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SIMPLE LC METER

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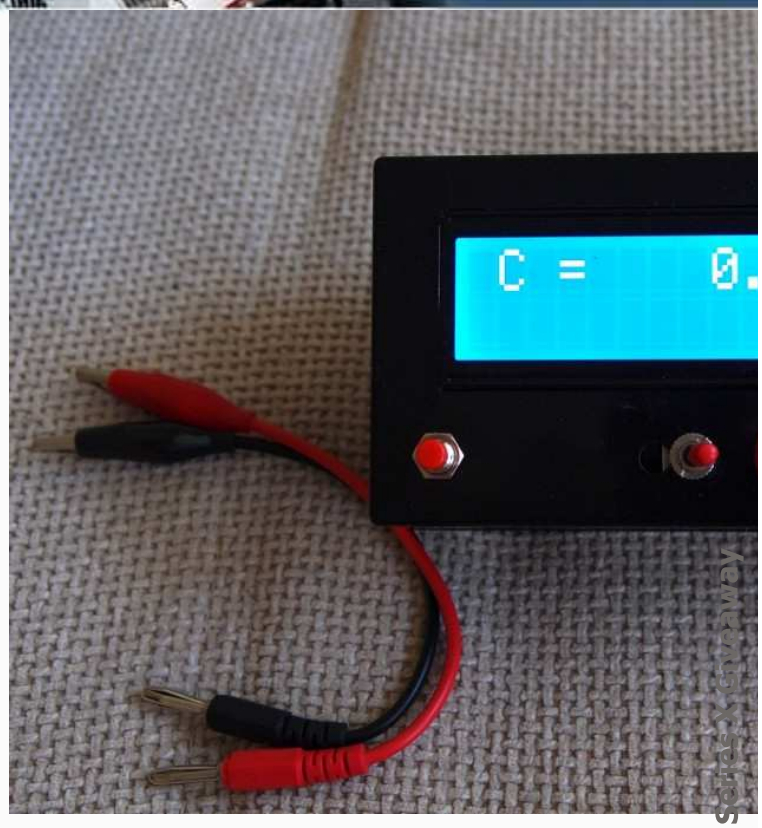

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This project is a simple LC meter based on PIC16F682A mcu.

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DESCRIPTION

Here is another piece of laboratory equipment – LC meter. This type of meter, especially L m

Schematic of this one came from this web page:https://sites.google.com/site/vk3bhr/home/i

It uses PIC microcontroller 16F628A, and because I recently acquired a PIC programmer, I de
the original schematic, PCB, source and HEX files for programing the microcontroller and de

Here is my adaptation of the schematic:

I removed the 7805 regulator, because I decided to use a 5V adapter from Sony mobile phor

In the schematic, trimmer-potentiometer is 5k, but actually I put 10k, after consulting with h
tantalum and C7 – 100uF actually is 1000uF. Two 1000pF capacitors are styroflex 1% and d
30mA.

R11 limits the back light current and must be calculated according to the actual LCD modu e

I used the original PCB as a starting point and modified it to suit better to my component

Here is the result:

The last two pictures shows LC meter in action. In the first of them, there is 1nF/1% capacito
when I put the test leads there is 3-5 pF reading on display, but it is eliminated with the calib

SCHEMATIC

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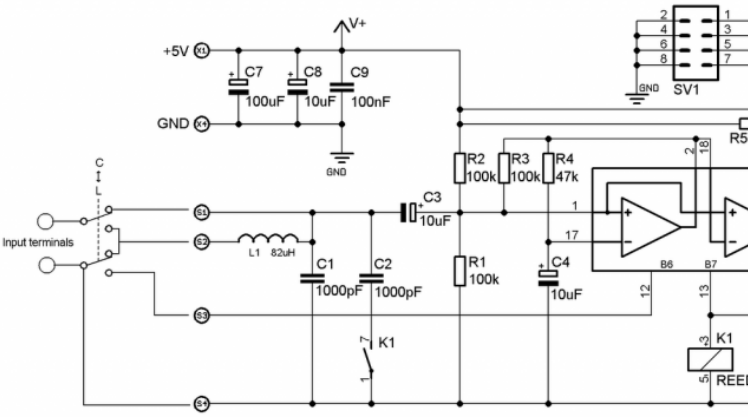

