the attendant will be able to install the relevant hardware components in the robot controller and to define the system-relevant settings for the external axis. Furthermore, program examples in connection with an external axis are created.

Target group:	<ul style="list-style-type: none"><li>- Programmers</li><li>- Commissioning Engineer</li></ul>
Qualifications:	<ul style="list-style-type: none"><li>- Technical Knowledge</li><li>- Electrical/Mechanical Knowledge</li><li>- Elementary English</li><li>- Knowledge of AS-Programming</li><li>- Knowledge of Robot Operation</li></ul>
Contents:	<ul style="list-style-type: none"><li>- Safety Instructions</li><li>- General overview</li><li>- Installation procedure of the hardware components</li><li>- Function-relevant settings</li><li>- Operation of the robot with conveyor tracking</li><li>- Creation of program examples</li><li>- Troubleshooting (Basic)</li></ul>
Period:	1 Day
Price:	504,00 € per student
Number of participants:	3 – 6 students
Location:	Kawasaki Robotics Academy Neuss



## K-Sparc Training

The target of this training course is that the attendant will be able to create a palletizing pattern or program using the optional K-Sparc function in the simulation software K-Roset.

Target group:	<ul style="list-style-type: none"><li>- Programmers</li><li>- Commissioning Engineer</li></ul>
Qualifications:	<ul style="list-style-type: none"><li>- Technical Knowledge</li><li>- Elementary English</li><li>- Knowledge of AS-Programming</li><li>- Knowledge of Robot Operation</li><li>- Knowledge in handling the Software K-Roset</li></ul>
Contents:	<ul style="list-style-type: none"><li>- Overview of the K-Sparc functions</li><li>- Creating a sample project with K-Sparc</li><li>- Checking the program function in K-Roset</li></ul>
Period:	1 Day
Price:	504,00 € per student
Number of participants:	3 – 6 students
Location:	Kawasaki Robotics Academy Neuss

## K-VFinder Vision System Training

The target of this training course is that the attendant will be able to put the Kawasaki Vision System K-VFinder into operation.

Target group:	<ul style="list-style-type: none"><li>- Programmers</li><li>- Commissioning Engineer</li></ul>
Qualifications:	<ul style="list-style-type: none"><li>- Technical Knowledge</li><li>- Good PC Knowledge</li><li>- Elementary English</li></ul>
Contents:	<ul style="list-style-type: none"><li>- Overview of K-VFinder functions</li><li>- Connection of a camera</li><li>- Calibration and distortion correction</li><li>- Teaching object characteristics</li><li>- Additional functions (e.g. height correction, grab range monitoring, inspection)</li></ul>
Period:	1 Day
Price:	504,00 € per student
Number of participants:	3 – 6 students
Location:	Kawasaki Robotics Academy Neuss

## TREND Manager Training

The target of this training course is that the attendant will be able to set up and use the optional TREND Manager software to monitor the robot status.

Target group:	<ul style="list-style-type: none"><li>- Commissioning Engineer</li><li>- Maintenance Engineers</li><li>- Plant Manager</li></ul>
Qualifications:	<ul style="list-style-type: none"><li>- Technical Knowledge</li><li>- Good PC Knowledge</li><li>- Elementary English</li><li>- Knowledge of AS-Programming</li><li>- Knowledge of Robot Operation</li></ul>
Contents:	<ul style="list-style-type: none"><li>- Overview of TREND Manager functions</li><li>- Installation and setup of the software</li><li>- Creating a measurement</li><li>- Integration of the function into existing robot programs</li><li>- Additional functions (e.g. notifications via email of malfunctions etc.)</li></ul>
Period:	1 Day
Price:	504,00 € per student
Number of participants:	3 – 6 students
Location:	Kawasaki Robotics Academy Neuss

## Data Storage Training

The target of this training course is that the attendant will be able to create measurement recordings of different robot parameters such as motor current, axis speed etc. using the data storage function. The subsequent import of the measurement into Excel is also part of this seminar.

Target group:	<ul style="list-style-type: none"><li>- Maintenance Engineers</li><li>- Programmers</li></ul>
Qualifications:	<ul style="list-style-type: none"><li>- Technical Knowledge</li><li>- Good PC Knowledge</li><li>- Elementary English</li><li>- Knowledge of Robot Operation</li></ul>
Contents:	<ul style="list-style-type: none"><li>- Functional overview of Data Storage</li><li>- Creation and configuration of a measurement logging</li><li>- Exporting the measurement data</li><li>- Importing into Excel</li></ul>
Period:	1 Day
Price:	504,00 € per student
Number of participants:	3 – 6 students
Location:	Kawasaki Robotics Academy Neuss

## Fixed Tool Training

The target of this training course is that the attendant will be able to set up an external tool in the robot controller and integrate it into a motion program.

