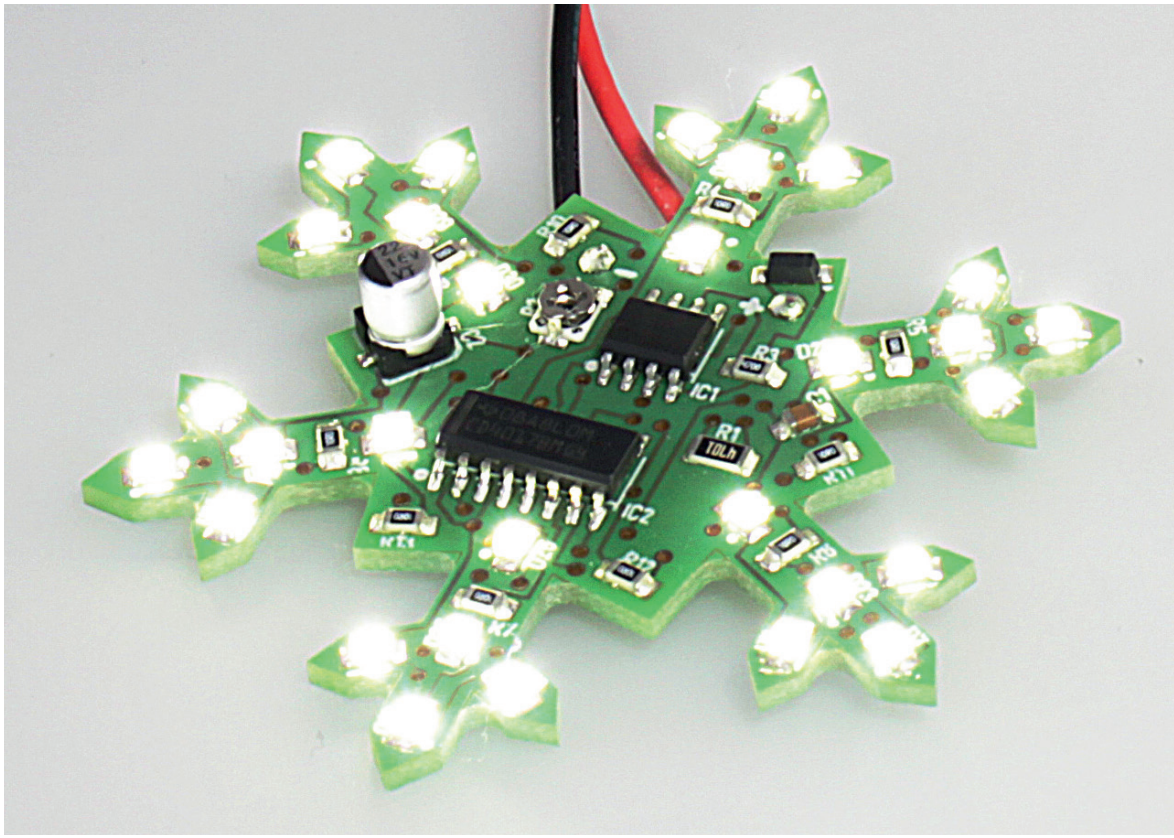
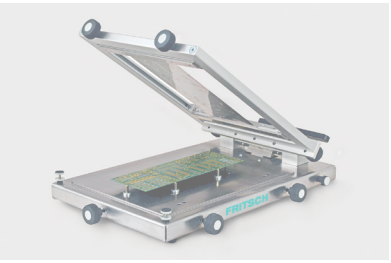
SMD assembly kit
Snowflake





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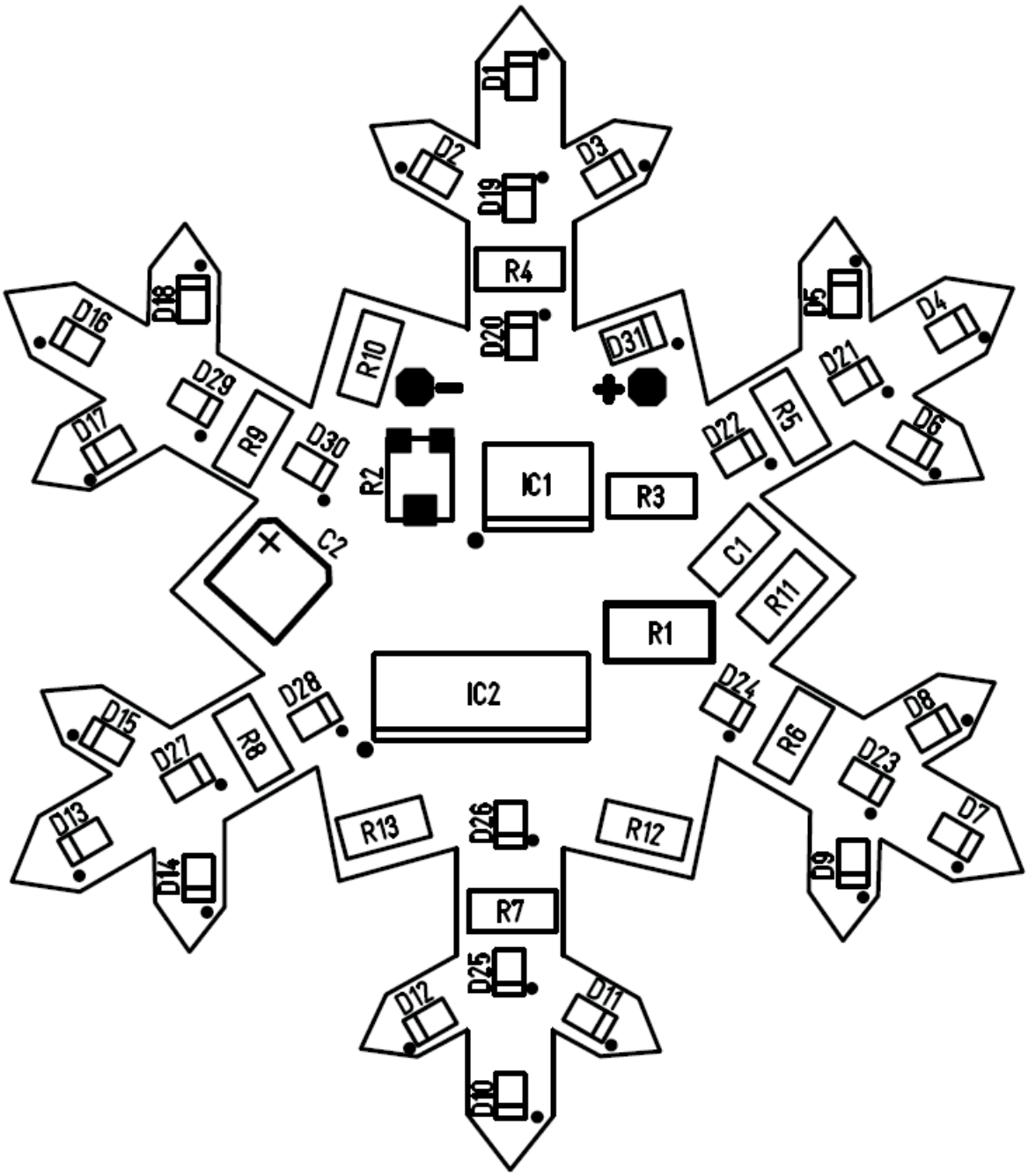
1. The SMD snowflake kit

There are 30 LEDs on the board, which run in a circle as a running light, depending on the setting on potentiometer R2, faster or slower.