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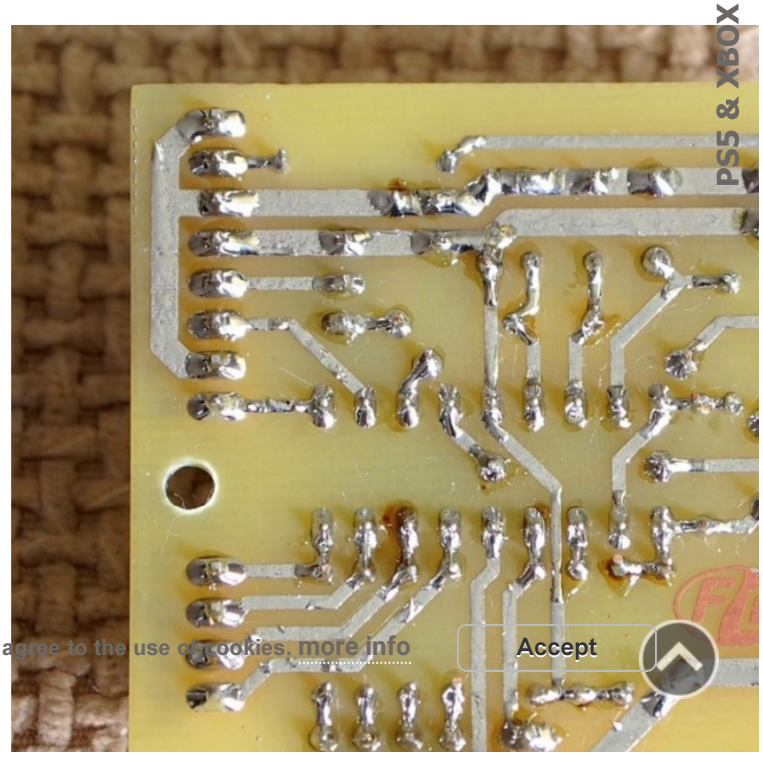

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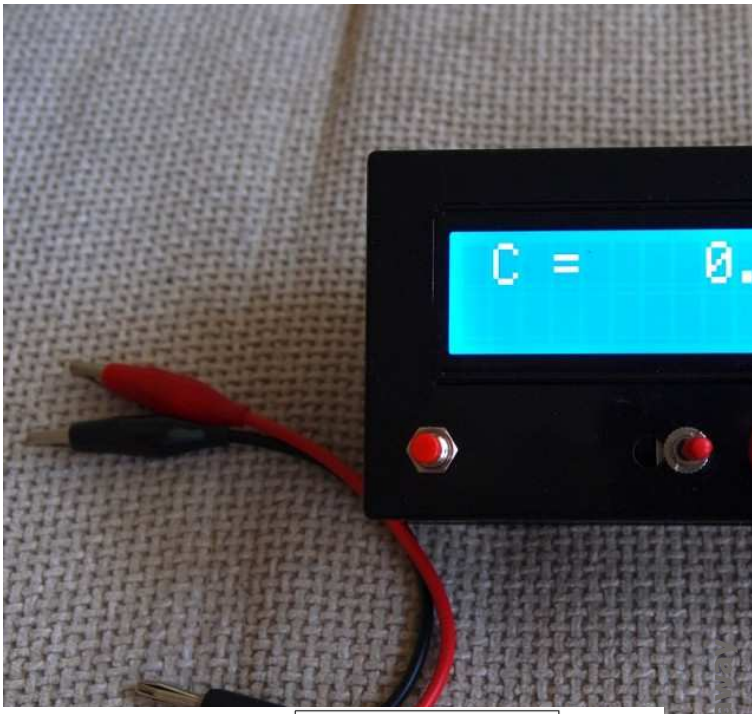