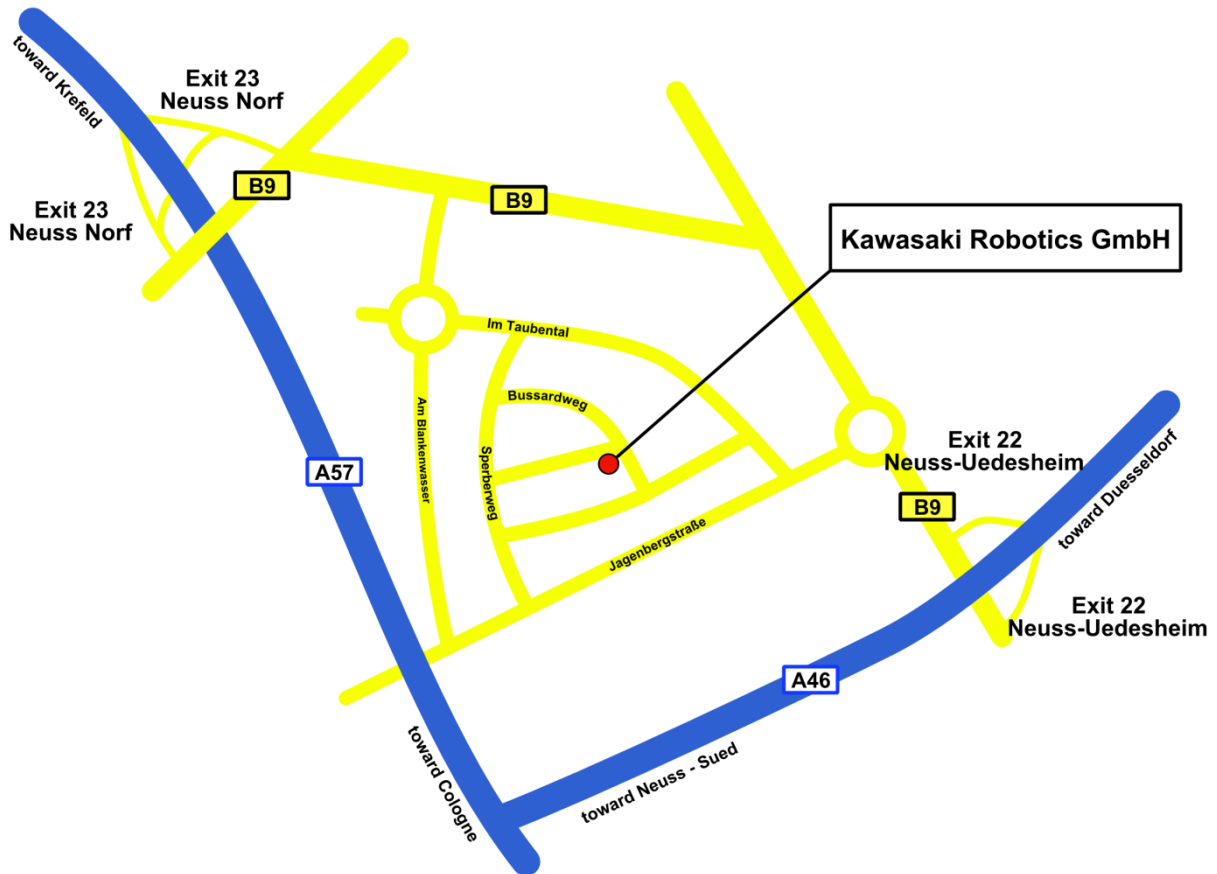
Target group:	<ul style="list-style-type: none"><li>- Commissioning Engineer</li><li>- Programmers</li><li>- Operator</li></ul>
Qualifications:	<ul style="list-style-type: none"><li>- Technical Knowledge</li><li>- Good PC Knowledge</li><li>- Elementary English</li><li>- Knowledge of AS-Programming</li><li>- Knowledge of Robot Operation</li></ul>
Contents:	<ul style="list-style-type: none"><li>- Functional overview of Fixed Tool</li><li>- Set up an external TCP</li><li>- AS language Command overview</li><li>- Teaching with an external tool</li><li>- Integration into a motion program</li></ul>
Period:	1 Day
Price:	504,00 € per student
Number of participants:	3 – 6 students
Location:	Kawasaki Robotics Academy Neuss

## Spin Control Training

The target of this training course is that the attendant will be able to set up the optional Spin Control function in the robot system and integrate it into a motion program.

