
ABB 机器人培训目录 (2023)

ABB Robot Training Catalogue (2023)



欢迎来到 ABB 机器人培训中心

Welcome to ABB Robot Training Center

ABB机器人是工业机器人、协作机器人及先进的数字化服务的开拓者。作为全球领先的工业机器人技术提供商，ABB机器人在53个国家、100多个地区开展业务，全球累计装机量40余万台，涉及广泛的行业和应用领域。ABB致力于帮助客户提高生产柔性、效率、安全性和可靠性，助其走向互联、协作的未来工厂。

ABB机器人是中国工业机器人行业的先行者和领跑者，早在1994年就开始在中国市场推广工业机器人应用，早在2005年就开始在中国开展研发和生产工作，是最早在中国开展工业机器人本地研发和本地生产的跨国企业。

ABB机器人提供完整的产品系列，包括裸机、软件、外围设备、模块单元、多种应用、系统集成及服务，是全球唯一一家提供汽车生产全部四大工艺（冲压、白车身、涂装、总装）的机器人解决方案的供应商，也是截至目前唯一一家在华开展机器人从研发、生产、销售、工程、系统集成到服务全价值链业务的跨国企业。ABB机器人在中国拥有约2,000名员工，遍布20余座城市。

ABB机器人上海培训中心为客户提供系统的标准化和定制化机器人培训课程，并为客户不同岗位员工提供机器人使用技能的成长路线课程规划，客户通过学习机器人初级、中级和高级课程，可以满足机器人系统的操作、编程、维护保养、电气和机械维修、工作站模拟等工作，最大限度的减少现场机器人停机时间，提高机器人使用效率。

ABB机器人上海培训中心拥有良好的培训环境、专业的培训讲师、充足的培训设备和多样化的培训课程，保证客户在理论学习的同时，拥有足够的实际操作练习；我们可以提供在ABB机器人培训中心和客户现场的培训，客户通过考核后，颁发ABB机器人培训证书。

学，无止境；学，业有成。

ABB机器人培训中心将在企业与个人的发展道路上陪您走得更高更远。

ABB Robotics is a pioneer in industrial and collaborative robots and advanced digital services. As one of the world's leading robotics suppliers, we are active in 53 countries and over 100 locations and have shipped over 400,000 robot solutions in a diverse range of industries and applications. We help our customers to improve flexibility, efficiency, safety and reliability, while moving towards the connected and collaborative factory of the future.

ABB Robotics is an early bird and market leader in the industrial robot industry in China. It started business in China as early as in 1994 and it is the first multi-national company to start local R&D and manufacturing in China as early as in 2005.

ABB Robotics provides full portfolio from naked robot, software, peripheral equipment, module cell, various applications, system integration to service. ABB is the world's only robotics company to provide complete solution from press automation, body-in-white, paint automation to powertrain assembly to auto manufacturing industry. ABB Robotics is the only multi-national robotics company to localize full value chain from R&D, manufacturing, sales, engineering, system integration to service in China. ABB Robotics has around 2,000 employees located in more than 20 cities.

ABB robotics training center, operating in Shanghai, is always concentrating on developing and delivering of the professional robotics training solutions. It provides six categories of standard courses including Operation, Programming, Electrical Service, Mechanical Maintenance, Software and Application. Meanwhile, the customized courses are also available if you have more specific requirement. We are trying our best to help the customer to reduce risks and improve productivity through the training.

ABB robotics training center provides professional training facility and experienced instructors. You will get not only the detailed theoretical knowledge but also the sufficient practice during the training. The trainee, who passed the examination, could receive the certificate after the training.

ABB robotics training center always makes you and your company better and better.

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机器人培训

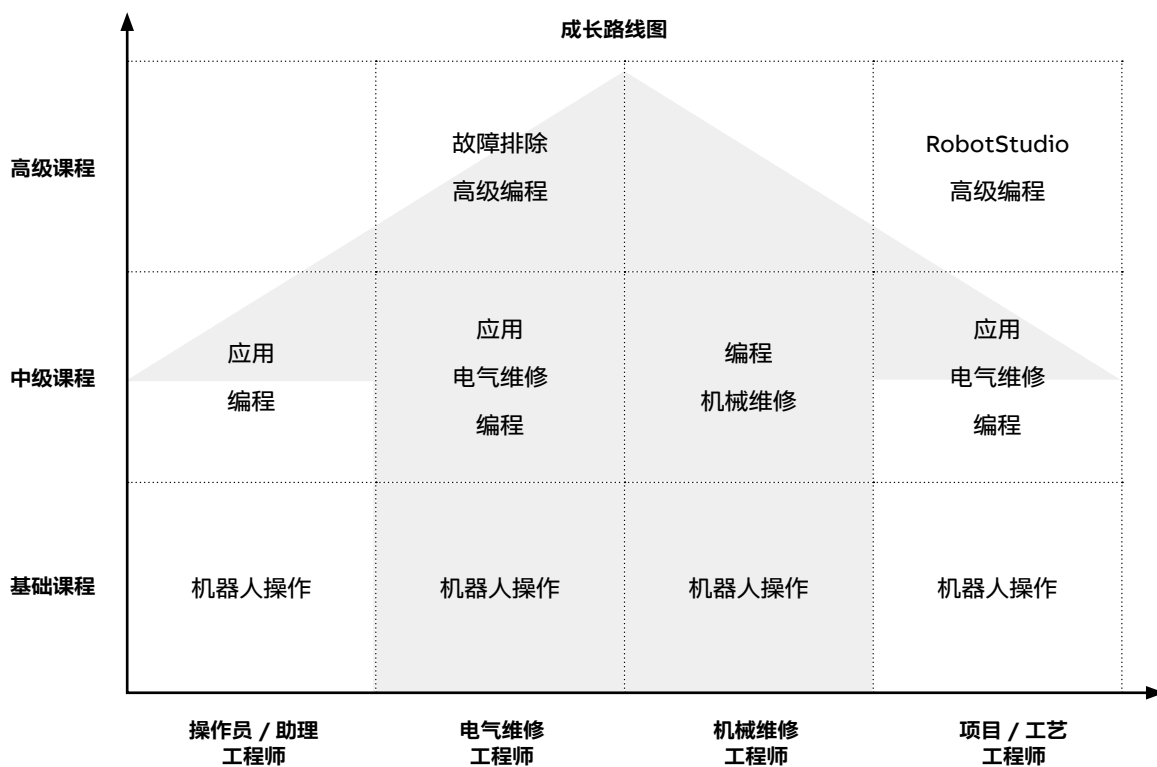
企业用户课程选择

欢迎来到上海 ABB 机器人培训中心，我们共有 6 大类 74 门课程可供阁下选择。

您可以参考以下成长路线图，在下一个页面选择您需要的课程。

如果您已经知道您需要的课程，请直接进入下一个页面。

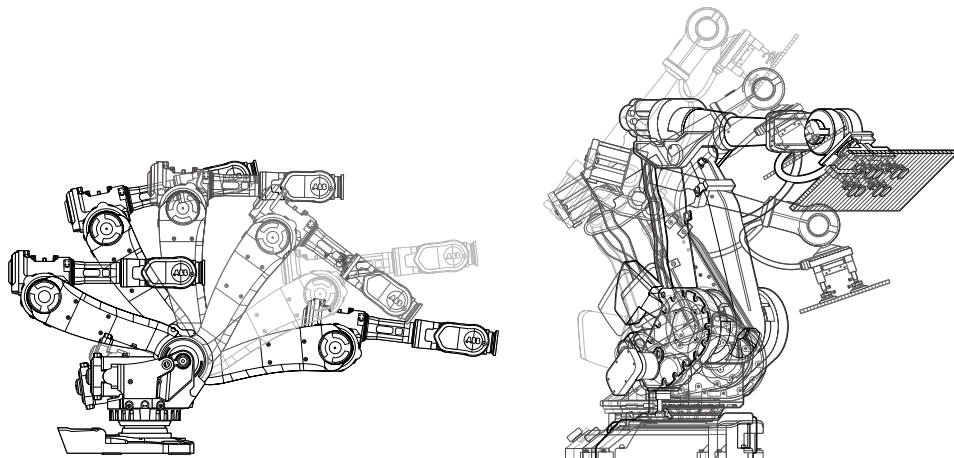
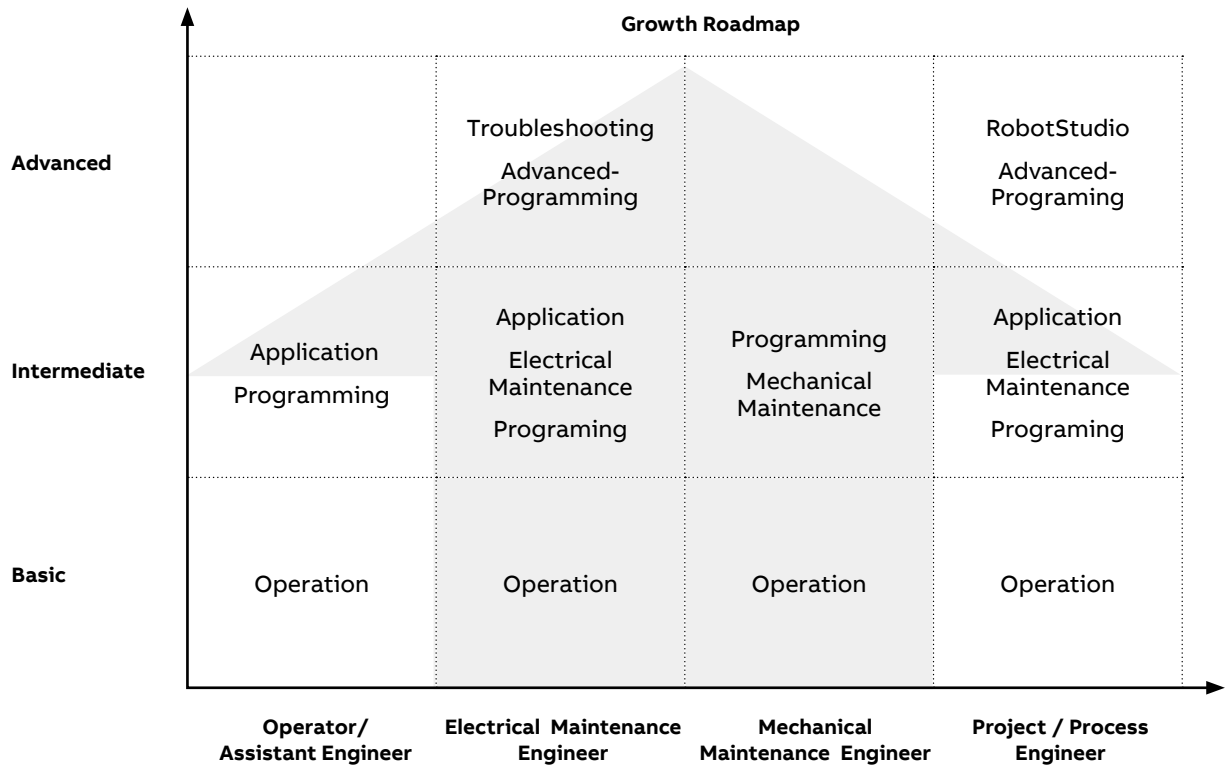
如果您对课程有特别需求，我们也乐意为您提供定制化培训。



Robotics Training

Course Selection For Enterprise Users

Welcome to ABB training center Shanghai. We provide 6 categories, 74 courses, for you.
Please refer to the following training guide to make your decision.
Please go to next page, if you know the course you need.
The customized courses is available, if you have more specific requirement .

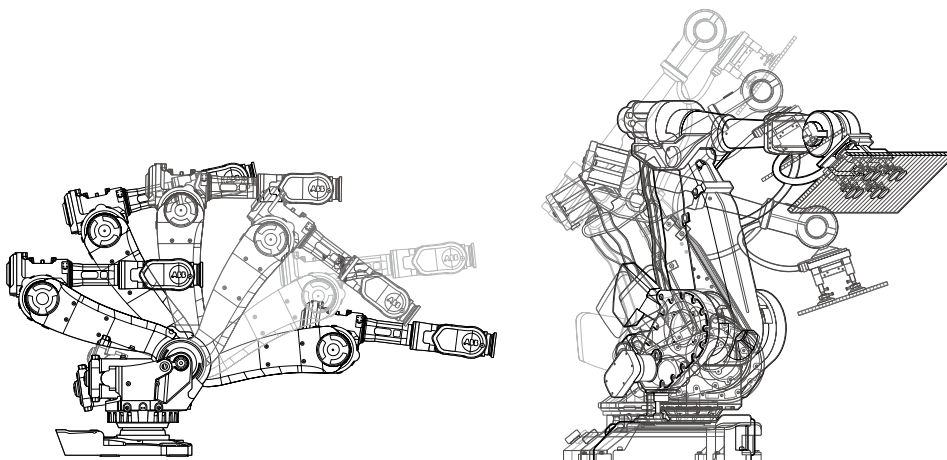


机器人培训

企业学员技能等级体系

高级课程		高级编程 故障排除 CNXX XX2		高级编程 RobotStudio CNXX XX2 CNXX XX1
	应用 编程	应用 编程 电气维修	编程 机械维修	应用 编程 电气维修
中级课程	CNXX XX1 OP: CNXXXX3 OP: CNXXXX3 OP: CNXXXX5 OP: CNXXXX1 OP: CNXXXX6 OP: CNXXXX1 OP: CNXXXX2	CNXXXX1 CNXXXX1 CNXXXX1 CNXXXX2 CNXXXX2 CNXXXX3 CNXXXX3 CNXXXX5 CNXXXX3 CNXXXX6 CNXXXX1	CNXXXX1 CNXXXX1 CNXXXX0 CNXXXX2 CNXXXX0 CNXXXX3 CNXXXX0 CNXXXX5 CNXXXX0 CNXXXX6 CNXXXX0	CNXXXX1 CNXXXX1 CNXXXX1 CNXXXX2 CNXXXX2 CNXXXX3 CNXXXX3 CNXXXX5 CNXXXX3 CNXXXX6 CNXXXX1
	机器人操作 CNXXXX1 OP: CNXXXX2	机器人操作 CNXXXX1 OP: CNXXXX2	机器人操作 CNXXXX1 OP: CNXXXX2	机器人操作 CNXXXX1 OP: CNXXXX2
基础课程				
	操作员 / 助理 工程师	电气维修工程师	机械维修工程师	项目 / 工艺工程师

