

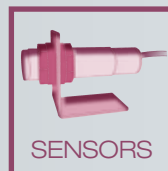
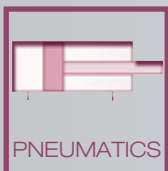
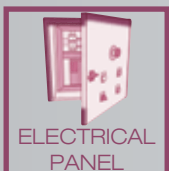
CPS-200

Cards Printing System

Smart cards printing automated production system



In the following TECHNOLOGIES...

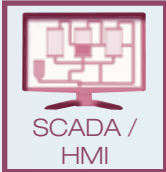
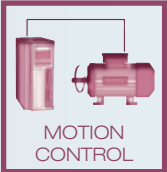
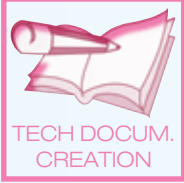


Develop the SKILLS...

Learn by making intelligent personalised cards!



Includes RFID technology and colour printer

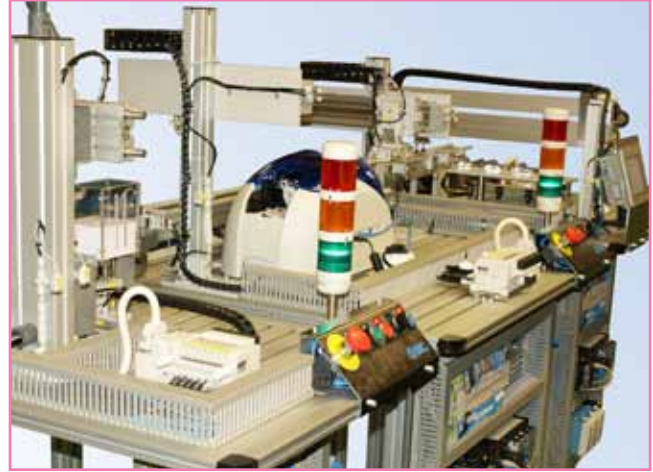




■ CPS-200 - Cards Printing System

This automated production system uses the context of printing smart cards for learning, it is composed of 3 stations. Smart cards are widely used for access control and identification.

With this equipment is possible to have fun learning how to operate, programme and maintain a complete automated production system. It includes RFID read/write technology to inspect and customise smart cards. Furthermore it includes an HMI (Human Machine Interface) for controlling the process.



The resulting product can be used by the user as an identification card.

CPS-200 is made up of three stations, each carrying out part of the process.



● CPS-201: Card dispenser

The first station is in charge of supplying the system with blank cards from a vertical feeder and it checks that the card is empty.

● CPS-202: Card printer

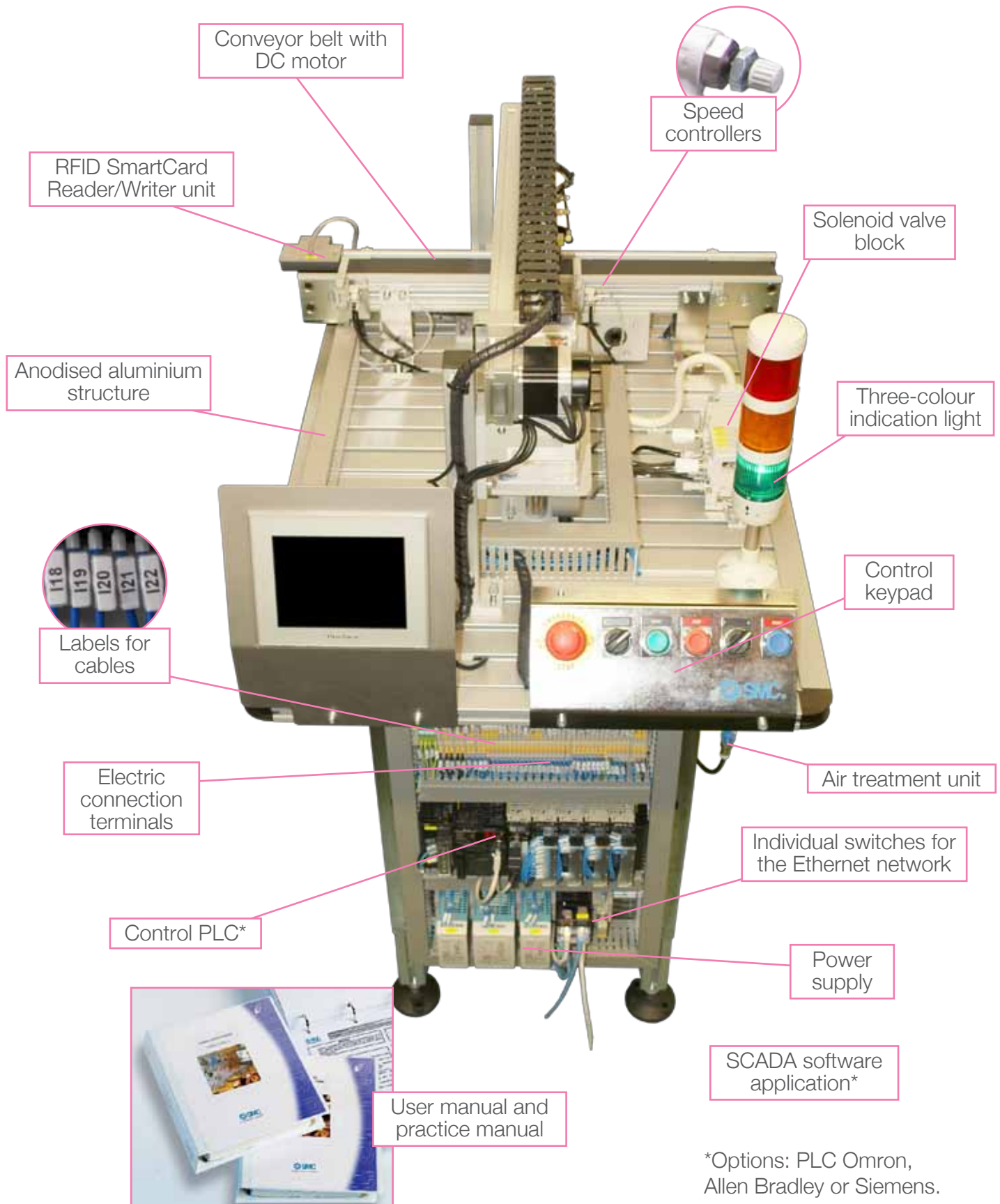
The second station prints out the cards which arrive from the first station and returns them to the conveyor belt once printed.



● CPS-203: Card classification/storage

The third and last station stores the printed cards in 4 different positions depending on predefined criteria.