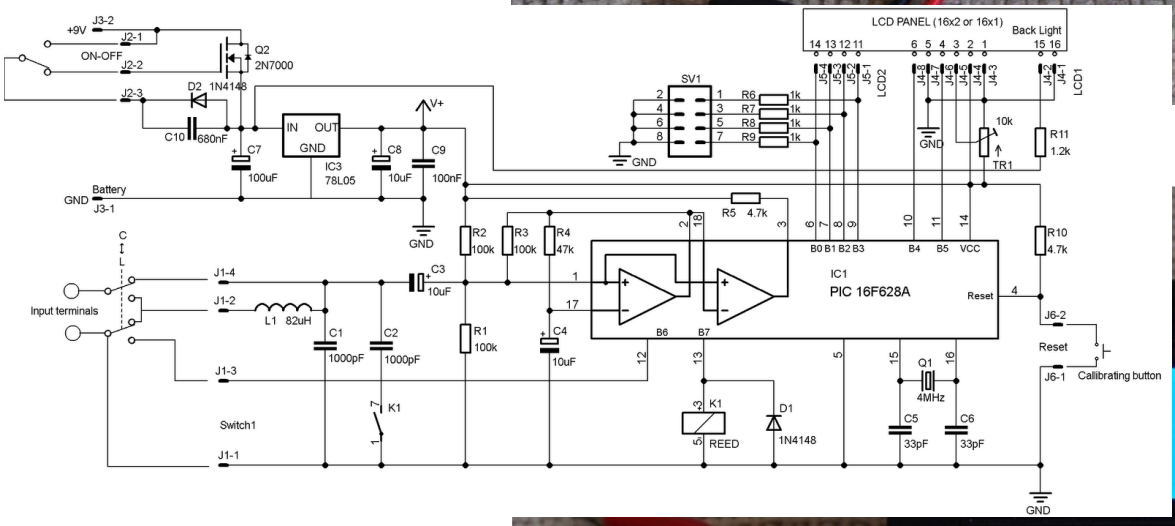

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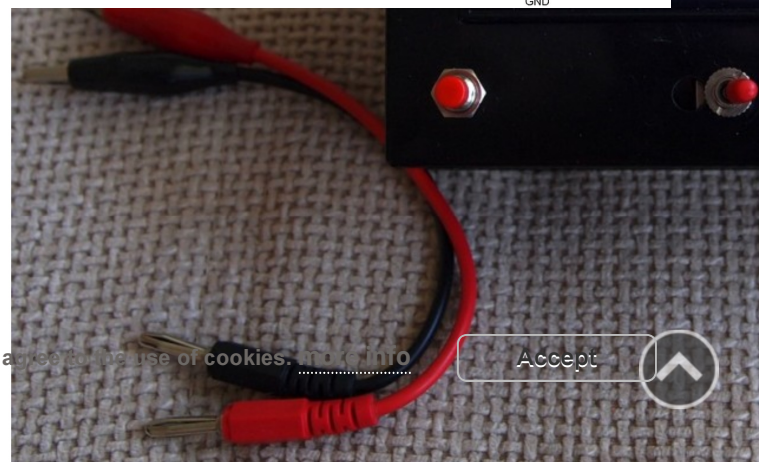

