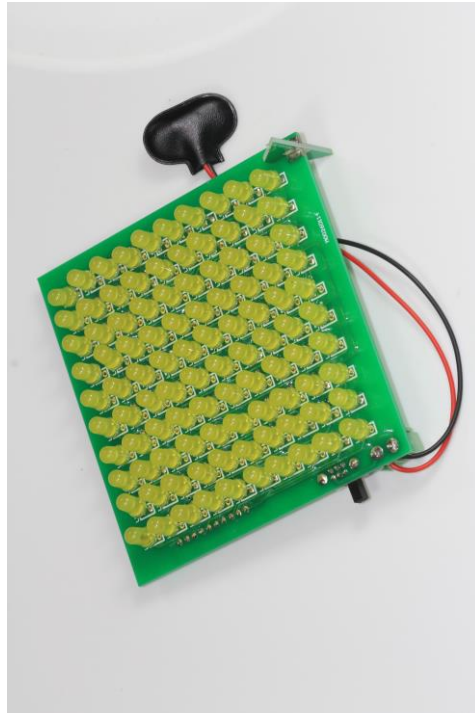


LED LIGHT WITH 100 PIECES OF LED

FEATURE:

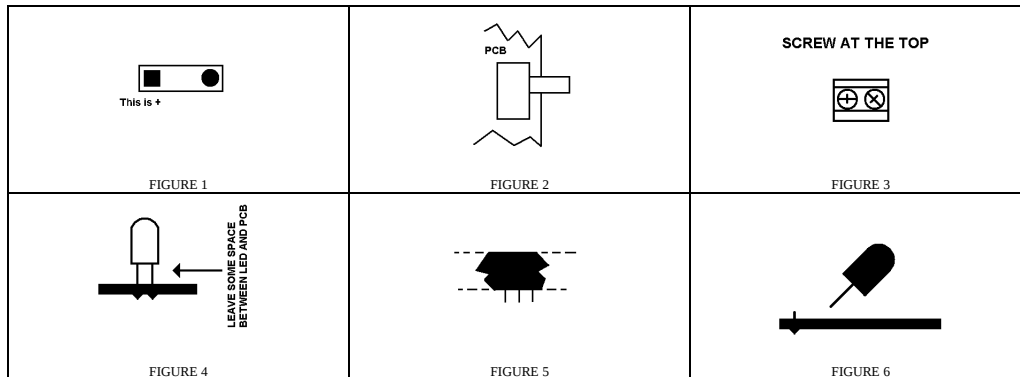
- Simple design and simple logic. Basic level of electronics knowledge is enough.
- Each LED could be controlled individually
- Assembly is needed.
- The challenge and finniest of this kit are the soldering skill.
- On/Off switch is available.
- There is a leg for the kit so that the kit could stand upright.

LED COLOR	PRODUCT CODE
RED	M00270069
YELLOW	M00270070
BLUE	M00270071
GREEN	M00270072
WHITE	M00270073



READ BEFORE INSTALLATION:

- Put the component on the side of screen printing and solder on the back of PCB without printing.
- Because the component would be soldered on both upper and lower side. Which one should be soldered first is important.
- Because there maybe the existing of defective LED, please solder the LED as Figure 4. Just leave some space between LED and PCB. This can let you easier to replace the defective LED.



CIRCUIT EXPLANATION:

Please read the below together with the circuit diagram in Figure 7.

- From Figure 7, you may feel the circuit is very complex. But when you look at each circuit for each LED, you may find the circuit is very simple.
- Which LED you want to light up is just to connect the resistor between Stackable Header of VCC and relative Stackable Header of LED ("L1 to "L100").

- I use L1 as example. When current pass positive voltage of VCC (Stackable Header of VCC), resistor (connecting the resistor between stackable header of VCC and L1 of "L1 to L10"), LED, ground (The negative end of L1 would connect to ground). L1 would light up.

