

MEDIS – Module 2

Microcontroller based systems for controlling industrial processes

Lab 5.2: Advanced Display functions

M. Seyfarth, Version 0.1

1.1 Objectives of the lab

1.2 Work orders

1.3 Conclusion

- Deepen knowledge of library functions for graphic system
- Program advanced display and operation functions

Lab 5.2: Advanced Display functions

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1. Extend the user interface of Lab 5.1 with the following elements:
 - The liquid tank is operated by selectable operations on the display
 - To navigate through the menu there are two buttons:
 - Button 1: move one element down (if the last element is reached, the selection jumps to the first element)
 - Button 2: activate the selected operation
 - Operations to be activated:
 - Fill the tank up to an adjustable level (0...100%)
 - Activate/Deactivate heater (only if water is in the tank!)
 - Start/Stop mixer
 - Empty the tank

Lab 5.2: Advanced Display functions

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Conclusion

1. Program advanced display and operation functions using the standard library.
2. Operate the user interface by hardware buttons.