■ Common element in all stations



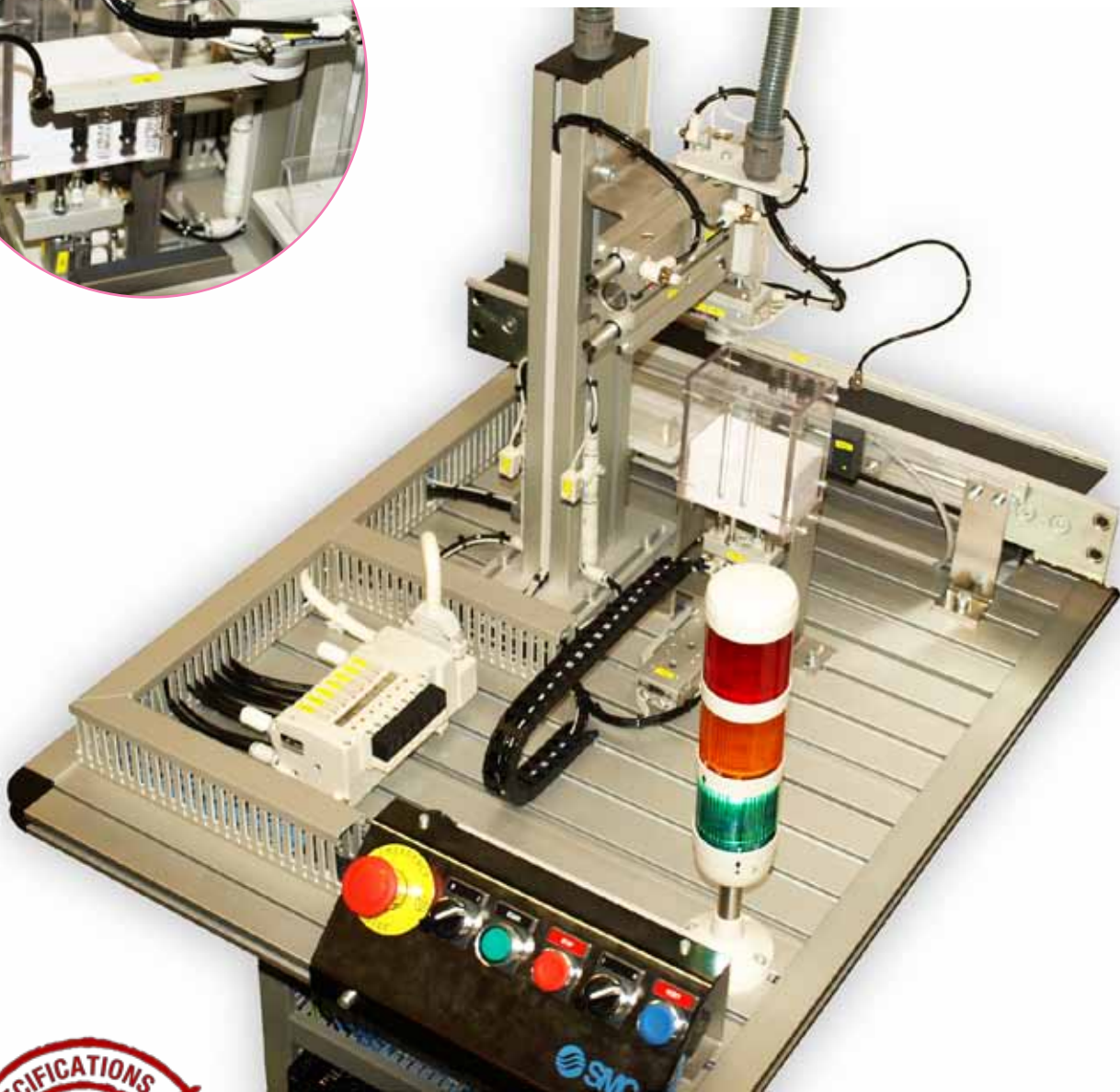
*Options: PLC Omron, Allen Bradley or Siemens.



■ CPS-201 - Card dispenser

The first station supplies the system with blank cards from a vertical feeder. The system reads the card to check that it is empty and places it on the conveyor belt. If the card is not empty, it is rejected.

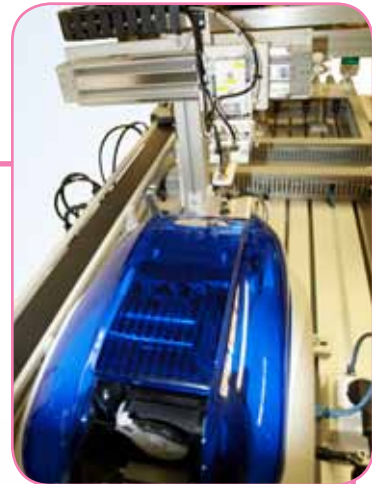
The raw material to be used is a SmartCard® with an integrated RF chip.



