SOL-EXPERT group, C.Repky
Mehlisstrasse 19, D-88255 Baindt
Tel.: +49 (0)7502 - 94115-0
Fax: +49 (0)7502 - 94115-99
info@sol-expert-group.de
www.sol-expert-group.de

Please return the parts to a certified provider at the end of their useful life!

Nice to build!

SOL-EXPERT group

No. 76333

4 037373 763337

QR Codes

Hier geht es zur Anleitung:
https://www.sol-expert-group.de/Rund-ums-Loeten/Pfiffige-Loetbausaetze/Smiley-das-Stimmungsbarometer-Loetbausatz::1262.html?language=de

Click here for the instructions:
https://www.sol-expert-group.de/All-about-soldering/Smart-kits-for-soldering/::1262.html?language=en

Cliquez ici pour les instructions:
https://www.sol-expert-group.de/Autour-de-la-soudure/Kits-astucieux-pour-la-soudure/::1262.html?language=fr

Klik hier voor de instructies:
https://www.sol-expert-group.de/Rond-solderen/Clever-kits-voor-het-solderen/::1262.html?language=nl

Parts list: Check and sort out parts!

Qty.	Part	Value/Description
1	Circuit board	Round 60 mm, 96620
2	LED 5 mm (LED17/LED18)	Red colour, red lens
16	LED 5 mm (LED1 - LED16)	Red colour, white lens
2	Sliding switch (SW1/SW2)	Selector switch, 2-pin
3	Resistor (R3/R4/R7)	1K5 Ohm
2	Resistor (R5/R6)	3K9 Ohm
2	Resistor (R1/R2)	330 Ohm
2	Transistor (T1/T2)	BC547B
2	Capacitors (C1/C2)	47uF/10V
1	Photoresistor (R8)	NSL-19M51
1	Battery clip (J3)	for 9 V block
1	Wooden parts kit	5-piece

You will also need:
Soldering iron, solder, 9 V block battery, wire cutters, wire strippers

Smiley, the mood barometer
battery operated soldering kit

Recommendation for children and teenagers: Assembly and soldering should be supervised by an adult.

The 'Smiley' soldering kit

Generally: This soldering kit is intended to introduce to the basics of soldering. It is excellent for instructor-led courses at schools and workshops.
The soldering kit can also be used at holiday programmes, school camps and other events related to soldering.

How 'Smiley' the mood barometer works

Good or bad mood? Smiley the mood barometer soldering kit shows everybody. The circuit board kit allows you to set the switch to show your mood. Smiley will either smile or frown depending on the setting.
And the eyes will wink, with the photoresistor changing the frequency based on the incidence of light. The kit with over 30 parts is excellent to introduce to soldering. Smiley is battery powered with a 9 Volt battery, which is not included.
Decorate the included plywood face however you'd like. Dimensions: 80 x 80 x 50 mm, over 30 parts

Safety notes

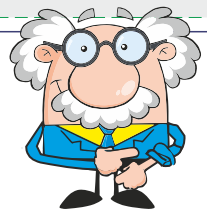
- Keep this manual for future reference! It contains important information.
- When the battery is drained, always replace it with a new battery with the same rating. (9 V block)
- This kit is intended for battery operation only.
  Never connect the kit to 230 V mains voltage! Acute danger to life!
- The soldering iron, solder and the parts being soldered become very hot. Be very careful!
- Always use a mat when soldering! This prevents parts and the circuit board from slipping.
- We recommend using a soldering iron holder to set the soldering iron down safely during use.

