

# **AUTOMATION STUDIO™** Educational Edition

**The All-in-One Tool of Choice for Automation,  
Electrical and Fluid Power Teaching and Training**

**Your Mechatronics Platform**

Quick Overview Brochure



**Download the  
full brochure**

  
**Famic Technologies Inc.**

# General Overview

*All-in-One Software Solution for Teaching Future Technicians and Engineers*



- ✓ High School
- ✓ Technical Training Centers
- ✓ Community Colleges
- ✓ Universities
- ✓ Workforce
- ✓ Corporate Training Centers

Remote Access Available



Enable teachers and students to use the software from school and from home for e-Learning. They can now do homework and perform simulations wherever they are!

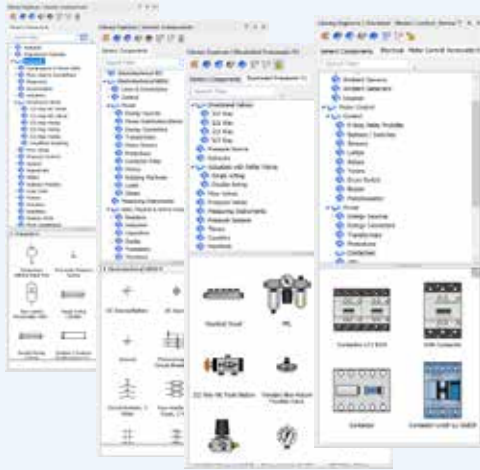
If you teach subjects related to hydraulics, pneumatics, PLCs, electrical and control technologies, the illustration of concepts and the behaviour of systems are no doubt at the heart of your requirements.

Since 1986, Automation Studio™ has proven its strength in technical and engineering educational institutions worldwide by helping students better understand the behaviour and interaction of technologies with an intuitive visual learning approach before moving on to the hands-on trainers.

Automation Studio™ fits multiple programs, such as:

<p>Mechatronics</p> <p>✓</p>	<p>Industrial Maintenance</p> <p>✓</p>
<p>Electrical</p> <p>✓</p>	<p>Renewable Energy</p> <p>✓</p>
<p>HVAC</p> <p>✓</p>	<p>Marine Technology</p> <p>✓</p>
<p>Aircraft Maintenance</p> <p>✓</p>	<p>Agriculture and Heavy Duty Mechanics</p> <p>✓</p>
<p>Automotive</p> <p>✓</p>	<p>Mechanical Engineering Technology</p> <p>✓</p>

## Create



- Libraries of thousands of ISO, cut-away and illustrated components to choose from.
- Easily drag and drop components on the schematics to create circuits or digital twin of your hardware equipment.
- Create custom libraries that fit your needs.
- Ready-to-use components from more than 40 renowned manufacturers .
- Create videos in MP4 format to show how to build and simulate circuits.
- Print your circuit on any paper formats.

## Simulate



- Change properties on components to simulate different scenarios.
- Arrows, colours and animated lines indicating flow direction are available in editing and simulation modes.
- During simulation, pressure, flow, voltage, current and more can be displayed.
- Simulation modes: Normal, slow motion, step by step and paused.
- Control premade 2D/3D virtual systems.