COMPONENT LIST:

ITEM	AMOUNT TO BE PROVIDED	DESCRIPTION	OUTLOOK
1 TO 100	120	RESISTOR, 1K ohms	BROWN, BLACK, RED
101 to 200	120	LED	FIGURE 4
201 to 215	15	STACKABLE HEADER (10 PIN)	FIGURE 5
216	1	SLIDE SWITCH	SIX LEGS
217	1	SCREW TERMINAL	FIGURE 3
218	1	LEG	PCB IN OUTLOOK

INSTALLATION:

Just install the component to the PCB M00260114 according to below table.

STEP 1: SOLDERING

STEP	SYMBOL ON PCB	DESCRIPTION	OUTLOOK	DIRECTION ON INSTALLATION? AND OTHER
1.1	SWITCH	SLIDE SWITCH	SIX LEGS	YES, FIGURE 2
1.2	S4	POWER IN	FIGURE 3	YES, NOTE 2
1.3	S1	STACKABLE HEADER (10 PIN)	FIGURE 5	NO
1.4	L1 TO L10	LED	FIGURE 4	YES, FIGURE 1, FIGURE 4, NOTE 1
1.5	S2	STACKABLE HEADER (10 PIN)	FIGURE 5	NO
1.6	L11 TO L20	LED	FIGURE 4	YES, FIGURE 1, FIGURE 4, NOTE 1
1.7	S3	STACKABLE HEADER (10 PIN)	FIGURE 5	NO
1.8	S5	STACKABLE HEADER (10 PIN)	FIGURE 5	NO
1.9	L21 TO L30	LED	FIGURE 4	YES, FIGURE 1, FIGURE 4, NOTE 1
1.10	S6	STACKABLE HEADER (10 PIN)	FIGURE 5	NO
1.11	L31 TO L40	LED	FIGURE 4	YES, FIGURE 1, FIGURE 4, NOTE 1
1.12	S8	STACKABLE HEADER (10 PIN)	FIGURE 5	NO
1.13	S7	STACKABLE HEADER (10 PIN)	FIGURE 5	NO
1.14	L41 TO L50	LED	FIGURE 4	YES, FIGURE 1, FIGURE 4, NOTE 1
1.15	S9	STACKABLE HEADER (10 PIN)	FIGURE 5	NO
1.16	L51 TO L60	LED	FIGURE 4	YES, FIGURE 1, FIGURE 4, NOTE 1
1.17	S10	STACKABLE HEADER (10 PIN)	FIGURE 5	NO
1.18	S11	STACKABLE HEADER (10 PIN)	FIGURE 5	NO
1.19	L61 TO L70	LED	FIGURE 4	YES, FIGURE 1, FIGURE 4, NOTE 1
1.20	S12	STACKABLE HEADER (10 PIN)	FIGURE 5	NO
1.21	L71 TO L80	LED	FIGURE 4	YES, FIGURE 1, FIGURE 4, NOTE 1
1.22	S14	STACKABLE HEADER (10 PIN)	FIGURE 5	NO
1.23	S13	STACKABLE HEADER (10 PIN)	FIGURE 5	NO
1.24	L81 TO L90	LED	FIGURE 4	YES, FIGURE 1, FIGURE 4, NOTE 1
1.25	S15	STACKABLE HEADER (10 PIN)	FIGURE 5	NO
1.26	L91 TO L100	LED	FIGURE 4	YES, FIGURE 1, FIGURE 4, NOTE 1
1.27	S16	STACKABLE HEADER (10 PIN)	FIGURE 5	NO
1.28	/	LEG	PCB IN OUTLOOK	NOTE 3

STEP 2: TESTING

STEP	TESTING METHOD
2.1	Connect a 9V battery to S4.
2.2	Test if all LED could light up. Test the LED one by one.
2.3	If any could not light up, maybe there is soldering fault or the defective LED exist (NOTE 4).

- NOTE 1: On component, longer leg is "+".
- NOTE 2: Metal terminal is facing outside the PCB.
- NOTE 3: You could solder the both PCB together. There are soldering pats on the bottom on both PCB.
- NOTE 4: Replacing a defective LED need very good soldering skill. My hint is to cut the LED as Figure 6, then just soldering the new LED on the remain leg of old LED. Of course, please bend the neighbor's LED so that you could have more space to do the operation.

