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Good Bad

Поиск

Temperature and humidity meter on STM8L-Discovery + SHT21

STM8

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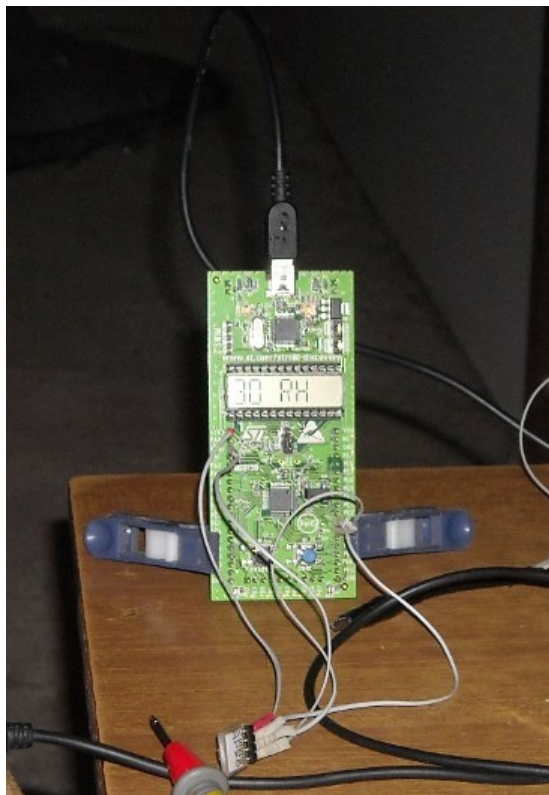
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As I said, I am posting the code for my thermometer based on [STM8L-Discovery](#).

To replicate the device from external components, you will need [sht21](#) and a couple of pull-up resistors.

The program regularly polls the sensor and displays temperature and humidity alternately, changing them every 3 seconds.



Live

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As far as I can see, you display humidity rounded to the nearest percent. Why do you need full accuracy then? At 0/12 it is 10 times faster and, accordingly, more economical.



Vga
06 August 2011, 14:34



I was thinking of writing it to the log or sending it to the computer. And if so, then the temperature can be cut off.

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dcoder
06 August 2011, 14:35



sht, humidity. [ds18b20](#) - that's the power:)

0



PRC
09 August 2011, 19:28

Yes, it's voracious as hell :) eats a whole milliampere.

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Also, what's a 20 MHz quartz doing there if the maximum is 16?



dcoder
09 August 2011, 19:49



It works, though. It was the first one I came across and I stuck it in.

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PRC
09 August 2011, 19:56



Good day to all, there is a task to display numbers on the STM8I-Discovery display (different depending on the calculation of the program and shift them), such a program must be written in assembler. The question is the following: is there any library for LCD in assembler?

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P.S. Don't be surprised by the question, I'm a layman)



O_nami
01 September 2011, 17:12

Why assembler?

If you can write in assembler - grab the datasheet and go ahead, work with the LCD controller directly.

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Vga
01 September 2011, 17:27



I have already written all the logic and connected the display. But I lack experience: for example: the two in the first position of the display looks like this:
mov LCD_RAM6, #00000100 ;X,X,X,X,F1,A1,F2,A2
mov LCD_RAM0, #00000011 ;4E,4M,3E,3M,2E,2M,1E,1M
mov LCD_RAM2, #01100000 ;G1,B1,G2,B2,G3,B3,G4,B4
mov LCD_RAM3, #00010000 ;C2,D2,C1,D1,X,X,X,X
in the second and third positions it looks completely different and the logic is not traceable. If I need to output numbers 0,1,2,..., E,F in 6 positions, then I will need to describe 96 such combinations!!! Or am I missing something???
That's why I'm asking: are there any libraries for LCD format ".inc"
I REALLY HOPE FOR HELP, THANKS IN ADVANCE!!!

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O_nami
01 September 2011, 17:52

You can see how STM does it in its peripheral library. You can also steal the character code arrays from there.

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Vga
01 September 2011, 18:15



the problem is that there are only ".c, .h" libraries

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O_nami
01 September 2011, 19:17

 **Vga**
01 September 2011, 19:20

thank you)
I will try

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 **O_nami**
01 September 2011, 19:26

As a relaxation, I decided to repeat the described design.
I downloaded everything, soldered, assembled, launched.
I put 12K Ohm on the pull-up for a start. It worked unstably (on the oscilloscope you could see how SCL was rising with difficulty), or rather it didn't work at all (it was still sending the command, but only reading 2 bytes, and on the third there was already a bus error).
But I plugged in 4.7K and it immediately worked as it should :)
The wires seem to be long (30 cm), and also noodle-like.
Thanks for the development. Now I'll have a hygrometer at home.

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 **andi123**
08 February 2012, 18:05

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