

AUTOMATED PRODUCTION LINE

PIECE IDENTIFICATION, THICKNESS MEASUREMENT AND UNLOAD

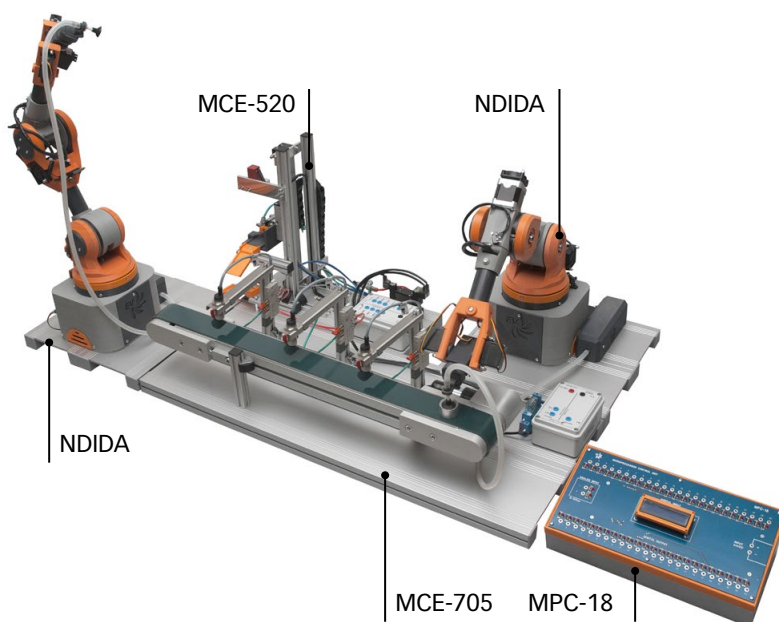
Mod. MCE-E1/EV

The **MCE-E1/EV** line includes several MCE mechatronic modules that simulates an industrial automated process. Piece identification and thickness measurement are managed and supported by two robot arms.

The educational objective is to broaden the student's knowledge in programming and testing an industrial manufacturing line.

The **MCE-E1/EV** system is composed by the following elements:

- Modules
 - N. 1 MCE-520/EV - Piece thickness measurement module
 - N. 1 MCE-705/EV - Conveyor and multiple selection module
 - N. 2 NDIDA/EV - Robot arm
- Accessories
 - N. 1 ATZ/EV - Box of tools and workpieces



WORKING CYCLE

The working cycle can be described as follows:

1. Robot arm no. 1 picks and handles the piece
2. The piece is laid on the conveyor belt
3. The conveyor belt starts rolling and the piece is identified by inductive and optical sensors
4. Robot arm no. 2 picks and handles the piece
5. The thickness of the piece is measured

SYSTEM FEATURES AND MANAGEMENT

For system operation **a microprocessor module (not included) is essential** to manage the resources described below:

Recommended control modules (not included):

- No. 1 Arduino training panel mod. **MPC-18/EV** with programming and simulation software included (IDE format) or
- No. 1 PLC training panel mod. **PLC-V8/EV**

Connection to the other modules is carried out via 2 mm sockets.

Tot size: 1200 x 1000 x 900 mm (approx)

Tot weight: 20 kg

System units		I/O needed			
Q.ty	Mod.	D.I.	D.O.	A.I.	A.O.
1	MCE-520	4	4	1	-
1	MCE-705	4	3	-	-
2	NDIDA	2	2	-	-
TOT System		10 D.I.	9 D.O.	1 A.I.	-

OPTIONAL

- **SILENCED COMPRESSOR** Mod. 3409A
- **WORKING TABLE** Mod. TOP/EV
- **ROBOT ARM GRIPPER** Mod. GRIP/EV

SUPPLIED WITH

THEORETICAL-EXPERIMENTAL HANDBOOK
For each mechatronic module