备注：需完成指定课程，或指定可选课程中的一门或任意门，即可授予相应证书，或申请更高层级课程。证书中将体现完成课程明细。

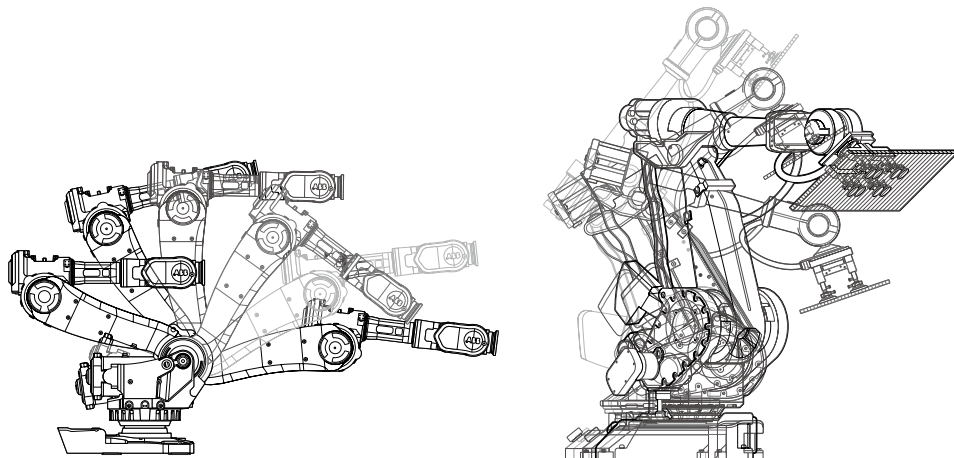


Robotics Training

Skill-Level System For Enterprise Users

Advanced		Advanced Programming Troubleshooting CNXX XX2		Advanced Programming Robotstudio CNXX XX2 CNXX XX1
	Application Programming	Application Programming Electrical Maintenance	Programming Mechanical Maintenance	Application Programming Electrical Maintenance
Intermediate	CNXX XX1 OP: CNXXXXX3 OP: CNXXXXX3 OP: CNXXXXX5 OP: CNXXXXX1 OP: CNXXXXX6 OP: CNXXXXX1 OP: CNXXXXX2	CNXXXXX1 CNXXXXX1 CNXXXXX1 CNXXXXX2 CNXXXXX2 CNXXXXX3 CNXXXXX3 CNXXXXX5 CNXXXXX3 CNXXXXX6 CNXXXXX1	CNXXXXX1 CNXXXXX1 CNXXXXX0 CNXXXXX2 CNXXXXX0 CNXXXXX3 CNXXXXX0 CNXXXXX5 CNXXXXX0 CNXXXXX6 CNXXXXX0	CNXXXXX1 CNXXXXX1 CNXXXXX1 CNXXXXX2 CNXXXXX2 CNXXXXX3 CNXXXXX3 CNXXXXX5 CNXXXXX3 CNXXXXX6 CNXXXXX1
	Operation CNXXXXX1 OP: CNXXXXX2	Operation CNXXXXX1 OP: CNXXXXX2	Operation CNXXXXX1 OP: CNXXXXX2	Operation CNXXXXX1 OP: CNXXXXX2
Basic				
	Operator/ Assistant Engineer	Electrical Maintenance Engineer	Mechanical Maintenance Engineer	Project/Process Engineer

Tips: Completed specified courses, one or more optional courses, can authorized certification, or apply for higher level course.
Certification will list course name.



机器人培训

分类



- 操作



- 机械维修



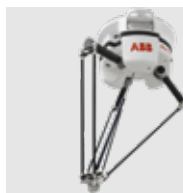
- 编程



- 软件



- 电气维修



- 应用



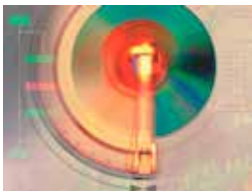
Robotics Training Category



- **Operation**



- **Mechanical Maintenance**



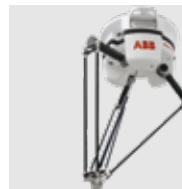
- **Programming**



- **Software**



- **Electrical Maintenance**



- **Application**



工业机器人

Industry Robot

- CNIO101 IRC5 安全与操作
- CNIO201 OmniCore 安全与操作
- CNIP101 IRC5 机器人基础编程
- CNIP102 IRC5 机器人高级编程
- CNIP103 IRB 14000 基础编程
- CNIP201 OmniCore 机器人基础编程
- CNIE101 IRC5 机器人电气原理 & 故障排除
- CNIE104 IDFP 电气原理
- CNIE202 OmniCore C30 电气故障排除
- CNIE203 OmniCore C90XT 电气故障排除
- CNIE204 OmniCore E10 电气故障排除
- CNIE205 OmniCore V250XT 电气故障排除
- CNIM010 IDFP 机械维修
- CNIM110 IRB1100 机械维修
- CNIM121 IRB 1200 机械维修
- CNIM141 IRB 14000 机械维修
- CNIM260 IRB 2600 机械维修（兼容IRB 4600）
- CNIM670 IRB 6700 机械维修
- CNIM760 IRB7600 机械维修

- CNIO101 IRC5 Safety & Operation
- CNIO201 OmniCore Safety & Operation
- CNIP101 IRC5 Basic Programming
- CNIP102 IRC5 Advanced Programming
- CNIP103 IRB 14000 Basic Programming
- CNIP201 OmniCore Basic Programming
- CNIE101 IRC5 Electrical Principle & Troubleshooting
- CNIE104 IDFP Electrical Principle
- CNIE202 OmniCore C30 Electrical Troubleshooting
- CNIE203 OmniCore C90XT Electrical Troubleshooting
- CNIE204 OmniCore E10 Electrical Troubleshooting
- CNIE205 OmniCore V250XT Electrical Troubleshooting
- CNIM010 IDFP Mechanical Maintenance
- CNIM110 IRB1100 Mechanical Maintenance
- CNIM121 IRB 1200 Mechanical Maintenance
- CNIM141 IRB 14000 Mechanical Maintenance
- CNIM260 IRB 2600/1410 Mechanical Maintenance (Compatibility IRB 4600)
- CNIM670 IRB 1200 Mechanical Maintenance
- CNIM760 IRB 14000 Mechanical Maintenance

机器人操作

Operation

工业机器人

- CNIO101
- CNIO201

IRC5 安全与 操作

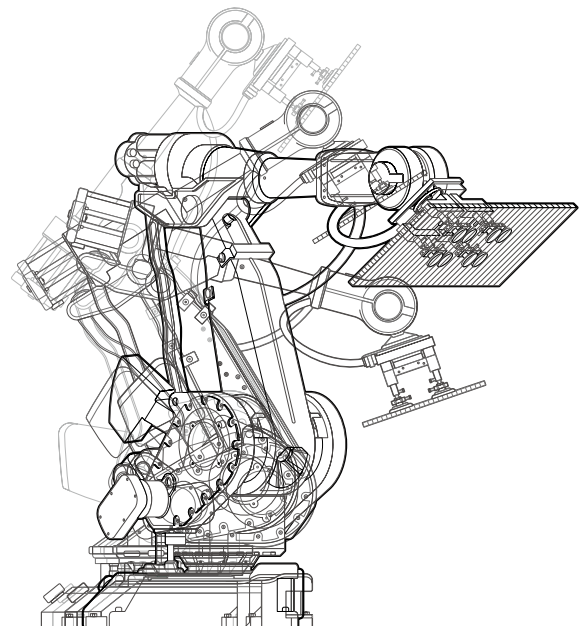
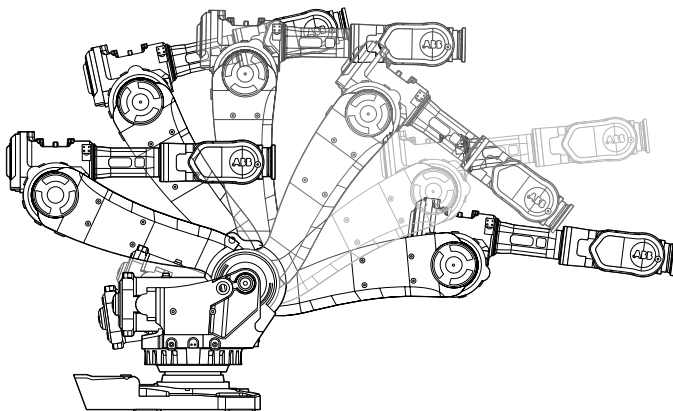
OmniCore 安全与 操作

Industry Robot

- CNIO101
- CNIO201

IRC5 Safety & Operation

OmniCore Safety & Operation



CNIO101 IRC5 安全与操作

CNIO101 IRC5 Safety & Operation

适用机型

- 使用 IRC5 控制系统的所有机型

课程对象

- 操作工
- 机械维修工程师
- 电气维修工程师
- 项目 / 工艺工程师

知识要求

- 无

完成此课程后，您将可以

- 了解 ABB 工业机器人工作原理及系统架构
- 熟悉工业机器人安全操作规范
- 能够在手动模式下使用示教器操作机器人，修改程序中的位置点
- 在自动模式下加载并运行 RAPID 程序
- 能够保存程序
- 备份系统
- 能够更新机器人零位

培训内容

- ABB 工业机器人系统介绍
- 安全操作规范，紧急情况处置
- 使用示教器操作机器人，修改位置点
- 调用系统中的例行程序
- 程序备份和系统备份方法介绍，实践
- 机器人零位更新方法介绍，实践

课程信息

- 培训时间: 3 天
- 学员人数: 4-10 人 / 班

Applicable Robot Type

- All the ABB robot with IRC5 controller

Target Groups

- Operator
- Mechanical maintenance engineer
- Electrical maintenance engineer
- Project/Process engineer

Prerequisites

- None

After this training, you are able to

- Understand the structure and principle of ABB industry robot
- Be Familiar with industry robot safety guide
- Operate the robot independently Modify the position in program with TPU
- Load and run a program in auto mode
- Save the program
- Backup the system
- Update revolution counter

Contents

- ABB industry robot system introduction
- Safety instruction
- Operating robot with TPU Position modification with TPU in manual mode
- Load and run a program in auto mode
- Saving the program System backup
- Introduction of robot calibration Practice

Information

- Duration: 3 days
- Number of Participants: 4-10 persons

CNIO201 OmniCore 安全与操作

CNIO201 OmniCore Safety & Operation

适用机型

- 使用 OmniCore 控制系统的所有机器人

课程对象

- 操作工
- 电气维修工程师
- 机械维修工程师
- 项目 / 工艺工程师

知识要求

- 无

完成此课程后，您将可以

- 使用适合的运动模式来手动操作机器人到位置点
- 在安全的方式下启动和停止机器人程序
- 重新启动程序
- 备份、恢复控制器里的程序和数据
- 执行控制器的热启动
- 修改机器人位置
- 确定何时可以不激活运动监控
- 读取和保存事件日志
- 读取数量输入信号的值和控制数字量输出信号的值

培训内容

- 健康与安全
- ABB 机器人及OmniCore介绍
- 示教机器人
- RobotStudio介绍
- 基本操作
- 保存数据
- 重新启动
- Offs 和 RelTool 功能
- 动作监控
- 事件日志
- 操作输入和输入信号

课程信息

- 培训时间: 2 天
- 学员人数: 4-10 人 / 班

Applicable Robot Type

- All the ABB robot with OmniCore controller

Target group

- Operator
- Electrical maintenance engineer
- Mechanical maintenance engineer
- Project/Process engineer

Prerequisites

No prerequisites.

After this training, you are able to

- Jog the robot to any position with appropriate motion mode.
- Start and stop the robot program in a safe manner.
- Restart the program from the start.
- Backup and restore the data and programs in the controller.
- Perform a warm start of the controller.
- Modify robot positions if necessary.
- Determine when to deactivate motion supervision.
- Read and save event logs.
- Read the values of digital inputs and manipulate digital outputs.

Contents

- Health & Safety
- Introduction to OmniCore and ABB Robots
- Jogging the Robot
- Short RobotStudio Introduction
- Basic Operations
- Saving Data
- Restarts
- Offs and RelTool Function
- Motion Supervision
- Event Logs
- Handling Inputs and Outputs

Information

- Duration: 3 days
- Number of Participants: 4-10 persons

编程

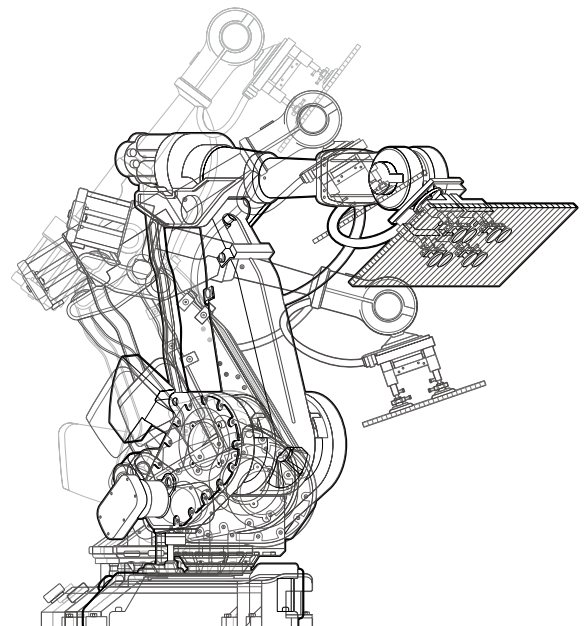
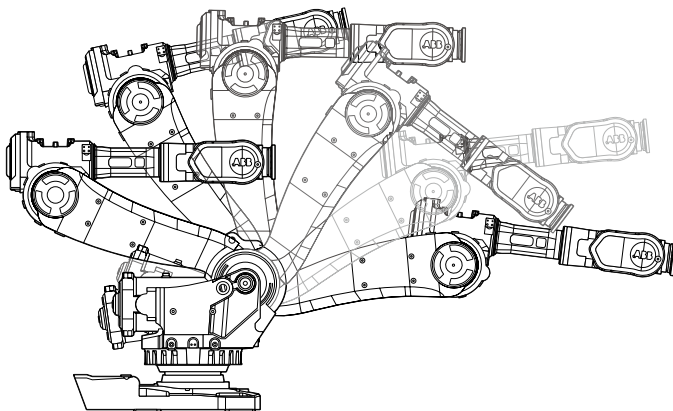
Programming

