

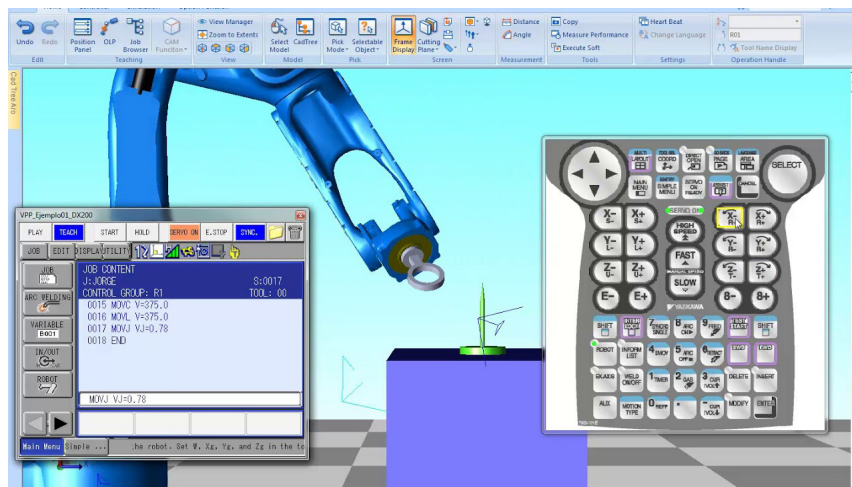
# MotoSIM Virtual Robot Simulation & Control

MotoSim® EG-VRC (Motoman Simulator Enhanced Graphics – Virtual Robot Control) is a comprehensive software package that provides accurate 3D simulation of robot cells for offline design, programming, testing and learning of Yaskawa MotoMan Robots.

This powerful simulation software can be used to learn robot programming and operation and to optimize robot and equipment placement, perform collision detection, reach modeling and cycle calculations. It also provides accurate off-line programming of complex systems.

The MotoSIM EG-VRC simulation software operates like a real environment and displays the actual programming pendant interface for the controllers. The MotoSIM EG-VRC supports standard INFORM III (robot language) instructions, and can completely simulate the FS100 and YRC1000 controller software in a PC environment, including system configuration functions and condition file editing. The application can easily create 3D PDF and AVI files to view and share cell layouts or program operation. The viewing angle and start/stop playback of the robot program can be modified within the 3D PDF file.

MotoSIM EG-VRC supports multiple process applications including arc and spot welding, cutting, handling, painting and sealing. Programs created in MotoSim EG-VRC for Education can be downloaded to the robot controller.



## Features

- Designed specifically for K-16 schools and training organizations
  - Simulates a fully functional production environment
  - Setup in the classroom or robotics lab is quick and easy
  - Education license for class to learn robotic operation and programming simultaneously with no hardware
- Provides “real” robot experience while programming off-line on a PC
- Learn in a safe, virtual environment
- Practice advanced robot capabilities
- Share programming code or upload to a Motoman® robot
- Offline programming and testing reduces programming time and increases uptime

## Applications

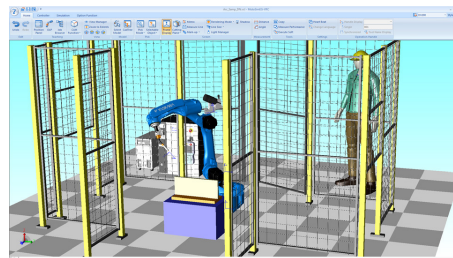
- Large class access to virtual robots
- Virtual learning in safe environment
- Multi-user access to robot exercises with limited hardware.
- Testing environment for robotic training

## MotoSIM EG-VRC Capabilities

- Supports multi-robot and multi-controller simulation
- Robot(s) and external axes control, including independent/coordinated motion and twin synchronous motion functions
- Supports multiple CAD file formats including: MotoSimEG data (.mdl) | HoopsMetafile (.hmf) | HoopsStreamfile (.hsf) | ACIS (.sat) – IGES (.igs, .iges) | STEP (.stp, .step) | Parasolid (.x\_t, .x\_b) DXF (.dxf) | Renderware (.rwx) | Standard Triangulated Language (.stl) | VRML (.wrl) | 3D Model (.3ds) | PLY (.ply)
- Supports standard and optional controller functions such as Macro Command and Relative Job
- Component-level collision detection
- User-definable views
- Automatic robot path generation based on 3D CAD model information. Generate numerous program positions in seconds!
- Modify robot position and manipulate each robot axis by dragging with the mouse. User can also position the robot in Cartesian mode.

### Minimum Requirements:

Windows® 7 (64 bit)  
 Intel Core i5 CPU  
 4-8 GB RAM  
 3D Pro graphics card  
 4 GB of free hard drive space



# Industry 4.0 for Education

# MotoSIM Touch Virtual Robot Simulation & Control with Real Programming Pendant

MotoSIM Touch is a complete virtual industrial robotic solution that provides hands on experience with an actual Teach Pendant

Integrating a real programming pendant with the MotoSim® EG-VRC simulator software package provides a hands-on accurate 3D simulation of robot cells for offline design, programming, testing and learning of Yaskawa MotoMan Robots.

Supported by the powerful simulation software MotoSIM Touch provides the ability for students to toggle between a virtual pendant and a hardware pendant to experience a fully functional production environment.

MotoSIM Touch simulates the FS100 and YRC1000micro controllers and supports the standard and smart pendant.



## Features

- Designed specifically for K-16 schools and training organizations
  - Simulates a fully functional production environment with real teach pendant
  - Setup in the classroom or robotics lab is quick and easy, with only four cables to plug in
- Provides “real world” virtual robotics experience at a fraction of the cost of an industrial robot
- Provides hands-on, STEM-aligned environment for robotic modeling and programming
- Teaches industry-recognized career ready robotics skills

## Applications

- Large class access to virtual robots
- Virtual learning in safe environment
- Multi-user access to robot exercises with limited hardware
- Testing environment for robotic training

## Bundle Includes

- MotoSIM EG-VRC Education License
- MotoSIM Touch
- Programming Pendant
- Cables

## MotoSIM Touch Capabilities

- PC-based offline programming environment and robotics simulation tool.
- Provides the ability for students to toggle between a virtual pendant and a hardware pendant.
  - In either mode, students utilize MotoSim EG-VRC\* for Education, a comprehensive offline programming and simulation software package.
  - Virtual pendant and hardware pendant both utilize easy-to-use INFORM III programming language.
- Robot programs can be moved from the simulation environment to the classroom robot.
- Learn to program and model robots in a safe, virtual PC environment:
  - Learn how to program robots using a hardware pendant. Practicing with a pendant develops “muscle memory”, allowing programming tasks to become second nature.
  - Enter and modify data to create a robot job
  - Perform collision detection, reach analysis and cycle time calculations
- Become proficient with a wide variety of robot functions, including: Robot path, Speed, TCP (tool center point), User frames, I/O monitors, Macro command, Relative job, Enhanced multiple robot control, Independent/coordinated motion, External axis control and coordination, User definable view

NOTE: MotoSim Touch is available only to the educational market at this time.

# Industry 4.0 for Education

Contact Us: