Teaching materials
Deliverable 1. Platform operation

MISCE project

Mechatronics for Improving and Standardizing Competences in Engineering

Competence: Automation Technology

Workgroup: University of Cagliari

University of Cassino and Southern Lazio

This document corresponds to the first deliverable for the competence "Automation Technology" using the 'Test-Bed_n.6'

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Visit https://misceproject.eu/ for more information.

Index of contents

1 How to start

In order to connect the PC with the PLC (for the first time), please select the correct procedure:

a)	b)	c)
1. click on "Accessible devices", 2. click "Download to Device 3. Click "Start CPU"	1. click on "Accessible devices", 2. click "Download to Device 3. Click "Start CPU"	1. click on "Accessible devices", 2. click "Download to Device 3. Click "Start CPU"

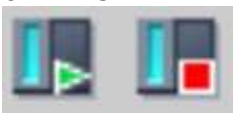Figure 1. Procedure to start the first time the PLC.

Please write here the correct answer: (a, b, c): _____

If the PC has been connected previously to the PLC, the procedure will be the same?

☐ Yes

☐ No

In both case, can you explain your answer?

2 Sub-System identification-1

In order to identify the specific sub-systems, please indicate the valves system :

| a) | b) | c) |

Figure 2. Sub System 1.

Please write here the correct answer: (a, b, c): _____

If we remove this sub-system, the PLC, will work in the same way?

☐ Yes

☐ No

☐ Not possible to answer

In all cases, can you explain your answer?

3 Sub-System identification-2

In order to identify the specific sub-systems, please indicate the PLC system :
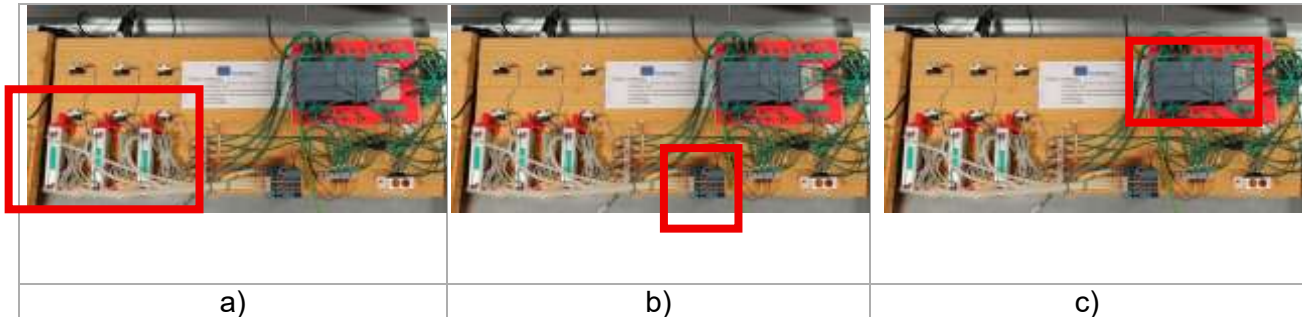

| a) | b) | c) |

Figure 2. Sub System 2.

Please write here the correct answer: (a, b, c): _____

If we remove this sub-system, the PLC, will work in the same way?

☐ Yes

☐ No

☐ Not possible to answer

In all cases, can you explain your answer?