工业机器人

- CNIP101 IRC5 基础编程
- CNIP102 IRC5 高级编程
- CNIP103 IRB 14000 编程
- CNIP201 OmniCore 基础编程

Industry Robot

- CNIP101 IRC5 Basic Programming
- CNIP102 IRC5 Advanced Programming
- CNIP103 IRB 14000 Basic Programming
- CNIP201 OmniCore Basic Programming



CNIP101 IRC5 基础编程

CNIP101 IRC5 Basic Programming

适用机型

- 使用 IRC5 控制系统的所有机型

课程对象

- 操作工
- 电气维修工程师
- 机械维修工程师
- 项目 / 工艺工程师

知识要求

- 基本英语阅读能力

完成此课程后，您将可以

- 了解 ABB 机器人功能架构
- 理解机器人工作中涉及到的各种坐标
- 使用示教器，在手动模式下移动机器人
- 定义编程需要用到的坐标系
- 了解 RAPID 语言结构并能调试简单例程
- 读、写简单程序，修改程序中的点
- 定义，修改机器人 I/O 信号
- 理解并使用各种重启方式
- 备份 / 加载程序，备份 / 恢复系统
- 用 RobotStudio Online 功能配置安装机器人系统
- 对机器人进行校准和转速计数器更新

课程内容

- 机器人操作安全
- ABB 工业机器人系统介绍
- 手动模式下的机器人操作
- 工业机器人坐标系统
- RAPID 编程语言介绍及其基本指令
- I/O 信号介绍及配置
- 机器人系统重启指令介绍
- 程序保存，系统备份
- 机器人系统配置及安装
- 校正方式介绍
- 操作实践

课程信息

- 培训时间: 5 天
- 学员人数: 4-10 人 / 班

Applicable Robot Type

- All the ABB robot with IRC5 controller

Target Groups

- Operator
- Electrical maintenance engineer
- Mechanical maintenance engineer
- Project/Process engineer

Prerequisites

- Basic English skill

After this training, you are able to

- Understand the structure and principle of ABB robot
- Understand different kinds of coordinate in robot system
- Operate robot with TPU in manual mode
- Use tool data and work-object data skillfully
- Understand RAPID structure, debug the simple program
- Modify position in the program with TPU
- Read and write some simple routines, Configure I/O signals
- Use different restart modes
- Save and load program. Backup and restore system
- Modify and install the robot system with RobotStudio Online
- Update revolution counter, implement robot calibration

Contents

- Safety instruction
- ABB industry robot introduction
- Operating the robot in manual mode
- Robot coordinate systems
- Basic knowledge of RAPID
- Writing programs with the basic instructions
- I/O signal configuration
- Introduction of restart modes
- System backup and restore
- Robot system modification and installation
- Calibration: revolution counter update and fine calibration

Information

- Duration: 5 days
- Number of participants: 4-10 persons

CNIP102 IRC5 高级编程

CNIP102 IRC5 Advanced Programming

适用机型

- 使用 IRC5 控制系统的所有机型

课程对象

- 项目 / 工艺工程师
- 电气维修工程师

知识要求

- IRC5 基础编程培训
- 了解机器人的应用

完成此课程后，您将可以

- 使用 RAPID 手册帮助编程
- 阅读较复杂的 RAPID 程序
- 了解数据的类型、性质及使用范围
- 了解多任务程序结构
- 编写带参数的例行程序
- 编写自定义函数
- 了解 WorldZone
- 掌握中断处理指令，并能够编写简单的中断类型的例行程序
- 掌握错误处理指令，并能够编写简单的错误处理程序

培训内容

- RAPID 程序结构
- 数据类型
- 例行程序的三种类型：Function, trap, procedure
- 多任务程序
- 中断处理
- 错误处理
- Worldzone 功能介绍
- 相关案例分析

课程信息

- 培训时间：5 天
- 学员人数：4-10 人 / 班

Applicable Robot Type

- All the ABB robots with IRC5 controller

Target Groups

- Project/Process engineer
- Electrical maintenance engineer

Prerequisites

- IRC5 Basic Programming
- Be familiar with field application

After this training , you are able to

- Work with RAPID manual
- Read some complex programs
- Understand the usage of data type
- Understand structure of multitask program
- Create background tasks
- Create a procedure with parameters
- Create customized functions, Create customized data types
- Use WorldZone
- Program with complex instruction, such as Interrupt Handler, ERROR Handler

Contents

- Structure of RAPID program
- Data type
- Different type of routine: Function, trap, procedure
- Introduction of Multitask
- Interrupt Handler
- Error handler
- WorldZone
- Case study Practice

Information

- Duration: 5 days
- Number of participants: 4-10 persons

CNIP103 IRB 14000 基础编程

CNIP103 IRB 14000 Basic Programming

适用机型

- ABB IRB 14000 工业机器人

课程对象

- 操作人员
- 机械工程师
- 电气工程师
- 项目 / 工艺工程师

知识要求

- 无

完成此课程后，您将可以

- 理解机器人工作中涉及到的各种坐标
- 使用示教器，在手动模式下移动机器人
- 定义编程需要用到的坐标系
- 了解 RAPID 语言结构并能调试简单例程
- 读、写简单程序，修改程序中的点
- 定义，修改机器人 I/O 信号
- 备份 / 加载程序，备份 / 恢复系统
- 用 RobotStudio Online 功能配置安装机器人系统
- 对机器人进行校准和转速计数器更新

课程内容

- ABB 工业机器人系统介绍
- 手动模式下的机器人操作
- 工业机器人坐标系统
- 机器人坐标系设置及 TCP 标定
- RAPID 编程语言介绍及其基本指令
- I/O 信号介绍及配置
- 机器人系统重启指令介绍
- 程序保存，系统备份
- 机器人系统配置及安装
- 校正方式介绍

课程信息

- 培训时间: 5 天
- 学员人数: 4-10 人 / 班

Applicable Robot Type

- ABB Robot: IRB 14000

Target Groups

- Operator
- Mechanical engineer
- Electrical engineer
- Process/Project engineer

Prerequisites

- None

After this training, you are able to

- Understand ABB robot structure
- Operate robot by TPU in manual mode
- Define tooldata and work object data
- Understand rapid structure, debug simple program
- Modify position in program by TPU
- Read or write simple instructions
- Configure I/O signals
- Load and Save program, backup and restore system
- Update revolution counter

Contents

- Operation
- System introduction
- Robot coordinate systems
- Basic knowledge of RAPID
- Writing programs with the basic instructions
- I/O signal configuration
- Introduction of restart modes
- System backup and restore
- Robot system modification and installation
- Calibration: revolution counter update and fine calibration

Information

- Duration: 5 days
- Number of participants: 4-10 persons

CNIP201 OmniCore 基础编程

CNIP201 OmniCore Basic Programming

适用机型

- 使用 OmniCore 控制系统的所有机器人

课程对象

- 操作工
- 电气维修工程师
- 机械维修工程师
- 项目 / 工艺工程师

知识要求

- 具备基本的PC知识和技术背景有助于学习本课程。

完成此课程后，您将可以

- 对机器人进行线性、重定向和逐轴点动。
- 使用例程、模块和命名数据构造程序。
- 理解任务和程序之间的区别。
- 编程基本操作。
- 确认转数计数器是否正常，并在需要时重置。
- 创建和定义工具数据。
- 创建和定义工件数据。
- 保存程序并备份系统。
- 为真实控制器创建虚拟副本。
- 使用RobotStudio在线和离线编辑机器人程序。

培训内容

- 健康和安全的
- OmniCore 和ABB 机器人简介
- FlexPendant 简介
- 点动（用操纵杆移动机器人）
- 基本Move 指令
- 程序结构（数据类型、指令、例程、模块）
- 转数计数器
- 工具
- 工件
- 保存数据（程序、备份、诊断）
- 虚拟控制器
- RobotStudio RAPID 编辑器
- I/O 指令
- 最常见的指令和程序逻辑
- 最常见的功能

课程信息

- 培训时间: 5 天
- 学员人数: 4-10 人 / 班

Applicable Robot Type

- All the ABB robot with OmniCore controller

Target group

- Operator
- Electrical maintenance engineer
- Mechanical maintenance engineer
- Project/Process engineer

Prerequisites

- Basic PC knowledge and a technical background are facilitating.

After this training, you are able to

- Jog the robot both linear, reoriented and axis by axis.
- Structure a program using routines, modules and named data.
- Understand the difference between Task and Program.
- Program basic movements.
- Recognize if the revolution counters are ok and to reset if needed.
- Create and define tooldata.
- Create and define wobjdata.
- Save programs and backup the system.
- Create a virtual copy of a real controller.
- Use RobotStudio for editing the robot program both online and offline.

Contents

- Health & Safety
- Introduction to OmniCore and ABB robots
- Introduction to the FlexPendant
- Jogging (Moving the robot with the joy-stick)
- Basic Move-instructions
- Program structure (Datatypes, Instructions, Routines, Modules)
- Revolution counters
- Tools , Work objects
- Saving data (Program, Backup, Diagnostics)
- Virtual controller
- RobotStudio RAPID editor
- I/O- instructions
- Most common instructions and program logic
- Most common functions

Information

- Duration: 5 days
- Number of participants: 4-10 persons

电气原理及故障处理

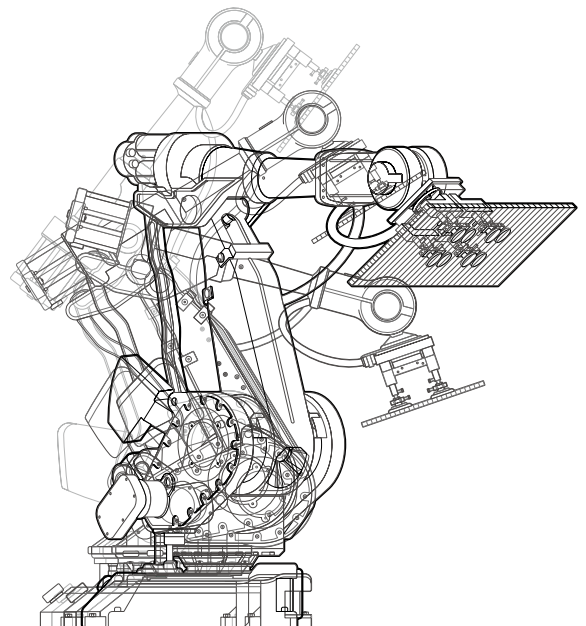
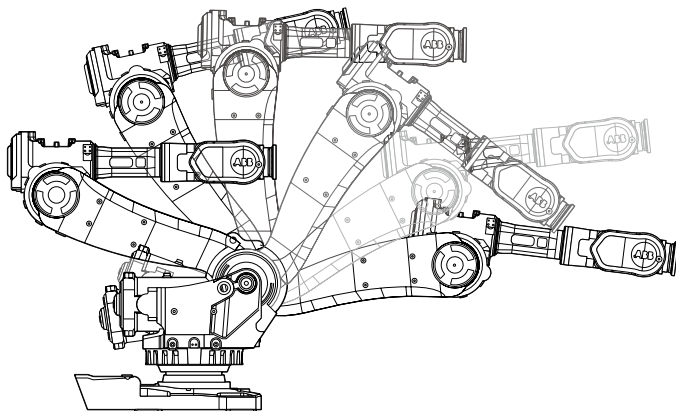
Electrical Principle and Troubleshooting

工业机器人

- CNIE101 IRC5 机器人电气原理 & 故障排除
- CNIE104 IDFP 电气原理
- CNIE202 OmniCore C30 电气故障排除
- CNIE203 OmniCore C90XT 电气故障排除
- CNIE204 OmniCore E10 电气故障排除
- CNIE205 OmniCore V250XT 电气故障排除

Industry Robot

- CNIE101 IRC5 Electrical Principle & Troubleshooting
- CNIE104 IDFP Electrical Principle
- CNIE202 OmniCore C30 Electrical Troubleshooting
- CNIE203 OmniCore C90XT Electrical Troubleshooting
- CNIE204 OmniCore E10 Electrical Troubleshooting
- CNIE205 OmniCore V250XT Electrical Troubleshooting



CNIE101 IRC5 电气原理 & 故障排除

CNIE101 IRC5 Electrical Principle & Troubleshooting

适用机型

- 使用 IRC5 单柜 / 双柜控制器的所有机型

课程对象

- 电气维修工程师
- 项目 / 工艺工程师

知识要求

- IRC5 操作培训

完成此课程后，您将可以

- 了解 IRC5 机器人系统结构
- 熟悉 IRC5 机器人各功能模块间关系及工作原理
- 读懂手册中的电路图
- 理解 IRC5 机器人中各电气模块功能
- 独立完成电气设备日常保养维护
- 备件替换
- 熟悉 IRC5 机器人安全面板、主机箱中的指示灯状态含义
- 熟悉 IRC5 机器人示教器显示的故障代码含义
- 在熟悉机器人电路的基础上，能够根据 LED 状态和示教器上的告警信息定位故障
- 了解机器人故障处理的基本思路和常用方法
- 掌握不同启动方式的用法
- 能够独立处理常见故障

课程内容

- 机器人操作安全
- IRC5 机器人系统介绍
- IRC5 机器人中各电气模块功能及原理介绍。包括电源系统，计算机系统，驱动系统，总线与 I/O 系统，冷却系统，安全面板和 SMB 板
- 电路图讲解
- 机器人中各电气模块维护保养注意事项
- IRC5 机器人安全面板、主机箱中的指示灯状态介绍
- IRC5 机器人故障代码介绍
- 机器人不同启动方式的原理及介绍
- IRC5 机器人各电气模块常见故障介绍及案例分析
- 故障排除实践。在模拟的故障场景下定位故障并排除

课程信息

- 培训时间: 4 天
- 学员人数: 4-8 人 / 班

Applicable Robot Type

- All the ABB robot with IRC5 controller, including single cabinet, dual cabinet

Target Groups

- Electrical maintenance engineer
- Project/Process engineer

Prerequisites

- IRC5 Operation

After this training, you are able to

- Be familiar with the structure of IRC5 controller
- Be familiar with the interfaces between the functional units
- Work with the circuit diagrams in the manual
- Understand the principle of each unit
- Handle the daily maintenance of electrical units independently
- Replace the failure part independently
- Be familiar with the LED status
- Be familiar with the error code
- Diagnose the faults, according to LED status and error code
- Know the basic method to diagnose the faults
- Know the usage of different restart mode
- Troubleshoot the IRC5 robot independently