Environmental notes

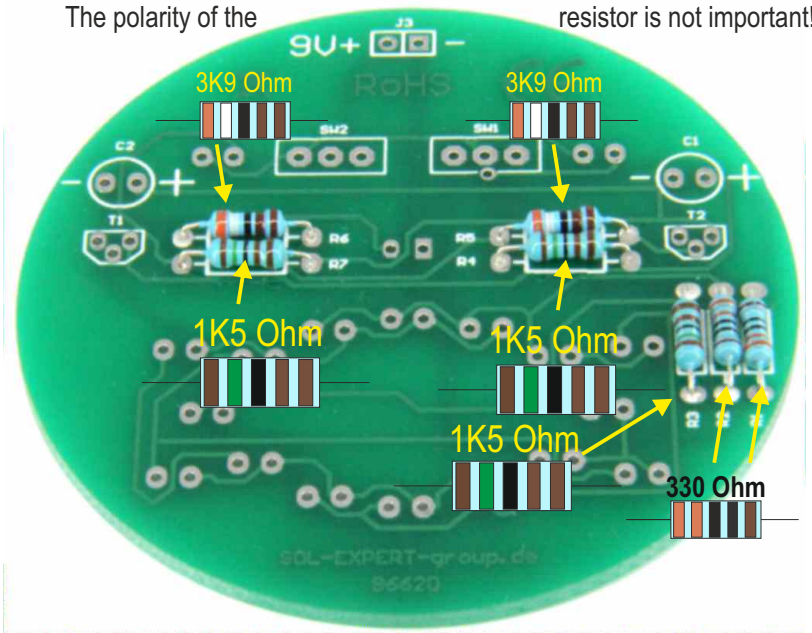
Generally: Please return the electronics to a certified provider at the end of their useful life. These will then ensure the parts are disposed of in compliance with directives. This is good for the environment and an important part of actively protecting the environment.

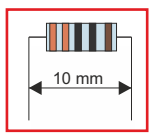
Battery ordinance: You have purchased a battery-powered product. The battery has a limited life and therefore eventually needs to be replaced. Do not dispose of used batteries in the household waste. Consumers are required by law to return batteries to a suitable collection point. Used batteries contain valuable raw materials which are recyclable. You can also send your used batteries to us: SOL-EXPERT group, Mehlisstrasse 19, 88225 Baindt.

ASSEMBLY INSTRUCTIONS



A **Board direction for soldering: '9V+' must be visible! Solder on seven resistors, paying attention to the resistor values.**
The polarity of the resistor is not important!



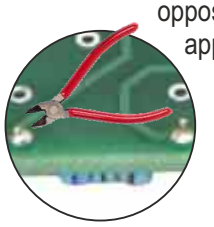


Bend the resistor wires so they easily slide between the lands

Parts needed

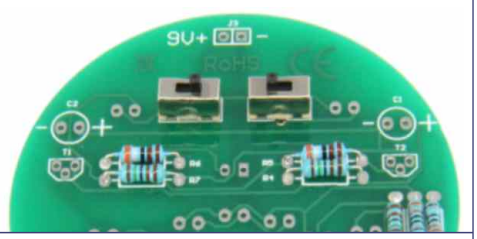
2 x	3K9 Ohm
3 x	1K5 Ohm
2 x	330 Ohm

B **Trim excess wires.**
After soldering, use wire cutters to trim the excess wires on the opposite side to approx. 2 mm.