Target group:	<ul style="list-style-type: none"><li>- Commissioning Engineer</li><li>- Programmers</li><li>- Operator</li></ul>
Qualifications:	<ul style="list-style-type: none"><li>- Technical Knowledge</li><li>- Good PC Knowledge</li><li>- Elementary English</li><li>- Knowledge of AS-Programming</li><li>- Knowledge of Robot Operation</li></ul>
Contents:	<ul style="list-style-type: none"><li>- Overview of Spin Control function</li><li>- Set up the function</li><li>- AS language Command overview</li><li>- Integration of the function into existing robot program</li></ul>
Period:	1 Day
Price:	504,00 € per student
Number of participants:	3 – 6 students
Location:	Kawasaki Robotics Academy Neuss

### Direction to our Office Neuss



Address:

Kawasaki Robotics GmbH

Im Taubental 32

41468 Neuss

Telephone: +49 (0) 21 31 / 34 26 - 0

Fax: +49 (0) 21 31 / 34 26 - 22

## List of Hotels in Neuss

This is a list with some Hotels which are located nearby our office in Neuss.

### **Bastion Hotel Neuss**

Tel.: +49 (0) 21 31 / 930004

Jagenbergstraße 2, 41468 Neuss

URL: [www.bastionhotels.com](http://www.bastionhotels.com)

### **Mercure Hotel Düsseldorf / Neuss**

Tel.: +49 (0) 21 31 / 1380

Am Derikumer Hof 1, 41469 Neuss

URL: [www.gchotelgroup.com/de](http://www.gchotelgroup.com/de)

Access code for our training participants: **103713**

### **Hotel-Gasthof „Vater Rhein“**

Tel.: +49 (0) 21 33 / 7 19 30

Oberstraße 4, 41541 Dormagen

URL: [www.gasthof-vaterrhein.de](http://www.gasthof-vaterrhein.de)

### **Dorint Kongresshotel Düsseldorf / Neuss**

Tel.: +49 (0) 21 31 / 262-0

Selikumer Str. 25, 41460 Neuss

URL: <https://hotel-duesseldorf-neuss.dorint.com/de/>

\*Price may be different (e.g. during events like fair...)



## Contact

If you have any questions about the Kawasaki robot training seminars, please do not hesitate to contact us:

Kawasaki Robotics GmbH

Tel: +49(0)21 31 - 34 26 - 1350

Fax: +49(0)21 31 - 34 26 – 22

E-Mail: [academy@kawasakirobot.de](mailto:academy@kawasakirobot.de)

You can reach us during our business hours:

Monday to Thursday from 8.00 a.m. to 5.00 p.m.

Friday from 8.00 a.m. to 3.00 p.m.

## Information about current training dates 2021

Dear Madam or Sir,

we would like to inform you about the next possible training dates for the calendar year 2021 <sup>1</sup>.

### Operation Training

Month	Date	Week No.	Duration
March	15.03. – 16.03.2021	Week 11	2 days
April	19.04. – 20.04.2021	Week 16	2 days
May	25.05. – 26.05.2021	Week 21	2 days
July	12.07. – 13.07.2021	Week 28	2 days
August	23.08. – 24.08.2021	Week 34	2 days
October	04.10. – 05.10.2021	Week 40	2 days
November	15.11. – 16.11.2021	Week 46	2 days

### Electrical Maintenance Training

Month	Date	Week No.	Duration
March	17.03. – 18.03.2021	Week 11	2 days
April	21.04. – 22.04.2021	Week 16	2 days
May	27.05. – 28.05.2021	Week 21	2 days
July	14.07. – 15.07.2021	Week 28	2 days
August	25.08. – 26.08.2021	Week 34	2 days
October	06.10. – 07.10.2021	Week 40	2 days
November	17.11. – 18.11.2021	Week 46	2 days

If you any questions about the training contents or the availability please call **+49(0) 2131/3426-1350** or send a mail to [academy@kawasakirobot.de](mailto:academy@kawasakirobot.de).

