

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



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Mechatronics for Improving and Standardizing Competences in Engineering, MISCE
Competence: Automation Technology
Document: Deliverable 1. Platform operation

This document corresponds to the first deliverable for the competence “Automation Technology”
using the ‘Test-Bed_n.4’

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



Index of contents

1	Connection	2
2	Start the System from Web Server	3
3	How to start.....	4
4	Start the System from HMI	5
5	Start the System from Virtual HMI	6
6	Changing of the parameters - selection of cycle	7



1 Connection

In order to identify the systems, please select the correct “general overview” of the connections:

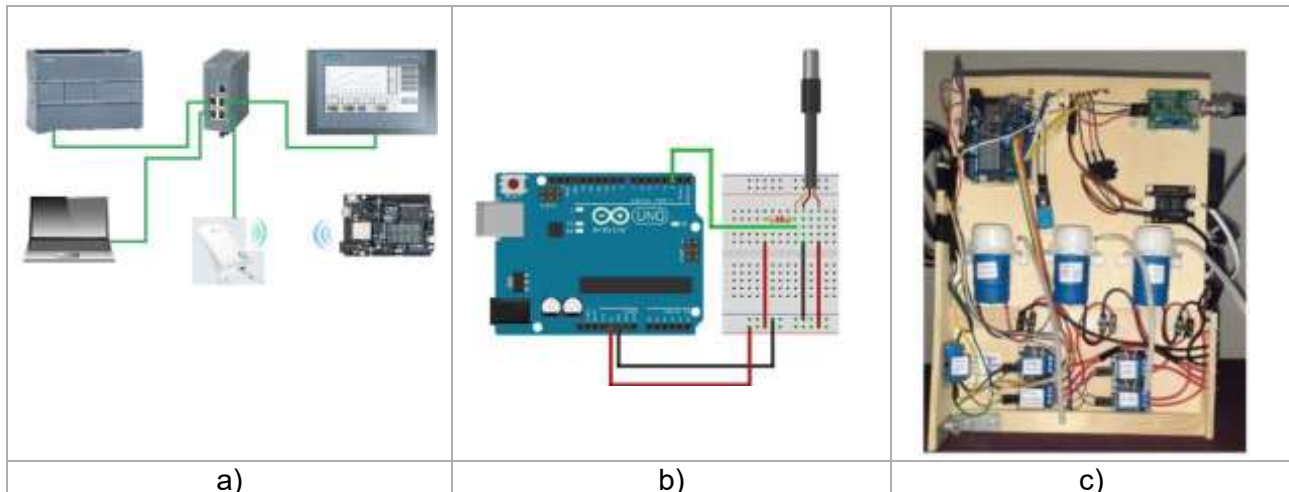


Figure 2. General Scheme of the Connection's .

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 Start the System from Web Server

In order to run “from web server” the automatic system, please select the correct button to press:



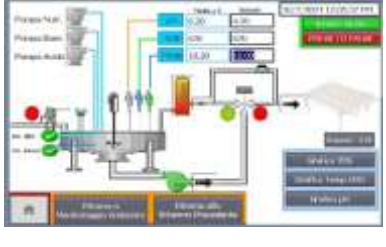
<ul style="list-style-type: none"> Click on “Start from HMI”. 	<ul style="list-style-type: none"> Click on “Start from HMI”. 	<ul style="list-style-type: none"> Click on “Start from HMI”. 
a)	b)	c)

Figure 3. Start from Web Server.

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

If we push all button in all subsystem (a, b and c), the behaviour of the system will be the same?

☐ Yes

☐ No

☐ Not possible to answer

Please, can you justify your answer?



3 How to start

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






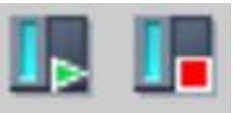



<p>1. click on “Accessible devices”,</p>  <p>2. click “Download to Device”</p>  <p>3. Click “Start CPU”</p> 	<p>1. click on “Accessible devices”,</p>  <p>2. click “Download to Device”</p>  <p>3. Click “Start CPU”</p> 	<p>1. click on “Accessible devices”,</p>  <p>2. click “Download to Device”</p>  <p>3. Click “Start CPU”</p> 
a)	b)	c)

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?



