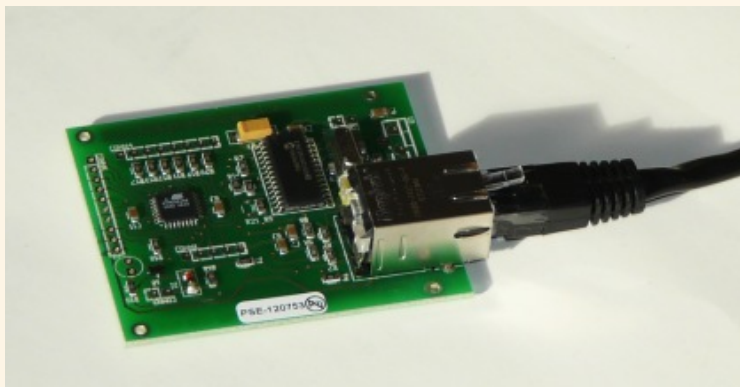


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By Guido Socher

## A web based reset button



*Abstract:*

Sometimes it is useful to reboot equipment remotely. The avr web server is ideal for this. It is a small self contained web server and it can easily toggle a relay to reset some other equipment.

This article does not introduce new hardware. What is presented here is just a slightly different software.

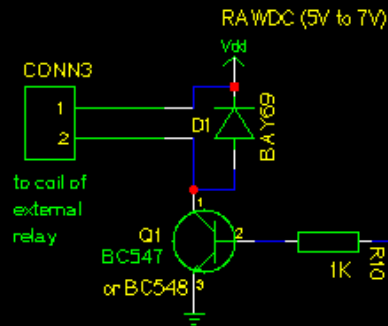
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## The hardware

We use the normal avr ethernet board and the reset push button software which is for download at the end of this article. You know the avr ethernet board already know from the article ["An AVR microcontroller based Ethernet device"](#). To have a reliable galvanic separation between the avr ethernet board and the equipment which we want to reset we can use a small relay. E.g a reed relay. The connection to the relay looks as follows. The diode D1 is needed to prevent damage to the circuit by relay coil induced voltages.

## Relay connection for 'a web based reset button'

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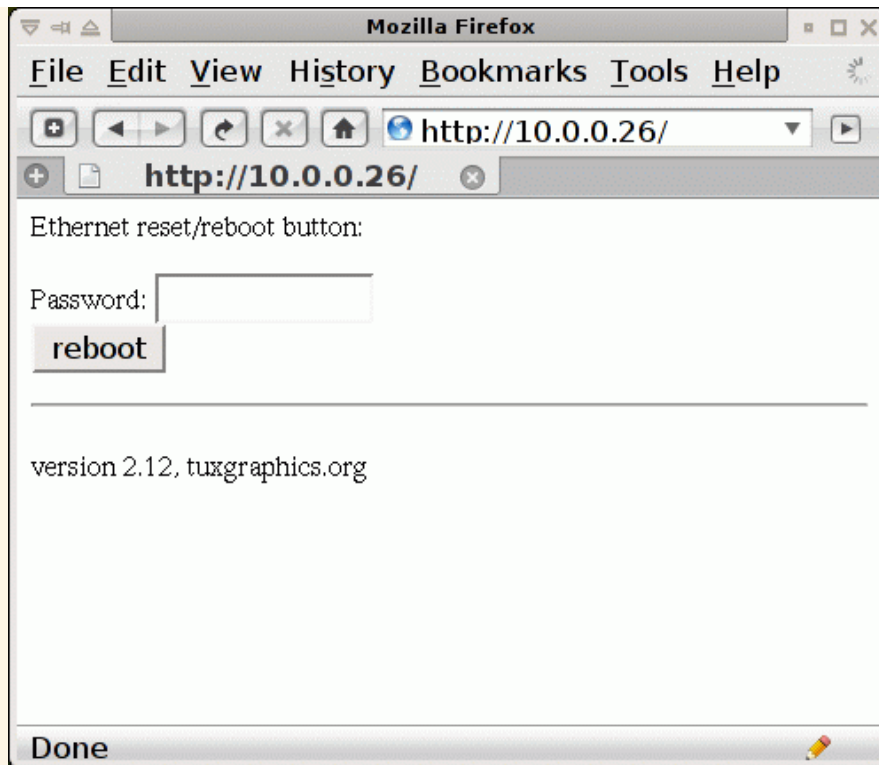
ATMEGA88/168		
1	RsI(PC0)	(SCL)PC5 28
2	PD0 (RXD)	(SDA)PC4 27
3	PD1 (TXD)	(ADC3)PC3 26
4	PD2 (INT0)	(ADC2)PC2 25
5	PD3 (INT1)	(ADC1)PC1 24
6	PD4 (T0)	(ADC0)PC0 23
7	Vcc	AGND 22
8	GND	AREF 21
9	PB6(XTAL1)	AVcc 20
10	PB7(XTAL2)	(SCK)PB5 19
11	PD5 (TI)	(MISO)PB4 18
12	PD6 (AIN0)	(MOSI)PB3 17
13	PD7 (ANI)	(OC1B)PB2 16
14	PB0(OCF1)	(OC1A)PB1 15

ATMEGA88 or ATMEGA168

The switch contacts of the relay can then be connected in parallel to the reset button of the equipment which you want to be able to reset/reboot. Most PC motherboard have dedicated connectors for the reset button. You just connect it there. It is therefore very easy to reset a PC remotely.

## How the web based "reset push button" works

To use this you just point your web browser to the ip address of the of the avr web server.



You enter the password and press on the reboot button. This will show a confirmation web page and at the same time toggle the relay for 1 second to reset the connected equipment. This way you can e.g reset a PC or a server or a DSL modem ... It's up to you what you connect.

## References

- Download page (source code): [The "web based reset button" download page](#)
- Tuxgraphics electronics section: [tuxgraphics.org/electronics](http://tuxgraphics.org/electronics)
- The components for this web based reset button are available at: [shop.tuxgraphics.org](http://shop.tuxgraphics.org)

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