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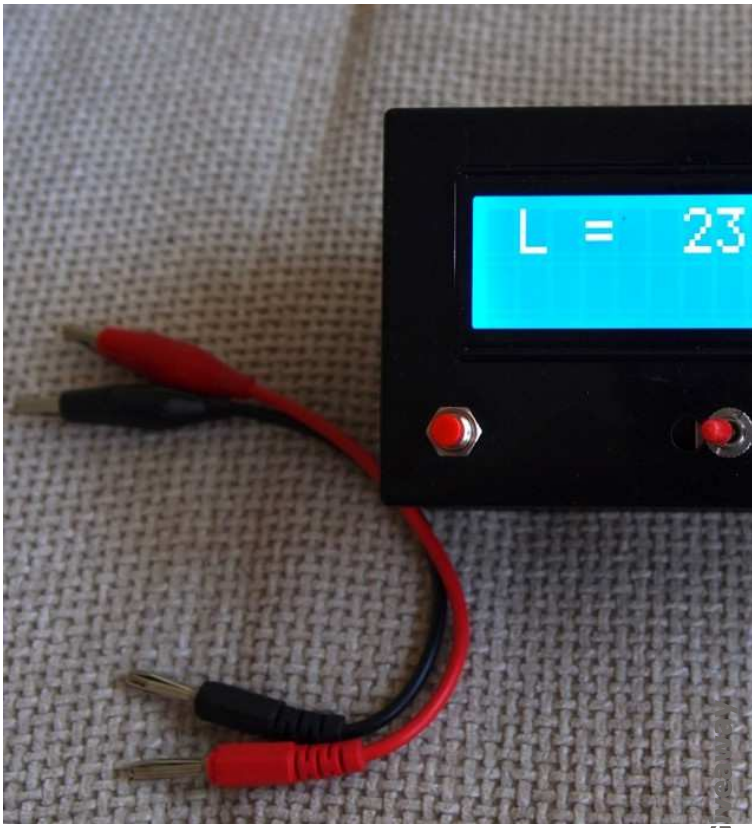

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UPDATE: 24 JUNE 2012

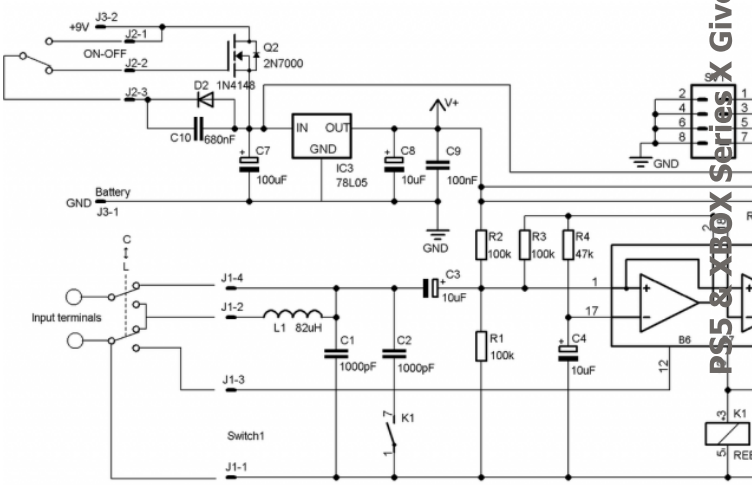
One of my colleagues in a Bulgarian audio forum ask me to build him a copy of the LC meter little rearrangement of the old one and adding a 78L05 voltage regulator.

I also added an automatic sleep mode, schematic of which I found here:http://www.marc.org

The goal here was to make power consumption as low as possible. With increasing the value of the device was decreased to 11-12mA. Without back light at all the power consumption wi

After some tests, the value of the C10, which defines the ON time, was chosen to be 680nF. T replaced with BS170, but bear in mind that the leads are in reverse order.

ON-OFF switch is momentary non lock type.



