



# **TRAINING PLANNER 2026**

## Robotics Benelux

Skilled and qualified people are necessary to reduce production costs and to exploit the full potential of modern robot technology. Many students are trained in our Benelux facilities every year.

# TRAINING PLANNER 2026

Robotics Benelux

ABB reserves the right to cancel or postpone a session if the number of participants is less than 3. Other training sessions on request or at customer site.

**H** Location Huizingen (in Dutch; English language on request)  
**E** Location Etten-Leur, the Netherlands (in Dutch; English language on request)  
 All detailed information sheets of our training courses are available on request.

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## Basic Programming IRC5 (2 days)

### Day 1: Basic Robot Safety & Operations

- IRC5 System Introduction
- Working safely with robots
- Jogging principles
- Operating with flexpendant
- IRC5 Program Structure

### Day 2: Basic Movement & Tools

- Programming Basic Movements
- Operating I/O signals
- Tool definitions
- Working with TCP

Introduction to ABB robots and IRC5 controller.

Program simple movements and perform basic actions.

## Programming RAPID (1 day)

- Work Objects and I/O Communication
- Workobjects
- Movements with offset en Reltool Functions
- Basic I/O communication

Write and modify basic programs independently using various programming instructions and features of the ABB Rapid programming language

## Extended Programming RAPID with RS (2 days)

### Day 1: Robotstudio Online

- RobotStudio introduction
- Connecting with the robot
- Controller Overview
- Rapid Editor
- Testing and Analyzing applications
- Online Monitoring functions

Get acquainted with the use of Robotstudio.

On-line programming and testing

### Day 2: Conditional and Interaction Rapid Instructions

- Conditional Instructions
- Operator Rapid Instructions
- Practical Application set-up

Write and customize basic programs independently using various programming instructions and features of the ABB Rapid programming language. Intensive practical application

## Basic Programming OmniCore (2 days)

### Day 1: Basic Robot Safety & Operations

- OmniCore System Introduction
- Working safely with robots
- Jogging principles
- Get familiar with FlexPendant
- Starting up the system
- Collision management

### Day 2: Movement instructions & Program structure

- RAPID Program Structure
- Saving data
- Programming and modifying movement instructions
- Understanding TCP and Work Objects

Introduction to ABB robots and OmniCore controller.

Program simple movements and perform basic actions.

## RobotStudio 6 Premium- Basic (2 days)

- Virtual Robot Station set-up
- Basic Graphical Programming
- External Axis Programming
- Advanced Graphical Programming

This training is intended for robot programmers and design engineers. It provides a general insight into the possibilities of designing and programming in a virtual environment. The participant will be able to build a standard virtual robot station and program it offline. Knowledge of CAD and RAPID is an advantage.

## RobotStudio 6 Premium Advanced (2 days)

- Repetition RobotStudio 1
- Event Manager
- Smart Components
- MultiMove
- Mechanisms
- Conveyor Tracking
- ScreenMaker
- Layout Tools
- Physics

This course is targeted towards experienced RobotStudio 1 users that want to expand their knowledge and learn some of the more advanced features in RobotStudio.

## Safe Move (2 days)

- Safemove Functionality
- Safemove Graphical Configuration
- Safemove Operation
- Safemove Safety I/O Configuration
- Conditional Safety Configuratoin

Knowledge of how to operate and program IRC5 is required. The target group is everyone involved in the design, commissioning or use of software-based configurations and safety zones.

## Advanced RAPID (2 days)

- Tools and Work Objects
- RobotStudio RAPID editor
- I/O and system parameters
- Modules and program organization
- Loops
- Routines and events
- World zones
- Interrupts and traps
- Error handling
- Motion performance and trigg instructions
- Program data and arrays
- User interaction
- Searching and program displacement

This course is a follow-up to the Basic IRC5 Programming and is intended for everyone involved in the design, commissioning or use of an automated system that contains an industrial robot. By using more advanced programming instructions and functions, one learns to create more complex programs.

## Electrical Service IRC5 (4 days)

- System introduction
- Safety
- Use of the FlexPendant
- Jogging in different coordinates system
- IRC5 built of the program RAPID
- Back-up and restore
- Restart and Reboot procedures
- Boot in Robotstudio
- Description of the IRC5 controller and safety chain
- Electrical circuitdiagrams of the controller
- Troubleshooting
- Motor Drive system
- Calibration of the Robot
- Electrical circuitdiagrams of the robot
- Troobleshooting

Learn how to locate and solve electrical defects as well as how to carry out preventive electrical maintenance on the robots.

## Electrical Service OmniCore - V250/C90 (4 days)

- System introduction
- Safety
- Use of the FlexPendant
- Jogging in different coordinates system
- Memory structure; back-up and restore
- Restart and Reboot procedures
- Create OS with RobotStudio
- Description of the OmniCore controller and safety chain
- Electrical circuit diagrams of the controller and manipulator
- Motor Drive system; calibration of the robot
- Troubleshooting

Learn how to locate and solve electrical defects as well as how to carry out preventive electrical maintenance on the robots. Understanding of the controller architecture.

## Transition to OmniCore (1 day)

- New controllers and (collaborative) robots
- Working with new FlexPendant
- Wizard Easy Programming for OmniCore robots

Get familiar with the new OmniCore FlexPendant and connections. Presentation of the new hardware components.

## Cobot - Wizard/SkillsCreator (1 day)

- Health & Safety
- Introduction to OmniCore and ABB robots
- Introduction to Collaborative Robots
- Lead-through (moving the robot by hand)
- Wizard Introduction
- Skill Creator
- Arm Side Interface

This course is for robot programmers that want to learn more about ABB's collaborative robots and tools.

## Cobot - general safety rules (1 day)

- Human Robot Collaboration
- Standards, Rules & Regulations
- Designing an HRC Application
- HRC - Risk Assessment
- SafeMove Setup
- Validation and Safety Report

This training is targeted to first time collaborative robot users.

## SafeMove for collaborative robots (2 days)

- Health & Safety
- Introduction to SafeMove
- The safety module
- Setting up a safety user
- Introduction to Visual SafeMove
- Introduction to the FlexPendant interface
- Simulating safe I/O
- General configuration
- Configuring supervision functions
- Validation and safety report
- Using safe I/O
- Managing safety configurations
- SafeMove maintenance
- Reinstall RobotWare and restore safety

This training is targeted to personnel working with installation and configuration of the safety module, SafeMove, and the functional safety options.



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**ABB Robotics Belgium BV**

Culliganlaan 3b 101  
1831 Diegem  
België  
Tel. +32 (0)2 718 63 61  
Fax +32 (0)2 718 66 66

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**ABB Robotics Netherlands B.V.**

George Hintzenweg 81  
3068 AX Rotterdam  
Nederland  
Tel. +31 (0)10 407 87 59  
Fax +31 (0)10 407 84 52

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**Training locations**

Watermolenstraat 93  
1654 Huizingen  
Belgium

Bredaseweg 170  
4872 LA Etten-Leur  
The Netherlands

**[robotics.sales@be.abb.com](mailto:robotics.sales@be.abb.com)**