<sup>1</sup> Changes may be possible

**Programming Training**

Month	Date	Week No.	Duration
March	08.03. – 11.03.2021	Week 10	4 days
March	22.03. – 25.03.2021	Week 12	4 days
April	12.04. – 15.04.2021	Week 15	4 days
April	26.04. – 29.04.2021	Week 17	4 days
May	17.05. – 20.05.2021	Week 20	4 days
June	07.06. – 10.06.2021	Week 23	4 days
June	21.06. – 24.06.2021	Week 25	4 days
July	05.07. – 08.07.2021	Week 27	4 days
July	19.07. – 22.07.2021	Week 29	4 days
August	02.08. – 05.08.2021	Week 31	4 days
August	16.08. – 19.08.2021	Week 33	4 days
September	13.09. – 16.09.2021	Week 37	4 days
September	27.09. – 30.09.2021	Week 39	4 days
October	25.10. – 28.10.2021	Week 43	4 days
November	08.11. – 11.11.2021	Week 45	4 days
November	22.11. – 25.11.2021	Week 47	4 days
December	06.12. – 09.12.2021	Week 49	4 days

If you any questions about the training contents or the availability please call **+49(0) 2131/3426-1350** or send a mail to [academy@kawasakirobot.de](mailto:academy@kawasakirobot.de).

<sup>1</sup> Changes may be possible

**duAro Tablet Training**

Month	Date	Week No.	Duration
March	01.03. – 03.03.2021	Week 09	3 days
September	20.09. – 22.09.2021	Week 38	3 days

**duAro AS Programming Training**

Month	Date	Week No.	Duration
March	04.03.2021	Week 09	1 day
September	23.09.2021	Week 38	1 day

If you any questions about the training contents or the availability please call **+49(0) 2131/3426-1350** or send a mail to [academy@kawasakirobot.de](mailto:academy@kawasakirobot.de).

<sup>1</sup> Changes may be possible

### CUBIC-S Training

Month	Date	Week No.	Duration
March/April	31.03. – 01.04.2021	Week 13	2 days
May	05.05. – 06.05.2021	Week 18	2 days
June	16.06. – 17.06.2021	Week 24	2 days
July	28.07. – 29.07.2021	Week 30	2 days
September	08.09. – 09.09.2021	Week 36	2 days
October	20.10. – 21.10.2021	Week 42	2 days
December	01.12. – 02.12.2021	Week 48	2 days

### K-ROSET Simulation Training

Month	Date	Week No.	Duration
March	29.03. – 30.03.2021	Week 13	2 days
May	03.05. – 04.05.2021	Week 18	2 days
June	14.06. – 15.06.2021	Week 24	2 days
July	26.07. – 27.07.2021	Week 30	2 days
September	06.09. – 07.09.2021	Week 36	2 days
October	18.10. – 19.10.2021	Week 42	2 days
November	29.11. – 30.11.2021	Week 48	2 days

If you any questions about the training contents or the availability please call **+49(0) 2131/3426-1350** or send a mail to [academy@kawasakirobot.de](mailto:academy@kawasakirobot.de).

<sup>1</sup> Changes may be possible

### Application Training

Training Course	Date	Duration
Operation & Programming of Paint Robots	On Request	3 days
Integration of Paint Robots	On Request	4 days
Arc Welding	On Request	3 days
Cleanroom	On Request	3 days
Picking System	On Request	1 days

**Note:** Please note that we will arrange an appointment for application training with you only on request.

If you any questions about the training contents or the availability please call **+49(0) 2131/3426-1350** or send a mail to [academy@kawasakirobot.de](mailto:academy@kawasakirobot.de).

<sup>1</sup> Changes may be possible

**Option Training**

Month	Date	Week No.	Duration
March	25.03. – 26.03.2021	Week 12	2 days
April	29.04. – 30.04.2021	Week 17	2 days
May	20.05. – 21.05.2021	Week 20	2 days
June	24.06. – 25.06.2021	Week 25	2 days
July	22.07. – 23.07.2021	Week 29	2 days
August	19.08. – 20.08.2021	Week 33	2 days
September/October	30.09. – 01.10.2021	Week 39	2 days
October	28.10. – 29.10.2021	Week 43	2 days
November	25.11. – 26.11.2021	Week 47	2 days

**Note:** Which option training course is offered on the specified date depends on the number of customer requests. Please find out in advance which option course is offered on the specified dates.

If you any questions about the training contents or the availability please call **+49(0) 2131/3426-1350** or send a mail to [academy@kawasakirobot.de](mailto:academy@kawasakirobot.de).

<sup>1</sup> Changes may be possible

## General Seminar Conditions

### **1. Requirements**

The participants are aware that without the requirements specified in the catalogue, the learning objective of a seminar is difficult or impossible to achieve.

### **2. Registration**

Kawasaki Robotics GmbH

Im Taubental 32

41468 Neuss

Email: [academy@kawasakirobot.de](mailto:academy@kawasakirobot.de)

Internet: [www.kawasakirobot.de](http://www.kawasakirobot.de)

Tel.: +49(0)2131-3426-1350

Registration for participation in a course at KAWASAKI must be made in writing (by e-mail). The order must be placed on an official letterhead with all company-relevant data.