Contents

- Safety instruction
- IRC5 robot system introduction
- The principle of each electrical unit, including power system, computer system, driver system, bus & I/O system, cooling system, panel board and SMB
- Circuit diagram explanation
- Introduction of daily maintenance of each unit
- Introduction of LED status in the controller cabinet
- Introduction of IRC5 error code
- Introduction the usage of restart mode in troubleshooting
- Common faults of each electrical unit in IRC5 robot Case study
- Practice. Analyze and diagnose the faults set by the trainer

Course information

- Duration: 4 days
- Number of participants: 4-8 persons

CNIE104 IDFP 电气原理

CNIE104 IDFP Electrical Principle

适用机型

- 使用 IDFP 的 ABB 机器人

课程对象

- 项目 / 工艺工程师
- 电气维修工程师
- 现场设备维护

知识要求

- IRC5 基础编程培训
- IRC5 电气原理培训
- IDFP 基础应用

完成此课程后，您将可以

- 了解 IDC 柜内电气构成
- 更换 IDC 柜内元器件

培训内容

- 操作安全
- IDC 控制柜电气原理介绍
- IDC 元器件更换
- Doser 电气简介
- 利用 RobView 优化参数
- 应用实践

课程信息

- 培训时间: 2 天
- 学员人数: 3-6 人 / 班

Applicable Robot Type

- ABB robot with IDFP

Target group

- Project/Process engineer
- Electrical maintenance engineer
- Site Equipment Maintenance Person

Prerequisites

- IRC5 Basic programming
- IRC5 Electrical Principle
- IDFP Basic Application

After this training, you are able to

- Understand IDC Electric Principle
- Change components in IDC

Contents

- Occupational health and safety
- IDC electric principle introduction
- Change components of IDC
- Doser electric principle introduction
- Optimize parameter using RobView
- Practice

Information

- Duration: 2 Days
- Number of participants: 3-6 Persons

CNIE202 OmniCore C30 电气故障排除

CNIE202 OmniCore C30 Electrical Troubleshooting

适用机型

- OmniCore C30 的控制器

课程对象

- 电气维修工程师
- 项目 / 工艺工程师

知识要求

- 学员应会查看电路图，并会使用万用表备。

完成此课程后，您将可以

- 故障排除时系统地工作。
- 根据故障症状/单元进行故障排除。
- 使用对设备和人员都安全的做法。
- 更新转数计数器。
- 校准机器人。
- 重新安装RW7系统。
- 配置ABB 的IO单元。

培训内容

- 健康与安全
- 安全：电气故障排除
- 静电放电
- OmniCore概述：电气单元和组件
- 故障排除介绍
- 按故障症状排除故障
- 按单元进行排除故障
- 故障排除练习
- 转数计数器
- 校准
- 系统参数概述
- 备份/恢复
- 重新安装软件
- ABB单元的IO配置

课程信息

- 培训时间：4 天
- 学员人数：4-8 人 / 班

Applicable Robot Type

- OmniCore C30 controller

Target Groups

- Electrical maintenance engineer
- Project/Process engineer

Prerequisites

- Participants must be able to read circuit diagrams and use a multi-meter.

After this training, you are able to

- Work systematically when troubleshooting.
- Troubleshoot based on fault symptoms/units.
- Use practices that is safe for both equipment and personnel.
- Update revolution counters.
- Calibrate the robot.
- Reinstall RW7 systems.
- Configure ABB IO units.

Contents

- Health & Safety
- Safety: Electrical Troubleshooting
- Electrostatic Discharge
- OmniCore Overview: Electrical Units & Components
- Introduction to troubleshooting
- Troubleshooting by fault symptoms
- Troubleshooting by unit
- Troubleshooting Exercises
- Revolution Counters
- Calibration
- Overview of system parameters
- Backup/Restore
- Reinstall Software
- IO Configuration of ABB Units

Course information

- Duration: 4 days
- Number of participants: 4-8 persons

CNIE203 OmniCore C90XT 电气故障排除

CNIE203 OmniCore C90VX Electrical Troubleshooting

适用机型

- OmniCore C90VX控制器

课程对象

- 电气维修工程师
- 项目 / 工艺工程师

知识要求

- 学员应会查看电路图，并会使用万用表。

完成此课程后，您将可以

- 故障排除时系统地工作。
- 根据故障症状/单元进行故障排除。
- 使用对设备和人员都安全的做法。
- 更新转数计数器。
- 校准机器人。
- 重新安装RW7系统。
- 配置ABB 的IO单元。

培训内容

- 健康与安全
- 安全：电气故障排除
- 静电放电
- OmniCore概述：电气单元和组件
- 故障排除介绍
- 按故障症状排除故障
- 按单元进行排除故障
- 故障排除练习
- 转数计数器
- 校准
- 系统参数概述
- 备份/恢复
- 重新安装软件
- ABB单元的IO配置

课程信息

- 培训时间：4 天
- 学员人数：4-8 人 / 班

Applicable Robot Type

- OmniCore C90VX controller

Target Groups

- Electrical maintenance engineer
- Project/Process engineer

Prerequisites

- Participants must be able to read circuit diagrams and use a multi-meter.

After this training, you are able to

- Work systematically when troubleshooting.
- Troubleshoot based on fault symptoms/units.
- Use practices that is safe for both equipment and personnel.
- Update revolution counters.
- Calibrate the robot.
- Reinstall RW7 systems.
- Configure ABB IO units.

Contents

Health & Safety

- Safety: Electrical Troubleshooting
- Electrostatic Discharge
- OmniCore Overview: Electrical Units & Components
- Introduction to troubleshooting
- Troubleshooting by fault symptoms
- Troubleshooting by unit
- Troubleshooting Exercises
- Revolution Counters
- Calibration
- Overview of system parameters
- Backup/Restore
- Reinstall Software
- IO Configuration of ABB Units

Course information

- Duration: 4 days
- Number of participants: 4-8 persons

CNIE204 OmniCore E10 电气故障排除

CNIE204 OmniCore E10 Electrical Troubleshooting

适用机型

- OmniCore E10控制器

课程对象

- 电气维修工程师
- 项目 / 工艺工程师

知识要求

- IRC5 操作培训

完成此课程后，您将可以

- 了解 IRC5 机器人系统结构
- 熟悉 IRC5 机器人各功能模块间关系及工作原理
- 读懂手册中的电路图，理解 IRC5 机器人中各电气模块功能
- 独立完成电气设备日常保养维护和备件替换
- 读懂 L7 项目的控制器电路图

培训内容

- 健康与安全
- 安全：电气故障排除
- 静电放电
- OmniCore E10概述：电气单元和组件
- 故障排除介绍
- 按故障症状排除故障
- 按单元进行排除故障
- 故障排除练习
- ABB单元的IO配置
- 网络安全
- 备份/恢复
- 系统参数概述
- 用户身份验证系统
- 重新安装RobotWare
- 转数计数器
- 校准

课程信息

- 培训时间：2 天
- 学员人数：4-8 人 / 班

Applicable Robot Type

- OmniCore E10 controller

Target Groups

- Electrical maintenance engineer
- Project/Process engineer

Prerequisites

- Participants must be able to read circuit diagrams and use a multi-meter.

After this training, you are able to

- Work systematically when troubleshooting.
- Troubleshoot based on fault symptoms/units.
- Use practices that is safe for both equipment and personnel.
- Update revolution counters.
- Calibrate the robot.
- Reinstall RW7 systems.
- Configure ABB IO units.

Contents

- Health & Safety
- Safety: Electrical Troubleshooting
- Electrostatic Discharge
- OmniCore E10 Overview: Electrical Units & Components
- Introduction to troubleshooting
- Troubleshooting by fault symptoms
- Troubleshooting by unit
- Troubleshooting Exercises
- IO Configuration of ABB Units
- Cybersecurity
- Backup/Restore
- Overview of system parameters
- User Authentication System
- Reinstall RobotWare
- Revolution Counters
- Calibration

Course information

- Duration: 2 days
- Number of participants: 4-8 persons

CNIE205 OmniCore V250XT 电气故障排除

CNIE205 OmniCore V250XT-Electrical Troubleshooting

适用机型

- 使用 OmniCore 控制系统的所有机器人

课程对象

- 电气维修工程师
- 项目 / 工艺工程师

知识要求

- 操作培训

完成此课程后，您将可以

- 故障排除时系统地工作。
- 根据障症状/单元进行故障排除。
- 使用对设备和人员都安全的做法。
- 更新转数计数器。
- 校准机器人。
- 重新安装RW7系统。
- 配置ABB 的IO单元。

培训内容

- 健康与安全
- 安全：电气故障排除
- 静电放电
- OmniCore概述：电气单元和组件
- 故障排除介绍
- 按故障症状排除故障
- 按单元进行排除故障
- 故障排除练习
- 转数计数器
- 校准
- 系统参数概述
- 备份/恢复
- 重新安装软件
- ABB单元的IO配置

课程信息

- 培训时间：3 天
- 学员人数：4-8 人 / 班

Applicable Robot Type

- All the ABB robot with OmniCore controller

Target Groups

- Electrical maintenance engineer
- Project/Process engineer

Prerequisites

- Participants must be able to read circuit diagrams and use a multi-meter.

After this training, you are able to

- Work systematically when troubleshooting.
- Troubleshoot based on fault symptoms/units.
- Use practices that is safe for both equipment and personnel.
- Update revolution counters.
- Calibrate the robot.
- Reinstall RW7 systems.
- Configure ABB IO units.

Contents

- Health & Safety
- Safety: Electrical Troubleshooting
- Electrostatic Discharge
- OmniCore V250XT Overview: Electrical Units & Components
- Introduction to troubleshooting
- Troubleshooting by fault symptoms
- Troubleshooting by unit
- Troubleshooting Exercises
- Revolution Counters
- Calibration
- Overview of system parameters
- Backup/Restore
- Reinstall Software
- IO Configuration of ABB Units

Course information

- Duration: 3 days
- Number of participants: 4-8persons

机械维修

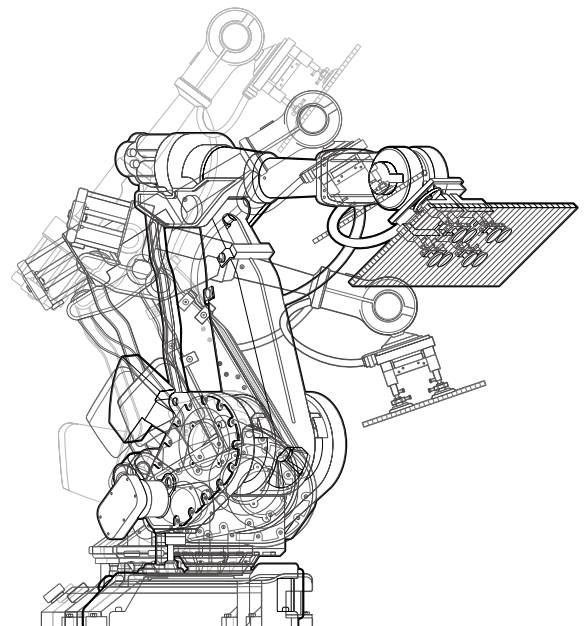
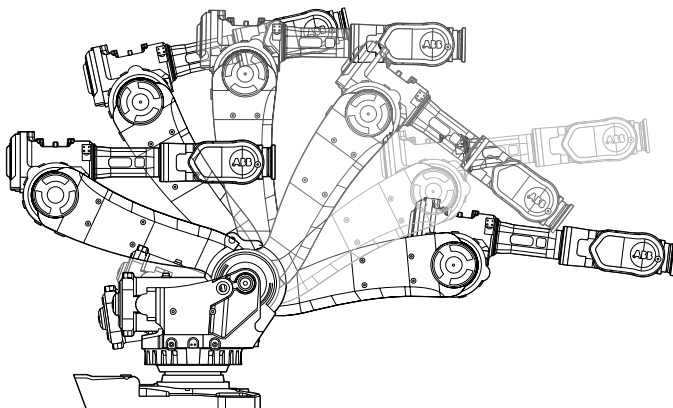
Mechanical Maintenance

工业机器人

- CNIM010 IDFP 机械维修
- CNIM110 IRB1100 机械维修
- CNIM121 IRB 1200 机械维修
- CNIM141 IRB 14000 机械维修
- CNIM260 IRB 2600 机械维修 (兼容 IRB 4600)
- CNIM670 IRB 6700 机械维修
- CNIM760 IRB7600 机械维修

Industry Robot

- CNIM010 IDFP Mechanical Maintenance
- CNIM110 IRB1100 Mechanical Maintenance
- CNIM121 IRB 1200 Mechanical Maintenance
- CNIM141 IRB 14000 Mechanical Maintenance
- CNIM260 IRB 2600 Mechanical Maintenance
(Compatibility IRB 4600)
- CNIM670 IRB 6700 Mechanical Maintenance
- CNIM760 IRB7600 Mechanical Maintenance



CNIM010 IDFP 机械维修

CNIM010 IDFP Mechanical Maintenance

适用机型

- 使用 IDFP 的 ABB 机器人

课程对象

- 项目 / 工艺工程师
- 机械维修工程师
- 现场设备维护

知识要求

- IRC5 基础编程培训
- IDFP 基础应用

完成此课程后，您将可以

- 独立维护 DOSER
- 根据实际更换 DOSER 电机及减速机齿轮

培训内容

- IDFP 介绍
- DOSER 介绍
- DOSER 电机介绍及更换
- DOSER 机械介绍及齿轮拆装
- 应用实践

课程信息

- 培训时间: 2 天
- 学员人数: 3-6 人 / 班

Applicable Robot Type

- ABB robot with IDFP

Target group

- Project/Process engineer
- Mechanical maintenance engineer
- Site Equipment Maintenance Person

Prerequisites

- IRC5 Basic programming
- IDFP Basic Application

After this training, you are able to

- DOSER Maintenance
- Change DOSER motor and gear

Contents

- Introduction of IDFP function
- Introduction of DOSER
- DOSER motor change
- DOSER gear change
- Practice

