

# MEDIS – Module 2

Microcontroller based systems for controlling industrial processes

Lab 5.1: Basic Display functions

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## 1.1 Objectives of the lab

1.2 Work orders

1.3 Conclusion

# Aims of the lab

- Know wiring of display to microcontroller
- Know usage of library for graphic functions
- Program basic display functions

# Lab 5.1: Basic Display functions

1.1 Objectives of the lab

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1. Program a user interface for the liquid tank. The display should contain the following elements:
  - Signaling flow of pump and state of heater (on/off with different colours)
  - Display current temperature of liquid. Additionally you can display the temperature in different colours (e.g. blue to red)
  - Showing level of liquid in tank (as bar 0...100%)
  - Signaling motion of mixer (sequence of different pictograms, e.g. rotating cross in a circle when moving)

The liquid tank is automated as described in Lab#3.2

# Lab 5.1: Basic Display functions

1.1 Objectives of the lab

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# Conclusion

1. Wire the display correctly to the microcontroller.
2. Program basic display functions using the standard library.