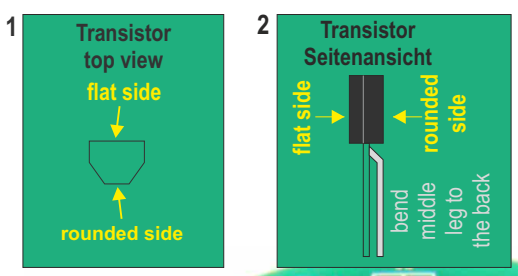


C **Solder on two sliding switches in any direction**

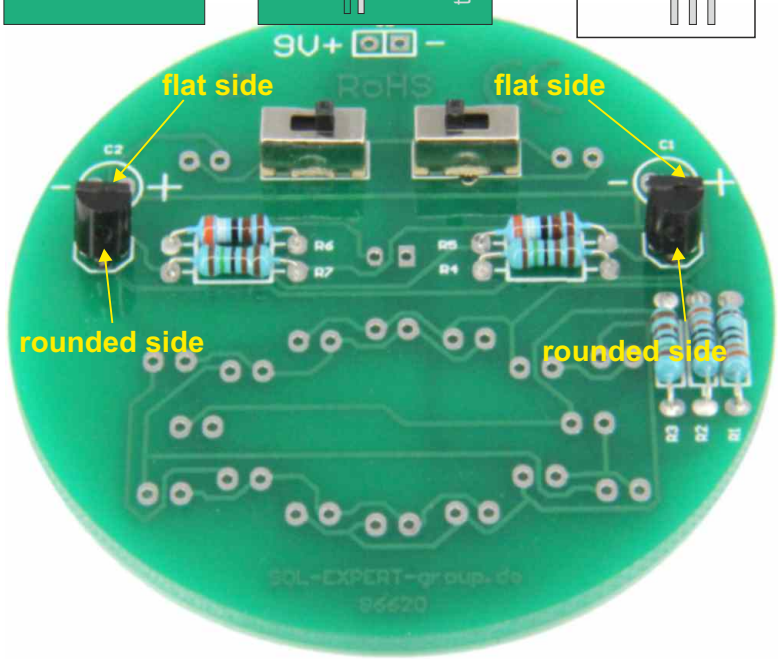
Parts needed
2 x



D **Solder on two transistors. Pay attention to the direction of the transistors (1)! Slightly bend the middle transistor leg to the back (2). Trim excess wires after soldering.**

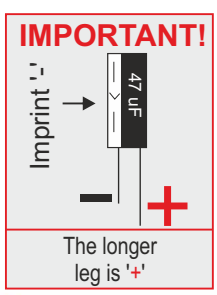


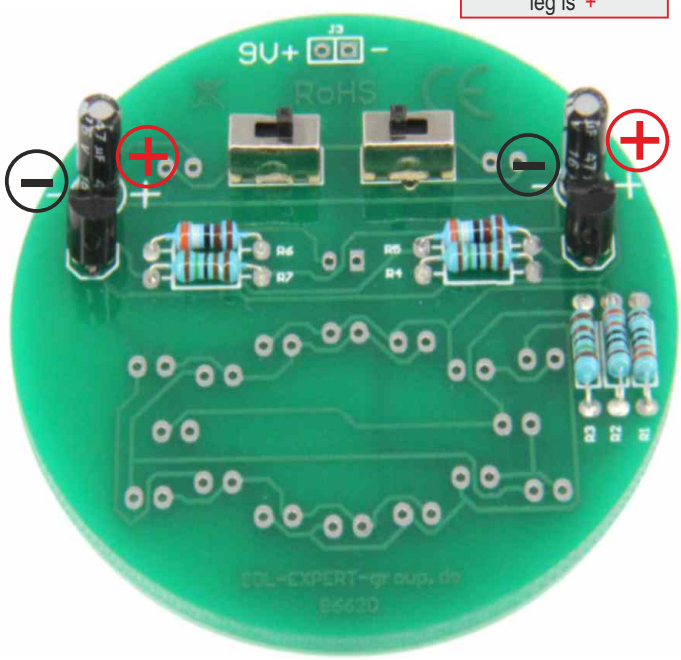
Parts needed
2 x BC547



E **Solder on two capacitors. Pay attention to the polarity - direction shown on the board! Trim excess wires.**