By ordering, the participants accept these General Seminar Terms and Conditions. The number of participants per seminar is limited to both a minimum and a maximum number. Orders will be considered in the order in which they are received. After a written order confirmation by KAWASAKI, the contract is bindingly concluded.

### **3. Validity of the Academy services**

Seminars offered together with a robot must be requested within 6 months of the robot's delivery date. After this date, the demand for the offered service expires.

### **4. Terms of payment**

The terms of payment of the seminars are noted in the respective order confirmation.

### **5. Holding the seminar**

The seminars are conducted according to the contents of this catalogue. It is possible to make changes to the content and organization of the seminars, taking the learning objectives into account.

### **6. Cancellation by Customer**

Withdrawal from the seminar must be made in writing (by email). Irrespective of the reason, the following fees will be charged:

- Up to 4 weeks before the seminar date: no fees
- Less than 4 weeks and up to 2 weeks before the seminar date: 50% of the full fee.
- From the 13th day before the seminar date to the beginning of the seminar: full seminar price

Participants who attend the seminar only partially are also obliged to pay the full fee.

### **7. Cancellation by KAWASAKI**

Seminars may be cancelled or postponed for important reasons for which KAWASAKI is not responsible, in particular if the lecturers are unable to attend and the number of participants is low. If a seminar is cancelled or aborted by KAWASAKI, the customer's claims are excluded. KAWASAKI accepts no responsibility for hotel costs and/or travel costs incurred, such as taxi costs or flight/rail tickets.

If the minimum number of participants is not reached, the participants will be informed about alternative offers approx. 2 weeks before the beginning of the seminar.

### **8. Exclusion**

The lecturers are entitled at any time to exclude the participants from participating in the seminar before the start or during the event if the participants do not behave properly or disruptively. The lecturers will exercise the householder's rights and will establish order in the training room. Training fees already paid will only be refunded in the event of exclusion if participation is refused before the course has begun. The taking of photos and/or films is expressly prohibited in training operations and may also lead to exclusion from the course in the event of non-compliance.



## Seminar Courses

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### **9. Training locations**

The seminars take place at the following locations:

- Branch in Neuss (Im Taubental 32, 41468 Neuss, Germany)
- For individual training courses also on site at the customer's premises

KAWASAKI reserves the right to change the venue for organizational reasons. In the event of a change of location, participants are not entitled to a reduction of the training fees or to withdraw from the contract. Changes and/or additions to the course schedule are not permitted. Participants will be informed in an appropriate time of any change of venue.

### **10. On-site training courses**

For on-site training, a training room for the theoretical part and a functioning robot system shall be available. The client shall be responsible for any damage caused during the training, e.g. loss of production. If the robot system is damaged, the course can only be carried out theoretically. KAWASAKI cannot be held liable for consequential damage such as repairs, production stoppages or the necessity to repeat the training. The equipment on which the training is carried out must meet the applicable safety standards. The maximum number of participants for individual training courses or on-site training courses is 3 persons. Additional persons will be charged additionally.

### **11. Training times**

The general training times are as follows:

- Monday - Thursday from 9.00 a.m. to 16.00 p.m.
- Friday from 9.00 am to 14.00 pm

Deviating from this, other times will be fixed or agreed for individual training courses or for on-site training courses.

### **12. Training documents**

All documents will only be handed out during the seminar. The issued documents as well as the used software are subject to copyright.

The issued documents are for information purposes only and reflect the current status at the time of the seminar.

### **13. Hotels and overnight stays**

In the case of courses lasting several days, participants must organize their own hotel accommodation and pay the costs themselves. If KAWASAKI cancels the seminar, KAWASAKI shall not be liable for any hotel costs incurred.

### **14. Certificate of participation**

Participants will receive a certificate of attendance after completing the seminar.

### **15. exclusion of liability**

KAWASAKI is not liable for damage to or theft of participants' property. KAWASAKI is also not liable for damage caused by participants using the knowledge gained during the seminars. KAWASAKI also accepts no liability for personal injury.

### **16. Data protection**

The collection, processing and use of personal data is required for the conduct of the seminars. This data will be treated confidentially and will not be passed on to third parties. The participants agree that KAWASAKI may contact the participants even after the training, e.g. to transmit training documents.

### **17. Final provisions**

There are no subsidiary agreements to these agreements. Changes or additions must be made in writing. In no circumstances verbal agreements shall be valid. Should individually provisions of these seminar conditions be or become invalid, the remaining points shall remain unaffected or valid.

*Sincerely Kawasaki Robotics Academy Team*