- | | |
|-------------|---|
| • SAI7021.1 | CPS-201 Card feeding station with Allen Bradley PLC |
| • SAI7121 | CPS-201 Card feeding station with Omron PLC |
| • SAI7221 | CPS-201 Card feeding station with Siemens PLC |

■ CPS-202 - Card printer

The card supplied by the first station arrives at the second station using the conveyor belt where the SmartCard® is printed on both sides and in full colour. Once the card has been printed, the handling system returns it to the conveyor belt.



- SAI7022 CPS-202 Card printing station with Allen Bradley PLC
- SAI7122 CPS-202 Card printing station with Omron PLC
- SAI7222 CPS-202 Card printing station with Siemens PLC





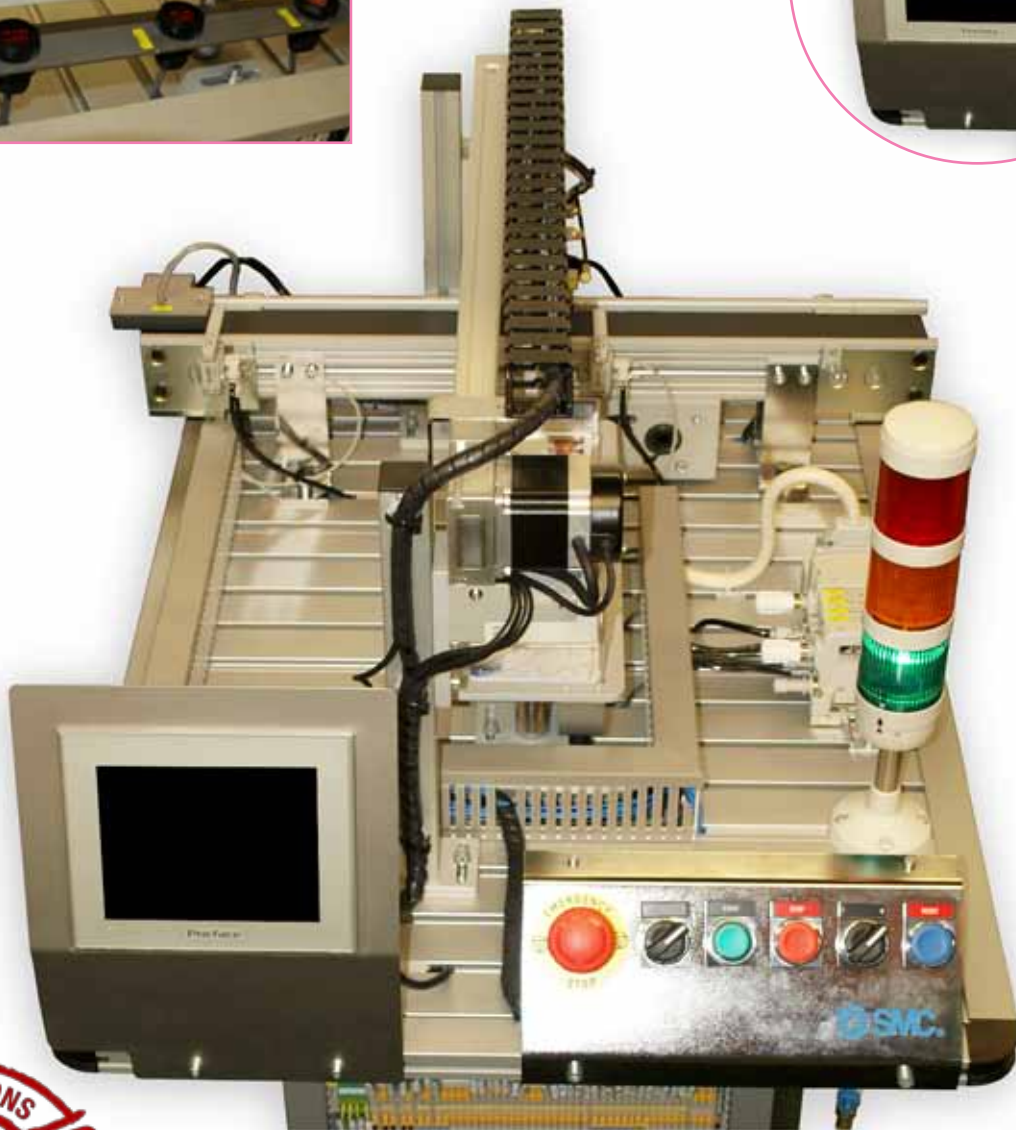
■ CPS-203 - Card classification/storage

Travelling along the conveyor belt, the printed card comes to the third and final station. The printed cards are stored here in 4 different positions depending on different criteria.

