

ABB's Globally Recognized STEM Certification Cobot for Material Handling Skills Pack



The Globally Recognized STEM Certification Program is exclusive to ABB and is offered to qualifying educational institutions.



ABB's Globally Recognized STEM Certification equips and certifies educators to effectively implement, teach, and certify students by using active learning to provide real-world, hands-on examples and interactive labs to boost engagement and student success. Our comprehensive course curriculum supports educators in teaching robotics STEM education.

Program Benefits

- Students can present this certificate at future workplaces globally, which means that it is valid even when they relocate for work
- Provides a strong foundation in STEM
- Obtain IACET recognized robot training from ABB's certified instructors
- ABB donates 100 Premium RobotStudio licenses with access to all PowerPacs to schools to help drive technology

Cobot for Material Handling Teacher Certification Requirements

1. Programming 1 - complete ABB course, or test out of the course with a score of 80% or better on the globally recognized STEM certification online exam (step 3).
2. RobotStudio 1 – complete ABB course, or test out of the course with a score of 80% or better on the globally recognized STEM certification online exam (step 3).
3. Successfully pass with an 80% or better the globally recognized STEM certification online exam.

All certificates are issued directly from STEM.org.

Student Certification Requirements

Note: Teacher must complete the teacher certification process from ABB above in order for student to be eligible to become certified.

1. Successfully attend and complete the ABB Core Course materials taught at their school by the certified teacher
2. Successfully pass with an 80% or better the final certification exam

Course Materials Include

- 12 lessons for basic and advanced learners
- 56 hrs of content
- Teacher and student manual
- Teacher guide/lesson plan
- Student test after each lesson
- Over 400 test question bank so the teacher can build their own test
- Interactive online training
- Engaging videos
- Lab exercises to complete on the education cell
- Lab exercises to complete in RobotStudio, the lab exercise files are already prepared and developed in RobotStudio
- Virtual twin of the education cell with simulation available to use in augmented reality system and RobotStudio
- Robot has pre-programmed demo

Course Lessons

1. Introduction to Robotics, Safety, and RobotStudio
2. Jogging
3. Wizard Easy Programming and End of Arm Tooling
4. Material Handling, I/O, and Program Structure
5. WorkObjects, Operator Communication and Program Logic
6. RobotStudio AutoPath and Material Handling
7. Programming in RAPID
8. 3D Printing PowerPac
9. Skill Creator
10. Integrated Vision
11. Visual SafeMove
12. B&R HMI Programming and Use

Students will learn how to:

- Create a program that simulates a machine tending work cell
- Import and run RobotStudio simulations with VisualSafeMove on the Augmented Reality AR Viewer Mobile app
- Coordinate between the virtual RobotStudio station and the real robot
- Program various ways with the GoFa cobot - using wizard easy programming, RAPID programming, and lead through programming
- Install and setup Integrated Vision, calibrate a camera system, create a new vision job, determine the presence of an object, read a label/code, inspect a part, and send data from the vision tool(s) to RAPID
- Use the RobotStudio 3D Printing PowerPac to simulate 3D printing with an ABB robot and more!



Scan the QR code to view our education website.

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