Parts needed
2 x 47 uF

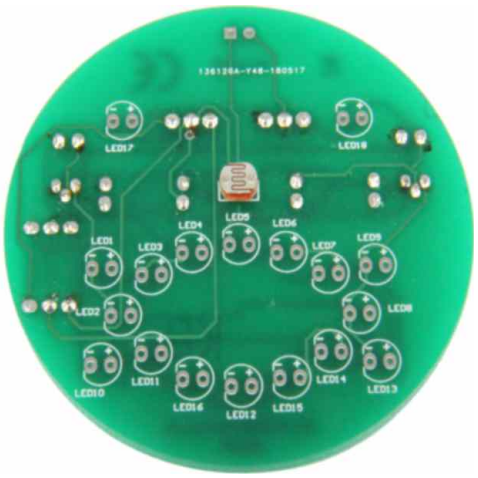




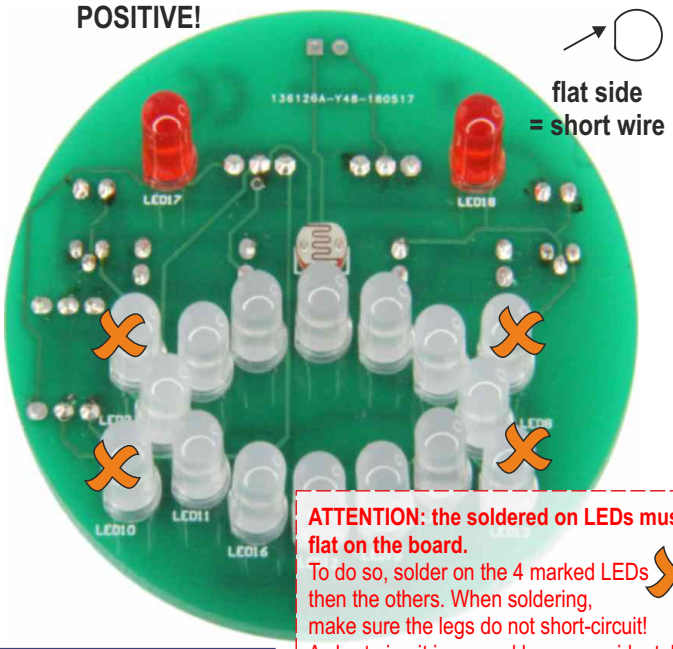
F Now turn over the board. Solder on the photoresistor and trim excess wires

Parts needed

1 x

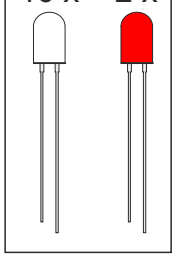


G Solder on LEDs, trim wires. Pay attention to the polarity - polarity shown on the board! The longer leg on the LED is always POSITIVE!

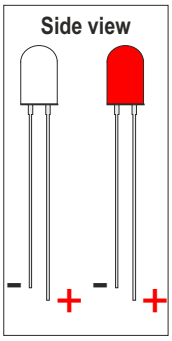


Parts needed

16 x 2 x



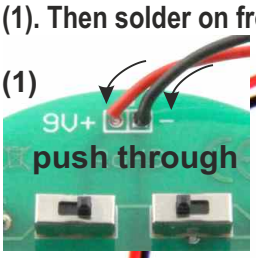
Side view



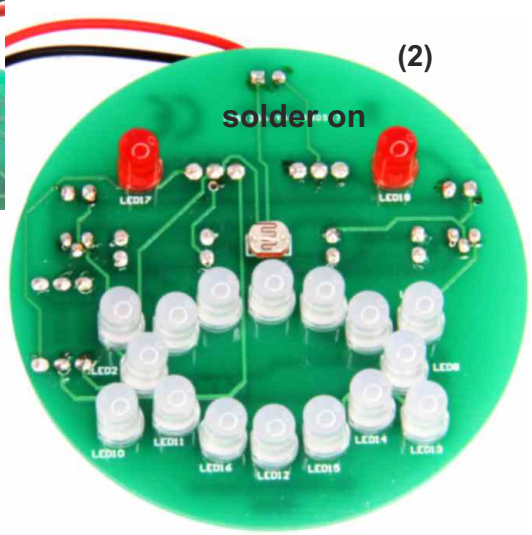
ATTENTION: the soldered on LEDs must be flat on the board.
To do so, solder on the 4 marked LEDs then the others. When soldering, make sure the legs do not short-circuit!
A short-circuit is caused by e.g. accidentally soldering together 2 wires with solder.

H Insert the battery cable from the back through the contacts (1). Then solder on from the front (2).