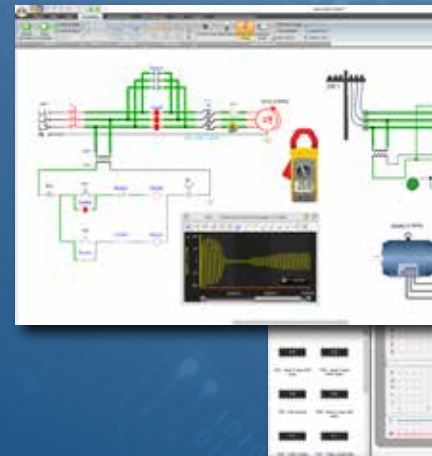
## Troubleshoot



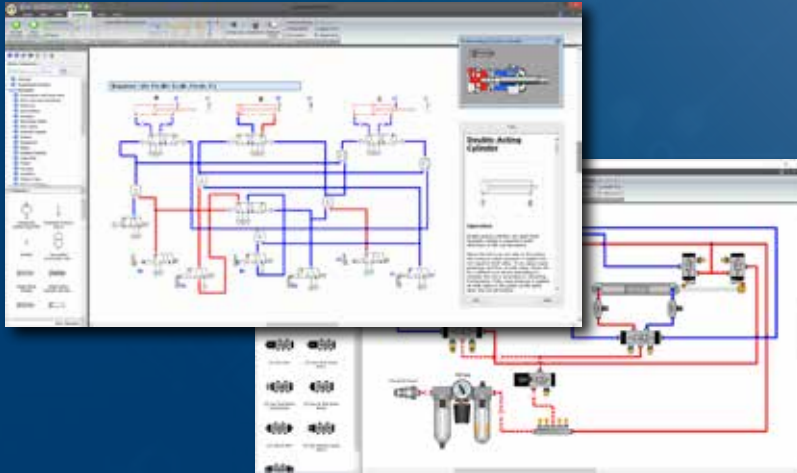
- Create or activate pre-defined failures to develop troubleshooting skills on electrical, PLC, hydraulic and pneumatic circuits.
- Realistic measuring instruments, such as: multimeter, clamp-meter, oscilloscope, hydraulic tester, thermometer and more.
- Use illustrated libraries or virtual trainers to troubleshoot on realistic components.
- Create profiles with limited access to enhance troubleshooting experience.
- Multiple faults can be triggered on a circuit.



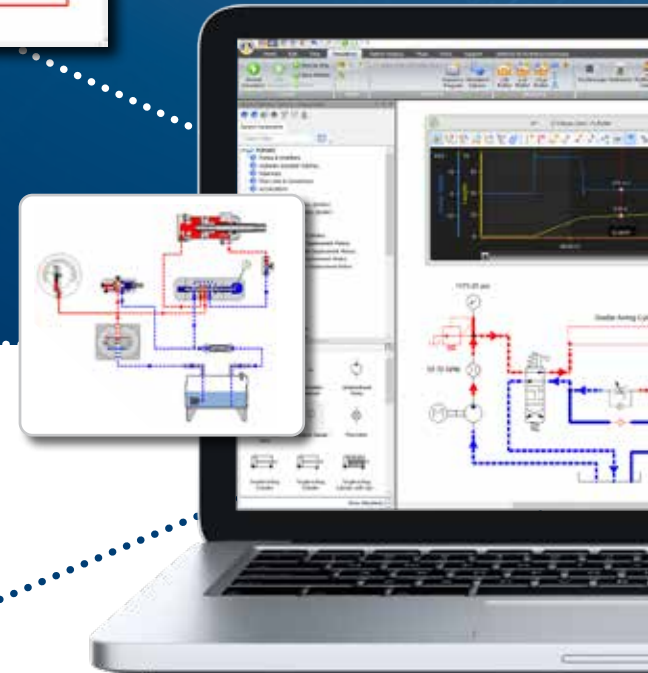
**> Electrical AC/DC and Motor Controls**



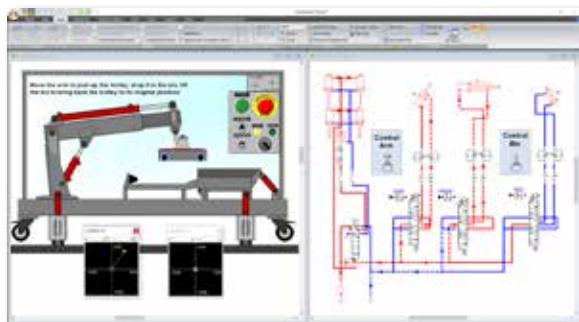
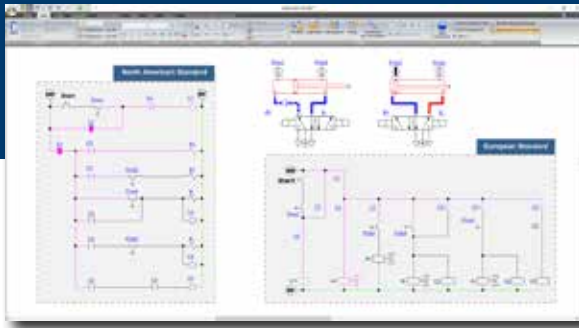
**> Pneumatics**