It has an HMI screen that offers information on the status of the different storage positions and helps to control the positions in which the cards are sorted.



HMI operator terminal



- | | |
|-----------|--|
| • SAI7023 | CPS-203 Card classification station with Allen Bradley PLC |
| • SAI7123 | CPS-203 Card classification station with Omron PLC |
| • SAI7223 | CPS-203 Card classification station with Siemens PLC |

■ CPS-200 - Options

CPS -200 has a series of optional extras.

• Programming tools

The programming tools comprise the appropriate programming software, the industrial system communication programming software and cables for the chosen PLC.

**See Programming Tools chapter*

■ CPS-200 - Configuration

Getting the right CPS-200 specification is as easy as:

• Steps to follow

- 1.- Choose the PLC.
- 2.- Select the required stations.
- 3.- Add any optional extras.



• Considerations

- Any station can operate independently and be purchased separately.
- In order to work with the full system, you will need the CPS-202 station.

















■ CPS-200 - Technical features

CPS-201 600x762x1250mm	Modules	Sensors (type & quantity)	Input / Output
	Smart Cards feeding module Card insertion / reject handling device	Auto switch, Reed type (x10) Vacuum pressure switch (x2)	Digital 18/11
	Other devices (quantity)	Actuators (type & quantity)	
	Vacuum pad(x5)-Vacuum ejector(x2) RFID serial device (x1) Belt motor starter relay (x1) Reject container (x1)	Pneumatic linear (x4) Pneumatic rotary actuator (x1) DC motor (x1)	
CPS-202 962x762x1400mm	Modules	Sensors (type & quantity)	Input / Output
	Card feeding handling Card movement manipulator Card printing module	Auto switch, Reed type (x12) Reflex photocell (x1) Vacuum pressure switch (x2)	Digital 21/16
	Other devices (quantity)	Actuators (type & quantity)	
	Vacuum pad(x4)-Vacuum ejector(x2) RFID serial device (x1) Belt motor starter relay (x1) Double-sided colour card printer	Pneumatic linear (x8) DC motor (x1)	
CPS-203 962x762x1400mm	Modules	Sensors (type & quantity)	Input / Output
	Warehouse module	Auto switch, Reed type (x4) Proximity photocell (x4) Vacuum pressure switch (x1)	Digital 20/12
	Other devices (quantity)	Actuators (type & quantity)	
	Vacuum pad(x2)-Vacuum ejector(x1) HMI operator terminal (x1) RFID serial device (x1) SMC e-Actuator driver (x1) Belt motor starter relay (x1) Card container (x4)	Pneumatic linear (x3) Step-step motor electrical axis (x1) DC motor (x1)	



■ CPS-200 - With this system you could...

CPS-200 comes up with different practical activities targeting skills in the technologies featuring in the table (below).

		TECHNOLOGIES							
		 ELECTRICAL PANEL	 PNEUMATICS	 VACUUM	 ELECTRIC MOTORS	 SENSORS	 IDENTIFICATION SYSTEMS	 PROGRAMM. CONTROLLERS	 MANIPULATORS
SKILLS	 ANALYSIS	■	■	■	■	■	■	■	■
	 TROUBLESHOOT.	■	■	■	■	■	■	■	■
	 DESIGNING	■	■	■	■	■	■	■	■
	 TECH DOCUM. CREATION	■	■	■	■	■	■	■	■
	 TECH DOCUM. UNDERSTANDING	■	■	■	■	■	■	■	■
	 OPERATION	■	■	■	■	■	■	■	■
	 PROGRAMMING	■	■	■	■	■	■	■	■
	 SETTING UP	■	■	■	■	■	■	■	■