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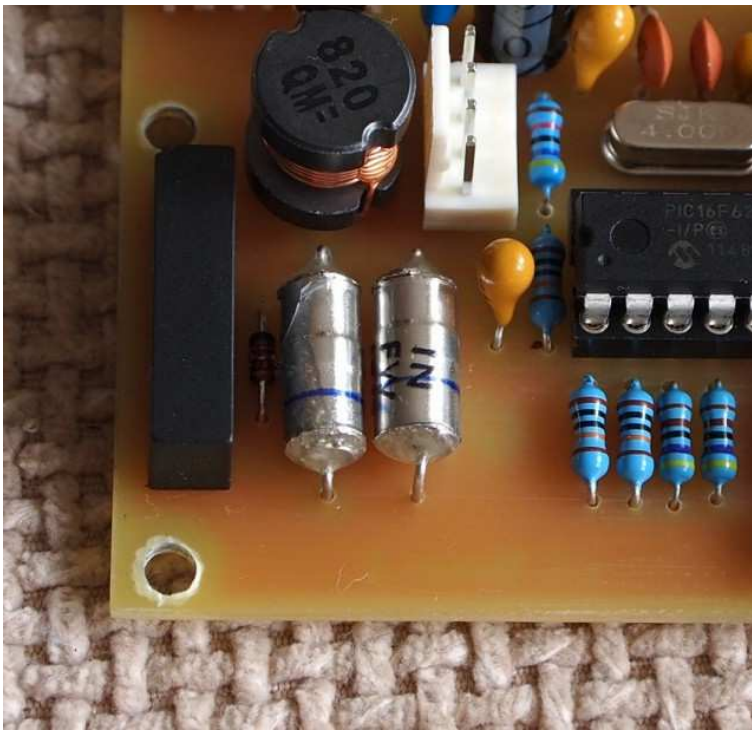