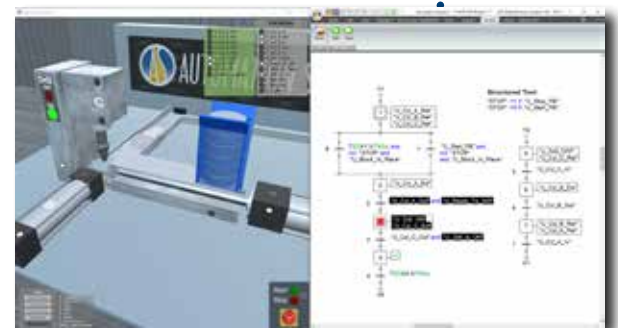
**> Hydraulics**



**> Electrical Controls**



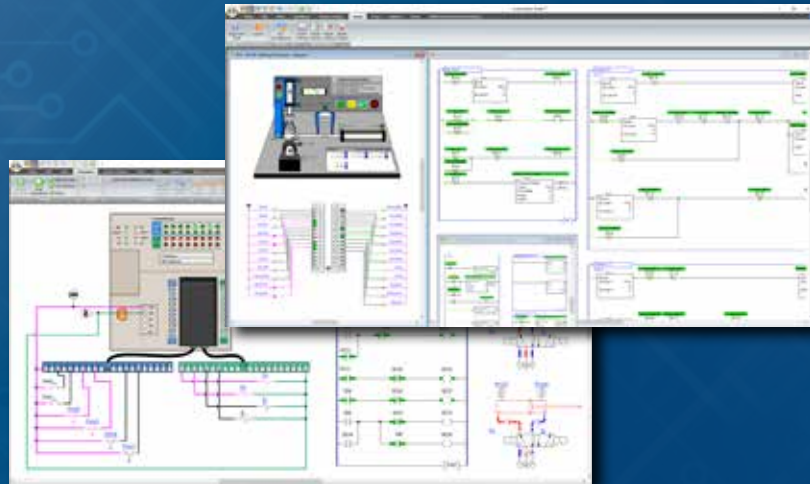
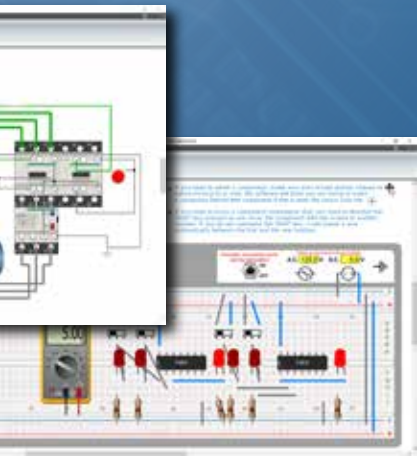
**> HMI 2D/3D Control Panels**



