

# Ergänzung zum Beitrag in FA 4/14, S. 386ff. „Programmiergerät für Mikrocontroller von Atmel“

## Stückliste

Bauteil	Wert/Bezeichnung
C1	47 $\mu$ F
C2...C5	100 nF
D1	1N4001
IC1	PIC18F887, programmiert
IC2	24FC512
IC3	MAX4619
IC4	78L12
IC5	7805
K1	Relais NA05WK <sup>1)</sup>
LED1	LED, grün
LED2	LED, rot
R1	10 k $\Omega$
R2	470 $\Omega$
R3, R4	3,3 k $\Omega$
R5, R7, R9, R11	1 k $\Omega$
R6, R8	10 k $\Omega$
R10	270 $\Omega$
T1, T2	BC547
T3	BC557

<sup>1)</sup> Reichelt Elektronik GmbH & Co. KG,  
[www.reichelt.de](http://www.reichelt.de)

## Literatur

- [1] Atmel: ATtiny2313A, ATtiny4313. [www.atmel.com/Images/doc8246.pdf](http://www.atmel.com/Images/doc8246.pdf)
- [2] Atmel: ATtiny261A, ATtiny461A, ATtiny861A. [www.atmel.com/Images/doc8197.pdf](http://www.atmel.com/Images/doc8197.pdf)
- [3] Atmel: ATmega48/V, ATmega88/V, ATmega168/V. [www.atmel.com/Images/doc2545.pdf](http://www.atmel.com/Images/doc2545.pdf)
- [4] Atmel: ATmega48A, ATmega48PA, ATmega88A, ATmega88PA, ATmega168A, ATmega168PA, ATmega328, ATmega328P. [www.atmel.com/Images/Atmel-8271-8-bit-AVR-Microcontroller-ATmega48A-48PA-88A-88PA-168A-168PA-328-328P\\_datasheet.pdf](http://www.atmel.com/Images/Atmel-8271-8-bit-AVR-Microcontroller-ATmega48A-48PA-88A-88PA-168A-168PA-328-328P_datasheet.pdf)
- [5] Atmel: ATtiny26, ATtiny26L. [www.atmel.com/Images/doc1477.pdf](http://www.atmel.com/Images/doc1477.pdf)
- [6] Atmel: ATtiny48/88. [www.atmel.com/Images/doc8008.pdf](http://www.atmel.com/Images/doc8008.pdf)
- [7] Microchip: PIC16F882/883/884/886/887. [www.microchip.com/downloads/en/DeviceDoc/41291G.pdf](http://www.microchip.com/downloads/en/DeviceDoc/41291G.pdf)
- [8] Microchip: EEPROM 24AA512, 24LC512, 24FC512. [www.microchip.com/downloads/en/DeviceDoc/21754M.pdf](http://www.microchip.com/downloads/en/DeviceDoc/21754M.pdf)
- [9] Maxim: MAX4617, MAX4618, MAX4619. <http://datasheets.maximintegrated.com/en/ds/MAX4617-MAX4619.pdf>
- [10] Atmel: Application Note AVR533 – Migrating from ATtiny2313 to ATtiny2313A. [www.atmel.com/Images/doc8261.pdf](http://www.atmel.com/Images/doc8261.pdf)
- [11] Atmel: Application Note AVR532 – Migration from ATmega48/88/168 to ATmega48A/88A/168A. [www.atmel.com/Images/doc8280.pdf](http://www.atmel.com/Images/doc8280.pdf)