

AUTOMATED PRODUCTION LINE

PIECE DRILLING AND WEIGHING

Mod. MCE-D1/EV

The **MCE-D1/EV** line includes several MCE mechatronic modules that simulates an industrial automated process. Piece drilling and weighing 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-D1/EV** system is composed by the following elements:

- Modules
 - N. 1 MCE-500/EV - Piece identification and distribution module
 - N. 1 MCE-600/EV - Drilling station module
 - N. 1 MCE-700/EV - Conveyor module
 - N. 1 MCE-730/EV - Weighing module
 - N. 2 NDIDA/EV - Robot arm
- Accessories
 - N. 1 ATZ/EV - Box of tools and workpieces

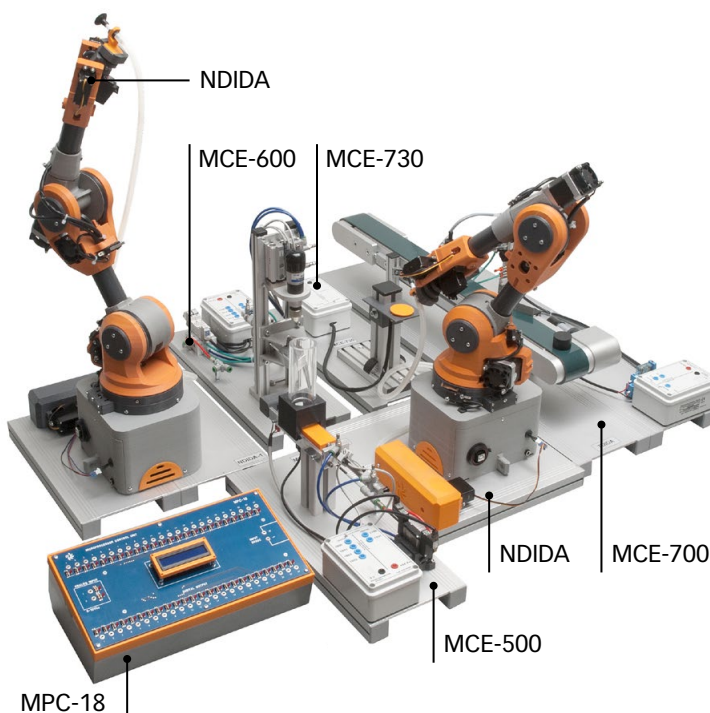
WORKING CYCLE

The working cycle can be described as follows:

1. The piece is expulsed from the distributor
2. Robot arm no. 1 picks and handles the piece
3. The piece is drilled
4. Robot arm no. 2 picks and handles the drilled piece
5. The piece is weighed
6. The piece is picked and handled again by robot no. 2 and laid on the conveyor belt

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: 2000 x 1000 x 900 mm (approx)

Tot weight: 23 kg

System units		I/O needed			
Q.ty	Mod.	D.I.	D.O.	A.I.	A.O.
1	MCE-500	6	2	-	-
1	MCE-600	4	4	-	-
1	MCE-700	1	2	-	-
1	MCE-730	-	-	1	-
2	NDIDA	2	2	-	-
TOT System		13 D.I.	10 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