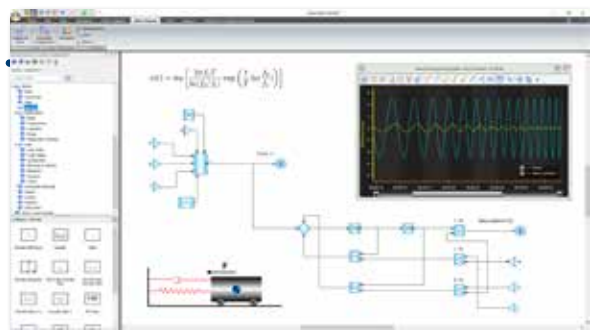
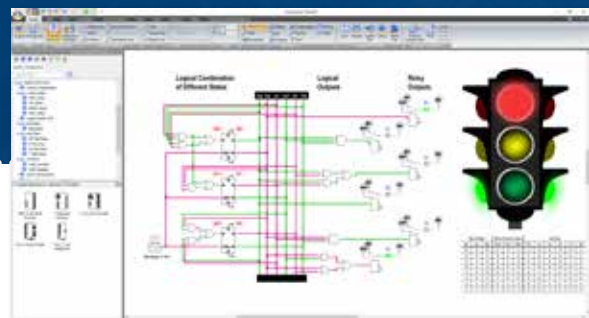
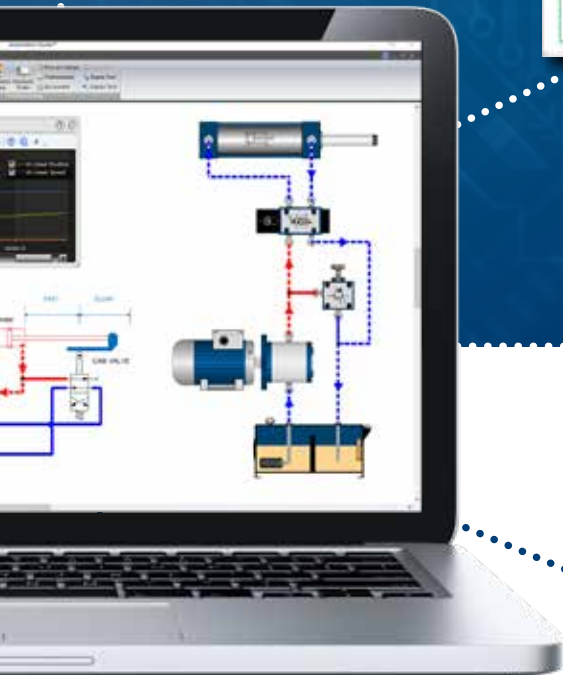
**> Sequential Function Chart (SFC) / GRAFCET, Structured Text**

# Teaching and Learning Software Solution from Basic Concepts to Multi-Technology Systems

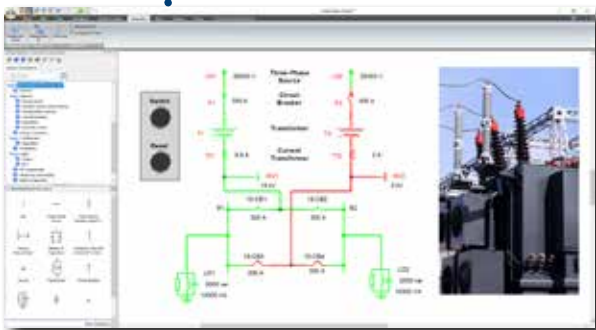
## ➤ Programmable Logic Controllers (PLC)