OTHER:

You could connect a 9V battery or power source to run this kit.

CIRCUIT DIAGRAM:

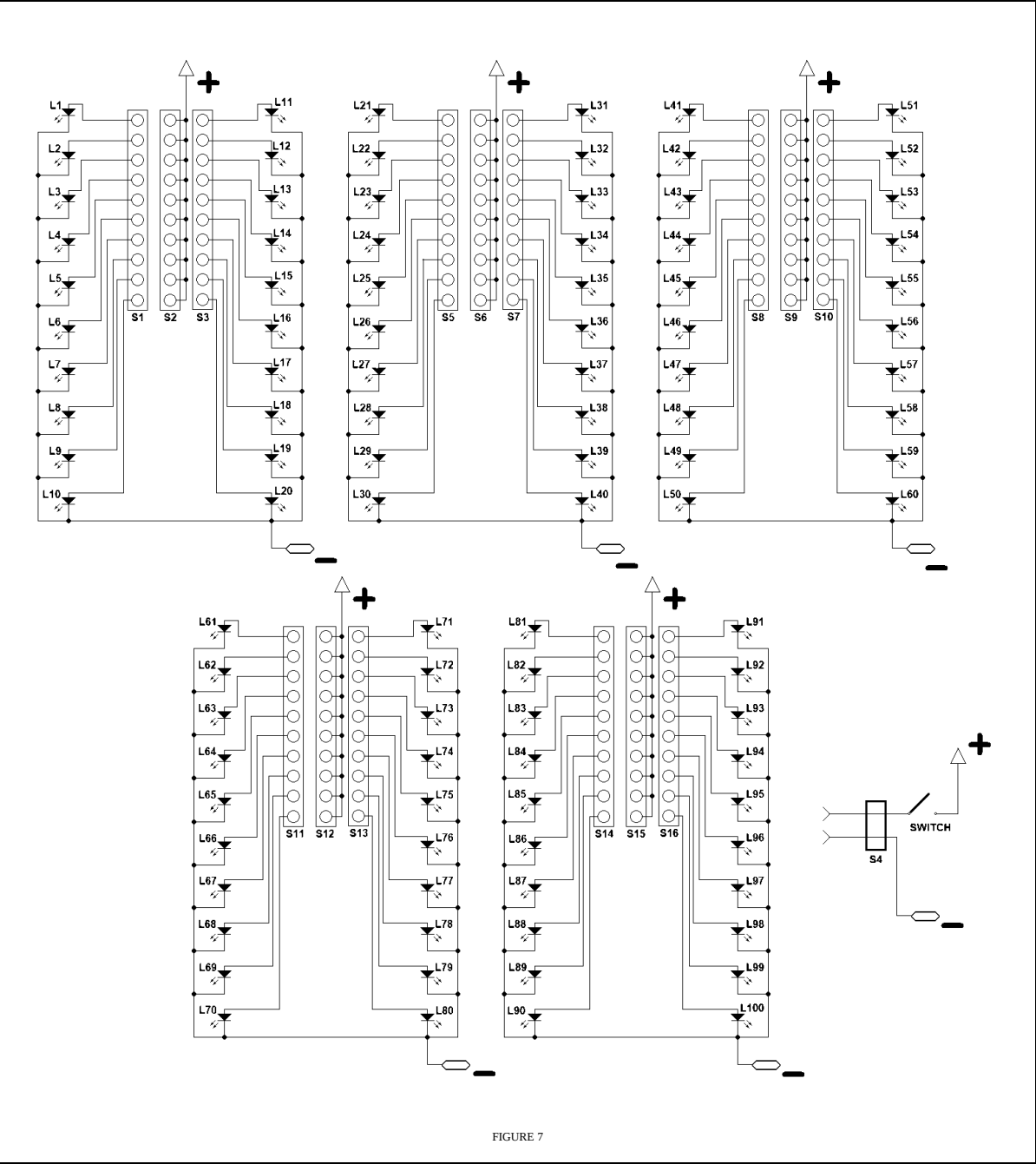


FIGURE 7