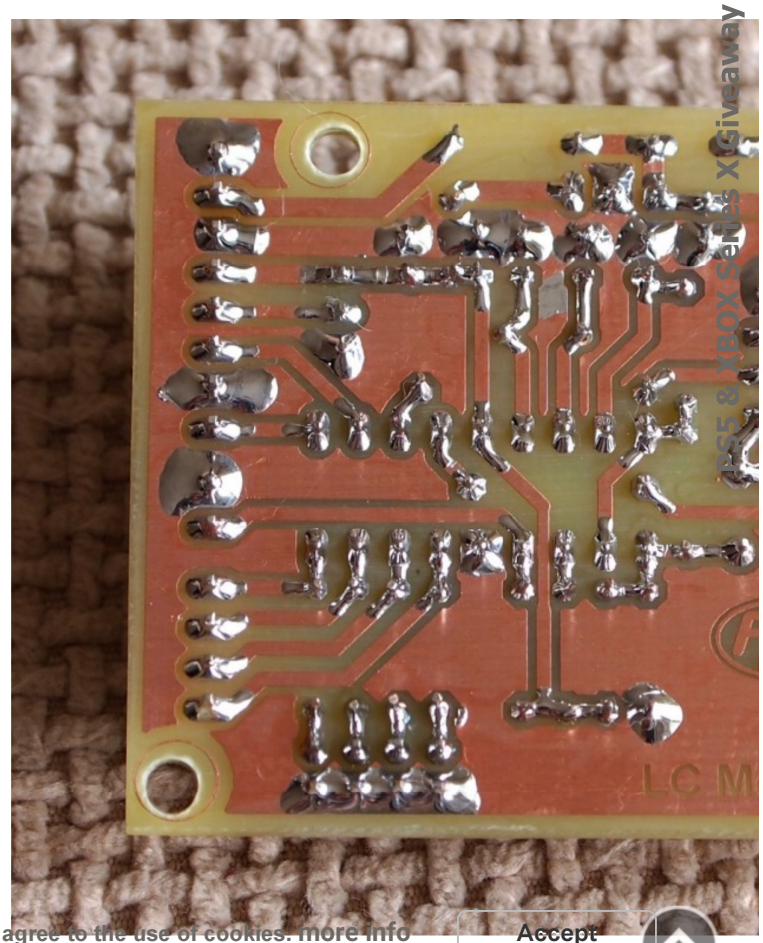

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PCB

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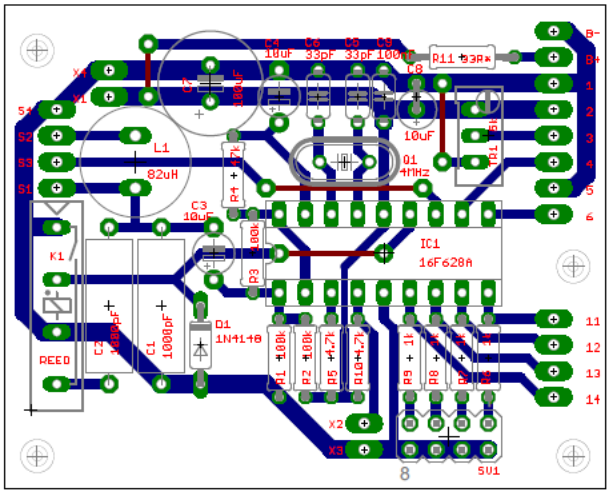

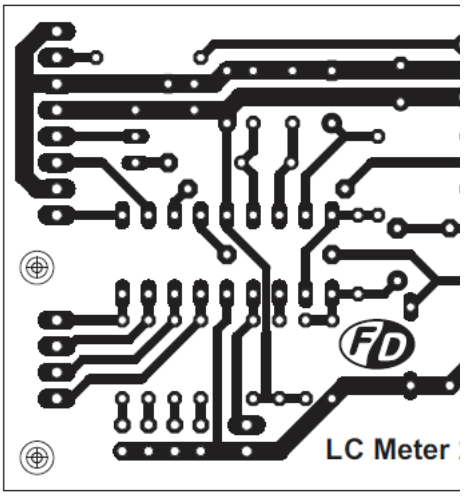

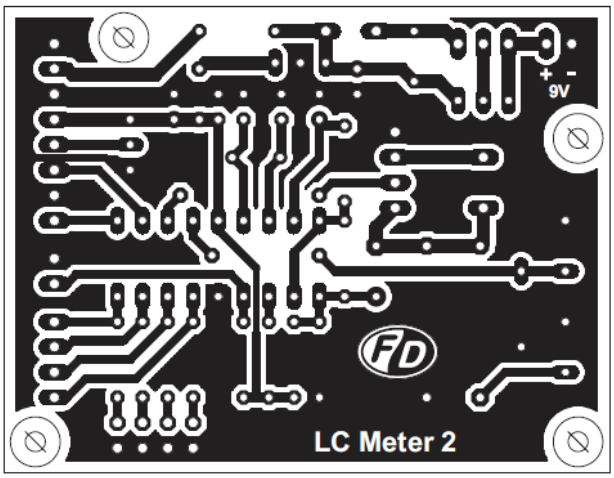

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[…] I want to combine two pic projects into one but using a single LCD module. Th p

http://homepage.eircom.net/~ei9gq/counter.html There are 6 connections in the LC

5 years ago

Reply

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Rana

Where is the code or hex file for PIC 16F628A ???

5 years ago

Reply

Electronics Lab

You should find it on the original project link here: https://sites.google.com/site/vk3l

5 years ago

Reply

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Phong

Where is the code or hex file for PIC 16F628A ???

sent to hex file email adress : phongk8a1@gmail.com

thank

5 years ago

Reply

Robin

please provide the proteus file

5 years ago

Reply

Electronics Lab

Sorry, Proteus file isn't available.

5 years ago

Reply

JOHN WILSON

I made the circuit in proteus and LCD shows calibrating.....(No change after that)

5 years ago

Reply

Vinicius Andrades

share the Project, please!

4 years ago

Reply

Taha

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Accept

Could you send me the Proteus file please? Thanks in advance

t90nassa@gmail.com

4 years ago

Reply

İbrahim

Hex code .,?? kiral96@hotmail.com upload

4 years ago

Reply

Electronics Lab

Hex code is added on the downloads section above.