## ➤ Digital Electronics

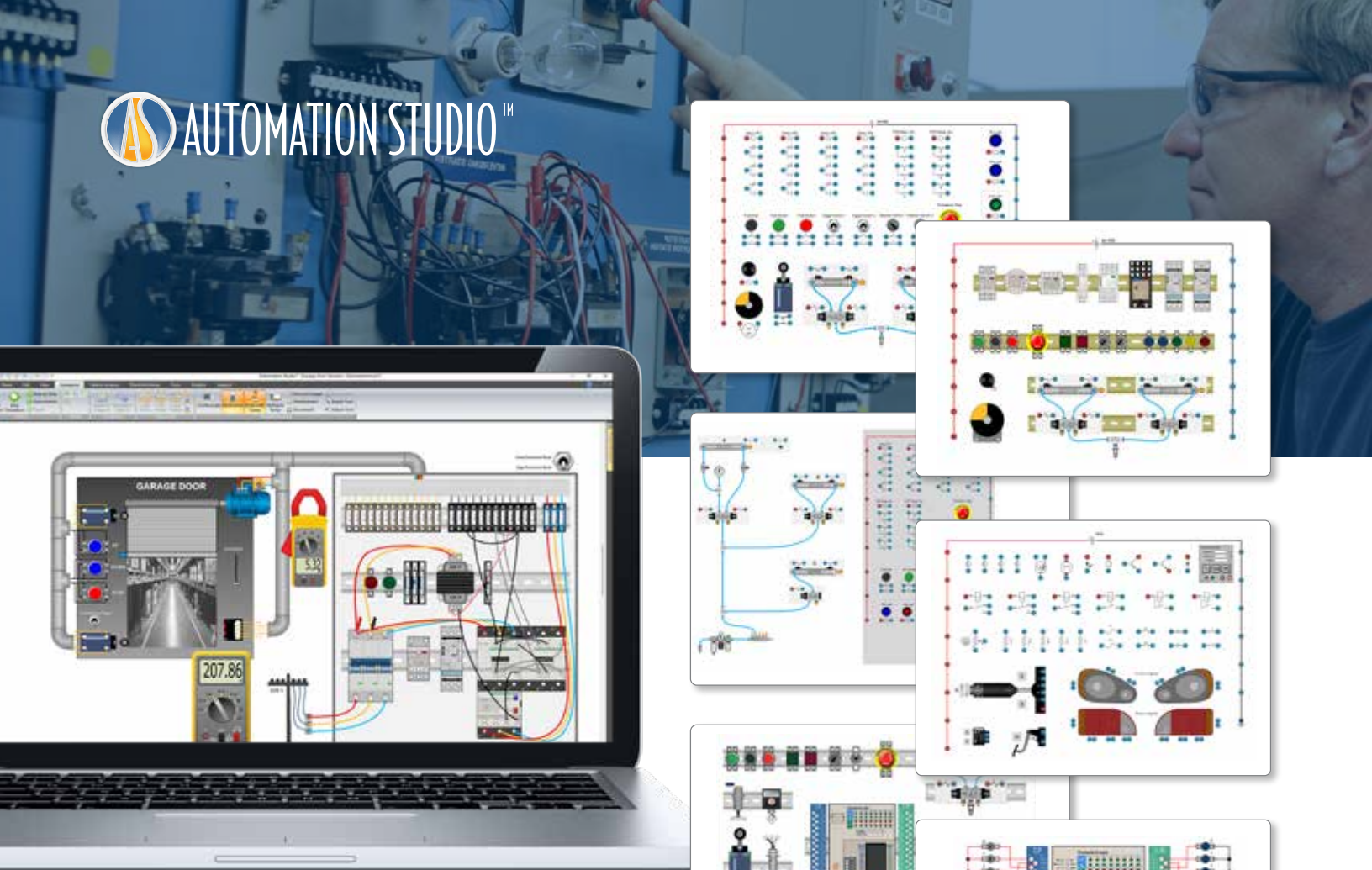


## ➤ Block Diagram-Math



## ➤ Electrical One-Line



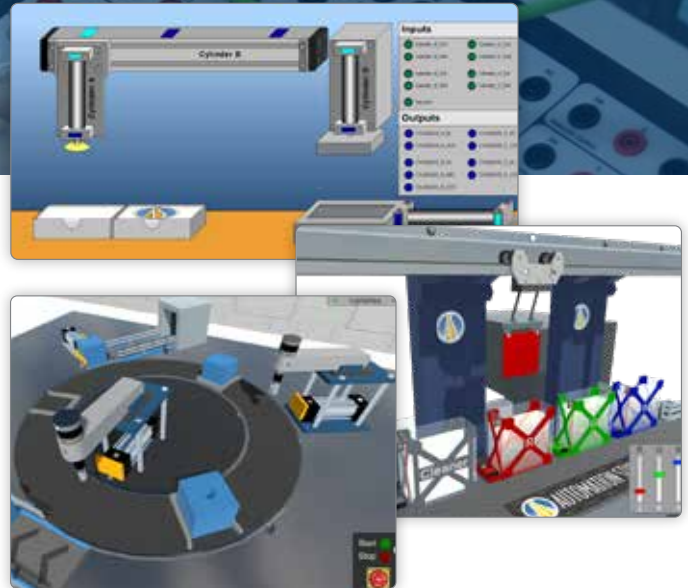


## Premade Virtual Trainers, Ready to be Connected!

Select from over 40 premade virtual trainers and rapidly start making connections. These virtual trainers can also be modified to create digital twins of your hardware trainers using the illustrated libraries. This will strengthen students' wiring and troubleshooting skills. Flexible links will automatically be activated for these virtual trainers. They will offer banana cable appearance or a regular wire appearance, depending on the selected template.



