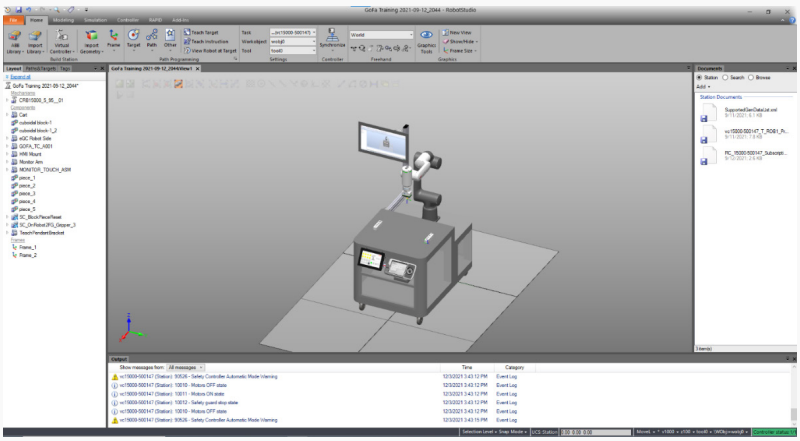
DATA SHEET

Products for Education



RobotStudio is ABB's simulation and offline programming software that allows students to demonstrate an improved understanding of robot programming and operating concepts.

ABB donates 100 Premium RobotStudio licenses with access to all PowerPacs to schools to help drive technology. Schools do not have to own ABB robots to take advantage of this offer, just submit a letter of intent to ABB each year to keep the licenses active.

RobotStudio Benefits

- Easily add 3D geometry by importing CAD data to create an exact replica (digital twin) of the physical training cell
- Whole classes can simultaneously engage with simulated robots instead of waiting to use a robot in-person
- Seamlessly transfer simulated programs onto the physical robot to gain real-world experience
- Program simulations help students see abstract concepts such as robot motion control parameters with clarity
- Reinforces the student's understanding of coordinate systems and helps students better understand the procedures used to create these on robots - students can clearly see the order in which the three coordinate points are selected and how it affects the orientation of the resulting coordinate system
- Debugging tools built into RobotStudio help make abstract concepts such as program logic/flow, variables and counters, while-do loops, and if-then statements visible
- Debugging tools such as signal analyzer allow for easy viewing of timing and handshaking, and simple debugging including joint limits, power consumption, and more
- Robot programming can be taught via virtual labs which maximizes in-class, hands-on instruction
- The RobotStudio virtual FlexPendant allows students and instructors to interact with the virtual FlexPendant using the same menus, screens and procedures used on a real ABB robot
- Instructors can project the virtual FlexPendant for demonstrations and develop customized handout materials with screen captured images

Augmented Reality
ABB's RobotStudio® AR viewer provides a quick and convenient way of visualizing how robotic automation can fit into your lab/classroom using a smartphone or tablet.

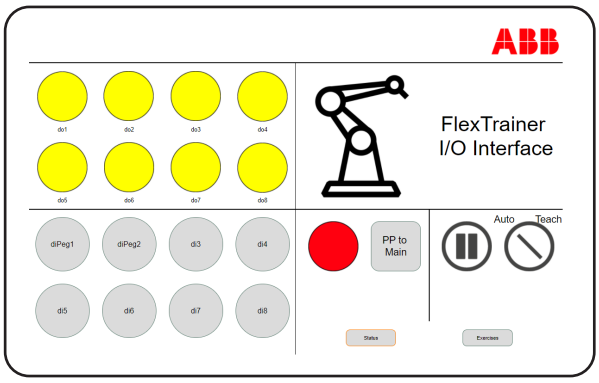
Benefits
- Full interconnectivity between the virtual and real world
- Helps facilitate team projects
- Useful to help show assignment details
- Energizes and excites students who can easily share their robot programming accomplishments with family and friends
- Significant cost savings to mimic real-world robotic environments without having to spend money on industrial equipment and materials
- App is available free of charge on the Apple Store and Google Play Store and viewable on any compatible smart device

Scan the QR code shown to join our academic network:
- Learn more about development and product updates
- Participate in discussions on market trends
- Share projects your school is working on using ABB robots
- And more!

Click here to view the education website:
https://new.abb.com/products/robotics/service/training/abbstemusa

B&R HMI
The B&R HMI is a way to interact with the robot while it is operating.

Benefits
- Allows instructors and students to create interactive screens so the HMI can provide easy human interaction with the robot
- Helps teach systems integration concepts by allowing the students to simulate a work cell-level interface which is often used in a production setting
- All HMI pages are web-based, allowing students to use their computers to view and debug the program running on the hardware
- System interrupts and errors can be safely simulated via the HMI because the HMI is connected to the robot I/O
- Allows users to view robot I/O status
- Allows users to view robot statuses
- The HMI can display curriculum materials, PDFs, and manuals
- The HMI has a built-in controller and has no hard disks, fans, or batteries, which makes it maintenance-free



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