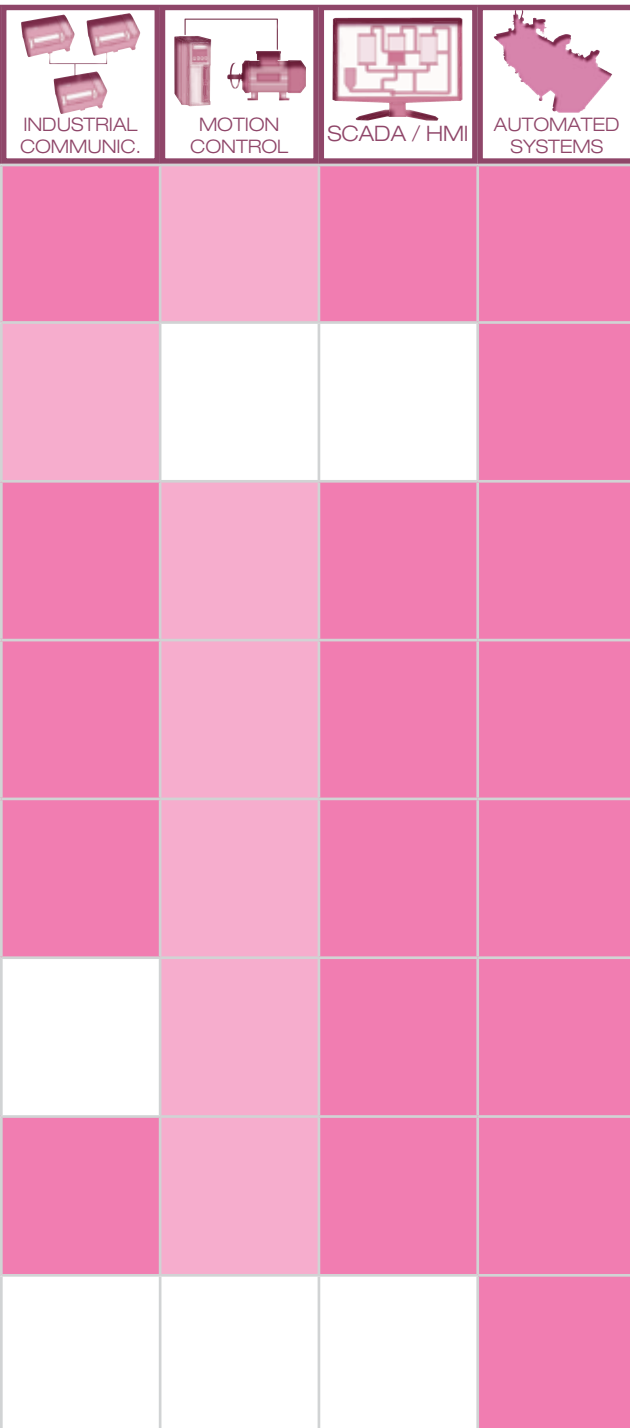
■ This shows how the CPS-200 is suitable to develop skills in the specific technology.

■ This shows that CPS-200 can help develop skills in the specific technology even though there are other more appropriate products in the range.



eLEARNING-200

Find out more about the theory behind the technologies developed in CPS-200 with our eLEARNING-200 courses.



RELATED eLEARNING-200 COURSES

- Introduction to industrial automation (SMC-100)
- Principles of pneumatics (SMC-101)
- Introduction to electricity (SMC-102)
- DC electricity (SMC-103)
- Solid state (SMC-105)
- Sensors technology (SMC-108)
- Programmable controllers (SMC-109)
- Motion control (SMC-112)
- Industrial communications (SMC-114)
- Supervision and control systems (SMC-115)

**See eLEARNING-200 chapter for more information*