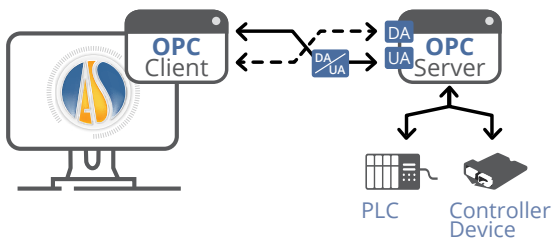
Many more virtual trainers are available! Visit our website. [www.famictech.com/edu](http://www.famictech.com/edu)



## 2D and 3D Virtual Systems

Using the Electrical and PLC Libraries as well as the SFC module, students simply link sensors, switches, lights, conveyors, etc., in order to control the pre-made Virtual Systems according to the teacher's instructions, such as traffic lights, garage doors, conveyors and more. 3D Virtual Systems are created using Unity 3D.

### Easy To Use Linking Interface

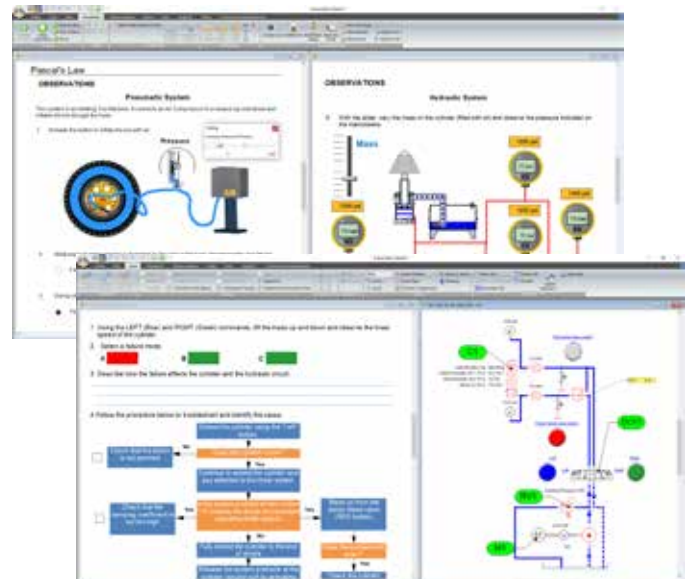


## Connectivity with Real Devices

Being an OPC Client, Automation Studio™ can exchange inputs and outputs with real PLCs, Arduino, Raspberry Pi or any device that has an OPC Server.

## Teachware and Lab Exercises for an Interactive Experience for Students

Interactive lab exercises are available for different technologies to test students' comprehension. These exercises include simple schematics that can be simulated with questions to be answered. Automation Studio™ offers guides, lectures, animations and lab notes for all levels of discipline.





## Libraries and Modules

- Electrical AC/DC, Motor Controls
- Hydraulics (ON/OFF and Proportional)
- Pneumatics (ON/OFF and Proportional)
- Electrical Controls
- PLC Ladder Logic, Allen Bradley™, Siemens™, Mitsubishi, LS Electric™, IEC 61131
- Sequential Function Chart (SFC) / GRAFCET, Structured Text
- Digital Electronics
- Electrotechnical One-Line
- HMI and Control Panels
- 2D and 3D Virtual Systems
- Block Diagram-Math
- Fluid Power Component Sizing
- Electrical Component Sizing
- Troubleshooting and Diagnostics
- Mechanical Links
- CAN bus Connectivity
- Bill of Materials and Reports
- OPC Client, OPC Server
- SFC Export to Siemens and XML Format (Automation Studio™ PLC)
- API/Script Language
- Workflow Manager

## Industry 4.0 at Your Fingertips

Introduce your students to Industry 4.0 workflow simply and efficiently with Andon Studio™.

The software lets you monitor productivity in real time, optimize operations and manage processes.



## Free Online Demonstration

See Automation Studio™ and Andon Studio™ in action!

[www.famictech.com/Online-Demo](http://www.famictech.com/Online-Demo)



**Famic Technologies Inc.**

[www.famictech.com/Edu](http://www.famictech.com/Edu)

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