(1)

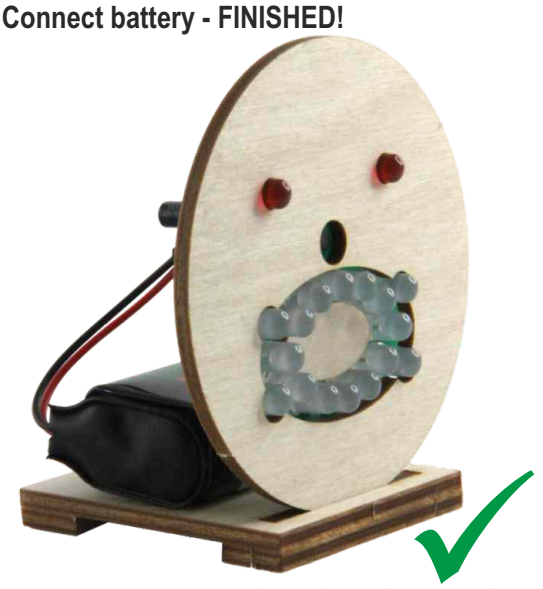


(2)

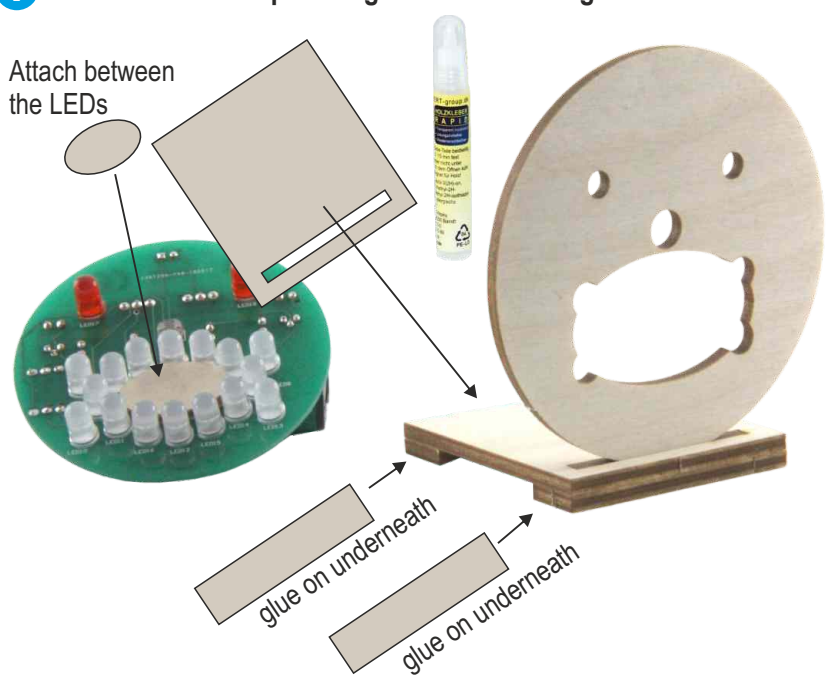


Perform a visual inspection:
Check all soldering points to determine if the solder has caused short-circuits with other soldering points. If so, you can correct these short-circuits by removing the short-circuit with the soldering iron.

J Connect battery - FINISHED!



I Glue the wooden parts together with wood glue

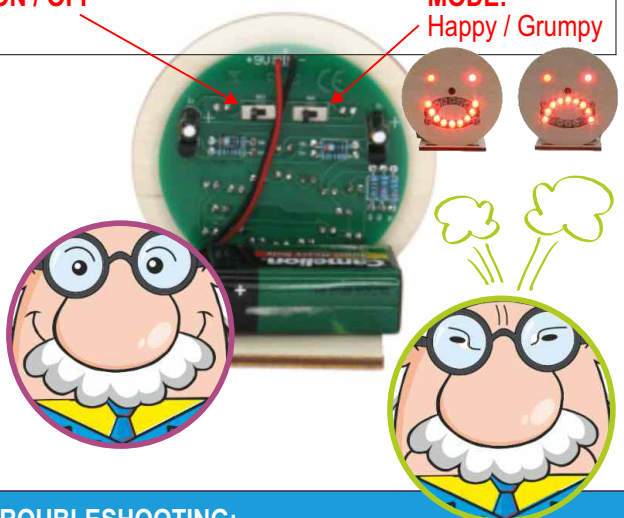


FUNCTIONS:

SWITCH for:

ON / OFF

MODE:
Happy / Grumpy



TROUBLESHOOTING:

- LED doesn't light up: check LED for short-circuit
- Eyes don't blink: check transistors for short-circuit