4 years ago

Reply

Javier Garcia Holgado

Muchas gracias amigo. Espero que funcione. Te volveré a escribir si consigo termina

Thank you very much, my friend. Hope it works. I'll write again if I can finish it. I ar n

4 years ago

Reply

Yevgheny

This meter works good with capacitors. When I switch it to inductors it shows me 'o

Something wrong with my device or this is correct behaviour ? Thanks

4 years ago

Reply

Admin

It seems correct behavior to me. But it's better to contact the author about it.

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4 years ago
Reply

Bittu
is the hex file works same on other L c meter circuit ??

4 years ago
Reply

Admin
You need to burn the specific .hex file to PIC mcu

4 years ago
Reply

Khoi
The reed you use is replay? How many pin does it have? In Schematic I see It has 2 p

4 years ago
Reply

Admin
The reed relay K1 controls switch K1, so actually it has 4 pins.

4 years ago
Reply

Boo
I need the code (maybe wirted .txt not .hex) Where I can find it?

3 years ago
Reply

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Sarath

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Sir is reed relay a solid state relay

3 years ago
Reply

Admin
No, reed relay is a relay that uses magnetic field to control it's state.

2 years ago
Reply

Vinicius Andrades From Brazil
I had success using a reed relay 5V, SIP 1A05 (Pan-Chang) from eBay.

2 years ago
Reply

Cuchero Pl
what did you do with two other relay legs

2 years ago
Reply

Admin
You just have to connect the coil contacts and the Normal Open conta

2 years ago
Reply

Alireza
excuse me sir please help me, what is reed relay in this circuit ??? please say all of s

2 years ago
Reply

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Mike

A reed relay used in this project is something like this: https://www.bc-robotic

2 years ago

Reply

Mohsen

hi friend please say me about reed relay in this project.why use it.? can another thing

11 months ago

Reply

Anonymous

can we use 82uh resistor like inductor ?

9 months ago

Reply

Anonymous

no you can't use a resistor in place of an inductor. You can use an inductor of

9 months ago

Reply

Hakan

sorry for my English. i tried to say can we use 82uh inductor looks like

as i understand from your reply i can use it right?

thank you very much

9 months ago

Reply

Mike

Yes, an inductor can look like a resistor.

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9 months ago

Reply

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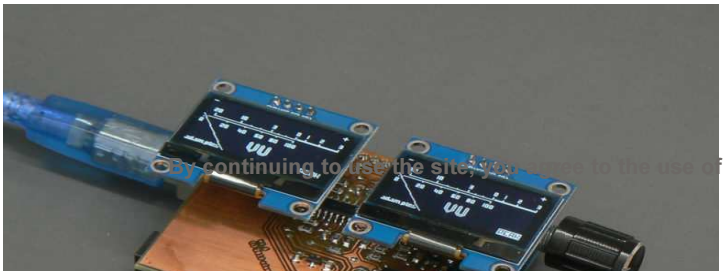

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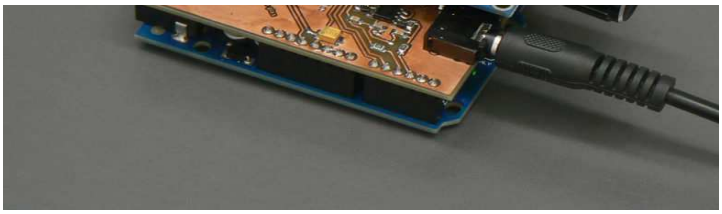

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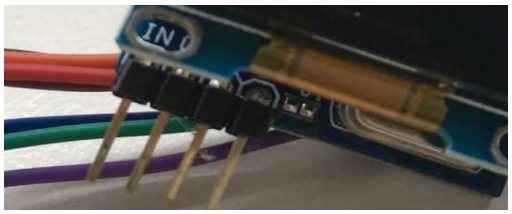

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