Information

- Duration: 2 Days
- Number of participants: 3-6 Persons

CNIM110 IRB1100 机械维修

CNIM110 IRB1100 Mechanical Maintenance

适用机型

- IRB 1100

课程对象

- 机械维修工程师

知识要求

- 机器人操作培训
- 机械基础知识

完成此课程后，您将可以

- 了解 ABB 工业机器人基本构造
- 掌握机器人本体常用维护保养知识
- 参照手册，独立更换各轴电机、电缆
- 参照手册，独立更换机器人齿轮箱
- 能够借助仪器对机器人做精校准

培训内容

- ABB 机器人安全操作介绍
- ABB 机器人本体硬件结构介绍
- 日常机械维护保养知识介绍及实践
- 各轴电机、电缆更换步骤讲解及实践
- 机器人齿轮箱更换方法讲解与实践
- 机器人精校准方法介绍与实践

课程信息

- 培训时间: 2 天
- 学员人数: 4-8 人 / 班

Applicable Robot Type

- IRB 1100

Target Groups

- Mechanical maintenance engineer

Prerequisites

- Robot operation training
- Basic knowledge of mechanics

After this training, you are able to

- Know the structure of ABB industry robot
- Understand the maintenance method of manipulator
- Refer to the manual, replace the motors and cables independently
- Refer to the manual, replace the gearboxes (axis 1 - axis 6) independently Refer to the manual
- Calibrate the robot after any replacement of mechanical unit

Contents

- Safety instruction
- Structure of the ABB manipulator
- Mechanical maintenance knowledge
- Replacement of motors and cables, Replacement of gearboxes
- Fine calibration

Information

- Duration: 2 Days
- Number of participants: 4-8 Persons

CNIM121 IRB 1200 机械维修

CNIM121 IRB 1200 Mechanical Maintenance

适用机型

- IRB 1200

课程对象

- 机械维修工程师

知识要求

- 机器人操作培训
- 机械基础知识

完成此课程后，您将可以

- 了解 ABB 工业机器人基本构造
- 掌握 IRB1200 本体常用维护保养知识
- 参照手册，独立拆装机器人本体电缆
- 参照手册，独立更换机器人各轴电机及齿轮箱
- 参照手册，独立更换机器人上臂下臂
- 参照手册，独立更换机器人基座
- 能够借助设备对机器人做精校准

培训内容

- ABB 机器人安全操作规范
- IRB1200 硬件结构介绍
- 日常机械维护保养知识介绍及实践
- 机器人本体电缆更换步骤讲解及实践
- 机器人各轴电机及齿轮箱更换方法讲解及实践
- 机器人上臂下臂更换方法讲解与实践
- 机器人基座更换方法讲解及实践
- 机器人精校准方法介绍与实践

课程信息

- 培训时间: 3 天
- 学员人数: 4-8 人 / 班

Applicable Robot Type

- ABB IRB 1200

Target Groups

- Mechanical maintenance engineer

Prerequisites

- Robot operation training
- Basic knowledge about robotics mechanics

After this training, you are able to

- Know the structure of ABB industry robot
- Understand the maintenance method of IRB1200
- Refer to the manual, replace the cables independently
- Refer to the manual, replace the motors and gearboxes independently
- Refer to the manual, replace the upper arm and lower arm independently
- Refer to the manual, replace the base unit independently
- Calibrate the robot after any replacement of mechanical unit

Contents

- Safety instruction
- Structure of the ABB manipulator
- Mechanical maintenance knowledge
- Replacement the cables
- Replacement of the motors and gearboxes
- Replacement of upper arm and lower arm
- Replacement of the base unit
- Fine calibration Practice

Information

- Duration: 3 days
- Number of participants: 4-8 persons

CNIM141 IRB 14000 机械维修

CNIM141 IRB 14000 Mechanical Maintenance

适用机型

- IRB14000

课程对象

- 机械工程师
- 项目工程师

知识要求

- IRB 14000 操作培训

完成此课程后，您将可以

- 了解 IRB 14000 机器人系统结构
- 通过释放抱闸或者示教器移动机器人
- 参照手册，独立更换手臂
- 能够更新转数计数器
- 对 IRB 14000 进行日常维护

培训内容

- ABB 机器人本体硬件结构介绍
- 各轴电机、电缆更换步骤讲解
- 机器人手臂更换方法讲解与实践
- 机器人校准方法介绍与实践
- IRB 14000 日常维护介绍

课程信息

- 培训时间: 1 天
- 学员人数: 4-8 人 / 班

Applicable Robot Type

- ABB Robot: IRB 14000

Target Groups

- project engineer
- Mechanical engineer

Prerequisites

- IRB 14000 operation

After this training, you are able to

- Know the structure of IRB 14000
- Move robot by break release or TPU
- Refer to product manual, replace arm
- Update revolution counter
- Daily Maintenance

Contents

- Introduce IRB 14000 structure
- Introduce motor replace steps
- Introduce arm replacement
- Calibration introduce Practice
- IRB 14000 daily maintenance introduction

Information

- Duration: 1 days
- Number of participants: 4-8 persons

CNIM260 IRB 2600 机械维修（兼容 IRB 4600）

CNIM260 IRB 2600 Mechanical Maintenance (Compatibility IRB 4600)

适用机型

- IRB 2600 (IRB 4600)

课程对象

- 机械维修工程师

知识要求

- 机器人操作培训
- 机械基础知识

完成此课程后，您将可以

- 了解 ABB 工业机器人基本构造
- 掌握机器人本体常用维护保养知识
- 参照手册，独立更换各轴电机、电缆
- 参照手册，独立更换机器人齿轮箱
- 能够借助仪器对机器人做精校准

培训内容

- ABB 机器人安全操作介绍
- ABB 机器人本体硬件结构介绍
- 日常机械维护保养知识介绍及实践
- 各轴电机、电缆更换步骤讲解及实践
- 机器人齿轮箱更换方法讲解与实践
- 机器人精校准方法介绍与实践
- 机器人各轴齿轮箱润滑油的更换步骤及实践

课程信息

- 培训时间：3 天
- 学员人数：4-8 人 / 班

Applicable Robot Type

- ABB IRB 2600 (IRB 4600)

Target Groups

- Mechanical maintenance engineer

Prerequisites

- Robot operation training
- Basic knowledge about robotics mechanics

After this training, you are able to

- Know the structure of ABB industry robot
- Understand the maintenance method of manipulator
- Refer to the manual, replace the motors and cables independently
- Refer to the manual, replace the gearboxes independently
- Calibrate the robot after any replacement of mechanical unit

Contents

- Safety instruction
- Structure of the ABB manipulator
- Mechanical maintenance knowledge
- Replacement of motors and cables
- Replacement of gearboxes
- Fine calibration
- Practice

Information

- Duration: 3 days
- Number of participants: 4-8 persons

CNIM670 IRB6700 机械维修

CNIM670 IRB6700 Mechanical Maintenance

适用机型

- IRB 6700

课程对象

- 机械维修工程师

知识要求

- 机器人操作培训
- 机械基础知识

完成此课程后，您将可以

- 了解 ABB 工业机器人基本构造
- 掌握机器人本体常用维护保养知识
- 参照手册，独立更换各轴电机、电缆
- 参照手册，独立更换机器人齿轮箱、平衡装置
- 能够借助仪器对机器人做精校准

培训内容

- ABB 机器人安全操作介绍
- ABB 机器人本体硬件结构介绍
- 日常机械维护保养知识介绍及实践
- 各轴电机、电缆更换步骤讲解及实践
- 机器人齿轮箱、平衡装置更换方法讲解与实践
- 机器人精校准方法介绍与实践
- 机器人各轴齿轮箱润滑油的更换步骤及实践

课程信息

- 培训时间: 4 天
- 学员人数: 4-8 人 / 班

Applicable Robot Type

- IRB 6700

Target Groups

- Mechanical maintenance engineer

Prerequisites

- Robot operation training
- Basic knowledge of mechanics

After this training, you are able to

- Know the structure of ABB industry robot
- Understand the maintenance method of manipulator
- Refer to the manual, replace the motors and cables independently
- Refer to the manual, replace the gearboxes (axis 1 - axis 6) independently Refer to the manual, replace the balancing device
- Calibrate the robot after any replacement of mechanical unit

Contents

- Safety instruction
- Structure of the ABB manipulator
- Mechanical maintenance knowledge
- Replacement of motors and cables, Replacement of gearboxes, Replacement of balancing device
- Fine calibration
- Replacement of gearboxes Oil and Practice

Information

- Duration: 4 days
- Number of participants: 4-8 persons

CNIM760 IRB7600 机械维修

CNIM760 IRB7600 Mechanical Maintenance

适用机型

- IRB 7600

课程对象

- 机械维修工程师

知识要求

- 机器人操作培训
- 机械基础知识

完成此课程后，您将可以

- 了解 ABB 工业机器人基本构造
- 掌握机器人本体常用维护保养知识
- 参照手册，独立更换各轴电机、电缆
- 参照手册，独立更换机器人齿轮箱、平衡装置
- 能够借助仪器对机器人做精校准

培训内容

- ABB 机器人安全操作介绍
- ABB 机器人本体硬件结构介绍
- 日常机械维护保养知识介绍及实践
- 各轴电机、电缆更换步骤讲解及实践
- 机器人齿轮箱、平衡装置更换方法讲解与实践
- 机器人精校准方法介绍与实践
- 机器人各轴齿轮箱润滑油的更换步骤及实践

课程信息

- 培训时间: 5 天
- 学员人数: 4-8 人 / 班

Applicable Robot Type

- IRB 7600

Target Groups

- Mechanical maintenance engineer

Prerequisites

- Robot operation training
- Basic knowledge of mechanics

After this training, you are able to

- Know the structure of ABB industry robot
- Understand the maintenance method of manipulator
- Refer to the manual, replace the motors and cables independently
- Refer to the manual, replace the gearboxes (axis 1 - axis 6) independently Refer to the manual, replace the balancing device
- Calibrate the robot after any replacement of mechanical unit

Contents

- Safety instruction
- Structure of the ABB manipulator
- Mechanical maintenance knowledge
- Replacement of motors and cables, Replacement of gearboxes, Replacement of balancing device
- Fine calibration
- Replacement of gearboxes Oil and Practice

Information

- Duration: 5 days
- Number of participants: 4-8 persons

软件

Software

工业机器人

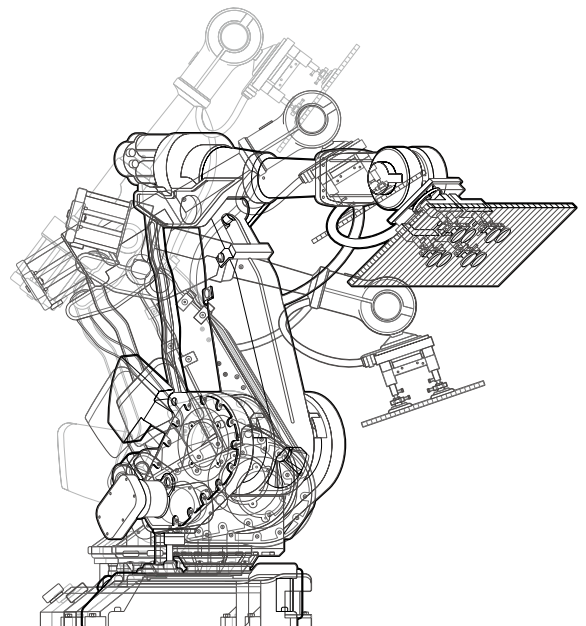
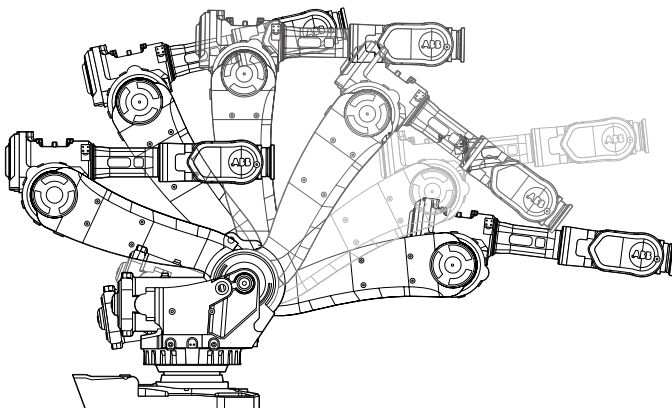
- CNIS101
- CNIS102

RobotStudio 1
RobotStudio 2

Industry Robot

- CNIS101
- CNIS102

RobotStudio 1
RobotStudio 2



CNIS101 RobotStudio 1

CNIS101 RobotStudio 1

适用机型

- ABB 所有机型

课程对象

- 项目 / 工艺工程师

知识要求

- 了解机器人及RAPID编程
- 基本的电脑知识，如打开程序和Windows中的文件夹。

完成此培训后，您将可以

- 在RobotStudio中建造工作站。
- 对虚拟机器人进行图形化编程
- 分析仿真中的信号，并用其来提高性能。
- 创建用于模拟的基本的3D对象。
- 在站点虚拟工作站的组件之间进行“虚拟布线”。
- 将程序从虚拟控制器传输到实际控制器。
- 创建带外部轴的工作站，例如导轨或变位机。
- 创建用于销售用途的真实的工作站，并录制仿真视频。

培训内容

- 健康与安全
- RobotStudio 课件文件
- RobotStudio 基本因素
- 区域可视化
- 图形化编程
- 信号分析仪
- 建模
- 编程和模拟IO信号
- 传输
- 外部轴
- 销售工具

课程信息

- 培训时间: 5 天
- 学员人数: 6-10 人 / 班

Applicable Robot Type

- All the ABB robot

Target Groups

- Project/Process engineer

Prerequisites

- Basic knowledge about RAPID programming and robots.
- Basic PC knowledge, such as opening programs and folders in Windows.

After this training , you are able to

- Build a station in RobotStudio.
- Use graphical programming to program virtual robots.
- Analyze signals in a simulation and use this to improve performance.
- Create basic 3D objects to use in simulations.
- Set up "virtual wiring" between components in a station virtual station.
- Transfer programs from a virtual controller to a real controller.
- Set up station with an external axis such as a track or positioner.
- Create a realistic station and record simulation videos for sales purposes.

