Disclaimer:

I, Mark Donners, The Electronics Engineer, may or may not endorse various Do-It-Yourself (DIY) projects and all DIY projects are purely "at your own risk". As with any DIY project, unfamiliarity with the tools and process can be dangerous. Posts should be construed as theoretical advice only.

If you are at all uncomfortable or inexperienced working on these projects (especially but not limited to electronics and mechanical), please reconsider doing the job yourself. It is very possible (but not likely) on any DIY project to damage belongings or void your property insurance, create a hazardous condition, or harm or even kill yourself or others.

I will not be held responsible for any injury due to the misuse or misunderstanding of any DIY project.

By using the information provided by me, (Website, Youtube, facebook and other social media), you agree to indemnify me, affiliates, subsidiaries and their related companies for any and all claims, damages, losses and causes of action arising out of your breach or alleged breach of this agreement (disclaimer).

The materials on this site are distributed "as is" and appear on the site without express or implied warranties of any kind, except those required by the relevant legislation. In particular I make no warranty as to the accuracy, quality, completeness or applicability of the information provided.

The information provided is for entertainment and promotional purposes only. You may not rely on any information and opinions expressed in it for any other purpose.

Disclaimer short version:

This is a DIY project, use any provided information and/or materials at your own risk! I am not responsible for what you do with it!

www.TheElectronicEngineer.nl



Materials for the PCB

Pcb without components is available at Tindy

Designator	Name	Footprint	Quantity	Manufacturer Part	Manufacturer
R1,R3	10K	R1206	2	TC0625F1002T5E	UniOhm
U3	78M05	TO-252-2 L6.5-W6.1-P4.58-LS10.0-TL	1	78M05	SK
D1	1N5819HW1-7-F	– SOD-123F L2.8-W1.8-LS3.7-RD	1	1N5819HW1-7-F	DIODES
C1,C2,C3,C5	100nF	C1206	4	1206F104M500NT	Guangdong Fenghua Advanced Tech
ZD1,ZD2	BZT52C36	SOD-123_L2.8-W1.8-LS3.7-RD	2	BZT52C36	CJ
USB2	micro USBFemale	MICRO-USB-SMD_5P-P0.65-H-F_C10418	1	micro USBFemale	ValuePro
U1	ATTINY85-20SU	SOIC-8_L5.3-W5.3-P1.27-LS8.0-BL	1	ATTINY85-20SU Header-Male-	MICROCHIP
J1	Header-Male-2.54_2x3	HDR-TH_6P-P2.54-V-R2-C3-S2.54	1	2.54_2x3	BOOMELE
R8,R9	75	R0805	2	0805W8F750JT5E	UniOhm
R5,R6,R7	1K	R1206	3	TC0625B1001T5E	Uniroyal Elec
LED6,LED14,LED7, LED5,LED2,LED8, LED1,LED3,LED4, LED9,LED10,LED13,					
LED12,LED11	WS2812B	LED-SMD_4P-L5.0-W5.0-TL	14	WS2812B	Worldsemi
R2	1.8K	R0805	1	0805W8F1801T5E	UniOhm
C4	4.7uF	C1206	1	1206B475K500NT	FH
C7	1uF	C1206	1	CL31B105KBHNNNE	SAMSUNG
H1,H2,H3	Header-Male-2.54_1x2	HDR-TH_2P-P2.54-V	3	826629-2	TE Connectivity
SW1	TS-1187A-C-G-A	SW-SMD_4P-L5.1-W5.1-P3.70-LS6.4	1	TS-1187A-C-G-A	XKB Enterprise
LED17,LED18	XL-0805QBC	LED-0805	2	XL-0805QBC	KENTO
S1		Switch universal	1		

www.TheElectronicEngineer.nl

Document version: 1.0

Wiring:



H1 can be used to connect a 9Volt battery. Use pin 1 (Square pad) to connect the positive lead and use pin 2 to connect the negative lead.

Or you can use H2 to connect a 5V supply. Use pin 1 (Square pad) to connect the positive lead and use pin 2 to connect the negative lead. I Also tried to use a 3.2 V accupack and that worked for me.

DO NOT USE BOTH SIMULTAINIOUSLY

www.TheElectronicEngineer.nl

Document version: 1.0