4 Sub-System identification-3

In order to identify the specific sub-systems, please indicate the pneumatic cylinder :
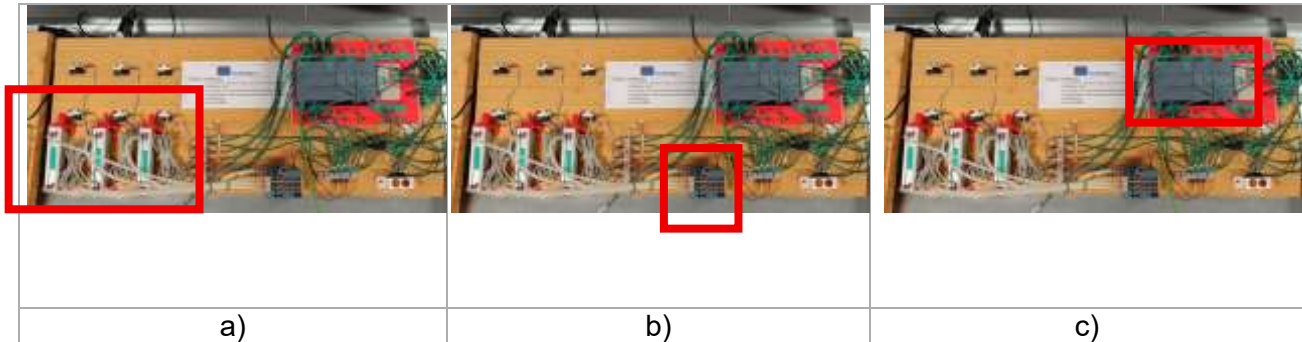

| a) | b) | c) |

Figure 2. Sub System 3.

Please write here the correct answer: (a, b, c): _____

If we remove this sub-system, the PLC, will work in the same way?

☐ Yes

☐ No

☐ Not possible to answer

In all cases, can you explain your answer?

5 Sub-System identification-4

In order to identify the specific sub-systems, please indicate the general scheme of the connections:

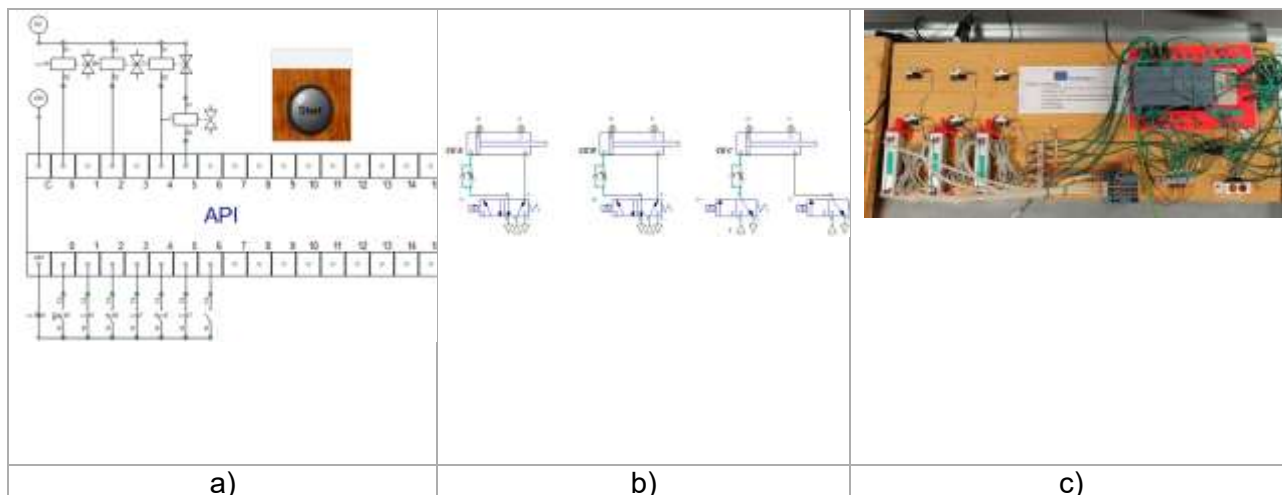| a)	b)	c)

Figure 2. Sub System 4 .

Please write here the correct answer: (a, b, c): _____

If we remove this sub-system, the PLC, will work in the same way?

☐ Yes

☐ No

☐ Not possible to answer

In all cases, can you explain your answer?

6 Start the System from virtual HMI

In order to run from "Virtual HMI" the automatic system, please select the correct button to press:
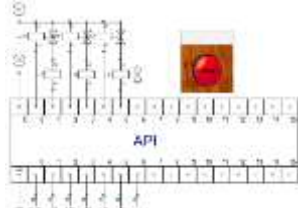
• Click on "Start from HMI".	• Click on "Start from HMI".	• Click on "Start ".
a)	b)	c)

Figure 4. Start from virtual HMI.

Please write here the correct answer: (a, b, c): _____