2. Assembly plan of the kit

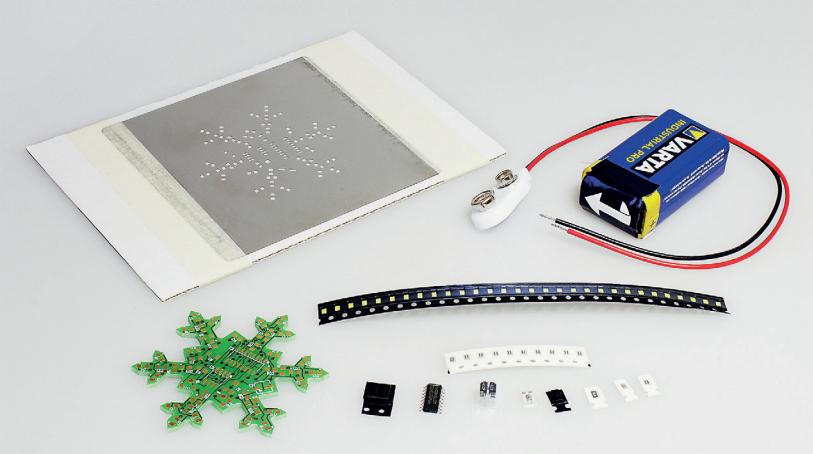


3. Bill of materials snowflake

Name	Quantity	Value	Package
C1	1	10nF	0805
C2	1	22µF	SMD_ ELKO_4x5,4
D1,D2,D3,D4,D5, D6,D7,D8,D9,D10 ,D11,D12,D13,D14 ,D15,D16,D17, D18,D19,D20, D21,D22,D23 ,D24,D25,D26 ,D27,D28,D29 ,D30	30	LED weiss	0805-D
D31	1	1N4148W	SOD123
IC1	1	NE555D	SO8_SOT96-1
IC2	1	CD4017	SO16_SOT109-1
R1	1	4,7K OHM	1206
R2	1	5K OHM	TC33 (Poti)
R3	1	470 OHM	0805
R4,R5,R6,R7,R8, R9,R10,R11,R12 ,R13	10	10 OHM	0805

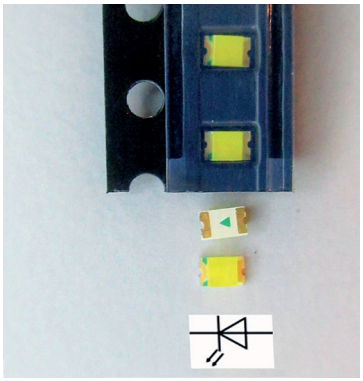
4. Contents of the kit

- PCB
- Suitable stencil
- Components
- 9 V block battery



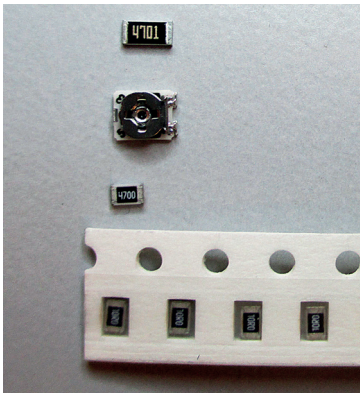
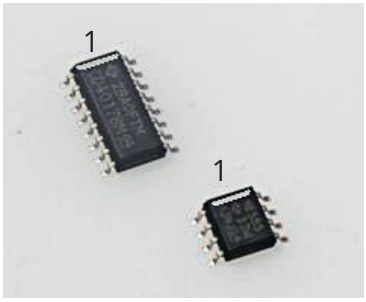
5. Notes on the components

LEDs:
- Please note the polarity!
- The cathode is marked with 2 small green dots on the top and the tip of the triangle on the bottom.
- The cathode is marked with a point on the PCB and in the assembly plan.



Diodes:
- Please note the polarity!
- The cathode is marked.

Resistors:
- The resistors are not marked with polarity.
- The assignment is made by package type and imprint.
- R1 imprint 4701 -> 4.7 kΩ type 1206
- R2 potentiometer 5 kΩ three-pole
- R3 imprint 4700 -> 470 Ω type 0805
- R4 imprint 10R0 -> 10 Ω type 0805 (10 pieces)



ICs:
- Please note the polarity!
- The pin 1 is marked.