

AUTOMATED PRODUCTION LINE

PIECE WEIGHING AND SELECTION

Mod. MCE-F1/EV

The **MCE-F1/EV** line includes several MCE mechatronic modules that simulates an industrial automated process. Piece weighing and selection are managed and supported by a pick & place module.

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

The **MCE-F1/EV** system is composed by the following elements:

- Modules
 - N. 2 MCE-700/EV - Conveyor module
 - N. 1 MCE-710/EV - Pick & place module
 - N. 1 MCE-720/EV - Test and selection module
 - N. 1 MCE-730/EV - Weighing module
 - N. 1 MCE-740/EV - Prismatic pieces feeding module
- Accessories
 - N. 1 ATZ/EV - Box of tools and workpieces

WORKING CYCLE

The working cycle can be described as follows:

1. The piece is ejected from the storage module to the conveyor no. 1
2. The pick&place module picks and handles the piece
3. The piece is weighed

If the piece complies with the preset weight, the working cycle continues as follows:

4. The piece is taken from the weighing module and put on conveyor no. 2
5. Pieces are then classified and stored by the test and selection module according to the kind of material

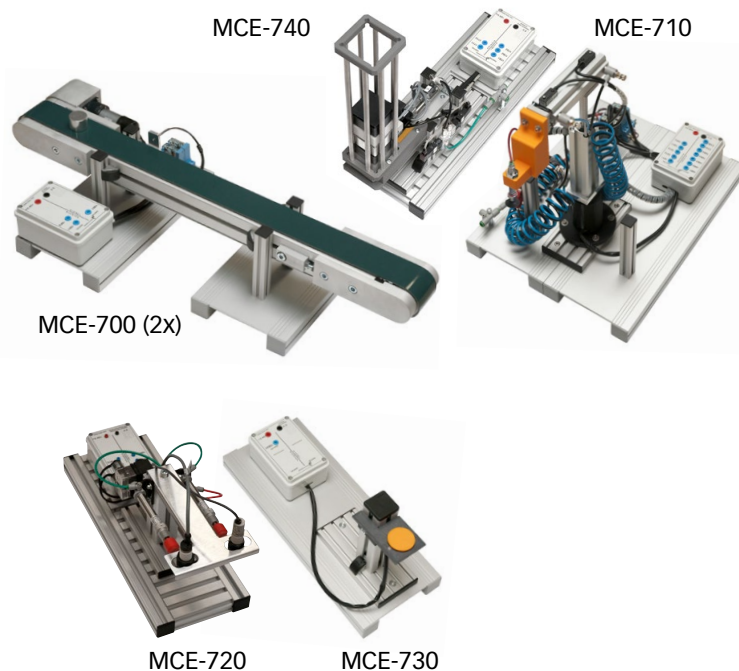
If the piece does not comply with the preset weight, the working cycle follows in this way:

6. The piece is taken from the weighing module and put on conveyor no. 1 for the storage

SYSTEM FEATURES AND MANAGEMENT

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

System units		I/O needed			
Q.ty	Mod.	D.I.	D.O.	A.I.	A.O.
2	MCE-700	2	4	-	-
1	MCE-710	7	5	-	-
1	MCE-720	2	2	-	-
1	MCE-730	-	-	1	-
1	MCE-740	3	2	-	-
TOT System		14 D.I.	13 D.O.	1 A.I.	-



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** with no. 1 I/O Expansion module mod. **V8-1/EV**, or
- No. 2 PLC training panels 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: 20 kg

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