4 Start the System from HMI

In order to run from “HMI” the automatic system, please select the correct button to press:

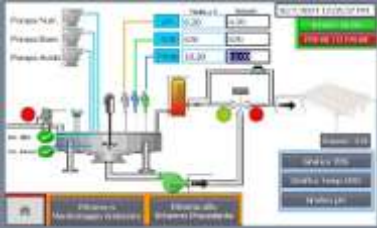


<ul style="list-style-type: none">Click on “Start from HMI”. 	<ul style="list-style-type: none">Click on “Start from HMI”. 	<ul style="list-style-type: none">Click on “Start from HMI”. 
a)	b)	c)

Figure 4. Start from Web Server.

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

If the we forgot to push the button “upload to PLC”, the system will work?

☐ Yes

☐ No

☐ Not possible to answer

In all cases, can you explain your answer?

5 Start the System from Virtual HMI

In order to run from web server the specific sequence of the automatic system, please select the correct button to press:


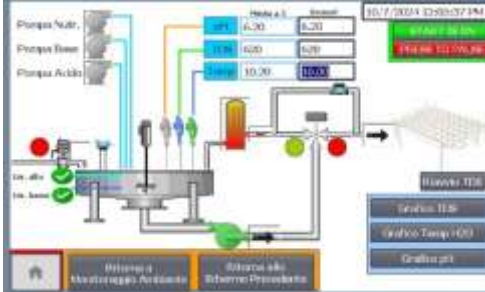

<ul style="list-style-type: none"> Click on “Start from HMI”. 	<ul style="list-style-type: none"> Click on “Start from HMI”. 	<ul style="list-style-type: none"> Click on “Start from HMI”. 
a)	b)	c)

Figure 1. Start from Web Server.

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

If the we forgot to push the button “RUN PLC”, the system will work?

- ☐ Yes
- ☐ No
- ☐ Not possible to answer

In all cases, can you explain your answer?



6 Changing of the parameters - selection of cycle

In order to start with the specific parameter for the hydroponic system, please select the correct pop-up page where insert the value:

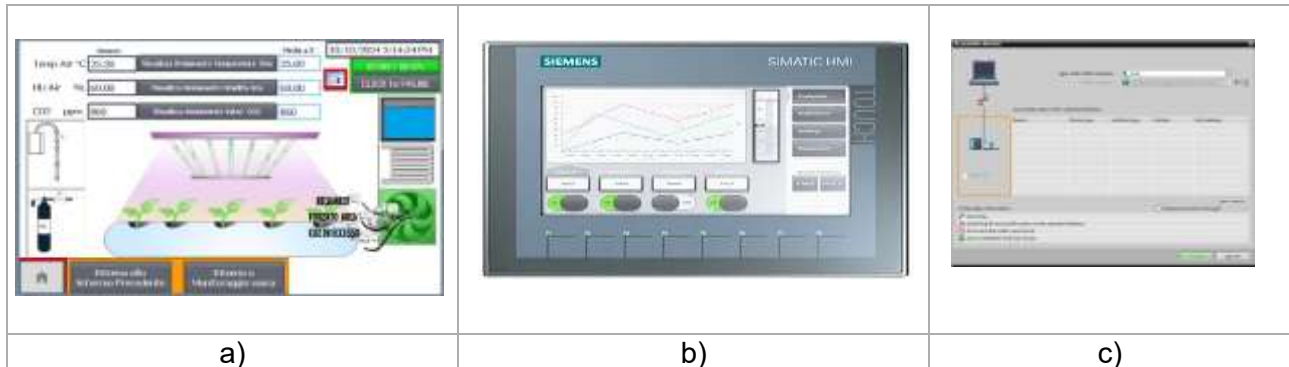


Figure 5. How to change the parameters .

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

If the we forgot to push the button “upload to PLC”, the system will work?

- ☐ Yes
- ☐ No
- ☐ Not possible to answer

In all cases, can you explain your answer?

In the solution “b” is reported the “trend of data acquisition?”

- ☐ Yes
- ☐ No
- ☐ Not possible to answer