Contents

- Health & Safety
- RobotStudio Courseware Files
- RobotStudio Basics
- Zone Visualization
- Graphical Programming
- Signal Analyzer
- Modeling
- Programming and Simulating IO Signals
- Transfer
- External Axes
- Sales Tools

Information

- Duration: 5 days
- Number of participants: 6-10 persons

CNIS102 RobotStudio 2

CNIS102 RobotStudio 2

适用机型

- ABB 所有机型

课程对象

- 项目 / 工艺工程师

知识要求

- 熟悉RobotStudio，最好已完成RobotStudio1 培训

完成此培训后，您将可以

- 创建高级Smart组件。
- 创建并仿真MultiMove系统。
- 创建输送链机械装置并模拟输送链跟踪。
- 创建基本的ScreenMaker应用程序。
- 导出工作站的2D图纸。
- 创建真实物理电缆和软管。
- 在仿真工作站中为一个在输送链上的物体创建物理特性。

培训内容

- 健康与安全
- 回顾RobotStudio1
- 事件管理器
- Smart组件
- MultiMove
- 机械装置
- 输送链追踪
- ScreenMaker
- 布局工具
- 物理属性

课程信息

- 培训时间: 4 天
- 学员人数: 6-10 人 / 班

Applicable Robot Type

- All the ABB robot

Target Groups

- Project/Process engineer

Prerequisites

- Good knowledge of RobotStudio, preferably completed RobotStudio 1.

After this training , you are able to

- Create an advanced Smart Component.
- Create and simulate a MultiMove system.
- Create a conveyor mechanism and simulate conveyor tracking.
- Create a basic ScreenMaker application.
- Export a 2D drawing of a station.
- Create cables and hoses with realistic physics.
- Utilize physics in a simulation for objects traveling on a conveyor.

Contents

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

Information

- Duration: 4 days
- Number of participants: 6-10 persons

应用

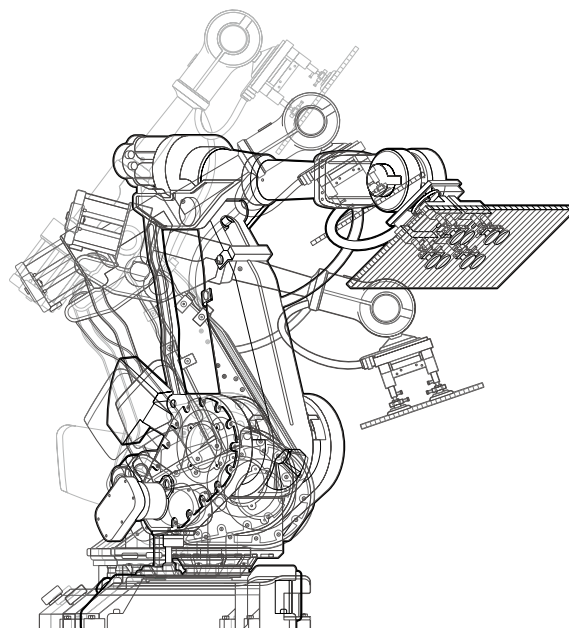
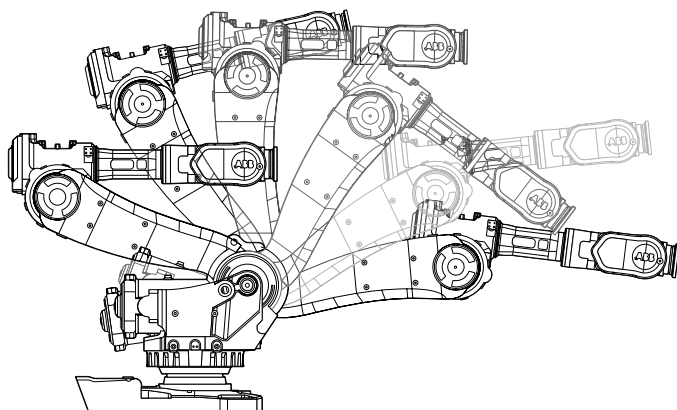
Application

工业机器人

- CNIA103 SafeMove 1 & EPS 应用
- CNIA104 SafeMove2 应用
- CNIA105 集成视觉系统
- CNIA108 IDFP 基础应用
- CNIA109 力控应用
- CNIA110 总线配置与视觉通讯

Industry Robot

- CNIA103 SafeMove 1 & EPS Application
- CNIA104 SafeMove2 Application
- CNIA105 Integrated Vision
- CNIA108 IDFP Basic Application
- CNIA109 Force Control
- CNIA110 Industry Network Configuration And Vision Application



CNIA103 SafeMove 1 & EPS 应用

CNIA103 SafeMove 1 & EPS Application

适用机型

- 使用 Safemove 1 或 EPS 的 ABB 机器人

课程对象

- 项目 / 工艺工程师
- 电气维修工程师
- 机械维修工程师
- 操作工

知识要求

- 基础编程培训

完成此课程后，您将可以

- 独立安装 Safemove 和 EPS 板卡
- 独立调试、配置 Safemove 和 EPS 功能

培训内容

- 操作安全
- SafeMove 和 EPS 板卡的安装及连线
- EPS 功能及配置介绍
- SafeMove 功能介绍
- 生成带 SafeMove 选项的机器人系统
- 创建安全用户
- 配置 SafeMove 应用
- SafeMove 相关例程介绍
- SafeMove 配置测试
- 应用实践

课程信息

- 培训时间: 2 天
- 学员人数: 4-8 人 / 班

Applicable Robot Type

- All the ABB robot with Safemove 1 or EPS

Target group

- Project/Process engineer
- Electrical maintenance engineer
- Mechanical maintenance engineer
- Operator

Prerequisites

- Basic programming

After this training, you are able to

- Mechanical/Electrical integration of the EPS and SafeMove cards
- Configuration of the EPS and SafeMove cards

Contents

- Occupational health and safety
- Mechanical installation and electrical integration of the EPS/ SafeMove card
- Introduction of EPS function Configuration of EPS
- Introduction of SafeMove function
- Producing a system with the SafeMove option
- Creating a security user
- Configuration of the SafeMove application
- Help routines for supporting SafeMove
- Testing and documentation of the SafeMove configuration Practice

Information

- Duration: 2 Days
- Number of participants: 4-8 Persons

CNIA104 SafeMove2 应用

CNIA104 SafeMove2 Application

适用机型

- 使用第二代 Safemove 的 ABB 机器人

课程对象

- 项目 / 工艺工程师
- 电气维修工程师
- 机械维修工程师
- 操作工

知识要求

- 基础编程培训

完成此课程后，您将可以

- 独立更换 SafetyBoard (DSQC1015)
- 配置 Safemove2 功能
- 在 RobotStudio 中仿真 SafeMove, 定义相关参数
- 在界面上查看 Safemove2 相关信息

培训内容

- 操作安全
- 第二代 SafeMove 与第一代 SafeMove 的区别
- SafetyBoard 板卡的安装
- SafeMove Pro 功能介绍
- 生成带 SafeMove2 选项的机器人系统
- 用户系统
- Keyless 模式选择
- 配置 SafeMove2
- RobotStudio 中的仿真 SafeMove 用户界面
- 示教器中的 SafeMove 用户界面
- 应用实践

课程信息

- 培训时间: 2 天
- 学员人数: 4-8 人 / 班

Applicable Robot Type

- All the ABB robot with Safemove2

Target group

- Project/Process engineer
- Electrical maintenance engineer
- Mechanical maintenance engineer
- Operator

Prerequisites

- Basic programming

After this training, you are able to

- Replace the SafetyBoard independently
- Configuration of SafeMove2
- Take advantage of 3Denvironment to define the safemove parameters
- View the information of SafeMove2 on the TPU interface

Contents

- Safety
- Difference between 1st and 2nd generation SafeMove
- Install the SafetyBoard
- SafeMove Pro functions overview
- Producing a system with the SafeMove2 option
- The UAS System
- Keyless mode selector
- Configuration of SafeMove2
- The Visual SafeMove user interface in RobotStudio
- The FlexPendant user interface
- Practice

Information

- Duration: 2 Days
- Number of participants: 4-8 Persons

CNIA105 视觉系统

CNIA105 Integrated Vision

适用机型

- 所有集成 ABB 视觉系统的工业机器人

课程对象

- 项目工程师
- 工艺工程师
- 操作工

知识要求

- 机器人基础编程培训

完成此课程后，您将可以

- 了解 ABB 视觉系统配置及技术参数
- 创建集成视觉系统的 ABB 机器人工作站
- 安装调试视觉系统
- 编写集成视觉系统的 RAPID 程序
- 独立处理一些涉及视觉系统的常见故障

培训内容

- ABB 视觉系统应用场景介绍
- ABB 视觉系统主要技术参数及特点
- ABB 视觉系统工作原理介绍
- 连接机器人与照相机
- 创建带视觉系统的机器人工作站
- 照相机调试及校准
- 集成视觉系统的工作站调试，集成视觉系统编程
- 集成视觉系统工作站中的常见故障处理方法

课程信息

- 培训时间: 3 天
- 学员人数: 4-8 人 / 班

Applicable Robot Type

- The ABB robots with Integrated Vision

Target Groups

- Project Engineer
- Process Engineer
- Operator

Prerequisites

- IRC5 basic programming

After this training, you are able to

- Know the technical data of Integrated Vision
- Create a work station with Integrated Vision
- Install and commission integrated vision independently
- Create a simple RAPID program that acquire an image
- Troubleshoot the common failures in Integrated Vision system

Contents

- Integrated Vision technical data
- The target application
- How does the Integrated Vision work
- Connect camera and robot controller
- Image setup
- Integrated Vision calibration
- Programming
- Troubleshoot some common failures in work station with the Integrated Vision

Information

- Duration: 3 days
- Number of participants: 4-8 persons

CNIA108 IDFP 基础应用

CNIA108 IDFP Basic Application

适用机型

- 使用 IDFP 的 ABB 机器人

课程对象

- 项目 / 工艺工程师
- 电气维修工程师
- 现场设备维护

知识要求

- IRC5 基础编程培训
- IRC5 电气原理培训

完成此课程后，您将可以

- 独立安装 IDFP 功能
- 独立调试 IDFP 功能

培训内容

- 操作安全
- IDFP 功能介绍
- IDFP 安装
- 必备基本调测方法
- 用户界面的使用
- Doser 参数
- 应用实践

课程信息

- 培训时间: 3 天
- 学员人数: 3-6 人 / 班

Applicable Robot Type

- ABB robot with IDFP

Target group

- Project/Process engineer
- Electrical maintenance engineer
- Site Person

Prerequisites

- IRC5 Basic programming
- IRC5 Electrical Principle

After this training, you are able to

- Installation of the IDFP
- Configuration of the IDFP

Contents

- Occupational health and safety
- Introduction of IDFP function
- Installation of IDFP
- Basic testing method and step
- How to use IDFP GUI
- Parameters of Doser
- Practice

Information

- Duration: 3 Days
- Number of participants: 3-6 Persons

CNIA109 力控应用

CNIA109 Force Control

适用机型

- ABB 机器人含 Force Control Base (option 661-2) 选项

课程对象

- 项目工程师
- 工艺工程师
- 设备工程师

知识要求

- ABB 机器人基础编程培训

完成此课程后，您将可以

- 了解 ABB 工业机器人基本安全知识
- 能独立安装力控硬件
- 能独立安装力控软件选项
- 能独立完成简单力控编程
- 能运用工具调试力控系统

培训内容

- ABB 机器人安全操作介绍
- 力控系统硬件组成介绍
- 力控应用系统参数配置
- 力控应用基本指令介绍
- 力控应用基本数据介绍
- 力控轨迹编程与调试

课程信息

- 培训时间: 3 天
- 学员人数: 4-8 人 / 班

Applicable Robot Type

- ABB robot Which have Force Control Base (option 661-2)

Target Groups

- Project engineer
- Process engineer
- Robot maintenance engineer

Prerequisites

- ABB robot basic programming training

After this training, you are able to

- know basic safety knowledge of ABB industry robot
- assemble the Force control parts independently
- install the Force control software option independently
- be able to do programming in Force control system
- use tools to debug the Force control system

Contents

- Safety instruction
- Structure of Force Control system
- Basic configuration of Force Control system
- Basic commands of Force Control system
- Basic data of Force Control system
- Programming and debugging in Force Control system

Information

- Duration: 3 Days
- Number of participants: 4-8 Persons

CNIA110 总线配置与视觉通讯

CNIA110 Industry Network Configuration And Vision Application

适用机型

- 具有相关通讯选项的 IRC5 控制系统机器人

课程对象

- 机器人工程师

知识要求

- 机器人基础编程培训或具有 ABB 机器人相关知识
- 了解常用现场总线，了解机器人视觉应用原理

完成此课程后，您将可以

- 配置 ABB 机器人基于 PROFINET 的总线通讯
- 配置 ABB 机器人基于 Ethernet/IP 的总线通讯
- 配置 ABB 机器人基于 Devicenet 的总线通讯
- 配置 ABB 机器人基于 CC-LINK 的总线通讯
- ABB 机器人与外部设备 socket 通讯程序编写
- ABB 集成视觉应用
- ABB 机器人与智能相机视觉应用

培训内容

- 基于 PROFINET 总线的机器人配置
 - 机器人作为 Controller，添加 Device
 - 机器人作为 Device 与 PLC 通讯
- 基于 Ethernet/IP 总线的机器人配置
 - 机器人作为 Scanner，添加 Adapter
 - 机器人作为 Adapter 与 Scanner 通讯
- 基于 DeviceNet 总线的机器人配置
 - 机器人作为从站 Slave 与 PLC 通讯
 - 两台机器人 DeviceNet 通讯
- 基于 CC-LINK 总线的机器人配置
- Socket 通讯与编程
- ABB 集成视觉应用
 - 坐标系校准与视觉设置
 - 机器人程序
- ABB 机器人与智能相机视觉应用
 - 智能相机软件介绍与使用
 - 机器人与智能相机的 socket 通讯与处理
 - 基于智能相机的视觉引导与抓取

课程信息

- 培训时间: 4 天

Applicable Robot Type

- ABB robots with communication options

Target Groups

- Robot Engineers

Prerequisites

- Basic programming and knowledge of industry network and vision application

Completed this course, you may able to:

- Configure ABB robot in PROFINET network
- Configure ABB robot in Ethernet/IP network
- Configure ABB robot in DeviceNet network
- Configure ABB robot in CC-LINK network
- Socket communication program with ABB robot
- Use ABB robot integrated vision application
- Use Intelligent camera with ABB robot

Contents

- PROFINET configuration
 - Robot as Controller and Robot as Device
 - Communication between 2 ABB robots
- Ethernet/IP configuration
 - Robot as Scanner and robot as adapter
- DeviceNet configuration
 - Robot as Slave on the network
 - Communication between 2 ABB robots
- CC-LINK configuration
- Socket communication and programming
- ABB Integrated vision
 - Coordinate Calibration
 - Vision settings and robot programming
- ABB robot with Industrial Intelligent Camera
 - Intelligent vision software introduction and application
 - Socket communication between robot and Intelligent camera
 - Robot programming with vision guide

Information

- Duration: 4 days

喷涂机器人

Painting Robot

- CNPP101 IRC5P 编程
- CNPE101 IRC5P 电气原理 & 故障排除
- CNPM110 RB1000 雾化器
- CNPM550 IRB 5500 机械维修
- CNPS101 RobotStudio 软件（喷涂）
- CNPS111 IPS (RW6) 软件
- CNPA101 涂装工艺（换色、清洗）

- CNPP101 IRC5P Programming
- CNPE101 IRC5P Electrical Principle & Troubleshooting
- CNPM110 RB1000 Atomizer
- CNPM550 IRB 5500 Mechanical Maintenance
- CNPS101 RobotStudio software (Painting)
- CNPS111 IPS (RW6) Software
- CNPA101 Painting process (ColorChange and Cleaning)

编程

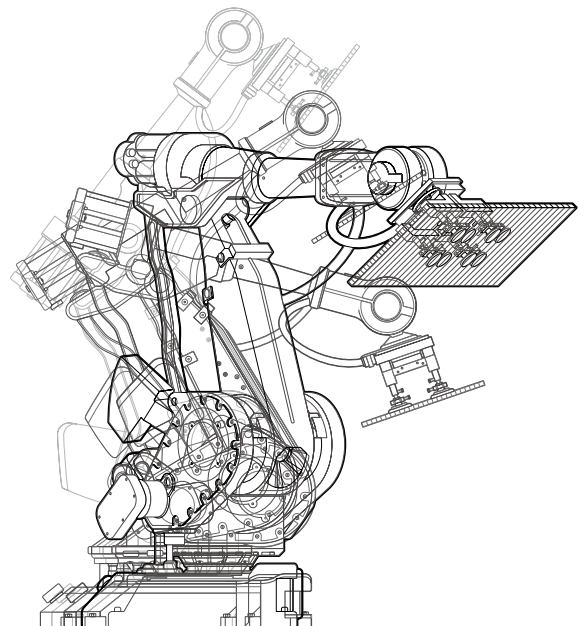
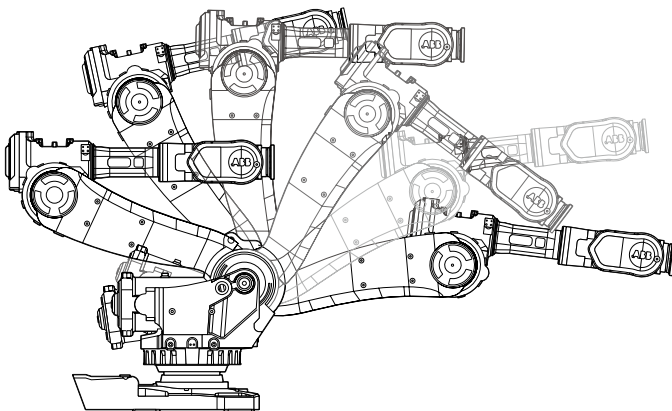
Programming

喷涂机器人

- CNPP101 IRC5P 编程

Painting Robot

- CNPP101 IRC5P Programming



CNPP101 IRC5P 编程

CNPP101 IRC5P Programming

适用机型

- IRC5P 控制系统的所有机型

课程对象

- 操作工
- 电气维修工程师
- 机械维修工程师
- 项目 / 工艺工程师

知识要求

- 基本喷涂工艺知识

完成此课程后，您将可以

- 了解 Rapid 程序结构及程序数据类型
- 能够配置 I/O 信号并运用于编程
- 了解 Brush Table，创建 Brush Table
- 理解并使用换色程序
- 新建轨迹程序
- 配置 INDEX
- 了解 S4P + 与 IRC5P 程序差别

培训内容

- 操作安全
- 喷涂机器人系统架构
- RAPID 程序结构及数据类型
- 基本指令应用及举例说明
- I/O 信号配置
- 输送链跟踪应用介绍
- Brush Table 使用方法
- 换色程序应用介绍
- 创建轨迹方法介绍
- Index 配置方法
- 故障日志解读
- S4P + 与 IRC5P 程序对比
- 操作实践

课程信息

- 培训时间: 5 天
- 学员人数: 4-10 人 / 班

Applicable Robot Type

- All the robots with IRC5P controller

Target Groups

- Operator
- Electrical maintenance engineer
- Mechanical maintenance engineer
- Project/Process engineer

Prerequisites

- Basic knowledge of painting process

After this training , you are able to

- Understand RAPID program structure
- Understand the usage of data type
- Configure I/O signal independently
- Configure and modifying Brush table
- Be familiar with color changing program
- Write simple movement programs
- Configure the INDEX and Be familiar with the difference between S4P + and IRC5P

Contents

- Occupational health and safety with painting robot
- Structure of the painting robot system
- RAPID program structure and data type
- Basic instructions and case study
- I/O signal configuration
- Conveyor tracking
- Introduction of Brush Table
- Program for color changing
- Creating painting path
- Index configuration
- Error code and status report
- Comparison between S4P+ and IRC5P
- Practice

Information

- Duration: 5 Days
- Number of participants: 4-10 Persons

电气原理及故障处理

Electrical Principle and Troubleshooting

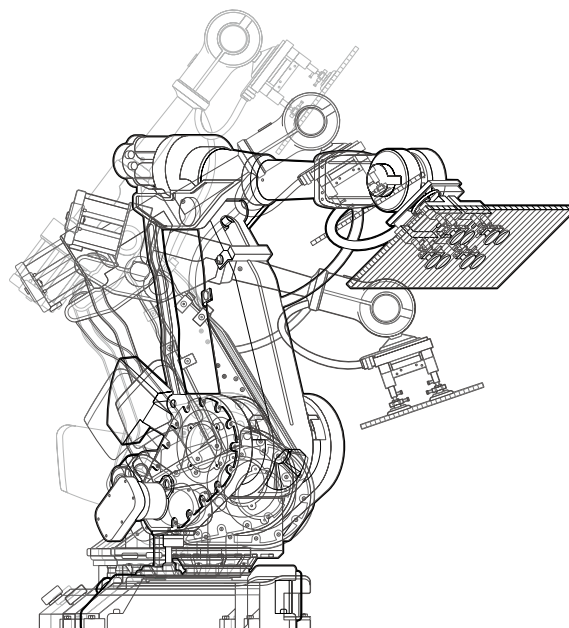
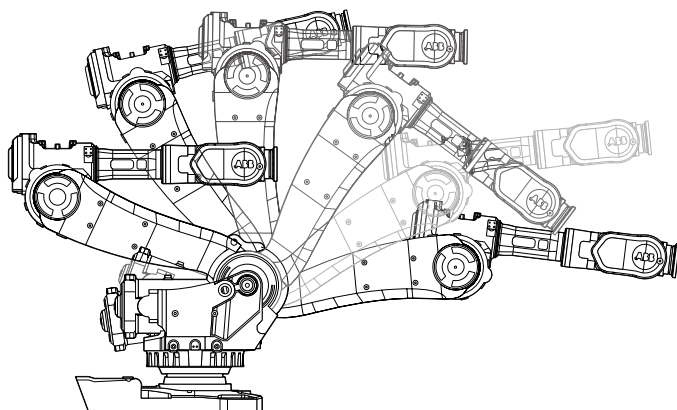
喷涂机器人

• CNPE101 IRC5P 电气原理 & 故障排除

Painting Robot

• CNPE101

RC5P Electrical Principle & Troubleshooting



CNPE101 IRC5P 电气原理 & 故障排除

CNPE101 IRC5P Electrical Principle&Troubleshooting

适用机型

- IRC5P 控制系统的所有机型

课程对象

- 电气维修工程师
- 项目 / 工艺工程师

知识要求

- IRC5P 操作培训

完成此课程后，您将可以

- 了解 IRC5P 机器人系统电气结构
- 熟悉 IRC5P 机器人控制柜各电气单元功能及工作原理
- 熟悉 IRC5P 机器人本体各电气单元功能及工作原理
- 了解主要单元在电路及气路图中的连接走向
- 能够独立完成电气设备日常保养维护和备件替换
- 熟悉 IRC5P 机器人控制柜及本体内各单元状态指示灯含义
- 熟悉故障代码的分类含义及快速查找相应的解决方法
- 了解 IRC5P 机器人故障处理的基本思路和常用方法
- 掌握不同启动方式的用法
- 能够独立处理常见故障

课程内容

- 机器人操作安全
- IRC5P 机器人系统
- IRC5P 机器人控制柜中各单元介绍。
- IRC5P 机器人本体中各单元介绍。
- 主要单元电路图讲解
- 主要电气单元维护保养知识
- 主要电气单元拆装实践操作
- IRC5P 机器人控制柜及本体内各单元状态指示灯状态介绍
- IRC5P 机器人故障代码分类介绍
- 机器人部分启动方式对消除故障的作用
- 控制柜及机器人本体主要单元故障介绍及处理方法
- 案例分析和故障排除实践。

课程信息

- 培训时间: 5 天
- 学员人数: 4-8 人 / 班

Applicable Robot Type

- All the robots with IRC5P controller

Target Groups

- Electrical maintenance engineer
- Project/Process engineer

Prerequisites

- IRC5P Operation

After this training , you are able to

- Understand the electrical structure of IRC5P system
- Be familiar with the function of the electrical units in IRC5P cabinet
- Be familiar with the function of the electrical units in manipulator
- Work with circuit diagrams and Implement the basic daily maintenance independently
- Replace the failure part independently
- Work with the circuit diagrams in the manual
- Diagnose the fault, according to LED status and error code
- Develop the executing ability in analysis strategy and basic method
- To grasp the usage of different startup mode
- Troubleshoot the IRC5P robot independently

Contents

- Safety instruction
- Structure and function of painting robot system
- The working function of the electrical units in IRC5P cabinet
- The working function of the electrical units in manipulator
- Circuit diagram explanation and Introduction of daily maintenance of each unit
- Replacement of the failure part
- Description of indicators on the basic electrical unit in IRC5P cabinet and manipulator
- Diagnosis with the error code in IRC5P
- Introduction the usage of restart mode in troubleshooting
- Common faults of each electrical unit in IRC5 robot
- Case study & Practice

Information

- Duration: 5 Days
- Number of participants: 4-8 Persons

机械维修

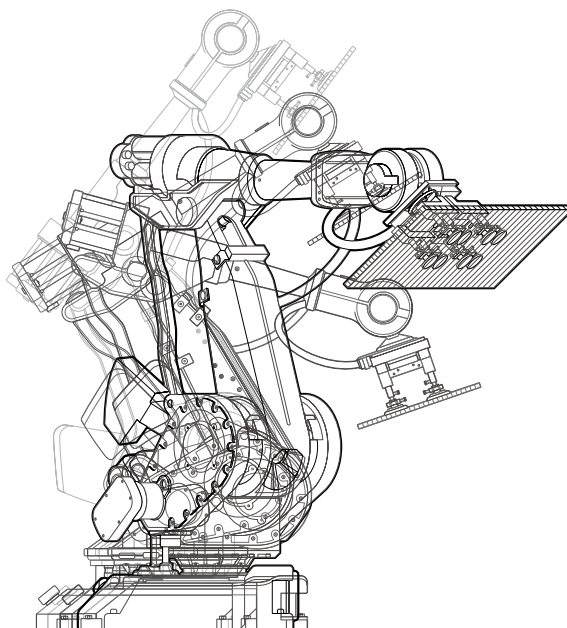
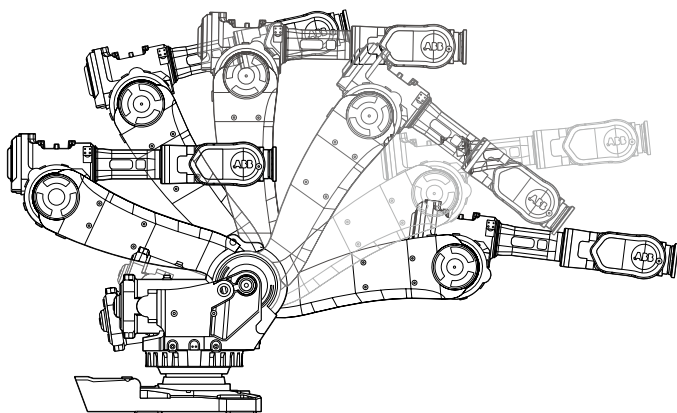
Mechanical Maintenance

喷涂机器人

- CNPM110 RB1000 雾化器
- CNPM550 IRB 5500 机械维修

Painting Robot

- CNPM110 RB1000 Atomizer
- CNPM550 IRB 5500 Mechanical Maintenance



CNPM110 RB1000 雾化器

CNPM110 RB1000 Atomizer

适用机型

- RB1000 雾化器的喷涂机器人

课程对象

- 项目 / 工艺工程师
- 电气维修工程师
- 操作工

知识要求

- 喷涂机器人操作培训
- 喷涂机器人编程培训
- 喷涂工艺基础知识

完成此课程后，您将可以

- 了解雾化器安全须知
- 掌握 RB1000 雾化器的构造细节及工作原理（外加电、内加电）
- 掌握 RB1000 雾化器的使用注意要点
- 掌握常用雾化器的保养与维护
- 掌握雾化器参数调整方法

培训内容

- 操作安全
- RB1000 雾化器的构造细节及工作原理
- RB1000 雾化器的使用注意要点
- RB1000 雾化器的保养与维护
- 雾化器参数调整
- 案例分析

课程信息

- 培训时间: 2 天
- 学员人数: 4-8 人 / 班

Applicable Robot Type

- All the ABB painting robots with Atomizer(RB1000)

Target Groups

- Project/process engineer
- Electrical maintenance engineer
- Operator

Prerequisites

- Painting robot operation training
- Painting robot programming training
- Basic knowledge about painting process

After this training, you are able to

- Know the safety precaution of atomizer
- Understand the structure and principle of RB1000
- Understand the key points in RB1000 application
- Implement the routine maintenance of atomizer
- Understand how to Modify the parameters

Contents

- Safety instruction
- The structure and principle of RB1000
- Notice in RB1000 application
- Routine maintenance of RB1000
- Parameter modification
- Case study

Information

- Duration: 2 Days
- Number of participants: 4-8 Persons

CNPM550 IRB 5500 机械维修

CNPM550 IRB 5500 Mechanical Maintenance

适用机型

- ABB IRB 5500 喷涂机器人

课程对象

- 机械维修工程师

知识要求

- 喷涂机器人操作培训
- 机械基础知识

完成此课程后，您将可以

- 了解 ABB 工业机器人基本构造
- 掌握机器人本体常用维护保养知识
- 参照手册，独立更换各轴电机、电缆
- 参照手册，独立更换机器人手腕、齿轮箱
- 能够借助仪器对机器人做精校准

培训内容

- ABB 机器人安全操作介绍
- ABB 机器人 IRB5500 本体硬件结构介绍
- 日常机械维护保养知识介绍及实践
- 各轴电机、电缆更换步骤讲解及实践
- 机器人手腕、齿轮箱更换方法讲解与实践
- 机器人精校准方法介绍与实践
- 机器人各轴齿轮箱润滑油的更换步骤及实践

课程信息

- 培训时间: 5 天
- 学员人数: 4-8 人 / 班

Applicable Robot Type

- ABB IRB 5500

Target Groups

- Mechanical maintenance engineer

Prerequisites

- Painting robot operation training
- Basic knowledge about robotics mechanics

After this training, you are able to

- Know the structure of ABB painting robot
- Understand the maintenance method of manipulator
- Refer to the manual, replace the motors and cables independently
- Refer to the manual, replace the gearboxes and wrist independently
- Calibrate the robot after any replacement of mechanical unit

Contents

- Safety instruction
- Structure of the ABB manipulator
- Mechanical maintenance knowledge
- Replacement of motors and cables
- Replacement of wrist and gearboxes
- Replacement of gearboxes Oil and Fine calibration
- Practice

Information

- Duration: 5 days
- Number of participants: 4-8 persons

软件

Software

喷涂机器人

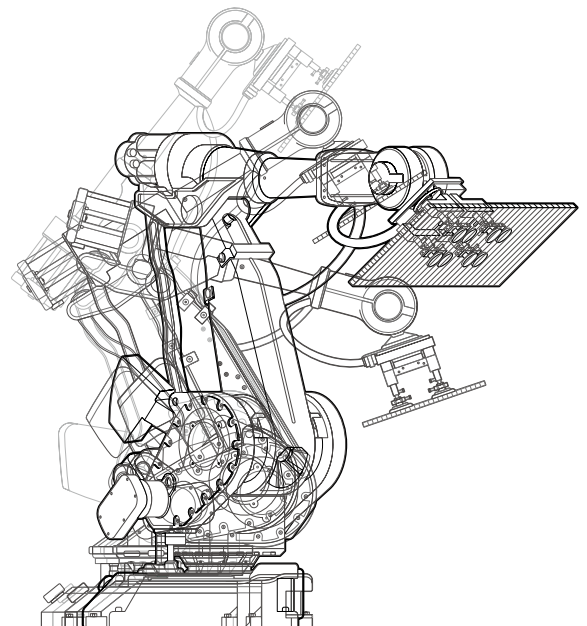
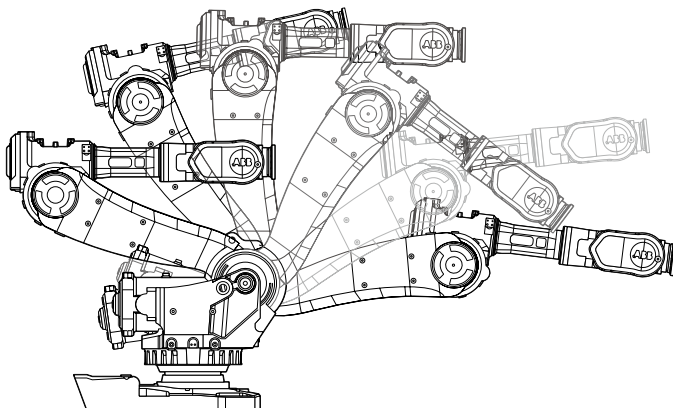
- CNPS101
- CNPS111

RobotStudio 软件（喷涂）
IPS (RW6) 软件

Painting Robot

- CNPS101
- CNPS111

RobotStudio software (Painting)
IPS (RW6) Software



CNPS101 RobotStudio 软件（喷涂）

CNPS101 RobotStudio software (Painting)

适用机型

- 所有 ABB 喷涂机器人

课程对象

- 项目 / 工艺工程师

知识要求

- IRC5P 基础编程培训

完成此课程后，您将可以

- 使用 Robotstudio 进行产品布局
- 根据实际需要创建工作站
- 创建和布置工作站的组件（例如工具，坐标系，几何体）
- 使用 RobtStudio 进行离线编程并仿真
- 创建外轴
- 制作机器人工作视频
- 创建多台机器人工作站

培训内容

- 创建工作站
- 创建系统
- 创建几何体和机械装置
- 创建工具、工件坐标系、路径点、轨迹
- 创建外轴
- 利用创建的组件和数据进行离线编程和仿真
- ABB 机器人的可选项使用，包括外轴，输送链跟踪
- 学习制作自定义视频录像

课程信息

- 培训时间：5 天
- 学员人数：6-10 人 / 班

Applicable Robot Type

- All the ABB Painting robot

Target group

- Project/Process engineer

Prerequisites

- IRC5P Basic programming

After this training, you are able to

- Layout product in RobotStudio
- Build a station according to requirement
- Create the components in the station(such as Tools, Coordinates, Geometries)
- Program offline
- Creating external axis
- Make a video of the running station
- Build station with more than one robot

Contents

- Creating a station
- Creating a system
- Creating the geometries and mechanical unit
- Creating Tool, WorkObject, Targets and Paths
- Creating external axis
- Programming offline and simulation
- Program with ABB additional option, such as external axis, conveyor tracking
- Making a video

Information

- Duration: 5 Days
- Number of participants: 6-10 Persons

CNPS111 IPS (RW6) 软件

CNPS111 IPS (RW6) Software

适用机型

- 所有使用 IPS 的 ABB 喷涂机器人

课程对象

- 项目 / 工艺工程师
- 设备维护工程师

知识要求

- 喷涂机器人操作培训
- 喷涂机器人编程培训
- 喷涂工艺基础知识

完成此课程后，您将可以

- 了解 IPS RW6.0 系统架构
- 掌握 IPS 的备份与还原
- 熟悉 IPS 配置
- 掌握 IPS 版本更新方法
- 了解 IPS 系统诊断与调试方法
- 了解参数校准

培训内容

- IPS RW6.0 系统架构介绍
- IPS 备份与还原
- IPS 常用参数介绍及配置
- IPS 升降级方法介绍
- IPS 报警信息查询
- IPS RW6.0 与之前版本的差别
- 参数校准方法

课程信息

- 培训时间: 3 天
- 学员人数: 4-8 人 / 班

Applicable Robot Type

- All the ABB painting robots with IPS

Target group

- Project/Process engineer
- Maintenance engineer

Prerequisites

- Painting robot operation training
- Painting robot programming training
- Basic knowledge about painting process

After this training, you are able to

- Know the structure of IPS
- Backup and restore the IPS
- Be familiar with IPS configuration
- Handle IPS version update
- Troubleshoot the IPS via error code and Debug the IPS
- Adjust the common signal in IPS

Contents

- IPS RW6.0 structure
- IPS backup and restore
- Common configuration of IPS
- IPS upgrade and downgrade
- IPS error code
- New function in IPS RW6.0
- Calibration of Fluid, Atom, Shape

Information

- Duration: 3 Days
- Number of participants: 4-8 Persons

应用

Application

喷涂机器人

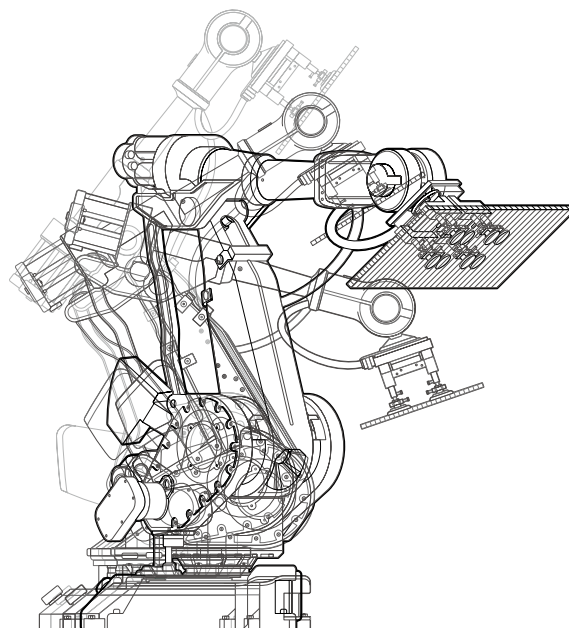
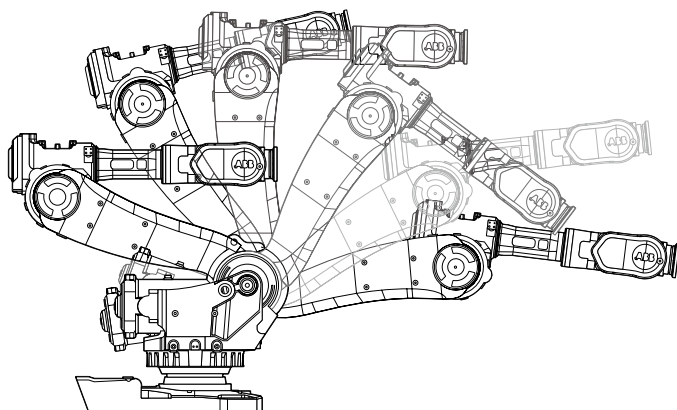
- CNPA101

涂装工艺（换色、清洗）

Painting Robot

- CNPA101

Painting process
(ColorChange and Cleaning)



CNPA101 涂装工艺(换色、清洗)

CNPA101 Painting process (ColorChange and Cleaning)

适用机型

- 所有 ABB 喷涂机器人

课程对象

- 工艺工程师
- 维修工程师
- 操作工

知识要求

- 喷涂工艺基本知识

完成此课程后，您将可以

- 掌握换色阀的构造细节及工作原理
- 掌握换色阀使用的注意要点
- 理解换色程序
- 理解清洗程序
- 换色操作
- 清洗操作

培训内容

- 换色阀的构造细节及工作原理
- 换色阀使用的注意要点
- 换色程序及过程
- 清洗程序及过程
- 换色操作
- 清洗操作

课程信息

- 培训时间: 2 天
- 学员人数: 4-10 人 / 班

Applicable Robot Type

- All the ABB Painting robot

Target group

- Process engineer
- Maintenance engineer
- Operator

Prerequisites

- Basic knowledge about painting process

After this training, you are able to

- Understand the structure of ColorChanger
- Understand the attentions of ColorChanger
- Understand the ColorChange program
- Understand the cleaning program
- ColorChange operation
- Cleaning operation

Contents

- The structure of ColorChanger
- The attention of ColorChanger
- The ColorChange program and process
- The cleaning program and process
- ColorChange operation
- Cleaning operation

Information

- Duration: 2 Days
- Number of participants: 4-10 Persons

住宿

Accommodation

距离 ABB 较近的宾馆信息如下（仅供参考，详情请直接联系宾馆的预定电话）

- **上海如家快捷酒店（周浦店）**

地址：上海市浦东新区秀浦路 886，近年家浜路万达广场
（距离 ABB 约 2 公里）
电话：021-6176 0058-9

- **上海利爵商务酒店**

地址：上海浦东新区周康路 169 号，近年家浜路万达广场
（距离 ABB 约 2 公里）
电话：021-3801 0101

- **上海康桥凯莱酒店**

地址：上海浦东新区康桥川周公路 2689 号近申江路
（距离 ABB 约 3 公里）
电话：021-6807 0000

- **上海浦东绿地假日酒店（上海浦东假日盛高酒店）**

地址：上海浦东新区秀沿路 1088 号（距离 ABB 2 公里）
电话：021-3829 1888

- **上海康桥万豪酒店**

地址：上海浦东新区康新公路 4499 号
（距离 ABB 只需步行 10 分钟）
电话：021-6898 7691

Several recommended hotels near ABB Robotics Shanghai Training Center below

- **Home Inns, Shanghai Zhoupu**

Address : No. 886, XiuPu Road, Near Nian Jia bang road
in Wanda plaza,Pudong, Shanghai.
(2km away from ABB)
Tel : 021-6176 0058-9

- **Li Jue Business Hotel , Shanghai Kangqiao**

Address : No. 169, road Zhoukang, Pudong, Shanghai.
(2km away from ABB)
Tel : 021-3801 0101

- **Kai Lai Hotel Shanghai Kangqiao**

Address : No. 2689, road Chuanzhou, Pudong,
Shanghai. (3km away from ABB)
Tel : 021-6807 0000

- **Holiday Inn Shanghai Pudong Kangqiao**

Address : No. 1088, Xiuyan Road, Pudong, Shanghai.
(2km away from ABB)
Tel : 021-3829 1888

- **Shanghai Marriott Hotel Kangqiao**

Address : 4499 kangxin road, pudong new area,
Shanghai(only walk ten minutes from ABB)
Tel : 021-6898 7691



ABB机器人客户服务热线: 400 920 9090

ABB Robot Customer Service Hot Line: 400 920 9090

ABB机器人客户服务邮箱: cs.robot@cn.abb.com

ABB Robot Customer Service e-mail: cs.robot@cn.abb.com



ABB机器人培训手册



ABB机器人培训日历



ABB机器人培训证书查询



备注

Note

